1.00 Registration

(Mandatory Event) Visitors turn in their waivers and are given "security badges"

Open Time Period

Saturday, 8:30 AM-9:00 AM

Location

Name And Address: "Trenchwood Institute" -- Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

Parking: School lot, free

Bathrooms: Yes

Food: No

GC PoC: Erik Stuart, (650) 395-8463, lab@trenchwood.com

Plot Setup

Various groups of scientists, journalists, investors, and government officials have been invited by Trenchwood Institute to see the Grand Unveiling of their founder's (Doctor When) life's achievement.

Props

- Table
- Chairs for registration staffers
- 16 or 17 envelopes, each labeled with a team name
- Lab coat (one for each staffer)
- Trenchwood Institute name badge and lanyard (one for each staffer)
- (optional) Bin for waivers
- Spare waivers
- Pens

Staff Instructions

Your Role: You are a lab assistant at Trenchwood Institute, called away from your research tasks to be a registration clerk.

What To Wear: Lab coat and Trenchwood Institute name badge

What Your Character Knows: You don't know what Doctor When will be demonstrating. You've been so focused on your little part of the endeavor that you don't know the "big picture" (and Doctor When is very secretive).

Where To Get Materials:

- Chairs and tables onsite
- Everything else from GC HQ

Handout Instructions: The interaction should go something like:

LAB ASSISTANT:

> Good morning. I see you're on our exclusive guest list. Have you completed your non-disclosure agreement and liability waiver?

VISITOR:

> Yes, here it is.

The visitor hands the form to the lab assistant, who puts it in the waiver pile.

LAB ASSISTANT:

> Then, here are your security badges. Also please each take a lanyard from that pile over there to insert your badge into. Make sure to have your badge on display at all times. Welcome to Trenchwood Institute. Prepare to be amazed!

Site Close Down:

- Make sure all the signed waivers get to Erik Stuart eventually
- Join the presentation inside 1.01 Introductory Lecture 1
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.
- Erik and Ellen and other core GC members will be setting up the presentation inside.

Detailed Description

The players sign in, turn in their waivers and get their badges, and then enter the Institute.

Hints

N/A

Puzzle Answer

N/A

Puzzle Solution

N/A

1.01 Introductory Lecture 1

(Mandatory Presentation) Doctor When gives intro speech, steps inside time machine, which malfunctions and he never exits.

Open Time Period

Saturday, 9:00 AM-9:10 AM

Location

Name and Address: "Trenchwood Institute" -- Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

Parking: School lot, free

Bathrooms: Yes

Food: No

GC PoC: Erik Stuart, (650) 395-8463, lab@trenchwood.com

Plot Setup

Visitors have finished registration, entered the Institute, and are waiting for the presentation.

Props

- PowerPoint presentation on Erik's Laptop File:PPT for intro speech.ppt
- projector
- screen
- PA system
- time machine set with sound/light/smoke special effects.
- seats for players
- portable tachyon detector prop

Staff Instructions

Puzzles At This Site: None in this segment

Where To Get Materials:

- Set should be installed the previous night
- Chairs should be onsite
- Everything else from GC HQ

Site Set Up:

- Place portable tachyon detector near entrance of time machine

Actors:

- PROFESSOR CATHERINE CHRONOS: Kristina Kenney
- DOCTOR WESLEY WHEN: Dan Kurtz
- TIRESIAS THE JANITOR: Sean Gugler
- Miscellaneous lab assistants

Script (see Google Doc):

Note that two lab assistants will be required to open the curtains to reveal the time machine. Do this when Doctor When first says "time machine."

Site Close Down:

- No close-down, scene automatically continues to 1.02 Core Dump

1.02 Core Dump 1

(Mandatory Puzzle) Each team is given a corrupted "Toggle Burner" core dump board + core dump printout to decode in order to figure out what's wrong with the time machine.

Open Time Period

Saturday, 9:10 AM till last team is done (approximately 10:30 AM).

Location

Name And Address: "Trenchwood Institute" -- Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

Parking: School lot, free

Bathroom: Yes

Food: No

GC PoC: Erik Stuart, (650) 395-8463, lab@trenchwood.com

Plot Setup

Doctor When demonstrated his time machine in front an audience of important people. It malfunctioned, but no one knows why. He doesn't reemerge from it.

Props

- Physical "Toggle Burner" boards, one for each team.
- 32 or 43 copies of "core dump" word list, two for each team: [[1] (http://weihwa.com/~whuang/nodir/doctorwhen/boggle-coredump/dump-page-bigger-opt.pdf)]
- Trenchwood Institute Contact Sheet, 16 for Game 1, 17 for Game 2
- Poster with wifi signin information
- 4 copies of Staff Instructions (so multiple staffers may offer hints)

Staff Instructions

Prof. Chronos will give live speech to all teams at once and then hand out boards. Note that she will ask teams to leave Institute to solve, and only to return once they have a solution.

Actors:

- PROFESSOR CATHERINE CHRONOS: Kristina Kenney

Other Roles: Lab Assistants.

What To Wear: lab coats with Trenchwood Institute name badges.

What Your Character Knows: Only that the time machine has malfunctioned (but not the cause of the malfunction), and that the Doctor is somehow lost in time, and it's very urgent to rescue him.

Puzzles At This Site: Only Core Dump 1

Where To Get Materials:

- Cores should be hidden in the machine the night before
- Wifi sign should have been put up the night before
- Core dump printout & Institute contact sheets from GC HQ

Setup Instructions:

- Make sure cores and wifi sign are all in place

Handout Script:

- See Google doc for Prof. Chronos's lines.
- Note that teams will be asked to leave the Institute and solve outside, only to re-enter when they have a solution.

Hints:

- Start approaching teams without prompting to offer hints around 10:15
- See below for suggested hints

Answers:

NOTE: At 11:20, we will need to any teams that are still stuck here will need to be skipped past the next puzzle. Please contact a core GC member to discuss how to deal with this situation.

When a team has a solution it will re-enter the Institute and approach Prof. Chronos. After they report the co-keypad is ruined, she says

> Oh, of course! Doctor When was never very good at tachyon midi ether co-keypads.

> Oh, no. If one of the co-keypads malfunctioned that means that poor Wesley, I mean Doctor When, is now lost in time, bouncing randomly from era to era! Who knows what dangers he's facing?!

> Well luckily I am the world's expert on their theory.

Prof. Chronos opens a panel in the machine to reveal the smoking ruins of one of the co-keypads.

> Gadzooks! One of the co-keypads is shot. It appears to be pad number... 34. We'll have to design a new one. Would you please do that?

> I'm an expert on their theoretical underpinnings, but to design new ones we'll need some practical help.

> Normally I'd ask Wesley...Doctor When. But he's...not here at this time! [sniff!]

> But, wait...there's another nearby expert who just may be able to help you. Please go to Prof. Dorian Clair's laboratory in San Francisco. Tell him that you need to design a replacement for midi-ether co-keypad #34.

> Email me a picture of your design when you're done. If you have any trouble with your design call 650-395-TIME and one of the lab assistants may be able to help.

Hand them an Act 1 Contact Information Sheet [2] (https://docs.google.com/document/d/1nVs2ljyJUyPy4YLyK0fZPVN9pMHKGmI4F2Qq4zM_6Pk/edit) to lead them into Midi Ether Co-Keypad Ring A.

The team's status should be updated on online tracking system. This can be done at the Institute if a GC member has access; otherwise call GC HQ and have them do it.

Site Close Down:

- As soon as the last team leaves, site may be converted to Peach Frontier Laboratories
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Detailed Description

The core dump is actually a physical circuit board with little rings attached to resemble an old computer memory core module. The rings are thumb-sized, much larger than real cores, so that letters printed on them are legible to the unaided eye.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

For teams stuck on the first step, point to the unbolded letters on the main label and ask if that's significant.

For teams stuck on the last step, ask if they've noticed the bold and non-bolded letters yet.

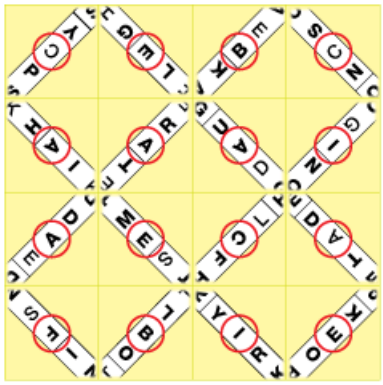
For teams stuck on last step, mention that sometimes when one is faced with a perplexing problem they should try to get a "new perspective" on it.

Puzzle Answer

CO-KEYPAD IS RUINED

Puzzle Solution

0) The grid comes with a bunch of rings. Initially the top letter of the ring is just the earliest letter on the ring in alphabetical order, which indicates that there is no information in the initial state:

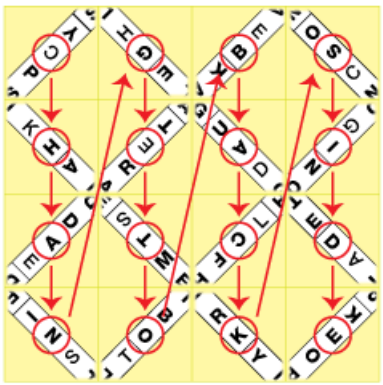


1) Each ring has one letter printed in a slightly different typeface than the others. They constitute a hint that may be discovered at any time, spelling out the phrase:

```
CHECK EDGES LAST
```

2) The title "TOGGLE BURNER" is printed on the puzzle, with the "T" and "B" less bolded than the other letters. This is a small hint to spoonerize the title to "Boggle Turner", a hint that the rings should be turned so that the letter grid, if played as a 4x4 Boggle board, would yield all the words on the accompanying printout.

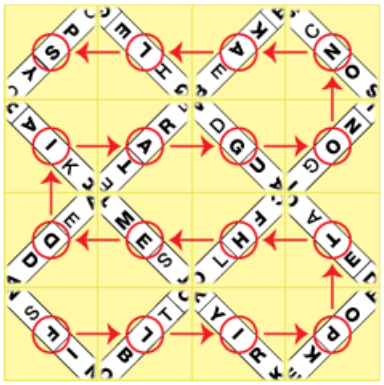
The correctly-solved grid is:



which reads, top-to-bottom first then left-to-right:

```
CHANGE TO BACK SIDE
```

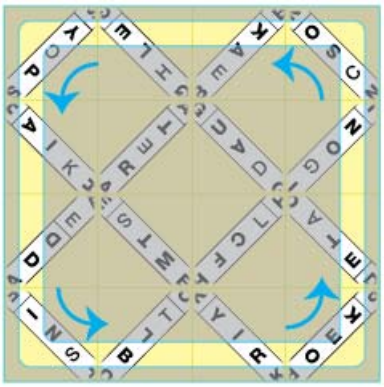
3) This instruction means that every ring should be spun 180 degrees to reveal the letters on the back. Doing so yields this grid:



which reads in reverse boustrophedonic order,

```
FLIP THE DIAGONALS
```

4) Flipping the 8 diagonal rings back to how they were reveals a final message, but to discover it one must use the "CHECK EDGES LAST" hint by reading around the sides:



The message starts at the upper-right ring and reads counter-clockwise, but (fortunately) all letters are right-side-up for this message:

```
COKEYPAD IS RUINED
```

1.02 Core Dump 1

(Mandatory Puzzle) Each team is given a corrupted "Toggle Burner" core dump board + core dump printout to decode in order to figure out what's wrong with the time machine.

Open Time Period

Saturday, 9:10 AM till last team is done (approximately 10:30 AM).

Location

Name And Address: "Trenchwood Institute" -- Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

Parking: School lot, free

Bathroom: Yes

Food: No

GC PoC: Erik Stuart, (650) 395-8463, lab@trenchwood.com

Plot Setup

Doctor When demonstrated his time machine in front an audience of important people. It malfunctioned, but no one knows why. He doesn't reemerge from it.

Props

- Physical "Toggle Burner" boards, one for each team.
- 32 or 43 copies of "core dump" word list, two for each team: [[1] (http://weihwa.com/~whuang/nodir/doctorwhen/boggle-coredump/dump-page-bigger-opt.pdf)]
- Trenchwood Institute Contact Sheet, 16 for Game 1, 17 for Game 2
- Poster with wifi signin information
- 4 copies of Staff Instructions (so multiple staffers may offer hints)

Staff Instructions

Prof. Chronos will give live speech to all teams at once and then hand out boards. Note that she will ask teams to leave Institute to solve, and only to return once they have a solution.

Actors:

- PROFESSOR CATHERINE CHRONOS: Kristina Kenney

Other Roles: Lab Assistants.

What To Wear: lab coats with Trenchwood Institute name badges.

What Your Character Knows: Only that the time machine has malfunctioned (but not the cause of the malfunction), and that the Doctor is somehow lost in time, and it's very urgent to rescue him.

Puzzles At This Site: Only Core Dump 1

Where To Get Materials:

- Cores should be hidden in the machine the night before
- Wifi sign should have been put up the night before
- Core dump printout & Institute contact sheets from GC HQ

Setup Instructions:

- Make sure cores and wifi sign are all in place

Handout Script:

- See Google doc for Prof. Chronos's lines.
- Note that teams will be asked to leave the Institute and solve outside, only to re-enter when they have a solution.

Hints:

- Start approaching teams without prompting to offer hints around 10:15
- See below for suggested hints

Answers:

NOTE: At 11:20, we will need to any teams that are still stuck here will need to be skipped past the next puzzle. Please contact a core GC member to discuss how to deal with this situation.

When a team has a solution it will re-enter the Institute and approach Prof. Chronos. After they report the co-keypad is ruined, she says

> Oh, of course! Doctor When was never very good at tachyon midi ether co-keypads.

> Oh, no. If one of the co-keypads malfunctioned that means that poor Wesley, I mean Doctor When, is now lost in time, bouncing randomly from era to era! Who knows what dangers he's facing?!

> Well luckily I am the world's expert on their theory.

Prof. Chronos opens a panel in the machine to reveal the smoking ruins of one of the co-keypads.

> Gadzooks! One of the co-keypads is shot. It appears to be pad number... 34. We'll have to design a new one. Would you please do that?

> I'm an expert on their theoretical underpinnings, but to design new ones we'll need some practical help.

> Normally I'd ask Wesley...Doctor When. But he's...not here at this time! [sniff!]

> But, wait...there's another nearby expert who just may be able to help you. Please go to Prof. Dorian Clair's laboratory in San Francisco. Tell him that you need to design a replacement for midi-ether co-keypad #34.

> Email me a picture of your design when you're done. If you have any trouble with your design call 650-395-TIME and one of the lab assistants may be able to help.

Hand them an Act 1 Contact Information Sheet [2] (https://docs.google.com/document/d/1nVs2ljyJUyPy4YLyK0fZPVN9pMHKGmI4F2Qq4zM_6Pk/edit) to lead them into Midi Ether Co-Keypad Ring A.

The team's status should be updated on online tracking system. This can be done at the Institute if a GC member has access; otherwise call GC HQ and have them do it.

Site Close Down:

- As soon as the last team leaves, site may be converted to Peach Frontier Laboratories
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Detailed Description

The core dump is actually a physical circuit board with little rings attached to resemble an old computer memory core module. The rings are thumb-sized, much larger than real cores, so that letters printed on them are legible to the unaided eye.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

For teams stuck on the first step, point to the unbolded letters on the main label and ask if that's significant.

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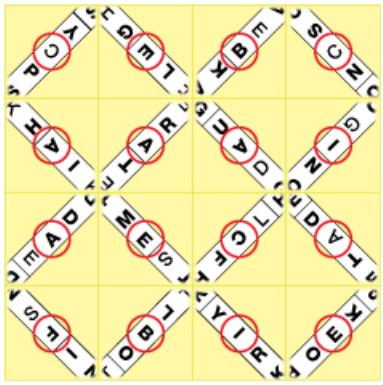
For teams stuck on last step, mention that sometimes when one is faced with a perplexing problem they should try to get a "new perspective" on it.

Puzzle Answer

CO-KEYPAD IS RUINED

Puzzle Solution

0) The grid comes with a bunch of rings. Initially the top letter of the ring is just the earliest letter on the ring in alphabetical order, which indicates that there is no information in the initial state:

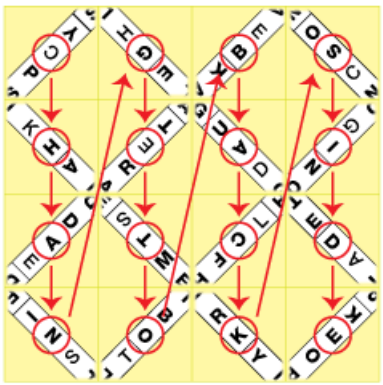


1) Each ring has one letter printed in a slightly different typeface than the others. They constitute a hint that may be discovered at any time, spelling out the phrase:

```
CHECK EDGES LAST
```

2) The title "TOGGLE BURNER" is printed on the puzzle, with the "T" and "B" less bolded than the other letters. This is a small hint to spoonerize the title to "Boggle Turner", a hint that the rings should be turned so that the letter grid, if played as a 4x4 Boggle board, would yield all the words on the accompanying printout.

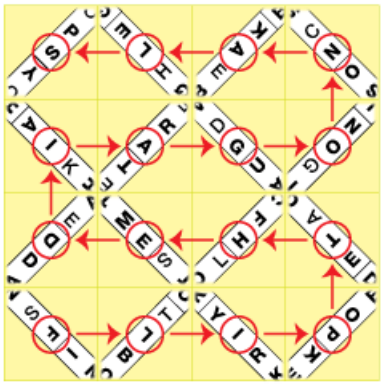
The correctly-solved grid is:



which reads, top-to-bottom first then left-to-right:

```
CHANGE TO BACK SIDE
```

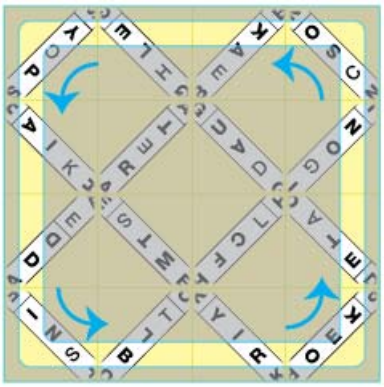
3) This instruction means that every ring should be spun 180 degrees to reveal the letters on the back. Doing so yields this grid:



which reads in reverse boustrophedonic order,

```
FLIP THE DIAGONALS
```

4) Flipping the 8 diagonal rings back to how they were reveals a final message, but to discover it one must use the "CHECK EDGES LAST" hint by reading around the sides:



The message starts at the upper-right ring and reads counter-clockwise, but (fortunately) all letters are right-side-up for this message:

```
COKEYPAD IS RUINED
```

1.02 Core Dump 1

(Mandatory Puzzle) Each team is given a corrupted "Toggle Burner" core dump board + core dump printout to decode in order to figure out what's wrong with the time machine.

Open Time Period

Saturday, 9:10 AM till last team is done (approximately 10:30 AM).

Location

Name And Address: "Trenchwood Institute" -- Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

Parking: School lot, free

Bathroom: Yes

Food: No

GC PoC: Erik Stuart, (650) 395-8463, lab@trenchwood.com

Plot Setup

Doctor When demonstrated his time machine in front an audience of important people. It malfunctioned, but no one knows why. He doesn't reemerge from it.

Props

- Physical "Toggle Burner" boards, one for each team.
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- Poster with wifi signin information
- 4 copies of Staff Instructions (so multiple staffers may offer hints)

Staff Instructions

Prof. Chronos will give live speech to all teams at once and then hand out boards. Note that she will ask teams to leave Institute to solve, and only to return once they have a solution.

Actors:

- PROFESSOR CATHERINE CHRONOS: Kristina Kenney

Other Roles: Lab Assistants.

What To Wear: lab coats with Trenchwood Institute name badges.

What Your Character Knows: Only that the time machine has malfunctioned (but not the cause of the malfunction), and that the Doctor is somehow lost in time, and it's very urgent to rescue him.

Puzzles At This Site: Only Core Dump 1

Where To Get Materials:

- Cores should be hidden in the machine the night before
- Wifi sign should have been put up the night before
- Core dump printout & Institute contact sheets from GC HQ

Setup Instructions:

- Make sure cores and wifi sign are all in place

Handout Script:

- See Google doc for Prof. Chronos's lines.
- Note that teams will be asked to leave the Institute and solve outside, only to re-enter when they have a solution.

Hints:

- Start approaching teams without prompting to offer hints around 10:15
- See below for suggested hints

Answers:

NOTE: At 11:20, we will need to any teams that are still stuck here will need to be skipped past the next puzzle. Please contact a core GC member to discuss how to deal with this situation.

When a team has a solution it will re-enter the Institute and approach Prof. Chronos. After they report the co-keypad is ruined, she says

> Oh, of course! Doctor When was never very good at tachyon midi ether co-keypads.

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Prof. Chronos opens a panel in the machine to reveal the smoking ruins of one of the co-keypads.

> Gadzooks! One of the co-keypads is shot. It appears to be pad number... 34. We'll have to design a new one. Would you please do that?

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> Normally I'd ask Wesley...Doctor When. But he's...not here at this time! [sniff!]

> But, wait...there's another nearby expert who just may be able to help you. Please go to Prof. Dorian Clair's laboratory in San Francisco. Tell him that you need to design a replacement for midi-ether co-keypad #34.

> Email me a picture of your design when you're done. If you have any trouble with your design call 650-395-TIME and one of the lab assistants may be able to help.

Hand them an Act 1 Contact Information Sheet [2] (https://docs.google.com/document/d/1nVs2ljyJUyPy4YLyK0fZPVN9pMHKGmI4F2Qq4zM_6Pk/edit) to lead them into Midi Ether Co-Keypad Ring A.

The team's status should be updated on online tracking system. This can be done at the Institute if a GC member has access; otherwise call GC HQ and have them do it.

Site Close Down:

- As soon as the last team leaves, site may be converted to Peach Frontier Laboratories
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Detailed Description

The core dump is actually a physical circuit board with little rings attached to resemble an old computer memory core module. The rings are thumb-sized, much larger than real cores, so that letters printed on them are legible to the unaided eye.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

For teams stuck on the first step, point to the unbolded letters on the main label and ask if that's significant.

For teams stuck on the last step, ask if they've noticed the bold and non-bolded letters yet.

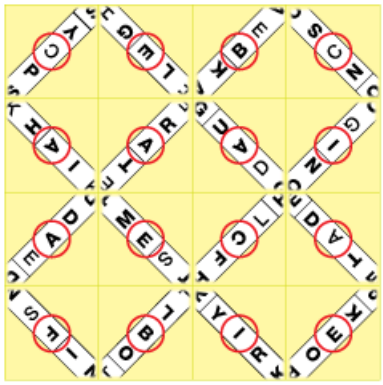
For teams stuck on last step, mention that sometimes when one is faced with a perplexing problem they should try to get a "new perspective" on it.

Puzzle Answer

CO-KEYPAD IS RUINED

Puzzle Solution

0) The grid comes with a bunch of rings. Initially the top letter of the ring is just the earliest letter on the ring in alphabetical order, which indicates that there is no information in the initial state:

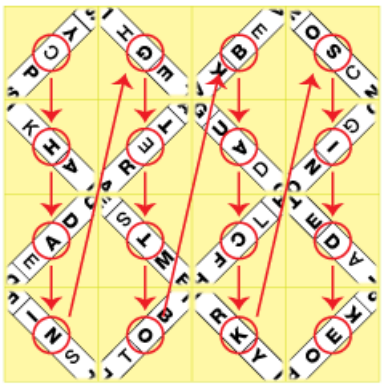


1) Each ring has one letter printed in a slightly different typeface than the others. They constitute a hint that may be discovered at any time, spelling out the phrase:

```
CHECK EDGES LAST
```

2) The title "TOGGLE BURNER" is printed on the puzzle, with the "T" and "B" less bolded than the other letters. This is a small hint to spoonerize the title to "Boggle Turner", a hint that the rings should be turned so that the letter grid, if played as a 4x4 Boggle board, would yield all the words on the accompanying printout.

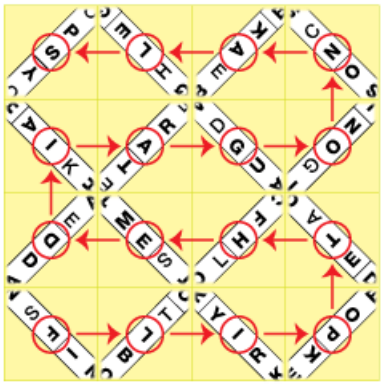
The correctly-solved grid is:



which reads, top-to-bottom first then left-to-right:

```
CHANGE TO BACK SIDE
```

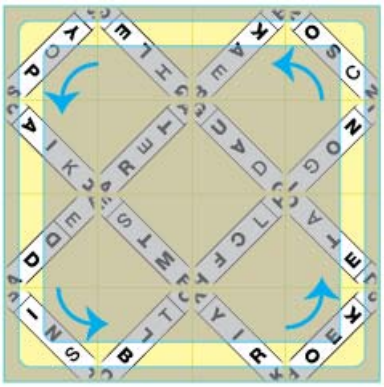
3) This instruction means that every ring should be spun 180 degrees to reveal the letters on the back. Doing so yields this grid:



which reads in reverse boustrophedonic order,

```
FLIP THE DIAGONALS
```

4) Flipping the 8 diagonal rings back to how they were reveals a final message, but to discover it one must use the "CHECK EDGES LAST" hint by reading around the sides:



The message starts at the upper-right ring and reads counter-clockwise, but (fortunately) all letters are right-side-up for this message:

```
COKEYPAD IS RUINED
```

1.03 Tachyon Midi Ether Co-Keypad 1

(Mandatory Puzzle) Team designs new co-keypad #34 based on specifications from Prof. Dorian Clair to replace damaged one.

Open Time Period

Saturday, 10:25 AM to till all teams (16 for Game 1, 17 for Game 2) pick up (approximately 11:15 AM). Any teams that don't solve the previous puzzle by 11:20 will be skipped; around 11:30, if you have not seen all the teams, call HQ for further instructions.

Location

Name And Address: "Dorian Clair Laboratories" -- actually Dorian Clair Antique Clock Repair, 1301 Sanchez Street, San Francisco, CA 94131-2005

Parking: Street, some metered (parking will be a challenge!)

Bathroom: No

Food: No

GC PoC: Allen, (650) 395-8463, lab@trenchwood.com

Site PoC: Owner Dorian Clair

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component--tachyon midi ether co-keypad #34.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- In order to rescue him, Doctor When's visiting colleague, Prof. Chronos, has implored the visitors to help by rushing to a nearby expert and asking for his help with designing a replacement.

Props

- 55 or 58 blank keypad grid sheets (3 per team + 7 spares)
- 35 or 37 copies of Connections Requirements Analysis for Pad #34 (2 per team + 3 spares);
- 17 or 18 sets of keypad design kits (1 per team + 1 spare)
- Lab coat
- "Dorian Clair Laboratories" name badge and lanyard

Staff Instructions

Your Role: You're a lab assistant to Professor Dorian Clair, noted expert on temporal mechanics.

What To Wear:

- Lab coat
- Name badge with Dorian Clair Laboratories insert

What Your Character Knows:

- You've been working on the design of tachyon midi ether co-keypads with Prof. Chronos.
- You have design kits, but you have never actually made a working co-keypad.
- There are millions of possible configurations so you won't be able to help the team until they actually give you the proper number (34).
- You do not know about Doctor When or the Grand Unveiling. And as far as you know, Prof. Chronos is still in New England.

Puzzles At This Site: Only Co-Keypad 1

Where To Get Materials: GC HQ

Site Setup:

- Greet Mr. Clair.
- Call or e-mail GC so we know you are ready to receive teams.
- Have your props ready.

Handout Script:

Discreetly keep count of how many teams have picked up their puzzle (or just count how many puzzles you have to start...you're done when you've handed out the right number!).

To handout puzzle, say words to the effect of,

PLAYERS:

> Prof. Clair, we need your help! Doctor When has become lost in time because one of the tachyon midi ether co-keypads in his time machine failed.

PROF. DORIAN CLAIR/LAB ASSISTANT:

> I'm sorry, who sent you here again?

PLAYERS:

> Professor Catherine Chronos.

PROF. DORIAN CLAIR/LAB ASSISTANT:

> Professor Chronos? Here?! I thought she was in New England. But that's terrible! Of course I'll help. Unfortunately I've never created a complete tachyon midi ether co-keypad; the materials are way too finicky. But I do have a design kit that should help. [Hands players the kit.] And here are a few blank sheets with instructions. Unfortunately, this won't do you much good unless you have a Connection Requirements Analysis Printout. There are millions of configurations and I'll need to know the keypad number to get you the right piece of CRAP. You wouldn't happen to have the number of the co-keypad that was broken, would you?

PLAYERS:

> Number 34.

PROF. DORIAN CLAIR/LAB ASSISTANT

> Ah yes, I should have guessed. Prof. Chronos always knew that one was going to be fragile. Let me pull out Connection Requirements Analysis Printout #34. With that and the kit, you should be able to figure out a good design to photograph and send to Professor Chronos.

Get printout and hand it to team.

Hints: Teams may call in for hints. But if you familiarize yourself with the puzzle, feel free to give hints.

Answers: Teams have been instructed to each email a picture of their solution to the Institute. If they try to give their answer to you, remind them to follow their instructions.

Site Close Down:

- Thank the host (Dorian Clair Clock Repair). They're nice people.
- Call GC to tell us you're shutting down.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

1.03 Tachyon Midi Ether Co-Keypad 1

(Mandatory Puzzle) Team designs new co-keypad #34 based on specifications from Prof. Dorian Clair to replace damaged one.

Open Time Period

Saturday, 10:25 AM to till all teams (16 for Game 1, 17 for Game 2) pick up (approximately 11:15 AM). Any teams that don't solve the previous puzzle by 11:20 will be skipped; around 11:30, if you have not seen all the teams, call HQ for further instructions.

Location

Name And Address: "Dorian Clair Laboratories" -- actually Dorian Clair Antique Clock Repair, 1301 Sanchez Street, San Francisco, CA 94131-2005

Parking: Street, some metered (parking will be a challenge!)

Bathroom: No

Food: No

GC PoC: Allen, (650) 395-8463, lab@trenchwood.com

Site PoC: Owner Dorian Clair

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component--tachyon midi ether co-keypad #34.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- In order to rescue him, Doctor When's visiting colleague, Prof. Chronos, has implored the visitors to help by rushing to a nearby expert and asking for his help with designing a replacement.

Props

- 55 or 58 blank keypad grid sheets (3 per team + 7 spares)
- 35 or 37 copies of Connections Requirements Analysis for Pad #34 (2 per team + 3 spares);
- 17 or 18 sets of keypad design kits (1 per team + 1 spare)
- Lab coat
- "Dorian Clair Laboratories" name badge and lanyard

Staff Instructions

Your Role: You're a lab assistant to Professor Dorian Clair, noted expert on temporal mechanics.

What To Wear:

- Lab coat
- Name badge with Dorian Clair Laboratories insert

What Your Character Knows:

- You've been working on the design of tachyon midi ether co-keypads with Prof. Chronos.
- You have design kits, but you have never actually made a working co-keypad.
- There are millions of possible configurations so you won't be able to help the team until they actually give you the proper number (34).
- You do not know about Doctor When or the Grand Unveiling. And as far as you know, Prof. Chronos is still in New England.

Puzzles At This Site: Only Co-Keypad 1

Where To Get Materials: GC HQ

Site Setup:

- Greet Mr. Clair.
- Call or e-mail GC so we know you are ready to receive teams.
- Have your props ready.

Handout Script:

Discreetly keep count of how many teams have picked up their puzzle (or just count how many puzzles you have to start...you're done when you've handed out the right number!).

To handout puzzle, say words to the effect of,

PLAYERS:

> Prof. Clair, we need your help! Doctor When has become lost in time because one of the tachyon midi ether co-keypads in his time machine failed.

PROF. DORIAN CLAIR/LAB ASSISTANT:

> I'm sorry, who sent you here again?

PLAYERS:

> Professor Catherine Chronos.

PROF. DORIAN CLAIR/LAB ASSISTANT:

> Professor Chronos? Here?! I thought she was in New England. But that's terrible! Of course I'll help. Unfortunately I've never created a complete tachyon midi ether co-keypad; the materials are way too finicky. But I do have a design kit that should help. [Hands players the kit.] And here are a few blank sheets with instructions. Unfortunately, this won't do you much good unless you have a Connection Requirements Analysis Printout. There are millions of configurations and I'll need to know the keypad number to get you the right piece of CRAP. You wouldn't happen to have the number of the co-keypad that was broken, would you?

PLAYERS:

> Number 34.

PROF. DORIAN CLAIR/LAB ASSISTANT

> Ah yes, I should have guessed. Prof. Chronos always knew that one was going to be fragile. Let me pull out Connection Requirements Analysis Printout #34. With that and the kit, you should be able to figure out a good design to photograph and send to Professor Chronos.

Get printout and hand it to team.

Hints: Teams may call in for hints. But if you familiarize yourself with the puzzle, feel free to give hints.

Answers: Teams have been instructed to each email a picture of their solution to the Institute. If they try to give their answer to you, remind them to follow their instructions.

Site Close Down:

- Thank the host (Dorian Clair Clock Repair). They're nice people.
- Call GC to tell us you're shutting down.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

1.04 Choose Your Own Adventure

(Mandatory Puzzle) A "Choose your own adventure" book "The Dextrus of Tempus" written by Wesley while he was in high school contains his password in a hidden code.

Open Time Period

Site Set-Up: Recommend arriving Saturday, 11:00 AM

Site Open: Saturday, 11:35 AM till last team picks up (16 teams Game 1, 17 teams Game 2), estimated 12:45 PM.

Location

Name And Address: Wesley's Childhood Bedroom -- actually room in Joe Freund's house, 632 Cole Street San Francisco (in the Haight)

Parking: Street, some metered; nearby lot ("ABC Parking") at 801 Stanyan Street

Bathroom: Yes

Food: Many nearby establishments on Haight Street (1/4 block away), but nothing at the site

GC PoC: (650) 395-8463, lab@trenchwood.com

Site PoC: Joe Freund

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- A key component--tachyon midi co-keypad #34 failed, which caused the Doctor to bounce around randomly in time from era to era.
- The players have already helped repair the co-keypad
- But now Doctor When's visiting colleague, Prof. Chronos, needs access to the Doctor's super secure Brain-O-Matic 9000 supercomputer, which contains key data needed to finish installing the midi ether co-keypad. But she doesn't have the password.
- Perhaps some childhood memory of Doctor When holds the key to unlocking his computer.

Props

- Approximately 100 copies of CYOA puzzle books (1 per player)
- Removable painter's tape (for attaching set dressing)
- Set Dressing:
  - Real Genius poster
  - set D&D books
  - sheet & pillowcase
  - Poster of invention ideas (see right)
  - hat with buttons
  - Doctor Who scarf
  - funky phone
  - other childhood memorabilia?

poster of invention ideas

Staff Instructions

Your Role: Wesley's aging father.

What To Wear: Anything (out of your closet) befitting a dottering old man.

What Your Character Knows: He loves his son and is proud of him...but has no real idea of the true heights of Wesley's brilliance and achievement. He does not know anything about the Grand Unveiling nor that Wesley is lost in time.

Puzzles At This Site: Only "Choose Your Own Adventure"

Where To Get Materials:

- Puzzles should be picked up from GC HQ

- Other props should already be stored on site

Setup Instructions:

- Call GC when you arrive (so we know you are setting up)
- Set up props
- Make the bed
- Call GC when you are ready for teams

Handout Script:

Discreetly keep a running count of the number of teams who have picked up.

Say words to the effect of,

PLAYERS:

> Pardon us. We were sent by Doctor When's laboratory. He misplaced some information and they thought perhaps it was here.

MR. WHEN:

> Wesley? He just visited the other day. He was such a good boy...a bit sensitive, but a good boy. So clever, always fixing the toaster and such. I'm not sure what he does now. I think he's a clock repairman. I'm not sure what you'll find here. We kept everything the way it was when he was a child. Maybe there's something. Feel free to look around.

Let the players look around and enjoy the set dressing. But do not let them spend too much time here nor start analyzing it. If they don't find the book, bring it to their attention. Once their attention is on it, say words to the effect of:

> Now this brings back memories: when Wesley was in high school he wrote an adventure story for some class he had! He was so proud of it that he went and got it professionally bound and everything. I think he tried giving it to his classmates but nobody wanted it. I didn't have the heart to tell him that it was all jumbled and didn't make any sense. Here, have a copy. I'm sure you'll enjoy it. I'm afraid I'm getting a bit tired. You probably have everything you need now. Perhaps you can get a bite to eat while you read the book. There are lots of restaurants around the corner. Goodbye!

Hand them a book and usher them out of the room.

Hints: Teams have been instructed to call GC; it would be out of character for Mr. When to give hints (besides, they're unlikely to be solving at the actual location)

Answers: Teams have been instructed to email their answer to the Institute (and they'll probably be long gone from the site before they solve). If they try to give their answer to you, remind them to follow their instructions.

Site Close Down:

- Take down and box up all the props.
- Thank the host
- Call GC
- What to do with props?
  - Game 1--store on site
  - Game 2--Return box of props to GC

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Young Wesley wrote a Choose Your Own Adventure Book in high school about a year before the "incident". Inside there is a series of codes that eventually lead to the answer "BUFFY ROCKS". In his naivete he actually believed that Buffy would be willing to go through all the different codes and decode the message. Perhaps Buffy really was that smart, but she sure wasn't interested!

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

Password = "BUFFYROCKS!"

Puzzle Solution

The story has only 3 outcomes: conclusion 1, conclusion 2, or a "try again" page that sends you back to the beginning.

The "try again page" (16) actually describes the sequence of layers you will encounter in the course of solving this puzzle. They are called out below as GUIDING SPIRIT quotes.

```
GUIDING SPIRIT #1:  "You shouldn't be here. This is not the right path for you. You must start on the right path."
```

Starting from page 1, follow all right-hand choices at bottom of each page. All of them lead to a right-hand (odd-numbered) page, to further reinforce the right-ness, and it ends up at a conclusion (p31) instead of the "try again" page. Initial letters on this path spell a message:

```
1 23 7 19 21 17 9 25 29 5 27 11 3 15 31
PAGE NUMBERS INDEX
```

For reference, the story on this path flows as follows:

- straight to castle
- accept princess quest to slay dragon
- encounter troll bridge
- detour to blacksmith
- proceed to wizard
- detour to grouchy
- fight dragon
- return and stay with princess

```
GUIDING SPIRIT #2:  "The being of light extends its index finger"
```

Following the same path, and indexing the text on each page by its page number, yields this sequence of letters:

```
PARIGRAPH LENGTHS
(There was a typo in one playtested draft, to be fixed for game: PARAGRAPH)
```

```
GUIDING SPIRIT #3:  "... the route you have chosen ... look at it with remorse."
```

On that same path, each page now represents a letter of morse code. Short paragraphs are dots, long paragraphs are dashes. The new message obtained reads:

```
L AND R ALTERNATING
```

```
GUIDING SPIRIT #4:  "There is an alternate path.  It does not start out right, but it ends well as well."
```

Find a new path starting from page 1, this time choosing the left option (does not start out right), then the right, and alternating thereafter.

A new, but still consistent, storyline is obtained on this path. It happens to use all even pages, which is an artifact of construction and not relevant to the solution. Like the other path, it ends with a happy conclusion (p32) (ends well as well).

```
 1 22  28 4  18 24  12 30  26 10  8 20  2 14  6 32
```

The new story flow is:

- farmer gossip
- minotaur
- gypsies, stay the night
- giant's castle
- hide in sheep
- find harp, treasure
- slay sleeping dragon
- rescue princess
- chased by giant
- bring her to your time

The first letters of the new path spell a new message:

```
PATHS AS SEMAPHORE
```

```
GUIDING SPIRIT #5:  "Are there any symbols or flags ...?"
```

The two choices at the bottom of each page on this path represent two cardinal directions. They may be of the form North + West, or Up + Left. Sometimes they're explicit in the choice text, sometimes the direction is given in the page body and only indirectly referred to in the choice text. In one case, some deduction is required to remember which direction was traveled FROM to arrive at this page, and the reverse of that direction matches the "go back" choice.

Matching the two directions to semaphore flag signal code yields this message:

```
XS BECOME BIG DOTS
```

```
GUIDING SPIRIT #6:  "you do not see. You must learn to see the right spots ... completely blinding you."
```

There are very few instances of the letter "X" (capital or lowercase) on the pages of this path. They are to be interpreted as Braille, in the frame of the whole page. This yields one more message:

```
PRIME PAGE ENDINGS
```

```
GUIDING SPIRIT #7:
```

There is no guiding spirit hint for the final step. Starting from the beginning of the book, look at the last letter on all page numbers that are prime. This is your final message:

```
2 3 5 7 11 13 17 19 23 29 31
BUFFY ROCKS!
```

1.05.3 Wormhole

(Optional Puzzle) Particle maze in mirror grid

Open Time Period

Approximately 12:45 PM to 1:30 PM

Location

Name And Address: Smith Clock Company, 2799 Bush Street, SF

Parking: Street, some metered; parking lot on Sutter Street between Divisadero and Broderick Streets, if necessary

Bathroom: No

Food: No

GC PoC: (650) 395-8463, lab@trenchwood.com

Site PoC: Mr. Smith, who should be onsite

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- A key component failed, which is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- The players have already helped repair the component.
- The players have helped get access to the Doctor's super secure Brain-O-Matic 9000 supercomputer by hacking the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.

Props

- 17 copies of Wormhole puzzle
- Lab coat
- Smith Laboratories name tag insert (you should find it hidden in your lanyard)

Staff Instructions

Your Role: Smith Laboratories Lab Assistant

What To Wear:

- Lab coat
- Name badge with Smith Laboratories insert

What Your Character Knows:

- Doctor When is an unusual...though competent physicist.
- You know nothing of the Grand Unveiling...nor the malfunction of the time machine.

Puzzles At This Site: Only "Wormhole"

Where To Get Materials: GC HQ

Setup Instructions:

- Greet Mr. Smith
- Call GC when you are ready for teams

Handout Instructions: The dialog should go something like,

> VISITOR: Hello! We were sent to get the Heisenberg compensator research project.

> LAB ASSISTANT: Oh, the Heisenberg Compensator? I think the professor who knew about that is on sabbatical somewhere. In Antarctica. But I do remember seeing some notes on the Heisenberg Compensator malfunctioning... lemme look for it. Ah, here it is...

(reads, reads, flips over the page several times)

> LAB ASSISTANT: Well, that's inconvenient. He seems to have written this for an audience that's much smarter than I am. Here you go, maybe you can figure it out.

Hints: Teams may call in for hints. But if you familiarize yourself with the hints below, feel free to give hints.

Answers: Teams have been instructed to email their answer to the Institute. If they try to give their answer to you, remind them to follow their instructions.

Site Close Down:

- Clean up.
- Thank Mr. Smith
- Call GC to let us know you're leaving.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

This is the version used for the playtest run: Media:WormholeMazeV5.pdf

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- Measure time from edge to edge of grid squares, not from center to center. It simplifies the math.
- What's up with the "self-consistent temporal paradox"? It's referring to a bootstrap type of paradox, meaning: if a particle arrives from the future, flipping a mirror to state A, and it had already flipped that same mirror just before time traveling, which event was "first"? It *DOES NOT* mean that a mirror ever has ambiguous state, nor simultaneous opposing states. If that particle could only have reached the flip at time -10 by having flipped it to state A when it entered at time 0, that logically implies that it must have reached it AGAIN in between those times to flip it back to state B. This is a vital inference.
- Try pretending the mirrors can you have can always steer at every mirror junction, and just look for any path at all that satisfies the "enter at 0, exit at -1" rule.
- Notice that all travel from mirror to mirror accumulates in increments of +3ns. Even when a wormhole is used, the positive time accumulated from the mirror to the tunnel entrance and from the tunnel exit to the next mirror again add up to +3ns. Furthermore, from the entrance to the first mirror, and from the final mirror to the exit, is another +3ns. Therefore, total positive travel of the complete path must be a multiple of 3, and modulus arithmetic may be used to deduce how many times each tunnel might be traveled to make "enter at 0, exit at -1" possible.

(more to come...)

Puzzle Answer

TWO POINT SIX

Puzzle Solution

. https://picasaweb.google.com/lh/photo/EzYta3ftAyzMAbCXEW608irz7d04fHtlHe7C8c615fY?feat=directlink

https://picasaweb.google.com/lh/photo/r0OITTxzEvShuPKq4_qLcyrz7d04fHtlHe7C8c615fY?feat=directlink

1.06 Calibration

(Mandatory Puzzle) Teams have to predict next time Doctor When will bounce to based on DVD containing short clips of where he's been so far.

Open Time Period

Saturday, 2 PM till all teams (16 in Game 1, 17 in Game 2) have picked up Calibration (estimated 4 PM)

Location

Name And Address: Long Now Foundation (posing as a time-oriented research laboratory), Fort Mason Center, Building A, San Francisco, CA

Parking: Some free spots just outside of parking attendant's booth, pay parking inside lot

Bathroom: Yes, nearby building

Food:Safeway and a few restaurants a few blocks away

GC PoC: Allen, (650) 395-8463, lab@trenchwood.com

Site PoC: Danielle Engleman of LNF

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.

Props

- 32 or 34 copies of Trenchwood Industries CDs, which contain the Calibration puzzle (2 per team, with 0 spares)
- 16 copies of optional TBD puzzle (1 per team, with 0 spares)
- 1 Lab coat (should already have from previous location)
- 1 Long Now name badge and lanyard (should already have lanyard from previous location; look inside the lanyard for this badge insert)
- 240 (15 per team) copies of blank co-keypad sheets (for use in 1.03.05 Co-Keypad Optional Driving Puzzles)

Staff Instructions

Your Role: You are a Long Now Foundation lab assistant. (We are pretending that Long Now is another time-oriented research laboratory.)

What To Wear:

- Lab coat
- Long Now Foundation name tag insert (should be hidden within your lanyard already)

What Your Character Knows:

- Trenchwood Institute is a secretive, but qualified research facility
- Nothing about the Grand Unveiling nor the mishap
- You've never heard of co-keypads or chronomentometers (those are the secret inventions of Prof. Chronos and Doctor When)

Puzzles At This Site:

- Calibration--mandatory
- TBD--optional

Where To Get Materials: GC HQ

Site Setup:

- Greet front desk person.
- Call GC.

Handout Instructions:

- Discreetly keep count of how many teams have picked up the mandatory puzzle...so you know when to close down!
- The initial interaction should go something like:

LAB ASSISTANT:

> Welcome to the Long Now Foundation. Your colleagues at Trenchwood called ahead and asked us to give you this Computer Remote Access Program to the time machine's View-O-Scope log. Here are two copies in case you want to run it on two computers. The disks are exactly the same. Just run the program on this disk and enter access code 991858. It should autorun on PCs, but you'll have to open index.html on Macs.

> Also, Trenchwood said you may want these...something called "co-keypad grids". I've never heard of them before, but you can have 'em if you want 'em.

Make sure they write down the access code. Then hand out two disks and offer them 15 extra co-keypad grids; they may choose to not all take them.

Hints: Teams may call in for hints. But if you familiarize yourself with the hints below, feel free to give hints.

Answers: Teams have been instructed to call in their answer to Calibration to the Institute. If they try to give their answer to you, remind them to follow their instructions.

Site Close Down:

- Thank host
- Call GC to confirm you're leaving.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.
- There are lots of seats outside...and a few seats inside (check out the back room). Only allow the players to use the inside seats if it's not bothering the real Long Now staff and visitors. Use your judgment.

Detailed Description

Players receive a CD containing the View-O-Scope video recording of the different times that Doctor When has bounced to. Each of these is a short clip from a famous movie scene (Dr. Strangelove, Titanic, and Gone With the Wind are a few examples), with Doctor When inserted in a (hopefully) funny way. The players' goal is to figure out where Doctor When bounced to at the end, so that they can "calibrate" the time machine appropriately and "lock on" to him. Additional details that are relevant at other points: 1) Doctor When loses the envelope during the Vertigo scene at Fort Point - they'll need this information later to get to the Retrieve the Letter event; and 2) in Act III, players will use the sequence again (which will end partway through) to figure out his next location quickly.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Teams are most likely going to call GC for hints, but it would be good if the on-site staffer was also able to help.

General hints:

- Any data associated with the movie – title, release date, names of actors or directors, etc. –is irrelevant to the puzzle. Recall that the introductory message said that these are actual events, despite their similarity to famous movie scenes.

- Anything Doctor When does is also irrelevant.

- The only thing the clips themselves are used for is to set the order. After that, the timestamp carries all the information.

- The "mass loss detected" message after Vertigo is not relevant to this puzzle.

- The semaphore letters are not exact, but it should be generally clear what letter they represent if teams look at an actual clock with hands set correctly.

- There's a lot of data here – lots of numbers in the timestamp, the times depicted, and a lot of irrelevant information. If teams are having trouble, steer them toward ordering the clips as a first step.

Q: We can't figure out what movie X is.

A: "Movie? What movie? These are real events –where the Doctor is in trouble, no less! Don't think about any movies – that can't possibly be right."

Q: The timestamps are all screwed up! (E.g., months are wrong, or daytime scenes have a night timestamp.)

A: "Yep, it looks like a bunch of that data got corrupted. The years, though, seem right – or at least possibly right, given that the View-O-Scope can only show two digits."

Q: We don't know anything about the years when some of these scenes took place!

A: "Well – we can figure out _something_, can't we? No, we don't know exactly when the Doctor was running from dinosaurs – but it wasn't the present day, and it wasn't 5 billion years ago. Our margin of error may be wide, but we do have a range."

Q: What the hell do we do? There's so much data!

A: "Hmm… there has to be some reason for the Doctor bouncing to various times. If only we could figure out the right order in which to sift through all this data. With the scenes themselves - not the timestamps, since those seem to be at least partially corrupted – how could we order them?"

Puzzle Answer

NEXTGATEWAYTHEBIGBANG

Puzzle Solution

0. The movie clips are in alphabetical order by movie, so their original order is irrelevant.

1. Order the movie clips chronologically by the time depicted:

Movie	Original Order	Year
Land of the Lost	8	-65000000
2001: A Space Odyssey	19	-3000000
10000 BC	16	-10000
The Ten Commandments	15	-1300
Spartacus	14	-71
Ben-Hur	3	29
Monty Python's Life of Brian	9	34
Monty Python and the Holy Grail	10	932
The Adventures of Robin Hood	1	1300
Amadeus	2	1787
History of the World, Part I	7	1789
Gone With The Wind	6	1861
The Wizard of Oz	21	1900
Titanic	18	1912
Raiders of the Lost Ark	12	1936
The Sound of Music	13	1938
Casablanca	4	1941
Vertigo	20	1958
Dr. Strangelove	5	1960
Terminator 2: Judgment Day	17	2029

Planet of the Apes	11	3978

2. Transform the dates in the timestamp to letters, setting A=1, B=2, etc.

Movie	Date	Message 1
Land of the Lost	19	S
2001: A Space Odyssey	5	E
10000 BC	20	T
The Ten Commandments	3	C
Spartacus	12	L
Ben-Hur	15	O
Life of Brian	3	C
Monty Python and the Holy Grail	11	K
The Adventures of Robin Hood	13	M
Amadeus	15	O
History of the World, Part I	14	N
Gone With The Wind	20	T
The Wizard of Oz	8	H
Titanic	16	P
Raiders of the Lost Ark	15	O
The Sound of Music	9	I
Casablanca	14	N
Vertigo	20	T
Dr. Strangelove	19	S
Terminator 2: Judgment Day	21	U
Planet of the Apes	16	P

3. The message, SETCLOCKMONTHPOINTSUP, tells the players to set clock hands according to the hour and minute of the timestamp, and then to rotate the clock so that the hour equal to the month of the timestamp is pointing up. The clock hands form semaphore letters.

Movie	Month	Hour	Minute	Semaphore	Message 2
Land of the Lost	02	21	32	SW,SE	N
2001: A Space Odyssey	04	02	28	NW,NE	U
10000 BC	03	10	30	SW,E	M
The Ten Commandments	06	03	00	W,S	B
Spartacus	12	01	30	S,NE	E
Ben-Hur	03	06	00	W,E	R
Life of Brian	09	18	08	W,SE	S
Monty Python and the Holy Grail	05	03	32	NW,NE	U
The Adventures of Robin Hood	04	06	58	SW,E	M
Amadeus	01	08	20	SW,E	M
History of the World, Part I	10	08	34	W,NW	O
Gone With The Wind	11	04	54	N,S	D
The Wizard of Oz	06	16	30	NW,N	T
Titanic	02	03	24	E,NE	W
Raiders of the Lost Ark	11	17	01	S,NE	E
The Sound of Music	10	02	28	SW,SE	N
Casablanca	03	13	14	NW,N	T
Vertigo	03	18	07	NW,E	Y
Dr. Strangelove	07	15	56	W,SE	S
Terminator 2: Judgment Day	06	13	23	NW,SW	I
Planet of the Apes	01	14	28	NE,SE	X

4. The second message, NUMBERSUMMODTWENTYSIX, tells the players to add all of the numbers (not digits) in the timestamp, take mod(26) of those numbers, and transform them into letters, to letters, setting A=1, B=2, etc.

Movie	Year	Date	Month	Hour	Minute	Sum	Answer
Land of the Lost	96	19	02	21	32	14	N
2001: A Space Odyssey	44	5	04	02	28	5	E
10000 BC	13	20	03	10	30	24	X

The Ten Commandments	08	3	06	03	00	20	T
Spartacus	30	12	12	01	30	7	G
Ben-Hur	29	15	03	06	00	1	A
Life of Brian	34	3	09	18	08	20	T
Monty Python and the Holy Grail	32	11	05	03	32	5	E
The Adventures of Robin Hood	72	13	04	06	58	23	W
Amadeus	87	15	01	08	20	1	A
History of the World, Part I	89	14	10	08	34	25	Y
Gone With The Wind	61	20	11	04	54	20	T
The Wizard of Oz	00	8	06	16	30	8	H
Titanic	12	16	02	03	24	5	E
Raiders of the Lost Ark	36	15	11	17	01	2	B
The Sound of Music	38	9	10	02	28	9	I
Casablanca	41	14	03	13	14	7	G
Vertigo	58	20	03	18	07	2	B
Dr. Strangelove	60	19	07	15	56	1	A
Terminator 2: Judgment Day	29	21	06	13	23	14	N
Planet of the Apes	78	16	01	14	28	7	G

1.07.05 Location: Letterman

(Location With Multiple Puzzles)

Open Time Period

Saturday, 3:40 PM till last team has had the 2nd "Send Me Back" interaction (estimated 6:30 PM)

Location

Name And Address: Letterman Digital Arts Center Park in Presidio, Statue of Eadweard Muybridge within the park containing the Letterman Digital Arts Center Recycled Water Pond, San Francisco; the park is bounded by Gorgas Ave., Lyon Street, Letterman Drive, and Oreilly Ave.; statue is just north of the Starbucks in Building C; probably best to go to intersection of Gorgas and Oreilly Upon Completion

Parking: Best parking is free lot whose entrance is on Oreilly just south of Gorgas; street parking on Gorgas, too; do not use the parking spaces underneath the buildings.

Bathrooms At Location: In the nearby Starbucks

Food At Location: Nearby Starbucks and other restaurants in the Presidio

GC PoC: Allen, (650) 395-8463, lab@trenchwood.com

Site PoC: Property Manager Cathy Frazier 415-746-5268

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players found a strange pattern in the eras that Doctor When has bounced to...which indicates that the next place he'll materialize is the Big Bang!
- With that information the Institute can lock onto the Doctor and stop him from bouncing through time
- The player are coming to this location to watch the Doctor at the Big Bang (since this is one of the few places where the temporal fault lines will allow the time machine's View-O-Scope to pick up a strong enough signal).

Props

- Puzzle instructions for Send Me Back (Mandatory)
- Puzzle instructions for Fabric Of Time (Optional)
- Lab coat (should have from previous site)
- Trenchwood Institute name badge and lanyard (should have from previous site)

Staff Instructions

Your Role: Trenchwood Institute Lab Assistant

What To Wear:

- Lab coat
- Trenchwood Institute name badge

What Your Character Knows: Everything in the Plot Setup section above.

Puzzles At This Site:

- Send Me Back (Mandatory)
- Fabric Of Time (Optional)
- Find The Letter (Mandatory, but no interactions with you, so no instructions attached)

1.07.05 Location: Letterman

(Location With Multiple Puzzles)

Open Time Period

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Location

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Plot Setup

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- But it malfunctioned due to a faulty key component. The players have helped fix that.
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Staff Instructions

Your Role: Trenchwood Institute Lab Assistant

What To Wear:

- Lab coat
- Trenchwood Institute name badge

What Your Character Knows: Everything in the Plot Setup section above.

Puzzles At This Site:

- Send Me Back (Mandatory)
- Fabric Of Time (Optional)
- Find The Letter (Mandatory, but no interactions with you, so no instructions attached)

1.08 Send Me Back

(Mandatory Puzzle) Garbled silent video message from Doctor When instructing where to send him.

Open Time Period

(See "Location: Letterman")

Location

Name And Address: Letterman Digital Arts Center Park in Presidio,

See "Location: Letterman" for details

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players found a strange pattern in the eras that Doctor When has bounced to...which indicates that the next place he'll materialize is the Big Bang!

Props

(No new puzzle-specific props)

Staff Instructions

Handout Instructions: Say words to the effect of,

> Welcome! From this location you can tune in to live feed from the Temporal View-O-Scope. Just use the program that the Long Now mechanics gave you and enter access code 645639. *Come back and see me* when you're done with the live feed.

Teams will watch this video and then come back to you.

Before 6:30 PM, tell them:

> I saw the remote feed, too. We have to help Doctor When fix the timeline! You need to decode his final message. Please use code 222076 on your View-O-Scope Computer Remote Access Program. After you have figured out where he wants us to go, call Prof. Chronos on your *speakerphone*.

After 6:30 PM, instead tell them:

> I saw the remote feed, too. We have to help Doctor When fix the timeline! You need to decode his final message. Please use code 621922 on your View-O-Scope Computer Remote Access Program. After you have figured out where he wants us to go, call Prof. Chronos on your *speakerphone*.

Discreetly keep count of the number of teams with whom you have had a second interaction...so that you know when you can close down the site!

Hints: Teams may call in for hints. But if you familiarize yourself with the hint information below, feel free to give hints.

Answers: Teams have been instructed to call in their answers. If they try to give their answer to you, remind them to follow their instructions.

Detailed Description

The video is presented through a Javascript app that allows players to rearrange the pieces and play back the sequence. Once the video is reconstructed, Doctor When's pantomime must be interpreted into a message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Doctor When always looks at the camera while holding a meaningful pose. Also, the static abates momentarily during these poses. Other times should be considered transitional and not part of the message.

Puzzle Answer

SEND ME TO PAINE MEMORIAL MAY 31 1986 2:00

Puzzle Solution

Video is in 22 segments, each about 7 seconds long. Playback starts at segment 1, then proceeds smoothly to segment 2, and so on. Initial sequence is scrambled, and players must rearrange segments until they are in the right order.

The correct sequence is as follows:

12 02 10 00 14 06 15 01 19 21 11 05 20 03 16 07 18 09 08 13 17 04

1.08 Send Me Back

(Mandatory Puzzle) Garbled silent video message from Doctor When instructing where to send him.

Open Time Period

(See "Location: Letterman")

Location

Name And Address: Letterman Digital Arts Center Park in Presidio,

See "Location: Letterman" for details

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players found a strange pattern in the eras that Doctor When has bounced to...which indicates that the next place he'll materialize is the Big Bang!

Props

(No new puzzle-specific props)

Staff Instructions

Handout Instructions: Say words to the effect of,

> Welcome! From this location you can tune in to live feed from the Temporal View-O-Scope. Just use the program that the Long Now mechanics gave you and enter access code 645639. *Come back and see me* when you're done with the live feed.

Teams will watch this video and then come back to you.

Before 6:30 PM, tell them:

> I saw the remote feed, too. We have to help Doctor When fix the timeline! You need to decode his final message. Please use code 222076 on your View-O-Scope Computer Remote Access Program. After you have figured out where he wants us to go, call Prof. Chronos on your *speakerphone*.

After 6:30 PM, instead tell them:

> I saw the remote feed, too. We have to help Doctor When fix the timeline! You need to decode his final message. Please use code 621922 on your View-O-Scope Computer Remote Access Program. After you have figured out where he wants us to go, call Prof. Chronos on your *speakerphone*.

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Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Doctor When always looks at the camera while holding a meaningful pose. Also, the static abates momentarily during these poses. Other times should be considered transitional and not part of the message.

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SEND ME TO PAINE MEMORIAL MAY 31 1986 2:00

Puzzle Solution

Video is in 22 segments, each about 7 seconds long. Playback starts at segment 1, then proceeds smoothly to segment 2, and so on. Initial sequence is scrambled, and players must rearrange segments until they are in the right order.

The correct sequence is as follows:

12 02 10 00 14 06 15 01 19 21 11 05 20 03 16 07 18 09 08 13 17 04

1.09 Fabric of Time

(Optional Puzzle) The fabric of history has been subtly altered and must be restored.

Open Time Period

(See "Location: Letterman")

Location

Name and Address: Letterman Digital Arts Center; see Location: Letterman for details

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players found a strange pattern in the eras that Doctor When has bounced to...which indicates that the next place he'll materialize is the Big Bang!
- The players were able to view Doctor When at the Big Bang through the time machine's View-O-Scope
- The Doctor has asked not to be returned to 2012, but rather sent to Paine Memorial High School on May 31, 1986 at 2 PM.

Props

- 16 or 17 copies of Fabric of Time

Staff Instructions

Handout Instructions: Teams will ask for this optional puzzle by name.

Hints: Teams may call in for hints. But if you familiarize yourself with the hint information below, feel free to give hints.

Answers: Teams have been instructed to call in their answers. If they try to give their answer to you, remind them to follow their instructions.

Detailed Description

A set of 14 flexible strips may be joined into a 7x7 grid by velcro. The border cells have people's names at endpoints of paths that meander through the grid. The interior cells have trivia statements, with a year for each.

See also: Time Weave

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

CLARE

Puzzle Solution

Strips are to be woven into a 5x5 grid, plus a frame. They attach by the velcro patches adhered to them. The frame pieces are easily distinguished by lacking trivia statements. They should be placed with Al through George on top, Henry through Ted on left, and the piece with longer curves on bottom.

The interior strips are printed with paths, year, and trivia only; the following charts have extra information for GC's benefit. (T/F = truth, stars are our

estimate of difficulty for determining truth, and letter is explained later on below.)

The row strips are, in order from top to bottom:

```
T + C 2001  ** Mir space station falls to Earth
F / w 1985  ** Rock Hudson dies of throat cancer   [AIDS]
F + t 1919   * United Nations is founded  [League of Nations]
T + N 1931   * Bela Lugosi stars in Dracula
F / w 1958   * Actress Kim Novak leaps from Golden Gate Bridge  [shore at Ft. Point]
```

```
T + B 2000  ** Geocaching is born
F + m 1930   * Marilyn Monroe wastes away
T \ N 1940   * When You Wish Upon A Star wins Academy Award
F \ q 1844  ** Brigham Young creates Mormon religion   [took over after Joseph Smith's death]
T / S 1954  ** Lord of the Flies is published by William Golding
```

```
F / r 1953  ** Danny Kaye wins Golden Globe award for Singin' In The Rain  [Donald O'Connor]
T + N 1841  ** President Harrison dies in office
F \ u 1992   * Uma Ulrich is assaulted by bears
T + E 2003  ** Saddam Hussein captured by American Troops
F / p  619  ** Egypt ruler Heraclius conquers Persia   [reversed]
```

```
T + I 2007   * Seventh book in Harry Potter series published
F / i 2007   * Luciano Pavarotti is assassinated   [pancreatic cancer]
T + T 1973  ** Spiro T. Agnew resigns as Vice President
F \ s 1855  ** The Sigma Chi Fraternity is founded at Harvard University  [Miami U, in Oxford OH]
T \ T 1991   * Soviet Union is dissolved
```

```
T + I 1701  ** Captain Kidd is hanged for piracy
T \ T 1982   * John Belushi dies of a drug overdose
F / e 2003   * Emilio Estevez chokes on a peach
T + E 1202  ** Leonardo Fibonacci introduces zero to European math
F / u 1983  ** Cyprus invaded by Greece  [Turkey]
```

The column strips are, in order from left to right:

```
F / m 1831   * The Hunchback of Notre Dame is first published by Moliere    [Victor Hugo]
F \ c 2001   * Athens wins the bid to host the 2008 Summer Olympics  [Beijing]
T \ I 1620   * Mayflower lands at Plymouth Rock
F \ t 1973 *** Dark Side Of The Moon LP certified platinum  [gold; Eagles 1st plat in 1976]
F / u 1578  ** Ferdinand Magellan first to round Cape Horn   [Sir Francis Drake]
```

```
T + O 1635  ** Franco-Spanish war begins
T \ E 1310  ** Saint Humility dies in Florence on May 22
F / y 1798   * Yang Yin is thrown out of a sleigh
T + N 1913  ** Death Valley sets record 134 degrees
F / m 1750  ** George I conquers Portugal   [Jose I ascends to throne]
```

```
T \ U 1974   * Richard Nixon resigns presidency
F / a   10   * Augustus Antonius is sucked dry by a leech
T + D 2002  ** Rudy Giuliani is knighted (honorary)
F \ y 1969   * Apollo 11 launch is canceled   [moon walk]
T \ L 1227 *** Founder of Mongolian empire Genghis Khan dies
```

```
F / x 1959   * Twilight Zone debuts on TV with host Alfred Hitchcock  [Rod Serling]
T / D 2011   * Space shuttle Discovery is retired
F \ m   67  ** Emperor Nero killed in chariot race during Olympic Games  [survived]
T / O 1455  ** First printed Bible published by Johannes Gutenberg
F / r 1944   * Ronald Reagan is smothered under a rug
```

```
T + T 1964   * The Beatles appear on the Ed Sullivan show
F \ s 1963   * Suzanne Somers falls down the stairs
T \ X 1968  ** Hurricane Gladys devastates the Caribbean
F / d 2002 *** Venus Williams defeats sister Serena in the French Open  [reversed]
T + S 1873  ** Economic panic sparks multinational depression era
```

When all row and column strips are placed, each grid cell will have one true statement and one false; they should be woven so the true one is on top.

Deductive logic can place all but 2 rows and 2 columns: simply count the number of True/False statements on each row, and match with the number of True/False statements at that row position on all the column strips. And vice versa.

The remaining strips should be woven such that the paths connect name pairs by which work of fiction they belong to:

```
George McFly / Lorraine Baines  (Back To The Future)
Bill Preston / Ted Logan   (Bill And Ted's Excellent Adventure)
Sam / Al  (Quantum Leap)
John Connor / Sarah Connor  (The Terminator)
Henry DeTamble / Clare Abshire  (The Time Traveler's Wife)
```

The complete path weave, including the turnabouts on the frame, looks like this:

```
-||-|   ++\++\
-|-|-   +\\///
|-|-|   \+++\\
-|-|-   +++/\/
--|-|   +\\++\
        \/\/\/
```

Now notice that the path terminations visually point to individual letters within each name. Reading these counter-clockwise, or tilting your head to the right and reading them "downward", spells out a phrase:

```
      |
      v

  George
    Clare
      Sam
  Sarah
     Al

  Henry
    John
     Bill
Lorraine
      Ted

GASHLY HINT
```

Among the false facts are seven that are taken directly from Edward Gorey's "Gashlycrumb Tinies (http://ops.tamu.edu/bob/poems/gorey/) ." (Players who do not immediately recognize this may find it quickly by Googling "gashly".)

The grisly fates are verbatim, though now attributed to other people. Taken in the order these fates appear in Gorey's work, the false facts are:

```
S 1963 [Amy]     Suzanne Somers falls down the stairs
U 1992 [Basil]   Uma Ulrich is assaulted by bears
M 1930 [Clara]   Marilyn Monroe wastes away
Y 1798 [Desmond] Yang Yin is thrown out of a sleigh
E 2003 [Ernest]  Emilio Estevez chokes on a peach
A   10 [Fanny]   Augustus Antonius is sucked dry by a leech
R 1944 [George]  Ronald Reagan is smothered under a rug
```

The initial letters spell "SUM YEAR". The names are alliterative to draw attention to these letters, too.

By summing the digits, each year yields a number between 1 and 26, corresponding to letters A - Z. To further re-inforce this, the seven Gashly items yield the same letter as their initial. (e.g. 1+9+6+3 = 19 = S)

When the visible years are summed into letters, they yield this message:

```
COUNT
BENDS
INDEX
INTOT
ITLES
```

```
Count Bends Index Into Titles
```

List the titles of fiction that feature the name pairs on the border, in alphabetical order. For each pair, count the number of bends in the path connecting them. Then count that many letters into the title.

```
      00000000011111111112222222222
      12345678901234567890123456789
```

```
 3 C  BackToTheFuture
 4 L  BillAndTedsExcellentAdventure
10 A  QuantumLeap
13 R  TheTerminator
 3 E  TheTimeTravelersWife
```

FINAL ANSWER:

```
CLARE
```

For additional reference, these are the trivia that are visible when the weave is complete:

```
C 2001  ** Mir space station falls to Earth
O 1635  ** Franco-Spanish war begins
U 1974   * Richard Nixon resigns presidency
N 1931   * Bela Lugosi stars in Dracula
T 1964   * The Beatles appear on the Ed Sullivan show
```

```
B 2000  ** Geocaching is born
E 1310  ** Saint Humility dies in Florence on May 22
N 1940   * When You Wish Upon A Star wins Academy Award
D 2011   * Space shuttle Discovery is retired
S 1954  ** Lord of the Flies is published by William Golding
```

```
I 1620   * Mayflower lands at Plymouth Rock
N 1841  ** President Harrison dies in office
D 2002  ** Rudy Giuliani is knighted (honorary)
E 2003  ** Saddam Hussein captured by American Troops
X 1968  ** Hurricane Gladys devastates the Caribbean
```

```
I 2007   * Seventh book in Harry Potter series published
N 1913  ** Death Valley sets record 134 degrees
T 1973  ** Spiro T. Agnew resigns as Vice President
O 1455  ** First printed Bible published by Johannes Gutenberg
T 1991   * Soviet Union is dissolved
```

```
I 1701  ** Captain Kidd is hanged for piracy
T 1982   * John Belushi dies of a drug overdose
L 1227 *** Founder of Mongolian empire Genghis Khan dies
E 1202  ** Leonardo Fibonacci introduces zero to European math
S 1873  ** Economic panic sparks multinational depression era
```

1.09 Fabric of Time

(Optional Puzzle) The fabric of history has been subtly altered and must be restored.

Open Time Period

(See "Location: Letterman")

Location

Name and Address: Letterman Digital Arts Center; see Location: Letterman for details

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players found a strange pattern in the eras that Doctor When has bounced to...which indicates that the next place he'll materialize is the Big Bang!
- The players were able to view Doctor When at the Big Bang through the time machine's View-O-Scope
- The Doctor has asked not to be returned to 2012, but rather sent to Paine Memorial High School on May 31, 1986 at 2 PM.

Props

- 16 or 17 copies of Fabric of Time

Staff Instructions

Handout Instructions: Teams will ask for this optional puzzle by name.

Hints: Teams may call in for hints. But if you familiarize yourself with the hint information below, feel free to give hints.

Answers: Teams have been instructed to call in their answers. If they try to give their answer to you, remind them to follow their instructions.

Detailed Description

A set of 14 flexible strips may be joined into a 7x7 grid by velcro. The border cells have people's names at endpoints of paths that meander through the grid. The interior cells have trivia statements, with a year for each.

See also: Time Weave

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

CLARE

Puzzle Solution

Strips are to be woven into a 5x5 grid, plus a frame. They attach by the velcro patches adhered to them. The frame pieces are easily distinguished by lacking trivia statements. They should be placed with Al through George on top, Henry through Ted on left, and the piece with longer curves on bottom.

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estimate of difficulty for determining truth, and letter is explained later on below.)

The row strips are, in order from top to bottom:

```
T + C 2001  ** Mir space station falls to Earth
F / w 1985  ** Rock Hudson dies of throat cancer   [AIDS]
F + t 1919   * United Nations is founded  [League of Nations]
T + N 1931   * Bela Lugosi stars in Dracula
F / w 1958   * Actress Kim Novak leaps from Golden Gate Bridge  [shore at Ft. Point]
```

```
T + B 2000  ** Geocaching is born
F + m 1930   * Marilyn Monroe wastes away
T \ N 1940   * When You Wish Upon A Star wins Academy Award
F \ q 1844  ** Brigham Young creates Mormon religion   [took over after Joseph Smith's death]
T / S 1954  ** Lord of the Flies is published by William Golding
```

```
F / r 1953  ** Danny Kaye wins Golden Globe award for Singin' In The Rain  [Donald O'Connor]
T + N 1841  ** President Harrison dies in office
F \ u 1992   * Uma Ulrich is assaulted by bears
T + E 2003  ** Saddam Hussein captured by American Troops
F / p  619  ** Egypt ruler Heraclius conquers Persia   [reversed]
```

```
T + I 2007   * Seventh book in Harry Potter series published
F / i 2007   * Luciano Pavarotti is assassinated   [pancreatic cancer]
T + T 1973  ** Spiro T. Agnew resigns as Vice President
F \ s 1855  ** The Sigma Chi Fraternity is founded at Harvard University  [Miami U, in Oxford OH]
T \ T 1991   * Soviet Union is dissolved
```

```
T + I 1701  ** Captain Kidd is hanged for piracy
T \ T 1982   * John Belushi dies of a drug overdose
F / e 2003   * Emilio Estevez chokes on a peach
T + E 1202  ** Leonardo Fibonacci introduces zero to European math
F / u 1983  ** Cyprus invaded by Greece  [Turkey]
```

The column strips are, in order from left to right:

```
F / m 1831   * The Hunchback of Notre Dame is first published by Moliere    [Victor Hugo]
F \ c 2001   * Athens wins the bid to host the 2008 Summer Olympics  [Beijing]
T \ I 1620   * Mayflower lands at Plymouth Rock
F \ t 1973 *** Dark Side Of The Moon LP certified platinum  [gold; Eagles 1st plat in 1976]
F / u 1578  ** Ferdinand Magellan first to round Cape Horn   [Sir Francis Drake]
```

```
T + O 1635  ** Franco-Spanish war begins
T \ E 1310  ** Saint Humility dies in Florence on May 22
F / y 1798   * Yang Yin is thrown out of a sleigh
T + N 1913  ** Death Valley sets record 134 degrees
F / m 1750  ** George I conquers Portugal   [Jose I ascends to throne]
```

```
T \ U 1974   * Richard Nixon resigns presidency
F / a   10   * Augustus Antonius is sucked dry by a leech
T + D 2002  ** Rudy Giuliani is knighted (honorary)
F \ y 1969   * Apollo 11 launch is canceled   [moon walk]
T \ L 1227 *** Founder of Mongolian empire Genghis Khan dies
```

```
F / x 1959   * Twilight Zone debuts on TV with host Alfred Hitchcock  [Rod Serling]
T / D 2011   * Space shuttle Discovery is retired
F \ m   67  ** Emperor Nero killed in chariot race during Olympic Games  [survived]
T / O 1455  ** First printed Bible published by Johannes Gutenberg
F / r 1944   * Ronald Reagan is smothered under a rug
```

```
T + T 1964   * The Beatles appear on the Ed Sullivan show
F \ s 1963   * Suzanne Somers falls down the stairs
T \ X 1968  ** Hurricane Gladys devastates the Caribbean
F / d 2002 *** Venus Williams defeats sister Serena in the French Open  [reversed]
T + S 1873  ** Economic panic sparks multinational depression era
```

When all row and column strips are placed, each grid cell will have one true statement and one false; they should be woven so the true one is on top.

Deductive logic can place all but 2 rows and 2 columns: simply count the number of True/False statements on each row, and match with the number of True/False statements at that row position on all the column strips. And vice versa.

The remaining strips should be woven such that the paths connect name pairs by which work of fiction they belong to:

```
George McFly / Lorraine Baines  (Back To The Future)
Bill Preston / Ted Logan   (Bill And Ted's Excellent Adventure)
Sam / Al  (Quantum Leap)
John Connor / Sarah Connor  (The Terminator)
Henry DeTamble / Clare Abshire  (The Time Traveler's Wife)
```

The complete path weave, including the turnabouts on the frame, looks like this:

```
-||-|   ++\++\
-|-|-   +\\///
|-|-|   \+++\\
-|-|-   +++/\/
--|-|   +\\++\
        \/\/\/
```

Now notice that the path terminations visually point to individual letters within each name. Reading these counter-clockwise, or tilting your head to the right and reading them "downward", spells out a phrase:

```
      |
      v

  George
    Clare
      Sam
  Sarah
     Al

  Henry
    John
     Bill
Lorraine
      Ted

GASHLY HINT
```

Among the false facts are seven that are taken directly from Edward Gorey's "Gashlycrumb Tinies (http://ops.tamu.edu/bob/poems/gorey/) ." (Players who do not immediately recognize this may find it quickly by Googling "gashly".)

The grisly fates are verbatim, though now attributed to other people. Taken in the order these fates appear in Gorey's work, the false facts are:

```
S 1963 [Amy]     Suzanne Somers falls down the stairs
U 1992 [Basil]   Uma Ulrich is assaulted by bears
M 1930 [Clara]   Marilyn Monroe wastes away
Y 1798 [Desmond] Yang Yin is thrown out of a sleigh
E 2003 [Ernest]  Emilio Estevez chokes on a peach
A   10 [Fanny]   Augustus Antonius is sucked dry by a leech
R 1944 [George]  Ronald Reagan is smothered under a rug
```

The initial letters spell "SUM YEAR". The names are alliterative to draw attention to these letters, too.

By summing the digits, each year yields a number between 1 and 26, corresponding to letters A - Z. To further re-inforce this, the seven Gashly items yield the same letter as their initial. (e.g. 1+9+6+3 = 19 = S)

When the visible years are summed into letters, they yield this message:

```
COUNT
BENDS
INDEX
INTOT
ITLES
```

```
Count Bends Index Into Titles
```

List the titles of fiction that feature the name pairs on the border, in alphabetical order. For each pair, count the number of bends in the path connecting them. Then count that many letters into the title.

```
      00000000011111111112222222222
      12345678901234567890123456789
```

```
 3 C  BackToTheFuture
 4 L  BillAndTedsExcellentAdventure
10 A  QuantumLeap
13 R  TheTerminator
 3 E  TheTimeTravelersWife
```

FINAL ANSWER:

```
CLARE
```

For additional reference, these are the trivia that are visible when the weave is complete:

```
C 2001  ** Mir space station falls to Earth
O 1635  ** Franco-Spanish war begins
U 1974   * Richard Nixon resigns presidency
N 1931   * Bela Lugosi stars in Dracula
T 1964   * The Beatles appear on the Ed Sullivan show
```

```
B 2000  ** Geocaching is born
E 1310  ** Saint Humility dies in Florence on May 22
N 1940   * When You Wish Upon A Star wins Academy Award
D 2011   * Space shuttle Discovery is retired
S 1954  ** Lord of the Flies is published by William Golding
```

```
I 1620   * Mayflower lands at Plymouth Rock
N 1841  ** President Harrison dies in office
D 2002  ** Rudy Giuliani is knighted (honorary)
E 2003  ** Saddam Hussein captured by American Troops
X 1968  ** Hurricane Gladys devastates the Caribbean
```

```
I 2007   * Seventh book in Harry Potter series published
N 1913  ** Death Valley sets record 134 degrees
T 1973  ** Spiro T. Agnew resigns as Vice President
O 1455  ** First printed Bible published by Johannes Gutenberg
T 1991   * Soviet Union is dissolved
```

```
I 1701  ** Captain Kidd is hanged for piracy
T 1982   * John Belushi dies of a drug overdose
L 1227 *** Founder of Mongolian empire Genghis Khan dies
E 1202  ** Leonardo Fibonacci introduces zero to European math
S 1873  ** Economic panic sparks multinational depression era
```

1.10 Locate the Letter

(Mandatory Puzzle) Players must study the video of the Doctor's journey through time to figure out where he lost the envelope.

Open Time Period

Location

Name And Address: Letterman Digital Arts Center Park in Presidio, Statue of Eadweard Muybridge

See the "Location: Letterman" for details.

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players found a strange pattern in the eras that Doctor When has bounced to...which indicates that the next place he'll materialize is the Big Bang!
- The players were able to view Doctor When at the Big Bang through the time machine's View-O-Scope
- The Doctor has asked not to be returned to 2012, but rather sent to Paine Memorial High School on May 31, 1986 at 2 PM.

Props

(No new props for this puzzle)

Staff Instructions

N/A

Detailed Description

Careful study of the video log from the View-O-Scope reveals that Doctor When had the envelope in all scenes up until Vertigo, during which he lost it. The View-O-Scope message log will also display "mass loss detected."

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- Review the View-O-Scope log
- Carefully observe which scenes Doctor When has the envelope and which ones he doesn't.

Puzzle Answer

Ft. Point in San Francisco around 1958.

Puzzle Solution

Simply review the footage from the Calibration puzzle, paying attention to the envelope. Observe that the footage where it is lost was shot at Ft. Point.

1.11.00 Role Puzzles

(Optional Puzzles) Directions on how to keep track of which teams do which role puzzles.

Open Time Period

(See Consolidator 1 or 2)

Location

(See Consolidator 1 or 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Staff instructions for Particle Zoo
- Staff instructions for Redacted Puzzle
- Staff instructions for Pulp SF Puzzle
- Staff instructions for Balance Sheet
- Staff instructions for Income Statement
- Team vs. Role Puzzle check off grid

Staff Instructions

(See Consolidator 1 or 2)

Puzzles At This Site: All five role puzzles...but most teams will only get one.

Where To Get Materials: GC HQ

Setup Instructions: (See Consolidator 1 or 2)

Handout Instructions:

Onsite Staff: Whenever you hand out a role puzzle to a team, enter a slash in the appropriate cell of the "Teams vs. Role Puzzles Grid" online Google Doc.

Hints: Teams have been instructed to call GC; if you familiarize yourself with the attached hints feel free to assist

Answers: Teams may give answers to either onsite staff or GC HQ. Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

The "Consolidation 1" event Staff Instructions will then tell you what activity to next assign the team.

Site Close Down: (See Consolidator 1 or 2)

Other Instructions: (See Consolidator 1 or 2)

Detailed Description

Hints

n/a

Puzzle Answer

Puzzle Solution

1.11.01 Pulp Science Fiction Story

(Optional Puzzle (JOURNALISM)) A pulp science fiction story written by Doctor When is discovered in the past.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Pulp Science Fiction
- Act II: 16 copies of Peach Frontier version of Pulp Science Fiction

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

Act I

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "Wesley When." Is it just a coincidence...some other Wesley When from the past? Or was it our very own Doctor When leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask the lab assistant onsite for the Pulp Science Fiction Research Project.]

Act II

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "C.L. Chronos." Is it just a coincidence...some other C.L. Chronos from the past? Or was it our very own Prof. Chronos leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask

the lab assistant onsite for the Pulp Science Fiction Research Project.]

SUPPLEMENTAL EMAIL--BOTH ACTS

Research Project Title: Pulp Science Fiction
Objective: Analyze 1950s pulp science fiction story to determine if it's a secret message
Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

Check the Fermi decouplers? Let's see... wow, good thing we checked them! They were about to blow, and no good can come of blown Fermi decouplers. Okay, it looks like the machine is running more smoothly now.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

After the accident, a scan of the historical record discovers a 1930s pulp science fiction story written by Doctor When or Professor Chronos (depending on whether the puzzle is delivered in Act I or II). Perhaps the Doctor/Professor hid a message in it!

This puzzle is intended to engage the skills that a team of journalists are likely to have.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- If the players are completely stuck, remind them that the last part of the About the Author section says that the author worked really hard on the title - maybe that contains a clue.

- If they're still stuck, note that the lab computer has done a grammar analysis and, strangely, there are no participles, gerunds, infinitives, or other verbal forms - just regular verbs.

- If they're looking at verb tenses but are trying to put them in groups of three (or something similar), remind them that the About the Author section says something about working carefully on each individual sentence. Maybe the verbs are grouped by sentence...

- It's possible that some teams may not know enough, or know too much, about verb tenses. All verbs in this story appear (are meant to be) either in past, present, or future TIME, and forms such as "will succeed" and contractions such as "I'll kill" are considered part of the same verb. Aspects are irrelevant - "he ran" and "he was running" both count as past verbs.

- It's also possible that there may some confusion about what constitutes a sentence, especially within quotes (or in the sentences describing the sign). The demarcations here are simple - a sentence ends whenever a period, exclamation point, or question mark appear.

- Since there are three tenses (times) - past, present, future - could that suggest a ternary code?

- As an extra hint, the first letter after each appearance of the word "secret" spells TERNARY.

- VERY COMMONLY, teams may be looking at verb tenses and sentences correctly and be thinking about ternary, but be stuck on the idea of "past = 0, present = 1, ...". Remind them that a good ternary code not only uses three values (0, 1, 2), but also has three digits/places. Maybe the three tenses correspond to places/digits (9's place, 3's place, 1's place) instead of the numerals (0, 1, 2) in those places.

Puzzle Answer

CHECK FERMI DECOUPLERS

Puzzle Solution

- All verbs in the story have past, present, or future tense (time).

- For each sentence, count the number of verbs in past, present, and future tense (time), and form a three-digit ternary number, with the past verbs

forming the 9's digit, the present verbs the 3's digit, and the future verbs the 1's digit.

- (Sentences end if and only if a period (not an ellipsis), question mark, or exclamation point appears.)

- Verb counts are as follows (format is past/present/future):

- Paragraph 1: (202,022,100,200,011)

- Paragraph 2: (110,012,202,202,012,200)

- Paragraph 3: (001,020,202,012,200)

- Paragraph 4: (010,120,111,111,001,201)

- This translates to THIRDLETTERAFTERCOMMAS.

- Reading the third letter after each comma (not counting spaces or punctuation) gives CHECKFERMIDECOUPLERS.

1.11.02a Balance Sheet Puzzle

(Optional Puzzle (INVESTOR)) An unusual financial balance sheet reveals instructions on how to raise money.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Balance Sheet
- Act II: 16 copies of Peach Frontier version of Balance Sheet
- File:Balance Sheet Puzzle V7.pdf

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR INVESTOR TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> We seem to have run into a little bump in the road on our way to rescuing Doctor When. It's not a technical problem. Rather (and this is so embarrassing) it seems we've run out of money.
>
> Would you please help? [Ask the lab assistant for the "Balance Sheet" research project.] When you're done see any lab assistant or call the Institute and speak with any lab assistant.

SUPPLEMENTAL EMAIL

> Research Project Title: Balance Sheet
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

> Why of course! All we have to do is use the time machine to make an investment in the distant past. And then by the miracle of compound interest we'll be swimming in money today! We'll get right on that.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Trenchwood Institute (or Peach Frontier Laboratories) has run out of money. The game fairy (Chronos or When) asks the players to fix the errors in the lab's financial balance sheet, which doesn't seem to use the same rules as normal balance sheets. After fixing the errors, they can scrutinize the sheet to uncover hidden instructions on how to solve the lab's financial woes.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

(waiting for Wei-Hwa to upload Word document)

How Confused Players Describe Which Puzzle They're Working On

"Consolidated Balance Sheet For Department Of Defense"

Common Sticking Points

Sticking Point	Suggested Suggestion
Didn't solve for two missing numbers first	"Have you found the two missing figures?"
Can't figure out why totals add up to 0, i.e., that it's mod 24.	"That is odd. What kind of strange arithmetic could possibly have both 72 and 24 equal to zero?"
Don't make the intuitive leap to also think about the numbers as times.	"I wonder why he/she used an arithmetic that goes up to 24 and then starts back at zero?"

Puzzle Answer

INVEST CENT IN PAST

Puzzle Solution

Typical Solve Process

1. Figure out the two missing numbers (Yerevan = 15, Phuket = 10) by realizing that the summations are done mod 24.
2. Realize from the mod 24 and the "Department Of Defense" references that the numbers can also be interpreted as "military time."
3. Look up the UTC time zone offsets for each location referenced.
4. Convert each foreign time to its equivalent simultaneous time in San Mateo, i.e., "if it's 12:00 in Easter Island, what time is it here?" (assume all times are *standard).*
5. Index the resulting numbers into the alphabet

Puzzle Data

Assets	As printed	UTC	Delta	Local time	Letter
Current					
Cash (Pacific Standard Trust)	9	-8	+0 = PST	9	I
Short-term investments, Managua Money Market Fund	16	-6	-2 = PST	14	N
Accounts receivable, Seoul Food Products	15	+9	+7 = PST	22	V
Inventory, Broome, AU janitorial supplies	21	+8	-16 = PST	5	E
Notes receivable, Libyan Aviation	5	+2	+14 = PST	19	S
Pre-paid rent, Latvian Laboratory	6	+2	+14 = PST	20	T
Total Current	0				
Long-Term Assets					
Equipment, Yerevan University	**15**	+4	-12 = PST	3	C
Building, Pago Pago tachyon storage facility	2	-11	+3 = PST	5	E
Long-Term Investments, Buenos Aires Bonds	19	-3	-5 = PST	14	N
Ulaanbaatar administrative yurts	12	+8	+8 = PST	20	T
Total Long-Term	0				

Liabilities	As printed	UTC	Delta	Local time	Letter
Liabilities					
Gravina Island Bridge Loan	8	-9	+1 = PST	9	I
Accounts Payable, Easter Island Head Office	16	-6	-2 = PST	14	N
Total Liabilities	0				
Net worth					
Contributed capital, Pyongyang People's Victory Fund	9	+9	+7 = PST	16	P
Reserved stock, Vanuatu Hedge Partners	20	+11	-19 = PST	1	A
Reserves, Phuket All-Services Bank	**10**	+7	+9 = PST	19	S
Retained earnings, Margilan Maritime Credit Union	9	+5	+11 = PST	20	T
Total Net Worth	0				

1.11.02b Income Statement

(Optional Puzzle (INVESTOR)) Followup to Balance Sheet; bizarre income statement reveals another message.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Income Statement
- Act II: 16 copies of Peach Frontier version of Income Statement

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions: If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

> Uh, oh... We seem to have encountered a bit more difficulty with our finances. Please see the lab assistant at your current location and ask for the Income Statement Research Project.

SUPPLEMENTAL EMAIL

> Research Project Title: Income Statement
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Why of course! Using other people's money is the successful way to fund any venture! We'll get right on it.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Intended Solve Process

1. Notice all the times are valid non-military times.
2. Solve for the one missing number (Rent = 3:02 AM) using standard clock arithmetic
3. Notice that the top section corresponds to AM ("Accumulated Monies") and the bottom section corresponds to PM ("Paid Monies"). Some players may especially clued into this because "Accumulated Monies" and "Paid Monies" are *not* standard
4. Notice that there are exactly 12 words in each section. ("Timeline-Adjustments" and "Timeline-Restoration" each count as one word since they have hyphens.) This should suggest 12 hours.
5. Notice that the income statement is printed in a fixed-width font. This suggests that counting characters is important.
6. Now the puzzle becomes a simple look up: for example, "m:n AM" means look up the n-th character of the m-th word in the AM section.

Puzzle Data

Revenues (Accumulated Monies)		
Sales	11:14 PM	O
Service	6:09 PM	T
Consulting	9:13 AM	H
Fees	1:02 AM	E
Interest	1:01 AM	R
Tachyonography	12:09 AM	-
Fortune Telling	9:12 AM	P
Timeline-Adjustments	1:02 AM	E
	3:02 PM	O
Expenses (Paid Monies)		
COGS	9:12 AM	P
Particles	2:07 AM	L
Depreciation	12:17 AM	E
Butterflies	3:06 PM	S
Dinosaurs	11:09 PM	-
Insurance	2:05 AM	M
Rent	**3:02 AM**	O
Timeline-Restoration	1:05 AM	N
Utilities	1:02 AM	E
	9:05 AM	Y

Common Sticking Points

Sticking Point	**Suggested Suggestion**
Skipped figuring out the missing number	
Can't figure out how to calculate missing number	"The top section seems to add up just like times should."
Can't figure out what to do with the times.	"The hours go from up to 12. Is there 12 of anything else?" Or "It's interesting that the largest number of minutes is 17."

Puzzle Answer

OTHER-PEOPLES-MONEY

Puzzle Solution

Triple index the location names: section from am/pm, line from hour, letter from minute.

1.11.03 Particle Zoo

(Optional Puzzle (SCIENTIST)) Players need to classify a large number of "particles" (similar images).

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Particle Zoo
- Act II: 16 copies of Peach Frontier version of Particle Zoo

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR SCIENTIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> It seems that when the time machine malfunctioned, it ignited a proliferation of new elementary particles. We think that we need to include these new particles in our calculations as we continue to tune the tine machine, but we're not exactly how to approach the problem. Ask the lab assistant onsite for the Particle Zoo research project. Call the lab and speak with any lab assistant when you're done.

SUPPLEMENTAL EMAIL

> Research Project Title: Particle Zoo
> Objective: Find out how to deal with proliferation of particles caused by time machine malfunction
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Of *course*! Chronozoic spacetime field theory is the *perfect* theoretical approach to figuring out how to tune the time machine to account for these new particles! In fact, it's easy - we can make the adjustments almost instantly.

> There - we're done. Now we can send Doctor When to 1986 just like he requested. We've opened a portal for him and are sending him back to school!

Enter code 202751 in the View-O-Scope remote access program, and then we can see if it worked. I'll hang up now and watch as well. If you need to, you can call us at the lab after you watch the Doctor on the View-O-Scope.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Players receive a printout with 23 columns of images, and need to classify those images into sets. Having done so, they figure out letters for each set, which they then must figure out how to order correctly in order to read the final message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- There are clearly "groups" of symbols that belong together. A good first step is to identify what the groups are. (Note that exact names don't matter).

- There are 30 groups in total. (The toughest group to be precise about is probably the pizza logos/signs.)

- Note that if two or more images from one group appear in a single column, they always appear together.

- That's because the order is always consistent. In fact, after classifying the groups, the second key step is to figure out the order of the groups, from examining the orders of the symbols in each individual column. Columns with many symbols are good places to start.

- There are lots of symbols in some columns - 1, 5, 9, 15 are some examples. Does that suggest anything?

- The column numbers represent letters (for example, 1, 5, 9, 15 are a, e, i, o respectively).

- Each group appears six times, yielding six letters. How do we order the letters?

- Hmmm. Check the flavor text. What are these particles called?

- They're called zuons. And some of the letter combos might be suspicious - try the one containing a Q.

- D,I,Q,S,S,U anagrams to SQUIDS. Hey, that's an animal!

- "Zuons" - this is a "zoo" of particles. Each group anagrams to an animal word.

- Some of the anagrams are easy; others are pretty hard. In fact, you may never have heard of some of them before, and would need an anagram solver with a large dictionary to find. The toughest ones are probably OCELOT, NUTRIA, DUGONG, and YORKIE.

- What now? Well, you've got a lot of animal names - have you written them all down? In order?

- Write the animals in the order of the groups. Read down the first letters of each.

202751

Puzzle Answer

CHRONOZOIC SPACETIME FIELD THEORY

Puzzle Solution

1) Players receive pages with columns of images. These images belong to 30 "groups", such as peace signs, balls, and moons.

2) Players must figure out what the groups are, and the order of the groups. The order is consistent in every column, but each column only contains images from some of the groups.

3) The order of the groups is as follows. (Exact names don't matter.) The numbers in parentheses indicate the column(s) that disambiguates the order of that group and the next.

```
Lamp (5,15,20)
Star (18,20)
Peace sign (20)
Triangle (20)
Christmas ornament (18)
Dial or gauge (5,18,19)
No smoking sign (5,18)
Hole or window (9)
Globe or Earth (1,7,21)
Asterisk (21)
Ball (9)
Exclamation point (16)
Trivial Pursuit piece (1,3)
Red circle (1)
Black & yellow travel sign (5,12)
Face (12)
Ancient coin (1,9,13,16)
Screw (5,9,13)
Keyhole (5,18)
Clock (5,20)
Handicapped emblem (5,19)
Dog (18)
Bolt (4)
Moon (14,15,21)
Arrow (14,15)
Green circle (5,18)
Pizza logo (5,18)
Sun (5,15,18,20)
Shower holes; may be mistaken for phone speaker holes or something similar (9,15,18)
Blue & white food/drink sign
```

4) Next, write down the column numbers that each symbol group appears in. For instance, the lamp appears in columns 3, 5, 15, 15, 20, and 25. (This includes appearing twice in column 15.)

5) Column numbers become letters (1=A, 2=B, etc.) For instance, the letters for the lamp group are C, E, O, O, T, Y.

6) Each group's letters anagram to the name of an animal (e.g., the lamp group anagrams to COYOTE). The animals are:

```
Lamp        -        COYOTE
Star        -        HORNET
Peace sign  -        RABBIT
Triangle    -        OCELOT
Christmas ornament - NUTRIA
Dial or gauge -      OSPREY
No smoking sign -    ZEBRAS
Hole        -        ORIOLE
Globe or Earth -     IGUANA
Asterisk    -        COUGAR
Ball        -        SQUIDS
Exclamation point -  PIGEON
Triv. Purs. piece -  ALPACA
Red circle  -        CAIMAN
B & Y travel sign -  EAGLES
Face        -        TURTLE
Ancient coin -       IMPALA
Screw       -        MAGPIE
Keyhole     -        ERMINE
Clock       -        FERRET
Handicapped emblem - IBEXES
Dog         -        EGRETS
Bolt        -        LIZARD
Moon        -        DUGONG
Arrow       -        TOUCAN
Green circle -       HERONS
Pizza logo  -        EARWIG
Sun         -        OYSTER
Shower holes -       RHINOS
Blue & white sign -  YORKIE
```

7) The first letters of each animal, in order, give CHRONOZOIC SPACETIME FIELD THEORY, the answer.

Files for the Act 1 and Act 2 versions, respectively:

File:Proliferation of Particles.pdf File:Proliferation of Particles Act 2.doc

1.11.04 (REDACTED) Redaction Agency Puzzle

(Optional Puzzle (GOVERNMENT)) Optional role puzzle--government. Teams are told that there is a suspected mole at the lab.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Redaction Agency Puzzle internal email [3] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-acti.pdf)
- Act II: 16 copies of Peach Frontier version of Redaction Agency internal email [4] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-actii.pdf)
- 48 copies--A page from a scientific paper [5] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/sci-paper-to-print.pdf) . Give out three copies per team.
- 16 copies--A bunch of strips that assemble to form the first page of the secret agent's instruction document [6] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/crap-instructions-toprint.pdf) . This should be printed out, the upper-left corner cut off and thrown away, and the rest run through Wei-Hwa's paper shredder. These strips are in a ziplok bag.

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR GOVERNMENT TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> One of our tech writers at the lab has suddenly disappeared. We suspect he might have actually been a secret agent working for some other organization. This handout will tell you everything you need to know.

SUPPLEMENTAL EMAIL

> Research Project Title: Redaction Agency
> Objective: Find out what information has been compromised and who the secret agent is working for
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Ah, so Mr. Molson was a mole! (And not just the son of one!) I should have expected he was a Canadian--those Canadians are always

> stirring up trouble. Lucky for us those northern barbarians wouldn't know a working time machine if it blew up in their faces! Not that a time machine is likely to blow up. Well, you know what I mean.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online Teams vs. Role Puzzles Grid (https://docs.google.com/spreadsheet/ccc?key=0ApFpcABekMwDdHlSR1pFMUd5SWI0VzlfcWFRSUNLbnc#gid=0) .

Site Close Down: See Consolidator 1 or 2

Detailed Description

Optional role puzzle--government. Teams are told that there is a suspected mole at the lab and is given enough information to find the mole's secret message. Each team receives a (printed) e-mail message that says:

> A small crisis has just come up at the lab that we think your group would be able to help with. One of our tech writers, Antoine Molson, has suddenly disappeared. We have reason to suspect that he might have been a mole from some external group, possibly connected to some government agency that is trying to keep tabs on our groundbreaking work. Mostly we base this suspicion on the fact that we couldn't ever understand the documents that he revised for us in preparation for publication to scientific journals (he just assured us that that's what professional scientific writing looks like). We're sending you two copies of a sample of some recent writing he did for us, and some awfully suspicious stuff we found in his office shredder. If he's trying to send some secret messages to his superiors we bet it's in there somehow. See if you can find any secret messages and, ideally, deduce who he's working for.

They also receive three copies of a page of a scientific paper filled with technobabble:

> Whereas, the redirection of the muons are of no consequence to the build, virtually reappearing in their preassigned loci near the neutron. The experiments are immensely and largely underlain by minimizing the stationary compressors that momentarily produce conducive energy to the semipermeable tanks. Determining the sensitivities of the particles is not a complex issue. Interestingly, the oversensitiveness effects a painful task; as variegating vicissitudes can produce femtometers of defects, they must then be appropriately counterbalanced by a sustainable abridgement of joules to exploit topographical complexity. Chiefly, the logistics of execution is also subject to exhibited vulnerabilities. To conjoin any indispensable extractions, many roentgens of particles must necessarily be prominently demodulated as extra fission, division, or multiplication would undoubtedly trump any resistances tightly sighted near some of the finickier obstacles. Generally, decontaminating the chronological effects needs corrected plausible tests at present. It is deducible that as technological sophistications proportionately increase, initial estimates of variables often upset the careful amounts of substantiated yet precise correspondences that are paramount to the safer profits of this project. The unaccounted decay of neutrinos means that if a numerical pattern of substantial tangibility is superabundant, then redeploying nonphysical methods becomes vital so as not to implant any defects. Problematically, a funny and curious sight can be seen when a fermion (that is, an individual top quark) is seen to combine with a buildup of close to eighty transformed neutrinos. Traditionally, perpetual composition of such deceptive groupings would, by analogous reasoning, override the neutrinos' necessarily natural default effects and imbue the boson with electrons and similar leptons. But here, as their energy is bound to that of at most eighty microteslas, the excess can bleed off and the certifiably perfect cloud of neutrinos is betaken by receptive muons. Our reckoning is that a gluon entity is automatically birthed, and we suspect that such morbidity is substantively different, yet artificial.

Finally, team also receives a bag of shredded paper.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This puzzle should be pretty straightforward -- none of our playtest teams needed hints. Possibilities:

- If a team feels they shouldn't be reassembling the shredded strips, hint that they probably should.

The biggest sticking point might be where a team has no idea what the last step is.

- Suggest to them to count the letters in each of the remaining words.
- Ask them if most, if not all, of those counts all have something in common.
- Ask them what a really simple extraction mechanism that only applies to odd words could be.

If a team is unwilling to search for "poutine", prod them to.

If you see a team with almost all of the message but don't realize they're done -- try to help them realize they're done.

Puzzle Answer

The solver should find out that the mole has sent these messages to his headquarters, the (??)daction Agency:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters.

There are five messages hidden in the document: "REQUESTING RETURN", "MISSING MR. BIG", "SUBJECT IS NUTS BUT HARMLESS", "CLIMATE UNCOMFORTABLY HOT", and "ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE". The team should be able to give you these messages and interpret them -- meaning that the agent hasn't found any important data, and has fled the lab to his home country of Canada. (Mr. Big is a brand of candy bar, and poutine is a cheese and shredded potatoes dish.)

Puzzle Solution

First, the team must assemble the shredded paper to get the first page of a document. Unfortunately the upper-left corner of the page is missing, so the team cannot figure out the entire contents of the paper (which would reveal what agency the spy is working for). Also, the team only has the first page, so they do not have the last step of decoding, which is extracting the data. Here is the text of the assembled paper, with (M) representing missing text:

```
March 2012

(M)daction Agency

(M)nalysis Redaction Annotation Procedure

(M)g!
(M)hly-secure document intended only for the eyes of any agents working for
(M)ian Redaction Agency. Pleease familiarize yourself with the procedures
(M)his document and then shred it as soon as possible to avoid giving away your

(M)rview
(M)ommunication among agents must be encoded, one message per paragraph, using
(M) the procedures outlined in this document. We cover ''decoding'' first.
(M)edacting Short Words
(M)y words that are shorter than five letters should be redacted.
(M). Redacting Greek
(M)ny words that contain a substring that is a spelling of a Greek letter should be
redacted.
4. Redacting Homophones
Any words that are a homophone of another English word should be redacted. It is not
necessary that both words be in the same document.
5. Redacting Letter Sounds
Any words that sound like a series of letters read out loud should be redacted.  The
homophones here can be a bit rough.
6. Redacting Consecutive I’s
Any word containing three or more I’s without any intervening vowels (this includes
Y’s) should be redacted.
7. Redacting Stress-changing Words
Any words that change their syllabic stress depending on the part of speech of the word
(such as noun vs. verb, or noun vs. adjective) should be redacted.
8. Extracting the Message
If you have done all the other steps correctly, this last step is actually very easy to
carry out.  You should notice that all the remaining words in the document will have a length
page 1 of 3
```

From this, the team should be able to figure out that they need to cross out the words from the document according to rules 2 through 7. They need an "aha" to infer that the remaining words all have an odd number of letters, and that the messages can be read by taking the center letter of each of those words. Here is a table of all the words, along with a note of what step it gets redacted, and if not redacted, which letter it produces:

r	whereas	KEEP	m	determining	KEEP		chiefly	[3]greek		it	[2]len < 5	a	pro
	the	[2]len < 5		the	[2]len < 5		the	[2]len < 5		is	[2]len < 5		a
e	redirection	KEEP		sensitivities	[6]i i i	s	logistics	KEEP	c	deducible	KEEP	n	fun
	of	[2]len < 5		of	[2]len < 5		of	[2]len < 5		that	[2]len < 5		and
	the	[2]len < 5		the	[2]len < 5	u	execution	KEEP		as	[2]len < 5	i	cur
	muons	[3]greek	i	particles	KEEP		is	[2]len < 5	l	technological	KEEP		sig
	are	[2]len < 5		is	[2]len < 5		also	[2]len < 5		sophistications	[3]greek		can
	of	[2]len < 5		not	[2]len < 5		subject	[7]stress	i	proportionately	KEEP		be
	no	[2]len < 5		a	[2]len < 5		to	[2]len < 5		increase	[7]stress		see

q	consequence	KEEP		complex	[7]stress	b	exhibited	KEEP		initial	[6]i i i		wh
	to	[2]len < 5	s	issue	KEEP		vulnerabilities	[6]i i i	m	estimates	KEEP		a
	the	[2]len < 5	s	interestingly	KEEP		to	[2]len < 5		of	[2]len < 5	m	fer
	build	[4]homo:billed		the	[2]len < 5	j	conjoin	KEEP	a	variables	KEEP		tha
u	virtually	KEEP	i	oversensitiveness	KEEP		any	[2]len < 5	t	often	KEEP		is
e	reappearing	KEEP		effects	[5]lett:FX	e	indispensable	KEEP		upset	[7]stress		an
	in	[2]len < 5		a	[2]len < 5	c	extractions	KEEP		the	[2]len < 5		ind
	their	[4]homo:there	n	painful	KEEP		many	[2]len < 5	e	careful	KEEP		top
s	preassigned	KEEP		task	[2]len < 5	t	roentgens	KEEP	u	amounts	KEEP	a	qua
	loci	[2]len < 5		as	[2]len < 5		of	[2]len < 5		of	[2]len < 5		is
	near	[2]len < 5	g	variegating	KEEP	i	particles	KEEP	n	substantiated	KEEP		see
	the	[2]len < 5		vicissitudes	[6]i i i		must	[2]len < 5		yet	[2]len < 5		to
t	neutron	KEEP		can	[2]len < 5	s	necessarily	KEEP	c	precise	KEEP		con
	the	[2]len < 5		produce	[7]stress		be	[2]len < 5	o	correspondences	KEEP		wit
i	experiments	KEEP	m	femtometers	KEEP	n	prominently	KEEP		that	[2]len < 5		a
	are	[2]len < 5		of	[2]len < 5	u	demodulated	KEEP		are	[2]len < 5	l	bui
n	immensely	KEEP		defects	[7]stress		as	[2]len < 5	m	paramount	KEEP		of
	and	[2]len < 5		they	[2]len < 5	t	extra	KEEP		to	[2]len < 5		nea
g	largely	KEEP		must	[2]len < 5	s	fission	KEEP		the	[2]len < 5		to
r	underlain	KEEP		then	[2]len < 5		division	[6]i i i	f	safer	KEEP		eig
	by	[2]len < 5		be	[2]len < 5		or	[2]len < 5		profits	[4]homo:prophets	f	tra
	minimizing	[6]i i i	r	appropriately	KEEP		multiplication	[3]greek		of	[2]len < 5	r	neu
	the	[2]len < 5	b	counterbalanced	KEEP		would	[4]homo:wood		this	[2]len < 5	i	trac
	stationary	[4]homo:stationery		by	[2]len < 5	b	undoubtedly	KEEP		project	[7]stress	e	per
e	compressors	KEEP		a	[2]len < 5	u	trump	KEEP		the	[2]len < 5	s	con
	that	[2]len < 5	i	sustainable	KEEP		any	[2]len < 5	o	unaccounted	KEEP		of
t	momentarily	KEEP	g	abridgement	KEEP	t	resistances	KEEP		decay	[5]lett:DK		suc
	produce	[7]stress		of	[2]len < 5	h	tightly	KEEP		of	[2]len < 5	p	dec
u	conducive	KEEP		joules	[4]homo:jewels		sighted	[4]homo:cited	r	neutrinos	KEEP		gro
	energy	[5]lett:NRG		to	[2]len < 5		near	[2]len < 5		means	[4]homo:miens		wo
	to	[2]len < 5		exploit	[7]stress		some	[2]len < 5		that	[2]len < 5		by
	the	[2]len < 5		topographical	[3]greek		of	[2]len < 5		if	[2]len < 5	o	ana
r	semipermeable	KEEP		complexity	[3]greek		the	[2]len < 5		a	[2]len < 5	o	rea
n	tanks	KEEP					finickier	[6]i i i		numerical	[3]greek		ove
						a	obstacles	KEEP	t	pattern	KEEP		the
						r	generally	KEEP		of	[2]len < 5	r	neu
						m	decontaminating	KEEP	a	substantial	KEEP	s	nec
							the	[2]len < 5		tangibility	[6]i i i	u	nat
						l	chronological	KEEP		is	[2]len < 5		def
							effects	[5]lett:FX	b	superabundant	KEEP		eff
							needs	[4]homo:kneads		then	[2]len < 5		and
						e	corrected	KEEP	l	redeploying	KEEP	b	imb
						s	plausible	KEEP	y	nonphysical	KEEP		the
						s	tests	KEEP	h	methods	KEEP	s	bos
							at	[2]len < 5	o	becomes	KEEP		wit
							present	[7]stress	t	vital	KEEP	t	ele
										so	[2]len < 5		and
										as	[2]len < 5	i	sim

										not	[2]len < 5	t	lept
										to	[2]len < 5		but
										implant	[7]stress		her
										any	[2]len < 5		as
										defects	[7]stress		the
													ene
													is
												u	bou
													to
													tha
													of
													at
													mo
													eigh
												t	mic
													the
													exc
													can
												e	ble
													off
													and
													the
												f	cer
													per
												o	clo
													of
												r	neu
													is
													bet
													by
												p	rec
													mu
													our
												o	rec
													is
													tha
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												u	glu
													ent
													is
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													birt
													and
													we
													sus
													tha
													suc
												i	mo

												is
											n	sub
											e	diff
												yet
												arti

Reading the letters for each paragraph (and adding spaces and punctuation) gives the hidden messages:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters. Mr. Big is a Canadian candy bar, and poutine is a type of french fry and cheese snack.

1.11.00 Role Puzzles

(Optional Puzzles) Directions on how to keep track of which teams do which role puzzles.

Open Time Period

(See Consolidator 1 or 2)

Location

(See Consolidator 1 or 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Staff instructions for Particle Zoo
- Staff instructions for Redacted Puzzle
- Staff instructions for Pulp SF Puzzle
- Staff instructions for Balance Sheet
- Staff instructions for Income Statement
- Team vs. Role Puzzle check off grid

Staff Instructions

(See Consolidator 1 or 2)

Puzzles At This Site: All five role puzzles...but most teams will only get one.

Where To Get Materials: GC HQ

Setup Instructions: (See Consolidator 1 or 2)

Handout Instructions:

Onsite Staff: Whenever you hand out a role puzzle to a team, enter a slash in the appropriate cell of the "Teams vs. Role Puzzles Grid" online Google Doc.

Hints: Teams have been instructed to call GC; if you familiarize yourself with the attached hints feel free to assist

Answers: Teams may give answers to either onsite staff or GC HQ. Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

The "Consolidation 1" event Staff Instructions will then tell you what activity to next assign the team.

Site Close Down: (See Consolidator 1 or 2)

Other Instructions: (See Consolidator 1 or 2)

Detailed Description

Hints

n/a

Puzzle Answer

Puzzle Solution

1.11.01 Pulp Science Fiction Story

(Optional Puzzle (JOURNALISM)) A pulp science fiction story written by Doctor When is discovered in the past.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Pulp Science Fiction
- Act II: 16 copies of Peach Frontier version of Pulp Science Fiction

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

Act I

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "Wesley When." Is it just a coincidence...some other Wesley When from the past? Or was it our very own Doctor When leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask the lab assistant onsite for the Pulp Science Fiction Research Project.]

Act II

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "C.L. Chronos." Is it just a coincidence...some other C.L. Chronos from the past? Or was it our very own Prof. Chronos leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask

the lab assistant onsite for the Pulp Science Fiction Research Project.]

SUPPLEMENTAL EMAIL--BOTH ACTS

Research Project Title: Pulp Science Fiction
Objective: Analyze 1950s pulp science fiction story to determine if it's a secret message
Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

Check the Fermi decouplers? Let's see... wow, good thing we checked them! They were about to blow, and no good can come of blown Fermi decouplers. Okay, it looks like the machine is running more smoothly now.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

After the accident, a scan of the historical record discovers a 1930s pulp science fiction story written by Doctor When or Professor Chronos (depending on whether the puzzle is delivered in Act I or II). Perhaps the Doctor/Professor hid a message in it!

This puzzle is intended to engage the skills that a team of journalists are likely to have.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- If the players are completely stuck, remind them that the last part of the About the Author section says that the author worked really hard on the title - maybe that contains a clue.

- If they're still stuck, note that the lab computer has done a grammar analysis and, strangely, there are no participles, gerunds, infinitives, or other verbal forms - just regular verbs.

- If they're looking at verb tenses but are trying to put them in groups of three (or something similar), remind them that the About the Author section says something about working carefully on each individual sentence. Maybe the verbs are grouped by sentence...

- It's possible that some teams may not know enough, or know too much, about verb tenses. All verbs in this story appear (are meant to be) either in past, present, or future TIME, and forms such as "will succeed" and contractions such as "I'll kill" are considered part of the same verb. Aspects are irrelevant - "he ran" and "he was running" both count as past verbs.

- It's also possible that there may some confusion about what constitutes a sentence, especially within quotes (or in the sentences describing the sign). The demarcations here are simple - a sentence ends whenever a period, exclamation point, or question mark appear.

- Since there are three tenses (times) - past, present, future - could that suggest a ternary code?

- As an extra hint, the first letter after each appearance of the word "secret" spells TERNARY.

- VERY COMMONLY, teams may be looking at verb tenses and sentences correctly and be thinking about ternary, but be stuck on the idea of "past = 0, present = 1, ...". Remind them that a good ternary code not only uses three values (0, 1, 2), but also has three digits/places. Maybe the three tenses correspond to places/digits (9's place, 3's place, 1's place) instead of the numerals (0, 1, 2) in those places.

Puzzle Answer

CHECK FERMI DECOUPLERS

Puzzle Solution

- All verbs in the story have past, present, or future tense (time).

- For each sentence, count the number of verbs in past, present, and future tense (time), and form a three-digit ternary number, with the past verbs

forming the 9's digit, the present verbs the 3's digit, and the future verbs the 1's digit.

- (Sentences end if and only if a period (not an ellipsis), question mark, or exclamation point appears.)

- Verb counts are as follows (format is past/present/future):

- Paragraph 1: (202,022,100,200,011)

- Paragraph 2: (110,012,202,202,012,200)

- Paragraph 3: (001,020,202,012,200)

- Paragraph 4: (010,120,111,111,001,201)

- This translates to THIRDLETTERAFTERCOMMAS.

- Reading the third letter after each comma (not counting spaces or punctuation) gives CHECKFERMIDECOUPLERS.

1.11.02a Balance Sheet Puzzle

(Optional Puzzle (INVESTOR)) An unusual financial balance sheet reveals instructions on how to raise money.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Balance Sheet
- Act II: 16 copies of Peach Frontier version of Balance Sheet
- File:Balance Sheet Puzzle V7.pdf

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR INVESTOR TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> We seem to have run into a little bump in the road on our way to rescuing Doctor When. It's not a technical problem. Rather (and this is so embarrassing) it seems we've run out of money.
>
> Would you please help? [Ask the lab assistant for the "Balance Sheet" research project.] When you're done see any lab assistant or call the Institute and speak with any lab assistant.

SUPPLEMENTAL EMAIL

> Research Project Title: Balance Sheet
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

> Why of course! All we have to do is use the time machine to make an investment in the distant past. And then by the miracle of compound interest we'll be swimming in money today! We'll get right on that.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Trenchwood Institute (or Peach Frontier Laboratories) has run out of money. The game fairy (Chronos or When) asks the players to fix the errors in the lab's financial balance sheet, which doesn't seem to use the same rules as normal balance sheets. After fixing the errors, they can scrutinize the sheet to uncover hidden instructions on how to solve the lab's financial woes.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

(waiting for Wei-Hwa to upload Word document)

How Confused Players Describe Which Puzzle They're Working On

"Consolidated Balance Sheet For Department Of Defense"

Common Sticking Points

Sticking Point	Suggested Suggestion
Didn't solve for two missing numbers first	"Have you found the two missing figures?"
Can't figure out why totals add up to 0, i.e., that it's mod 24.	"That is odd. What kind of strange arithmetic could possibly have both 72 and 24 equal to zero?"
Don't make the intuitive leap to also think about the numbers as times.	"I wonder why he/she used an arithmetic that goes up to 24 and then starts back at zero?"

Puzzle Answer

INVEST CENT IN PAST

Puzzle Solution

Typical Solve Process

1. Figure out the two missing numbers (Yerevan = 15, Phuket = 10) by realizing that the summations are done mod 24.
2. Realize from the mod 24 and the "Department Of Defense" references that the numbers can also be interpreted as "military time."
3. Look up the UTC time zone offsets for each location referenced.
4. Convert each foreign time to its equivalent simultaneous time in San Mateo, i.e., "if it's 12:00 in Easter Island, what time is it here?" (assume all times are *standard).*
5. Index the resulting numbers into the alphabet

Puzzle Data

Assets	As printed	UTC	Delta	Local time	Letter
Current					
Cash (Pacific Standard Trust)	9	-8	+0 = PST	9	I
Short-term investments, Managua Money Market Fund	16	-6	-2 = PST	14	N
Accounts receivable, Seoul Food Products	15	+9	+7 = PST	22	V
Inventory, Broome, AU janitorial supplies	21	+8	-16 = PST	5	E
Notes receivable, Libyan Aviation	5	+2	+14 = PST	19	S
Pre-paid rent, Latvian Laboratory	6	+2	+14 = PST	20	T
Total Current	0				
Long-Term Assets					
Equipment, Yerevan University	**15**	+4	-12 = PST	3	C
Building, Pago Pago tachyon storage facility	2	-11	+3 = PST	5	E
Long-Term Investments, Buenos Aires Bonds	19	-3	-5 = PST	14	N
Ulaanbaatar administrative yurts	12	+8	+8 = PST	20	T
Total Long-Term	0				

Liabilities	As printed	UTC	Delta	Local time	Letter
Liabilities					
Gravina Island Bridge Loan	8	-9	+1 = PST	9	I
Accounts Payable, Easter Island Head Office	16	-6	-2 = PST	14	N
Total Liabilities	0				
Net worth					
Contributed capital, Pyongyang People's Victory Fund	9	+9	+7 = PST	16	P
Reserved stock, Vanuatu Hedge Partners	20	+11	-19 = PST	1	A
Reserves, Phuket All-Services Bank	**10**	+7	+9 = PST	19	S
Retained earnings, Margilan Maritime Credit Union	9	+5	+11 = PST	20	T
Total Net Worth	0				

1.11.02b Income Statement

(Optional Puzzle (INVESTOR)) Followup to Balance Sheet; bizarre income statement reveals another message.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Income Statement
- Act II: 16 copies of Peach Frontier version of Income Statement

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions: If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

> Uh, oh... We seem to have encountered a bit more difficulty with our finances. Please see the lab assistant at your current location and ask for the Income Statement Research Project.

SUPPLEMENTAL EMAIL

> Research Project Title: Income Statement
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Why of course! Using other people's money is the successful way to fund any venture! We'll get right on it.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Intended Solve Process

1. Notice all the times are valid non-military times.
2. Solve for the one missing number (Rent = 3:02 AM) using standard clock arithmetic
3. Notice that the top section corresponds to AM ("Accumulated Monies") and the bottom section corresponds to PM ("Paid Monies"). Some players may especially clued into this because "Accumulated Monies" and "Paid Monies" are *not* standard
4. Notice that there are exactly 12 words in each section. ("Timeline-Adjustments" and "Timeline-Restoration" each count as one word since they have hyphens.) This should suggest 12 hours.
5. Notice that the income statement is printed in a fixed-width font. This suggests that counting characters is important.
6. Now the puzzle becomes a simple look up: for example, "m:n AM" means look up the n-th character of the m-th word in the AM section.

Puzzle Data

Revenues (Accumulated Monies)		
Sales	11:14 PM	O
Service	6:09 PM	T
Consulting	9:13 AM	H
Fees	1:02 AM	E
Interest	1:01 AM	R
Tachyonography	12:09 AM	-
Fortune Telling	9:12 AM	P
Timeline-Adjustments	1:02 AM	E
	3:02 PM	O
Expenses (Paid Monies)		
COGS	9:12 AM	P
Particles	2:07 AM	L
Depreciation	12:17 AM	E
Butterflies	3:06 PM	S
Dinosaurs	11:09 PM	-
Insurance	2:05 AM	M
Rent	**3:02 AM**	O
Timeline-Restoration	1:05 AM	N
Utilities	1:02 AM	E
	9:05 AM	Y

Common Sticking Points

Sticking Point	**Suggested Suggestion**
Skipped figuring out the missing number	
Can't figure out how to calculate missing number	"The top section seems to add up just like times should."
Can't figure out what to do with the times.	"The hours go from up to 12. Is there 12 of anything else?" Or "It's interesting that the largest number of minutes is 17."

Puzzle Answer

OTHER-PEOPLES-MONEY

Puzzle Solution

Triple index the location names: section from am/pm, line from hour, letter from minute.

1.11.03 Particle Zoo

(Optional Puzzle (SCIENTIST)) Players need to classify a large number of "particles" (similar images).

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Particle Zoo
- Act II: 16 copies of Peach Frontier version of Particle Zoo

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR SCIENTIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> It seems that when the time machine malfunctioned, it ignited a proliferation of new elementary particles. We think that we need to include these new particles in our calculations as we continue to tune the tine machine, but we're not exactly how to approach the problem. Ask the lab assistant onsite for the Particle Zoo research project. Call the lab and speak with any lab assistant when you're done.

SUPPLEMENTAL EMAIL

> Research Project Title: Particle Zoo
> Objective: Find out how to deal with proliferation of particles caused by time machine malfunction
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Of *course*! Chronozoic spacetime field theory is the *perfect* theoretical approach to figuring out how to tune the time machine to account for these new particles! In fact, it's easy - we can make the adjustments almost instantly.

> There - we're done. Now we can send Doctor When to 1986 just like he requested. We've opened a portal for him and are sending him back to school!

Enter code 202751 in the View-O-Scope remote access program, and then we can see if it worked. I'll hang up now and watch as well. If you need to, you can call us at the lab after you watch the Doctor on the View-O-Scope.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Players receive a printout with 23 columns of images, and need to classify those images into sets. Having done so, they figure out letters for each set, which they then must figure out how to order correctly in order to read the final message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- There are clearly "groups" of symbols that belong together. A good first step is to identify what the groups are. (Note that exact names don't matter).

- There are 30 groups in total. (The toughest group to be precise about is probably the pizza logos/signs.)

- Note that if two or more images from one group appear in a single column, they always appear together.

- That's because the order is always consistent. In fact, after classifying the groups, the second key step is to figure out the order of the groups, from examining the orders of the symbols in each individual column. Columns with many symbols are good places to start.

- There are lots of symbols in some columns - 1, 5, 9, 15 are some examples. Does that suggest anything?

- The column numbers represent letters (for example, 1, 5, 9, 15 are a, e, i, o respectively).

- Each group appears six times, yielding six letters. How do we order the letters?

- Hmmm. Check the flavor text. What are these particles called?

- They're called zuons. And some of the letter combos might be suspicious - try the one containing a Q.

- D,I,Q,S,S,U anagrams to SQUIDS. Hey, that's an animal!

- "Zuons" - this is a "zoo" of particles. Each group anagrams to an animal word.

- Some of the anagrams are easy; others are pretty hard. In fact, you may never have heard of some of them before, and would need an anagram solver with a large dictionary to find. The toughest ones are probably OCELOT, NUTRIA, DUGONG, and YORKIE.

- What now? Well, you've got a lot of animal names - have you written them all down? In order?

- Write the animals in the order of the groups. Read down the first letters of each.

202751

Puzzle Answer

CHRONOZOIC SPACETIME FIELD THEORY

Puzzle Solution

1) Players receive pages with columns of images. These images belong to 30 "groups", such as peace signs, balls, and moons.

2) Players must figure out what the groups are, and the order of the groups. The order is consistent in every column, but each column only contains images from some of the groups.

3) The order of the groups is as follows. (Exact names don't matter.) The numbers in parentheses indicate the column(s) that disambiguates the order of that group and the next.

```
Lamp (5,15,20)
Star (18,20)
Peace sign (20)
Triangle (20)
Christmas ornament (18)
Dial or gauge (5,18,19)
No smoking sign (5,18)
Hole or window (9)
Globe or Earth (1,7,21)
Asterisk (21)
Ball (9)
Exclamation point (16)
Trivial Pursuit piece (1,3)
Red circle (1)
Black & yellow travel sign (5,12)
Face (12)
Ancient coin (1,9,13,16)
Screw (5,9,13)
Keyhole (5,18)
Clock (5,20)
Handicapped emblem (5,19)
Dog (18)
Bolt (4)
Moon (14,15,21)
Arrow (14,15)
Green circle (5,18)
Pizza logo (5,18)
Sun (5,15,18,20)
Shower holes; may be mistaken for phone speaker holes or something similar (9,15,18)
Blue & white food/drink sign
```

4) Next, write down the column numbers that each symbol group appears in. For instance, the lamp appears in columns 3, 5, 15, 15, 20, and 25. (This includes appearing twice in column 15.)

5) Column numbers become letters (1=A, 2=B, etc.) For instance, the letters for the lamp group are C, E, O, O, T, Y.

6) Each group's letters anagram to the name of an animal (e.g., the lamp group anagrams to COYOTE). The animals are:

```
Lamp        -        COYOTE
Star        -        HORNET
Peace sign  -        RABBIT
Triangle    -        OCELOT
Christmas ornament - NUTRIA
Dial or gauge -      OSPREY
No smoking sign -    ZEBRAS
Hole        -        ORIOLE
Globe or Earth -     IGUANA
Asterisk    -        COUGAR
Ball        -        SQUIDS
Exclamation point -  PIGEON
Triv. Purs. piece -  ALPACA
Red circle  -        CAIMAN
B & Y travel sign -  EAGLES
Face        -        TURTLE
Ancient coin -       IMPALA
Screw       -        MAGPIE
Keyhole     -        ERMINE
Clock       -        FERRET
Handicapped emblem - IBEXES
Dog         -        EGRETS
Bolt        -        LIZARD
Moon        -        DUGONG
Arrow       -        TOUCAN
Green circle -       HERONS
Pizza logo  -        EARWIG
Sun         -        OYSTER
Shower holes -       RHINOS
Blue & white sign -  YORKIE
```

7) The first letters of each animal, in order, give CHRONOZOIC SPACETIME FIELD THEORY, the answer.

Files for the Act 1 and Act 2 versions, respectively:

File:Proliferation of Particles.pdf File:Proliferation of Particles Act 2.doc

1.11.04 (REDACTED) Redaction Agency Puzzle

(Optional Puzzle (GOVERNMENT)) Optional role puzzle--government. Teams are told that there is a suspected mole at the lab.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Redaction Agency Puzzle internal email [3] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-acti.pdf)
- Act II: 16 copies of Peach Frontier version of Redaction Agency internal email [4] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-actii.pdf)
- 48 copies--A page from a scientific paper [5] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/sci-paper-to-print.pdf) . Give out three copies per team.
- 16 copies--A bunch of strips that assemble to form the first page of the secret agent's instruction document [6] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/crap-instructions-toprint.pdf) . This should be printed out, the upper-left corner cut off and thrown away, and the rest run through Wei-Hwa's paper shredder. These strips are in a ziplok bag.

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR GOVERNMENT TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> One of our tech writers at the lab has suddenly disappeared. We suspect he might have actually been a secret agent working for some other organization. This handout will tell you everything you need to know.

SUPPLEMENTAL EMAIL

> Research Project Title: Redaction Agency
> Objective: Find out what information has been compromised and who the secret agent is working for
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Ah, so Mr. Molson was a mole! (And not just the son of one!) I should have expected he was a Canadian--those Canadians are always

> stirring up trouble. Lucky for us those northern barbarians wouldn't know a working time machine if it blew up in their faces! Not that a time machine is likely to blow up. Well, you know what I mean.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online Teams vs. Role Puzzles Grid (https://docs.google.com/spreadsheet/ccc?key=0ApFpcABekMwDdHlSR1pFMUd5SWI0VzlfcWFRSUNLbnc#gid=0) .

Site Close Down: See Consolidator 1 or 2

Detailed Description

Optional role puzzle--government. Teams are told that there is a suspected mole at the lab and is given enough information to find the mole's secret message. Each team receives a (printed) e-mail message that says:

> A small crisis has just come up at the lab that we think your group would be able to help with. One of our tech writers, Antoine Molson, has suddenly disappeared. We have reason to suspect that he might have been a mole from some external group, possibly connected to some government agency that is trying to keep tabs on our groundbreaking work. Mostly we base this suspicion on the fact that we couldn't ever understand the documents that he revised for us in preparation for publication to scientific journals (he just assured us that that's what professional scientific writing looks like). We're sending you two copies of a sample of some recent writing he did for us, and some awfully suspicious stuff we found in his office shredder. If he's trying to send some secret messages to his superiors we bet it's in there somehow. See if you can find any secret messages and, ideally, deduce who he's working for.

They also receive three copies of a page of a scientific paper filled with technobabble:

> Whereas, the redirection of the muons are of no consequence to the build, virtually reappearing in their preassigned loci near the neutron. The experiments are immensely and largely underlain by minimizing the stationary compressors that momentarily produce conducive energy to the semipermeable tanks. Determining the sensitivities of the particles is not a complex issue. Interestingly, the oversensitiveness effects a painful task; as variegating vicissitudes can produce femtometers of defects, they must then be appropriately counterbalanced by a sustainable abridgement of joules to exploit topographical complexity. Chiefly, the logistics of execution is also subject to exhibited vulnerabilities. To conjoin any indispensable extractions, many roentgens of particles must necessarily be prominently demodulated as extra fission, division, or multiplication would undoubtedly trump any resistances tightly sighted near some of the finickier obstacles. Generally, decontaminating the chronological effects needs corrected plausible tests at present. It is deducible that as technological sophistications proportionately increase, initial estimates of variables often upset the careful amounts of substantiated yet precise correspondences that are paramount to the safer profits of this project. The unaccounted decay of neutrinos means that if a numerical pattern of substantial tangibility is superabundant, then redeploying nonphysical methods becomes vital so as not to implant any defects. Problematically, a funny and curious sight can be seen when a fermion (that is, an individual top quark) is seen to combine with a buildup of close to eighty transformed neutrinos. Traditionally, perpetual composition of such deceptive groupings would, by analogous reasoning, override the neutrinos' necessarily natural default effects and imbue the boson with electrons and similar leptons. But here, as their energy is bound to that of at most eighty microteslas, the excess can bleed off and the certifiably perfect cloud of neutrinos is betaken by receptive muons. Our reckoning is that a gluon entity is automatically birthed, and we suspect that such morbidity is substantively different, yet artificial.

Finally, team also receives a bag of shredded paper.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This puzzle should be pretty straightforward -- none of our playtest teams needed hints. Possibilities:

- If a team feels they shouldn't be reassembling the shredded strips, hint that they probably should.

The biggest sticking point might be where a team has no idea what the last step is.

- Suggest to them to count the letters in each of the remaining words.
- Ask them if most, if not all, of those counts all have something in common.
- Ask them what a really simple extraction mechanism that only applies to odd words could be.

If a team is unwilling to search for "poutine", prod them to.

If you see a team with almost all of the message but don't realize they're done -- try to help them realize they're done.

Puzzle Answer

The solver should find out that the mole has sent these messages to his headquarters, the (??)daction Agency:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters.

There are five messages hidden in the document: "REQUESTING RETURN", "MISSING MR. BIG", "SUBJECT IS NUTS BUT HARMLESS", "CLIMATE UNCOMFORTABLY HOT", and "ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE". The team should be able to give you these messages and interpret them -- meaning that the agent hasn't found any important data, and has fled the lab to his home country of Canada. (Mr. Big is a brand of candy bar, and poutine is a cheese and shredded potatoes dish.)

Puzzle Solution

First, the team must assemble the shredded paper to get the first page of a document. Unfortunately the upper-left corner of the page is missing, so the team cannot figure out the entire contents of the paper (which would reveal what agency the spy is working for). Also, the team only has the first page, so they do not have the last step of decoding, which is extracting the data. Here is the text of the assembled paper, with (M) representing missing text:

```
March 2012

(M)daction Agency

(M)nalysis Redaction Annotation Procedure

(M)g!
(M)hly-secure document intended only for the eyes of any agents working for
(M)ian Redaction Agency. Pleease familiarize yourself with the procedures
(M)his document and then shred it as soon as possible to avoid giving away your

(M)rview
(M)ommunication among agents must be encoded, one message per paragraph, using
(M) the procedures outlined in this document. We cover ''decoding'' first.
(M)edacting Short Words
(M)y words that are shorter than five letters should be redacted.
(M). Redacting Greek
(M)ny words that contain a substring that is a spelling of a Greek letter should be
redacted.
4. Redacting Homophones
Any words that are a homophone of another English word should be redacted. It is not
necessary that both words be in the same document.
5. Redacting Letter Sounds
Any words that sound like a series of letters read out loud should be redacted.  The
homophones here can be a bit rough.
6. Redacting Consecutive I’s
Any word containing three or more I’s without any intervening vowels (this includes
Y’s) should be redacted.
7. Redacting Stress-changing Words
Any words that change their syllabic stress depending on the part of speech of the word
(such as noun vs. verb, or noun vs. adjective) should be redacted.
8. Extracting the Message
If you have done all the other steps correctly, this last step is actually very easy to
carry out.  You should notice that all the remaining words in the document will have a length
page 1 of 3
```

From this, the team should be able to figure out that they need to cross out the words from the document according to rules 2 through 7. They need an "aha" to infer that the remaining words all have an odd number of letters, and that the messages can be read by taking the center letter of each of those words. Here is a table of all the words, along with a note of what step it gets redacted, and if not redacted, which letter it produces:

r	whereas	KEEP	m	determining	KEEP		chiefly	[3]greek		it	[2]len < 5	a	pro
	the	[2]len < 5		the	[2]len < 5		the	[2]len < 5		is	[2]len < 5		a
e	redirection	KEEP		sensitivities	[6]i i i	s	logistics	KEEP	c	deducible	KEEP	n	fun
	of	[2]len < 5		of	[2]len < 5		of	[2]len < 5		that	[2]len < 5		and
	the	[2]len < 5		the	[2]len < 5	u	execution	KEEP		as	[2]len < 5	i	cur
	muons	[3]greek	i	particles	KEEP		is	[2]len < 5	l	technological	KEEP		sig
	are	[2]len < 5		is	[2]len < 5		also	[2]len < 5		sophistications	[3]greek		can
	of	[2]len < 5		not	[2]len < 5		subject	[7]stress	i	proportionately	KEEP		be
	no	[2]len < 5		a	[2]len < 5		to	[2]len < 5		increase	[7]stress		see

q	consequence	KEEP		complex	[7]stress	b	exhibited	KEEP		initial	[6]i i i		wh
	to	[2]len < 5	s	issue	KEEP		vulnerabilities	[6]i i i	m	estimates	KEEP		a
	the	[2]len < 5	s	interestingly	KEEP		to	[2]len < 5		of	[2]len < 5	m	fer
	build	[4]homo:billed		the	[2]len < 5	j	conjoin	KEEP	a	variables	KEEP		tha
u	virtually	KEEP	i	oversensitiveness	KEEP		any	[2]len < 5	t	often	KEEP		is
e	reappearing	KEEP		effects	[5]lett:FX	e	indispensable	KEEP		upset	[7]stress		an
	in	[2]len < 5		a	[2]len < 5	c	extractions	KEEP		the	[2]len < 5		ind
	their	[4]homo:there	n	painful	KEEP		many	[2]len < 5	e	careful	KEEP		top
s	preassigned	KEEP		task	[2]len < 5	t	roentgens	KEEP	u	amounts	KEEP	a	qua
	loci	[2]len < 5		as	[2]len < 5		of	[2]len < 5		of	[2]len < 5		is
	near	[2]len < 5	g	variegating	KEEP	i	particles	KEEP	n	substantiated	KEEP		see
	the	[2]len < 5		vicissitudes	[6]i i i		must	[2]len < 5		yet	[2]len < 5		to
t	neutron	KEEP		can	[2]len < 5	s	necessarily	KEEP	c	precise	KEEP		con
	the	[2]len < 5		produce	[7]stress		be	[2]len < 5	o	correspondences	KEEP		wit
i	experiments	KEEP	m	femtometers	KEEP	n	prominently	KEEP		that	[2]len < 5		a
	are	[2]len < 5		of	[2]len < 5	u	demodulated	KEEP		are	[2]len < 5	l	bui
n	immensely	KEEP		defects	[7]stress		as	[2]len < 5	m	paramount	KEEP		of
	and	[2]len < 5		they	[2]len < 5	t	extra	KEEP		to	[2]len < 5		nea
g	largely	KEEP		must	[2]len < 5	s	fission	KEEP		the	[2]len < 5		to
r	underlain	KEEP		then	[2]len < 5		division	[6]i i i	f	safer	KEEP		eig
	by	[2]len < 5		be	[2]len < 5		or	[2]len < 5		profits	[4]homo:prophets	f	tra
	minimizing	[6]i i i	r	appropriately	KEEP		multiplication	[3]greek		of	[2]len < 5	r	neu
	the	[2]len < 5	b	counterbalanced	KEEP		would	[4]homo:wood		this	[2]len < 5	i	trac
	stationary	[4]homo:stationery		by	[2]len < 5	b	undoubtedly	KEEP		project	[7]stress	e	per
e	compressors	KEEP		a	[2]len < 5	u	trump	KEEP		the	[2]len < 5	s	con
	that	[2]len < 5	i	sustainable	KEEP		any	[2]len < 5	o	unaccounted	KEEP		of
t	momentarily	KEEP	g	abridgement	KEEP	t	resistances	KEEP		decay	[5]lett:DK		suc
	produce	[7]stress		of	[2]len < 5	h	tightly	KEEP		of	[2]len < 5	p	dec
u	conducive	KEEP		joules	[4]homo:jewels		sighted	[4]homo:cited	r	neutrinos	KEEP		gro
	energy	[5]lett:NRG		to	[2]len < 5		near	[2]len < 5		means	[4]homo:miens		wo
	to	[2]len < 5		exploit	[7]stress		some	[2]len < 5		that	[2]len < 5		by
	the	[2]len < 5		topographical	[3]greek		of	[2]len < 5		if	[2]len < 5	o	ana
r	semipermeable	KEEP		complexity	[3]greek		the	[2]len < 5		a	[2]len < 5	o	rea
n	tanks	KEEP					finickier	[6]i i i		numerical	[3]greek		ove
						a	obstacles	KEEP	t	pattern	KEEP		the
						r	generally	KEEP		of	[2]len < 5	r	neu
						m	decontaminating	KEEP	a	substantial	KEEP	s	nec
							the	[2]len < 5		tangibility	[6]i i i	u	nat
						l	chronological	KEEP		is	[2]len < 5		def
							effects	[5]lett:FX	b	superabundant	KEEP		eff
							needs	[4]homo:kneads		then	[2]len < 5		and
						e	corrected	KEEP	l	redeploying	KEEP	b	imb
						s	plausible	KEEP	y	nonphysical	KEEP		the
						s	tests	KEEP	h	methods	KEEP	s	bos
							at	[2]len < 5	o	becomes	KEEP		wit
							present	[7]stress	t	vital	KEEP	t	ele
										so	[2]len < 5		and
										as	[2]len < 5	i	sim

										not	[2]len < 5	t	lept
										to	[2]len < 5		but
										implant	[7]stress		her
										any	[2]len < 5		as
										defects	[7]stress		the
													ene
													is
												u	bou
													to
													tha
													of
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												yet
												arti

Reading the letters for each paragraph (and adding spaces and punctuation) gives the hidden messages:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters. Mr. Big is a Canadian candy bar, and poutine is a type of french fry and cheese snack.

1.11.00 Role Puzzles

(Optional Puzzles) Directions on how to keep track of which teams do which role puzzles.

Open Time Period

(See Consolidator 1 or 2)

Location

(See Consolidator 1 or 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Staff instructions for Particle Zoo
- Staff instructions for Redacted Puzzle
- Staff instructions for Pulp SF Puzzle
- Staff instructions for Balance Sheet
- Staff instructions for Income Statement
- Team vs. Role Puzzle check off grid

Staff Instructions

(See Consolidator 1 or 2)

Puzzles At This Site: All five role puzzles...but most teams will only get one.

Where To Get Materials: GC HQ

Setup Instructions: (See Consolidator 1 or 2)

Handout Instructions:

Onsite Staff: Whenever you hand out a role puzzle to a team, enter a slash in the appropriate cell of the "Teams vs. Role Puzzles Grid" online Google Doc.

Hints: Teams have been instructed to call GC; if you familiarize yourself with the attached hints feel free to assist

Answers: Teams may give answers to either onsite staff or GC HQ. Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

The "Consolidation 1" event Staff Instructions will then tell you what activity to next assign the team.

Site Close Down: (See Consolidator 1 or 2)

Other Instructions: (See Consolidator 1 or 2)

Detailed Description

Hints

n/a

Puzzle Answer

Puzzle Solution

1.11.01 Pulp Science Fiction Story

(Optional Puzzle (JOURNALISM)) A pulp science fiction story written by Doctor When is discovered in the past.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Pulp Science Fiction
- Act II: 16 copies of Peach Frontier version of Pulp Science Fiction

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

Act I

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "Wesley When." Is it just a coincidence...some other Wesley When from the past? Or was it our very own Doctor When leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask the lab assistant onsite for the Pulp Science Fiction Research Project.]

Act II

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "C.L. Chronos." Is it just a coincidence...some other C.L. Chronos from the past? Or was it our very own Prof. Chronos leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask

the lab assistant onsite for the Pulp Science Fiction Research Project.]

SUPPLEMENTAL EMAIL--BOTH ACTS

Research Project Title: Pulp Science Fiction
Objective: Analyze 1950s pulp science fiction story to determine if it's a secret message
Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

Check the Fermi decouplers? Let's see... wow, good thing we checked them! They were about to blow, and no good can come of blown Fermi decouplers. Okay, it looks like the machine is running more smoothly now.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

After the accident, a scan of the historical record discovers a 1930s pulp science fiction story written by Doctor When or Professor Chronos (depending on whether the puzzle is delivered in Act I or II). Perhaps the Doctor/Professor hid a message in it!

This puzzle is intended to engage the skills that a team of journalists are likely to have.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- If the players are completely stuck, remind them that the last part of the About the Author section says that the author worked really hard on the title - maybe that contains a clue.

- If they're still stuck, note that the lab computer has done a grammar analysis and, strangely, there are no participles, gerunds, infinitives, or other verbal forms - just regular verbs.

- If they're looking at verb tenses but are trying to put them in groups of three (or something similar), remind them that the About the Author section says something about working carefully on each individual sentence. Maybe the verbs are grouped by sentence...

- It's possible that some teams may not know enough, or know too much, about verb tenses. All verbs in this story appear (are meant to be) either in past, present, or future TIME, and forms such as "will succeed" and contractions such as "I'll kill" are considered part of the same verb. Aspects are irrelevant - "he ran" and "he was running" both count as past verbs.

- It's also possible that there may some confusion about what constitutes a sentence, especially within quotes (or in the sentences describing the sign). The demarcations here are simple - a sentence ends whenever a period, exclamation point, or question mark appear.

- Since there are three tenses (times) - past, present, future - could that suggest a ternary code?

- As an extra hint, the first letter after each appearance of the word "secret" spells TERNARY.

- VERY COMMONLY, teams may be looking at verb tenses and sentences correctly and be thinking about ternary, but be stuck on the idea of "past = 0, present = 1, ...". Remind them that a good ternary code not only uses three values (0, 1, 2), but also has three digits/places. Maybe the three tenses correspond to places/digits (9's place, 3's place, 1's place) instead of the numerals (0, 1, 2) in those places.

Puzzle Answer

CHECK FERMI DECOUPLERS

Puzzle Solution

- All verbs in the story have past, present, or future tense (time).

- For each sentence, count the number of verbs in past, present, and future tense (time), and form a three-digit ternary number, with the past verbs

forming the 9's digit, the present verbs the 3's digit, and the future verbs the 1's digit.

- (Sentences end if and only if a period (not an ellipsis), question mark, or exclamation point appears.)

- Verb counts are as follows (format is past/present/future):

- Paragraph 1: (202,022,100,200,011)

- Paragraph 2: (110,012,202,202,012,200)

- Paragraph 3: (001,020,202,012,200)

- Paragraph 4: (010,120,111,111,001,201)

- This translates to THIRDLETTERAFTERCOMMAS.

- Reading the third letter after each comma (not counting spaces or punctuation) gives CHECKFERMIDECOUPLERS.

1.11.02a Balance Sheet Puzzle

(Optional Puzzle (INVESTOR)) An unusual financial balance sheet reveals instructions on how to raise money.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Balance Sheet
- Act II: 16 copies of Peach Frontier version of Balance Sheet
- File:Balance Sheet Puzzle V7.pdf

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR INVESTOR TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> We seem to have run into a little bump in the road on our way to rescuing Doctor When. It's not a technical problem. Rather (and this is so embarrassing) it seems we've run out of money.
>
> Would you please help? [Ask the lab assistant for the "Balance Sheet" research project.] When you're done see any lab assistant or call the Institute and speak with any lab assistant.

SUPPLEMENTAL EMAIL

> Research Project Title: Balance Sheet
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

> Why of course! All we have to do is use the time machine to make an investment in the distant past. And then by the miracle of compound interest we'll be swimming in money today! We'll get right on that.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Trenchwood Institute (or Peach Frontier Laboratories) has run out of money. The game fairy (Chronos or When) asks the players to fix the errors in the lab's financial balance sheet, which doesn't seem to use the same rules as normal balance sheets. After fixing the errors, they can scrutinize the sheet to uncover hidden instructions on how to solve the lab's financial woes.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

(waiting for Wei-Hwa to upload Word document)

How Confused Players Describe Which Puzzle They're Working On

"Consolidated Balance Sheet For Department Of Defense"

Common Sticking Points

Sticking Point	Suggested Suggestion
Didn't solve for two missing numbers first	"Have you found the two missing figures?"
Can't figure out why totals add up to 0, i.e., that it's mod 24.	"That is odd. What kind of strange arithmetic could possibly have both 72 and 24 equal to zero?"
Don't make the intuitive leap to also think about the numbers as times.	"I wonder why he/she used an arithmetic that goes up to 24 and then starts back at zero?"

Puzzle Answer

INVEST CENT IN PAST

Puzzle Solution

Typical Solve Process

1. Figure out the two missing numbers (Yerevan = 15, Phuket = 10) by realizing that the summations are done mod 24.
2. Realize from the mod 24 and the "Department Of Defense" references that the numbers can also be interpreted as "military time."
3. Look up the UTC time zone offsets for each location referenced.
4. Convert each foreign time to its equivalent simultaneous time in San Mateo, i.e., "if it's 12:00 in Easter Island, what time is it here?" (assume all times are *standard).*
5. Index the resulting numbers into the alphabet

Puzzle Data

Assets	As printed	UTC	Delta	Local time	Letter
Current					
Cash (Pacific Standard Trust)	9	-8	+0 = PST	9	I
Short-term investments, Managua Money Market Fund	16	-6	-2 = PST	14	N
Accounts receivable, Seoul Food Products	15	+9	+7 = PST	22	V
Inventory, Broome, AU janitorial supplies	21	+8	-16 = PST	5	E
Notes receivable, Libyan Aviation	5	+2	+14 = PST	19	S
Pre-paid rent, Latvian Laboratory	6	+2	+14 = PST	20	T
Total Current	0				
Long-Term Assets					
Equipment, Yerevan University	**15**	+4	-12 = PST	3	C
Building, Pago Pago tachyon storage facility	2	-11	+3 = PST	5	E
Long-Term Investments, Buenos Aires Bonds	19	-3	-5 = PST	14	N
Ulaanbaatar administrative yurts	12	+8	+8 = PST	20	T
Total Long-Term	0				

Liabilities	As printed	UTC	Delta	Local time	Letter
Liabilities					
Gravina Island Bridge Loan	8	-9	+1 = PST	9	I
Accounts Payable, Easter Island Head Office	16	-6	-2 = PST	14	N
Total Liabilities	0				
Net worth					
Contributed capital, Pyongyang People's Victory Fund	9	+9	+7 = PST	16	P
Reserved stock, Vanuatu Hedge Partners	20	+11	-19 = PST	1	A
Reserves, Phuket All-Services Bank	**10**	+7	+9 = PST	19	S
Retained earnings, Margilan Maritime Credit Union	9	+5	+11 = PST	20	T
Total Net Worth	0				

1.11.02b Income Statement

(Optional Puzzle (INVESTOR)) Followup to Balance Sheet; bizarre income statement reveals another message.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Income Statement
- Act II: 16 copies of Peach Frontier version of Income Statement

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions: If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

> Uh, oh... We seem to have encountered a bit more difficulty with our finances. Please see the lab assistant at your current location and ask for the Income Statement Research Project.

SUPPLEMENTAL EMAIL

> Research Project Title: Income Statement
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Why of course! Using other people's money is the successful way to fund any venture! We'll get right on it.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Intended Solve Process

1. Notice all the times are valid non-military times.
2. Solve for the one missing number (Rent = 3:02 AM) using standard clock arithmetic
3. Notice that the top section corresponds to AM ("Accumulated Monies") and the bottom section corresponds to PM ("Paid Monies"). Some players may especially clued into this because "Accumulated Monies" and "Paid Monies" are *not* standard
4. Notice that there are exactly 12 words in each section. ("Timeline-Adjustments" and "Timeline-Restoration" each count as one word since they have hyphens.) This should suggest 12 hours.
5. Notice that the income statement is printed in a fixed-width font. This suggests that counting characters is important.
6. Now the puzzle becomes a simple look up: for example, "m:n AM" means look up the n-th character of the m-th word in the AM section.

Puzzle Data

Revenues (Accumulated Monies)		
Sales	11:14 PM	O
Service	6:09 PM	T
Consulting	9:13 AM	H
Fees	1:02 AM	E
Interest	1:01 AM	R
Tachyonography	12:09 AM	-
Fortune Telling	9:12 AM	P
Timeline-Adjustments	1:02 AM	E
	3:02 PM	O
Expenses (Paid Monies)		
COGS	9:12 AM	P
Particles	2:07 AM	L
Depreciation	12:17 AM	E
Butterflies	3:06 PM	S
Dinosaurs	11:09 PM	-
Insurance	2:05 AM	M
Rent	**3:02 AM**	O
Timeline-Restoration	1:05 AM	N
Utilities	1:02 AM	E
	9:05 AM	Y

Common Sticking Points

Sticking Point	**Suggested Suggestion**
Skipped figuring out the missing number	
Can't figure out how to calculate missing number	"The top section seems to add up just like times should."
Can't figure out what to do with the times.	"The hours go from up to 12. Is there 12 of anything else?" Or "It's interesting that the largest number of minutes is 17."

Puzzle Answer

OTHER-PEOPLES-MONEY

Puzzle Solution

Triple index the location names: section from am/pm, line from hour, letter from minute.

1.11.03 Particle Zoo

(Optional Puzzle (SCIENTIST)) Players need to classify a large number of "particles" (similar images).

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Particle Zoo
- Act II: 16 copies of Peach Frontier version of Particle Zoo

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR SCIENTIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> It seems that when the time machine malfunctioned, it ignited a proliferation of new elementary particles. We think that we need to include these new particles in our calculations as we continue to tune the tine machine, but we're not exactly how to approach the problem. Ask the lab assistant onsite for the Particle Zoo research project. Call the lab and speak with any lab assistant when you're done.

SUPPLEMENTAL EMAIL

> Research Project Title: Particle Zoo
> Objective: Find out how to deal with proliferation of particles caused by time machine malfunction
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Of *course*! Chronozoic spacetime field theory is the *perfect* theoretical approach to figuring out how to tune the time machine to account for these new particles! In fact, it's easy - we can make the adjustments almost instantly.

> There - we're done. Now we can send Doctor When to 1986 just like he requested. We've opened a portal for him and are sending him back to school!

Enter code 202751 in the View-O-Scope remote access program, and then we can see if it worked. I'll hang up now and watch as well. If you need to, you can call us at the lab after you watch the Doctor on the View-O-Scope.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Players receive a printout with 23 columns of images, and need to classify those images into sets. Having done so, they figure out letters for each set, which they then must figure out how to order correctly in order to read the final message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- There are clearly "groups" of symbols that belong together. A good first step is to identify what the groups are. (Note that exact names don't matter).

- There are 30 groups in total. (The toughest group to be precise about is probably the pizza logos/signs.)

- Note that if two or more images from one group appear in a single column, they always appear together.

- That's because the order is always consistent. In fact, after classifying the groups, the second key step is to figure out the order of the groups, from examining the orders of the symbols in each individual column. Columns with many symbols are good places to start.

- There are lots of symbols in some columns - 1, 5, 9, 15 are some examples. Does that suggest anything?

- The column numbers represent letters (for example, 1, 5, 9, 15 are a, e, i, o respectively).

- Each group appears six times, yielding six letters. How do we order the letters?

- Hmmm. Check the flavor text. What are these particles called?

- They're called zuons. And some of the letter combos might be suspicious - try the one containing a Q.

- D,I,Q,S,S,U anagrams to SQUIDS. Hey, that's an animal!

- "Zuons" - this is a "zoo" of particles. Each group anagrams to an animal word.

- Some of the anagrams are easy; others are pretty hard. In fact, you may never have heard of some of them before, and would need an anagram solver with a large dictionary to find. The toughest ones are probably OCELOT, NUTRIA, DUGONG, and YORKIE.

- What now? Well, you've got a lot of animal names - have you written them all down? In order?

- Write the animals in the order of the groups. Read down the first letters of each.

202751

Puzzle Answer

CHRONOZOIC SPACETIME FIELD THEORY

Puzzle Solution

1) Players receive pages with columns of images. These images belong to 30 "groups", such as peace signs, balls, and moons.

2) Players must figure out what the groups are, and the order of the groups. The order is consistent in every column, but each column only contains images from some of the groups.

3) The order of the groups is as follows. (Exact names don't matter.) The numbers in parentheses indicate the column(s) that disambiguates the order of that group and the next.

```
Lamp (5,15,20)
Star (18,20)
Peace sign (20)
Triangle (20)
Christmas ornament (18)
Dial or gauge (5,18,19)
No smoking sign (5,18)
Hole or window (9)
Globe or Earth (1,7,21)
Asterisk (21)
Ball (9)
Exclamation point (16)
Trivial Pursuit piece (1,3)
Red circle (1)
Black & yellow travel sign (5,12)
Face (12)
Ancient coin (1,9,13,16)
Screw (5,9,13)
Keyhole (5,18)
Clock (5,20)
Handicapped emblem (5,19)
Dog (18)
Bolt (4)
Moon (14,15,21)
Arrow (14,15)
Green circle (5,18)
Pizza logo (5,18)
Sun (5,15,18,20)
Shower holes; may be mistaken for phone speaker holes or something similar (9,15,18)
Blue & white food/drink sign
```

4) Next, write down the column numbers that each symbol group appears in. For instance, the lamp appears in columns 3, 5, 15, 15, 20, and 25. (This includes appearing twice in column 15.)

5) Column numbers become letters (1=A, 2=B, etc.) For instance, the letters for the lamp group are C, E, O, O, T, Y.

6) Each group's letters anagram to the name of an animal (e.g., the lamp group anagrams to COYOTE). The animals are:

```
Lamp        -        COYOTE
Star        -        HORNET
Peace sign  -        RABBIT
Triangle    -        OCELOT
Christmas ornament - NUTRIA
Dial or gauge -      OSPREY
No smoking sign -    ZEBRAS
Hole        -        ORIOLE
Globe or Earth -     IGUANA
Asterisk    -        COUGAR
Ball        -        SQUIDS
Exclamation point -  PIGEON
Triv. Purs. piece -  ALPACA
Red circle  -        CAIMAN
B & Y travel sign -  EAGLES
Face        -        TURTLE
Ancient coin -       IMPALA
Screw       -        MAGPIE
Keyhole     -        ERMINE
Clock       -        FERRET
Handicapped emblem - IBEXES
Dog         -        EGRETS
Bolt        -        LIZARD
Moon        -        DUGONG
Arrow       -        TOUCAN
Green circle -       HERONS
Pizza logo  -        EARWIG
Sun         -        OYSTER
Shower holes -       RHINOS
Blue & white sign -  YORKIE
```

7) The first letters of each animal, in order, give CHRONOZOIC SPACETIME FIELD THEORY, the answer.

Files for the Act 1 and Act 2 versions, respectively:

File:Proliferation of Particles.pdf File:Proliferation of Particles Act 2.doc

1.11.04 (REDACTED) Redaction Agency Puzzle

(Optional Puzzle (GOVERNMENT)) Optional role puzzle--government. Teams are told that there is a suspected mole at the lab.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Redaction Agency Puzzle internal email [3] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-acti.pdf)
- Act II: 16 copies of Peach Frontier version of Redaction Agency internal email [4] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-actii.pdf)
- 48 copies--A page from a scientific paper [5] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/sci-paper-to-print.pdf) . Give out three copies per team.
- 16 copies--A bunch of strips that assemble to form the first page of the secret agent's instruction document [6] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/crap-instructions-toprint.pdf) . This should be printed out, the upper-left corner cut off and thrown away, and the rest run through Wei-Hwa's paper shredder. These strips are in a ziplok bag.

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR GOVERNMENT TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> One of our tech writers at the lab has suddenly disappeared. We suspect he might have actually been a secret agent working for some other organization. This handout will tell you everything you need to know.

SUPPLEMENTAL EMAIL

> Research Project Title: Redaction Agency
> Objective: Find out what information has been compromised and who the secret agent is working for
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Ah, so Mr. Molson was a mole! (And not just the son of one!) I should have expected he was a Canadian--those Canadians are always

> stirring up trouble. Lucky for us those northern barbarians wouldn't know a working time machine if it blew up in their faces! Not that a time machine is likely to blow up. Well, you know what I mean.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online Teams vs. Role Puzzles Grid (https://docs.google.com/spreadsheet/ccc?key=0ApFpcABekMwDdHlSR1pFMUd5SWI0VzlfcWFRSUNLbnc#gid=0) .

Site Close Down: See Consolidator 1 or 2

Detailed Description

Optional role puzzle--government. Teams are told that there is a suspected mole at the lab and is given enough information to find the mole's secret message. Each team receives a (printed) e-mail message that says:

> A small crisis has just come up at the lab that we think your group would be able to help with. One of our tech writers, Antoine Molson, has suddenly disappeared. We have reason to suspect that he might have been a mole from some external group, possibly connected to some government agency that is trying to keep tabs on our groundbreaking work. Mostly we base this suspicion on the fact that we couldn't ever understand the documents that he revised for us in preparation for publication to scientific journals (he just assured us that that's what professional scientific writing looks like). We're sending you two copies of a sample of some recent writing he did for us, and some awfully suspicious stuff we found in his office shredder. If he's trying to send some secret messages to his superiors we bet it's in there somehow. See if you can find any secret messages and, ideally, deduce who he's working for.

They also receive three copies of a page of a scientific paper filled with technobabble:

> Whereas, the redirection of the muons are of no consequence to the build, virtually reappearing in their preassigned loci near the neutron. The experiments are immensely and largely underlain by minimizing the stationary compressors that momentarily produce conducive energy to the semipermeable tanks. Determining the sensitivities of the particles is not a complex issue. Interestingly, the oversensitiveness effects a painful task; as variegating vicissitudes can produce femtometers of defects, they must then be appropriately counterbalanced by a sustainable abridgement of joules to exploit topographical complexity. Chiefly, the logistics of execution is also subject to exhibited vulnerabilities. To conjoin any indispensable extractions, many roentgens of particles must necessarily be prominently demodulated as extra fission, division, or multiplication would undoubtedly trump any resistances tightly sighted near some of the finickier obstacles. Generally, decontaminating the chronological effects needs corrected plausible tests at present. It is deducible that as technological sophistications proportionately increase, initial estimates of variables often upset the careful amounts of substantiated yet precise correspondences that are paramount to the safer profits of this project. The unaccounted decay of neutrinos means that if a numerical pattern of substantial tangibility is superabundant, then redeploying nonphysical methods becomes vital so as not to implant any defects. Problematically, a funny and curious sight can be seen when a fermion (that is, an individual top quark) is seen to combine with a buildup of close to eighty transformed neutrinos. Traditionally, perpetual composition of such deceptive groupings would, by analogous reasoning, override the neutrinos' necessarily natural default effects and imbue the boson with electrons and similar leptons. But here, as their energy is bound to that of at most eighty microteslas, the excess can bleed off and the certifiably perfect cloud of neutrinos is betaken by receptive muons. Our reckoning is that a gluon entity is automatically birthed, and we suspect that such morbidity is substantively different, yet artificial.

Finally, team also receives a bag of shredded paper.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This puzzle should be pretty straightforward -- none of our playtest teams needed hints. Possibilities:

- If a team feels they shouldn't be reassembling the shredded strips, hint that they probably should.

The biggest sticking point might be where a team has no idea what the last step is.

- Suggest to them to count the letters in each of the remaining words.
- Ask them if most, if not all, of those counts all have something in common.
- Ask them what a really simple extraction mechanism that only applies to odd words could be.

If a team is unwilling to search for "poutine", prod them to.

If you see a team with almost all of the message but don't realize they're done -- try to help them realize they're done.

Puzzle Answer

The solver should find out that the mole has sent these messages to his headquarters, the (??)daction Agency:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters.

There are five messages hidden in the document: "REQUESTING RETURN", "MISSING MR. BIG", "SUBJECT IS NUTS BUT HARMLESS", "CLIMATE UNCOMFORTABLY HOT", and "ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE". The team should be able to give you these messages and interpret them -- meaning that the agent hasn't found any important data, and has fled the lab to his home country of Canada. (Mr. Big is a brand of candy bar, and poutine is a cheese and shredded potatoes dish.)

Puzzle Solution

First, the team must assemble the shredded paper to get the first page of a document. Unfortunately the upper-left corner of the page is missing, so the team cannot figure out the entire contents of the paper (which would reveal what agency the spy is working for). Also, the team only has the first page, so they do not have the last step of decoding, which is extracting the data. Here is the text of the assembled paper, with (M) representing missing text:

```
March 2012

(M)daction Agency

(M)nalysis Redaction Annotation Procedure

(M)g!
(M)hly-secure document intended only for the eyes of any agents working for
(M)ian Redaction Agency. Pleease familiarize yourself with the procedures
(M)his document and then shred it as soon as possible to avoid giving away your

(M)rview
(M)ommunication among agents must be encoded, one message per paragraph, using
(M) the procedures outlined in this document. We cover ''decoding'' first.
(M)edacting Short Words
(M)y words that are shorter than five letters should be redacted.
(M). Redacting Greek
(M)ny words that contain a substring that is a spelling of a Greek letter should be
redacted.
4. Redacting Homophones
Any words that are a homophone of another English word should be redacted. It is not
necessary that both words be in the same document.
5. Redacting Letter Sounds
Any words that sound like a series of letters read out loud should be redacted.  The
homophones here can be a bit rough.
6. Redacting Consecutive I’s
Any word containing three or more I’s without any intervening vowels (this includes
Y’s) should be redacted.
7. Redacting Stress-changing Words
Any words that change their syllabic stress depending on the part of speech of the word
(such as noun vs. verb, or noun vs. adjective) should be redacted.
8. Extracting the Message
If you have done all the other steps correctly, this last step is actually very easy to
carry out.  You should notice that all the remaining words in the document will have a length
page 1 of 3
```

From this, the team should be able to figure out that they need to cross out the words from the document according to rules 2 through 7. They need an "aha" to infer that the remaining words all have an odd number of letters, and that the messages can be read by taking the center letter of each of those words. Here is a table of all the words, along with a note of what step it gets redacted, and if not redacted, which letter it produces:

r	whereas	KEEP	m	determining	KEEP		chiefly	[3]greek		it	[2]len < 5	a	pro
	the	[2]len < 5		the	[2]len < 5		the	[2]len < 5		is	[2]len < 5		a
e	redirection	KEEP		sensitivities	[6]i i i	s	logistics	KEEP	c	deducible	KEEP	n	fun
	of	[2]len < 5		of	[2]len < 5		of	[2]len < 5		that	[2]len < 5		and
	the	[2]len < 5		the	[2]len < 5	u	execution	KEEP		as	[2]len < 5	i	cur
	muons	[3]greek	i	particles	KEEP		is	[2]len < 5	l	technological	KEEP		sig
	are	[2]len < 5		is	[2]len < 5		also	[2]len < 5		sophistications	[3]greek		can
	of	[2]len < 5		not	[2]len < 5		subject	[7]stress	i	proportionately	KEEP		be
	no	[2]len < 5		a	[2]len < 5		to	[2]len < 5		increase	[7]stress		see

q	consequence	KEEP		complex	[7]stress	b	exhibited	KEEP		initial	[6]i i i		wh
	to	[2]len < 5	s	issue	KEEP		vulnerabilities	[6]i i i	m	estimates	KEEP		a
	the	[2]len < 5	s	interestingly	KEEP		to	[2]len < 5		of	[2]len < 5	m	fer
	build	[4]homo:billed		the	[2]len < 5	j	conjoin	KEEP	a	variables	KEEP		tha
u	virtually	KEEP	i	oversensitiveness	KEEP		any	[2]len < 5	t	often	KEEP		is
e	reappearing	KEEP		effects	[5]lett:FX	e	indispensable	KEEP		upset	[7]stress		an
	in	[2]len < 5		a	[2]len < 5	c	extractions	KEEP		the	[2]len < 5		ind
	their	[4]homo:there	n	painful	KEEP		many	[2]len < 5	e	careful	KEEP		top
s	preassigned	KEEP		task	[2]len < 5	t	roentgens	KEEP	u	amounts	KEEP	a	qua
	loci	[2]len < 5		as	[2]len < 5		of	[2]len < 5		of	[2]len < 5		is
	near	[2]len < 5	g	variegating	KEEP	i	particles	KEEP	n	substantiated	KEEP		see
	the	[2]len < 5		vicissitudes	[6]i i i		must	[2]len < 5		yet	[2]len < 5		to
t	neutron	KEEP		can	[2]len < 5	s	necessarily	KEEP	c	precise	KEEP		con
	the	[2]len < 5		produce	[7]stress		be	[2]len < 5	o	correspondences	KEEP		wit
i	experiments	KEEP	m	femtometers	KEEP	n	prominently	KEEP		that	[2]len < 5		a
	are	[2]len < 5		of	[2]len < 5	u	demodulated	KEEP		are	[2]len < 5	l	bui
n	immensely	KEEP		defects	[7]stress		as	[2]len < 5	m	paramount	KEEP		of
	and	[2]len < 5		they	[2]len < 5	t	extra	KEEP		to	[2]len < 5		nea
g	largely	KEEP		must	[2]len < 5	s	fission	KEEP		the	[2]len < 5		to
r	underlain	KEEP		then	[2]len < 5		division	[6]i i i	f	safer	KEEP		eig
	by	[2]len < 5		be	[2]len < 5		or	[2]len < 5		profits	[4]homo:prophets	f	tra
	minimizing	[6]i i i	r	appropriately	KEEP		multiplication	[3]greek		of	[2]len < 5	r	neu
	the	[2]len < 5	b	counterbalanced	KEEP		would	[4]homo:wood		this	[2]len < 5	i	trac
	stationary	[4]homo:stationery		by	[2]len < 5	b	undoubtedly	KEEP		project	[7]stress	e	per
e	compressors	KEEP		a	[2]len < 5	u	trump	KEEP		the	[2]len < 5	s	con
	that	[2]len < 5	i	sustainable	KEEP		any	[2]len < 5	o	unaccounted	KEEP		of
t	momentarily	KEEP	g	abridgement	KEEP	t	resistances	KEEP		decay	[5]lett:DK		suc
	produce	[7]stress		of	[2]len < 5	h	tightly	KEEP		of	[2]len < 5	p	dec
u	conducive	KEEP		joules	[4]homo:jewels		sighted	[4]homo:cited	r	neutrinos	KEEP		gro
	energy	[5]lett:NRG		to	[2]len < 5		near	[2]len < 5		means	[4]homo:miens		wo
	to	[2]len < 5		exploit	[7]stress		some	[2]len < 5		that	[2]len < 5		by
	the	[2]len < 5		topographical	[3]greek		of	[2]len < 5		if	[2]len < 5	o	ana
r	semipermeable	KEEP		complexity	[3]greek		the	[2]len < 5		a	[2]len < 5	o	rea
n	tanks	KEEP					finickier	[6]i i i		numerical	[3]greek		ove
						a	obstacles	KEEP	t	pattern	KEEP		the
						r	generally	KEEP		of	[2]len < 5	r	neu
						m	decontaminating	KEEP	a	substantial	KEEP	s	nec
							the	[2]len < 5		tangibility	[6]i i i	u	nat
						l	chronological	KEEP		is	[2]len < 5		def
							effects	[5]lett:FX	b	superabundant	KEEP		eff
							needs	[4]homo:kneads		then	[2]len < 5		and
						e	corrected	KEEP	l	redeploying	KEEP	b	imb
						s	plausible	KEEP	y	nonphysical	KEEP		the
						s	tests	KEEP	h	methods	KEEP	s	bos
							at	[2]len < 5	o	becomes	KEEP		wit
							present	[7]stress	t	vital	KEEP	t	ele
										so	[2]len < 5		and
										as	[2]len < 5	i	sim

										not	[2]len < 5	t	lept
										to	[2]len < 5		but
										implant	[7]stress		her
										any	[2]len < 5		as
										defects	[7]stress		the
													ene
													is
												u	bou
													to
													tha
													of
													at
													mo
													eigh
												t	mic
													the
													exc
													can
												e	ble
													off
													and
													the
												f	cer
													per
												o	clo
													of
												r	neu
													is
													bet
													by
												p	rec
													mu
													our
												o	rec
													is
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													ent
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													we
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												is
											n	sub
											e	diff
												yet
												arti

Reading the letters for each paragraph (and adding spaces and punctuation) gives the hidden messages:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters. Mr. Big is a Canadian candy bar, and poutine is a type of french fry and cheese snack.

1.11.00 Role Puzzles

(Optional Puzzles) Directions on how to keep track of which teams do which role puzzles.

Open Time Period

(See Consolidator 1 or 2)

Location

(See Consolidator 1 or 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Staff instructions for Particle Zoo
- Staff instructions for Redacted Puzzle
- Staff instructions for Pulp SF Puzzle
- Staff instructions for Balance Sheet
- Staff instructions for Income Statement
- Team vs. Role Puzzle check off grid

Staff Instructions

(See Consolidator 1 or 2)

Puzzles At This Site: All five role puzzles...but most teams will only get one.

Where To Get Materials: GC HQ

Setup Instructions: (See Consolidator 1 or 2)

Handout Instructions:

Onsite Staff: Whenever you hand out a role puzzle to a team, enter a slash in the appropriate cell of the "Teams vs. Role Puzzles Grid" online Google Doc.

Hints: Teams have been instructed to call GC; if you familiarize yourself with the attached hints feel free to assist

Answers: Teams may give answers to either onsite staff or GC HQ. Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

The "Consolidation 1" event Staff Instructions will then tell you what activity to next assign the team.

Site Close Down: (See Consolidator 1 or 2)

Other Instructions: (See Consolidator 1 or 2)

Detailed Description

Hints

n/a

Puzzle Answer

Puzzle Solution

1.11.01 Pulp Science Fiction Story

(Optional Puzzle (JOURNALISM)) A pulp science fiction story written by Doctor When is discovered in the past.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Pulp Science Fiction
- Act II: 16 copies of Peach Frontier version of Pulp Science Fiction

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

Act I

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "Wesley When." Is it just a coincidence...some other Wesley When from the past? Or was it our very own Doctor When leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask the lab assistant onsite for the Pulp Science Fiction Research Project.]

Act II

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "C.L. Chronos." Is it just a coincidence...some other C.L. Chronos from the past? Or was it our very own Prof. Chronos leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask

the lab assistant onsite for the Pulp Science Fiction Research Project.]

SUPPLEMENTAL EMAIL--BOTH ACTS

Research Project Title: Pulp Science Fiction
Objective: Analyze 1950s pulp science fiction story to determine if it's a secret message
Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

Check the Fermi decouplers? Let's see... wow, good thing we checked them! They were about to blow, and no good can come of blown Fermi decouplers. Okay, it looks like the machine is running more smoothly now.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

After the accident, a scan of the historical record discovers a 1930s pulp science fiction story written by Doctor When or Professor Chronos (depending on whether the puzzle is delivered in Act I or II). Perhaps the Doctor/Professor hid a message in it!

This puzzle is intended to engage the skills that a team of journalists are likely to have.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- If the players are completely stuck, remind them that the last part of the About the Author section says that the author worked really hard on the title - maybe that contains a clue.

- If they're still stuck, note that the lab computer has done a grammar analysis and, strangely, there are no participles, gerunds, infinitives, or other verbal forms - just regular verbs.

- If they're looking at verb tenses but are trying to put them in groups of three (or something similar), remind them that the About the Author section says something about working carefully on each individual sentence. Maybe the verbs are grouped by sentence...

- It's possible that some teams may not know enough, or know too much, about verb tenses. All verbs in this story appear (are meant to be) either in past, present, or future TIME, and forms such as "will succeed" and contractions such as "I'll kill" are considered part of the same verb. Aspects are irrelevant - "he ran" and "he was running" both count as past verbs.

- It's also possible that there may some confusion about what constitutes a sentence, especially within quotes (or in the sentences describing the sign). The demarcations here are simple - a sentence ends whenever a period, exclamation point, or question mark appear.

- Since there are three tenses (times) - past, present, future - could that suggest a ternary code?

- As an extra hint, the first letter after each appearance of the word "secret" spells TERNARY.

- VERY COMMONLY, teams may be looking at verb tenses and sentences correctly and be thinking about ternary, but be stuck on the idea of "past = 0, present = 1, ...". Remind them that a good ternary code not only uses three values (0, 1, 2), but also has three digits/places. Maybe the three tenses correspond to places/digits (9's place, 3's place, 1's place) instead of the numerals (0, 1, 2) in those places.

Puzzle Answer

CHECK FERMI DECOUPLERS

Puzzle Solution

- All verbs in the story have past, present, or future tense (time).

- For each sentence, count the number of verbs in past, present, and future tense (time), and form a three-digit ternary number, with the past verbs

forming the 9's digit, the present verbs the 3's digit, and the future verbs the 1's digit.

- (Sentences end if and only if a period (not an ellipsis), question mark, or exclamation point appears.)

- Verb counts are as follows (format is past/present/future):

- Paragraph 1: (202,022,100,200,011)

- Paragraph 2: (110,012,202,202,012,200)

- Paragraph 3: (001,020,202,012,200)

- Paragraph 4: (010,120,111,111,001,201)

- This translates to THIRDLETTERAFTERCOMMAS.

- Reading the third letter after each comma (not counting spaces or punctuation) gives CHECKFERMIDECOUPLERS.

1.11.02a Balance Sheet Puzzle

(Optional Puzzle (INVESTOR)) An unusual financial balance sheet reveals instructions on how to raise money.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Balance Sheet
- Act II: 16 copies of Peach Frontier version of Balance Sheet
- File:Balance Sheet Puzzle V7.pdf

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR INVESTOR TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> We seem to have run into a little bump in the road on our way to rescuing Doctor When. It's not a technical problem. Rather (and this is so embarrassing) it seems we've run out of money.
>
> Would you please help? [Ask the lab assistant for the "Balance Sheet" research project.] When you're done see any lab assistant or call the Institute and speak with any lab assistant.

SUPPLEMENTAL EMAIL

> Research Project Title: Balance Sheet
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

> Why of course! All we have to do is use the time machine to make an investment in the distant past. And then by the miracle of compound interest we'll be swimming in money today! We'll get right on that.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Trenchwood Institute (or Peach Frontier Laboratories) has run out of money. The game fairy (Chronos or When) asks the players to fix the errors in the lab's financial balance sheet, which doesn't seem to use the same rules as normal balance sheets. After fixing the errors, they can scrutinize the sheet to uncover hidden instructions on how to solve the lab's financial woes.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

(waiting for Wei-Hwa to upload Word document)

How Confused Players Describe Which Puzzle They're Working On

"Consolidated Balance Sheet For Department Of Defense"

Common Sticking Points

Sticking Point	Suggested Suggestion
Didn't solve for two missing numbers first	"Have you found the two missing figures?"
Can't figure out why totals add up to 0, i.e., that it's mod 24.	"That is odd. What kind of strange arithmetic could possibly have both 72 and 24 equal to zero?"
Don't make the intuitive leap to also think about the numbers as times.	"I wonder why he/she used an arithmetic that goes up to 24 and then starts back at zero?"

Puzzle Answer

INVEST CENT IN PAST

Puzzle Solution

Typical Solve Process

1. Figure out the two missing numbers (Yerevan = 15, Phuket = 10) by realizing that the summations are done mod 24.
2. Realize from the mod 24 and the "Department Of Defense" references that the numbers can also be interpreted as "military time."
3. Look up the UTC time zone offsets for each location referenced.
4. Convert each foreign time to its equivalent simultaneous time in San Mateo, i.e., "if it's 12:00 in Easter Island, what time is it here?" (assume all times are *standard).*
5. Index the resulting numbers into the alphabet

Puzzle Data

Assets	As printed	UTC	Delta	Local time	Letter
Current					
Cash (Pacific Standard Trust)	9	-8	+0 = PST	9	I
Short-term investments, Managua Money Market Fund	16	-6	-2 = PST	14	N
Accounts receivable, Seoul Food Products	15	+9	+7 = PST	22	V
Inventory, Broome, AU janitorial supplies	21	+8	-16 = PST	5	E
Notes receivable, Libyan Aviation	5	+2	+14 = PST	19	S
Pre-paid rent, Latvian Laboratory	6	+2	+14 = PST	20	T
Total Current	0				
Long-Term Assets					
Equipment, Yerevan University	**15**	+4	-12 = PST	3	C
Building, Pago Pago tachyon storage facility	2	-11	+3 = PST	5	E
Long-Term Investments, Buenos Aires Bonds	19	-3	-5 = PST	14	N
Ulaanbaatar administrative yurts	12	+8	+8 = PST	20	T
Total Long-Term	0				

Liabilities	As printed	UTC	Delta	Local time	Letter
Liabilities					
Gravina Island Bridge Loan	8	-9	+1 = PST	9	I
Accounts Payable, Easter Island Head Office	16	-6	-2 = PST	14	N
Total Liabilities	0				
Net worth					
Contributed capital, Pyongyang People's Victory Fund	9	+9	+7 = PST	16	P
Reserved stock, Vanuatu Hedge Partners	20	+11	-19 = PST	1	A
Reserves, Phuket All-Services Bank	**10**	+7	+9 = PST	19	S
Retained earnings, Margilan Maritime Credit Union	9	+5	+11 = PST	20	T
Total Net Worth	0				

1.11.02b Income Statement

(Optional Puzzle (INVESTOR)) Followup to Balance Sheet; bizarre income statement reveals another message.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Income Statement
- Act II: 16 copies of Peach Frontier version of Income Statement

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions: If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

> Uh, oh... We seem to have encountered a bit more difficulty with our finances. Please see the lab assistant at your current location and ask for the Income Statement Research Project.

SUPPLEMENTAL EMAIL

> Research Project Title: Income Statement
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Why of course! Using other people's money is the successful way to fund any venture! We'll get right on it.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Intended Solve Process

1. Notice all the times are valid non-military times.
2. Solve for the one missing number (Rent = 3:02 AM) using standard clock arithmetic
3. Notice that the top section corresponds to AM ("Accumulated Monies") and the bottom section corresponds to PM ("Paid Monies"). Some players may especially clued into this because "Accumulated Monies" and "Paid Monies" are *not* standard
4. Notice that there are exactly 12 words in each section. ("Timeline-Adjustments" and "Timeline-Restoration" each count as one word since they have hyphens.) This should suggest 12 hours.
5. Notice that the income statement is printed in a fixed-width font. This suggests that counting characters is important.
6. Now the puzzle becomes a simple look up: for example, "m:n AM" means look up the n-th character of the m-th word in the AM section.

Puzzle Data

Revenues (Accumulated Monies)		
Sales	11:14 PM	O
Service	6:09 PM	T
Consulting	9:13 AM	H
Fees	1:02 AM	E
Interest	1:01 AM	R
Tachyonography	12:09 AM	-
Fortune Telling	9:12 AM	P
Timeline-Adjustments	1:02 AM	E
	3:02 PM	O
Expenses (Paid Monies)		
COGS	9:12 AM	P
Particles	2:07 AM	L
Depreciation	12:17 AM	E
Butterflies	3:06 PM	S
Dinosaurs	11:09 PM	-
Insurance	2:05 AM	M
Rent	**3:02 AM**	O
Timeline-Restoration	1:05 AM	N
Utilities	1:02 AM	E
	9:05 AM	Y

Common Sticking Points

Sticking Point	**Suggested Suggestion**
Skipped figuring out the missing number	
Can't figure out how to calculate missing number	"The top section seems to add up just like times should."
Can't figure out what to do with the times.	"The hours go from up to 12. Is there 12 of anything else?" Or "It's interesting that the largest number of minutes is 17."

Puzzle Answer

OTHER-PEOPLES-MONEY

Puzzle Solution

Triple index the location names: section from am/pm, line from hour, letter from minute.

1.11.03 Particle Zoo

(Optional Puzzle (SCIENTIST)) Players need to classify a large number of "particles" (similar images).

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Particle Zoo
- Act II: 16 copies of Peach Frontier version of Particle Zoo

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR SCIENTIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> It seems that when the time machine malfunctioned, it ignited a proliferation of new elementary particles. We think that we need to include these new particles in our calculations as we continue to tune the tine machine, but we're not exactly how to approach the problem. Ask the lab assistant onsite for the Particle Zoo research project. Call the lab and speak with any lab assistant when you're done.

SUPPLEMENTAL EMAIL

> Research Project Title: Particle Zoo
> Objective: Find out how to deal with proliferation of particles caused by time machine malfunction
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Of *course*! Chronozoic spacetime field theory is the *perfect* theoretical approach to figuring out how to tune the time machine to account for these new particles! In fact, it's easy - we can make the adjustments almost instantly.

> There - we're done. Now we can send Doctor When to 1986 just like he requested. We've opened a portal for him and are sending him back to school!

Enter code 202751 in the View-O-Scope remote access program, and then we can see if it worked. I'll hang up now and watch as well. If you need to, you can call us at the lab after you watch the Doctor on the View-O-Scope.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Players receive a printout with 23 columns of images, and need to classify those images into sets. Having done so, they figure out letters for each set, which they then must figure out how to order correctly in order to read the final message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- There are clearly "groups" of symbols that belong together. A good first step is to identify what the groups are. (Note that exact names don't matter).

- There are 30 groups in total. (The toughest group to be precise about is probably the pizza logos/signs.)

- Note that if two or more images from one group appear in a single column, they always appear together.

- That's because the order is always consistent. In fact, after classifying the groups, the second key step is to figure out the order of the groups, from examining the orders of the symbols in each individual column. Columns with many symbols are good places to start.

- There are lots of symbols in some columns - 1, 5, 9, 15 are some examples. Does that suggest anything?

- The column numbers represent letters (for example, 1, 5, 9, 15 are a, e, i, o respectively).

- Each group appears six times, yielding six letters. How do we order the letters?

- Hmmm. Check the flavor text. What are these particles called?

- They're called zuons. And some of the letter combos might be suspicious - try the one containing a Q.

- D,I,Q,S,S,U anagrams to SQUIDS. Hey, that's an animal!

- "Zuons" - this is a "zoo" of particles. Each group anagrams to an animal word.

- Some of the anagrams are easy; others are pretty hard. In fact, you may never have heard of some of them before, and would need an anagram solver with a large dictionary to find. The toughest ones are probably OCELOT, NUTRIA, DUGONG, and YORKIE.

- What now? Well, you've got a lot of animal names - have you written them all down? In order?

- Write the animals in the order of the groups. Read down the first letters of each.

202751

Puzzle Answer

CHRONOZOIC SPACETIME FIELD THEORY

Puzzle Solution

1) Players receive pages with columns of images. These images belong to 30 "groups", such as peace signs, balls, and moons.

2) Players must figure out what the groups are, and the order of the groups. The order is consistent in every column, but each column only contains images from some of the groups.

3) The order of the groups is as follows. (Exact names don't matter.) The numbers in parentheses indicate the column(s) that disambiguates the order of that group and the next.

```
Lamp (5,15,20)
Star (18,20)
Peace sign (20)
Triangle (20)
Christmas ornament (18)
Dial or gauge (5,18,19)
No smoking sign (5,18)
Hole or window (9)
Globe or Earth (1,7,21)
Asterisk (21)
Ball (9)
Exclamation point (16)
Trivial Pursuit piece (1,3)
Red circle (1)
Black & yellow travel sign (5,12)
Face (12)
Ancient coin (1,9,13,16)
Screw (5,9,13)
Keyhole (5,18)
Clock (5,20)
Handicapped emblem (5,19)
Dog (18)
Bolt (4)
Moon (14,15,21)
Arrow (14,15)
Green circle (5,18)
Pizza logo (5,18)
Sun (5,15,18,20)
Shower holes; may be mistaken for phone speaker holes or something similar (9,15,18)
Blue & white food/drink sign
```

4) Next, write down the column numbers that each symbol group appears in. For instance, the lamp appears in columns 3, 5, 15, 15, 20, and 25. (This includes appearing twice in column 15.)

5) Column numbers become letters (1=A, 2=B, etc.) For instance, the letters for the lamp group are C, E, O, O, T, Y.

6) Each group's letters anagram to the name of an animal (e.g., the lamp group anagrams to COYOTE). The animals are:

```
Lamp        -        COYOTE
Star        -        HORNET
Peace sign  -        RABBIT
Triangle    -        OCELOT
Christmas ornament - NUTRIA
Dial or gauge -      OSPREY
No smoking sign -    ZEBRAS
Hole        -        ORIOLE
Globe or Earth -     IGUANA
Asterisk    -        COUGAR
Ball        -        SQUIDS
Exclamation point -  PIGEON
Triv. Purs. piece -  ALPACA
Red circle  -        CAIMAN
B & Y travel sign -  EAGLES
Face        -        TURTLE
Ancient coin -       IMPALA
Screw       -        MAGPIE
Keyhole     -        ERMINE
Clock       -        FERRET
Handicapped emblem - IBEXES
Dog         -        EGRETS
Bolt        -        LIZARD
Moon        -        DUGONG
Arrow       -        TOUCAN
Green circle -       HERONS
Pizza logo  -        EARWIG
Sun         -        OYSTER
Shower holes -       RHINOS
Blue & white sign -  YORKIE
```

7) The first letters of each animal, in order, give CHRONOZOIC SPACETIME FIELD THEORY, the answer.

Files for the Act 1 and Act 2 versions, respectively:

File:Proliferation of Particles.pdf File:Proliferation of Particles Act 2.doc

1.11.04 (REDACTED) Redaction Agency Puzzle

(Optional Puzzle (GOVERNMENT)) Optional role puzzle--government. Teams are told that there is a suspected mole at the lab.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Redaction Agency Puzzle internal email [3] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-acti.pdf)
- Act II: 16 copies of Peach Frontier version of Redaction Agency internal email [4] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-actii.pdf)
- 48 copies--A page from a scientific paper [5] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/sci-paper-to-print.pdf) . Give out three copies per team.
- 16 copies--A bunch of strips that assemble to form the first page of the secret agent's instruction document [6] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/crap-instructions-toprint.pdf) . This should be printed out, the upper-left corner cut off and thrown away, and the rest run through Wei-Hwa's paper shredder. These strips are in a ziplok bag.

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR GOVERNMENT TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> One of our tech writers at the lab has suddenly disappeared. We suspect he might have actually been a secret agent working for some other organization. This handout will tell you everything you need to know.

SUPPLEMENTAL EMAIL

> Research Project Title: Redaction Agency
> Objective: Find out what information has been compromised and who the secret agent is working for
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Ah, so Mr. Molson was a mole! (And not just the son of one!) I should have expected he was a Canadian--those Canadians are always

> stirring up trouble. Lucky for us those northern barbarians wouldn't know a working time machine if it blew up in their faces! Not that a time machine is likely to blow up. Well, you know what I mean.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online Teams vs. Role Puzzles Grid (https://docs.google.com/spreadsheet/ccc?key=0ApFpcABekMwDdHlSR1pFMUd5SWI0VzlfcWFRSUNLbnc#gid=0) .

Site Close Down: See Consolidator 1 or 2

Detailed Description

Optional role puzzle--government. Teams are told that there is a suspected mole at the lab and is given enough information to find the mole's secret message. Each team receives a (printed) e-mail message that says:

> A small crisis has just come up at the lab that we think your group would be able to help with. One of our tech writers, Antoine Molson, has suddenly disappeared. We have reason to suspect that he might have been a mole from some external group, possibly connected to some government agency that is trying to keep tabs on our groundbreaking work. Mostly we base this suspicion on the fact that we couldn't ever understand the documents that he revised for us in preparation for publication to scientific journals (he just assured us that that's what professional scientific writing looks like). We're sending you two copies of a sample of some recent writing he did for us, and some awfully suspicious stuff we found in his office shredder. If he's trying to send some secret messages to his superiors we bet it's in there somehow. See if you can find any secret messages and, ideally, deduce who he's working for.

They also receive three copies of a page of a scientific paper filled with technobabble:

> Whereas, the redirection of the muons are of no consequence to the build, virtually reappearing in their preassigned loci near the neutron. The experiments are immensely and largely underlain by minimizing the stationary compressors that momentarily produce conducive energy to the semipermeable tanks. Determining the sensitivities of the particles is not a complex issue. Interestingly, the oversensitiveness effects a painful task; as variegating vicissitudes can produce femtometers of defects, they must then be appropriately counterbalanced by a sustainable abridgement of joules to exploit topographical complexity. Chiefly, the logistics of execution is also subject to exhibited vulnerabilities. To conjoin any indispensable extractions, many roentgens of particles must necessarily be prominently demodulated as extra fission, division, or multiplication would undoubtedly trump any resistances tightly sighted near some of the finickier obstacles. Generally, decontaminating the chronological effects needs corrected plausible tests at present. It is deducible that as technological sophistications proportionately increase, initial estimates of variables often upset the careful amounts of substantiated yet precise correspondences that are paramount to the safer profits of this project. The unaccounted decay of neutrinos means that if a numerical pattern of substantial tangibility is superabundant, then redeploying nonphysical methods becomes vital so as not to implant any defects. Problematically, a funny and curious sight can be seen when a fermion (that is, an individual top quark) is seen to combine with a buildup of close to eighty transformed neutrinos. Traditionally, perpetual composition of such deceptive groupings would, by analogous reasoning, override the neutrinos' necessarily natural default effects and imbue the boson with electrons and similar leptons. But here, as their energy is bound to that of at most eighty microteslas, the excess can bleed off and the certifiably perfect cloud of neutrinos is betaken by receptive muons. Our reckoning is that a gluon entity is automatically birthed, and we suspect that such morbidity is substantively different, yet artificial.

Finally, team also receives a bag of shredded paper.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This puzzle should be pretty straightforward -- none of our playtest teams needed hints. Possibilities:

- If a team feels they shouldn't be reassembling the shredded strips, hint that they probably should.

The biggest sticking point might be where a team has no idea what the last step is.

- Suggest to them to count the letters in each of the remaining words.
- Ask them if most, if not all, of those counts all have something in common.
- Ask them what a really simple extraction mechanism that only applies to odd words could be.

If a team is unwilling to search for "poutine", prod them to.

If you see a team with almost all of the message but don't realize they're done -- try to help them realize they're done.

Puzzle Answer

The solver should find out that the mole has sent these messages to his headquarters, the (??)daction Agency:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters.

There are five messages hidden in the document: "REQUESTING RETURN", "MISSING MR. BIG", "SUBJECT IS NUTS BUT HARMLESS", "CLIMATE UNCOMFORTABLY HOT", and "ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE". The team should be able to give you these messages and interpret them -- meaning that the agent hasn't found any important data, and has fled the lab to his home country of Canada. (Mr. Big is a brand of candy bar, and poutine is a cheese and shredded potatoes dish.)

Puzzle Solution

First, the team must assemble the shredded paper to get the first page of a document. Unfortunately the upper-left corner of the page is missing, so the team cannot figure out the entire contents of the paper (which would reveal what agency the spy is working for). Also, the team only has the first page, so they do not have the last step of decoding, which is extracting the data. Here is the text of the assembled paper, with (M) representing missing text:

```
March 2012

(M)daction Agency

(M)nalysis Redaction Annotation Procedure

(M)g!
(M)hly-secure document intended only for the eyes of any agents working for
(M)ian Redaction Agency. Pleease familiarize yourself with the procedures
(M)his document and then shred it as soon as possible to avoid giving away your

(M)rview
(M)ommunication among agents must be encoded, one message per paragraph, using
(M) the procedures outlined in this document. We cover ''decoding'' first.
(M)edacting Short Words
(M)y words that are shorter than five letters should be redacted.
(M). Redacting Greek
(M)ny words that contain a substring that is a spelling of a Greek letter should be
redacted.
4. Redacting Homophones
Any words that are a homophone of another English word should be redacted. It is not
necessary that both words be in the same document.
5. Redacting Letter Sounds
Any words that sound like a series of letters read out loud should be redacted.  The
homophones here can be a bit rough.
6. Redacting Consecutive I’s
Any word containing three or more I’s without any intervening vowels (this includes
Y’s) should be redacted.
7. Redacting Stress-changing Words
Any words that change their syllabic stress depending on the part of speech of the word
(such as noun vs. verb, or noun vs. adjective) should be redacted.
8. Extracting the Message
If you have done all the other steps correctly, this last step is actually very easy to
carry out.  You should notice that all the remaining words in the document will have a length
page 1 of 3
```

From this, the team should be able to figure out that they need to cross out the words from the document according to rules 2 through 7. They need an "aha" to infer that the remaining words all have an odd number of letters, and that the messages can be read by taking the center letter of each of those words. Here is a table of all the words, along with a note of what step it gets redacted, and if not redacted, which letter it produces:

r	whereas	KEEP	m	determining	KEEP		chiefly	[3]greek		it	[2]len < 5	a	pro
	the	[2]len < 5		the	[2]len < 5		the	[2]len < 5		is	[2]len < 5		a
e	redirection	KEEP		sensitivities	[6]i i i	s	logistics	KEEP	c	deducible	KEEP	n	fun
	of	[2]len < 5		of	[2]len < 5		of	[2]len < 5		that	[2]len < 5		and
	the	[2]len < 5		the	[2]len < 5	u	execution	KEEP		as	[2]len < 5	i	cur
	muons	[3]greek	i	particles	KEEP		is	[2]len < 5	l	technological	KEEP		sig
	are	[2]len < 5		is	[2]len < 5		also	[2]len < 5		sophistications	[3]greek		can
	of	[2]len < 5		not	[2]len < 5		subject	[7]stress	i	proportionately	KEEP		be
	no	[2]len < 5		a	[2]len < 5		to	[2]len < 5		increase	[7]stress		see

q	consequence	KEEP		complex	[7]stress	b	exhibited	KEEP		initial	[6]i i i		wh
	to	[2]len < 5	s	issue	KEEP		vulnerabilities	[6]i i i	m	estimates	KEEP		a
	the	[2]len < 5	s	interestingly	KEEP		to	[2]len < 5		of	[2]len < 5	m	fer
	build	[4]homo:billed		the	[2]len < 5	j	conjoin	KEEP	a	variables	KEEP		tha
u	virtually	KEEP	i	oversensitiveness	KEEP		any	[2]len < 5	t	often	KEEP		is
e	reappearing	KEEP		effects	[5]lett:FX	e	indispensable	KEEP		upset	[7]stress		an
	in	[2]len < 5		a	[2]len < 5	c	extractions	KEEP		the	[2]len < 5		ind
	their	[4]homo:there	n	painful	KEEP		many	[2]len < 5	e	careful	KEEP		top
s	preassigned	KEEP		task	[2]len < 5	t	roentgens	KEEP	u	amounts	KEEP	a	qua
	loci	[2]len < 5		as	[2]len < 5		of	[2]len < 5		of	[2]len < 5		is
	near	[2]len < 5	g	variegating	KEEP	i	particles	KEEP	n	substantiated	KEEP		see
	the	[2]len < 5		vicissitudes	[6]i i i		must	[2]len < 5		yet	[2]len < 5		to
t	neutron	KEEP		can	[2]len < 5	s	necessarily	KEEP	c	precise	KEEP		con
	the	[2]len < 5		produce	[7]stress		be	[2]len < 5	o	correspondences	KEEP		wit
i	experiments	KEEP	m	femtometers	KEEP	n	prominently	KEEP		that	[2]len < 5		a
	are	[2]len < 5		of	[2]len < 5	u	demodulated	KEEP		are	[2]len < 5	l	bui
n	immensely	KEEP		defects	[7]stress		as	[2]len < 5	m	paramount	KEEP		of
	and	[2]len < 5		they	[2]len < 5	t	extra	KEEP		to	[2]len < 5		nea
g	largely	KEEP		must	[2]len < 5	s	fission	KEEP		the	[2]len < 5		to
r	underlain	KEEP		then	[2]len < 5		division	[6]i i i	f	safer	KEEP		eig
	by	[2]len < 5		be	[2]len < 5		or	[2]len < 5		profits	[4]homo:prophets	f	tra
	minimizing	[6]i i i	r	appropriately	KEEP		multiplication	[3]greek		of	[2]len < 5	r	neu
	the	[2]len < 5	b	counterbalanced	KEEP		would	[4]homo:wood		this	[2]len < 5	i	trac
	stationary	[4]homo:stationery		by	[2]len < 5	b	undoubtedly	KEEP		project	[7]stress	e	per
e	compressors	KEEP		a	[2]len < 5	u	trump	KEEP		the	[2]len < 5	s	con
	that	[2]len < 5	i	sustainable	KEEP		any	[2]len < 5	o	unaccounted	KEEP		of
t	momentarily	KEEP	g	abridgement	KEEP	t	resistances	KEEP		decay	[5]lett:DK		suc
	produce	[7]stress		of	[2]len < 5	h	tightly	KEEP		of	[2]len < 5	p	dec
u	conducive	KEEP		joules	[4]homo:jewels		sighted	[4]homo:cited	r	neutrinos	KEEP		gro
	energy	[5]lett:NRG		to	[2]len < 5		near	[2]len < 5		means	[4]homo:miens		wo
	to	[2]len < 5		exploit	[7]stress		some	[2]len < 5		that	[2]len < 5		by
	the	[2]len < 5		topographical	[3]greek		of	[2]len < 5		if	[2]len < 5	o	ana
r	semipermeable	KEEP		complexity	[3]greek		the	[2]len < 5		a	[2]len < 5	o	rea
n	tanks	KEEP					finickier	[6]i i i		numerical	[3]greek		ove
						a	obstacles	KEEP	t	pattern	KEEP		the
						r	generally	KEEP		of	[2]len < 5	r	neu
						m	decontaminating	KEEP	a	substantial	KEEP	s	nec
							the	[2]len < 5		tangibility	[6]i i i	u	nat
						l	chronological	KEEP		is	[2]len < 5		def
							effects	[5]lett:FX	b	superabundant	KEEP		eff
							needs	[4]homo:kneads		then	[2]len < 5		and
						e	corrected	KEEP	l	redeploying	KEEP	b	imb
						s	plausible	KEEP	y	nonphysical	KEEP		the
						s	tests	KEEP	h	methods	KEEP	s	bos
							at	[2]len < 5	o	becomes	KEEP		wit
							present	[7]stress	t	vital	KEEP	t	ele
										so	[2]len < 5		and
										as	[2]len < 5	i	sim

										not	[2]len < 5	t	lept
										to	[2]len < 5		but
										implant	[7]stress		her
										any	[2]len < 5		as
										defects	[7]stress		the
													ene
													is
												u	bou
													to
													tha
													of
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												arti

Reading the letters for each paragraph (and adding spaces and punctuation) gives the hidden messages:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters. Mr. Big is a Canadian candy bar, and poutine is a type of french fry and cheese snack.

1.11.00 Role Puzzles

(Optional Puzzles) Directions on how to keep track of which teams do which role puzzles.

Open Time Period

(See Consolidator 1 or 2)

Location

(See Consolidator 1 or 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Staff instructions for Particle Zoo
- Staff instructions for Redacted Puzzle
- Staff instructions for Pulp SF Puzzle
- Staff instructions for Balance Sheet
- Staff instructions for Income Statement
- Team vs. Role Puzzle check off grid

Staff Instructions

(See Consolidator 1 or 2)

Puzzles At This Site: All five role puzzles...but most teams will only get one.

Where To Get Materials: GC HQ

Setup Instructions: (See Consolidator 1 or 2)

Handout Instructions:

Onsite Staff: Whenever you hand out a role puzzle to a team, enter a slash in the appropriate cell of the "Teams vs. Role Puzzles Grid" online Google Doc.

Hints: Teams have been instructed to call GC; if you familiarize yourself with the attached hints feel free to assist

Answers: Teams may give answers to either onsite staff or GC HQ. Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

The "Consolidation 1" event Staff Instructions will then tell you what activity to next assign the team.

Site Close Down: (See Consolidator 1 or 2)

Other Instructions: (See Consolidator 1 or 2)

Detailed Description

Hints

n/a

Puzzle Answer

Puzzle Solution

1.11.01 Pulp Science Fiction Story

(Optional Puzzle (JOURNALISM)) A pulp science fiction story written by Doctor When is discovered in the past.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Pulp Science Fiction
- Act II: 16 copies of Peach Frontier version of Pulp Science Fiction

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

Act I

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "Wesley When." Is it just a coincidence...some other Wesley When from the past? Or was it our very own Doctor When leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask the lab assistant onsite for the Pulp Science Fiction Research Project.]

Act II

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "C.L. Chronos." Is it just a coincidence...some other C.L. Chronos from the past? Or was it our very own Prof. Chronos leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask

the lab assistant onsite for the Pulp Science Fiction Research Project.]

SUPPLEMENTAL EMAIL--BOTH ACTS

Research Project Title: Pulp Science Fiction
Objective: Analyze 1950s pulp science fiction story to determine if it's a secret message
Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

Check the Fermi decouplers? Let's see... wow, good thing we checked them! They were about to blow, and no good can come of blown Fermi decouplers. Okay, it looks like the machine is running more smoothly now.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

After the accident, a scan of the historical record discovers a 1930s pulp science fiction story written by Doctor When or Professor Chronos (depending on whether the puzzle is delivered in Act I or II). Perhaps the Doctor/Professor hid a message in it!

This puzzle is intended to engage the skills that a team of journalists are likely to have.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- If the players are completely stuck, remind them that the last part of the About the Author section says that the author worked really hard on the title - maybe that contains a clue.

- If they're still stuck, note that the lab computer has done a grammar analysis and, strangely, there are no participles, gerunds, infinitives, or other verbal forms - just regular verbs.

- If they're looking at verb tenses but are trying to put them in groups of three (or something similar), remind them that the About the Author section says something about working carefully on each individual sentence. Maybe the verbs are grouped by sentence...

- It's possible that some teams may not know enough, or know too much, about verb tenses. All verbs in this story appear (are meant to be) either in past, present, or future TIME, and forms such as "will succeed" and contractions such as "I'll kill" are considered part of the same verb. Aspects are irrelevant - "he ran" and "he was running" both count as past verbs.

- It's also possible that there may some confusion about what constitutes a sentence, especially within quotes (or in the sentences describing the sign). The demarcations here are simple - a sentence ends whenever a period, exclamation point, or question mark appear.

- Since there are three tenses (times) - past, present, future - could that suggest a ternary code?

- As an extra hint, the first letter after each appearance of the word "secret" spells TERNARY.

- VERY COMMONLY, teams may be looking at verb tenses and sentences correctly and be thinking about ternary, but be stuck on the idea of "past = 0, present = 1, ...". Remind them that a good ternary code not only uses three values (0, 1, 2), but also has three digits/places. Maybe the three tenses correspond to places/digits (9's place, 3's place, 1's place) instead of the numerals (0, 1, 2) in those places.

Puzzle Answer

CHECK FERMI DECOUPLERS

Puzzle Solution

- All verbs in the story have past, present, or future tense (time).

- For each sentence, count the number of verbs in past, present, and future tense (time), and form a three-digit ternary number, with the past verbs

forming the 9's digit, the present verbs the 3's digit, and the future verbs the 1's digit.

- (Sentences end if and only if a period (not an ellipsis), question mark, or exclamation point appears.)

- Verb counts are as follows (format is past/present/future):

- Paragraph 1: (202,022,100,200,011)

- Paragraph 2: (110,012,202,202,012,200)

- Paragraph 3: (001,020,202,012,200)

- Paragraph 4: (010,120,111,111,001,201)

- This translates to THIRDLETTERAFTERCOMMAS.

- Reading the third letter after each comma (not counting spaces or punctuation) gives CHECKFERMIDECOUPLERS.

1.11.02a Balance Sheet Puzzle

(Optional Puzzle (INVESTOR)) An unusual financial balance sheet reveals instructions on how to raise money.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Balance Sheet
- Act II: 16 copies of Peach Frontier version of Balance Sheet
- File:Balance Sheet Puzzle V7.pdf

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR INVESTOR TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> We seem to have run into a little bump in the road on our way to rescuing Doctor When. It's not a technical problem. Rather (and this is so embarrassing) it seems we've run out of money.
>
> Would you please help? [Ask the lab assistant for the "Balance Sheet" research project.] When you're done see any lab assistant or call the Institute and speak with any lab assistant.

SUPPLEMENTAL EMAIL

> Research Project Title: Balance Sheet
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

> Why of course! All we have to do is use the time machine to make an investment in the distant past. And then by the miracle of compound interest we'll be swimming in money today! We'll get right on that.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Trenchwood Institute (or Peach Frontier Laboratories) has run out of money. The game fairy (Chronos or When) asks the players to fix the errors in the lab's financial balance sheet, which doesn't seem to use the same rules as normal balance sheets. After fixing the errors, they can scrutinize the sheet to uncover hidden instructions on how to solve the lab's financial woes.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

(waiting for Wei-Hwa to upload Word document)

How Confused Players Describe Which Puzzle They're Working On

"Consolidated Balance Sheet For Department Of Defense"

Common Sticking Points

Sticking Point	Suggested Suggestion
Didn't solve for two missing numbers first	"Have you found the two missing figures?"
Can't figure out why totals add up to 0, i.e., that it's mod 24.	"That is odd. What kind of strange arithmetic could possibly have both 72 and 24 equal to zero?"
Don't make the intuitive leap to also think about the numbers as times.	"I wonder why he/she used an arithmetic that goes up to 24 and then starts back at zero?"

Puzzle Answer

INVEST CENT IN PAST

Puzzle Solution

Typical Solve Process

1. Figure out the two missing numbers (Yerevan = 15, Phuket = 10) by realizing that the summations are done mod 24.
2. Realize from the mod 24 and the "Department Of Defense" references that the numbers can also be interpreted as "military time."
3. Look up the UTC time zone offsets for each location referenced.
4. Convert each foreign time to its equivalent simultaneous time in San Mateo, i.e., "if it's 12:00 in Easter Island, what time is it here?" (assume all times are *standard).*
5. Index the resulting numbers into the alphabet

Puzzle Data

Assets	As printed	UTC	Delta	Local time	Letter
Current					
Cash (Pacific Standard Trust)	9	-8	+0 = PST	9	I
Short-term investments, Managua Money Market Fund	16	-6	-2 = PST	14	N
Accounts receivable, Seoul Food Products	15	+9	+7 = PST	22	V
Inventory, Broome, AU janitorial supplies	21	+8	-16 = PST	5	E
Notes receivable, Libyan Aviation	5	+2	+14 = PST	19	S
Pre-paid rent, Latvian Laboratory	6	+2	+14 = PST	20	T
Total Current	0				
Long-Term Assets					
Equipment, Yerevan University	**15**	+4	-12 = PST	3	C
Building, Pago Pago tachyon storage facility	2	-11	+3 = PST	5	E
Long-Term Investments, Buenos Aires Bonds	19	-3	-5 = PST	14	N
Ulaanbaatar administrative yurts	12	+8	+8 = PST	20	T
Total Long-Term	0				

Liabilities	As printed	UTC	Delta	Local time	Letter
Liabilities					
Gravina Island Bridge Loan	8	-9	+1 = PST	9	I
Accounts Payable, Easter Island Head Office	16	-6	-2 = PST	14	N
Total Liabilities	0				
Net worth					
Contributed capital, Pyongyang People's Victory Fund	9	+9	+7 = PST	16	P
Reserved stock, Vanuatu Hedge Partners	20	+11	-19 = PST	1	A
Reserves, Phuket All-Services Bank	**10**	+7	+9 = PST	19	S
Retained earnings, Margilan Maritime Credit Union	9	+5	+11 = PST	20	T
Total Net Worth	0				

1.11.02b Income Statement

(Optional Puzzle (INVESTOR)) Followup to Balance Sheet; bizarre income statement reveals another message.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Income Statement
- Act II: 16 copies of Peach Frontier version of Income Statement

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions: If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

> Uh, oh... We seem to have encountered a bit more difficulty with our finances. Please see the lab assistant at your current location and ask for the Income Statement Research Project.

SUPPLEMENTAL EMAIL

> Research Project Title: Income Statement
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Why of course! Using other people's money is the successful way to fund any venture! We'll get right on it.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Intended Solve Process

1. Notice all the times are valid non-military times.
2. Solve for the one missing number (Rent = 3:02 AM) using standard clock arithmetic
3. Notice that the top section corresponds to AM ("Accumulated Monies") and the bottom section corresponds to PM ("Paid Monies"). Some players may especially clued into this because "Accumulated Monies" and "Paid Monies" are *not* standard
4. Notice that there are exactly 12 words in each section. ("Timeline-Adjustments" and "Timeline-Restoration" each count as one word since they have hyphens.) This should suggest 12 hours.
5. Notice that the income statement is printed in a fixed-width font. This suggests that counting characters is important.
6. Now the puzzle becomes a simple look up: for example, "m:n AM" means look up the n-th character of the m-th word in the AM section.

Puzzle Data

Revenues (Accumulated Monies)		
Sales	11:14 PM	O
Service	6:09 PM	T
Consulting	9:13 AM	H
Fees	1:02 AM	E
Interest	1:01 AM	R
Tachyonography	12:09 AM	-
Fortune Telling	9:12 AM	P
Timeline-Adjustments	1:02 AM	E
	3:02 PM	O
Expenses (Paid Monies)		
COGS	9:12 AM	P
Particles	2:07 AM	L
Depreciation	12:17 AM	E
Butterflies	3:06 PM	S
Dinosaurs	11:09 PM	-
Insurance	2:05 AM	M
Rent	**3:02 AM**	O
Timeline-Restoration	1:05 AM	N
Utilities	1:02 AM	E
	9:05 AM	Y

Common Sticking Points

Sticking Point	**Suggested Suggestion**
Skipped figuring out the missing number	
Can't figure out how to calculate missing number	"The top section seems to add up just like times should."
Can't figure out what to do with the times.	"The hours go from up to 12. Is there 12 of anything else?" Or "It's interesting that the largest number of minutes is 17."

Puzzle Answer

OTHER-PEOPLES-MONEY

Puzzle Solution

Triple index the location names: section from am/pm, line from hour, letter from minute.

1.11.03 Particle Zoo

(Optional Puzzle (SCIENTIST)) Players need to classify a large number of "particles" (similar images).

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Particle Zoo
- Act II: 16 copies of Peach Frontier version of Particle Zoo

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR SCIENTIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> It seems that when the time machine malfunctioned, it ignited a proliferation of new elementary particles. We think that we need to include these new particles in our calculations as we continue to tune the tine machine, but we're not exactly how to approach the problem. Ask the lab assistant onsite for the Particle Zoo research project. Call the lab and speak with any lab assistant when you're done.

SUPPLEMENTAL EMAIL

> Research Project Title: Particle Zoo
> Objective: Find out how to deal with proliferation of particles caused by time machine malfunction
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Of *course*! Chronozoic spacetime field theory is the *perfect* theoretical approach to figuring out how to tune the time machine to account for these new particles! In fact, it's easy - we can make the adjustments almost instantly.

> There - we're done. Now we can send Doctor When to 1986 just like he requested. We've opened a portal for him and are sending him back to school!

Enter code 202751 in the View-O-Scope remote access program, and then we can see if it worked. I'll hang up now and watch as well. If you need to, you can call us at the lab after you watch the Doctor on the View-O-Scope.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Players receive a printout with 23 columns of images, and need to classify those images into sets. Having done so, they figure out letters for each set, which they then must figure out how to order correctly in order to read the final message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- There are clearly "groups" of symbols that belong together. A good first step is to identify what the groups are. (Note that exact names don't matter).

- There are 30 groups in total. (The toughest group to be precise about is probably the pizza logos/signs.)

- Note that if two or more images from one group appear in a single column, they always appear together.

- That's because the order is always consistent. In fact, after classifying the groups, the second key step is to figure out the order of the groups, from examining the orders of the symbols in each individual column. Columns with many symbols are good places to start.

- There are lots of symbols in some columns - 1, 5, 9, 15 are some examples. Does that suggest anything?

- The column numbers represent letters (for example, 1, 5, 9, 15 are a, e, i, o respectively).

- Each group appears six times, yielding six letters. How do we order the letters?

- Hmmm. Check the flavor text. What are these particles called?

- They're called zuons. And some of the letter combos might be suspicious - try the one containing a Q.

- D,I,Q,S,S,U anagrams to SQUIDS. Hey, that's an animal!

- "Zuons" - this is a "zoo" of particles. Each group anagrams to an animal word.

- Some of the anagrams are easy; others are pretty hard. In fact, you may never have heard of some of them before, and would need an anagram solver with a large dictionary to find. The toughest ones are probably OCELOT, NUTRIA, DUGONG, and YORKIE.

- What now? Well, you've got a lot of animal names - have you written them all down? In order?

- Write the animals in the order of the groups. Read down the first letters of each.

202751

Puzzle Answer

CHRONOZOIC SPACETIME FIELD THEORY

Puzzle Solution

1) Players receive pages with columns of images. These images belong to 30 "groups", such as peace signs, balls, and moons.

2) Players must figure out what the groups are, and the order of the groups. The order is consistent in every column, but each column only contains images from some of the groups.

3) The order of the groups is as follows. (Exact names don't matter.) The numbers in parentheses indicate the column(s) that disambiguates the order of that group and the next.

```
Lamp (5,15,20)
Star (18,20)
Peace sign (20)
Triangle (20)
Christmas ornament (18)
Dial or gauge (5,18,19)
No smoking sign (5,18)
Hole or window (9)
Globe or Earth (1,7,21)
Asterisk (21)
Ball (9)
Exclamation point (16)
Trivial Pursuit piece (1,3)
Red circle (1)
Black & yellow travel sign (5,12)
Face (12)
Ancient coin (1,9,13,16)
Screw (5,9,13)
Keyhole (5,18)
Clock (5,20)
Handicapped emblem (5,19)
Dog (18)
Bolt (4)
Moon (14,15,21)
Arrow (14,15)
Green circle (5,18)
Pizza logo (5,18)
Sun (5,15,18,20)
Shower holes; may be mistaken for phone speaker holes or something similar (9,15,18)
Blue & white food/drink sign
```

4) Next, write down the column numbers that each symbol group appears in. For instance, the lamp appears in columns 3, 5, 15, 15, 20, and 25. (This includes appearing twice in column 15.)

5) Column numbers become letters (1=A, 2=B, etc.) For instance, the letters for the lamp group are C, E, O, O, T, Y.

6) Each group's letters anagram to the name of an animal (e.g., the lamp group anagrams to COYOTE). The animals are:

```
Lamp        -        COYOTE
Star        -        HORNET
Peace sign  -        RABBIT
Triangle    -        OCELOT
Christmas ornament - NUTRIA
Dial or gauge -      OSPREY
No smoking sign -    ZEBRAS
Hole        -        ORIOLE
Globe or Earth -     IGUANA
Asterisk    -        COUGAR
Ball        -        SQUIDS
Exclamation point -  PIGEON
Triv. Purs. piece -  ALPACA
Red circle  -        CAIMAN
B & Y travel sign -  EAGLES
Face        -        TURTLE
Ancient coin -       IMPALA
Screw       -        MAGPIE
Keyhole     -        ERMINE
Clock       -        FERRET
Handicapped emblem - IBEXES
Dog         -        EGRETS
Bolt        -        LIZARD
Moon        -        DUGONG
Arrow       -        TOUCAN
Green circle -       HERONS
Pizza logo  -        EARWIG
Sun         -        OYSTER
Shower holes -       RHINOS
Blue & white sign -  YORKIE
```

7) The first letters of each animal, in order, give CHRONOZOIC SPACETIME FIELD THEORY, the answer.

Files for the Act 1 and Act 2 versions, respectively:

File:Proliferation of Particles.pdf File:Proliferation of Particles Act 2.doc

1.11.04 (REDACTED) Redaction Agency Puzzle

(Optional Puzzle (GOVERNMENT)) Optional role puzzle--government. Teams are told that there is a suspected mole at the lab.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Redaction Agency Puzzle internal email [3] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-acti.pdf)
- Act II: 16 copies of Peach Frontier version of Redaction Agency internal email [4] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-actii.pdf)
- 48 copies--A page from a scientific paper [5] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/sci-paper-to-print.pdf) . Give out three copies per team.
- 16 copies--A bunch of strips that assemble to form the first page of the secret agent's instruction document [6] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/crap-instructions-toprint.pdf) . This should be printed out, the upper-left corner cut off and thrown away, and the rest run through Wei-Hwa's paper shredder. These strips are in a ziplok bag.

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR GOVERNMENT TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> One of our tech writers at the lab has suddenly disappeared. We suspect he might have actually been a secret agent working for some other organization. This handout will tell you everything you need to know.

SUPPLEMENTAL EMAIL

> Research Project Title: Redaction Agency
> Objective: Find out what information has been compromised and who the secret agent is working for
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Ah, so Mr. Molson was a mole! (And not just the son of one!) I should have expected he was a Canadian--those Canadians are always

> stirring up trouble. Lucky for us those northern barbarians wouldn't know a working time machine if it blew up in their faces! Not that a time machine is likely to blow up. Well, you know what I mean.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online Teams vs. Role Puzzles Grid (https://docs.google.com/spreadsheet/ccc?key=0ApFpcABekMwDdHlSR1pFMUd5SWI0VzlfcWFRSUNLbnc#gid=0) .

Site Close Down: See Consolidator 1 or 2

Detailed Description

Optional role puzzle--government. Teams are told that there is a suspected mole at the lab and is given enough information to find the mole's secret message. Each team receives a (printed) e-mail message that says:

> A small crisis has just come up at the lab that we think your group would be able to help with. One of our tech writers, Antoine Molson, has suddenly disappeared. We have reason to suspect that he might have been a mole from some external group, possibly connected to some government agency that is trying to keep tabs on our groundbreaking work. Mostly we base this suspicion on the fact that we couldn't ever understand the documents that he revised for us in preparation for publication to scientific journals (he just assured us that that's what professional scientific writing looks like). We're sending you two copies of a sample of some recent writing he did for us, and some awfully suspicious stuff we found in his office shredder. If he's trying to send some secret messages to his superiors we bet it's in there somehow. See if you can find any secret messages and, ideally, deduce who he's working for.

They also receive three copies of a page of a scientific paper filled with technobabble:

> Whereas, the redirection of the muons are of no consequence to the build, virtually reappearing in their preassigned loci near the neutron. The experiments are immensely and largely underlain by minimizing the stationary compressors that momentarily produce conducive energy to the semipermeable tanks. Determining the sensitivities of the particles is not a complex issue. Interestingly, the oversensitiveness effects a painful task; as variegating vicissitudes can produce femtometers of defects, they must then be appropriately counterbalanced by a sustainable abridgement of joules to exploit topographical complexity. Chiefly, the logistics of execution is also subject to exhibited vulnerabilities. To conjoin any indispensable extractions, many roentgens of particles must necessarily be prominently demodulated as extra fission, division, or multiplication would undoubtedly trump any resistances tightly sighted near some of the finickier obstacles. Generally, decontaminating the chronological effects needs corrected plausible tests at present. It is deducible that as technological sophistications proportionately increase, initial estimates of variables often upset the careful amounts of substantiated yet precise correspondences that are paramount to the safer profits of this project. The unaccounted decay of neutrinos means that if a numerical pattern of substantial tangibility is superabundant, then redeploying nonphysical methods becomes vital so as not to implant any defects. Problematically, a funny and curious sight can be seen when a fermion (that is, an individual top quark) is seen to combine with a buildup of close to eighty transformed neutrinos. Traditionally, perpetual composition of such deceptive groupings would, by analogous reasoning, override the neutrinos' necessarily natural default effects and imbue the boson with electrons and similar leptons. But here, as their energy is bound to that of at most eighty microteslas, the excess can bleed off and the certifiably perfect cloud of neutrinos is betaken by receptive muons. Our reckoning is that a gluon entity is automatically birthed, and we suspect that such morbidity is substantively different, yet artificial.

Finally, team also receives a bag of shredded paper.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This puzzle should be pretty straightforward -- none of our playtest teams needed hints. Possibilities:

- If a team feels they shouldn't be reassembling the shredded strips, hint that they probably should.

The biggest sticking point might be where a team has no idea what the last step is.

- Suggest to them to count the letters in each of the remaining words.
- Ask them if most, if not all, of those counts all have something in common.
- Ask them what a really simple extraction mechanism that only applies to odd words could be.

If a team is unwilling to search for "poutine", prod them to.

If you see a team with almost all of the message but don't realize they're done -- try to help them realize they're done.

Puzzle Answer

The solver should find out that the mole has sent these messages to his headquarters, the (??)daction Agency:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters.

There are five messages hidden in the document: "REQUESTING RETURN", "MISSING MR. BIG", "SUBJECT IS NUTS BUT HARMLESS", "CLIMATE UNCOMFORTABLY HOT", and "ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE". The team should be able to give you these messages and interpret them -- meaning that the agent hasn't found any important data, and has fled the lab to his home country of Canada. (Mr. Big is a brand of candy bar, and poutine is a cheese and shredded potatoes dish.)

Puzzle Solution

First, the team must assemble the shredded paper to get the first page of a document. Unfortunately the upper-left corner of the page is missing, so the team cannot figure out the entire contents of the paper (which would reveal what agency the spy is working for). Also, the team only has the first page, so they do not have the last step of decoding, which is extracting the data. Here is the text of the assembled paper, with (M) representing missing text:

```
March 2012

(M)daction Agency

(M)nalysis Redaction Annotation Procedure

(M)g!
(M)hly-secure document intended only for the eyes of any agents working for
(M)ian Redaction Agency. Pleease familiarize yourself with the procedures
(M)his document and then shred it as soon as possible to avoid giving away your

(M)rview
(M)ommunication among agents must be encoded, one message per paragraph, using
(M) the procedures outlined in this document. We cover ''decoding'' first.
(M)edacting Short Words
(M)y words that are shorter than five letters should be redacted.
(M). Redacting Greek
(M)ny words that contain a substring that is a spelling of a Greek letter should be
redacted.
4. Redacting Homophones
Any words that are a homophone of another English word should be redacted. It is not
necessary that both words be in the same document.
5. Redacting Letter Sounds
Any words that sound like a series of letters read out loud should be redacted.  The
homophones here can be a bit rough.
6. Redacting Consecutive I’s
Any word containing three or more I’s without any intervening vowels (this includes
Y’s) should be redacted.
7. Redacting Stress-changing Words
Any words that change their syllabic stress depending on the part of speech of the word
(such as noun vs. verb, or noun vs. adjective) should be redacted.
8. Extracting the Message
If you have done all the other steps correctly, this last step is actually very easy to
carry out.  You should notice that all the remaining words in the document will have a length
page 1 of 3
```

From this, the team should be able to figure out that they need to cross out the words from the document according to rules 2 through 7. They need an "aha" to infer that the remaining words all have an odd number of letters, and that the messages can be read by taking the center letter of each of those words. Here is a table of all the words, along with a note of what step it gets redacted, and if not redacted, which letter it produces:

r	whereas	KEEP	m	determining	KEEP		chiefly	[3]greek		it	[2]len < 5	a	pro
	the	[2]len < 5		the	[2]len < 5		the	[2]len < 5		is	[2]len < 5		a
e	redirection	KEEP		sensitivities	[6]i i i	s	logistics	KEEP	c	deducible	KEEP	n	fun
	of	[2]len < 5		of	[2]len < 5		of	[2]len < 5		that	[2]len < 5		and
	the	[2]len < 5		the	[2]len < 5	u	execution	KEEP		as	[2]len < 5	i	cur
	muons	[3]greek	i	particles	KEEP		is	[2]len < 5	l	technological	KEEP		sig
	are	[2]len < 5		is	[2]len < 5		also	[2]len < 5		sophistications	[3]greek		can
	of	[2]len < 5		not	[2]len < 5		subject	[7]stress	i	proportionately	KEEP		be
	no	[2]len < 5		a	[2]len < 5		to	[2]len < 5		increase	[7]stress		see

q	consequence	KEEP		complex	[7]stress	b	exhibited	KEEP		initial	[6]i i i		wh
	to	[2]len < 5	s	issue	KEEP		vulnerabilities	[6]i i i	m	estimates	KEEP		a
	the	[2]len < 5	s	interestingly	KEEP		to	[2]len < 5		of	[2]len < 5	m	fer
	build	[4]homo:billed		the	[2]len < 5	j	conjoin	KEEP	a	variables	KEEP		tha
u	virtually	KEEP	i	oversensitiveness	KEEP		any	[2]len < 5	t	often	KEEP		is
e	reappearing	KEEP		effects	[5]lett:FX	e	indispensable	KEEP		upset	[7]stress		an
	in	[2]len < 5		a	[2]len < 5	c	extractions	KEEP		the	[2]len < 5		ind
	their	[4]homo:there	n	painful	KEEP		many	[2]len < 5	e	careful	KEEP		top
s	preassigned	KEEP		task	[2]len < 5	t	roentgens	KEEP	u	amounts	KEEP	a	qua
	loci	[2]len < 5		as	[2]len < 5		of	[2]len < 5		of	[2]len < 5		is
	near	[2]len < 5	g	variegating	KEEP	i	particles	KEEP	n	substantiated	KEEP		see
	the	[2]len < 5		vicissitudes	[6]i i i		must	[2]len < 5		yet	[2]len < 5		to
t	neutron	KEEP		can	[2]len < 5	s	necessarily	KEEP	c	precise	KEEP		con
	the	[2]len < 5		produce	[7]stress		be	[2]len < 5	o	correspondences	KEEP		wit
i	experiments	KEEP	m	femtometers	KEEP	n	prominently	KEEP		that	[2]len < 5		a
	are	[2]len < 5		of	[2]len < 5	u	demodulated	KEEP		are	[2]len < 5	l	bui
n	immensely	KEEP		defects	[7]stress		as	[2]len < 5	m	paramount	KEEP		of
	and	[2]len < 5		they	[2]len < 5	t	extra	KEEP		to	[2]len < 5		nea
g	largely	KEEP		must	[2]len < 5	s	fission	KEEP		the	[2]len < 5		to
r	underlain	KEEP		then	[2]len < 5		division	[6]i i i	f	safer	KEEP		eig
	by	[2]len < 5		be	[2]len < 5		or	[2]len < 5		profits	[4]homo:prophets	f	tra
	minimizing	[6]i i i	r	appropriately	KEEP		multiplication	[3]greek		of	[2]len < 5	r	neu
	the	[2]len < 5	b	counterbalanced	KEEP		would	[4]homo:wood		this	[2]len < 5	i	trac
	stationary	[4]homo:stationery		by	[2]len < 5	b	undoubtedly	KEEP		project	[7]stress	e	per
e	compressors	KEEP		a	[2]len < 5	u	trump	KEEP		the	[2]len < 5	s	con
	that	[2]len < 5	i	sustainable	KEEP		any	[2]len < 5	o	unaccounted	KEEP		of
t	momentarily	KEEP	g	abridgement	KEEP	t	resistances	KEEP		decay	[5]lett:DK		suc
	produce	[7]stress		of	[2]len < 5	h	tightly	KEEP		of	[2]len < 5	p	dec
u	conducive	KEEP		joules	[4]homo:jewels		sighted	[4]homo:cited	r	neutrinos	KEEP		gro
	energy	[5]lett:NRG		to	[2]len < 5		near	[2]len < 5		means	[4]homo:miens		wo
	to	[2]len < 5		exploit	[7]stress		some	[2]len < 5		that	[2]len < 5		by
	the	[2]len < 5		topographical	[3]greek		of	[2]len < 5		if	[2]len < 5	o	ana
r	semipermeable	KEEP		complexity	[3]greek		the	[2]len < 5		a	[2]len < 5	o	rea
n	tanks	KEEP					finickier	[6]i i i		numerical	[3]greek		ove
						a	obstacles	KEEP	t	pattern	KEEP		the
						r	generally	KEEP		of	[2]len < 5	r	neu
						m	decontaminating	KEEP	a	substantial	KEEP	s	nec
							the	[2]len < 5		tangibility	[6]i i i	u	nat
						l	chronological	KEEP		is	[2]len < 5		def
							effects	[5]lett:FX	b	superabundant	KEEP		eff
							needs	[4]homo:kneads		then	[2]len < 5		and
						e	corrected	KEEP	l	redeploying	KEEP	b	imb
						s	plausible	KEEP	y	nonphysical	KEEP		the
						s	tests	KEEP	h	methods	KEEP	s	bos
							at	[2]len < 5	o	becomes	KEEP		wit
							present	[7]stress	t	vital	KEEP	t	ele
										so	[2]len < 5		and
										as	[2]len < 5	i	sim

										not	[2]len < 5	t	lept
										to	[2]len < 5		but
										implant	[7]stress		her
										any	[2]len < 5		as
										defects	[7]stress		the
													ene
													is
												u	bou
													to
													tha
													of
													at
													mo
													eigh
												t	mic
													the
													exc
													can
												e	ble
													off
													and
													the
												f	cer
													per
												o	clo
													of
												r	neu
													is
													bet
													by
												p	rec
													mu
													our
												o	rec
													is
													tha
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												u	glu
													ent
													is
												t	aut
													birt
													and
													we
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												i	mo

												is
											n	sub
											e	diff
												yet
												arti

Reading the letters for each paragraph (and adding spaces and punctuation) gives the hidden messages:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters. Mr. Big is a Canadian candy bar, and poutine is a type of french fry and cheese snack.

1.11.00 Role Puzzles

(Optional Puzzles) Directions on how to keep track of which teams do which role puzzles.

Open Time Period

(See Consolidator 1 or 2)

Location

(See Consolidator 1 or 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Staff instructions for Particle Zoo
- Staff instructions for Redacted Puzzle
- Staff instructions for Pulp SF Puzzle
- Staff instructions for Balance Sheet
- Staff instructions for Income Statement
- Team vs. Role Puzzle check off grid

Staff Instructions

(See Consolidator 1 or 2)

Puzzles At This Site: All five role puzzles...but most teams will only get one.

Where To Get Materials: GC HQ

Setup Instructions: (See Consolidator 1 or 2)

Handout Instructions:

Onsite Staff: Whenever you hand out a role puzzle to a team, enter a slash in the appropriate cell of the "Teams vs. Role Puzzles Grid" online Google Doc.

Hints: Teams have been instructed to call GC; if you familiarize yourself with the attached hints feel free to assist

Answers: Teams may give answers to either onsite staff or GC HQ. Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

The "Consolidation 1" event Staff Instructions will then tell you what activity to next assign the team.

Site Close Down: (See Consolidator 1 or 2)

Other Instructions: (See Consolidator 1 or 2)

Detailed Description

Hints

n/a

Puzzle Answer

Puzzle Solution

1.11.01 Pulp Science Fiction Story

(Optional Puzzle (JOURNALISM)) A pulp science fiction story written by Doctor When is discovered in the past.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Pulp Science Fiction
- Act II: 16 copies of Peach Frontier version of Pulp Science Fiction

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

Act I

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "Wesley When." Is it just a coincidence...some other Wesley When from the past? Or was it our very own Doctor When leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask the lab assistant onsite for the Pulp Science Fiction Research Project.]

Act II

FOR JOURNALIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> During our research we noticed a strange anachronism: a story in a 1930s pulp science fiction magazine...written by a "C.L. Chronos." Is it just a coincidence...some other C.L. Chronos from the past? Or was it our very own Prof. Chronos leaving us a helpful message (but doing so in a way that is so subtle it won't corrupt the timeline)?
>
> Would you please analyze the story and then either see any onsite lab assistant or call the lab and speak to any lab assistant? [To start, just ask

the lab assistant onsite for the Pulp Science Fiction Research Project.]

SUPPLEMENTAL EMAIL--BOTH ACTS

Research Project Title: Pulp Science Fiction
Objective: Analyze 1950s pulp science fiction story to determine if it's a secret message
Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

Check the Fermi decouplers? Let's see... wow, good thing we checked them! They were about to blow, and no good can come of blown Fermi decouplers. Okay, it looks like the machine is running more smoothly now.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

After the accident, a scan of the historical record discovers a 1930s pulp science fiction story written by Doctor When or Professor Chronos (depending on whether the puzzle is delivered in Act I or II). Perhaps the Doctor/Professor hid a message in it!

This puzzle is intended to engage the skills that a team of journalists are likely to have.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- If the players are completely stuck, remind them that the last part of the About the Author section says that the author worked really hard on the title - maybe that contains a clue.

- If they're still stuck, note that the lab computer has done a grammar analysis and, strangely, there are no participles, gerunds, infinitives, or other verbal forms - just regular verbs.

- If they're looking at verb tenses but are trying to put them in groups of three (or something similar), remind them that the About the Author section says something about working carefully on each individual sentence. Maybe the verbs are grouped by sentence...

- It's possible that some teams may not know enough, or know too much, about verb tenses. All verbs in this story appear (are meant to be) either in past, present, or future TIME, and forms such as "will succeed" and contractions such as "I'll kill" are considered part of the same verb. Aspects are irrelevant - "he ran" and "he was running" both count as past verbs.

- It's also possible that there may some confusion about what constitutes a sentence, especially within quotes (or in the sentences describing the sign). The demarcations here are simple - a sentence ends whenever a period, exclamation point, or question mark appear.

- Since there are three tenses (times) - past, present, future - could that suggest a ternary code?

- As an extra hint, the first letter after each appearance of the word "secret" spells TERNARY.

- VERY COMMONLY, teams may be looking at verb tenses and sentences correctly and be thinking about ternary, but be stuck on the idea of "past = 0, present = 1, ...". Remind them that a good ternary code not only uses three values (0, 1, 2), but also has three digits/places. Maybe the three tenses correspond to places/digits (9's place, 3's place, 1's place) instead of the numerals (0, 1, 2) in those places.

Puzzle Answer

CHECK FERMI DECOUPLERS

Puzzle Solution

- All verbs in the story have past, present, or future tense (time).

- For each sentence, count the number of verbs in past, present, and future tense (time), and form a three-digit ternary number, with the past verbs

forming the 9's digit, the present verbs the 3's digit, and the future verbs the 1's digit.

- (Sentences end if and only if a period (not an ellipsis), question mark, or exclamation point appears.)

- Verb counts are as follows (format is past/present/future):

- Paragraph 1: (202,022,100,200,011)

- Paragraph 2: (110,012,202,202,012,200)

- Paragraph 3: (001,020,202,012,200)

- Paragraph 4: (010,120,111,111,001,201)

- This translates to THIRDLETTERAFTERCOMMAS.

- Reading the third letter after each comma (not counting spaces or punctuation) gives CHECKFERMIDECOUPLERS.

1.11.02a Balance Sheet Puzzle

(Optional Puzzle (INVESTOR)) An unusual financial balance sheet reveals instructions on how to raise money.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Balance Sheet
- Act II: 16 copies of Peach Frontier version of Balance Sheet
- File:Balance Sheet Puzzle V7.pdf

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR INVESTOR TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> We seem to have run into a little bump in the road on our way to rescuing Doctor When. It's not a technical problem. Rather (and this is so embarrassing) it seems we've run out of money.
>
> Would you please help? [Ask the lab assistant for the "Balance Sheet" research project.] When you're done see any lab assistant or call the Institute and speak with any lab assistant.

SUPPLEMENTAL EMAIL

> Research Project Title: Balance Sheet
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of

> Why of course! All we have to do is use the time machine to make an investment in the distant past. And then by the miracle of compound interest we'll be swimming in money today! We'll get right on that.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Trenchwood Institute (or Peach Frontier Laboratories) has run out of money. The game fairy (Chronos or When) asks the players to fix the errors in the lab's financial balance sheet, which doesn't seem to use the same rules as normal balance sheets. After fixing the errors, they can scrutinize the sheet to uncover hidden instructions on how to solve the lab's financial woes.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

(waiting for Wei-Hwa to upload Word document)

How Confused Players Describe Which Puzzle They're Working On

"Consolidated Balance Sheet For Department Of Defense"

Common Sticking Points

Sticking Point	Suggested Suggestion
Didn't solve for two missing numbers first	"Have you found the two missing figures?"
Can't figure out why totals add up to 0, i.e., that it's mod 24.	"That is odd. What kind of strange arithmetic could possibly have both 72 and 24 equal to zero?"
Don't make the intuitive leap to also think about the numbers as times.	"I wonder why he/she used an arithmetic that goes up to 24 and then starts back at zero?"

Puzzle Answer

INVEST CENT IN PAST

Puzzle Solution

Typical Solve Process

1. Figure out the two missing numbers (Yerevan = 15, Phuket = 10) by realizing that the summations are done mod 24.
2. Realize from the mod 24 and the "Department Of Defense" references that the numbers can also be interpreted as "military time."
3. Look up the UTC time zone offsets for each location referenced.
4. Convert each foreign time to its equivalent simultaneous time in San Mateo, i.e., "if it's 12:00 in Easter Island, what time is it here?" (assume all times are *standard).*
5. Index the resulting numbers into the alphabet

Puzzle Data

Assets	As printed	UTC	Delta	Local time	Letter
Current					
Cash (Pacific Standard Trust)	9	-8	+0 = PST	9	I
Short-term investments, Managua Money Market Fund	16	-6	-2 = PST	14	N
Accounts receivable, Seoul Food Products	15	+9	+7 = PST	22	V
Inventory, Broome, AU janitorial supplies	21	+8	-16 = PST	5	E
Notes receivable, Libyan Aviation	5	+2	+14 = PST	19	S
Pre-paid rent, Latvian Laboratory	6	+2	+14 = PST	20	T
Total Current	0				
Long-Term Assets					
Equipment, Yerevan University	**15**	+4	-12 = PST	3	C
Building, Pago Pago tachyon storage facility	2	-11	+3 = PST	5	E
Long-Term Investments, Buenos Aires Bonds	19	-3	-5 = PST	14	N
Ulaanbaatar administrative yurts	12	+8	+8 = PST	20	T
Total Long-Term	0				

Liabilities	As printed	UTC	Delta	Local time	Letter
Liabilities					
Gravina Island Bridge Loan	8	-9	+1 = PST	9	I
Accounts Payable, Easter Island Head Office	16	-6	-2 = PST	14	N
Total Liabilities	0				
Net worth					
Contributed capital, Pyongyang People's Victory Fund	9	+9	+7 = PST	16	P
Reserved stock, Vanuatu Hedge Partners	20	+11	-19 = PST	1	A
Reserves, Phuket All-Services Bank	**10**	+7	+9 = PST	19	S
Retained earnings, Margilan Maritime Credit Union	9	+5	+11 = PST	20	T
Total Net Worth	0				

1.11.02b Income Statement

(Optional Puzzle (INVESTOR)) Followup to Balance Sheet; bizarre income statement reveals another message.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Income Statement
- Act II: 16 copies of Peach Frontier version of Income Statement

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions: If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

> Uh, oh... We seem to have encountered a bit more difficulty with our finances. Please see the lab assistant at your current location and ask for the Income Statement Research Project.

SUPPLEMENTAL EMAIL

> Research Project Title: Income Statement
> Objective: Help Institute keep operating long enough to rescue our leader by avoiding bankruptcy
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Why of course! Using other people's money is the successful way to fund any venture! We'll get right on it.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Intended Solve Process

1. Notice all the times are valid non-military times.
2. Solve for the one missing number (Rent = 3:02 AM) using standard clock arithmetic
3. Notice that the top section corresponds to AM ("Accumulated Monies") and the bottom section corresponds to PM ("Paid Monies"). Some players may especially clued into this because "Accumulated Monies" and "Paid Monies" are *not* standard
4. Notice that there are exactly 12 words in each section. ("Timeline-Adjustments" and "Timeline-Restoration" each count as one word since they have hyphens.) This should suggest 12 hours.
5. Notice that the income statement is printed in a fixed-width font. This suggests that counting characters is important.
6. Now the puzzle becomes a simple look up: for example, "m:n AM" means look up the n-th character of the m-th word in the AM section.

Puzzle Data

Revenues (Accumulated Monies)		
Sales	11:14 PM	O
Service	6:09 PM	T
Consulting	9:13 AM	H
Fees	1:02 AM	E
Interest	1:01 AM	R
Tachyonography	12:09 AM	-
Fortune Telling	9:12 AM	P
Timeline-Adjustments	1:02 AM	E
	3:02 PM	O
Expenses (Paid Monies)		
COGS	9:12 AM	P
Particles	2:07 AM	L
Depreciation	12:17 AM	E
Butterflies	3:06 PM	S
Dinosaurs	11:09 PM	-
Insurance	2:05 AM	M
Rent	**3:02 AM**	O
Timeline-Restoration	1:05 AM	N
Utilities	1:02 AM	E
	9:05 AM	Y

Common Sticking Points

Sticking Point	**Suggested Suggestion**
Skipped figuring out the missing number	
Can't figure out how to calculate missing number	"The top section seems to add up just like times should."
Can't figure out what to do with the times.	"The hours go from up to 12. Is there 12 of anything else?" Or "It's interesting that the largest number of minutes is 17."

Puzzle Answer

OTHER-PEOPLES-MONEY

Puzzle Solution

Triple index the location names: section from am/pm, line from hour, letter from minute.

1.11.03 Particle Zoo

(Optional Puzzle (SCIENTIST)) Players need to classify a large number of "particles" (similar images).

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Particle Zoo
- Act II: 16 copies of Peach Frontier version of Particle Zoo

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR SCIENTIST TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> It seems that when the time machine malfunctioned, it ignited a proliferation of new elementary particles. We think that we need to include these new particles in our calculations as we continue to tune the tine machine, but we're not exactly how to approach the problem. Ask the lab assistant onsite for the Particle Zoo research project. Call the lab and speak with any lab assistant when you're done.

SUPPLEMENTAL EMAIL

> Research Project Title: Particle Zoo
> Objective: Find out how to deal with proliferation of particles caused by time machine malfunction
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Of *course*! Chronozoic spacetime field theory is the *perfect* theoretical approach to figuring out how to tune the time machine to account for these new particles! In fact, it's easy - we can make the adjustments almost instantly.

> There - we're done. Now we can send Doctor When to 1986 just like he requested. We've opened a portal for him and are sending him back to school!

Enter code 202751 in the View-O-Scope remote access program, and then we can see if it worked. I'll hang up now and watch as well. If you need to, you can call us at the lab after you watch the Doctor on the View-O-Scope.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online "Teams vs. Role Puzzles Grid".

Site Close Down: See Consolidator 1 or 2

Detailed Description

Players receive a printout with 23 columns of images, and need to classify those images into sets. Having done so, they figure out letters for each set, which they then must figure out how to order correctly in order to read the final message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- There are clearly "groups" of symbols that belong together. A good first step is to identify what the groups are. (Note that exact names don't matter).

- There are 30 groups in total. (The toughest group to be precise about is probably the pizza logos/signs.)

- Note that if two or more images from one group appear in a single column, they always appear together.

- That's because the order is always consistent. In fact, after classifying the groups, the second key step is to figure out the order of the groups, from examining the orders of the symbols in each individual column. Columns with many symbols are good places to start.

- There are lots of symbols in some columns - 1, 5, 9, 15 are some examples. Does that suggest anything?

- The column numbers represent letters (for example, 1, 5, 9, 15 are a, e, i, o respectively).

- Each group appears six times, yielding six letters. How do we order the letters?

- Hmmm. Check the flavor text. What are these particles called?

- They're called zuons. And some of the letter combos might be suspicious - try the one containing a Q.

- D,I,Q,S,S,U anagrams to SQUIDS. Hey, that's an animal!

- "Zuons" - this is a "zoo" of particles. Each group anagrams to an animal word.

- Some of the anagrams are easy; others are pretty hard. In fact, you may never have heard of some of them before, and would need an anagram solver with a large dictionary to find. The toughest ones are probably OCELOT, NUTRIA, DUGONG, and YORKIE.

- What now? Well, you've got a lot of animal names - have you written them all down? In order?

- Write the animals in the order of the groups. Read down the first letters of each.

202751

Puzzle Answer

CHRONOZOIC SPACETIME FIELD THEORY

Puzzle Solution

1) Players receive pages with columns of images. These images belong to 30 "groups", such as peace signs, balls, and moons.

2) Players must figure out what the groups are, and the order of the groups. The order is consistent in every column, but each column only contains images from some of the groups.

3) The order of the groups is as follows. (Exact names don't matter.) The numbers in parentheses indicate the column(s) that disambiguates the order of that group and the next.

```
Lamp (5,15,20)
Star (18,20)
Peace sign (20)
Triangle (20)
Christmas ornament (18)
Dial or gauge (5,18,19)
No smoking sign (5,18)
Hole or window (9)
Globe or Earth (1,7,21)
Asterisk (21)
Ball (9)
Exclamation point (16)
Trivial Pursuit piece (1,3)
Red circle (1)
Black & yellow travel sign (5,12)
Face (12)
Ancient coin (1,9,13,16)
Screw (5,9,13)
Keyhole (5,18)
Clock (5,20)
Handicapped emblem (5,19)
Dog (18)
Bolt (4)
Moon (14,15,21)
Arrow (14,15)
Green circle (5,18)
Pizza logo (5,18)
Sun (5,15,18,20)
Shower holes; may be mistaken for phone speaker holes or something similar (9,15,18)
Blue & white food/drink sign
```

4) Next, write down the column numbers that each symbol group appears in. For instance, the lamp appears in columns 3, 5, 15, 15, 20, and 25. (This includes appearing twice in column 15.)

5) Column numbers become letters (1=A, 2=B, etc.) For instance, the letters for the lamp group are C, E, O, O, T, Y.

6) Each group's letters anagram to the name of an animal (e.g., the lamp group anagrams to COYOTE). The animals are:

```
Lamp        -        COYOTE
Star        -        HORNET
Peace sign  -        RABBIT
Triangle    -        OCELOT
Christmas ornament - NUTRIA
Dial or gauge -      OSPREY
No smoking sign -    ZEBRAS
Hole        -        ORIOLE
Globe or Earth -     IGUANA
Asterisk    -        COUGAR
Ball        -        SQUIDS
Exclamation point -  PIGEON
Triv. Purs. piece -  ALPACA
Red circle  -        CAIMAN
B & Y travel sign -  EAGLES
Face        -        TURTLE
Ancient coin -       IMPALA
Screw       -        MAGPIE
Keyhole     -        ERMINE
Clock       -        FERRET
Handicapped emblem - IBEXES
Dog         -        EGRETS
Bolt        -        LIZARD
Moon        -        DUGONG
Arrow       -        TOUCAN
Green circle -       HERONS
Pizza logo  -        EARWIG
Sun         -        OYSTER
Shower holes -       RHINOS
Blue & white sign -  YORKIE
```

7) The first letters of each animal, in order, give CHRONOZOIC SPACETIME FIELD THEORY, the answer.

Files for the Act 1 and Act 2 versions, respectively:

File:Proliferation of Particles.pdf File:Proliferation of Particles Act 2.doc

1.11.04 (REDACTED) Redaction Agency Puzzle

(Optional Puzzle (GOVERNMENT)) Optional role puzzle--government. Teams are told that there is a suspected mole at the lab.

Open Time Period

(See Consolidator 1 or 2)

Location

- Act I: Schroeder's Restaurant. (See Consolidator 1)
- Act II: Gym (See Consolidator 2)

Plot Setup

(See Consolidator 1 or 2)

Props

- Act I: 9 copies of Trenchwood version of Redaction Agency Puzzle internal email [3] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-acti.pdf)
- Act II: 16 copies of Peach Frontier version of Redaction Agency internal email [4] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/internal-email-actii.pdf)
- 48 copies--A page from a scientific paper [5] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/sci-paper-to-print.pdf) . Give out three copies per team.
- 16 copies--A bunch of strips that assemble to form the first page of the secret agent's instruction document [6] (http://weihwa.com/~whuang/nodir/doctorwhen/redacted/crap-instructions-toprint.pdf) . This should be printed out, the upper-left corner cut off and thrown away, and the rest run through Wei-Hwa's paper shredder. These strips are in a ziplok bag.

Staff Instructions

(See Consolidator 1 or 2)

Where To Get Materials: GC HQ

Handout Instructions:

If a team is directed to this puzzle over the phone, then they will ask the onsite lab assistant for the puzzle by name. Give it to them (and don't forget to enter it in the "Teams Vs. Role Puzzles Grid" online document)

If you're assigning this puzzle to them in person, then say words to the effect of,

FOR GOVERNMENT TEAMS:

> We're run into a problem that could really benefit from the special expertise of you and your colleagues:

CONTINUE FOR ALL TEAMS:

> One of our tech writers at the lab has suddenly disappeared. We suspect he might have actually been a secret agent working for some other organization. This handout will tell you everything you need to know.

SUPPLEMENTAL EMAIL

> Research Project Title: Redaction Agency
> Objective: Find out what information has been compromised and who the secret agent is working for
> Upon Completion: See the lab assistant onsite or call the lab and speak with any lab assistant

Hints: Teams may call in for hints. But if you familiarize yourself with the attached hint document, feel free to give hints.

Answers: Teams may give answers to either onsite staff or GC HQ. Say words to the effect of,

> Ah, so Mr. Molson was a mole! (And not just the son of one!) I should have expected he was a Canadian--those Canadians are always

> stirring up trouble. Lucky for us those northern barbarians wouldn't know a working time machine if it blew up in their faces! Not that a time machine is likely to blow up. Well, you know what I mean.

Whenever a team correctly answers a puzzle be sure to replace the slash with an "X" in the online Teams vs. Role Puzzles Grid (https://docs.google.com/spreadsheet/ccc?key=0ApFpcABekMwDdHlSR1pFMUd5SWI0VzlfcWFRSUNLbnc#gid=0) .

Site Close Down: See Consolidator 1 or 2

Detailed Description

Optional role puzzle--government. Teams are told that there is a suspected mole at the lab and is given enough information to find the mole's secret message. Each team receives a (printed) e-mail message that says:

> A small crisis has just come up at the lab that we think your group would be able to help with. One of our tech writers, Antoine Molson, has suddenly disappeared. We have reason to suspect that he might have been a mole from some external group, possibly connected to some government agency that is trying to keep tabs on our groundbreaking work. Mostly we base this suspicion on the fact that we couldn't ever understand the documents that he revised for us in preparation for publication to scientific journals (he just assured us that that's what professional scientific writing looks like). We're sending you two copies of a sample of some recent writing he did for us, and some awfully suspicious stuff we found in his office shredder. If he's trying to send some secret messages to his superiors we bet it's in there somehow. See if you can find any secret messages and, ideally, deduce who he's working for.

They also receive three copies of a page of a scientific paper filled with technobabble:

> Whereas, the redirection of the muons are of no consequence to the build, virtually reappearing in their preassigned loci near the neutron. The experiments are immensely and largely underlain by minimizing the stationary compressors that momentarily produce conducive energy to the semipermeable tanks. Determining the sensitivities of the particles is not a complex issue. Interestingly, the oversensitiveness effects a painful task; as variegating vicissitudes can produce femtometers of defects, they must then be appropriately counterbalanced by a sustainable abridgement of joules to exploit topographical complexity. Chiefly, the logistics of execution is also subject to exhibited vulnerabilities. To conjoin any indispensable extractions, many roentgens of particles must necessarily be prominently demodulated as extra fission, division, or multiplication would undoubtedly trump any resistances tightly sighted near some of the finickier obstacles. Generally, decontaminating the chronological effects needs corrected plausible tests at present. It is deducible that as technological sophistications proportionately increase, initial estimates of variables often upset the careful amounts of substantiated yet precise correspondences that are paramount to the safer profits of this project. The unaccounted decay of neutrinos means that if a numerical pattern of substantial tangibility is superabundant, then redeploying nonphysical methods becomes vital so as not to implant any defects. Problematically, a funny and curious sight can be seen when a fermion (that is, an individual top quark) is seen to combine with a buildup of close to eighty transformed neutrinos. Traditionally, perpetual composition of such deceptive groupings would, by analogous reasoning, override the neutrinos' necessarily natural default effects and imbue the boson with electrons and similar leptons. But here, as their energy is bound to that of at most eighty microteslas, the excess can bleed off and the certifiably perfect cloud of neutrinos is betaken by receptive muons. Our reckoning is that a gluon entity is automatically birthed, and we suspect that such morbidity is substantively different, yet artificial.

Finally, team also receives a bag of shredded paper.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This puzzle should be pretty straightforward -- none of our playtest teams needed hints. Possibilities:

- If a team feels they shouldn't be reassembling the shredded strips, hint that they probably should.

The biggest sticking point might be where a team has no idea what the last step is.

- Suggest to them to count the letters in each of the remaining words.
- Ask them if most, if not all, of those counts all have something in common.
- Ask them what a really simple extraction mechanism that only applies to odd words could be.

If a team is unwilling to search for "poutine", prod them to.

If you see a team with almost all of the message but don't realize they're done -- try to help them realize they're done.

Puzzle Answer

The solver should find out that the mole has sent these messages to his headquarters, the (??)daction Agency:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters.

There are five messages hidden in the document: "REQUESTING RETURN", "MISSING MR. BIG", "SUBJECT IS NUTS BUT HARMLESS", "CLIMATE UNCOMFORTABLY HOT", and "ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE". The team should be able to give you these messages and interpret them -- meaning that the agent hasn't found any important data, and has fled the lab to his home country of Canada. (Mr. Big is a brand of candy bar, and poutine is a cheese and shredded potatoes dish.)

Puzzle Solution

First, the team must assemble the shredded paper to get the first page of a document. Unfortunately the upper-left corner of the page is missing, so the team cannot figure out the entire contents of the paper (which would reveal what agency the spy is working for). Also, the team only has the first page, so they do not have the last step of decoding, which is extracting the data. Here is the text of the assembled paper, with (M) representing missing text:

```
March 2012

(M)daction Agency

(M)nalysis Redaction Annotation Procedure

(M)g!
(M)hly-secure document intended only for the eyes of any agents working for
(M)ian Redaction Agency. Pleease familiarize yourself with the procedures
(M)his document and then shred it as soon as possible to avoid giving away your

(M)rview
(M)ommunication among agents must be encoded, one message per paragraph, using
(M) the procedures outlined in this document. We cover ''decoding'' first.
(M)edacting Short Words
(M)y words that are shorter than five letters should be redacted.
(M). Redacting Greek
(M)ny words that contain a substring that is a spelling of a Greek letter should be
redacted.
4. Redacting Homophones
Any words that are a homophone of another English word should be redacted. It is not
necessary that both words be in the same document.
5. Redacting Letter Sounds
Any words that sound like a series of letters read out loud should be redacted.  The
homophones here can be a bit rough.
6. Redacting Consecutive I’s
Any word containing three or more I’s without any intervening vowels (this includes
Y’s) should be redacted.
7. Redacting Stress-changing Words
Any words that change their syllabic stress depending on the part of speech of the word
(such as noun vs. verb, or noun vs. adjective) should be redacted.
8. Extracting the Message
If you have done all the other steps correctly, this last step is actually very easy to
carry out.  You should notice that all the remaining words in the document will have a length
page 1 of 3
```

From this, the team should be able to figure out that they need to cross out the words from the document according to rules 2 through 7. They need an "aha" to infer that the remaining words all have an odd number of letters, and that the messages can be read by taking the center letter of each of those words. Here is a table of all the words, along with a note of what step it gets redacted, and if not redacted, which letter it produces:

r	whereas	KEEP	m	determining	KEEP		chiefly	[3]greek		it	[2]len < 5	a	pro
	the	[2]len < 5		the	[2]len < 5		the	[2]len < 5		is	[2]len < 5		a
e	redirection	KEEP		sensitivities	[6]i i i	s	logistics	KEEP	c	deducible	KEEP	n	fun
	of	[2]len < 5		of	[2]len < 5		of	[2]len < 5		that	[2]len < 5		and
	the	[2]len < 5		the	[2]len < 5	u	execution	KEEP		as	[2]len < 5	i	cur
	muons	[3]greek	i	particles	KEEP		is	[2]len < 5	l	technological	KEEP		sig
	are	[2]len < 5		is	[2]len < 5		also	[2]len < 5		sophistications	[3]greek		can
	of	[2]len < 5		not	[2]len < 5		subject	[7]stress	i	proportionately	KEEP		be
	no	[2]len < 5		a	[2]len < 5		to	[2]len < 5		increase	[7]stress		see

q	consequence	KEEP		complex	[7]stress	b	exhibited	KEEP		initial	[6]i i i		wh
	to	[2]len < 5	s	issue	KEEP		vulnerabilities	[6]i i i	m	estimates	KEEP		a
	the	[2]len < 5	s	interestingly	KEEP		to	[2]len < 5		of	[2]len < 5	m	fer
	build	[4]homo:billed		the	[2]len < 5	j	conjoin	KEEP	a	variables	KEEP		tha
u	virtually	KEEP	i	oversensitiveness	KEEP		any	[2]len < 5	t	often	KEEP		is
e	reappearing	KEEP		effects	[5]lett:FX	e	indispensable	KEEP		upset	[7]stress		an
	in	[2]len < 5		a	[2]len < 5	c	extractions	KEEP		the	[2]len < 5		ind
	their	[4]homo:there	n	painful	KEEP		many	[2]len < 5	e	careful	KEEP		top
s	preassigned	KEEP		task	[2]len < 5	t	roentgens	KEEP	u	amounts	KEEP	a	qua
	loci	[2]len < 5		as	[2]len < 5		of	[2]len < 5		of	[2]len < 5		is
	near	[2]len < 5	g	variegating	KEEP	i	particles	KEEP	n	substantiated	KEEP		see
	the	[2]len < 5		vicissitudes	[6]i i i		must	[2]len < 5		yet	[2]len < 5		to
t	neutron	KEEP		can	[2]len < 5	s	necessarily	KEEP	c	precise	KEEP		con
	the	[2]len < 5		produce	[7]stress		be	[2]len < 5	o	correspondences	KEEP		wit
i	experiments	KEEP	m	femtometers	KEEP	n	prominently	KEEP		that	[2]len < 5		a
	are	[2]len < 5		of	[2]len < 5	u	demodulated	KEEP		are	[2]len < 5	l	bui
n	immensely	KEEP		defects	[7]stress		as	[2]len < 5	m	paramount	KEEP		of
	and	[2]len < 5		they	[2]len < 5	t	extra	KEEP		to	[2]len < 5		nea
g	largely	KEEP		must	[2]len < 5	s	fission	KEEP		the	[2]len < 5		to
r	underlain	KEEP		then	[2]len < 5		division	[6]i i i	f	safer	KEEP		eig
	by	[2]len < 5		be	[2]len < 5		or	[2]len < 5		profits	[4]homo:prophets	f	tra
	minimizing	[6]i i i	r	appropriately	KEEP		multiplication	[3]greek		of	[2]len < 5	r	neu
	the	[2]len < 5	b	counterbalanced	KEEP		would	[4]homo:wood		this	[2]len < 5	i	trac
	stationary	[4]homo:stationery		by	[2]len < 5	b	undoubtedly	KEEP		project	[7]stress	e	per
e	compressors	KEEP		a	[2]len < 5	u	trump	KEEP		the	[2]len < 5	s	con
	that	[2]len < 5	i	sustainable	KEEP		any	[2]len < 5	o	unaccounted	KEEP		of
t	momentarily	KEEP	g	abridgement	KEEP	t	resistances	KEEP		decay	[5]lett:DK		suc
	produce	[7]stress		of	[2]len < 5	h	tightly	KEEP		of	[2]len < 5	p	dec
u	conducive	KEEP		joules	[4]homo:jewels		sighted	[4]homo:cited	r	neutrinos	KEEP		gro
	energy	[5]lett:NRG		to	[2]len < 5		near	[2]len < 5		means	[4]homo:miens		wo
	to	[2]len < 5		exploit	[7]stress		some	[2]len < 5		that	[2]len < 5		by
	the	[2]len < 5		topographical	[3]greek		of	[2]len < 5		if	[2]len < 5	o	ana
r	semipermeable	KEEP		complexity	[3]greek		the	[2]len < 5		a	[2]len < 5	o	rea
n	tanks	KEEP					finickier	[6]i i i		numerical	[3]greek		ove
						a	obstacles	KEEP	t	pattern	KEEP		the
						r	generally	KEEP		of	[2]len < 5	r	neu
						m	decontaminating	KEEP	a	substantial	KEEP	s	nec
							the	[2]len < 5		tangibility	[6]i i i	u	nat
						l	chronological	KEEP		is	[2]len < 5		def
							effects	[5]lett:FX	b	superabundant	KEEP		eff
							needs	[4]homo:kneads		then	[2]len < 5		and
						e	corrected	KEEP	l	redeploying	KEEP	b	imb
						s	plausible	KEEP	y	nonphysical	KEEP		the
						s	tests	KEEP	h	methods	KEEP	s	bos
							at	[2]len < 5	o	becomes	KEEP		wit
							present	[7]stress	t	vital	KEEP	t	ele
										so	[2]len < 5		and
										as	[2]len < 5	i	sim

										not	[2]len < 5	t	lept
										to	[2]len < 5		but
										implant	[7]stress		her
										any	[2]len < 5		as
										defects	[7]stress		the
													ene
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Reading the letters for each paragraph (and adding spaces and punctuation) gives the hidden messages:

```
"REQUESTING RETURN"
"MISSING MR. BIG"
"SUBJECT IS NUTS BUT HARMLESS"
"CLIMATE UNCOMFORTABLY HOT"
"ANIMAL FRIES POOR SUBSTITUTE FOR POUTINE"
```

From this, they should be able to infer that the mole works for the Canadian Redaction Agency, and that he has left the lab and has not given away any sensitive data to his headquarters. Mr. Big is a Canadian candy bar, and poutine is a type of french fry and cheese snack.

1.11 Fetch the Letter

(Mandatory Puzzle) Retrieve the envelope from where it's been waiting for 50 years.

Open Time Period

Crissy Field: Saturday, 5 PM - last team finishes (16 teams Game 1, 17 teams Game 2) estimated 8:30 PM.

Location

Name And Address: Far west end of Crissy Field (two people)

Parking: Park at the free lot at the intersection of Mason Street and Pearce Street

GC PoC: Erik, (650) 395-8463, lab@trenchwood.com

Notes: Approach via Mason Street because of construction street closures. No permit required for "picnic" or similar events with fewer than 50 people.

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players helped the Institute rescue the Doctor from the Big Bang
- The Doctor has asked not to be returned to 2012, but rather sent to Paine Memorial High School on May 31, 1986 at 2 PM
- Once there, the Doctor discovered he had lost an envelop containing "information vital to restoring the timeline" somewhere during his random bounces through time
- The players discovered the envelope was lost at Fort Point in San Francisco

Props

Crazy Tracy

- reach grabber

- award certificate
- safety goggles
- pocket protector
- nerd glasses
- rubber gloves
- flask
- electric meter

- red tape
- agent badge
- sunglasses
- binder
- handcuffs

- fedora
- memo pad
- light bulb canister
- photography magazine
- microphone

- golf club
- prospectus
- piggy bank
- Wall Street Journal

- day planner
- tobacco container

Archeologist

- two copies of "1958 Log" per team (http://weihwa.com/~whuang/nodir/doctorwhen/find-letter/LogBookV9.pdf)
- two copies of "Memorandum" per team (http://weihwa.com/~whuang/nodir/doctorwhen/find-letter/MemoV4.pdf)
- storage tub, with lid
  - 15 "decoy" envelopes
    - contains paper towels
  - 18 "correct" envelopes, marked with code "LA" (but only one is in the tub at a time)
    - each contains a folded, empty, dirty envelope and a newspaper clipping (with handwritten note)
- 1 hint sheet (printed copy of this page)
- 18 coupons to Crazy Tracy's shop

Staff Instructions

Interaction Instructions:

All staff, if non-players approach out of curiosity, explain out-of-character:

> Hi! This is part of a scavenger hunt event. Our players have to interact with us to get what they need, before they move on to their next location.

Crazy Tracy

Your Role: a crazy dumpster diver, peddling your crap as priceless treasures.

Greet players:

> Welcome to Crazy Tracy's Show-Me Shop! I've got something for everyone, you need it, I got it.

Let them freely examine the wares. However, your prices are exorbitant. 5 billion dollars; 278 gazillion dollars; make up any giant numbers. Require foreign currency; whatever will block them from actually trying to pay you. You're Crazy Tracy! You make up your own rules. You don't even have to be consistent or make sense. You just have to make sure each team only takes one item, and that they have a coupon for it, which they get from the Archeologist.

If they don't seem to know what they're doing, or don't realize the archeology people are elsewhere, prod them:

> Are you looking for something specific? [get them to describe the envelope] Oh, an old envelope? I have nothing like that, maybe the archeology folks know something about it. They're over there.

Point them towards the Archeologist.

Players who visit the Archeologist first will likely present their coupon without prodding.

> Oh, I see you have a coupon for one free item! Ok, here's how it works. You can choose any item you want, but you have to grab it with this. [hand them the grabber] And you have to do it behind your back. That's right, turn around, and reach behind you. Yes, your friends can help you, but they can only talk, no touching!

If they ask which one they "should" take, rebuff them. You have no idea! (It's the Archeologist's job to give hints about the "right" item.)

When they get the item they want,

> Nicely done! That's a beautiful treasure, I hope you like it. If you need to exchange it, just come on back, I'll be here for hours.

They may keep it, they needn't bring it back when they're done with this puzzle site.

If they come back to exchange something, take the old item but make them play the grabber game to get a replacement.

Archeologist

Your Role: (unrelated to Trenchwood) Caretaker of a makeshift depot of artifacts, for the convenience of some local experts who have been invited

to conduct independent research on them.

Greet players:

> Hi, folks! Can I see your invitations, please? [puzzled looks from players] You did get invitations, right? ... I'm sorry, this is a private research station. If you don't have your invitation, you'll have to prove your eligibility to me some other way.

Let them improvise for a bit, and ad lib reasons why you're not convinced. After a short time, let them off the hook with a hint:

> No, I'm sorry, I really need some physical proof that you are who you say you are. We archeologists are used to dealing with artifacts, they provide the best evidence -- no, your IDs are no good, HQ didn't give me a guest list. I should really bug them about that. Anyway, sorry you came all this way for nothing. Actually, I've got a coupon I can give you for Crazy Tracy's Show-Me Shop, over there; at least you could take home some souvenir from your visit to the big city. Bye, now!

Point them toward Crazy Tracy's. (See Crazy Tracy's section for what transpires there. You should expect them to return and show you an item they got there.)

Crazy Tracy's souvenirs match specific roles (the color of their badge), as follows:

Scientist	award certificate, safety goggles, pocket protector, nerd glasses, rubber gloves, flask, electric meter
Government	red tape, agent badge, sunglasses, binder, handcuffs
Journalist	fedora, memo pad, light bulb canister, photography magazine, microphone
Investor	golf club, prospectus, piggy bank, Wall Street Journal, day planner, tobacco container

If a team brings a mismatched item:

> Hmm, I don't know. That looks more like something a [APPROPRIATE ROLE] would have. Aren't you a [TEAM ROLE]?

This activity is partly intended to close the gap between lead teams and trailing teams. Hence, stall the early teams by making up reasons for rejecting their first two items. Middle teams only get one rejection, and late teams are accepted on their first try. (You may exercise judgement, especially to avoid annoying teams who really aren't enjoying this.)

Feel free to ad lib the rejections, but **be sure to hint at what might be more acceptible**. Here are some examples:

> That certificate is clearly fake! I'll need something more sincere than that.

> Red tape? Really? That's just a metaphor, you know. Don't you have anything more authentic?

> Come on, I know nobody uses giant mics like that anymore. Surely you're up on the latest fashions.

> Seriously? Some old prospectus? Maybe if you had something more current, I'd be convinced.

When you're ready to grant them access,

> Ah, an [OBJECT]! Clearly you are real [ROLES]. Come on in; sorry for doubting you! Let me tell you a bit about what we're doing here. For the last few decades, the Jones Archeological Institute has been working on a big project called the "Civic Refuse Archeological Project." We catalog and organize different sorts of refuse found at dig sites from all over the country. This station was set up for visitors such as yourself to select an artifact to take home for independent study. So, is there a particular artifact you'd be interested in?

The team should mention something about trying to retrieve an envelope that was lost here in the 1950s (1958, to be exact).

> Hmm, we did have a dig here in 1958, I think. The site overseer would have put his findings in a tagged envelope ... see, each envelope has a different two-letter sort tag that uniquely identifies which dig site it was from. Let's take a look...

Show them the tub of envelopes. Pull out two copies of "1958 log" and two copies of "memorandum". Make a show of visually scanning the log.

> Hmm, I don't see the cities recorded in the log. Maybe this memo will help you figure out which tag was used for this site back then. Come on back when you know which envelope you want.

If they ask to look inside the envelopes, explain it's not allowed:

> Company policy says we're not allowed to open the envelopes here, and I can only give you one of them. So I'm afraid you are going to figure out exactly which envelope you need.

The team should now go to work on the puzzle from the "1958 log" and the "memorandum".

You are responsible for dispensing hints. Please familiarize yourself with the solution section later in this document. Role play it like you're just figuring it out on the spot.

> Stuck, huh? Well, show me what you've got so far, maybe I can help. [they do] Hmm. Well, maybe you should try [HINT].

When they request a tag, ask them how they figured it out. If they can't justify their answer, stall them:

> I'd hate to give you the wrong envelope. You'd better be absolutely sure you know which one is from here.

If they insist on just taking a chance, give it to them but caution them:

> Okay, I really hope this is the one you want. It'd be a real shame if it was something useless, like old paper towels or something. I've heard the site seers back then were kind of jokesters, sometimes.

The wrong envelopes will indeed have paper towels in them.

If they come again with a wrong tag:

> Look, we're very busy here and can't just go through all the bins based on your silly hunches. You need to be absolutely sure of the correct sort tag.

The correct tag is "LA". Eventually they will be absolutely sure.

> Great job! Here's your envelope. I hope your studies reveal something useful, for the benefit of mankind. That's what archeology is all about, right? Now we need to get back to work, so take care!

The team is supposed to bring it with them to the next puzzle location, where they will deliver it to the lab assistant there.

When they leave, restock the bin with another "LA" envelope, and two more copies each of the "1958 log" and "memorandum".

Site Close Down:

- Break down and pack up set
- Call GC
- Return materials to GC
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The letter has been salvaged by "Jones Archeology Institute, IN" along with other artifacts from dig sites all over the country in a massive project spanning years. They are being held at a temporarily-erected station for observation and analysis by visiting archaeologists. Players must gain admittance past the station guard, and then interpret the cataloguing scheme to locate the letter.

The site overseers were using fake names to put on the official log, and the administrative assistant eventually figured out how they came up with the names and left a memorandum with hints. When players understand the naming system, they'll know which envelope has the two-letter sort tag that came from the dig here at San Francisco.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

Players must request the envelope labeled "LA".

Puzzle Solution

The station guard informs players they cannot gain admittance without proof of their legitimacy. He takes pity on their "wasted" visit and gives them a coupon for a nearby junk peddler. There, they must obtain something that suits their role (scientist, journalist, etc). They guard may reject them until they produce an item he is satisfied with, giving them hints on why they failed.

The re-organization log contains a list of two-letter tag names and Site Seer names that are fake (which players can infer from the Memorandum).

Here's the list of names and tags:

Let 1	Let 2	Name
D	T	Tana Tal
E	E	Rachel Tot
G	M	Tina Onason
I	U	Ken Rowy
L	A	Cat Hiwi
N	I	T. F. Lin
N	S	Morti Abel
O	A	Glen Alesso
O	E	Lily Kattesca
O	O	K. T. T. Collier
R	Y	Wilma Euke
S	T	Carson F. Cains
T	F	Nick Saytas
T	S	Frank Gords
U	L	Ken Soap
W	C	Cal Ao

Note that the sheet is already sorted by the tags. A hint on the last paragraph of the Memorandum suggests that players should SORT by something else, however. The natural thing is to sort by surname:

Let 1	Let 2	Name
N	S	Morti Abel
O	A	Glen Alesso
W	C	Cal Ao
S	T	Carson F. Cains
O	O	K. T. T. Collier
R	Y	Wilma Euke
T	S	Frank Gords
L	A	Cat Hiwi
O	E	Lily Kattesca
N	I	T. F. Lin
G	M	Tina Onason
I	U	Ken Rowy
T	F	Nick Saytas
U	L	Ken Soap
D	T	Tana Tal
E	E	Rachel Tot

The first letters of the tag names now spell out the message `NOW SORT LONGITUDE`. This implies that there is some geographical data hidden in this list. Players will now need an aha about the Archeologists' system -- that their fake names are actually anagrams of cities and towns in the USA. (This is vaguely hinted by "Site Seer" = "Sightseer", and by the memo's author having "decided to play along"; she named herself "Diana Spinoli" which

anagrams to "Indianapolis".) Each city has a longitude, and then the list can be sorted by longitude from east to west:

Let 1	Let 2	Name	City	State	Lat	Long
I	U	Ken Rowy	NewYork	New York	40.664167	-73.93861
N	S	Morti Abel	Baltimore	Maryland	39.283333	-76.61667
E	E	Rachel Tot	Charlotte	North Carolina	35.226944	-80.84333
W	C	Cal Ao	Ocala	Florida	29.187778	-82.13056
N	I	T. F. Lin	Flint	Michigan	43.01	-83.69
D	T	Tana Tal	Atlanta	Georgia	33.755	-84.39
R	Y	Wilma Euke	Milwaukee	Wisconsin	43.05	-87.95
O	O	K. T. T. Collier	LittleRock	Arkansas	34.736111	-92.33111
T	F	Nick Saytas	KansasCity	Missouri	39.1	-94.58
T	S	Frank Gords	GrandForks	North Dakota	47.925278	-97.0325
L	A	Cat Hiwi	Wichita	Kansas	37.688889	-97.33611
G	M	Tina Onason	SanAntonio	Texas	29.416667	-98.5
O	E	Lily Kattesca	SaltLakeCity	Utah	40.75	-111.8833
U	L	Ken Soap	Spokane	Washington	47.658889	-117.425
O	A	Glen Alesso	LosAngeles	California	34.05	-118.25
S	T	Carson F. Cains	SanFrancisco	California	37.7793	-122.4192

Now the second letter provides extra information about the Archeologists' system: `USE CITY OF SAME LAT`. It turns out that every city in this list can be paired with another city of the same (or really close) latitude in the list:

Let 1	Let 2	Name	City	State	Lat	Long	Pair
N	S	Morti Abel	Baltimore	Maryland	39.283333	-76.61667	1
T	F	Nick Saytas	KansasCity	Missouri	39.1	-94.58	1
T	S	Frank Gords	GrandForks	North Dakota	47.925278	-97.0325	2
U	L	Ken Soap	Spokane	Washington	47.658889	-117.425	2
N	I	T. F. Lin	Flint	Michigan	43.01	-83.69	3
R	Y	Wilma Euke	Milwaukee	Wisconsin	43.05	-87.95	3
I	U	Ken Rowy	NewYork	New York	40.664167	-73.93861	4
O	E	Lily Kattesca	SaltLakeCity	Utah	40.75	-111.8833	4
L	A	Cat Hiwi	Wichita	Kansas	37.688889	-97.33611	5
S	T	Carson F. Cains	SanFrancisco	California	37.7793	-122.4192	5
E	E	Rachel Tot	Charlotte	North Carolina	35.226944	-80.84333	6
O	O	K. T. T. Collier	LittleRock	Arkansas	34.736111	-92.33111	6
D	T	Tana Tal	Atlanta	Georgia	33.755	-84.39	7
O	A	Glen Alesso	LosAngeles	California	34.05	-118.25	7
W	C	Cal Ao	Ocala	Florida	29.187778	-82.13056	8
G	M	Tina Onason	SanAntonio	Texas	29.416667	-98.5	8

With that information, they should be able to infer that the Fort Point dig site must be the one with the overseer "name" of `Cat Hiwi`, as Wichita has the same latitude as San Francisco. So they should ask for the envelope with sorting tag `LA`.

1.11 Fetch the Letter

(Mandatory Puzzle) Retrieve the envelope from where it's been waiting for 50 years.

Open Time Period

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Location

Name And Address: Far west end of Crissy Field (two people)

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Notes: Approach via Mason Street because of construction street closures. No permit required for "picnic" or similar events with fewer than 50 people.

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- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players helped the Institute rescue the Doctor from the Big Bang
- The Doctor has asked not to be returned to 2012, but rather sent to Paine Memorial High School on May 31, 1986 at 2 PM
- Once there, the Doctor discovered he had lost an envelop containing "information vital to restoring the timeline" somewhere during his random bounces through time
- The players discovered the envelope was lost at Fort Point in San Francisco

Props

Crazy Tracy

- reach grabber

- award certificate
- safety goggles
- pocket protector
- nerd glasses
- rubber gloves
- flask
- electric meter

- red tape
- agent badge
- sunglasses
- binder
- handcuffs

- fedora
- memo pad
- light bulb canister
- photography magazine
- microphone

- golf club
- prospectus
- piggy bank
- Wall Street Journal

- day planner
- tobacco container

Archeologist

- two copies of "1958 Log" per team (http://weihwa.com/~whuang/nodir/doctorwhen/find-letter/LogBookV9.pdf)
- two copies of "Memorandum" per team (http://weihwa.com/~whuang/nodir/doctorwhen/find-letter/MemoV4.pdf)
- storage tub, with lid
  - 15 "decoy" envelopes
    - contains paper towels
  - 18 "correct" envelopes, marked with code "LA" (but only one is in the tub at a time)
    - each contains a folded, empty, dirty envelope and a newspaper clipping (with handwritten note)
- 1 hint sheet (printed copy of this page)
- 18 coupons to Crazy Tracy's shop

Staff Instructions

Interaction Instructions:

All staff, if non-players approach out of curiosity, explain out-of-character:

> Hi! This is part of a scavenger hunt event. Our players have to interact with us to get what they need, before they move on to their next location.

Crazy Tracy

Your Role: a crazy dumpster diver, peddling your crap as priceless treasures.

Greet players:

> Welcome to Crazy Tracy's Show-Me Shop! I've got something for everyone, you need it, I got it.

Let them freely examine the wares. However, your prices are exorbitant. 5 billion dollars; 278 gazillion dollars; make up any giant numbers. Require foreign currency; whatever will block them from actually trying to pay you. You're Crazy Tracy! You make up your own rules. You don't even have to be consistent or make sense. You just have to make sure each team only takes one item, and that they have a coupon for it, which they get from the Archeologist.

If they don't seem to know what they're doing, or don't realize the archeology people are elsewhere, prod them:

> Are you looking for something specific? [get them to describe the envelope] Oh, an old envelope? I have nothing like that, maybe the archeology folks know something about it. They're over there.

Point them towards the Archeologist.

Players who visit the Archeologist first will likely present their coupon without prodding.

> Oh, I see you have a coupon for one free item! Ok, here's how it works. You can choose any item you want, but you have to grab it with this. [hand them the grabber] And you have to do it behind your back. That's right, turn around, and reach behind you. Yes, your friends can help you, but they can only talk, no touching!

If they ask which one they "should" take, rebuff them. You have no idea! (It's the Archeologist's job to give hints about the "right" item.)

When they get the item they want,

> Nicely done! That's a beautiful treasure, I hope you like it. If you need to exchange it, just come on back, I'll be here for hours.

They may keep it, they needn't bring it back when they're done with this puzzle site.

If they come back to exchange something, take the old item but make them play the grabber game to get a replacement.

Archeologist

Your Role: (unrelated to Trenchwood) Caretaker of a makeshift depot of artifacts, for the convenience of some local experts who have been invited

to conduct independent research on them.

Greet players:

> Hi, folks! Can I see your invitations, please? [puzzled looks from players] You did get invitations, right? ... I'm sorry, this is a private research station. If you don't have your invitation, you'll have to prove your eligibility to me some other way.

Let them improvise for a bit, and ad lib reasons why you're not convinced. After a short time, let them off the hook with a hint:

> No, I'm sorry, I really need some physical proof that you are who you say you are. We archeologists are used to dealing with artifacts, they provide the best evidence -- no, your IDs are no good, HQ didn't give me a guest list. I should really bug them about that. Anyway, sorry you came all this way for nothing. Actually, I've got a coupon I can give you for Crazy Tracy's Show-Me Shop, over there; at least you could take home some souvenir from your visit to the big city. Bye, now!

Point them toward Crazy Tracy's. (See Crazy Tracy's section for what transpires there. You should expect them to return and show you an item they got there.)

Crazy Tracy's souvenirs match specific roles (the color of their badge), as follows:

Scientist	award certificate, safety goggles, pocket protector, nerd glasses, rubber gloves, flask, electric meter
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Journalist	fedora, memo pad, light bulb canister, photography magazine, microphone
Investor	golf club, prospectus, piggy bank, Wall Street Journal, day planner, tobacco container

If a team brings a mismatched item:

> Hmm, I don't know. That looks more like something a [APPROPRIATE ROLE] would have. Aren't you a [TEAM ROLE]?

This activity is partly intended to close the gap between lead teams and trailing teams. Hence, stall the early teams by making up reasons for rejecting their first two items. Middle teams only get one rejection, and late teams are accepted on their first try. (You may exercise judgement, especially to avoid annoying teams who really aren't enjoying this.)

Feel free to ad lib the rejections, but **be sure to hint at what might be more acceptible**. Here are some examples:

> That certificate is clearly fake! I'll need something more sincere than that.

> Red tape? Really? That's just a metaphor, you know. Don't you have anything more authentic?

> Come on, I know nobody uses giant mics like that anymore. Surely you're up on the latest fashions.

> Seriously? Some old prospectus? Maybe if you had something more current, I'd be convinced.

When you're ready to grant them access,

> Ah, an [OBJECT]! Clearly you are real [ROLES]. Come on in; sorry for doubting you! Let me tell you a bit about what we're doing here. For the last few decades, the Jones Archeological Institute has been working on a big project called the "Civic Refuse Archeological Project." We catalog and organize different sorts of refuse found at dig sites from all over the country. This station was set up for visitors such as yourself to select an artifact to take home for independent study. So, is there a particular artifact you'd be interested in?

The team should mention something about trying to retrieve an envelope that was lost here in the 1950s (1958, to be exact).

> Hmm, we did have a dig here in 1958, I think. The site overseer would have put his findings in a tagged envelope ... see, each envelope has a different two-letter sort tag that uniquely identifies which dig site it was from. Let's take a look...

Show them the tub of envelopes. Pull out two copies of "1958 log" and two copies of "memorandum". Make a show of visually scanning the log.

> Hmm, I don't see the cities recorded in the log. Maybe this memo will help you figure out which tag was used for this site back then. Come on back when you know which envelope you want.

If they ask to look inside the envelopes, explain it's not allowed:

> Company policy says we're not allowed to open the envelopes here, and I can only give you one of them. So I'm afraid you are going to figure out exactly which envelope you need.

The team should now go to work on the puzzle from the "1958 log" and the "memorandum".

You are responsible for dispensing hints. Please familiarize yourself with the solution section later in this document. Role play it like you're just figuring it out on the spot.

> Stuck, huh? Well, show me what you've got so far, maybe I can help. [they do] Hmm. Well, maybe you should try [HINT].

When they request a tag, ask them how they figured it out. If they can't justify their answer, stall them:

> I'd hate to give you the wrong envelope. You'd better be absolutely sure you know which one is from here.

If they insist on just taking a chance, give it to them but caution them:

> Okay, I really hope this is the one you want. It'd be a real shame if it was something useless, like old paper towels or something. I've heard the site seers back then were kind of jokesters, sometimes.

The wrong envelopes will indeed have paper towels in them.

If they come again with a wrong tag:

> Look, we're very busy here and can't just go through all the bins based on your silly hunches. You need to be absolutely sure of the correct sort tag.

The correct tag is "LA". Eventually they will be absolutely sure.

> Great job! Here's your envelope. I hope your studies reveal something useful, for the benefit of mankind. That's what archeology is all about, right? Now we need to get back to work, so take care!

The team is supposed to bring it with them to the next puzzle location, where they will deliver it to the lab assistant there.

When they leave, restock the bin with another "LA" envelope, and two more copies each of the "1958 log" and "memorandum".

Site Close Down:

- Break down and pack up set
- Call GC
- Return materials to GC
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The letter has been salvaged by "Jones Archeology Institute, IN" along with other artifacts from dig sites all over the country in a massive project spanning years. They are being held at a temporarily-erected station for observation and analysis by visiting archaeologists. Players must gain admittance past the station guard, and then interpret the cataloguing scheme to locate the letter.

The site overseers were using fake names to put on the official log, and the administrative assistant eventually figured out how they came up with the names and left a memorandum with hints. When players understand the naming system, they'll know which envelope has the two-letter sort tag that came from the dig here at San Francisco.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

Players must request the envelope labeled "LA".

Puzzle Solution

The station guard informs players they cannot gain admittance without proof of their legitimacy. He takes pity on their "wasted" visit and gives them a coupon for a nearby junk peddler. There, they must obtain something that suits their role (scientist, journalist, etc). They guard may reject them until they produce an item he is satisfied with, giving them hints on why they failed.

The re-organization log contains a list of two-letter tag names and Site Seer names that are fake (which players can infer from the Memorandum).

Here's the list of names and tags:

Let 1	Let 2	Name
D	T	Tana Tal
E	E	Rachel Tot
G	M	Tina Onason
I	U	Ken Rowy
L	A	Cat Hiwi
N	I	T. F. Lin
N	S	Morti Abel
O	A	Glen Alesso
O	E	Lily Kattesca
O	O	K. T. T. Collier
R	Y	Wilma Euke
S	T	Carson F. Cains
T	F	Nick Saytas
T	S	Frank Gords
U	L	Ken Soap
W	C	Cal Ao

Note that the sheet is already sorted by the tags. A hint on the last paragraph of the Memorandum suggests that players should SORT by something else, however. The natural thing is to sort by surname:

Let 1	Let 2	Name
N	S	Morti Abel
O	A	Glen Alesso
W	C	Cal Ao
S	T	Carson F. Cains
O	O	K. T. T. Collier
R	Y	Wilma Euke
T	S	Frank Gords
L	A	Cat Hiwi
O	E	Lily Kattesca
N	I	T. F. Lin
G	M	Tina Onason
I	U	Ken Rowy
T	F	Nick Saytas
U	L	Ken Soap
D	T	Tana Tal
E	E	Rachel Tot

The first letters of the tag names now spell out the message `NOW SORT LONGITUDE`. This implies that there is some geographical data hidden in this list. Players will now need an aha about the Archeologists' system -- that their fake names are actually anagrams of cities and towns in the USA. (This is vaguely hinted by "Site Seer" = "Sightseer", and by the memo's author having "decided to play along"; she named herself "Diana Spinoli" which

anagrams to "Indianapolis".) Each city has a longitude, and then the list can be sorted by longitude from east to west:

Let 1	Let 2	Name	City	State	Lat	Long
I	U	Ken Rowy	NewYork	New York	40.664167	-73.93861
N	S	Morti Abel	Baltimore	Maryland	39.283333	-76.61667
E	E	Rachel Tot	Charlotte	North Carolina	35.226944	-80.84333
W	C	Cal Ao	Ocala	Florida	29.187778	-82.13056
N	I	T. F. Lin	Flint	Michigan	43.01	-83.69
D	T	Tana Tal	Atlanta	Georgia	33.755	-84.39
R	Y	Wilma Euke	Milwaukee	Wisconsin	43.05	-87.95
O	O	K. T. T. Collier	LittleRock	Arkansas	34.736111	-92.33111
T	F	Nick Saytas	KansasCity	Missouri	39.1	-94.58
T	S	Frank Gords	GrandForks	North Dakota	47.925278	-97.0325
L	A	Cat Hiwi	Wichita	Kansas	37.688889	-97.33611
G	M	Tina Onason	SanAntonio	Texas	29.416667	-98.5
O	E	Lily Kattesca	SaltLakeCity	Utah	40.75	-111.8833
U	L	Ken Soap	Spokane	Washington	47.658889	-117.425
O	A	Glen Alesso	LosAngeles	California	34.05	-118.25
S	T	Carson F. Cains	SanFrancisco	California	37.7793	-122.4192

Now the second letter provides extra information about the Archeologists' system: `USE CITY OF SAME LAT`. It turns out that every city in this list can be paired with another city of the same (or really close) latitude in the list:

Let 1	Let 2	Name	City	State	Lat	Long	Pair
N	S	Morti Abel	Baltimore	Maryland	39.283333	-76.61667	1
T	F	Nick Saytas	KansasCity	Missouri	39.1	-94.58	1
T	S	Frank Gords	GrandForks	North Dakota	47.925278	-97.0325	2
U	L	Ken Soap	Spokane	Washington	47.658889	-117.425	2
N	I	T. F. Lin	Flint	Michigan	43.01	-83.69	3
R	Y	Wilma Euke	Milwaukee	Wisconsin	43.05	-87.95	3
I	U	Ken Rowy	NewYork	New York	40.664167	-73.93861	4
O	E	Lily Kattesca	SaltLakeCity	Utah	40.75	-111.8833	4
L	A	Cat Hiwi	Wichita	Kansas	37.688889	-97.33611	5
S	T	Carson F. Cains	SanFrancisco	California	37.7793	-122.4192	5
E	E	Rachel Tot	Charlotte	North Carolina	35.226944	-80.84333	6
O	O	K. T. T. Collier	LittleRock	Arkansas	34.736111	-92.33111	6
D	T	Tana Tal	Atlanta	Georgia	33.755	-84.39	7
O	A	Glen Alesso	LosAngeles	California	34.05	-118.25	7
W	C	Cal Ao	Ocala	Florida	29.187778	-82.13056	8
G	M	Tina Onason	SanAntonio	Texas	29.416667	-98.5	8

With that information, they should be able to infer that the Fort Point dig site must be the one with the overseer "name" of `Cat Hiwi`, as Wichita has the same latitude as San Francisco. So they should ask for the envelope with sorting tag `LA`.

1.11 Fetch the Letter

(Mandatory Puzzle) Retrieve the envelope from where it's been waiting for 50 years.

Open Time Period

Crissy Field: Saturday, 5 PM - last team finishes (16 teams Game 1, 17 teams Game 2) estimated 8:30 PM.

Location

Name And Address: Far west end of Crissy Field (two people)

Parking: Park at the free lot at the intersection of Mason Street and Pearce Street

GC PoC: Erik, (650) 395-8463, lab@trenchwood.com

Notes: Approach via Mason Street because of construction street closures. No permit required for "picnic" or similar events with fewer than 50 people.

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players helped the Institute rescue the Doctor from the Big Bang
- The Doctor has asked not to be returned to 2012, but rather sent to Paine Memorial High School on May 31, 1986 at 2 PM
- Once there, the Doctor discovered he had lost an envelop containing "information vital to restoring the timeline" somewhere during his random bounces through time
- The players discovered the envelope was lost at Fort Point in San Francisco

Props

Crazy Tracy

- reach grabber

- award certificate
- safety goggles
- pocket protector
- nerd glasses
- rubber gloves
- flask
- electric meter

- red tape
- agent badge
- sunglasses
- binder
- handcuffs

- fedora
- memo pad
- light bulb canister
- photography magazine
- microphone

- golf club
- prospectus
- piggy bank
- Wall Street Journal

- day planner
- tobacco container

Archeologist

- two copies of "1958 Log" per team (http://weihwa.com/~whuang/nodir/doctorwhen/find-letter/LogBookV9.pdf)
- two copies of "Memorandum" per team (http://weihwa.com/~whuang/nodir/doctorwhen/find-letter/MemoV4.pdf)
- storage tub, with lid
  - 15 "decoy" envelopes
    - contains paper towels
  - 18 "correct" envelopes, marked with code "LA" (but only one is in the tub at a time)
    - each contains a folded, empty, dirty envelope and a newspaper clipping (with handwritten note)
- 1 hint sheet (printed copy of this page)
- 18 coupons to Crazy Tracy's shop

Staff Instructions

Interaction Instructions:

All staff, if non-players approach out of curiosity, explain out-of-character:

> Hi! This is part of a scavenger hunt event. Our players have to interact with us to get what they need, before they move on to their next location.

Crazy Tracy

Your Role: a crazy dumpster diver, peddling your crap as priceless treasures.

Greet players:

> Welcome to Crazy Tracy's Show-Me Shop! I've got something for everyone, you need it, I got it.

Let them freely examine the wares. However, your prices are exorbitant. 5 billion dollars; 278 gazillion dollars; make up any giant numbers. Require foreign currency; whatever will block them from actually trying to pay you. You're Crazy Tracy! You make up your own rules. You don't even have to be consistent or make sense. You just have to make sure each team only takes one item, and that they have a coupon for it, which they get from the Archeologist.

If they don't seem to know what they're doing, or don't realize the archeology people are elsewhere, prod them:

> Are you looking for something specific? [get them to describe the envelope] Oh, an old envelope? I have nothing like that, maybe the archeology folks know something about it. They're over there.

Point them towards the Archeologist.

Players who visit the Archeologist first will likely present their coupon without prodding.

> Oh, I see you have a coupon for one free item! Ok, here's how it works. You can choose any item you want, but you have to grab it with this. [hand them the grabber] And you have to do it behind your back. That's right, turn around, and reach behind you. Yes, your friends can help you, but they can only talk, no touching!

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When they get the item they want,

> Nicely done! That's a beautiful treasure, I hope you like it. If you need to exchange it, just come on back, I'll be here for hours.

They may keep it, they needn't bring it back when they're done with this puzzle site.

If they come back to exchange something, take the old item but make them play the grabber game to get a replacement.

Archeologist

Your Role: (unrelated to Trenchwood) Caretaker of a makeshift depot of artifacts, for the convenience of some local experts who have been invited

to conduct independent research on them.

Greet players:

> Hi, folks! Can I see your invitations, please? [puzzled looks from players] You did get invitations, right? ... I'm sorry, this is a private research station. If you don't have your invitation, you'll have to prove your eligibility to me some other way.

Let them improvise for a bit, and ad lib reasons why you're not convinced. After a short time, let them off the hook with a hint:

> No, I'm sorry, I really need some physical proof that you are who you say you are. We archeologists are used to dealing with artifacts, they provide the best evidence -- no, your IDs are no good, HQ didn't give me a guest list. I should really bug them about that. Anyway, sorry you came all this way for nothing. Actually, I've got a coupon I can give you for Crazy Tracy's Show-Me Shop, over there; at least you could take home some souvenir from your visit to the big city. Bye, now!

Point them toward Crazy Tracy's. (See Crazy Tracy's section for what transpires there. You should expect them to return and show you an item they got there.)

Crazy Tracy's souvenirs match specific roles (the color of their badge), as follows:

Scientist	award certificate, safety goggles, pocket protector, nerd glasses, rubber gloves, flask, electric meter
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Journalist	fedora, memo pad, light bulb canister, photography magazine, microphone
Investor	golf club, prospectus, piggy bank, Wall Street Journal, day planner, tobacco container

If a team brings a mismatched item:

> Hmm, I don't know. That looks more like something a [APPROPRIATE ROLE] would have. Aren't you a [TEAM ROLE]?

This activity is partly intended to close the gap between lead teams and trailing teams. Hence, stall the early teams by making up reasons for rejecting their first two items. Middle teams only get one rejection, and late teams are accepted on their first try. (You may exercise judgement, especially to avoid annoying teams who really aren't enjoying this.)

Feel free to ad lib the rejections, but **be sure to hint at what might be more acceptible**. Here are some examples:

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> Red tape? Really? That's just a metaphor, you know. Don't you have anything more authentic?

> Come on, I know nobody uses giant mics like that anymore. Surely you're up on the latest fashions.

> Seriously? Some old prospectus? Maybe if you had something more current, I'd be convinced.

When you're ready to grant them access,

> Ah, an [OBJECT]! Clearly you are real [ROLES]. Come on in; sorry for doubting you! Let me tell you a bit about what we're doing here. For the last few decades, the Jones Archeological Institute has been working on a big project called the "Civic Refuse Archeological Project." We catalog and organize different sorts of refuse found at dig sites from all over the country. This station was set up for visitors such as yourself to select an artifact to take home for independent study. So, is there a particular artifact you'd be interested in?

The team should mention something about trying to retrieve an envelope that was lost here in the 1950s (1958, to be exact).

> Hmm, we did have a dig here in 1958, I think. The site overseer would have put his findings in a tagged envelope ... see, each envelope has a different two-letter sort tag that uniquely identifies which dig site it was from. Let's take a look...

Show them the tub of envelopes. Pull out two copies of "1958 log" and two copies of "memorandum". Make a show of visually scanning the log.

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When they request a tag, ask them how they figured it out. If they can't justify their answer, stall them:

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If they insist on just taking a chance, give it to them but caution them:

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The wrong envelopes will indeed have paper towels in them.

If they come again with a wrong tag:

> Look, we're very busy here and can't just go through all the bins based on your silly hunches. You need to be absolutely sure of the correct sort tag.

The correct tag is "LA". Eventually they will be absolutely sure.

> Great job! Here's your envelope. I hope your studies reveal something useful, for the benefit of mankind. That's what archeology is all about, right? Now we need to get back to work, so take care!

The team is supposed to bring it with them to the next puzzle location, where they will deliver it to the lab assistant there.

When they leave, restock the bin with another "LA" envelope, and two more copies each of the "1958 log" and "memorandum".

Site Close Down:

- Break down and pack up set
- Call GC
- Return materials to GC
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The letter has been salvaged by "Jones Archeology Institute, IN" along with other artifacts from dig sites all over the country in a massive project spanning years. They are being held at a temporarily-erected station for observation and analysis by visiting archaeologists. Players must gain admittance past the station guard, and then interpret the cataloguing scheme to locate the letter.

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Hints

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Puzzle Answer

Players must request the envelope labeled "LA".

Puzzle Solution

The station guard informs players they cannot gain admittance without proof of their legitimacy. He takes pity on their "wasted" visit and gives them a coupon for a nearby junk peddler. There, they must obtain something that suits their role (scientist, journalist, etc). They guard may reject them until they produce an item he is satisfied with, giving them hints on why they failed.

The re-organization log contains a list of two-letter tag names and Site Seer names that are fake (which players can infer from the Memorandum).

Here's the list of names and tags:

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Note that the sheet is already sorted by the tags. A hint on the last paragraph of the Memorandum suggests that players should SORT by something else, however. The natural thing is to sort by surname:

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The first letters of the tag names now spell out the message `NOW SORT LONGITUDE`. This implies that there is some geographical data hidden in this list. Players will now need an aha about the Archeologists' system -- that their fake names are actually anagrams of cities and towns in the USA. (This is vaguely hinted by "Site Seer" = "Sightseer", and by the memo's author having "decided to play along"; she named herself "Diana Spinoli" which

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I	U	Ken Rowy	NewYork	New York	40.664167	-73.93861
N	S	Morti Abel	Baltimore	Maryland	39.283333	-76.61667
E	E	Rachel Tot	Charlotte	North Carolina	35.226944	-80.84333
W	C	Cal Ao	Ocala	Florida	29.187778	-82.13056
N	I	T. F. Lin	Flint	Michigan	43.01	-83.69
D	T	Tana Tal	Atlanta	Georgia	33.755	-84.39
R	Y	Wilma Euke	Milwaukee	Wisconsin	43.05	-87.95
O	O	K. T. T. Collier	LittleRock	Arkansas	34.736111	-92.33111
T	F	Nick Saytas	KansasCity	Missouri	39.1	-94.58
T	S	Frank Gords	GrandForks	North Dakota	47.925278	-97.0325
L	A	Cat Hiwi	Wichita	Kansas	37.688889	-97.33611
G	M	Tina Onason	SanAntonio	Texas	29.416667	-98.5
O	E	Lily Kattesca	SaltLakeCity	Utah	40.75	-111.8833
U	L	Ken Soap	Spokane	Washington	47.658889	-117.425
O	A	Glen Alesso	LosAngeles	California	34.05	-118.25
S	T	Carson F. Cains	SanFrancisco	California	37.7793	-122.4192

Now the second letter provides extra information about the Archeologists' system: `USE CITY OF SAME LAT`. It turns out that every city in this list can be paired with another city of the same (or really close) latitude in the list:

Let 1	Let 2	Name	City	State	Lat	Long	Pair
N	S	Morti Abel	Baltimore	Maryland	39.283333	-76.61667	1
T	F	Nick Saytas	KansasCity	Missouri	39.1	-94.58	1
T	S	Frank Gords	GrandForks	North Dakota	47.925278	-97.0325	2
U	L	Ken Soap	Spokane	Washington	47.658889	-117.425	2
N	I	T. F. Lin	Flint	Michigan	43.01	-83.69	3
R	Y	Wilma Euke	Milwaukee	Wisconsin	43.05	-87.95	3
I	U	Ken Rowy	NewYork	New York	40.664167	-73.93861	4
O	E	Lily Kattesca	SaltLakeCity	Utah	40.75	-111.8833	4
L	A	Cat Hiwi	Wichita	Kansas	37.688889	-97.33611	5
S	T	Carson F. Cains	SanFrancisco	California	37.7793	-122.4192	5
E	E	Rachel Tot	Charlotte	North Carolina	35.226944	-80.84333	6
O	O	K. T. T. Collier	LittleRock	Arkansas	34.736111	-92.33111	6
D	T	Tana Tal	Atlanta	Georgia	33.755	-84.39	7
O	A	Glen Alesso	LosAngeles	California	34.05	-118.25	7
W	C	Cal Ao	Ocala	Florida	29.187778	-82.13056	8
G	M	Tina Onason	SanAntonio	Texas	29.416667	-98.5	8

With that information, they should be able to infer that the Fort Point dig site must be the one with the overseer "name" of `Cat Hiwi`, as Wichita has the same latitude as San Francisco. So they should ask for the envelope with sorting tag `LA`.

1.12 Consolidation 1

(Mandatory Puzzle followed by Mandatory Presentation) Final fix before Doctor can be returned to the present.

Open Time Period

Saturday, 6 PM - 9 PM

Location

Name And Address: Schroeder's Restaurant (posing as "Laboratory of Herr Doktor Heinrich Schroeder")

Parking: Free street parking after 6 PM

Bathroom: Yes

Food: Yes--and buy yourself dinner on GC!

GC PoC: (650) 395-8463, lab@trenchwood.com

Site PoC: Reservation made with Stephan

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
- Along the way they learned someone named "Buffy" was important to him back in high school.
- The players helped the Institute rescue the Doctor from the Big Bang
- The Doctor has asked not to be returned to 2012, but rather sent to Paine Memorial High School on May 31, 1986 at 2 PM
- Once there, the Doctor discovered he had lost an envelop containing "information vital to restoring the timeline" somewhere during his random bounces through time
- The players discovered the envelope was lost at Fort Point in San Francisco
- Players have retrieved the ancient envelope (and discovered that its contents are not "vital technical information")

Props

- Any remaining blank co-keypad grids from 1.06_Calibration#Props
- Any leftover sets of keypad design kits
- Wei-Hwa + his computer + his phone + USB cable
  - Video in W-H's computer
  - Documentation from 1.03.05_Co-Keypad_Optional_Driving_Puzzles
- Screen
- Projector (perhaps we can use the projector at the location)
  - Projector-to-PC cable
  - Projector remote
- Sound system (including microphone)
- 2 Lab coats (should already have from prior locations)
- 2 Trenchwood Institute name badges and lanyards (should already have from prior locations)
- 2 copies of Act I lab assistant skit (reformatted for ease of reading)

Staff Instructions

Your Role: Trenchwood Institute lab assistants

What To Wear:

- Lab coat
- Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the content of the envelope

Puzzles At This Site:

- All four role puzzles...but each team will get at most one
- Additional co-keypads

Where To Get Materials: GC HQ

Setup Instructions:

- Set up screen, projector, and sound
- Initialize display of G.R.O.S.S. progress
- Call GC when you are ready for teams

Handout Instructions:

Initial Greeting Upon Arrival

Lab assistant says words to the effect of

> Welcome, welcome. You have the envelope? Fantastic. We'll have a courier rush it to the Institute so that they can use the time machine to send it to the Doctor in 1986.

The visitors hand off the envelope.

What Puzzle To Give Teams Next

'**Before 8 PM**'

Give them a role puzzle, starting with the one for their role. Continue with the onsite handout staff instructions for that puzzle (attached).

Be sure to discreetly check off the appropriate cell in the online "Team Vs. Role Puzzle Grid."

'**After They've Completed Role Puzzle But Before 8:30**'

Conversation should go something like:

LAB ASSISTANT:

> Thanks! That was such a weird problem--I don't know what we would have done if we didn't happen to have [science, journalism, finance, government] experts like you around!
> I think that the only thing we have left before we can get the time machine restarted is these darned co-keypads. But we're making good progress. You can see the overall progress on the screen. At the rate we're going, I think we'll have enough of them fixed by 8:45 PM to finally rescue Doctor When, especially if you help.
>
> No pressure, though, you've already done so much for us. So, feel free to grab some food if you haven't already done so, or grab another piece of CRAP from the online G.R.O.S.S. system and design some more co-keypads, or just chat with the other attendees here. If you do design a new co-keypad, just see a lab assistant with a workstation so they can check in your design. Whatever you do, make sure you're here at 8:45 when we restart the time machine and send that envelope to Doctor When.

Answer:

See: 1.03.05_Co-Keypad_Optional_Driving_Puzzles#Response_to_Correct_Answer

At 8:45 PM

By now hopefully all the teams have arrived and at least finished their role puzzle. The lab assistants act out the skit on the attached script excerpt.

Then they show videos of Act I Scenes 3 & 4 on the big screen. Then lab assistant announces:

> Hooray, you've rescued Doctor When! Now it's time to return to the lab for debriefing.

Lab assistant's phone seems to get a message.

> Hold it...there's a bit of residual tachyonic radiation at the lab...probably wouldn't cause sterility.

> Well, those darn government regulators might object. Why don't you just let it die down a bit. We'll resume the presentation at 10...so wait to check in till at least 9:45 PM. If you haven't eaten yet Perhaps you could get yourself some dinner between now and then. Here is a good place, but there are also many other restaurants around. But definitely don't go back before 9:45 PM. We really, really, do not want to get into any trouble with government regulators; I've heard that filling out their forms is impossible!

Site Close Down:

- Pack up
- Call GC
- Save the Team Vs. Role Puzzle grid for use during Consolidator 2
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except...if a team says "time out," then break character.

Detailed Description

Co-Keypad puzzles must be collectively solved by the teams. They work together in mild competition until all teams have arrived.

There are a maximum of 16 puzzles per team (256 puzzles in week 1, 272 puzzles in week 2) available. Initially, only 4 puzzles per team are "broken" (64 puzzles in week 1, 68puzzles in week 2). A GC member should be pacing the release of new "broken" puzzles so that teams are on track to have everything solved at the end of the consolidation.

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It'll be blindingly obvious once you log in and when you see the display dashboard that individual team information is anonymized and only role information is shared. At least, that's my hope.

More information at 1.03.05 Co-Keypad Optional Driving Puzzles.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

The event is over when all co-keypads are designed. GC will regulate the pace by having imaginary "lab assistants" artificially solve some puzzles, timing it to end shortly after the last team arrives.

Answers to each co-keypad can be found at http://trenchwood.com/keypad/answers/ .

Puzzle Solution

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1.12 Consolidation 1

(Mandatory Puzzle followed by Mandatory Presentation) Final fix before Doctor can be returned to the present.

Open Time Period

Saturday, 6 PM - 9 PM

Location

Name And Address: Schroeder's Restaurant (posing as "Laboratory of Herr Doktor Heinrich Schroeder")

Parking: Free street parking after 6 PM

Bathroom: Yes

Food: Yes--and buy yourself dinner on GC!

GC PoC: (650) 395-8463, lab@trenchwood.com

Site PoC: Reservation made with Stephan

Plot Setup

- Iconoclast scientist Doctor When has attempted to demonstrate his time machine before an audience of VIPs.
- But it malfunctioned due to a faulty key component. The players have helped fix that.
- The malfunction is causing the Doctor to bounce around randomly in time from era to era, facing untold dangers!
- Repairs also required access to the Doctor's supercomputer, but the team successfully hacked the password.
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- 2 copies of Act I lab assistant skit (reformatted for ease of reading)

Staff Instructions

Your Role: Trenchwood Institute lab assistants

What To Wear:

- Lab coat
- Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the content of the envelope

Puzzles At This Site:

- All four role puzzles...but each team will get at most one
- Additional co-keypads

Where To Get Materials: GC HQ

Setup Instructions:

- Set up screen, projector, and sound
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Handout Instructions:

Initial Greeting Upon Arrival

Lab assistant says words to the effect of

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What Puzzle To Give Teams Next

'**Before 8 PM**'

Give them a role puzzle, starting with the one for their role. Continue with the onsite handout staff instructions for that puzzle (attached).

Be sure to discreetly check off the appropriate cell in the online "Team Vs. Role Puzzle Grid."

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Conversation should go something like:

LAB ASSISTANT:

> Thanks! That was such a weird problem--I don't know what we would have done if we didn't happen to have [science, journalism, finance, government] experts like you around!
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> No pressure, though, you've already done so much for us. So, feel free to grab some food if you haven't already done so, or grab another piece of CRAP from the online G.R.O.S.S. system and design some more co-keypads, or just chat with the other attendees here. If you do design a new co-keypad, just see a lab assistant with a workstation so they can check in your design. Whatever you do, make sure you're here at 8:45 when we restart the time machine and send that envelope to Doctor When.

Answer:

See: 1.03.05_Co-Keypad_Optional_Driving_Puzzles#Response_to_Correct_Answer

At 8:45 PM

By now hopefully all the teams have arrived and at least finished their role puzzle. The lab assistants act out the skit on the attached script excerpt.

Then they show videos of Act I Scenes 3 & 4 on the big screen. Then lab assistant announces:

> Hooray, you've rescued Doctor When! Now it's time to return to the lab for debriefing.

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- But it malfunctioned due to a faulty key component. The players have helped fix that.
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Staff Instructions

Your Role: Trenchwood Institute lab assistants

What To Wear:

- Lab coat
- Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the content of the envelope

Puzzles At This Site:

- All four role puzzles...but each team will get at most one
- Additional co-keypads

Where To Get Materials: GC HQ

Setup Instructions:

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Handout Instructions:

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Conversation should go something like:

LAB ASSISTANT:

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Answer:

See: 1.03.05_Co-Keypad_Optional_Driving_Puzzles#Response_to_Correct_Answer

At 8:45 PM

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> Hooray, you've rescued Doctor When! Now it's time to return to the lab for debriefing.

Lab assistant's phone seems to get a message.

> Hold it...there's a bit of residual tachyonic radiation at the lab...probably wouldn't cause sterility.

> Well, those darn government regulators might object. Why don't you just let it die down a bit. We'll resume the presentation at 10...so wait to check in till at least 9:45 PM. If you haven't eaten yet Perhaps you could get yourself some dinner between now and then. Here is a good place, but there are also many other restaurants around. But definitely don't go back before 9:45 PM. We really, really, do not want to get into any trouble with government regulators; I've heard that filling out their forms is impossible!

Site Close Down:

- Pack up
- Call GC
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- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
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Detailed Description

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Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

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Puzzle Solution

Answers to each co-keypad can be found at http://trenchwood.com/keypad/answers/ .

2.00 Sign In Act 2

(Mandatory Puzzle) Signing in to presentation is a complicated puzzle that requires collaboration between different roles.

Open Time Period

Saturday, Setup at 9:15 PM; Open 9:45-10:15 PM

Location

Name And Address: Peach Frontier Laboratories, actually Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

GC PoC: Erik, on-site

Parking: School lot or street parking

Bathroom: Yes

Food: No

Plot Setup

- Players returned to Trenchwood Institute to see Doctor When's return from his misadventures through time.

Props

- Instruction handouts and forms.
- 80 registration packs (one for each player), each including instructions and forms
- Enough crayons for everyone
- 16 sets of Peach Frontier security badge inserts
- 80 or so pamphlets for the International Museum Of Pretentious Art--one per player
- Lab coat for each registrar
- Peach Frontier name badge and lanyard for each registrar
- Table (may be in school's storage area)
- 4 chairs (may be in school's storage area)
- Hint materials:
  - Corkboard
  - Printed Hint Strips
  - Colored pushpins or Thumbtacks

Staff Instructions

Your Role: You are a lab assistant to Prof. Catherine Chronos, head of Peach Frontier Laboratories.

What To Wear: lab coat + Peach Frontier Laboratories nametag

What Your Character Knows: You know nothing of Trenchwood Institute nor the hi-jinks of Act I (it never happened in this timeline!). Similarly, you've never seen the players before. You have heard of Doctor Wesley When. He is a visiting scientist (traveling with his wife Buffy).

You don't know what Prof. Chronos will be demonstrating. You've been so focused on your little part of the endeavor that you don't know the "big picture" (and Prof. Chronos is very secretive).

Puzzles At This Site: Registration Maze

Where To Get Materials: GC HQ

Handout Instructions: There is only one puzzle to hand out here: "Registration Maze." You will be sitting at the registration tables outside of the lab. Teams will queue up to speak with you one at a time. Note that they *may* be very confused because the last time they were at this location it had a different name. *Deny all knowledge of this different name. Profess that this is the very first time you have ever met them even if you've seen them during Act I.*

Example interaction

REGISTRAR: Good evening. Welcome to Peach Frontier Laboratories.

TEAM: "Peach Frontier"?! But we were just here this morning. It was "Trenchwood Institute."

REGISTRAR: I've never heard of "Trenchwood Institute." This has always been Peach Frontier Laboratories. Are you here for the grand unveiling presentation?

TEAM: Uh, yes....

REGISTRAR: What are your names? I'll just look you up.

TEAM: _____

REGISTRAR: Here you are...on our exclusive guest list. Welcome!

I wouldn't worry about that "Trenchwood" thing. Sometimes the lab equipment leaks a wee bit of radiation that causes people to have déjà vu. And cancer. Well, hardly ever. The cancer that is.

Here are your security badges.

Hand them their badges.

REGISTRAR: I see you already have lanyards, and that you sent in your liability waiver.. But you still haven't given me C.R.A.P.

TEAM: Given you what?!?

REGISTRAR: Your C.R.A.P.: Cross Reference Approval Permit. I have to take C.R.A.P. from everyone. [sigh] They tell me it's part of the scientific method.

I guess you'll have to apply for a permit now. Here is a blank form for each of you.

The registrar hands a form (and appropriate writing instrument, i.e., an appropriately-colored crayon) to each visitor.

TEAM: Uh...thanks.

REGISTRAR: But how can you get your permit approved at this late hour? This form requires a lot of official notarizations and sign-offs.

Hold it...I have an idea: there are a number of officials among the other guests. Perhaps they will be able to help you get the required sign-offs.

> Please go inside and fill out your form with their help. Just give it to any of the lab assistants when you're done and they will check that your permit application has been properly approved.

Answers: Note that each player, not each team must submit a form. When a player submits a correct form, lab assistant says words to the effect of:

> Your C.R.A.P. looks good. Now we just have to wait for the other visitors to complete their forms.

> While you're waiting, here is a preview of the reception we're hosting after the demonstration. The prestigious San Mateo International Museum Of Pretentious Art is letting us in for a private viewing. You're in for the time of your life!

Then hand that player an IMOPA flyer.

Site Close Down: Clean up a bit, join the presentation inside.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

"Cross-Referenced Approvals Permit" (or C.R.A.P. for short). This puzzle is isomorphic to the 4-desk version of Robert Abbott's Bureaucratic Maze (http://www.logicmazes.com/bureau/index.htm) .

Players navigate the maze by acquiring a sequence of signatures from other players, according to certain restrictions which are different for each role. The roles are color coded as follows:

```
Journalist = Yellow
Government Official = Red
Scientist = Blue
Investor = Green
```

The puzzle is solved when they reach the only dead-end; that is, when no more signatures are possible in compliance with the restrictions.

Hints

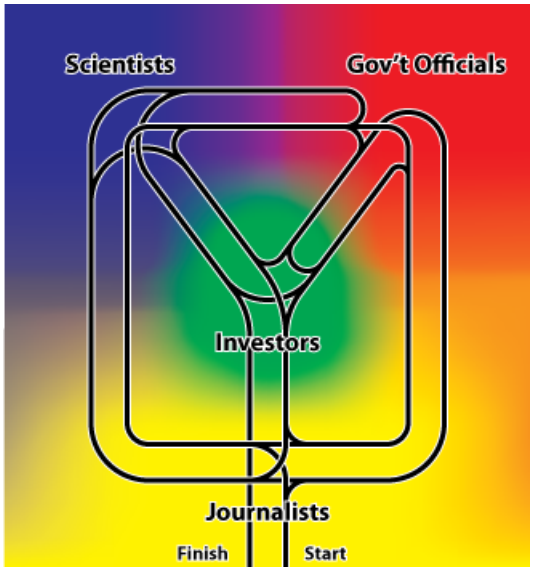
Put up hints on the bulletin board in order, 4 minutes between hints.

Use colored pushpins to put the hints on. There is a small letter that tells you the correct color pushpins, and the order of hints. x is ten, e is eleven, t is twelve.

Puzzle Answer

A correct answer should end in Blue-Red-Blue-Green-Yellow.

Puzzle Solution



The next signature is dependent on what the previous two colors are. This is a visual representation of the maze -- you can think of it as if there were highways connecting the four colored "interchanges" (people always drive on the right), and appropriate ramps determine where you can go based on where you were coming from and where you are. The maze has a lot of loops, but the last five interchanges before the exit are always the same, as you can see by tracing backwards from the Finish.

2.00 Sign In Act 2

(Mandatory Puzzle) Signing in to presentation is a complicated puzzle that requires collaboration between different roles.

Open Time Period

Saturday, Setup at 9:15 PM; Open 9:45-10:15 PM

Location

Name And Address: Peach Frontier Laboratories, actually Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

GC PoC: Erik, on-site

Parking: School lot or street parking

Bathroom: Yes

Food: No

Plot Setup

- Players returned to Trenchwood Institute to see Doctor When's return from his misadventures through time.

Props

- Instruction handouts and forms.
- 80 registration packs (one for each player), each including instructions and forms
- Enough crayons for everyone
- 16 sets of Peach Frontier security badge inserts
- 80 or so pamphlets for the International Museum Of Pretentious Art--one per player
- Lab coat for each registrar
- Peach Frontier name badge and lanyard for each registrar
- Table (may be in school's storage area)
- 4 chairs (may be in school's storage area)
- Hint materials:
  - Corkboard
  - Printed Hint Strips
  - Colored pushpins or Thumbtacks

Staff Instructions

Your Role: You are a lab assistant to Prof. Catherine Chronos, head of Peach Frontier Laboratories.

What To Wear: lab coat + Peach Frontier Laboratories nametag

What Your Character Knows: You know nothing of Trenchwood Institute nor the hi-jinks of Act I (it never happened in this timeline!). Similarly, you've never seen the players before. You have heard of Doctor Wesley When. He is a visiting scientist (traveling with his wife Buffy).

You don't know what Prof. Chronos will be demonstrating. You've been so focused on your little part of the endeavor that you don't know the "big picture" (and Prof. Chronos is very secretive).

Puzzles At This Site: Registration Maze

Where To Get Materials: GC HQ

Handout Instructions: There is only one puzzle to hand out here: "Registration Maze." You will be sitting at the registration tables outside of the lab. Teams will queue up to speak with you one at a time. Note that they *may* be very confused because the last time they were at this location it had a different name. *Deny all knowledge of this different name. Profess that this is the very first time you have ever met them even if you've seen them during Act I.*

Example interaction

REGISTRAR: Good evening. Welcome to Peach Frontier Laboratories.

TEAM: "Peach Frontier"?! But we were just here this morning. It was "Trenchwood Institute."

REGISTRAR: I've never heard of "Trenchwood Institute." This has always been Peach Frontier Laboratories. Are you here for the grand unveiling presentation?

TEAM: Uh, yes....

REGISTRAR: What are your names? I'll just look you up.

TEAM: _____

REGISTRAR: Here you are...on our exclusive guest list. Welcome!

I wouldn't worry about that "Trenchwood" thing. Sometimes the lab equipment leaks a wee bit of radiation that causes people to have déjà vu. And cancer. Well, hardly ever. The cancer that is.

Here are your security badges.

Hand them their badges.

REGISTRAR: I see you already have lanyards, and that you sent in your liability waiver.. But you still haven't given me C.R.A.P.

TEAM: Given you what?!?

REGISTRAR: Your C.R.A.P.: Cross Reference Approval Permit. I have to take C.R.A.P. from everyone. [sigh] They tell me it's part of the scientific method.

I guess you'll have to apply for a permit now. Here is a blank form for each of you.

The registrar hands a form (and appropriate writing instrument, i.e., an appropriately-colored crayon) to each visitor.

TEAM: Uh...thanks.

REGISTRAR: But how can you get your permit approved at this late hour? This form requires a lot of official notarizations and sign-offs.

Hold it...I have an idea: there are a number of officials among the other guests. Perhaps they will be able to help you get the required sign-offs.

> Please go inside and fill out your form with their help. Just give it to any of the lab assistants when you're done and they will check that your permit application has been properly approved.

Answers: Note that each player, not each team must submit a form. When a player submits a correct form, lab assistant says words to the effect of:

> Your C.R.A.P. looks good. Now we just have to wait for the other visitors to complete their forms.

> While you're waiting, here is a preview of the reception we're hosting after the demonstration. The prestigious San Mateo International Museum Of Pretentious Art is letting us in for a private viewing. You're in for the time of your life!

Then hand that player an IMOPA flyer.

Site Close Down: Clean up a bit, join the presentation inside.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

"Cross-Referenced Approvals Permit" (or C.R.A.P. for short). This puzzle is isomorphic to the 4-desk version of Robert Abbott's Bureaucratic Maze (http://www.logicmazes.com/bureau/index.htm) .

Players navigate the maze by acquiring a sequence of signatures from other players, according to certain restrictions which are different for each role. The roles are color coded as follows:

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Journalist = Yellow
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Scientist = Blue
Investor = Green
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Put up hints on the bulletin board in order, 4 minutes between hints.

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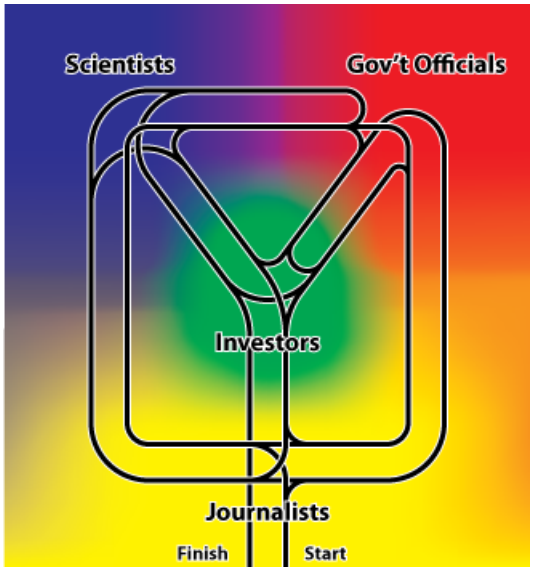

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Saturday, Setup at 9:15 PM; Open 9:45-10:15 PM

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GC PoC: Erik, on-site

Parking: School lot or street parking

Bathroom: Yes

Food: No

Plot Setup

- Players returned to Trenchwood Institute to see Doctor When's return from his misadventures through time.

Props

- Instruction handouts and forms.
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Your Role: You are a lab assistant to Prof. Catherine Chronos, head of Peach Frontier Laboratories.

What To Wear: lab coat + Peach Frontier Laboratories nametag

What Your Character Knows: You know nothing of Trenchwood Institute nor the hi-jinks of Act I (it never happened in this timeline!). Similarly, you've never seen the players before. You have heard of Doctor Wesley When. He is a visiting scientist (traveling with his wife Buffy).

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Puzzles At This Site: Registration Maze

Where To Get Materials: GC HQ

Handout Instructions: There is only one puzzle to hand out here: "Registration Maze." You will be sitting at the registration tables outside of the lab. Teams will queue up to speak with you one at a time. Note that they *may* be very confused because the last time they were at this location it had a different name. *Deny all knowledge of this different name. Profess that this is the very first time you have ever met them even if you've seen them during Act I.*

Example interaction

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TEAM: "Peach Frontier"?! But we were just here this morning. It was "Trenchwood Institute."

REGISTRAR: I've never heard of "Trenchwood Institute." This has always been Peach Frontier Laboratories. Are you here for the grand unveiling presentation?

TEAM: Uh, yes....

REGISTRAR: What are your names? I'll just look you up.

TEAM: _____

REGISTRAR: Here you are...on our exclusive guest list. Welcome!

I wouldn't worry about that "Trenchwood" thing. Sometimes the lab equipment leaks a wee bit of radiation that causes people to have déjà vu. And cancer. Well, hardly ever. The cancer that is.

Here are your security badges.

Hand them their badges.

REGISTRAR: I see you already have lanyards, and that you sent in your liability waiver.. But you still haven't given me C.R.A.P.

TEAM: Given you what?!?

REGISTRAR: Your C.R.A.P.: Cross Reference Approval Permit. I have to take C.R.A.P. from everyone. [sigh] They tell me it's part of the scientific method.

I guess you'll have to apply for a permit now. Here is a blank form for each of you.

The registrar hands a form (and appropriate writing instrument, i.e., an appropriately-colored crayon) to each visitor.

TEAM: Uh...thanks.

REGISTRAR: But how can you get your permit approved at this late hour? This form requires a lot of official notarizations and sign-offs.

Hold it...I have an idea: there are a number of officials among the other guests. Perhaps they will be able to help you get the required sign-offs.

> Please go inside and fill out your form with their help. Just give it to any of the lab assistants when you're done and they will check that your permit application has been properly approved.

Answers: Note that each player, not each team must submit a form. When a player submits a correct form, lab assistant says words to the effect of:

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Then hand that player an IMOPA flyer.

Site Close Down: Clean up a bit, join the presentation inside.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

"Cross-Referenced Approvals Permit" (or C.R.A.P. for short). This puzzle is isomorphic to the 4-desk version of Robert Abbott's Bureaucratic Maze (http://www.logicmazes.com/bureau/index.htm) .

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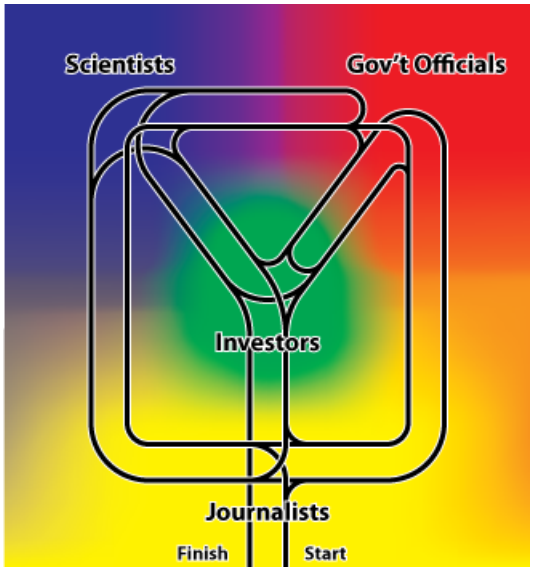

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Open Time Period

Saturday, Setup at 9:15 PM; Open 9:45-10:15 PM

Location

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GC PoC: Erik, on-site

Parking: School lot or street parking

Bathroom: Yes

Food: No

Plot Setup

- Players returned to Trenchwood Institute to see Doctor When's return from his misadventures through time.

Props

- Instruction handouts and forms.
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Staff Instructions

Your Role: You are a lab assistant to Prof. Catherine Chronos, head of Peach Frontier Laboratories.

What To Wear: lab coat + Peach Frontier Laboratories nametag

What Your Character Knows: You know nothing of Trenchwood Institute nor the hi-jinks of Act I (it never happened in this timeline!). Similarly, you've never seen the players before. You have heard of Doctor Wesley When. He is a visiting scientist (traveling with his wife Buffy).

You don't know what Prof. Chronos will be demonstrating. You've been so focused on your little part of the endeavor that you don't know the "big picture" (and Prof. Chronos is very secretive).

Puzzles At This Site: Registration Maze

Where To Get Materials: GC HQ

Handout Instructions: There is only one puzzle to hand out here: "Registration Maze." You will be sitting at the registration tables outside of the lab. Teams will queue up to speak with you one at a time. Note that they *may* be very confused because the last time they were at this location it had a different name. *Deny all knowledge of this different name. Profess that this is the very first time you have ever met them even if you've seen them during Act I.*

Example interaction

REGISTRAR: Good evening. Welcome to Peach Frontier Laboratories.

TEAM: "Peach Frontier"?! But we were just here this morning. It was "Trenchwood Institute."

REGISTRAR: I've never heard of "Trenchwood Institute." This has always been Peach Frontier Laboratories. Are you here for the grand unveiling presentation?

TEAM: Uh, yes....

REGISTRAR: What are your names? I'll just look you up.

TEAM: _____

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Answers: Note that each player, not each team must submit a form. When a player submits a correct form, lab assistant says words to the effect of:

> Your C.R.A.P. looks good. Now we just have to wait for the other visitors to complete their forms.

> While you're waiting, here is a preview of the reception we're hosting after the demonstration. The prestigious San Mateo International Museum Of Pretentious Art is letting us in for a private viewing. You're in for the time of your life!

Then hand that player an IMOPA flyer.

Site Close Down: Clean up a bit, join the presentation inside.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

"Cross-Referenced Approvals Permit" (or C.R.A.P. for short). This puzzle is isomorphic to the 4-desk version of Robert Abbott's Bureaucratic Maze (http://www.logicmazes.com/bureau/index.htm) .

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Hints

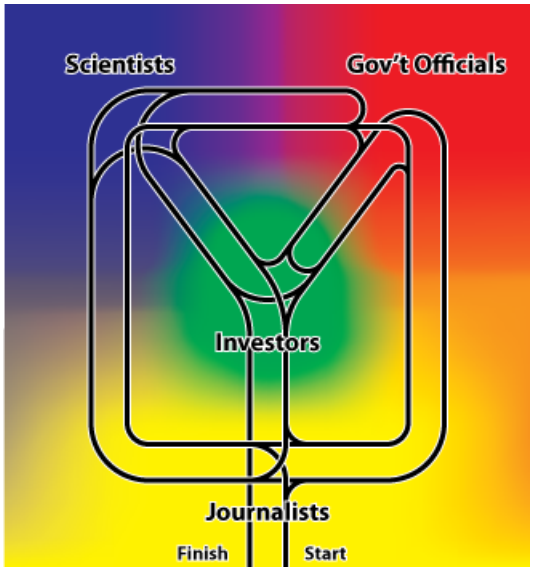
Put up hints on the bulletin board in order, 4 minutes between hints.

Use colored pushpins to put the hints on. There is a small letter that tells you the correct color pushpins, and the order of hints. x is ten, e is eleven, t is twelve.

Puzzle Answer

A correct answer should end in Blue-Red-Blue-Green-Yellow.

Puzzle Solution



The next signature is dependent on what the previous two colors are. This is a visual representation of the maze -- you can think of it as if there were highways connecting the four colored "interchanges" (people always drive on the right), and appropriate ramps determine where you can go based on where you were coming from and where you are. The maze has a lot of loops, but the last five interchanges before the exit are always the same, as you can see by tracing backwards from the Finish.

2.01 Introductory Lecture 2

(Mandatory Presentation) Prof. Chronus gives a welcoming speech to the teams, parallel to Dr. When's speech at the start of Act I.

Open Time Period

Saturday, 10 PM - 10:15 PM

Location

Name And Address: Peach Frontier Laboratories, actually Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

GC PoC: Erik, on-site

Parking: School lot or street parking

Bathroom: Yes

Food: No

Plot Setup

- Players returned to Trenchwood Institute to see Doctor When's return from his misadventures through time.
- But when they arrived at registration it's "Peach Frontier Laboratories," not "Trenchwood Institute"
- They don't know why

Props

- PowerPoint presentation on Erik's Laptop File:PPT for Chronos intro speech.ppt
- projector
- screen
- PA system
- time machine set with sound/light/smoke special effects.
- seats for players
- portable tachyon detector

Staff Instructions

Your Role: lab assistants at Peach Frontier Laboratories (plus Prof. Chronos, Doctor When, Buffy, & Tiresias)

What To Wear: lab coat + Peach Frontier Laboratories nametag

What Your Character Knows: You know nothing of Trenchwood Institute nor the hi-jinks of Act I (it never happened in this timeline!). Similarly, you've never seen the players before. You have heard of Doctor Wesley When. He is a visiting scientist (traveling with his wife Buffy).

Puzzles At This Site: None during this segment

Where To Get Materials: GC HQ

Setup Instructions:

- Make sure portable tachyon detector is near the door of the time machine

Handout Instructions: When all the players have completed C.R.A.P., lab assistant says

> Thank you all for completing your C.R.A.P. applications. We know it was a lot of work so we're grateful you didn't make a stink about it.
>
> With that out of the way it is almost time to start the presentation. Thank you for your patience.

We then proceed with the entrance of Doctor When + Buffy, as detailed in the script.

2.02 Core Dump 2

(Mandatory Puzzle) Teams receive the "core dump" from Prof. Chronos's time machine, and try to figure out why it's broken.

Open Time Period

Saturday, 10:15 PM till all teams (16 for Game 1, 17 for Game 2) are done (estimated midnight). However site remains open after for the next event.

Location

(See Sign In Act II)

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Prof. Chronos demonstrated her time machine in front an audience of important people. It malfunctioned, but no one knows why. She doesn't reemerge from it.

Props

- 16 or 17 baggies with "Core Dump 2" components
- 16 or 17 supplemental data sheets
- Lab coats for all lab assistants (should have from previous events)
- Peach Frontier Laboratories name badge and lanyard for all lab assistants (should have from previous events)

Staff Instructions

Your Role: Lab Assistant at Peach Frontier Laboratories.

What To Wear: lab coats + Peach Frontier Laboratories name badges

What Your Character Knows:

- Only that the time machine has malfunctioned (but not the cause of the malfunction), and that the Professor is somehow lost in time, and it's very urgent to rescue her.

Puzzles At This Site: Several, but this sheet only covers Core Dump 2.

Where To Get Materials: GC HQ

Setup Instructions: n/a

Handout Instructions:

- Help Doctor When hand out one pack to each team when he indicates. Then usher them out the door to solve outside.
- After 10 minutes hand each team the supplemental data sheet.

Hints: See below.

Answers: When a team has its answer it returns to the lab and seeks out Doctor When. (The very bored Buffy is nearby.) The interaction should go something like,

> VISITOR 1: The error code says the machine's quantum chronomentometer malfunctioned!

> DOCTOR WHEN: Oh, of course! Prof. Chronos never was very good at quantum chronomentometers. But luckily I am the world's expert on the subject. I'll fix it right away!

> BUFFY (to the visitors): Ha! Don't hold your breath. It took him two months just to get the new shower rods in.

DOCTOR WHEN: That's not the same thing!

BUFFY: Whatever. Can I go to the reception now? I don't have to wait for what's her name to show up, do I?

DOCTOR WHEN: No, you can't go yet. I have to work on the chronomentometer.

(to the visitors): Thank you so much for your help. While I work on the chronomentometer, would you please see any of the lab assistants and ask what research project you could tackle next?

VISITOR 1: Sure thing!

Site Close Down: n/a; site remains open for next event.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

In contrast to Act I's Core Dump puzzle, a set of apple cores are presented as a pun on the phrase "core dump". The solution to puzzle points toward the quantum chronomentometer as the problem.

Players arrange a jigsaw puzzle of apple core shapes, guided by some ASCII-art printouts, to reveal a plain-text message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

When players first get the tiles:

- Sort (group) tiles by color
- Can you match a group of tiles to a picture and spell something? Not quite? For example, players may notice they have a picture of a SQUID and a group of tiles that anagrams to QUID.

When players are starting to spell words missing a letter:

- What do the missing letters spell? "ASSEMBLE." (That assembly is required is probably obvious without this clue.)
- Can you assemble each word/color by itself? If players are not sure whether they've assembled a color correctly or think there are multiple ways, they may need help with the assembly process. For example, they may have some of the apples upside down, not having realized the letters should be properly oriented, or they may have diagonal line segments that meet at a corner but don't continue straight through it. Proper assembly should be unique and satisfying.

After color-group assembly:

- Can you put it all together? If each color is assembled properly, the final assembly into a square should be straightforward, as there is no ambiguity about which edge or corner is which.
- The non-apple tiles with straight edges are border tiles, four of which are corners (shaped like squares).

Once the final square is formed:

- Great, you've assembled the core dump! What does it say?

- Players must read the letters on the 36 apple tiles, ignoring the border, in normal top-to-bottom left-to-right order to spell the answer.

Puzzle Answer

GREAT SCOTT BAD QUANTUM CHRONOMENTOMETER

Puzzle Solution

Group the puzzle pieces by color. They anagram to the following words, each with one letter missing:

- Black: HE(A)RT MONITOR
- Brown: (S)QUID
- Red: BA(S)SOON
- Orange: COMMENC(E)MENT
- Yellow: (M)UTANT
- Green: HONEYCOM(B)
- Blue: BATT(L)E AXE
- Pink: ROCKING HORS(E)

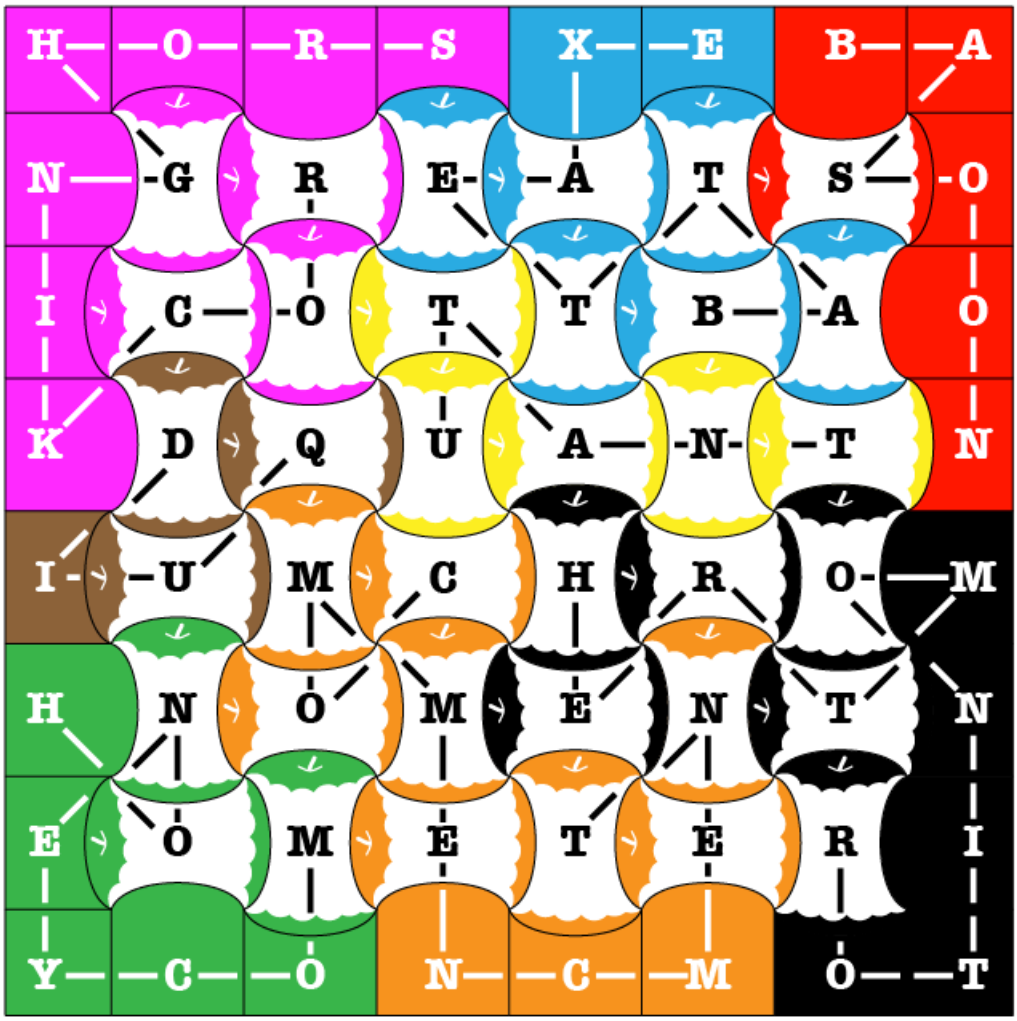
There is an ASCII image for each word, to help solve the anagrams.

The missing letters spell "ASSEMBLE" (when ordered by Resistor-color-code).

The tiles of each color must be assembled into a connected shape, where each tile has a neighbor on one of its four sides, and the lines drawn on the tiles flow from the first letter to the last. The rules are as follows: All tiles are oriented "right-side up," based on the letter, which is in normal orientation. Some tiles are found to be "horizontal" apple cores with the apple stem on the left, and some are "vertical" with the apple stem towards the top, while others are edge tiles or corners. The line segments indicate where the next and previous letters (and tiles) are to be found, and they must be continuous, not changing direction even at a corner. That is, if a line segment extends northeast, then the next letter will be found up and to the right, and the incoming line segment on that tile will enter from the lower left. Diagonals may cross each other, Boggle-style (in a nice parallelism with the sister puzzle from Act I). Assembly should be easy and unambiguous once the pattern is recognized.

Assemble the colored multi-tile shapes into an 8x8 square, with the border letters around the outside. Ignore the border letters; the remaining ones spell the final message:

```
GREAT SCOTT BAD QUANTUM CHRONOMENTOMETER
```


HORSXEBA
NGRE-ATSO
ICO-TTBAO
KDQUA-N-TN
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HNOMENTN
EOMETERI
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(Mandatory Puzzle) Teams receive the "core dump" from Prof. Chronos's time machine, and try to figure out why it's broken.

Open Time Period

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(See Sign In Act II)

Plot Setup

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- Prof. Chronos demonstrated her time machine in front an audience of important people. It malfunctioned, but no one knows why. She doesn't reemerge from it.

Props

- 16 or 17 baggies with "Core Dump 2" components
- 16 or 17 supplemental data sheets
- Lab coats for all lab assistants (should have from previous events)
- Peach Frontier Laboratories name badge and lanyard for all lab assistants (should have from previous events)

Staff Instructions

Your Role: Lab Assistant at Peach Frontier Laboratories.

What To Wear: lab coats + Peach Frontier Laboratories name badges

What Your Character Knows:

- Only that the time machine has malfunctioned (but not the cause of the malfunction), and that the Professor is somehow lost in time, and it's very urgent to rescue her.

Puzzles At This Site: Several, but this sheet only covers Core Dump 2.

Where To Get Materials: GC HQ

Setup Instructions: n/a

Handout Instructions:

- Help Doctor When hand out one pack to each team when he indicates. Then usher them out the door to solve outside.
- After 10 minutes hand each team the supplemental data sheet.

Hints: See below.

Answers: When a team has its answer it returns to the lab and seeks out Doctor When. (The very bored Buffy is nearby.) The interaction should go something like,

> VISITOR 1: The error code says the machine's quantum chronomentometer malfunctioned!

> DOCTOR WHEN: Oh, of course! Prof. Chronos never was very good at quantum chronomentometers. But luckily I am the world's expert on the subject. I'll fix it right away!

> BUFFY (to the visitors): Ha! Don't hold your breath. It took him two months just to get the new shower rods in.

DOCTOR WHEN: That's not the same thing!

BUFFY: Whatever. Can I go to the reception now? I don't have to wait for what's her name to show up, do I?

DOCTOR WHEN: No, you can't go yet. I have to work on the chronomentometer.

(to the visitors): Thank you so much for your help. While I work on the chronomentometer, would you please see any of the lab assistants and ask what research project you could tackle next?

VISITOR 1: Sure thing!

Site Close Down: n/a; site remains open for next event.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

In contrast to Act I's Core Dump puzzle, a set of apple cores are presented as a pun on the phrase "core dump". The solution to puzzle points toward the quantum chronomentometer as the problem.

Players arrange a jigsaw puzzle of apple core shapes, guided by some ASCII-art printouts, to reveal a plain-text message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

When players first get the tiles:

- Sort (group) tiles by color
- Can you match a group of tiles to a picture and spell something? Not quite? For example, players may notice they have a picture of a SQUID and a group of tiles that anagrams to QUID.

When players are starting to spell words missing a letter:

- What do the missing letters spell? "ASSEMBLE." (That assembly is required is probably obvious without this clue.)
- Can you assemble each word/color by itself? If players are not sure whether they've assembled a color correctly or think there are multiple ways, they may need help with the assembly process. For example, they may have some of the apples upside down, not having realized the letters should be properly oriented, or they may have diagonal line segments that meet at a corner but don't continue straight through it. Proper assembly should be unique and satisfying.

After color-group assembly:

- Can you put it all together? If each color is assembled properly, the final assembly into a square should be straightforward, as there is no ambiguity about which edge or corner is which.
- The non-apple tiles with straight edges are border tiles, four of which are corners (shaped like squares).

Once the final square is formed:

- Great, you've assembled the core dump! What does it say?

- Players must read the letters on the 36 apple tiles, ignoring the border, in normal top-to-bottom left-to-right order to spell the answer.

Puzzle Answer

GREAT SCOTT BAD QUANTUM CHRONOMENTOMETER

Puzzle Solution

Group the puzzle pieces by color. They anagram to the following words, each with one letter missing:

- Black: HE(A)RT MONITOR
- Brown: (S)QUID
- Red: BA(S)SOON
- Orange: COMMENC(E)MENT
- Yellow: (M)UTANT
- Green: HONEYCOM(B)
- Blue: BATT(L)E AXE
- Pink: ROCKING HORS(E)

There is an ASCII image for each word, to help solve the anagrams.

The missing letters spell "ASSEMBLE" (when ordered by Resistor-color-code).

The tiles of each color must be assembled into a connected shape, where each tile has a neighbor on one of its four sides, and the lines drawn on the tiles flow from the first letter to the last. The rules are as follows: All tiles are oriented "right-side up," based on the letter, which is in normal orientation. Some tiles are found to be "horizontal" apple cores with the apple stem on the left, and some are "vertical" with the apple stem towards the top, while others are edge tiles or corners. The line segments indicate where the next and previous letters (and tiles) are to be found, and they must be continuous, not changing direction even at a corner. That is, if a line segment extends northeast, then the next letter will be found up and to the right, and the incoming line segment on that tile will enter from the lower left. Diagonals may cross each other, Boggle-style (in a nice parallelism with the sister puzzle from Act I). Assembly should be easy and unambiguous once the pattern is recognized.

Assemble the colored multi-tile shapes into an 8x8 square, with the border letters around the outside. Ignore the border letters; the remaining ones spell the final message:

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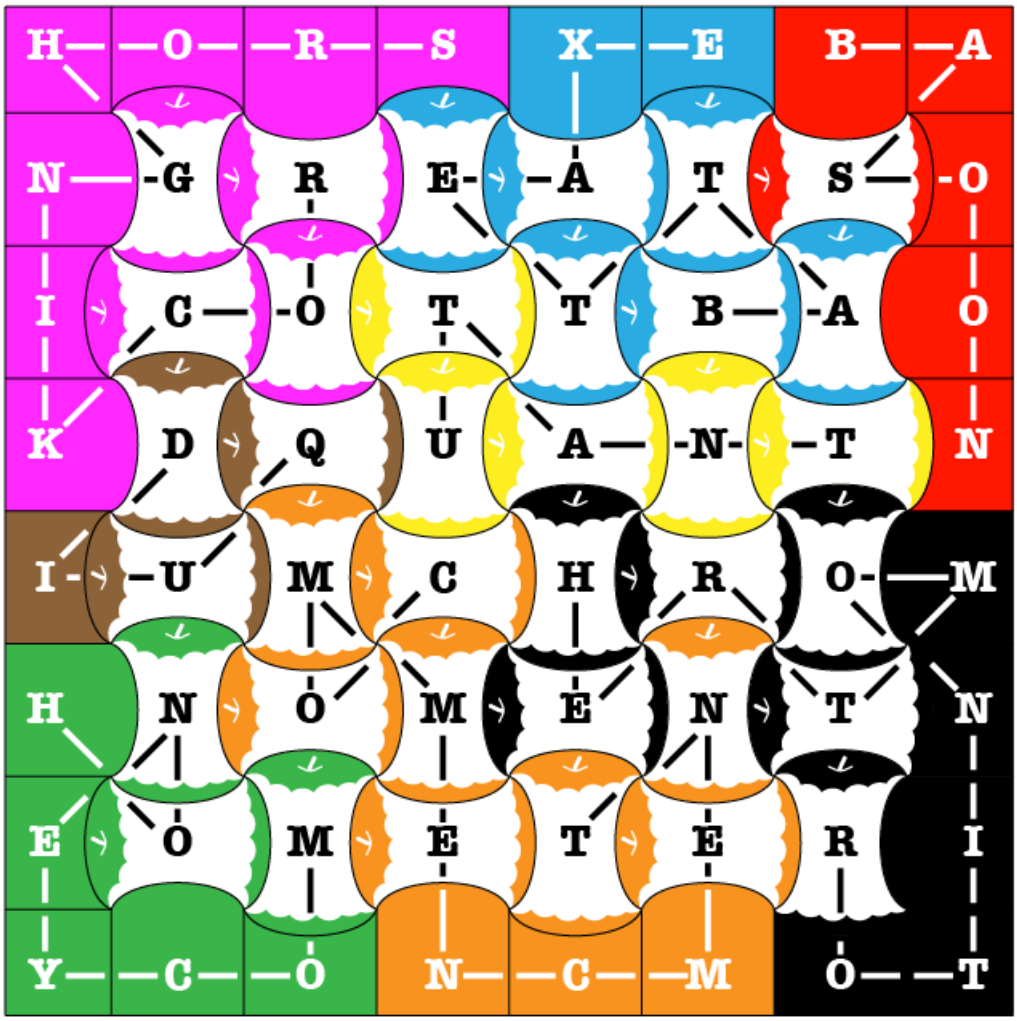
GREAT SCOTT BAD QUANTUM CHRONOMENTOMETER
```


HORSXEBA
NGRE-ATSO
ICO-TTBAO
KDQUA-N-TN
I-UMCHROM
HNOMENTN
EOMETERI
YCONCMOT

2.02 Core Dump 2

(Mandatory Puzzle) Teams receive the "core dump" from Prof. Chronos's time machine, and try to figure out why it's broken.

Open Time Period

Saturday, 10:15 PM till all teams (16 for Game 1, 17 for Game 2) are done (estimated midnight). However site remains open after for the next event.

Location

(See Sign In Act II)

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Prof. Chronos demonstrated her time machine in front an audience of important people. It malfunctioned, but no one knows why. She doesn't reemerge from it.

Props

- 16 or 17 baggies with "Core Dump 2" components
- 16 or 17 supplemental data sheets
- Lab coats for all lab assistants (should have from previous events)
- Peach Frontier Laboratories name badge and lanyard for all lab assistants (should have from previous events)

Staff Instructions

Your Role: Lab Assistant at Peach Frontier Laboratories.

What To Wear: lab coats + Peach Frontier Laboratories name badges

What Your Character Knows:

- Only that the time machine has malfunctioned (but not the cause of the malfunction), and that the Professor is somehow lost in time, and it's very urgent to rescue her.

Puzzles At This Site: Several, but this sheet only covers Core Dump 2.

Where To Get Materials: GC HQ

Setup Instructions: n/a

Handout Instructions:

- Help Doctor When hand out one pack to each team when he indicates. Then usher them out the door to solve outside.
- After 10 minutes hand each team the supplemental data sheet.

Hints: See below.

Answers: When a team has its answer it returns to the lab and seeks out Doctor When. (The very bored Buffy is nearby.) The interaction should go something like,

> VISITOR 1: The error code says the machine's quantum chronomentometer malfunctioned!

> DOCTOR WHEN: Oh, of course! Prof. Chronos never was very good at quantum chronomentometers. But luckily I am the world's expert on the subject. I'll fix it right away!

> BUFFY (to the visitors): Ha! Don't hold your breath. It took him two months just to get the new shower rods in.

DOCTOR WHEN: That's not the same thing!

BUFFY: Whatever. Can I go to the reception now? I don't have to wait for what's her name to show up, do I?

DOCTOR WHEN: No, you can't go yet. I have to work on the chronomentometer.

(to the visitors): Thank you so much for your help. While I work on the chronomentometer, would you please see any of the lab assistants and ask what research project you could tackle next?

VISITOR 1: Sure thing!

Site Close Down: n/a; site remains open for next event.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

In contrast to Act I's Core Dump puzzle, a set of apple cores are presented as a pun on the phrase "core dump". The solution to puzzle points toward the quantum chronomentometer as the problem.

Players arrange a jigsaw puzzle of apple core shapes, guided by some ASCII-art printouts, to reveal a plain-text message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

When players first get the tiles:

- Sort (group) tiles by color
- Can you match a group of tiles to a picture and spell something? Not quite? For example, players may notice they have a picture of a SQUID and a group of tiles that anagrams to QUID.

When players are starting to spell words missing a letter:

- What do the missing letters spell? "ASSEMBLE." (That assembly is required is probably obvious without this clue.)
- Can you assemble each word/color by itself? If players are not sure whether they've assembled a color correctly or think there are multiple ways, they may need help with the assembly process. For example, they may have some of the apples upside down, not having realized the letters should be properly oriented, or they may have diagonal line segments that meet at a corner but don't continue straight through it. Proper assembly should be unique and satisfying.

After color-group assembly:

- Can you put it all together? If each color is assembled properly, the final assembly into a square should be straightforward, as there is no ambiguity about which edge or corner is which.
- The non-apple tiles with straight edges are border tiles, four of which are corners (shaped like squares).

Once the final square is formed:

- Great, you've assembled the core dump! What does it say?

- Players must read the letters on the 36 apple tiles, ignoring the border, in normal top-to-bottom left-to-right order to spell the answer.

Puzzle Answer

GREAT SCOTT BAD QUANTUM CHRONOMENTOMETER

Puzzle Solution

Group the puzzle pieces by color. They anagram to the following words, each with one letter missing:

- Black: HE(A)RT MONITOR
- Brown: (S)QUID
- Red: BA(S)SOON
- Orange: COMMENC(E)MENT
- Yellow: (M)UTANT
- Green: HONEYCOM(B)
- Blue: BATT(L)E AXE
- Pink: ROCKING HORS(E)

There is an ASCII image for each word, to help solve the anagrams.

The missing letters spell "ASSEMBLE" (when ordered by Resistor-color-code).

The tiles of each color must be assembled into a connected shape, where each tile has a neighbor on one of its four sides, and the lines drawn on the tiles flow from the first letter to the last. The rules are as follows: All tiles are oriented "right-side up," based on the letter, which is in normal orientation. Some tiles are found to be "horizontal" apple cores with the apple stem on the left, and some are "vertical" with the apple stem towards the top, while others are edge tiles or corners. The line segments indicate where the next and previous letters (and tiles) are to be found, and they must be continuous, not changing direction even at a corner. That is, if a line segment extends northeast, then the next letter will be found up and to the right, and the incoming line segment on that tile will enter from the lower left. Diagonals may cross each other, Boggle-style (in a nice parallelism with the sister puzzle from Act I). Assembly should be easy and unambiguous once the pattern is recognized.

Assemble the colored multi-tile shapes into an 8x8 square, with the border letters around the outside. Ignore the border letters; the remaining ones spell the final message:

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GREAT SCOTT BAD QUANTUM CHRONOMENTOMETER
```
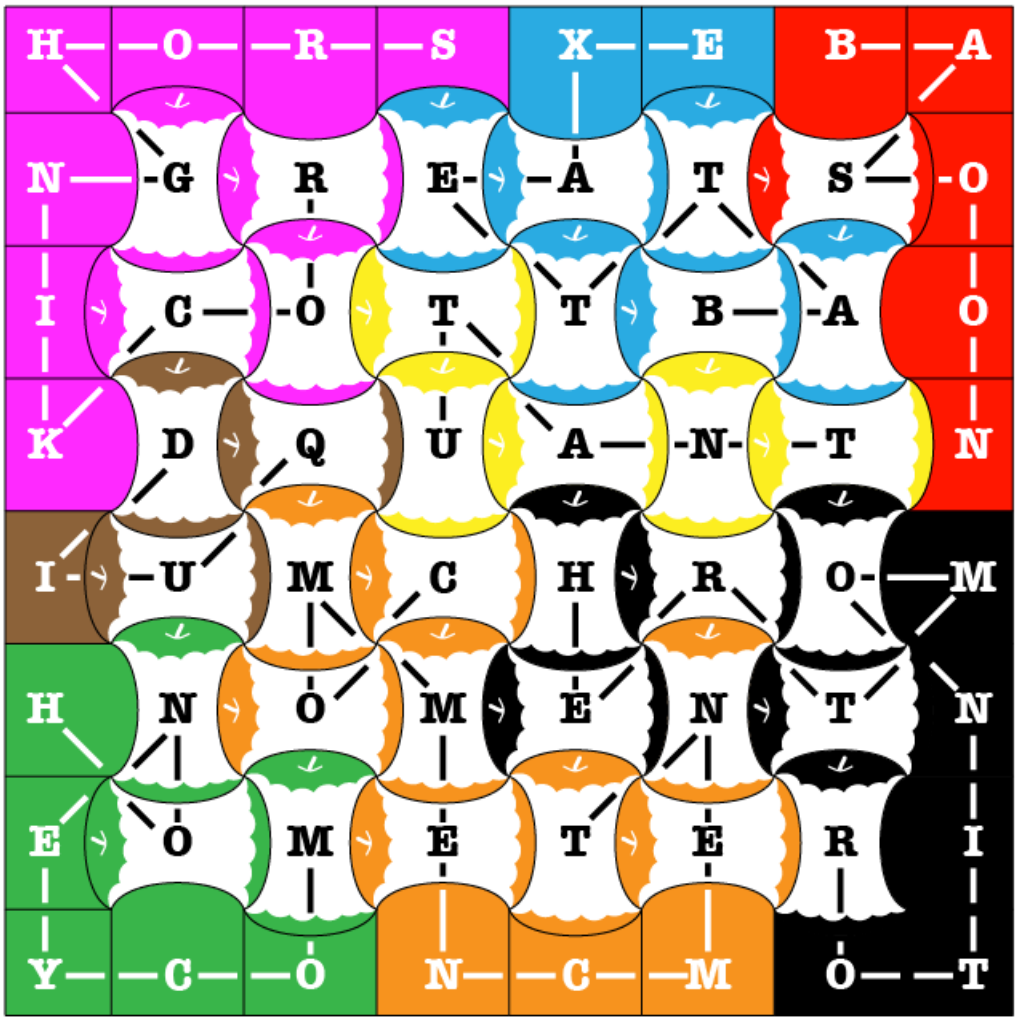


HORSXEBA
NGRE-ATSO
ICO-TTBAO
KDQUA-N-TN
I-UMCHROM
HNOMENTN
EOMETERI
YCONCMOT

2.02 Core Dump 2

(Mandatory Puzzle) Teams receive the "core dump" from Prof. Chronos's time machine, and try to figure out why it's broken.

Open Time Period

Saturday, 10:15 PM till all teams (16 for Game 1, 17 for Game 2) are done (estimated midnight). However site remains open after for the next event.

Location

(See Sign In Act II)

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Prof. Chronos demonstrated her time machine in front an audience of important people. It malfunctioned, but no one knows why. She doesn't reemerge from it.

Props

- 16 or 17 baggies with "Core Dump 2" components
- 16 or 17 supplemental data sheets
- Lab coats for all lab assistants (should have from previous events)
- Peach Frontier Laboratories name badge and lanyard for all lab assistants (should have from previous events)

Staff Instructions

Your Role: Lab Assistant at Peach Frontier Laboratories.

What To Wear: lab coats + Peach Frontier Laboratories name badges

What Your Character Knows:

- Only that the time machine has malfunctioned (but not the cause of the malfunction), and that the Professor is somehow lost in time, and it's very urgent to rescue her.

Puzzles At This Site: Several, but this sheet only covers Core Dump 2.

Where To Get Materials: GC HQ

Setup Instructions: n/a

Handout Instructions:

- Help Doctor When hand out one pack to each team when he indicates. Then usher them out the door to solve outside.
- After 10 minutes hand each team the supplemental data sheet.

Hints: See below.

Answers: When a team has its answer it returns to the lab and seeks out Doctor When. (The very bored Buffy is nearby.) The interaction should go something like,

> VISITOR 1: The error code says the machine's quantum chronomentometer malfunctioned!

> DOCTOR WHEN: Oh, of course! Prof. Chronos never was very good at quantum chronomentometers. But luckily I am the world's expert on the subject. I'll fix it right away!

> BUFFY (to the visitors): Ha! Don't hold your breath. It took him two months just to get the new shower rods in.

DOCTOR WHEN: That's not the same thing!

BUFFY: Whatever. Can I go to the reception now? I don't have to wait for what's her name to show up, do I?

DOCTOR WHEN: No, you can't go yet. I have to work on the chronomentometer.

(to the visitors): Thank you so much for your help. While I work on the chronomentometer, would you please see any of the lab assistants and ask what research project you could tackle next?

VISITOR 1: Sure thing!

Site Close Down: n/a; site remains open for next event.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

In contrast to Act I's Core Dump puzzle, a set of apple cores are presented as a pun on the phrase "core dump". The solution to puzzle points toward the quantum chronomentometer as the problem.

Players arrange a jigsaw puzzle of apple core shapes, guided by some ASCII-art printouts, to reveal a plain-text message.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

When players first get the tiles:

- Sort (group) tiles by color
- Can you match a group of tiles to a picture and spell something? Not quite? For example, players may notice they have a picture of a SQUID and a group of tiles that anagrams to QUID.

When players are starting to spell words missing a letter:

- What do the missing letters spell? "ASSEMBLE." (That assembly is required is probably obvious without this clue.)
- Can you assemble each word/color by itself? If players are not sure whether they've assembled a color correctly or think there are multiple ways, they may need help with the assembly process. For example, they may have some of the apples upside down, not having realized the letters should be properly oriented, or they may have diagonal line segments that meet at a corner but don't continue straight through it. Proper assembly should be unique and satisfying.

After color-group assembly:

- Can you put it all together? If each color is assembled properly, the final assembly into a square should be straightforward, as there is no ambiguity about which edge or corner is which.
- The non-apple tiles with straight edges are border tiles, four of which are corners (shaped like squares).

Once the final square is formed:

- Great, you've assembled the core dump! What does it say?

- Players must read the letters on the 36 apple tiles, ignoring the border, in normal top-to-bottom left-to-right order to spell the answer.

Puzzle Answer

GREAT SCOTT BAD QUANTUM CHRONOMENTOMETER

Puzzle Solution

Group the puzzle pieces by color. They anagram to the following words, each with one letter missing:

- Black: HE(A)RT MONITOR
- Brown: (S)QUID
- Red: BA(S)SOON
- Orange: COMMENC(E)MENT
- Yellow: (M)UTANT
- Green: HONEYCOM(B)
- Blue: BATT(L)E AXE
- Pink: ROCKING HORS(E)

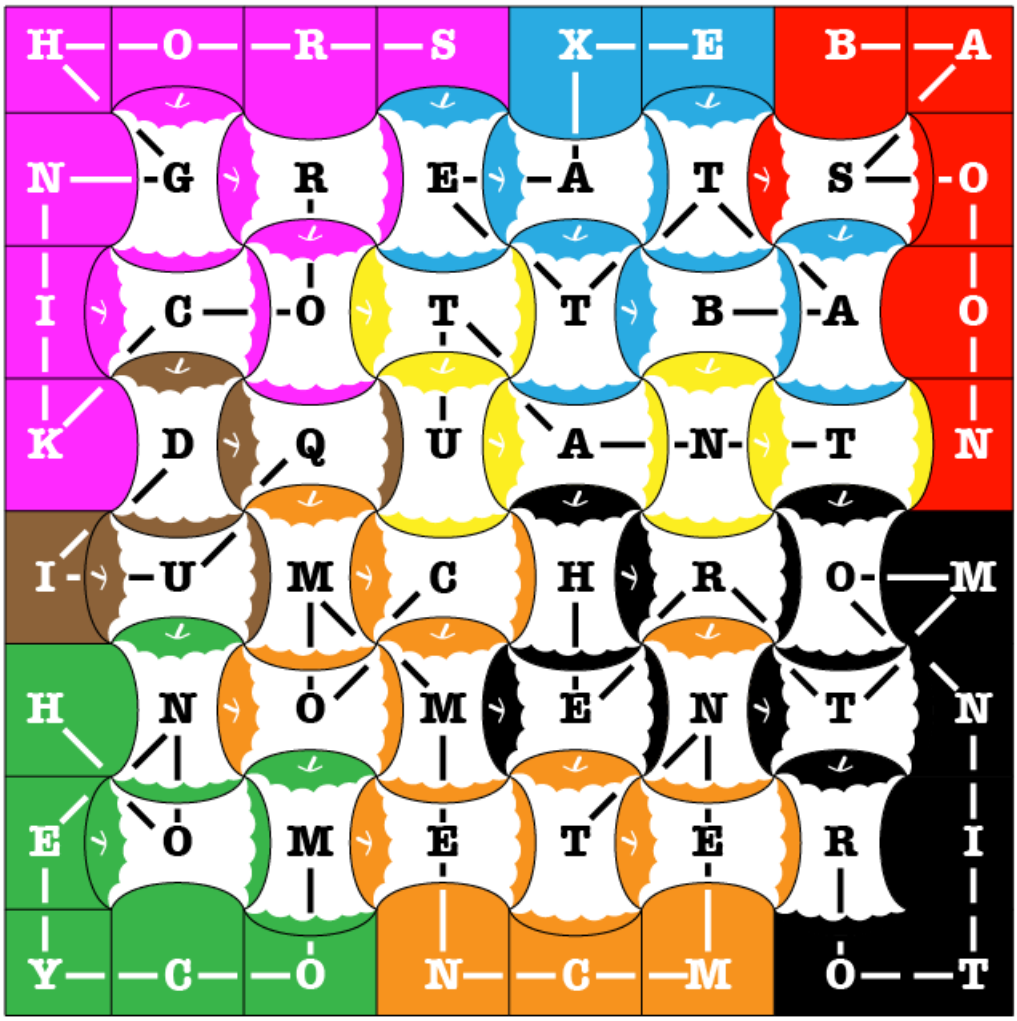
There is an ASCII image for each word, to help solve the anagrams.

The missing letters spell "ASSEMBLE" (when ordered by Resistor-color-code).

The tiles of each color must be assembled into a connected shape, where each tile has a neighbor on one of its four sides, and the lines drawn on the tiles flow from the first letter to the last. The rules are as follows: All tiles are oriented "right-side up," based on the letter, which is in normal orientation. Some tiles are found to be "horizontal" apple cores with the apple stem on the left, and some are "vertical" with the apple stem towards the top, while others are edge tiles or corners. The line segments indicate where the next and previous letters (and tiles) are to be found, and they must be continuous, not changing direction even at a corner. That is, if a line segment extends northeast, then the next letter will be found up and to the right, and the incoming line segment on that tile will enter from the lower left. Diagonals may cross each other, Boggle-style (in a nice parallelism with the sister puzzle from Act I). Assembly should be easy and unambiguous once the pattern is recognized.

Assemble the colored multi-tile shapes into an 8x8 square, with the border letters around the outside. Ignore the border letters; the remaining ones spell the final message:

```
GREAT SCOTT BAD QUANTUM CHRONOMENTOMETER
```


HORSXEBA
NGRE-ATSO
ICO-TTBAO
KDQUA-N-TN
I-UMCHROM
HNOMENTN
EOMETERI
YCONCMOT

2.03 Invalid Permit

(Mandatory Puzzle) A government regulator threatens to shut down the lab unless a seemingly impossible series of forms are filled out correctly.

Open Time Period

Sunday, midnight - till all teams (16 in Game 1, 17 in Game 2) have completed (estimated 1:40 AM)

Location

(See Sign In Act II)

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--quantum chronomentometers.
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!

Props

- Multiple copies of staff instructions for the multiple staffers?
- 16 or 17 collections of permit applications
- Lab coat (should already have)
- Peach Frontier name badge and lanyard (should already have)
- Government official outfit? for the inspector?
- 32 or 34 View-O-Scope Computer Remote Access Program diskettes
- 16 or 17 contact information sheets for Peach Frontier Laboratories

Staff Instructions

Your Role: Lab Assistants at Peach Frontier Laboratories + one "dickless" government regulator

What To Wear: lab coats + Peach Frontier Laboratories name badges; something else for the regulator

What Your Character Knows: everything in "Plot Setup"; the government regulator knows that Peach Frontier's operating permit application has not been properly filled out, he knows nothing about why the previous regulator signed off on this improper application

Puzzles At This Site: Several, but this sheet only covers Invalid Permits (plus the lead in to Chronomentometer 1).

Where To Get Materials: GC HQ

Setup Instructions: n/a

Handout Instructions: Lab assistant says words to the effect of,

> You've got to help! See that guy over there? He's the new government inspector and he says he's going to shut us down because we don't have a valid operating permit. We can't shut down—we need to keep operating so we can save Prof. Chronos!

> I thought we took care of this permit long ago. First I tried to fill out the eight required forms myself…but you know how impossible government forms are to fill out.

> So Prof. Chronos took the forms from me, filled them out, and met with the old inspector. She assured me everything was all taken care of…and if there was ever any problem to just refer to the forms she filed.

> Now this new guy shows up…says he doesn't know anything about what the old guy did...and that our forms aren't valid! I looked at

> them and he’s right: the Professor filled out the top part!

> Will you please look at the forms and fix this mess? This is the order these permits were in our file cabinet. I don't know if that order is important but I suggest you make a note of it.

> You can submit forms to the inspector for his approval. After you've solved this mess see any lab assistant.

Hand them the collection of permit application forms (usher them outside?) and then have a GC member with computer enter team's start time in the tracking database.

Answers: There is no "answer" to this puzzle. The team just has to roleplay bribing the staffer playing the role of the regulator to that staffer's satisfaction.

After bribing the regulator, the team speaks with a lab assistant who leads them into Chronomentometer 1 with words to the effect of

> Phew! Now that you've got that taken care of, it turns out that Doctor When could use your help with the chronomentometers. We blew four of the modules--numbers 50, 87, 104, and 134. So we need a new design for each. Unfortunately his expertise is mainly in the theoretical realm. Only Prof. Chronos was truly driven to implement a working device.

> But luckily there are nearby experts in applied chronodynamics who just may be able to help you. Please go to the Clocksmith Technologies at 806 El Camino Real, San Carlos. There you will be able to get the initial specifications for the new modules, which you can use to design new ones.

> Please upload your four designs on our web site once you're done. The address is peachfrontier.com/cmm/. Here--I've written it all down for you. After you enter the design please email the lab to let us know you're done. If you have any trouble with your design call (650) 395-TIME and one of the lab assistants may be able to help.

> Oh...and take this disk with you. It contains software for remote access to the time machine's View-O-Scope...if we ever get that working again. [sigh] In fact, here are two identical disks in case you want to run it on two computers.

Have a GC member with a computer enter team's start time in the online tracking database.

Site Close Down:

- Once the last team leaves the set can be converted back to Trenchwood Institute.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This is a tricky puzzle to hint well. The intended discovery path is:

1. Teams notice that the forms are representations of puzzle types they've seen before
2. Teams work on the puzzle types, possibly also discovering the form code that confirms that these are indeed types they know about or can search on
3. Teams work on the puzzles enough to convince themselves that the puzzles are impossible

4. Teams get the "Aha" that Chronos couldn't possibly have any control over the puzzles (and that government is evil), and that if there's any message there must be something in her writing.
5. Teams decode the writing and get the message.

The biggest barrier is the third step, which is teams convincing themselves that the puzzles are impossible. It is *very* easy for a team, when faced with an impossibility, to convince themselves that they made a mistake and that the puzzle is working.

Do not (except in extreme circumstances) confirm with teams that a puzzle is impossible. It's fine if teams get the "Aha" on their own, but you flat-out tell them that a puzzle is impossible, you've deprived them of that "aha". However, to decrease frustration, it's important to guide them towards discovering that on their own as much as possible.

Therefore, for a team that appears to be struggling, play the role of a lab assistant who is trying to also help them with the forms, but also doesn't realize that the puzzle is impossible. Guide them through solving the puzzle and be thorough (as per the notes above), letting them convince themselves that the puzzle is impossible.

Only then should you guide them towards the next step by saying something like "Gosh, maybe the forms are impossible to fill out. I wonder if Professor Chronos realized that and maybe that's why they aren't filled out?"

Puzzle Answer

The puzzle solves to the phrase:

```
Forms IMPOSSIBLE; use CREATIVE bribery!
```

For teams to successfully solve the puzzle, they must roleplay bribing the GC member playing "Dick, Les," the government regulator.

Puzzle Solution

The puzzle has a BIG red herring -- it looks like a puzzle that is about solving WPC-style logical constraint-satisfaction puzzles, but it is actually a Game-style decoding puzzle.

Incidentally, each form appears to come from one of the government teams that are playing. It will be ironic that a team can't solve its own form.

A very astute team that is paying attention to the story (not that we expect any teams to get this immediately, but we can hope) will realize Catherine had absolutely no control over the contents of the forms, and only pay attention to the bit that Catherine did have control over, which is the section at the top where she filled in the name and address.

She has sneakily hidden an important message in how she writes her letters and numerals -- read across the forms, the variants spell out a message in 8-bit ASCII. She also tried to hint at this by underlining one word in each form -- the first letters of those words spell out "USE ASCII". The forms are actually given in order, but they can be sorted by their form number. The form number can be decoded to make a puzzle name, but that is part of the red herring.

Bit value	Form number	Decodes to
128	B12020125-S8916	BATTLE-SHIP
64	F212015-S89119	FUTO-SHIKI
32	H11989	HASHI
16	KA11211815	KAKURO
8	KE14-K514	KEN-KEN
4	M9145-S235516518	MINE-SWEEPER
2	N151415-G18113	NONO-GRAM
1	S129208518-L91411	SLITHER-LINK

As 8-bit ASCII always has the first bit as zero for standard messages, the first form indicates a value of "0" for all bits. The decoding mixes uppercase, lowercase, and even punctuation marks and one numeral.

Chr	Decimal	128	64	32	16	8	4	2	1		What the "1" looks like
F	70	0	1	0	0	0	1	1	0	C	tilts towards left, bigger on top
o	111	0	1	1	0	1	1	1	1	a	two-storied instead of one
r	114	0	1	1	1	0	0	1	0	t	has a tail
m	109	0	1	1	0	1	1	0	1	h	tail curls up
s	115	0	1	1	1	0	0	1	1	e	horizontal bar

	32	0	0	1	0	0	0	0	0	r	stronger rise up
I	73	0	1	0	0	1	0	0	1	i	star instead of dot
M	77	0	1	0	0	1	1	0	1	n	tail curls up
P	80	0	1	0	1	0	0	0	0	e	horizontal bar
O	79	0	1	0	0	1	1	1	1	C	tilts towards left, bigger on top
S	83	0	1	0	1	0	0	1	1	h	tail curls up
S	83	0	1	0	1	0	0	1	1	r	stronger rise up
I	73	0	1	0	0	1	0	0	1	o	closes "counter-clockwise"
B	66	0	1	0	0	0	0	1	0	n	tail curls up
L	76	0	1	0	0	1	1	0	0	o	closes "counter-clockwise"
E	69	0	1	0	0	0	1	0	1	s	bigger on bottom
;	59	0	0	1	1	1	0	1	1	2	curl at lower-left
	32	0	0	1	0	0	0	0	0	3	bigger on top
u	117	0	1	1	1	0	1	0	1	2	curl at lower-left
s	115	0	1	1	1	0	0	1	1	0	slashed
e	101	0	1	1	0	0	1	0	1	N	diagonal meets center of right edge
	32	0	0	1	0	0	0	0	0	e	horizontal bar
C	67	0	1	0	0	0	0	1	1	w	rounded
R	82	0	1	0	1	0	0	1	0	p	looks like a rho
E	69	0	1	0	0	0	1	0	1	o	closes "counter-clockwise"
A	65	0	1	0	0	0	0	0	1	r	stronger rise up
T	84	0	1	0	1	0	1	0	0	t	has a tail
I	73	0	1	0	0	1	0	0	1	S	bigger on bottom
V	86	0	1	0	1	0	1	1	0	t	has a tail
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The hidden message is:

Forms IMPOSSIBLE; use CREATIVE bribery!

This tells the teams that they must bribe the official, creatively.

Making Progress on the Decoy Puzzle

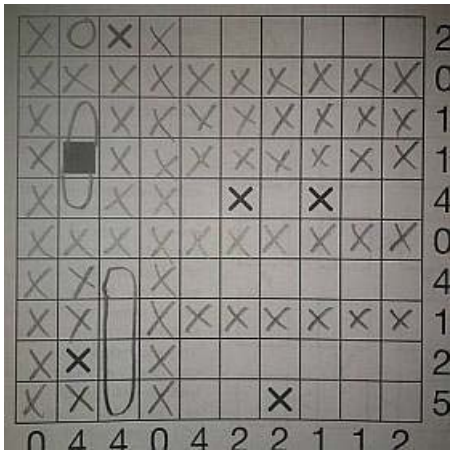
Each form describes a "classic" logic constraint-satisfaction puzzle.

The form numbers decode using a simple code that is hinted at with an example in the second form -- A is 1, B is 2, and so on, with all the numbers concatenated together. The code decodes to the name of the puzzle type, which will help confirm the teams that they are indeed solving a puzzle of that type and giving them a second copy of the rules that may be easier to read than the "government form" version.

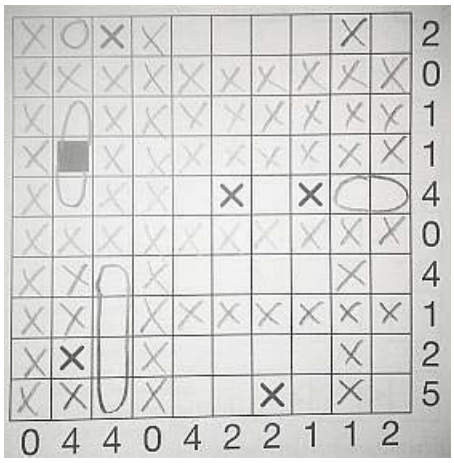
Each puzzle is intended so that a solver can make significant progress before they should figure out that the puzzle is possible. Here we describe some of the progress that can be made.

WHOMP: B12020125-S8916 = Battleship

A solver should be able to quickly place a four, a three, and a one in the left side of the grid. They will then be at this point:



From here, they can notice that the top row needs to have two workstations of size 1, and the fifth row needs three more workstations filled in four possible spaces -- but two ways of doing so will lead to three workstations of size 1, which combined with the two workstations of size 1 in the first row is too many small size-1 workstations. So, this means that there must be a workstation of size 2 at the right side of row 5, resulting in:



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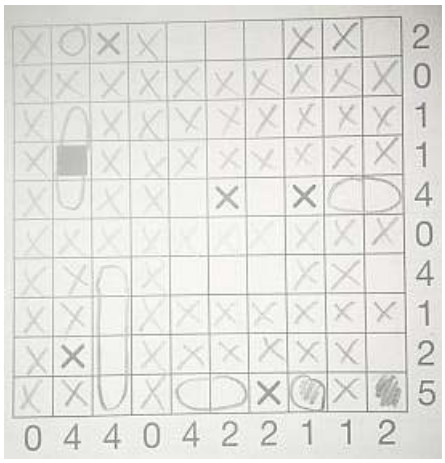
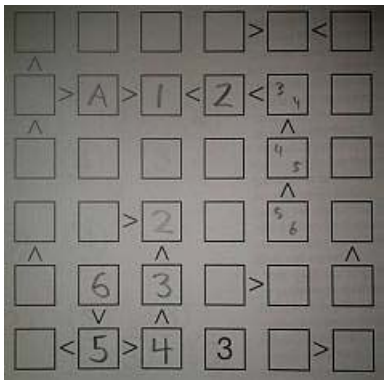


Now we have a contradiction in the ninth row (which needs one more workstation component) and the tenth column (which needs no more workstation components).

REDTaPE: F212015-S89119 = Futoshiki

There's a chain of five increasing boxes that go along the second row and down the fifth column. The given 3 restricts the two smallest numbers in the chain, which in turn restricts another chain that curls in the lower-left:



The next insight is to realize that cell A can only be 3 or 4. This means that the other two cells in the row must be 5 or 6, and that in turn lets us place all the 6s, which then uniquely determines the top chain, second row, and third column:

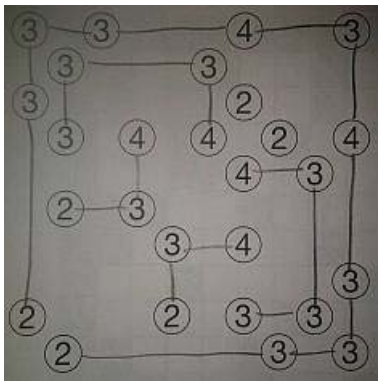
Cell B can only contain a 1, which lets us put more numbers in:

From here we're stuck. Column 1 makes row 5 need a 4, then we have problems with the other cells in row 5.

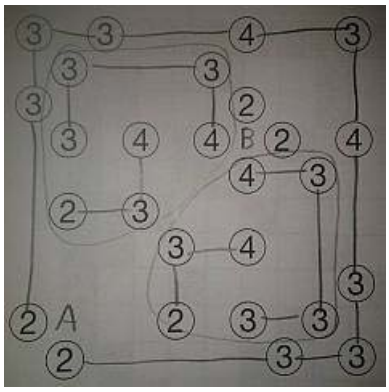
Laotian Coast Guard: H11989 = Hashi

Here's a basic guide on solving Hashi puzzles: [[7] (http://www.indigopuzzles.com/ipuz/help.action?helpId=hashi/howToSolve_01)]

Using those techniques, this is as far as you can get with this puzzle:



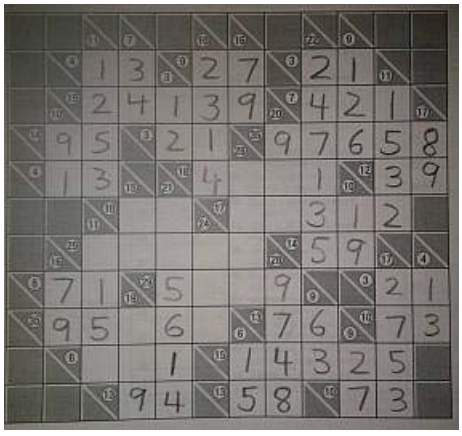
At this point, I would expect most teams to have to bifurcate (make a guess, prove it's impossible, do the opposite, prove it's impossible again). But there is a quicker way to see a contradiction:



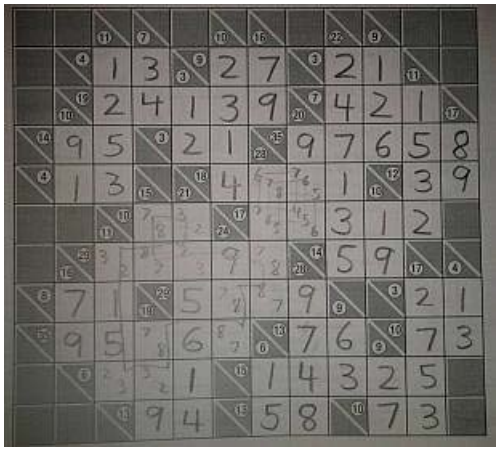
Look at the two clouded areas. Each area adds to an even number, which means it must connect out of its "cloud" by an even number of patrol lines. But the only ways out of the cloud are via the two areas marked A and B. If one cloud uses both areas, then the other cloud is isolated. So, at least one cloud must use only "A" to get out -- but it's impossible to have an even number of connections through "A".

The Laundry: KA11211815 = Kakuro

This is as far as you get with basic Kakuro techniques (well, sort of -- the lower-right is kind of tricky):



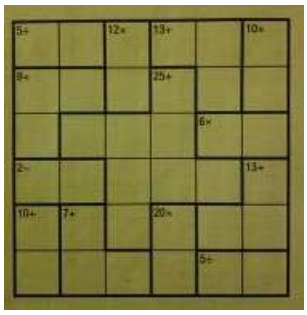
At this point, there's a big chain of "2 or 3" and "7 or 8" cells in the lower-left, but they all end up having a 7 and an 8 in the bottom half of the center clue:



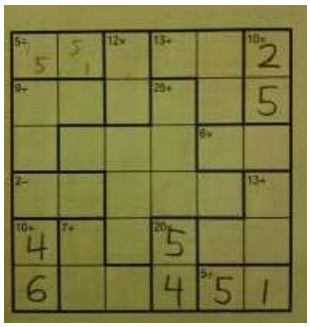
Unfortunately the upper-right area only has three possible solutions, and they each involve having a 7 or an 8 in the top half of the center clue. So that's a contradiction.

BATSHIT: KE14-K514 = Ken-ken

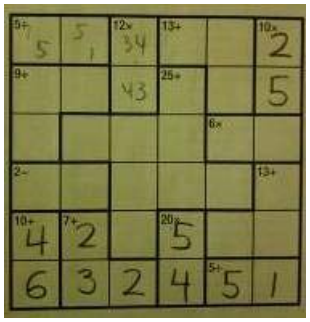
It's a bit easier if we make this look like a traditional Ken-Ken:



The product and quotient box allow for us to place some of the 5s easily:



The "7+" box at the bottom can then be determined:

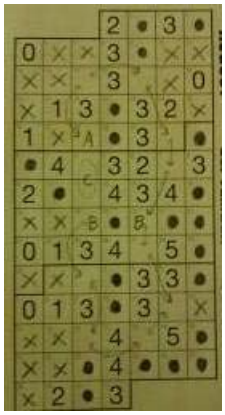


Now look at the 5th row. The 3rd cell can't be 3, so the 3 must be in the "13+" group. So we can't put the 1 in that group as then the other number in that group would be 9. So:

We now have a problem -- the last two cells in the "25+" group need to add up to 6, but one of them is either a 3 or a 6.

X-Comm: M9145-S235516518 = Minesweeper

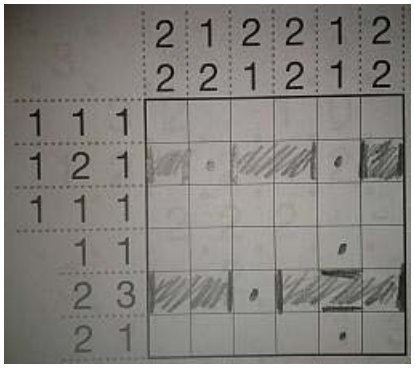
Using normal Minesweeper techniques, we end up finding a long alternating chain of 12 cells, where the mines must be alternating on and off in each link of the chain:



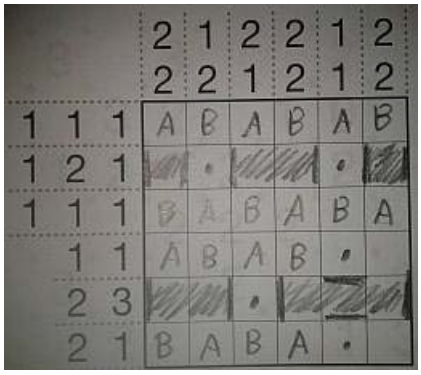
In other words, either cell A is filled and both cell Bs are black, or both cell Bs are filled and cell A is blank. Both choices cause problems with the number of mines in the two cells marked C.

GEE: N151415-G18113 = Nonogram

You can only make a little bit of strong progress on this Nonogram:

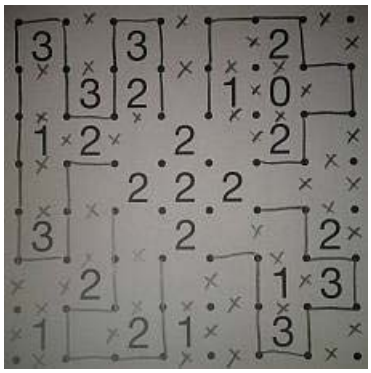


Inspecting the clues and ramifications creates a weird checkerboard situation in 2x3 blocks -- either all the cells marked A are filled, or all the cells marked B are filled. In either case, we have a problem in the bottom row.



UMMM: S129208518-L91411 = Slitherlink

Standard Slitherlink techniques get you to this point:



At this point, the center pattern is rather funky. There are six ways to satisfy all the 2s, but all the ways leave two loops. One way to convince yourself of this is to look at any point on the octagon and convince yourself that it has to connect to another point on the octagon next to it, since it can't cross over without closing the loop prematurely.

2.03 Invalid Permit

(Mandatory Puzzle) A government regulator threatens to shut down the lab unless a seemingly impossible series of forms are filled out correctly.

Open Time Period

Sunday, midnight - till all teams (16 in Game 1, 17 in Game 2) have completed (estimated 1:40 AM)

Location

(See Sign In Act II)

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--quantum chronomentometers.
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!

Props

- Multiple copies of staff instructions for the multiple staffers?
- 16 or 17 collections of permit applications
- Lab coat (should already have)
- Peach Frontier name badge and lanyard (should already have)
- Government official outfit? for the inspector?
- 32 or 34 View-O-Scope Computer Remote Access Program diskettes
- 16 or 17 contact information sheets for Peach Frontier Laboratories

Staff Instructions

Your Role: Lab Assistants at Peach Frontier Laboratories + one "dickless" government regulator

What To Wear: lab coats + Peach Frontier Laboratories name badges; something else for the regulator

What Your Character Knows: everything in "Plot Setup"; the government regulator knows that Peach Frontier's operating permit application has not been properly filled out, he knows nothing about why the previous regulator signed off on this improper application

Puzzles At This Site: Several, but this sheet only covers Invalid Permits (plus the lead in to Chronomentometer 1).

Where To Get Materials: GC HQ

Setup Instructions: n/a

Handout Instructions: Lab assistant says words to the effect of,

> You've got to help! See that guy over there? He's the new government inspector and he says he's going to shut us down because we don't have a valid operating permit. We can't shut down—we need to keep operating so we can save Prof. Chronos!

> I thought we took care of this permit long ago. First I tried to fill out the eight required forms myself…but you know how impossible government forms are to fill out.

> So Prof. Chronos took the forms from me, filled them out, and met with the old inspector. She assured me everything was all taken care of…and if there was ever any problem to just refer to the forms she filed.

> Now this new guy shows up…says he doesn't know anything about what the old guy did...and that our forms aren't valid! I looked at

> them and he’s right: the Professor filled out the top part!

> Will you please look at the forms and fix this mess? This is the order these permits were in our file cabinet. I don't know if that order is important but I suggest you make a note of it.

> You can submit forms to the inspector for his approval. After you've solved this mess see any lab assistant.

Hand them the collection of permit application forms (usher them outside?) and then have a GC member with computer enter team's start time in the tracking database.

Answers: There is no "answer" to this puzzle. The team just has to roleplay bribing the staffer playing the role of the regulator to that staffer's satisfaction.

After bribing the regulator, the team speaks with a lab assistant who leads them into Chronomentometer 1 with words to the effect of

> Phew! Now that you've got that taken care of, it turns out that Doctor When could use your help with the chronomentometers. We blew four of the modules--numbers 50, 87, 104, and 134. So we need a new design for each. Unfortunately his expertise is mainly in the theoretical realm. Only Prof. Chronos was truly driven to implement a working device.

> But luckily there are nearby experts in applied chronodynamics who just may be able to help you. Please go to the Clocksmith Technologies at 806 El Camino Real, San Carlos. There you will be able to get the initial specifications for the new modules, which you can use to design new ones.

> Please upload your four designs on our web site once you're done. The address is peachfrontier.com/cmm/. Here--I've written it all down for you. After you enter the design please email the lab to let us know you're done. If you have any trouble with your design call (650) 395-TIME and one of the lab assistants may be able to help.

> Oh...and take this disk with you. It contains software for remote access to the time machine's View-O-Scope...if we ever get that working again. [sigh] In fact, here are two identical disks in case you want to run it on two computers.

Have a GC member with a computer enter team's start time in the online tracking database.

Site Close Down:

- Once the last team leaves the set can be converted back to Trenchwood Institute.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This is a tricky puzzle to hint well. The intended discovery path is:

1. Teams notice that the forms are representations of puzzle types they've seen before
2. Teams work on the puzzle types, possibly also discovering the form code that confirms that these are indeed types they know about or can search on
3. Teams work on the puzzles enough to convince themselves that the puzzles are impossible

4. Teams get the "Aha" that Chronos couldn't possibly have any control over the puzzles (and that government is evil), and that if there's any message there must be something in her writing.
5. Teams decode the writing and get the message.

The biggest barrier is the third step, which is teams convincing themselves that the puzzles are impossible. It is *very* easy for a team, when faced with an impossibility, to convince themselves that they made a mistake and that the puzzle is working.

Do not (except in extreme circumstances) confirm with teams that a puzzle is impossible. It's fine if teams get the "Aha" on their own, but you flat-out tell them that a puzzle is impossible, you've deprived them of that "aha". However, to decrease frustration, it's important to guide them towards discovering that on their own as much as possible.

Therefore, for a team that appears to be struggling, play the role of a lab assistant who is trying to also help them with the forms, but also doesn't realize that the puzzle is impossible. Guide them through solving the puzzle and be thorough (as per the notes above), letting them convince themselves that the puzzle is impossible.

Only then should you guide them towards the next step by saying something like "Gosh, maybe the forms are impossible to fill out. I wonder if Professor Chronos realized that and maybe that's why they aren't filled out?"

Puzzle Answer

The puzzle solves to the phrase:

```
Forms IMPOSSIBLE; use CREATIVE bribery!
```

For teams to successfully solve the puzzle, they must roleplay bribing the GC member playing "Dick, Les," the government regulator.

Puzzle Solution

The puzzle has a BIG red herring -- it looks like a puzzle that is about solving WPC-style logical constraint-satisfaction puzzles, but it is actually a Game-style decoding puzzle.

Incidentally, each form appears to come from one of the government teams that are playing. It will be ironic that a team can't solve its own form.

A very astute team that is paying attention to the story (not that we expect any teams to get this immediately, but we can hope) will realize Catherine had absolutely no control over the contents of the forms, and only pay attention to the bit that Catherine did have control over, which is the section at the top where she filled in the name and address.

She has sneakily hidden an important message in how she writes her letters and numerals -- read across the forms, the variants spell out a message in 8-bit ASCII. She also tried to hint at this by underlining one word in each form -- the first letters of those words spell out "USE ASCII". The forms are actually given in order, but they can be sorted by their form number. The form number can be decoded to make a puzzle name, but that is part of the red herring.

Bit value	Form number	Decodes to
128	B12020125-S8916	BATTLE-SHIP
64	F212015-S89119	FUTO-SHIKI
32	H11989	HASHI
16	KA11211815	KAKURO
8	KE14-K514	KEN-KEN
4	M9145-S235516518	MINE-SWEEPER
2	N151415-G18113	NONO-GRAM
1	S129208518-L91411	SLITHER-LINK

As 8-bit ASCII always has the first bit as zero for standard messages, the first form indicates a value of "0" for all bits. The decoding mixes uppercase, lowercase, and even punctuation marks and one numeral.

Chr	Decimal	128	64	32	16	8	4	2	1		What the "1" looks like
F	70	0	1	0	0	0	1	1	0	C	tilts towards left, bigger on top
o	111	0	1	1	0	1	1	1	1	a	two-storied instead of one
r	114	0	1	1	1	0	0	1	0	t	has a tail
m	109	0	1	1	0	1	1	0	1	h	tail curls up
s	115	0	1	1	1	0	0	1	1	e	horizontal bar

	32	0	0	1	0	0	0	0	0	r	stronger rise up
I	73	0	1	0	0	1	0	0	1	i	star instead of dot
M	77	0	1	0	0	1	1	0	1	n	tail curls up
P	80	0	1	0	1	0	0	0	0	e	horizontal bar
O	79	0	1	0	0	1	1	1	1	C	tilts towards left, bigger on top
S	83	0	1	0	1	0	0	1	1	h	tail curls up
S	83	0	1	0	1	0	0	1	1	r	stronger rise up
I	73	0	1	0	0	1	0	0	1	o	closes "counter-clockwise"
B	66	0	1	0	0	0	0	1	0	n	tail curls up
L	76	0	1	0	0	1	1	0	0	o	closes "counter-clockwise"
E	69	0	1	0	0	0	1	0	1	s	bigger on bottom
;	59	0	0	1	1	1	0	1	1	2	curl at lower-left
	32	0	0	1	0	0	0	0	0	3	bigger on top
u	117	0	1	1	1	0	1	0	1	2	curl at lower-left
s	115	0	1	1	1	0	0	1	1	0	slashed
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T	84	0	1	0	1	0	1	0	0	t	has a tail
I	73	0	1	0	0	1	0	0	1	S	bigger on bottom
V	86	0	1	0	1	0	1	1	0	t	has a tail
E	69	0	1	0	0	0	1	0	1	S	bigger on bottom
	32	0	0	1	0	0	0	0	0	a	two-storied instead of one
b	98	0	1	1	0	0	0	1	0	n	tail curls up
r	114	0	1	1	1	0	0	1	0	M	middle dips only half-way
i	105	0	1	1	0	1	0	0	1	a	two-storied instead of one
b	98	0	1	1	0	0	0	1	0	t	has a tail
e	101	0	1	1	0	0	1	0	1	e	horizontal bar
r	114	0	1	1	1	0	0	1	0	o	closes "counter-clockwise"
y	121	0	1	1	1	1	0	0	1	C	tilts towards left, bigger on top
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The hidden message is:

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This tells the teams that they must bribe the official, creatively.

Making Progress on the Decoy Puzzle

Each form describes a "classic" logic constraint-satisfaction puzzle.

The form numbers decode using a simple code that is hinted at with an example in the second form -- A is 1, B is 2, and so on, with all the numbers concatenated together. The code decodes to the name of the puzzle type, which will help confirm the teams that they are indeed solving a puzzle of that type and giving them a second copy of the rules that may be easier to read than the "government form" version.

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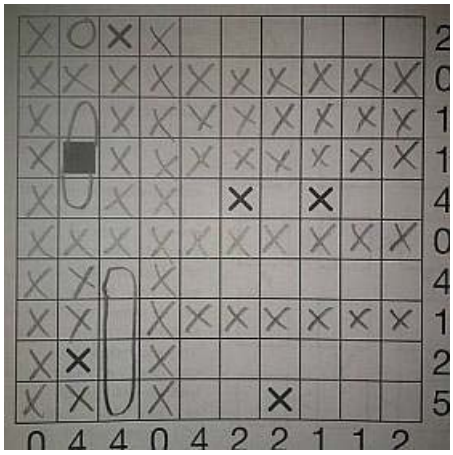
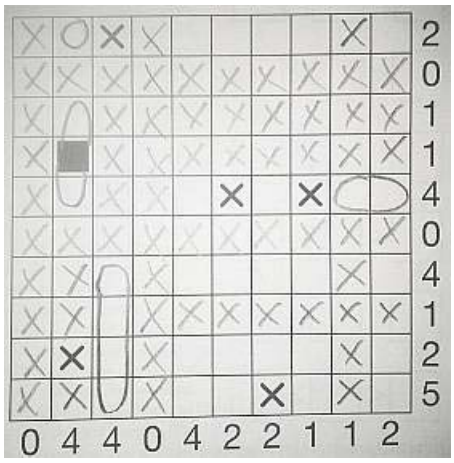
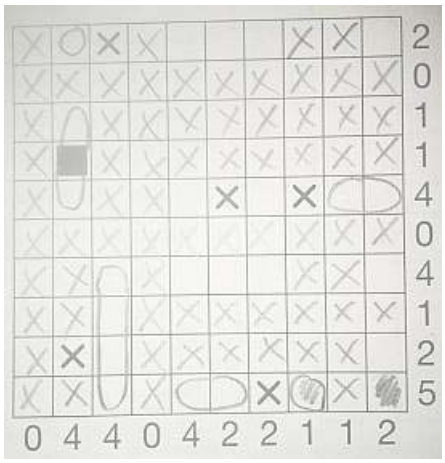
A solver should be able to quickly place a four, a three, and a one in the left side of the grid. They will then be at this point:



From here, they can notice that the top row needs to have two workstations of size 1, and the fifth row needs three more workstations filled in four possible spaces -- but two ways of doing so will lead to three workstations of size 1, which combined with the two workstations of size 1 in the first row is too many small size-1 workstations. So, this means that there must be a workstation of size 2 at the right side of row 5, resulting in:



Now the bottom row has only four spaces left, so we fill them in:



Now we have a contradiction in the ninth row (which needs one more workstation component) and the tenth column (which needs no more workstation components).

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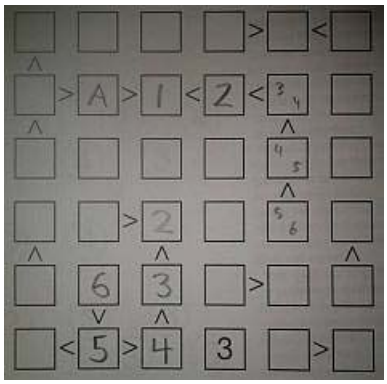
There's a chain of five increasing boxes that go along the second row and down the fifth column. The given 3 restricts the two smallest numbers in the chain, which in turn restricts another chain that curls in the lower-left:



The next insight is to realize that cell A can only be 3 or 4. This means that the other two cells in the row must be 5 or 6, and that in turn lets us place all the 6s, which then uniquely determines the top chain, second row, and third column:

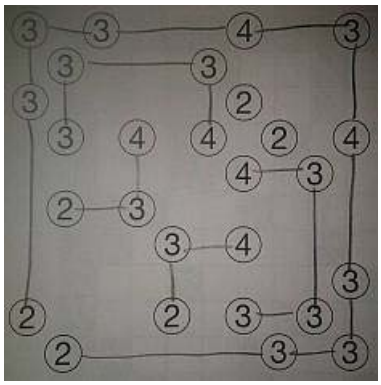
Cell B can only contain a 1, which lets us put more numbers in:

From here we're stuck. Column 1 makes row 5 need a 4, then we have problems with the other cells in row 5.

Laotian Coast Guard: H11989 = Hashi

Here's a basic guide on solving Hashi puzzles: [[7] (http://www.indigopuzzles.com/ipuz/help.action?helpId=hashi/howToSolve_01)]

Using those techniques, this is as far as you can get with this puzzle:



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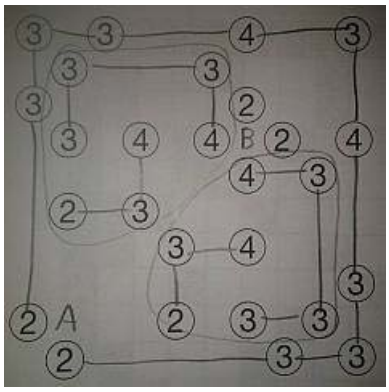
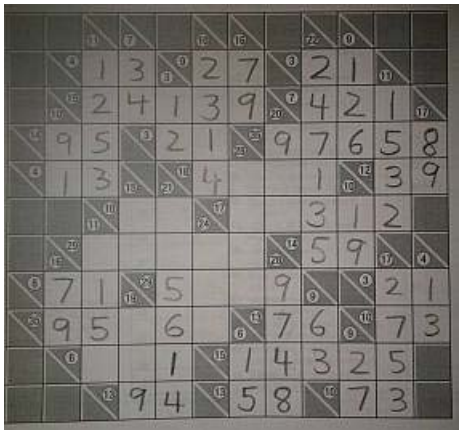


Look at the two clouded areas. Each area adds to an even number, which means it must connect out of its "cloud" by an even number of patrol lines. But the only ways out of the cloud are via the two areas marked A and B. If one cloud uses both areas, then the other cloud is isolated. So, at least one cloud must use only "A" to get out -- but it's impossible to have an even number of connections through "A".

The Laundry: KA11211815 = Kakuro

This is as far as you get with basic Kakuro techniques (well, sort of -- the lower-right is kind of tricky):



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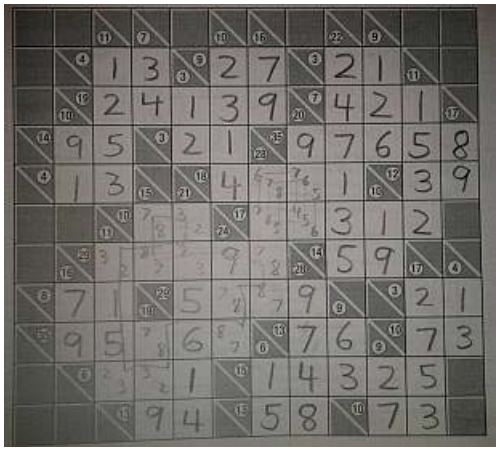
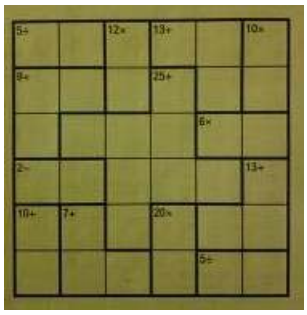


Unfortunately the upper-right area only has three possible solutions, and they each involve having a 7 or an 8 in the top half of the center clue. So that's a contradiction.

BATSHIT: KE14-K514 = Ken-ken

It's a bit easier if we make this look like a traditional Ken-Ken:



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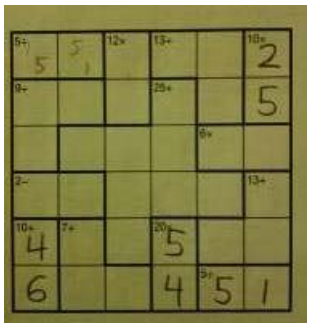
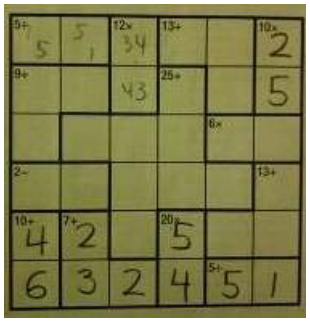


The "7+" box at the bottom can then be determined:

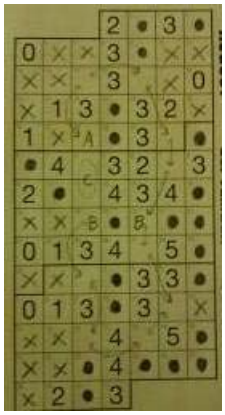


Now look at the 5th row. The 3rd cell can't be 3, so the 3 must be in the "13+" group. So we can't put the 1 in that group as then the other number in that group would be 9. So:

We now have a problem -- the last two cells in the "25+" group need to add up to 6, but one of them is either a 3 or a 6.

X-Comm: M9145-S235516518 = Minesweeper

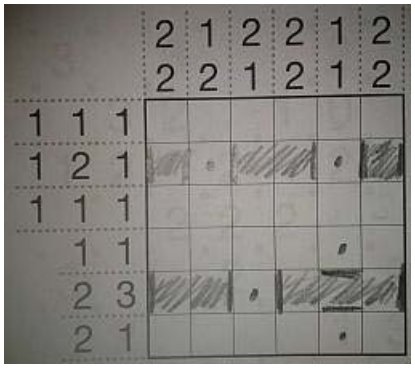
Using normal Minesweeper techniques, we end up finding a long alternating chain of 12 cells, where the mines must be alternating on and off in each link of the chain:



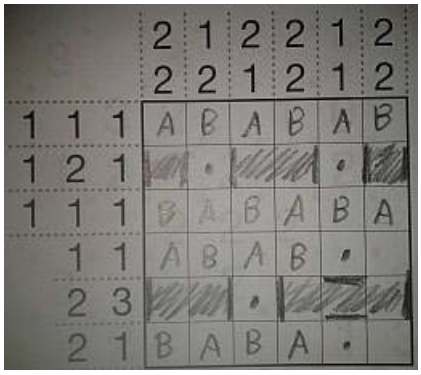
In other words, either cell A is filled and both cell Bs are black, or both cell Bs are filled and cell A is blank. Both choices cause problems with the number of mines in the two cells marked C.

GEE: N151415-G18113 = Nonogram

You can only make a little bit of strong progress on this Nonogram:

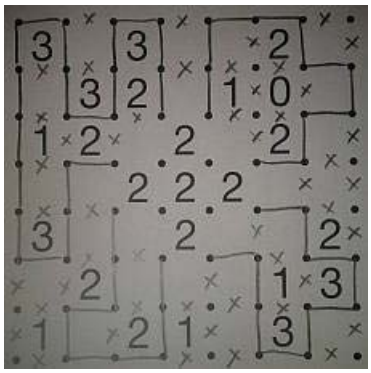


Inspecting the clues and ramifications creates a weird checkerboard situation in 2x3 blocks -- either all the cells marked A are filled, or all the cells marked B are filled. In either case, we have a problem in the bottom row.



UMMM: S129208518-L91411 = Slitherlink

Standard Slitherlink techniques get you to this point:



At this point, the center pattern is rather funky. There are six ways to satisfy all the 2s, but all the ways leave two loops. One way to convince yourself of this is to look at any point on the octagon and convince yourself that it has to connect to another point on the octagon next to it, since it can't cross over without closing the loop prematurely.

2.03 Invalid Permit

(Mandatory Puzzle) A government regulator threatens to shut down the lab unless a seemingly impossible series of forms are filled out correctly.

Open Time Period

Sunday, midnight - till all teams (16 in Game 1, 17 in Game 2) have completed (estimated 1:40 AM)

Location

(See Sign In Act II)

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--quantum chronomentometers.
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!

Props

- Multiple copies of staff instructions for the multiple staffers?
- 16 or 17 collections of permit applications
- Lab coat (should already have)
- Peach Frontier name badge and lanyard (should already have)
- Government official outfit? for the inspector?
- 32 or 34 View-O-Scope Computer Remote Access Program diskettes
- 16 or 17 contact information sheets for Peach Frontier Laboratories

Staff Instructions

Your Role: Lab Assistants at Peach Frontier Laboratories + one "dickless" government regulator

What To Wear: lab coats + Peach Frontier Laboratories name badges; something else for the regulator

What Your Character Knows: everything in "Plot Setup"; the government regulator knows that Peach Frontier's operating permit application has not been properly filled out, he knows nothing about why the previous regulator signed off on this improper application

Puzzles At This Site: Several, but this sheet only covers Invalid Permits (plus the lead in to Chronomentometer 1).

Where To Get Materials: GC HQ

Setup Instructions: n/a

Handout Instructions: Lab assistant says words to the effect of,

> You've got to help! See that guy over there? He's the new government inspector and he says he's going to shut us down because we don't have a valid operating permit. We can't shut down—we need to keep operating so we can save Prof. Chronos!

> I thought we took care of this permit long ago. First I tried to fill out the eight required forms myself…but you know how impossible government forms are to fill out.

> So Prof. Chronos took the forms from me, filled them out, and met with the old inspector. She assured me everything was all taken care of…and if there was ever any problem to just refer to the forms she filed.

> Now this new guy shows up…says he doesn't know anything about what the old guy did...and that our forms aren't valid! I looked at

> them and he’s right: the Professor filled out the top part!

> Will you please look at the forms and fix this mess? This is the order these permits were in our file cabinet. I don't know if that order is important but I suggest you make a note of it.

> You can submit forms to the inspector for his approval. After you've solved this mess see any lab assistant.

Hand them the collection of permit application forms (usher them outside?) and then have a GC member with computer enter team's start time in the tracking database.

Answers: There is no "answer" to this puzzle. The team just has to roleplay bribing the staffer playing the role of the regulator to that staffer's satisfaction.

After bribing the regulator, the team speaks with a lab assistant who leads them into Chronomentometer 1 with words to the effect of

> Phew! Now that you've got that taken care of, it turns out that Doctor When could use your help with the chronomentometers. We blew four of the modules--numbers 50, 87, 104, and 134. So we need a new design for each. Unfortunately his expertise is mainly in the theoretical realm. Only Prof. Chronos was truly driven to implement a working device.

> But luckily there are nearby experts in applied chronodynamics who just may be able to help you. Please go to the Clocksmith Technologies at 806 El Camino Real, San Carlos. There you will be able to get the initial specifications for the new modules, which you can use to design new ones.

> Please upload your four designs on our web site once you're done. The address is peachfrontier.com/cmm/. Here--I've written it all down for you. After you enter the design please email the lab to let us know you're done. If you have any trouble with your design call (650) 395-TIME and one of the lab assistants may be able to help.

> Oh...and take this disk with you. It contains software for remote access to the time machine's View-O-Scope...if we ever get that working again. [sigh] In fact, here are two identical disks in case you want to run it on two computers.

Have a GC member with a computer enter team's start time in the online tracking database.

Site Close Down:

- Once the last team leaves the set can be converted back to Trenchwood Institute.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This is a tricky puzzle to hint well. The intended discovery path is:

1. Teams notice that the forms are representations of puzzle types they've seen before
2. Teams work on the puzzle types, possibly also discovering the form code that confirms that these are indeed types they know about or can search on
3. Teams work on the puzzles enough to convince themselves that the puzzles are impossible

4. Teams get the "Aha" that Chronos couldn't possibly have any control over the puzzles (and that government is evil), and that if there's any message there must be something in her writing.
5. Teams decode the writing and get the message.

The biggest barrier is the third step, which is teams convincing themselves that the puzzles are impossible. It is *very* easy for a team, when faced with an impossibility, to convince themselves that they made a mistake and that the puzzle is working.

Do not (except in extreme circumstances) confirm with teams that a puzzle is impossible. It's fine if teams get the "Aha" on their own, but you flat-out tell them that a puzzle is impossible, you've deprived them of that "aha". However, to decrease frustration, it's important to guide them towards discovering that on their own as much as possible.

Therefore, for a team that appears to be struggling, play the role of a lab assistant who is trying to also help them with the forms, but also doesn't realize that the puzzle is impossible. Guide them through solving the puzzle and be thorough (as per the notes above), letting them convince themselves that the puzzle is impossible.

Only then should you guide them towards the next step by saying something like "Gosh, maybe the forms are impossible to fill out. I wonder if Professor Chronos realized that and maybe that's why they aren't filled out?"

Puzzle Answer

The puzzle solves to the phrase:

```
Forms IMPOSSIBLE; use CREATIVE bribery!
```

For teams to successfully solve the puzzle, they must roleplay bribing the GC member playing "Dick, Les," the government regulator.

Puzzle Solution

The puzzle has a BIG red herring -- it looks like a puzzle that is about solving WPC-style logical constraint-satisfaction puzzles, but it is actually a Game-style decoding puzzle.

Incidentally, each form appears to come from one of the government teams that are playing. It will be ironic that a team can't solve its own form.

A very astute team that is paying attention to the story (not that we expect any teams to get this immediately, but we can hope) will realize Catherine had absolutely no control over the contents of the forms, and only pay attention to the bit that Catherine did have control over, which is the section at the top where she filled in the name and address.

She has sneakily hidden an important message in how she writes her letters and numerals -- read across the forms, the variants spell out a message in 8-bit ASCII. She also tried to hint at this by underlining one word in each form -- the first letters of those words spell out "USE ASCII". The forms are actually given in order, but they can be sorted by their form number. The form number can be decoded to make a puzzle name, but that is part of the red herring.

Bit value	Form number	Decodes to
128	B12020125-S8916	BATTLE-SHIP
64	F212015-S89119	FUTO-SHIKI
32	H11989	HASHI
16	KA11211815	KAKURO
8	KE14-K514	KEN-KEN
4	M9145-S235516518	MINE-SWEEPER
2	N151415-G18113	NONO-GRAM
1	S129208518-L91411	SLITHER-LINK

As 8-bit ASCII always has the first bit as zero for standard messages, the first form indicates a value of "0" for all bits. The decoding mixes uppercase, lowercase, and even punctuation marks and one numeral.

Chr	Decimal	128	64	32	16	8	4	2	1		What the "1" looks like
F	70	0	1	0	0	0	1	1	0	C	tilts towards left, bigger on top
o	111	0	1	1	0	1	1	1	1	a	two-storied instead of one
r	114	0	1	1	1	0	0	1	0	t	has a tail
m	109	0	1	1	0	1	1	0	1	h	tail curls up
s	115	0	1	1	1	0	0	1	1	e	horizontal bar

	32	0	0	1	0	0	0	0	0	r	stronger rise up
I	73	0	1	0	0	1	0	0	1	i	star instead of dot
M	77	0	1	0	0	1	1	0	1	n	tail curls up
P	80	0	1	0	1	0	0	0	0	e	horizontal bar
O	79	0	1	0	0	1	1	1	1	C	tilts towards left, bigger on top
S	83	0	1	0	1	0	0	1	1	h	tail curls up
S	83	0	1	0	1	0	0	1	1	r	stronger rise up
I	73	0	1	0	0	1	0	0	1	o	closes "counter-clockwise"
B	66	0	1	0	0	0	0	1	0	n	tail curls up
L	76	0	1	0	0	1	1	0	0	o	closes "counter-clockwise"
E	69	0	1	0	0	0	1	0	1	s	bigger on bottom
;	59	0	0	1	1	1	0	1	1	2	curl at lower-left
	32	0	0	1	0	0	0	0	0	3	bigger on top
u	117	0	1	1	1	0	1	0	1	2	curl at lower-left
s	115	0	1	1	1	0	0	1	1	0	slashed
e	101	0	1	1	0	0	1	0	1	N	diagonal meets center of right edge
	32	0	0	1	0	0	0	0	0	e	horizontal bar
C	67	0	1	0	0	0	0	1	1	w	rounded
R	82	0	1	0	1	0	0	1	0	p	looks like a rho
E	69	0	1	0	0	0	1	0	1	o	closes "counter-clockwise"
A	65	0	1	0	0	0	0	0	1	r	stronger rise up
T	84	0	1	0	1	0	1	0	0	t	has a tail
I	73	0	1	0	0	1	0	0	1	S	bigger on bottom
V	86	0	1	0	1	0	1	1	0	t	has a tail
E	69	0	1	0	0	0	1	0	1	S	bigger on bottom
	32	0	0	1	0	0	0	0	0	a	two-storied instead of one
b	98	0	1	1	0	0	0	1	0	n	tail curls up
r	114	0	1	1	1	0	0	1	0	M	middle dips only half-way
i	105	0	1	1	0	1	0	0	1	a	two-storied instead of one
b	98	0	1	1	0	0	0	1	0	t	has a tail
e	101	0	1	1	0	0	1	0	1	e	horizontal bar
r	114	0	1	1	1	0	0	1	0	o	closes "counter-clockwise"
y	121	0	1	1	1	1	0	0	1	C	tilts towards left, bigger on top
!	33	0	0	1	0	0	0	0	1	A	rounded at top

The hidden message is:

Forms IMPOSSIBLE; use CREATIVE bribery!

This tells the teams that they must bribe the official, creatively.

Making Progress on the Decoy Puzzle

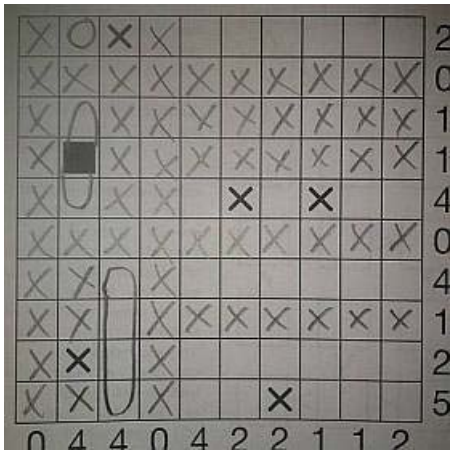
Each form describes a "classic" logic constraint-satisfaction puzzle.

The form numbers decode using a simple code that is hinted at with an example in the second form -- A is 1, B is 2, and so on, with all the numbers concatenated together. The code decodes to the name of the puzzle type, which will help confirm the teams that they are indeed solving a puzzle of that type and giving them a second copy of the rules that may be easier to read than the "government form" version.

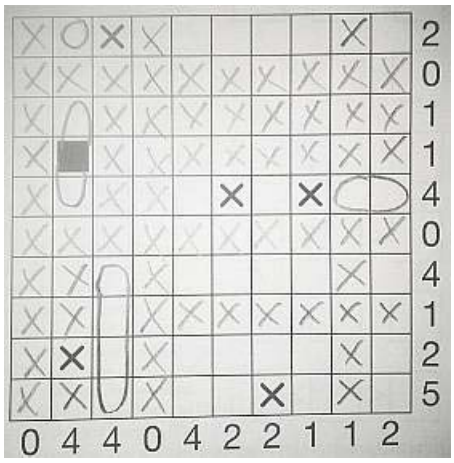
Each puzzle is intended so that a solver can make significant progress before they should figure out that the puzzle is possible. Here we describe some of the progress that can be made.

WHOMP: B12020125-S8916 = Battleship

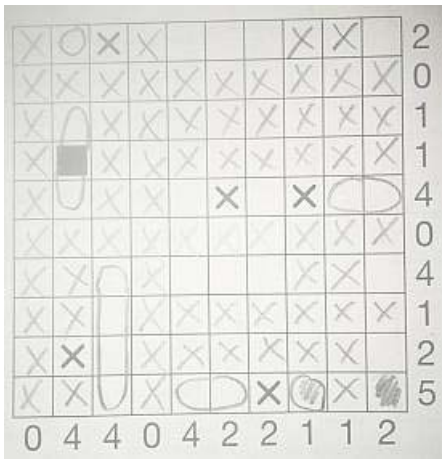
A solver should be able to quickly place a four, a three, and a one in the left side of the grid. They will then be at this point:



From here, they can notice that the top row needs to have two workstations of size 1, and the fifth row needs three more workstations filled in four possible spaces -- but two ways of doing so will lead to three workstations of size 1, which combined with the two workstations of size 1 in the first row is too many small size-1 workstations. So, this means that there must be a workstation of size 2 at the right side of row 5, resulting in:



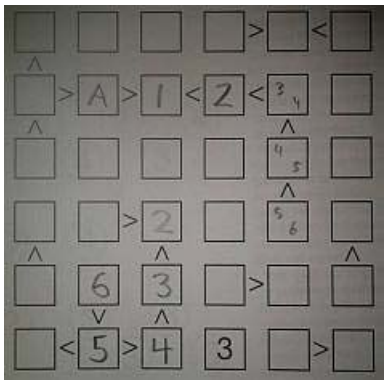
Now the bottom row has only four spaces left, so we fill them in:



Now we have a contradiction in the ninth row (which needs one more workstation component) and the tenth column (which needs no more workstation components).

REDTaPE: F212015-S89119 = Futoshiki

There's a chain of five increasing boxes that go along the second row and down the fifth column. The given 3 restricts the two smallest numbers in the chain, which in turn restricts another chain that curls in the lower-left:



The next insight is to realize that cell A can only be 3 or 4. This means that the other two cells in the row must be 5 or 6, and that in turn lets us place all the 6s, which then uniquely determines the top chain, second row, and third column:

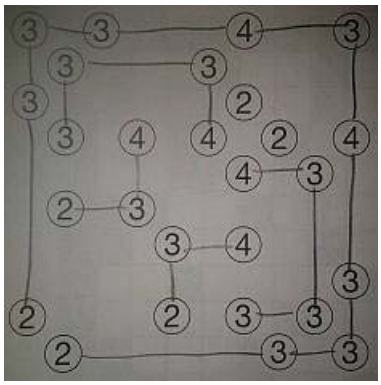
Cell B can only contain a 1, which lets us put more numbers in:

From here we're stuck. Column 1 makes row 5 need a 4, then we have problems with the other cells in row 5.

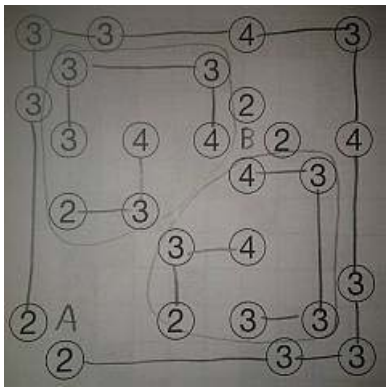
Laotian Coast Guard: H11989 = Hashi

Here's a basic guide on solving Hashi puzzles: [[7] (http://www.indigopuzzles.com/ipuz/help.action?helpId=hashi/howToSolve_01)]

Using those techniques, this is as far as you can get with this puzzle:



At this point, I would expect most teams to have to bifurcate (make a guess, prove it's impossible, do the opposite, prove it's impossible again). But there is a quicker way to see a contradiction:



Look at the two clouded areas. Each area adds to an even number, which means it must connect out of its "cloud" by an even number of patrol lines. But the only ways out of the cloud are via the two areas marked A and B. If one cloud uses both areas, then the other cloud is isolated. So, at least one cloud must use only "A" to get out -- but it's impossible to have an even number of connections through "A".

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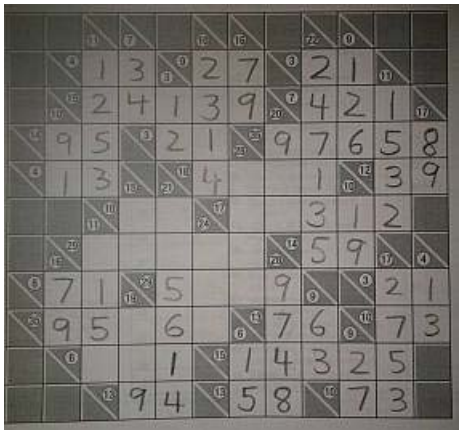
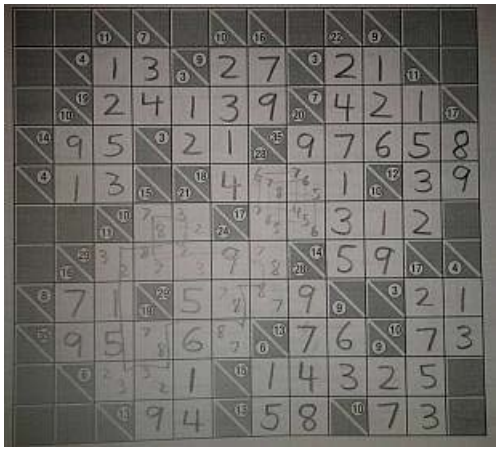
This is as far as you get with basic Kakuro techniques (well, sort of -- the lower-right is kind of tricky):



At this point, there's a big chain of "2 or 3" and "7 or 8" cells in the lower-left, but they all end up having a 7 and an 8 in the bottom half of the center clue:



Unfortunately the upper-right area only has three possible solutions, and they each involve having a 7 or an 8 in the top half of the center clue. So that's a contradiction.

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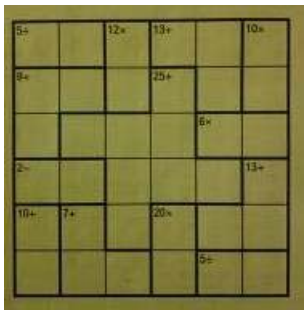
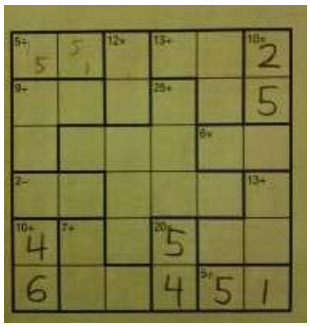
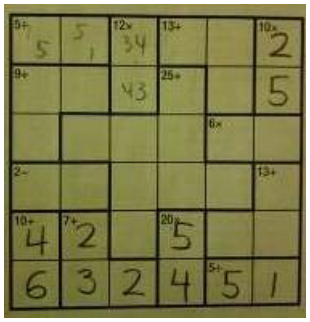
It's a bit easier if we make this look like a traditional Ken-Ken:



The product and quotient box allow for us to place some of the 5s easily:



The "7+" box at the bottom can then be determined:

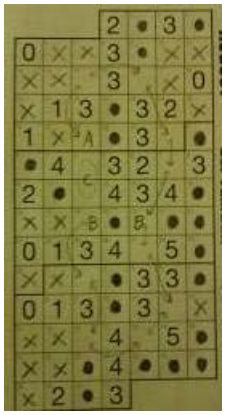


Now look at the 5th row. The 3rd cell can't be 3, so the 3 must be in the "13+" group. So we can't put the 1 in that group as then the other number in that group would be 9. So:

We now have a problem -- the last two cells in the "25+" group need to add up to 6, but one of them is either a 3 or a 6.

X-Comm: M9145-S235516518 = Minesweeper

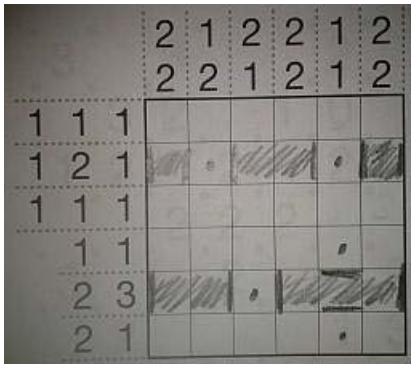
Using normal Minesweeper techniques, we end up finding a long alternating chain of 12 cells, where the mines must be alternating on and off in each link of the chain:



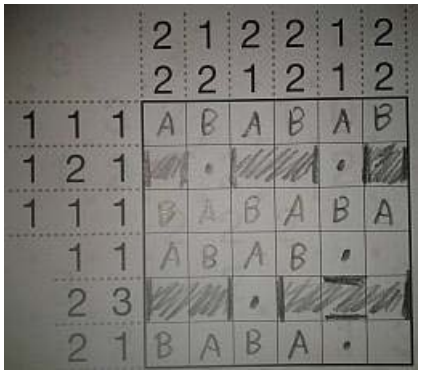
In other words, either cell A is filled and both cell Bs are black, or both cell Bs are filled and cell A is blank. Both choices cause problems with the number of mines in the two cells marked C.

GEE: N151415-G18113 = Nonogram

You can only make a little bit of strong progress on this Nonogram:

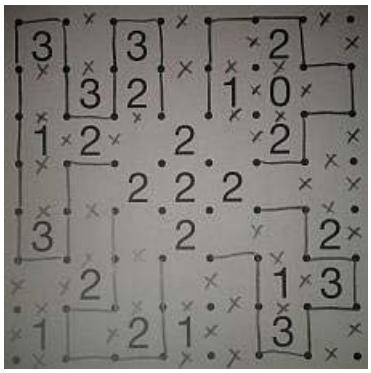


Inspecting the clues and ramifications creates a weird checkerboard situation in 2x3 blocks -- either all the cells marked A are filled, or all the cells marked B are filled. In either case, we have a problem in the bottom row.



UMMM: S129208518-L91411 = Slitherlink

Standard Slitherlink techniques get you to this point:



At this point, the center pattern is rather funky. There are six ways to satisfy all the 2s, but all the ways leave two loops. One way to convince yourself of this is to look at any point on the octagon and convince yourself that it has to connect to another point on the octagon next to it, since it can't cross over without closing the loop prematurely.

2.03 Invalid Permit

(Mandatory Puzzle) A government regulator threatens to shut down the lab unless a seemingly impossible series of forms are filled out correctly.

Open Time Period

Sunday, midnight - till all teams (16 in Game 1, 17 in Game 2) have completed (estimated 1:40 AM)

Location

(See Sign In Act II)

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--quantum chronomentometers.
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!

Props

- Multiple copies of staff instructions for the multiple staffers?
- 16 or 17 collections of permit applications
- Lab coat (should already have)
- Peach Frontier name badge and lanyard (should already have)
- Government official outfit? for the inspector?
- 32 or 34 View-O-Scope Computer Remote Access Program diskettes
- 16 or 17 contact information sheets for Peach Frontier Laboratories

Staff Instructions

Your Role: Lab Assistants at Peach Frontier Laboratories + one "dickless" government regulator

What To Wear: lab coats + Peach Frontier Laboratories name badges; something else for the regulator

What Your Character Knows: everything in "Plot Setup"; the government regulator knows that Peach Frontier's operating permit application has not been properly filled out, he knows nothing about why the previous regulator signed off on this improper application

Puzzles At This Site: Several, but this sheet only covers Invalid Permits (plus the lead in to Chronomentometer 1).

Where To Get Materials: GC HQ

Setup Instructions: n/a

Handout Instructions: Lab assistant says words to the effect of,

> You've got to help! See that guy over there? He's the new government inspector and he says he's going to shut us down because we don't have a valid operating permit. We can't shut down—we need to keep operating so we can save Prof. Chronos!

> I thought we took care of this permit long ago. First I tried to fill out the eight required forms myself…but you know how impossible government forms are to fill out.

> So Prof. Chronos took the forms from me, filled them out, and met with the old inspector. She assured me everything was all taken care of…and if there was ever any problem to just refer to the forms she filed.

> Now this new guy shows up…says he doesn't know anything about what the old guy did...and that our forms aren't valid! I looked at

> them and he’s right: the Professor filled out the top part!

> Will you please look at the forms and fix this mess? This is the order these permits were in our file cabinet. I don't know if that order is important but I suggest you make a note of it.

> You can submit forms to the inspector for his approval. After you've solved this mess see any lab assistant.

Hand them the collection of permit application forms (usher them outside?) and then have a GC member with computer enter team's start time in the tracking database.

Answers: There is no "answer" to this puzzle. The team just has to roleplay bribing the staffer playing the role of the regulator to that staffer's satisfaction.

After bribing the regulator, the team speaks with a lab assistant who leads them into Chronomentometer 1 with words to the effect of

> Phew! Now that you've got that taken care of, it turns out that Doctor When could use your help with the chronomentometers. We blew four of the modules--numbers 50, 87, 104, and 134. So we need a new design for each. Unfortunately his expertise is mainly in the theoretical realm. Only Prof. Chronos was truly driven to implement a working device.

> But luckily there are nearby experts in applied chronodynamics who just may be able to help you. Please go to the Clocksmith Technologies at 806 El Camino Real, San Carlos. There you will be able to get the initial specifications for the new modules, which you can use to design new ones.

> Please upload your four designs on our web site once you're done. The address is peachfrontier.com/cmm/. Here--I've written it all down for you. After you enter the design please email the lab to let us know you're done. If you have any trouble with your design call (650) 395-TIME and one of the lab assistants may be able to help.

> Oh...and take this disk with you. It contains software for remote access to the time machine's View-O-Scope...if we ever get that working again. [sigh] In fact, here are two identical disks in case you want to run it on two computers.

Have a GC member with a computer enter team's start time in the online tracking database.

Site Close Down:

- Once the last team leaves the set can be converted back to Trenchwood Institute.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

This is a tricky puzzle to hint well. The intended discovery path is:

1. Teams notice that the forms are representations of puzzle types they've seen before
2. Teams work on the puzzle types, possibly also discovering the form code that confirms that these are indeed types they know about or can search on
3. Teams work on the puzzles enough to convince themselves that the puzzles are impossible

4. Teams get the "Aha" that Chronos couldn't possibly have any control over the puzzles (and that government is evil), and that if there's any message there must be something in her writing.
5. Teams decode the writing and get the message.

The biggest barrier is the third step, which is teams convincing themselves that the puzzles are impossible. It is *very* easy for a team, when faced with an impossibility, to convince themselves that they made a mistake and that the puzzle is working.

Do not (except in extreme circumstances) confirm with teams that a puzzle is impossible. It's fine if teams get the "Aha" on their own, but you flat-out tell them that a puzzle is impossible, you've deprived them of that "aha". However, to decrease frustration, it's important to guide them towards discovering that on their own as much as possible.

Therefore, for a team that appears to be struggling, play the role of a lab assistant who is trying to also help them with the forms, but also doesn't realize that the puzzle is impossible. Guide them through solving the puzzle and be thorough (as per the notes above), letting them convince themselves that the puzzle is impossible.

Only then should you guide them towards the next step by saying something like "Gosh, maybe the forms are impossible to fill out. I wonder if Professor Chronos realized that and maybe that's why they aren't filled out?"

Puzzle Answer

The puzzle solves to the phrase:

```
Forms IMPOSSIBLE; use CREATIVE bribery!
```

For teams to successfully solve the puzzle, they must roleplay bribing the GC member playing "Dick, Les," the government regulator.

Puzzle Solution

The puzzle has a BIG red herring -- it looks like a puzzle that is about solving WPC-style logical constraint-satisfaction puzzles, but it is actually a Game-style decoding puzzle.

Incidentally, each form appears to come from one of the government teams that are playing. It will be ironic that a team can't solve its own form.

A very astute team that is paying attention to the story (not that we expect any teams to get this immediately, but we can hope) will realize Catherine had absolutely no control over the contents of the forms, and only pay attention to the bit that Catherine did have control over, which is the section at the top where she filled in the name and address.

She has sneakily hidden an important message in how she writes her letters and numerals -- read across the forms, the variants spell out a message in 8-bit ASCII. She also tried to hint at this by underlining one word in each form -- the first letters of those words spell out "USE ASCII". The forms are actually given in order, but they can be sorted by their form number. The form number can be decoded to make a puzzle name, but that is part of the red herring.

Bit value	Form number	Decodes to
128	B12020125-S8916	BATTLE-SHIP
64	F212015-S89119	FUTO-SHIKI
32	H11989	HASHI
16	KA11211815	KAKURO
8	KE14-K514	KEN-KEN
4	M9145-S235516518	MINE-SWEEPER
2	N151415-G18113	NONO-GRAM
1	S129208518-L91411	SLITHER-LINK

As 8-bit ASCII always has the first bit as zero for standard messages, the first form indicates a value of "0" for all bits. The decoding mixes uppercase, lowercase, and even punctuation marks and one numeral.

Chr	Decimal	128	64	32	16	8	4	2	1		What the "1" looks like
F	70	0	1	0	0	0	1	1	0	C	tilts towards left, bigger on top
o	111	0	1	1	0	1	1	1	1	a	two-storied instead of one
r	114	0	1	1	1	0	0	1	0	t	has a tail
m	109	0	1	1	0	1	1	0	1	h	tail curls up
s	115	0	1	1	1	0	0	1	1	e	horizontal bar

	32	0	0	1	0	0	0	0	0	r	stronger rise up
I	73	0	1	0	0	1	0	0	1	i	star instead of dot
M	77	0	1	0	0	1	1	0	1	n	tail curls up
P	80	0	1	0	1	0	0	0	0	e	horizontal bar
O	79	0	1	0	0	1	1	1	1	C	tilts towards left, bigger on top
S	83	0	1	0	1	0	0	1	1	h	tail curls up
S	83	0	1	0	1	0	0	1	1	r	stronger rise up
I	73	0	1	0	0	1	0	0	1	o	closes "counter-clockwise"
B	66	0	1	0	0	0	0	1	0	n	tail curls up
L	76	0	1	0	0	1	1	0	0	o	closes "counter-clockwise"
E	69	0	1	0	0	0	1	0	1	s	bigger on bottom
;	59	0	0	1	1	1	0	1	1	2	curl at lower-left
	32	0	0	1	0	0	0	0	0	3	bigger on top
u	117	0	1	1	1	0	1	0	1	2	curl at lower-left
s	115	0	1	1	1	0	0	1	1	0	slashed
e	101	0	1	1	0	0	1	0	1	N	diagonal meets center of right edge
	32	0	0	1	0	0	0	0	0	e	horizontal bar
C	67	0	1	0	0	0	0	1	1	w	rounded
R	82	0	1	0	1	0	0	1	0	p	looks like a rho
E	69	0	1	0	0	0	1	0	1	o	closes "counter-clockwise"
A	65	0	1	0	0	0	0	0	1	r	stronger rise up
T	84	0	1	0	1	0	1	0	0	t	has a tail
I	73	0	1	0	0	1	0	0	1	S	bigger on bottom
V	86	0	1	0	1	0	1	1	0	t	has a tail
E	69	0	1	0	0	0	1	0	1	S	bigger on bottom
	32	0	0	1	0	0	0	0	0	a	two-storied instead of one
b	98	0	1	1	0	0	0	1	0	n	tail curls up
r	114	0	1	1	1	0	0	1	0	M	middle dips only half-way
i	105	0	1	1	0	1	0	0	1	a	two-storied instead of one
b	98	0	1	1	0	0	0	1	0	t	has a tail
e	101	0	1	1	0	0	1	0	1	e	horizontal bar
r	114	0	1	1	1	0	0	1	0	o	closes "counter-clockwise"
y	121	0	1	1	1	1	0	0	1	C	tilts towards left, bigger on top
!	33	0	0	1	0	0	0	0	1	A	rounded at top

The hidden message is:

Forms IMPOSSIBLE; use CREATIVE bribery!

This tells the teams that they must bribe the official, creatively.

Making Progress on the Decoy Puzzle

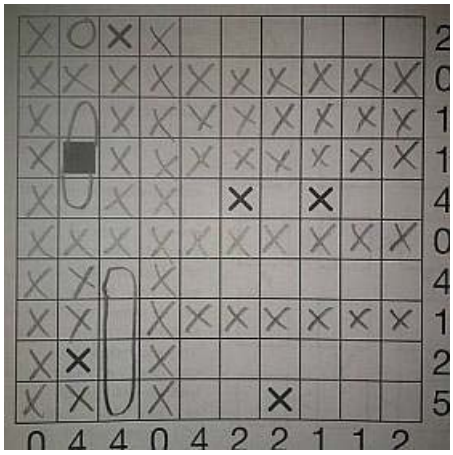
Each form describes a "classic" logic constraint-satisfaction puzzle.

The form numbers decode using a simple code that is hinted at with an example in the second form -- A is 1, B is 2, and so on, with all the numbers concatenated together. The code decodes to the name of the puzzle type, which will help confirm the teams that they are indeed solving a puzzle of that type and giving them a second copy of the rules that may be easier to read than the "government form" version.

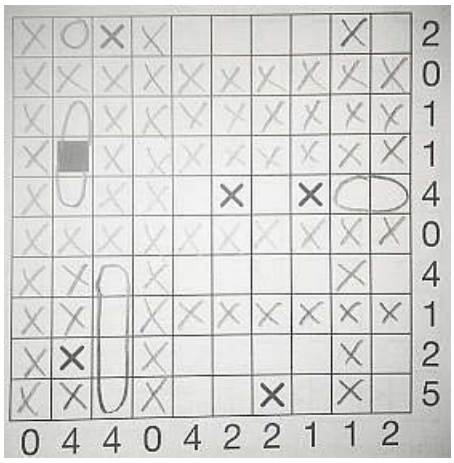
Each puzzle is intended so that a solver can make significant progress before they should figure out that the puzzle is possible. Here we describe some of the progress that can be made.

WHOMP: B12020125-S8916 = Battleship

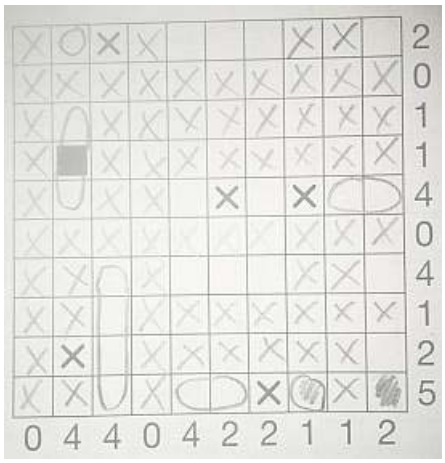
A solver should be able to quickly place a four, a three, and a one in the left side of the grid. They will then be at this point:



From here, they can notice that the top row needs to have two workstations of size 1, and the fifth row needs three more workstations filled in four possible spaces -- but two ways of doing so will lead to three workstations of size 1, which combined with the two workstations of size 1 in the first row is too many small size-1 workstations. So, this means that there must be a workstation of size 2 at the right side of row 5, resulting in:



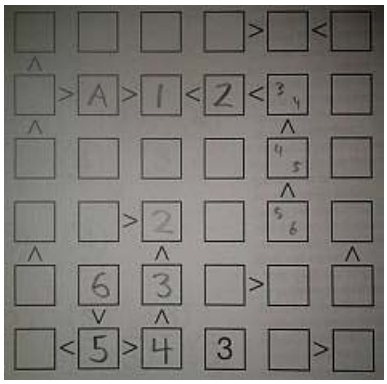
Now the bottom row has only four spaces left, so we fill them in:



Now we have a contradiction in the ninth row (which needs one more workstation component) and the tenth column (which needs no more workstation components).

REDTaPE: F212015-S89119 = Futoshiki

There's a chain of five increasing boxes that go along the second row and down the fifth column. The given 3 restricts the two smallest numbers in the chain, which in turn restricts another chain that curls in the lower-left:



The next insight is to realize that cell A can only be 3 or 4. This means that the other two cells in the row must be 5 or 6, and that in turn lets us place all the 6s, which then uniquely determines the top chain, second row, and third column:

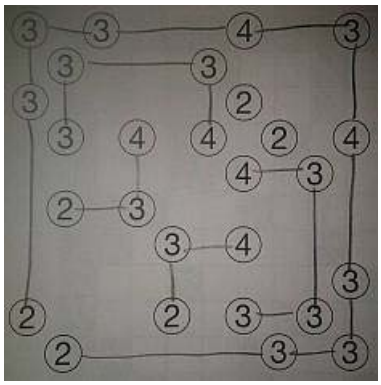
Cell B can only contain a 1, which lets us put more numbers in:

From here we're stuck. Column 1 makes row 5 need a 4, then we have problems with the other cells in row 5.

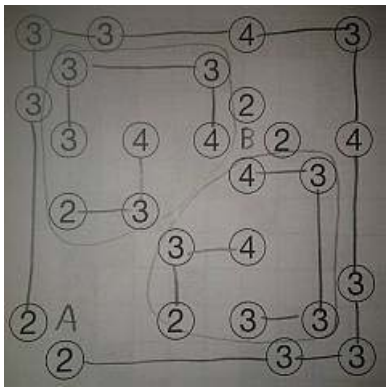
Laotian Coast Guard: H11989 = Hashi

Here's a basic guide on solving Hashi puzzles: [[7] (http://www.indigopuzzles.com/ipuz/help.action?helpId=hashi/howToSolve_01)]

Using those techniques, this is as far as you can get with this puzzle:



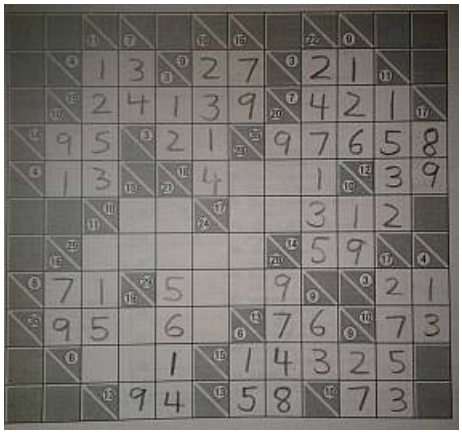
At this point, I would expect most teams to have to bifurcate (make a guess, prove it's impossible, do the opposite, prove it's impossible again). But there is a quicker way to see a contradiction:



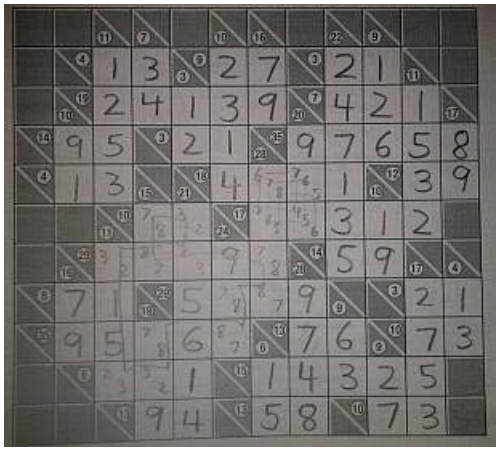
Look at the two clouded areas. Each area adds to an even number, which means it must connect out of its "cloud" by an even number of patrol lines. But the only ways out of the cloud are via the two areas marked A and B. If one cloud uses both areas, then the other cloud is isolated. So, at least one cloud must use only "A" to get out -- but it's impossible to have an even number of connections through "A".

The Laundry: KA11211815 = Kakuro

This is as far as you get with basic Kakuro techniques (well, sort of -- the lower-right is kind of tricky):



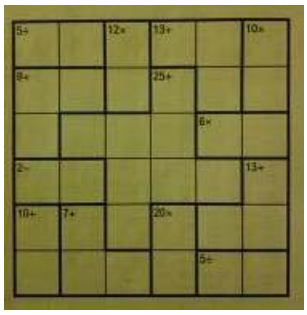
At this point, there's a big chain of "2 or 3" and "7 or 8" cells in the lower-left, but they all end up having a 7 and an 8 in the bottom half of the center clue:



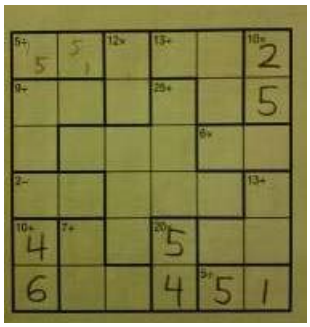
Unfortunately the upper-right area only has three possible solutions, and they each involve having a 7 or an 8 in the top half of the center clue. So that's a contradiction.

BATSHIT: KE14-K514 = Ken-ken

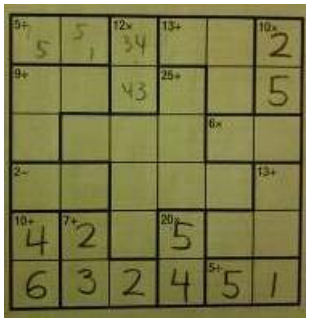
It's a bit easier if we make this look like a traditional Ken-Ken:



The product and quotient box allow for us to place some of the 5s easily:



The "7+" box at the bottom can then be determined:

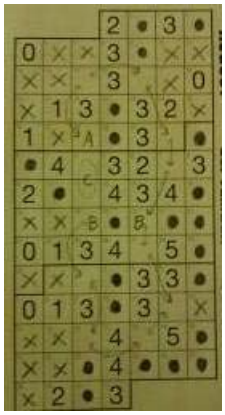


Now look at the 5th row. The 3rd cell can't be 3, so the 3 must be in the "13+" group. So we can't put the 1 in that group as then the other number in that group would be 9. So:

We now have a problem -- the last two cells in the "25+" group need to add up to 6, but one of them is either a 3 or a 6.

X-Comm: M9145-S235516518 = Minesweeper

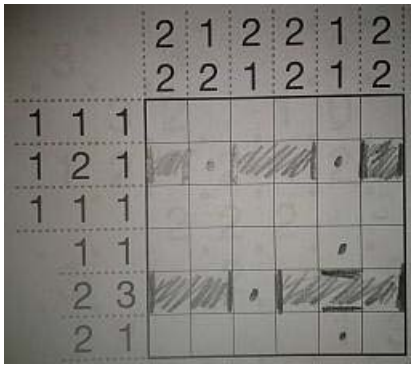
Using normal Minesweeper techniques, we end up finding a long alternating chain of 12 cells, where the mines must be alternating on and off in each link of the chain:



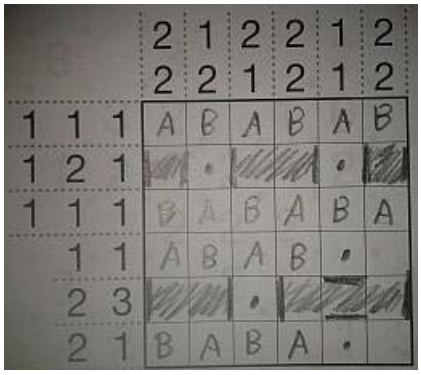
In other words, either cell A is filled and both cell Bs are black, or both cell Bs are filled and cell A is blank. Both choices cause problems with the number of mines in the two cells marked C.

GEE: N151415-G18113 = Nonogram

You can only make a little bit of strong progress on this Nonogram:



Inspecting the clues and ramifications creates a weird checkerboard situation in 2x3 blocks -- either all the cells marked A are filled, or all the cells marked B are filled. In either case, we have a problem in the bottom row.



UMMM: S129208518-L91411 = Slitherlink

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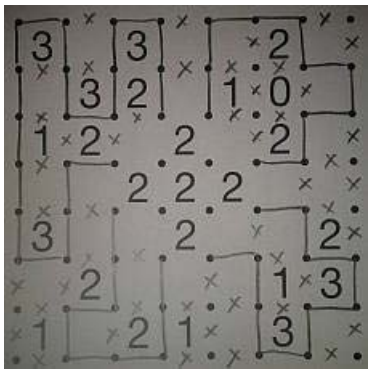

At this point, the center pattern is rather funky. There are six ways to satisfy all the 2s, but all the ways leave two loops. One way to convince yourself of this is to look at any point on the octagon and convince yourself that it has to connect to another point on the octagon next to it, since it can't cross over without closing the loop prematurely.

2.04 Chronomentometer 1

(Mandatory Puzzle) The players need to help Doctor When design a new quantum chronomentometer.

Open Time Period

Sunday 12:40 AM till all teams (16 for Game 1, 17 for Game 2) have picked up (estimated 2:05 AM)

Location

Name and Address: "Clocksmith Technologies"...outside of Clocksmith, 806 El Camino Real, San Carlos

Parking: free street

Bathroom: No

Food: No

GC PoC: Erik, Wei-Hwa (650) 395-8463, lab@peachfrontier.com

Parking: Free on street

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--quantum chronomentometers.
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!

Props

- 70 Chronomentometer sets (http://weihwa.com/~whuang/nodir/doctorwhen/chronomentometer/print-5x6-frag.pdf) (4 per team, 2 spare) "design kits"
- 18 copies of Chronomentometer A printouts (http://weihwa.com/~whuang/nodir/doctorwhen/chronomentometer/initial-cmm-packet.pdf) (4 pages each, 1 set per team, with 1 spare) "Chronomentometer Restricted Arrangement Particulars"
- 108 blank Chronomentometer grids (http://weihwa.com/~whuang/nodir/doctorwhen/chronomentometer/blank-grid.pdf) (6 per team, with 12 spares)
- Lab coat
- Clocksmith Technologies name badge and lanyard

Staff Instructions

Your Role: Lab assistant at the Clocksmith Technologies, known for their practical expertise in developing chronomentometers.

What To Wear: lab coat + Clocksmith Technologies name badge

What Your Character Knows: You are collegial with Peach Frontier Laboratories, but you didn't know Prof. Chronos had created a (semi) working time machine nor that it malfunctioned.

Puzzles At This Site: Only Chronomentometer 1

Where To Get Materials: GC HQ

Setup Instructions:

- Call GC when you are ready for teams

Handout Instructions:

Discreetly keep count of the number of teams who have picked up their puzzle so that you know when to close down.

There is only one puzzle to hand out here: “Chronomentometer”. The interaction should go something like:

> TEAM: We need your help! Prof. Chronos has become lost in time because four the chronomentometers within her time machine failed. We have to design new ones so that we can rescue her.

> LAB ASSISTANT: I'm sorry, who sent you here again?

> TEAM: Doctor Wesley When

> LAB ASSISTANT: Doctor When? Here?! I thought he was in New England. But that's terrible! Of course we'll help. Unfortunately we've never created a complete quantum chronomentometer; the materials are way too finicky. But I do have a design kit that should help.

> Unfortunately, this won't do you much good unless you have the right Chronomentometer Restricted Arrangement Particulars. There are millions of configurations and I'll need to know the specific chronomentometer numbers to get you the right pieces of CRAP. You wouldn't happen to have the numbers of the chronomentometers that were broken, would you?

> TEAM: Numbers 50, 87, 104, and 134.

> LAB ASSISTANT: Ah yes, I should have guessed. Doctor When always knew those were some of the most fragile. Let me pull out Chronomentometer Restricted Arrangement Particulars for those four. With those and the kit, you should be able to figure out good designs to send to Doctor When.

Then hand out all the components of the puzzle: 4 design kits, blank grids, and four Chronomentometer Restricted Arrangement Particulars.

Site Close Down:

- Clean up.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Jigsaw puzzle with constraints. Physical pieces given to players to model the "real" one in the time machine, along with four partial maps on paper. They submit their completed arrangements to lab staff, who will confirm the solution.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Kind of hard to give logical-based hints. One general hints that one could give:

- Each piece has 3 or 4 hexes. So, if you place a piece and divide the remaining space into an area that has 1, 2, or 5 hexes, that placement can't be correct.

Other than that, if a team is stuck on a particular puzzle, give them the first letter of nonogram #2. Then the second, then the third, etc.

Puzzle Answer

There are four grids, numbered 50, 87, 104, 134 (there is no significance to the numbering).

Use Username: tester Password: streetsetter to access these urls.

- Answer to 50: FHLLIIMEM LLHKADGJB CDDDDGIME
  - Diagram: http://peachfrontier.com/cmm/answers/50.html
- Answer to 87: CCFGKKJJH FFGMEIBBD DLLIEMJJK
  - Diagram: http://peachfrontier.com/cmm/answers/87.html
- Answer to 107: HAAAFMBBE DAHFGKKIL JJIKGCMBB
  - Diagram: http://peachfrontier.com/cmm/answers/107.html
- Answer to 134: BLLCKKJJH CLIIEDDDD MMEDAGJJK
  - Diagram: http://peachfrontier.com/cmm/answers/134.html

Status for teams, as they solve this, is available at:

http://peachfrontier.com/cmm/parta.html

We should monitor this regularly and notify teams as necessary.

Puzzle Solution

Each set consists of unique hexaxgonal 4-ominoes (and some 3-ominoes) that tesselate into the Trenchwood "T" logo shape. For each puzzle sheet, some of the pieces are given fixed positions, and the others must be figured out.

2.04 Chronomentometer 1

(Mandatory Puzzle) The players need to help Doctor When design a new quantum chronomentometer.

Open Time Period

Sunday 12:40 AM till all teams (16 for Game 1, 17 for Game 2) have picked up (estimated 2:05 AM)

Location

Name and Address: "Clocksmith Technologies"...outside of Clocksmith, 806 El Camino Real, San Carlos

Parking: free street

Bathroom: No

Food: No

GC PoC: Erik, Wei-Hwa (650) 395-8463, lab@peachfrontier.com

Parking: Free on street

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--quantum chronomentometers.
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!

Props

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- Lab coat
- Clocksmith Technologies name badge and lanyard

Staff Instructions

Your Role: Lab assistant at the Clocksmith Technologies, known for their practical expertise in developing chronomentometers.

What To Wear: lab coat + Clocksmith Technologies name badge

What Your Character Knows: You are collegial with Peach Frontier Laboratories, but you didn't know Prof. Chronos had created a (semi) working time machine nor that it malfunctioned.

Puzzles At This Site: Only Chronomentometer 1

Where To Get Materials: GC HQ

Setup Instructions:

- Call GC when you are ready for teams

Handout Instructions:

Discreetly keep count of the number of teams who have picked up their puzzle so that you know when to close down.

There is only one puzzle to hand out here: “Chronomentometer”. The interaction should go something like:

> TEAM: We need your help! Prof. Chronos has become lost in time because four the chronomentometers within her time machine failed. We have to design new ones so that we can rescue her.

> LAB ASSISTANT: I'm sorry, who sent you here again?

> TEAM: Doctor Wesley When

> LAB ASSISTANT: Doctor When? Here?! I thought he was in New England. But that's terrible! Of course we'll help. Unfortunately we've never created a complete quantum chronomentometer; the materials are way too finicky. But I do have a design kit that should help.

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> TEAM: Numbers 50, 87, 104, and 134.

> LAB ASSISTANT: Ah yes, I should have guessed. Doctor When always knew those were some of the most fragile. Let me pull out Chronomentometer Restricted Arrangement Particulars for those four. With those and the kit, you should be able to figure out good designs to send to Doctor When.

Then hand out all the components of the puzzle: 4 design kits, blank grids, and four Chronomentometer Restricted Arrangement Particulars.

Site Close Down:

- Clean up.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Jigsaw puzzle with constraints. Physical pieces given to players to model the "real" one in the time machine, along with four partial maps on paper. They submit their completed arrangements to lab staff, who will confirm the solution.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Kind of hard to give logical-based hints. One general hints that one could give:

- Each piece has 3 or 4 hexes. So, if you place a piece and divide the remaining space into an area that has 1, 2, or 5 hexes, that placement can't be correct.

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Puzzle Answer

There are four grids, numbered 50, 87, 104, 134 (there is no significance to the numbering).

Use Username: tester Password: streetsetter to access these urls.

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Status for teams, as they solve this, is available at:

http://peachfrontier.com/cmm/parta.html

We should monitor this regularly and notify teams as necessary.

Puzzle Solution

Each set consists of unique hexaxgonal 4-ominoes (and some 3-ominoes) that tesselate into the Trenchwood "T" logo shape. For each puzzle sheet, some of the pieces are given fixed positions, and the others must be figured out.

2.04 Chronomentometer 1

(Mandatory Puzzle) The players need to help Doctor When design a new quantum chronomentometer.

Open Time Period

Sunday 12:40 AM till all teams (16 for Game 1, 17 for Game 2) have picked up (estimated 2:05 AM)

Location

Name and Address: "Clocksmith Technologies"...outside of Clocksmith, 806 El Camino Real, San Carlos

Parking: free street

Bathroom: No

Food: No

GC PoC: Erik, Wei-Hwa (650) 395-8463, lab@peachfrontier.com

Parking: Free on street

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--quantum chronomentometers.
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!

Props

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- Lab coat
- Clocksmith Technologies name badge and lanyard

Staff Instructions

Your Role: Lab assistant at the Clocksmith Technologies, known for their practical expertise in developing chronomentometers.

What To Wear: lab coat + Clocksmith Technologies name badge

What Your Character Knows: You are collegial with Peach Frontier Laboratories, but you didn't know Prof. Chronos had created a (semi) working time machine nor that it malfunctioned.

Puzzles At This Site: Only Chronomentometer 1

Where To Get Materials: GC HQ

Setup Instructions:

- Call GC when you are ready for teams

Handout Instructions:

Discreetly keep count of the number of teams who have picked up their puzzle so that you know when to close down.

There is only one puzzle to hand out here: “Chronomentometer”. The interaction should go something like:

> TEAM: We need your help! Prof. Chronos has become lost in time because four the chronomentometers within her time machine failed. We have to design new ones so that we can rescue her.

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> Unfortunately, this won't do you much good unless you have the right Chronomentometer Restricted Arrangement Particulars. There are millions of configurations and I'll need to know the specific chronomentometer numbers to get you the right pieces of CRAP. You wouldn't happen to have the numbers of the chronomentometers that were broken, would you?

> TEAM: Numbers 50, 87, 104, and 134.

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Then hand out all the components of the puzzle: 4 design kits, blank grids, and four Chronomentometer Restricted Arrangement Particulars.

Site Close Down:

- Clean up.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Jigsaw puzzle with constraints. Physical pieces given to players to model the "real" one in the time machine, along with four partial maps on paper. They submit their completed arrangements to lab staff, who will confirm the solution.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Kind of hard to give logical-based hints. One general hints that one could give:

- Each piece has 3 or 4 hexes. So, if you place a piece and divide the remaining space into an area that has 1, 2, or 5 hexes, that placement can't be correct.

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Puzzle Answer

There are four grids, numbered 50, 87, 104, 134 (there is no significance to the numbering).

Use Username: tester Password: streetsetter to access these urls.

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- Answer to 107: HAAAFMBBE DAHFGKKIL JJIKGCMBB
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Status for teams, as they solve this, is available at:

http://peachfrontier.com/cmm/parta.html

We should monitor this regularly and notify teams as necessary.

Puzzle Solution

Each set consists of unique hexaxgonal 4-ominoes (and some 3-ominoes) that tesselate into the Trenchwood "T" logo shape. For each puzzle sheet, some of the pieces are given fixed positions, and the others must be figured out.

2.05 Mix Tape Puzzle

(Mandatory Puzzle) Teams get a mix tape with 18 songs, each with the word "time" in the title, plus an insert with (out-of-order) artists and years and a poem from Catherine.

Open Time Period

Sunday, 1:13 AM till all teams (16 for Game 1, 17 for Game 2) pick up puzzle (estimated 3:23 AM)

Location

Name and Address: Vinyl Solutions Records, 151 W. 25th Ave., San Mateo

Parking: Free street

Bathroom: No

Food: No

GC PoC: Sean (650) 395-8463, lab@peachfrontier.com

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--four "quantum chronomentometers."
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!
- The players have submitted designs for replacement chronomentometers--a key step towards fixing the time machine
- Doctor When needs password access to Prof. Chronos's computer in order to make more progress; he suspects a clue could be in an old mix tape she made for him back in high school

Props

- 16 or 17 copies of Mix Tape (cassette tapes with inserts)
- 3 cassette players (for use by teams that lack them)
- Tiresias costume

Staff Instructions

Your Role: Tiresias, this time as the record store's janitor.

What To Wear: Tiresias costume

What Your Character Knows: Tiresias knows everything (but reveals only what supplicants need to know)

Puzzles At This Site: Mix Tape

Where To Get Materials: GC HQ

Setup Instructions:

- Place mix tape in dumpster as you see fit
- Call GC when you are ready for teams

Handout Instructions:

Discreetly keep track of how many teams have picked up so you know when to close down the site.

As each team arrives the interaction should go something like:

> TIRESIAS: Hey there. Y'all look in a hurry. But the store's closed.

VISITOR 1: Darn it. We just have to find this old cassette mix tape that was just sold to the store.

TIRESIAS: Was that from some crazy lady who looked like she was auditioning for "The Real Housewives of San Mateo"?

VISITOR 1: That's the one!

TIRESIAS: You may be in luck. The boss looked deeper in the box and realized he couldn't sell most of those 80s relics. So he tossed 'em. Why don't you check that trash pile over there?

As each team removes a mix tape from the dumpster, discreetly hide a replacement tape.

Hints: Teams have been instructed to call GC; if you familiarize yourself with the attached hints feel free to assist

Answers: Teams have been instructed to call Doctor When with their answer. If they try to give you their answer, remind them to follow their instructions.

Site Close Down:

- Clean up.
- Call GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Teams receive a mixtape created by Catherine Chronos when she was in high school and given to Wesley shortly before they graduated. They're told that Catherine had said it contained one of her biggest secrets, and Dr. When thinks that's probably the password to her computer. Enclosed with the mixtape is a poem that Catherine had written to young Wesley. All of the songs turn out to be time-related, and the puzzle solution implies that Catherine had a crush on Wesley.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

General hints:

- Any garbled audio is an authentic artifact of imperfect or damaged tape, and not an intended part of the puzzle.

- Catherine’s poem gives a “roadmap” of how to solve the puzzle. (She wanted Wesley to solve it, after all!)

- To identify the songs, teams can use their own knowledge or a service like Shazam, or can do an internet search for lyrics.

- The recordings on this tape are unaltered and complete commercially-released songs. There is no additional information hidden in their lengths or content.

- Many teams may be tempted to re-write the artist/year column to match the order of the titles (or vice-versa). This will not help until they reach the "SHIFT" step, at which point they need to leave the artists where they are and figure out how many rows away the right song for that artist is.

- Time After Time indexes into “Lauper, Cyndi” twice, producing an L and a U.

- It’s possible to skip the first hidden message and simply add the shifts to the song years and read it as ASCII. This is fine.

- It’s important that the “shift” that you add to the year be positive/absolute values (note the “absolutely” hint in the poem).

- The “ask? Keys…” hint may be missed by some teams, and, if so, the relevant step may be hard to get. Consider hinting to teams stuck here that Catherine might have put a clue as to the encoding mechanism in the poem, and that they should consider reading it out loud, slowly. If they still don’t get it, I advise pointing out the ask-keys hint.

- Going by instinct, teams may get the wrong “chart-topper” songs. Common wrong guesses might be “True Blue” and “Girls Just Wanna Have Fun”. However, the solutions are unique – there’s only one #1 single in the correct time period (1982 - 5/20/86) using each of the four clue words.

- Some teams may not see the poem as a roadmap – in particular, they may look for hints throughout the poem at any point in their solve process. This may lead to various wrong turns, such as seeing the “four timeless chart-toppers” reference as an instruction to pick the correct four songs from the mixtape – perhaps the ones that were #1 singles. Encourage them to use the poem “in order”.

Puzzle Answer

```
I-HEART-WESLEY
```

Puzzle Solution

- “Name all the tunes”. The solver should notice that the song titles fit the blanks on the page, one blank per word, although the provided artists and years mostly don't match.
- “Use what they share” – every song has the word “time” in the title. The solver needs to get the aha that the position of the word "time" needs to be used as a letter-index into the provided artist.

Order on Tape	Song	Listed Artist	Listed Year	"Time" Index	Index Letter
1	A Minute Of Your Time	Rocky Horror Picture Show, The	1975	5	Y
2	Does Anybody Really Know What Time It Is	Tyrone Davis	1970	6	E
3	Hot Fun In The Summertime	“Andy” Andrew Williams	1963	5	A
4	As Time Goes By	Armstrong, Louis	1964	2	R
5	Turn Back The Hands Of Time	Floyd, Pink	1973	6	P
6	Time After Time	Lauper, Cyndi	1964	1,3	LU
7	Old Time Rock And Roll	B. Seger	1979	2	S
8	The Times They Are A-Changin’	Captain & Tennile	1979	2	A
9	It’s Been A Long, Long Time	Dylan, Robert	1964	6	R
10	The Time Warp	Stone, Sly & The Family	1969	2	T
11	It’s The Most Wonderful Time Of The Year	Rolling Stones, The	1964	5	I
12	Feels Like The First Time	James "Jimmy" Durante	1965	5	S
13	Do That To Me One More Time	Stewart, Al	1978	7	T
14	Time	Simon, Carly	1974	1	S
15	All Time High	Theme from Octopussy	1983	2	H
16	Haven’t Got Time For The Pain	Chicago	1970	3	I
17	Time Passages	Foreigner	1977	1	F
18	Time Is On My Side	Tom Jones	1968	1	T

This gets "my code's formula" : YEAR PLUS ARTIST SHIFT. (Note that, for “Time After Time”, you index twice.)

- “I’ve shifted the artists, you’ll note – absolutely”. Keeping the same ARTIST order ("leave them as listed..."), find the correct song for the listed artist and add the (absolute value of the) number of rows between the listed artist and the actual song recorded by that artist.
- Example for the above step: in the first row, the artist listed is "Rocky Horror Picture Show, The". The actual song from that artist is The Time Warp, in row 10. That's a shift of 9 rows, so you take the listed year, 1975, and add the absolute value (9) of the shift, to get 1984.
- “’What will this give me?’ you ask? Keys for you!” (Note the hint for ASCII in “ask-keys”.) Take the last two digits of the “year + shift” column and read them as ASCII.

Order on Tape	Listed Song	Listed Artist	Correct Song	Listed Year	Shift	F+ABS(G)	ASCII(G - 1900)

1	A Minute Of Your Time	Rocky Horror Picture Show, The	The Time Warp	1975	9	1984	T
2	Does Anybody Really Know What Time It Is	Tyrone Davis	Turn Back The Hands Of Time	1970	3	1973	I
3	Hot Fun In The Summertime	“Andy” Andrew Williams	It’s The Most Wonderful Time Of The Year	1963	8	1971	G
4	As Time Goes By	Armstrong, Louis	It's Been A Long, Long Time	1964	5	1969	E
5	Turn Back The Hands Of Time	Floyd, Pink	Time	1973	9	1982	R
6	Time After Time	Lauper, Cyndi	Lauper, Cyndi	1984	0	1984	T
7	Old Time Rock And Roll	B. Seger	Old Time Rock And Roll	1979	0	1979	O
8	The Times They Are A-Changin'	Captain & Tennile	Do That To Me One More Time	1979	5	1984	T
9	It's Been A Long, Long Time	Dylan, Robert	The Times They Are A-Changin'	1964	-1	1965	A
10	The Time Warp	Stone, Sly & The Family	Hot Fun In The Summertime	1969	-7	1976	L
11	It’s The Most Wonderful Time Of The Year	Rolling Stones, The	Time Is On My Side	1964	7	1971	G
12	Feels Like The First Time	James "Jimmy" Durante	As Time Goes By	1965	-8	1973	I
13	Do That To Me One More Time	Stewart, Al	Time Passages	1978	4	1982	R
14	Time	Simon, Carly	Haven't Got Time For The Pain	1974	2	1976	L
15	All Time High	Theme from Octopussy	All Time High	1983	0	1983	S
16	Haven't Got Time For The Pain	Chicago	Does Anybody Really Know What Time It Is	1970	-14	1984	T
17	Time Passages	Foreigner	Feels Like The First Time	1977	-5	1982	R
18	Time Is On My Side	Tom Jones	A Minute Of Your Time	1968	-17	1985	U

The text says "TIGERTOTALGIRLSTRU".

- “Keys for you! To four “timeless” chart-toppers since ‘82. Four clues and four songs– now here’s the last part: Just start what I finish, or end what I start.” There are four “words” from the previous step – TIGER, TOTAL,GIRLS, TRU. Each is the first or last word of a “chart-topper” – a Billboard #1 single in the US – between 1982 and the date of the poem (5/20/86). The songs are:

-
  - TIGER: “Eye of the Tiger”
  - TOTAL: “Total Eclipse of the Heart”
  - GIRLS: “West End Girls”
  - TRU: “Truly”

- “Just start what I finish, or end what I start.” If the clue was the first word (or syllable for TRULY) of the title of the “chart-topper”, take the last word (or syllable for TRULY) of the title, and vice-versa. This gives the words EYE-HEART-WEST-LY.

- “You’ve syllables four – now say them out loud!” Saying these words out loud gives “I heart Wesley”. Either “I heart Wesley” or “I love Wesley” is acceptable as an answer.

2.06 Quantum Time Vibrations

(Optional Puzzle) The time machine has detected quantum time vibrations that might help the players locate where Prof. Chronos hid a message.

Open Time Period

Sunday, 2 AM - 3 AM

Location

Status: Exterior of Nancy Woods' office, 20 Park Rd, Burlingame

Bathroom: Yes

Food: No

Parking: free street

GC PoC: (650) 395-8463, lab@peachfrontier.com

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--four "quantum chronomentometers."
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!
- The players have submitted designs for replacement chronomentometers--a key step towards fixing the time machine
- The players have discovered the password to Prof. Chronos's supercomputer
- The time machine seems to be mostly working again (although the View-o-Scope remains broken)
- We still don't know where Professor Chronos is or how to get her back – the situation is getting serious!

Props

- keys to bathroom
- 16 copies of part 1 of the puzzle (1 per team, 0 extra copies)
  - Large rolled-up world map
  - One handout sheet
  - First intro sheet
- 16 copies of part 2 of the puzzle (1 per team, 0 extra copies)
  - Bag of strings of various lengths
  - One handout sheet
  - Second intro sheet
- Lab coat
- Peach Frontier Laboratories name badge and lanyard

Staff Instructions

Your Role: Lab assistant at Peach Frontier Laboratories.

What To Wear: lab coat + Peach Frontier Laboratories name badge

What Your Character Knows:

- Everything in Plot Setup except the stuff about Trenchwood Institute.
- The Laboratory's global sensor network has detected quantum time vibrations in several locations around the world

Puzzles At This Site: Quantum Time Vibrations

Where To Get Materials: GC HQ

Handout Instructions: There is only one puzzle to hand out here - with two parts. The interaction should go something like:

TEAM: The lab says there are strange quantum time vibrations that might help us figure out what's happened to Professor Chronos!

LAB ASSISTANT: That's right. Here are the latitude and longitude coordinates of the vibrations that our sensors have picked up. Oh, and here's a world map to help you in your investigation

Then hand out part 1 of the puzzle (the world map and the page with the lat/long coordinates and the first intro page, but NOT the bag of string or the sheet with additional information like flavor and polarization. The "first intro page" should be attached to the lat/long coordinate sheet.)

Teams will eventually be told to ask the lab for more analysis. They may ask you directly, or they may call GC Central, who will tell them that you have more information. Either way, you'll have an interaction something like this:

TEAM: I'm supposed to ask you for more data!

LAB ASSISTANT: Yes, we've been able to learn more about these vibrations. Here, take this sheet. We also constructed some physical models of the vibrations - play with those and see if they help.

Then hand teams the bag of string, the second intro sheet, and the sheet with more data (including flavor and polarization). The second intro sheet should be attached to the sheet with more data.

Answers: Teams have been instructed to phone in their answer to the Laboratory. If they try to give you the answer, remind them to follow instructions.

Hints: The teams should call in to GC HQ for hints. But if you familiarize yourself with the puzzle and the hints below, feel free to give hints.

Site Close Down:

- Clean up.
- Return the keys and any leftover materials to GC HQ
- Lock any doors you unlocked.
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The time machine is mostly fixed, but it's not calibrated, so Dr. When and the teams can't lock on to Prof. Chronos - and the View-o-Scope is broken, too. However, the time machine reports sensing "quantum time vibrations". By investigating these vibrations, the players may uncover a clue to Prof. Chronos' time or place. The puzzle consists of a map and strings which model a set of cities experiencing quantum time vibrations; the answer will point them toward the Art History puzzle.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Part 1:

- It's probably important to find out where these are coming from! Using the map, can you identify the locations of the vibrations?

- There's a real sense of urgency here - as the instructions say, you may only have seconds to figure out what to do. In other words, after identifying the cities, the latitude seconds and longitude seconds are all you need.

- The longitude seconds have every even number from 2 to 56. That should suggest that they're used to order the data.

- The latitude seconds are all fairly small - between 1 and 11. That's suitable for use as an index.

- The correct cities are all on the provided map. Note that if the players don't use the map, they'll probably identify one of the coordinate pairs as Rome instead of Vatican.

- It's not essential to solving the puzzle, but all of these locations are very close to famous art museums (correct to degrees and minutes, at least).

Part 2:

- The instructions suggest that players should try to find the epicenter. Some of the longest strings are probably most useful for this, and using the longest string, Sydney, players may recognize that the epicenter is San Francisco (actually San Mateo, but it won't make much difference for solving the puzzle).

- Stress to players that the physical models (the pieces of string) are probably crucial - and they're physical models; they're intended to be picked up and used physically! There are 28 models of vibrations and 28 lat/long coordinate pairs - they should figure out which model (string) goes with which coordinate pair.

- "Grouped into flavors" is a key phrase - players should literally group the right strings together by flavor.

- Don't take "polarization" literally - it actually indicates _orientation_ of the string.

- Note that "circular" doesn't literally mean a FULL circle. It can mean a full circle (as with an O) or a half-circle (as with a D or P).

- No knowledge of particle physics is needed in this puzzle! Some teams may want to order by something the mass of the quark that has the given flavor. There are no quarks here - there are just "vibrations", so some other order is needed (namely, alphabetical). Also, there's no reason to put the "regular" flavors first followed by the anti-flavors - Antibottom is first in alphabetical order, followed by Anticharm, and so on.

- Players have heard of "IMOPA" earlier from a brochure for the "International Museum Of Pretentious Art", which also lists its website "imopa.info". Hopefully that will help self-confirm the answer as familiar when they find it.

Puzzle Answer

IMOPADOTINFO (the website for the International Museum of Pretentious Art, which is the "epicenter" of the vibrations and the location for the next puzzle).

Puzzle Solution

Part 1 gives the players a list of latitude and longitude coordinates, plus a world map. The motivation email says "once you determine where these signals are coming from", so the first step is to figure out the cities corresponding to each lat/long coordinate.

33º 52' 6" S 151º 13 56 E Sydney

28º 36' 2" N 77º 13 40 E New Delhi

30º 2' 2" N 31º 13 2 E Cairo

35º 43' 5" N 139º 46 30 E Tokyo

37º 35' 1" N 126º 58 52 E Seoul

38º 53' 9" N 77º 0 14 W DC

39º 57' 11" N 75º 10 54 W Philly

40º 24' 2" N 3º 41 18 W Madrid

40º 24' 4" N 3º 41 32 W Madrid

40º 45' 11" N 73º 58 26 W NYC

40º 46' 7" N 73º 57 6 W NYC

41º 23' 7" N 2º 10 36 E Barcelona

41° 54' 3" N 12° 26 20 E Vatican

43° 16' 1" N 2° 55 12 W Bilbao

43° 46' 1" N 11° 15 28 E Florence

43° 46' 4" N 11° 15 16 E Florence

48° 51' 2" N 2° 20 10 E Paris

48° 51' 3" N 2° 19 24 E Paris

48° 51' 5" N 2° 21 4 E Paris

51° 29' 1" N 0° 7 8 W London

51° 30' 6" N 0° 7 44 W London

51° 31' 5" N 0° 7 22 W London

52° 21' 8" N 4° 52 46 E Amsterdam

52° 31' 3" N 13° 23 38 E Berlin

52° 31' 4" N 13° 23 48 E Berlin

55° 44' 1" N 37° 36 34 E Moscow

55° 44' 3" N 37° 36 56 E Moscow

59° 56' 2" N 30° 18 42 E St. Petersburg

The next part of the instructions says "you may only have seconds to figure out what to do next", so index the latitude seconds into the city name, and order by the longitude seconds. This gives the message ASKLABORATORYFORMOREANALYSIS.

When the players ask the laboratory for more analysis, they'll be sent a second email and told to get more data from the lab assistant in the field; this includes the same list of latitude/longitude coordinates but with "flavors" and "polarizations" for each, plus a bag of "physical models of the vibrations" (pieces of string of different lengths).

The players should

- identify which string goes with which coordinate: each string reaches from the city indicated by the coordinates to San Mateo (the "epicenter"). For instance, the longest string goes from Sydney to San Mateo, whereas the shortest four strings go from Washington , D.C., Philadelphia, and New York City to San Mateo.

- group the strings by flavor (as suggested in the instruction text).

- Orient the strings according to their polarization - vertical, horizontal, diagonal, or circular (rounded).

- Form a capital letter with the pieces of string for each flavor. For instance, two medium-length vertical strings plus two short diagonal strings can only make an M.

- Order those letters by alphabetizing the flavors.

caption

Flavor	Strings	Letter
Antibottom	2 medium horizontal, 1 medium vertical	I
Anticharm	2 medium vertical, 2 short diagonal	M
Antidown	1 large circular	O
Antistrange	1 medium vertical, 1 medium circular	P
Antitop	2 medium-long diagonal, 1 short horizontal	A

Antiup	1 medium vertical, 1 medium-long circular	D
Bottom	1 large circular	O
Charm	1 medium horizontal, 1 medium vertical	T
Down	2 medium horizontal, 1 medium vertical	I
Strange	2 medium vertical, 1 medium-long diagonal	N
Top	1 medium vertical, 1 medium horizontal, 1 short horizontal	F
Up	1 large circular	O

If the players go to the website IMOPA.INFO, they find a page for the International Museum of Pretentious Art, which is the "epicenter" of the vibrations because of the art exhibit there that Catherine has altered (see the art history puzzle).

2.07 Art History

(Mandatory Puzzle) Prof. Chronos has managed to insert herself into famous works of art to "tell" the teams where she wants them to send her next.

Open Time Period

Sunday, setup at 2:30 AM, open 3 AM - 6 AM

Location

Name And Address: Kaffeehaus, 92 E. Third Ave., San Mateo, CA

Parking: free street parking

Bathroom: Yes

Food: Yes

GC PoC: Erik (650) 395-8463, lab@peachfrontier.com

Site PoC: Val Sarabashyan--owner, (650) 347-4242 general # 650-814-3770 Val's cell

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--four "quantum chronomentometers."
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!
- The players have submitted designs for replacement chronomentometers--a key step towards fixing the time machine
- The players have discovered the password to Prof. Chronos's supercomputer
- The time machine seems to be mostly working again (although the View-o-Scope remains broken)
- We still don't know where Professor Chronos is or how to get her back – the situation is getting serious!
- The Lab has detected a nexus of quantum time vibrations at the International Museum of Pretentious Art ("The Louvre Of San Mateo"). Perhaps Professor Chronos somehow managed to send us a message there! That would fit her because she loves art almost as much as science. And the place would be on her mind--she had just inspected it this morning!

Props

- Exterior sign
- Interior exhibit sign ("The Muse of Painting")
- 11 paintings
- Painter's tape
- Museum wax
- $5 food/drink coupons (88 first weekend, ? the second)
- checklist of teams, denoting which teams have received information about the audio tour and which teams have borrowed phones.
- Audio tour materials
    - 11 unattached "audio tour target" signs
    - 18 copies of "audio tour transcript e-mail"
    - 18 copies of "How to download audio tour" instructions
    - 10 loaner Android phones and headsets
    - Phone charger

Staff Instructions

Your Role: You are a docent. NOTE: This role is rather complicated. Please read the sections below thoroughly.

What To Wear: IMOPA name badge

What Your Character Knows: Prof. Catherine Chronos, patron of the arts (and head of some mysterious research facility called "Peach Frontier Laboratories") has arranged for a private reception at the Museum to celebrate a successful demonstration at her laboratory. The attendees have been

delayed a bit, but you don't mind. There is also an audio tour that was going to be ready but isn't ready yet (much to your embarrassment), but if a team asks about it you're willing to help them.

Puzzles At This Site: Art History

Where To Get Materials: GC HQ

Site Setup:

- Greet Val, the owner
- Call GC when you arrive
- Carefully remove current artwork from walls and carefully store it
- Arrange paintings on walls, attach with blue painter's tape or museum wax so that walls aren't marked up
- Put up interior "Muse of Painting" sign and exterior sign
- Have the audio tour stuff handy but not visible to teams

Handout Instructions:There is only one puzzle here. Greet each team in a hushed voice with words to the effect of,

> Welcome, welcome! We're so excited to host your reception. Prof. Chronos wouldn't tell me exactly what the demonstration was, but I'm sure it was a great time. Please come in and enjoy our special exhibition. Take a look at the beautiful paintings. And please enjoy a coffee or a pastry while you're here! Here's a $5 coupon for each of you.

Hand each visitor a $5 coupon.

Giving the Audio Tour:

If teams are making progress on the puzzle, they will eventually get a message that says "REQUESTTOUR" and can go no further. Therefore, each team will eventually ask you for a tour.

(NOTE: they must specifically ask for a "tour" - a team that simply sees other teams with headsets or transcripts and says something like "can I get one of those?" - does NOT get the audio tour elements below; encourage them to enjoy and study the paintings!)

When the players request the tour, respond:

> I'm sorry, we're understaffed at this time of night and can't really give out personal tours. We *were* going to have a self-guided audio tour available, but you know how it is, we've been so busy just opening the place up that we never quite got the audio tour set up.

Pause for a bit, giving teams a chance to ask more about the audio tour. Regardless of how they respond, continue with

> I can tell you really want to know more about the audio tour. Well, you seem like nice and trustworthy fellows, so I'm going to let you have a sneak peek at what the audio tour would've been like.

Bring out the 11 "audio tour target" signs and show them to the teams (but don't let them take them). Also give them a "Installing Audio Tour" sheet for them to keep.

> See these signs? These were originally supposed to be posted, one next to each painting. I don't remember which sign was supposed to go with which painting though. Then you were supposed to download our Audio Tour App on your phone using these instructions and that would give you a self-guided tour for the paintings. I think the app still works though, so go ahead and download it.

The team will probably start downloading the app, or ask you about what to do if they don't have an Android device, or possibly ask you if it's safe to access the Audio Tour App (as they aren't supposed to be accessing the Internet). While they are busy (or waiting for your answer), act as if an idea has suddenly occurred to you:

> Oh, I know what would totally help. There's an e-mail that our guys sent to the guys who were developing the Audio Tour App for us; I think it has a transcript of all the text in the audio tour! Lemme see if I can find it.

As you start "rummaging" for the e-mail, mention this in an off-hand comment -- this information isn't strictly necessary for puzzle-solving reasons but does stave off the plot-related question on whether Catherine is the voice on the recordings:

> Melissa who runs the day shift recorded all the audio commentary for the tour; she has such a nice voice. I think they got the text from the first run of the exhibit some time in the '70s. Ah, here we go!

Hand a copy of the "audio tour transcript e-mail" to the teams, and check off on the sheet that they've been given the audio tour information.

(If the team doesn't have an Android device, mention:

> We do have a few spare Android devices; not enough for everyone to get one, but your group can share this one. You can borrow one if you want, but don't let it leave this museum, and don't disturb the other patrons with the noise from the tour!

Then make sure that you've logged that they have borrowed a device, and make sure they return it to you before the end.)

> Thanks, and enjoy the tour!

How to respond to questions:

Here are some questions teams may ask and here is how you should respond to them. Feel free to improvise or adjust as necessary.

"Is it safe to download the Audio Tour?"
(Teams might be worrying about one of two things -- either the rule that they weren't supposed to access the Internet, or because the Audio Tour is asking for a lot of strange network permissions.)

> Yes, the Audio Tour should be perfectly safe; it's hosted on a server in the back room there. I know that the Tour claims it's going to access the Internet or hijack your phone and what-not, but it doesn't really; it just plays a bunch of sound files. Those warnings and because it's not on the Android Market is kind of why it we weren't ready to have it available yet.

"Is there any difference between the transcript and the audio in the tour?"

> No, they should be completely identical. I think we got the transcript from the first time this exhibit was done in the '70s. Of course we don't have a recording of whomever did the commentary from way back then; what you're listening to is just Melissa from the day shift. Doesn't she have a wonderful voice?

"Can we look at the number signs?"

> Uh, sure. Here they are. I don't see why you would care, though; they're just numbers.

"Can we take these number signs?"

> No, I better not let you. Those are the actual signs we're going to use when the final version of the audio tour is ready in a few weeks.

"Are the paintings supposed to have the number signs on them?"

> Yeah, when we get the audio tour working for reals. Right now we don't want to put them up because then people would ask about them.

"Do you know which numbers go on which paintings?"

> Not really. I think the transcript I gave you might say something about that? I think it's alphabetical order of the artist's last names or something.

"Can we look at the other apps on the phone?"

> There won't be anything useful. I don't recommend it.

Maintaining the Phones:

- We only have a few chargers, so keep phones turned off if they aren't on a charger, but try to have one phone on the charger at all times.
- To turn on the phone, hold down the power button (at the top short edge of the phone) down for about half a second, then let go.)
- To turn off the phone, tap the power button. A menu should show up asking you whether you want to reboot or turn off the phone.
- To see how much power a phone has, hit the menu button at the main screen, scroll all the way down to "About Phone", then click on the second option (which is "Phone Status").

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.
- Do not let anyone play anything over speakers (as opposed to headphones) in the Museum (don't want them to spoil puzzles for other teams)
- Teams have been instructed not to look things up on the Internet, although your character doesn't know that. If you do see a team doing that, try to point it out in character but in such a way that they are aware of what they are doing.

Hints: A team that is frustrated because of an inability to identify the artists may eventually get assistance from you on identifying the artist names.

(Don’t aid a team that’s arrived recently - tell them to “not worry about names yet and enjoy the paintings!) Once they’ve started listening to the audio tours, though, you can help them if they ask. The artists are:

- A Coquettish Foreplay - Pierre-Auguste RENOIR
- Abstract Nude Descends Forever - Marcel DUCHAMP
- As Courtesans Luxuriate - Pablo PICASSO
- Female with a Parasol to Shade Her - Claude MONET
- Intensify Reality - Andy WARHOL
- Ready Hearts Won by a Smile - Leonardo DA VINCI
- Strict, Saturnine Man & Daughter - Grant WOOD
- Tensions Surging - Edvard MUNCH (pronounced "Moongk")
- Unreal Wonderland - Salvador DALI
- Working to Win the War (Cathie the Carpenter) - Norman ROCKWELL

Answers: Teams have been instructed to e-mail their answer to the Institute. If they try to give you the answer, act a bit clueless but remind them to follow instructions.

Site Close Down:

- Pack up
- Replace original artwork on walls
- Thank host
- Find out from host:
  - Total sales over period
  - Total change in cash in register
  - Total number of $5 coupons used
- Call GC
- Return paintings, tape, leftover coupons, androids, headsets, charger, and signs to GC HQ
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Detailed Description

Prof. Chronos has, while bouncing through time, managed to insert herself into famous works of art, in order to convey a message to the teams (without risking "screwing up the time sequence" by trying to create an overt message). Examples include her face on the Mona Lisa, her standing in American Gothic, and so on. Solving the puzzle reveals the time to which she wants to be sent.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- Step 1 (finding the number homophones in the altered painting titles) can be hinted at, if really necessary, by saying something like "These paintings are not just a delight to the eye! Breathe in their smell! Say the title aloud and let the words roll across your tongue!" ... or something equally odd that suggests reading the titles aloud.

- Players don't need to know the painters of each painting from memory (though it will help with the embedded-names step).

- If players don't know what to do with the audio tour, ask if they've examined the app. If they're still stuck, say that the About the Tour feature is always a good place to start (pointing them toward the "first words" clue).

- If they're very unfamiliar with the names of painters, they may have trouble recognizing some of the embedded words (Munch, Klimt, Duchamp are some of the tougher ones). A team that has the audio text and still can't find the embedded name can ask the museum docent for help identifying the painter for each painting.

- Some teams might think the Monet painting is by Manet, leading to a wrong letter.

- Teams may start looking for number homophones embedded in the audio clips, just like they did in step 1. They might even try something like "adding together the number homophones" - e.g., counting the "to's" in a given clip. This isn't the right idea - ask if they've examined the app (and eventually point them toward the About the Tour as mentioned above). In fact, there's a parallelism between step 1 (reading the written titles aloud to find an embedded homophone) and the later step (writing the spoken words down to find embedded text).

- Of course, the final solution - 5/31/86, 2:15 pm - is almost identical to the date & time (15 minutes later) to the date & time Doctor When wanted to go to in Act 1.

Puzzle Answer

May 31, 1986, 2:15 PM.

Puzzle Solution

The paintings all have changed titles, each of which has the homophone of a number embedded in it. Ordering by years and using the number homophone to index into the title yields the message REQUESTTOUR.

Step 1

Title	Year	Number homophone	Number	Indexed letter
Ready Hearts Won By A Smile	1513	Won	1	R
Female with a Parasol to Shade Her	1875	to	2	E
A Coquettish Foreplay	1876	For	10	Q
Tensions Surging	1893	Ten	10	U
As Courtesans Luxuriate	1907	ate	8	E
Basics of Love	1908	sics	6	S
Abstract Nude Descends Forever	1912	For	4	T
Strict, Saturnine Man and Daughter	1930	nine	9	T
Working to Win the War (Cathie the Carpenter)	1943	to	2	O
Unreal Wonderland	1944	Won	1	U
Intensify Reality	1962	Ten	10	R

Each clip on the audio tour matches to a painting. The pairs are:

Step 2

1st two words of clip	Painting
Names can't	Unreal Wonderland
Of all	Ready Hearts Won By A Smile
Artists and	Abstract Nude Descends Forever
As you	Basics of Love
Well-lit	Female With a Parasol to Shade Her
As uncomfortable	Tensions Surging
Numbers of	As Courtesans Luxuriate
Hidden details	A Coquettish Foreplay
In the	Working to Win the War (Cathie the Carpenter)
These striking	Intensify Reality
Words can	Strict, Saturnine Man and Daughter

The "About the Tour" feature in the Android app contains a quote from Kat Timely that emphasizes getting "the first word" right. The first words of the commentaries, in order, say NAMES OF ARTISTS AS WELL AS NUMBERS HIDDEN IN THESE WORDS.

Each audio clip contains two embedded words - the painter's name plus an additional letter, and a number in the painter's native language. Again in order of the commentaries - equivalently, in alphabetical order by painter's last name - the transcribed clips (highlighting the embedded pieces) are

2.07 Art History

(Mandatory Puzzle) Prof. Chronos has managed to insert herself into famous works of art to "tell" the teams where she wants them to send her next.

Open Time Period

Sunday, setup at 2:30 AM, open 3 AM - 6 AM

Location

Name And Address: Kaffeehaus, 92 E. Third Ave., San Mateo, CA

Parking: free street parking

Bathroom: Yes

Food: Yes

GC PoC: Erik (650) 395-8463, lab@peachfrontier.com

Site PoC: Val Sarabashyan--owner, (650) 347-4242 general # 650-814-3770 Val's cell

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--four "quantum chronomentometers."
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!
- The players have submitted designs for replacement chronomentometers--a key step towards fixing the time machine
- The players have discovered the password to Prof. Chronos's supercomputer
- The time machine seems to be mostly working again (although the View-o-Scope remains broken)
- We still don't know where Professor Chronos is or how to get her back – the situation is getting serious!
- The Lab has detected a nexus of quantum time vibrations at the International Museum of Pretentious Art ("The Louvre Of San Mateo"). Perhaps Professor Chronos somehow managed to send us a message there! That would fit her because she loves art almost as much as science. And the place would be on her mind--she had just inspected it this morning!

Props

- Exterior sign
- Interior exhibit sign ("The Muse of Painting")
- 11 paintings
- Painter's tape
- Museum wax
- $5 food/drink coupons (88 first weekend, ? the second)
- checklist of teams, denoting which teams have received information about the audio tour and which teams have borrowed phones.
- Audio tour materials
    - 11 unattached "audio tour target" signs
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    - 18 copies of "How to download audio tour" instructions
    - 10 loaner Android phones and headsets
    - Phone charger

Staff Instructions

Your Role: You are a docent. NOTE: This role is rather complicated. Please read the sections below thoroughly.

What To Wear: IMOPA name badge

What Your Character Knows: Prof. Catherine Chronos, patron of the arts (and head of some mysterious research facility called "Peach Frontier Laboratories") has arranged for a private reception at the Museum to celebrate a successful demonstration at her laboratory. The attendees have been

delayed a bit, but you don't mind. There is also an audio tour that was going to be ready but isn't ready yet (much to your embarrassment), but if a team asks about it you're willing to help them.

Puzzles At This Site: Art History

Where To Get Materials: GC HQ

Site Setup:

- Greet Val, the owner
- Call GC when you arrive
- Carefully remove current artwork from walls and carefully store it
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- Put up interior "Muse of Painting" sign and exterior sign
- Have the audio tour stuff handy but not visible to teams

Handout Instructions:There is only one puzzle here. Greet each team in a hushed voice with words to the effect of,

> Welcome, welcome! We're so excited to host your reception. Prof. Chronos wouldn't tell me exactly what the demonstration was, but I'm sure it was a great time. Please come in and enjoy our special exhibition. Take a look at the beautiful paintings. And please enjoy a coffee or a pastry while you're here! Here's a $5 coupon for each of you.

Hand each visitor a $5 coupon.

Giving the Audio Tour:

If teams are making progress on the puzzle, they will eventually get a message that says "REQUESTTOUR" and can go no further. Therefore, each team will eventually ask you for a tour.

(NOTE: they must specifically ask for a "tour" - a team that simply sees other teams with headsets or transcripts and says something like "can I get one of those?" - does NOT get the audio tour elements below; encourage them to enjoy and study the paintings!)

When the players request the tour, respond:

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Pause for a bit, giving teams a chance to ask more about the audio tour. Regardless of how they respond, continue with

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Bring out the 11 "audio tour target" signs and show them to the teams (but don't let them take them). Also give them a "Installing Audio Tour" sheet for them to keep.

> See these signs? These were originally supposed to be posted, one next to each painting. I don't remember which sign was supposed to go with which painting though. Then you were supposed to download our Audio Tour App on your phone using these instructions and that would give you a self-guided tour for the paintings. I think the app still works though, so go ahead and download it.

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As you start "rummaging" for the e-mail, mention this in an off-hand comment -- this information isn't strictly necessary for puzzle-solving reasons but does stave off the plot-related question on whether Catherine is the voice on the recordings:

> Melissa who runs the day shift recorded all the audio commentary for the tour; she has such a nice voice. I think they got the text from the first run of the exhibit some time in the '70s. Ah, here we go!

Hand a copy of the "audio tour transcript e-mail" to the teams, and check off on the sheet that they've been given the audio tour information.

(If the team doesn't have an Android device, mention:

> We do have a few spare Android devices; not enough for everyone to get one, but your group can share this one. You can borrow one if you want, but don't let it leave this museum, and don't disturb the other patrons with the noise from the tour!

Then make sure that you've logged that they have borrowed a device, and make sure they return it to you before the end.)

> Thanks, and enjoy the tour!

How to respond to questions:

Here are some questions teams may ask and here is how you should respond to them. Feel free to improvise or adjust as necessary.

"Is it safe to download the Audio Tour?"
(Teams might be worrying about one of two things -- either the rule that they weren't supposed to access the Internet, or because the Audio Tour is asking for a lot of strange network permissions.)

> Yes, the Audio Tour should be perfectly safe; it's hosted on a server in the back room there. I know that the Tour claims it's going to access the Internet or hijack your phone and what-not, but it doesn't really; it just plays a bunch of sound files. Those warnings and because it's not on the Android Market is kind of why it we weren't ready to have it available yet.

"Is there any difference between the transcript and the audio in the tour?"

> No, they should be completely identical. I think we got the transcript from the first time this exhibit was done in the '70s. Of course we don't have a recording of whomever did the commentary from way back then; what you're listening to is just Melissa from the day shift. Doesn't she have a wonderful voice?

"Can we look at the number signs?"

> Uh, sure. Here they are. I don't see why you would care, though; they're just numbers.

"Can we take these number signs?"

> No, I better not let you. Those are the actual signs we're going to use when the final version of the audio tour is ready in a few weeks.

"Are the paintings supposed to have the number signs on them?"

> Yeah, when we get the audio tour working for reals. Right now we don't want to put them up because then people would ask about them.

"Do you know which numbers go on which paintings?"

> Not really. I think the transcript I gave you might say something about that? I think it's alphabetical order of the artist's last names or something.

"Can we look at the other apps on the phone?"

> There won't be anything useful. I don't recommend it.

Maintaining the Phones:

- We only have a few chargers, so keep phones turned off if they aren't on a charger, but try to have one phone on the charger at all times.
- To turn on the phone, hold down the power button (at the top short edge of the phone) down for about half a second, then let go.)
- To turn off the phone, tap the power button. A menu should show up asking you whether you want to reboot or turn off the phone.
- To see how much power a phone has, hit the menu button at the main screen, scroll all the way down to "About Phone", then click on the second option (which is "Phone Status").

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.
- Do not let anyone play anything over speakers (as opposed to headphones) in the Museum (don't want them to spoil puzzles for other teams)
- Teams have been instructed not to look things up on the Internet, although your character doesn't know that. If you do see a team doing that, try to point it out in character but in such a way that they are aware of what they are doing.

Hints: A team that is frustrated because of an inability to identify the artists may eventually get assistance from you on identifying the artist names.

(Don’t aid a team that’s arrived recently - tell them to “not worry about names yet and enjoy the paintings!) Once they’ve started listening to the audio tours, though, you can help them if they ask. The artists are:

- A Coquettish Foreplay - Pierre-Auguste RENOIR
- Abstract Nude Descends Forever - Marcel DUCHAMP
- As Courtesans Luxuriate - Pablo PICASSO
- Female with a Parasol to Shade Her - Claude MONET
- Intensify Reality - Andy WARHOL
- Ready Hearts Won by a Smile - Leonardo DA VINCI
- Strict, Saturnine Man & Daughter - Grant WOOD
- Tensions Surging - Edvard MUNCH (pronounced "Moongk")
- Unreal Wonderland - Salvador DALI
- Working to Win the War (Cathie the Carpenter) - Norman ROCKWELL

Answers: Teams have been instructed to e-mail their answer to the Institute. If they try to give you the answer, act a bit clueless but remind them to follow instructions.

Site Close Down:

- Pack up
- Replace original artwork on walls
- Thank host
- Find out from host:
  - Total sales over period
  - Total change in cash in register
  - Total number of $5 coupons used
- Call GC
- Return paintings, tape, leftover coupons, androids, headsets, charger, and signs to GC HQ
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Detailed Description

Prof. Chronos has, while bouncing through time, managed to insert herself into famous works of art, in order to convey a message to the teams (without risking "screwing up the time sequence" by trying to create an overt message). Examples include her face on the Mona Lisa, her standing in American Gothic, and so on. Solving the puzzle reveals the time to which she wants to be sent.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- Step 1 (finding the number homophones in the altered painting titles) can be hinted at, if really necessary, by saying something like "These paintings are not just a delight to the eye! Breathe in their smell! Say the title aloud and let the words roll across your tongue!" ... or something equally odd that suggests reading the titles aloud.

- Players don't need to know the painters of each painting from memory (though it will help with the embedded-names step).

- If players don't know what to do with the audio tour, ask if they've examined the app. If they're still stuck, say that the About the Tour feature is always a good place to start (pointing them toward the "first words" clue).

- If they're very unfamiliar with the names of painters, they may have trouble recognizing some of the embedded words (Munch, Klimt, Duchamp are some of the tougher ones). A team that has the audio text and still can't find the embedded name can ask the museum docent for help identifying the painter for each painting.

- Some teams might think the Monet painting is by Manet, leading to a wrong letter.

- Teams may start looking for number homophones embedded in the audio clips, just like they did in step 1. They might even try something like "adding together the number homophones" - e.g., counting the "to's" in a given clip. This isn't the right idea - ask if they've examined the app (and eventually point them toward the About the Tour as mentioned above). In fact, there's a parallelism between step 1 (reading the written titles aloud to find an embedded homophone) and the later step (writing the spoken words down to find embedded text).

- Of course, the final solution - 5/31/86, 2:15 pm - is almost identical to the date & time (15 minutes later) to the date & time Doctor When wanted to go to in Act 1.

Puzzle Answer

May 31, 1986, 2:15 PM.

Puzzle Solution

The paintings all have changed titles, each of which has the homophone of a number embedded in it. Ordering by years and using the number homophone to index into the title yields the message REQUESTTOUR.

Step 1

Title	Year	Number homophone	Number	Indexed letter
Ready Hearts Won By A Smile	1513	Won	1	R
Female with a Parasol to Shade Her	1875	to	2	E
A Coquettish Foreplay	1876	For	10	Q
Tensions Surging	1893	Ten	10	U
As Courtesans Luxuriate	1907	ate	8	E
Basics of Love	1908	sics	6	S
Abstract Nude Descends Forever	1912	For	4	T
Strict, Saturnine Man and Daughter	1930	nine	9	T
Working to Win the War (Cathie the Carpenter)	1943	to	2	O
Unreal Wonderland	1944	Won	1	U
Intensify Reality	1962	Ten	10	R

Each clip on the audio tour matches to a painting. The pairs are:

Step 2

1st two words of clip	Painting
Names can't	Unreal Wonderland
Of all	Ready Hearts Won By A Smile
Artists and	Abstract Nude Descends Forever
As you	Basics of Love
Well-lit	Female With a Parasol to Shade Her
As uncomfortable	Tensions Surging
Numbers of	As Courtesans Luxuriate
Hidden details	A Coquettish Foreplay
In the	Working to Win the War (Cathie the Carpenter)
These striking	Intensify Reality
Words can	Strict, Saturnine Man and Daughter

The "About the Tour" feature in the Android app contains a quote from Kat Timely that emphasizes getting "the first word" right. The first words of the commentaries, in order, say NAMES OF ARTISTS AS WELL AS NUMBERS HIDDEN IN THESE WORDS.

Each audio clip contains two embedded words - the painter's name plus an additional letter, and a number in the painter's native language. Again in order of the commentaries - equivalently, in alphabetical order by painter's last name - the transcribed clips (highlighting the embedded pieces) are

2.09 Fix The View-O-Scope

(Optional Puzzle) The teams need to help Doctor When repair the time machine's View-O-Scope.

Open Time Period

Approximately 3 AM to 4 AM

Location

Name And Address: Outside of Peninsula Clock Shop, 2440 South El Camino Real, San Mateo

Parking: free street

Bathroom: No

Food: No

GC PoC: (650) 395-8463, lab@trenchwood.com

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned due to faulty key components--four "quantum chronomentometers."
- The malfunction is causing the Professor to bounce around randomly in time from era to era, facing untold dangers!
- The players have submitted designs for replacement chronomentometers--a key step towards fixing the time machine
- The players have discovered the password to Prof. Chronos's supercomputer--another key step
- The final key repair step is fixing View-o-Scope
- The players have decodes a secret message hidden by Prof. Chronos while she was in the past: she wants to be sent to May 31, 1986 at 2:15 PM

Props

Staff Instructions

Your Role: Lab assistant at Central Peninsula Applied Physics

What To Wear: lab coat + Central Peninsula Applied Physics name badge

What Your Character Knows: Nothing except that Doctor When needs help fixing a View-O-Scope

Puzzles At This Site: Fix The View-O-Scope

Where To Get Materials: GC HQ

Setup Instructions:

- Call GC when you arrive

Handout Instructions: Lab assistant says words to the effect of,

> Oh, you're here! We were just putting together a document of what's gone wrong with the View-O-Scope, to send back to the lab. But since you're already here, we'll just give it to you directly. We hope you can solve the problem; we're really underqualified for this kind of stuff.

Hints: Teams may call GC, or ask you. It would help if you familiarize yourself with the attached hints.

Answers: Teams have been instructed to email their answer to the Laboratory. If they try to give you the answer, remind them to follow instructions. ("That's great! Could you email that to the lab?")

Site Close Down:

- Call GC
- Return any unused materials to GC HQ
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Two cables inside the viewoscope's "alternate signal processor" got accidentally swapped. (Janitorial staff saw they had come loose, and put them back wrong.) Study a photograph/diagram of the tangled cables, and figure out which two got miswired. Swapping them solves the puzzle and activates the viewoscope.

Hints

Have you determined what the system is currently outputting? (180 and 180)

They may ask which plugs are inputs and which are outputs. The PHASE DRIVER supplies input to the system, which eventually exits on the sides through the YINTEGRATOR and YANGLE blocks.

They may ask for confirmation of the math operations.

- GCD takes two inputs, and outputs their Greatest Common Denominator.
- AVG takes two inputs, and outputs their Average (arithmetic mean).
- 50/50 takes one input, and splits it into two halves (50% each) to output.
- The YINTEGRATOR and YANGLE blocks apply multiplication and subtraction to their three inputs, then sum the results to their sole output.

No, they may not unplug the two side cables. Only where there is a dark black box at the connection.

No, they may not open the boxes and alter their internal wiring.

Did you notice two words in the top part stand out? ("right" and "opposite")

Do the words "phase", "alternate", "right", and the current outputs suggest anything? (Think in terms of circles, degrees, values summing to 360)

Have you noticed the little symbols on the two side blocks? (They are the two halves of a Yin/Yang symbol)

How do you pronounce those two side blocks? (one way is to say YIN-tegrator and YANG-le)

If they can't make sense of YIN/YANG and "opposite", say "You know, I think I remember Professor Chronos saying something about the outputs having to be in opposite phase, 180 apart."

The word "right" suggests degree values of 0, 90, 180, 270. Specifically, the outputs must be made into 90 and 270.

Puzzle Answer

Swap the "70" and "GCD output" plugs. Alternatively, swap the "50/50 input" and the "left AVG input" plugs (they're the same cables).

Puzzle Solution

The "PHASE DRIVER" block supplies the signals, which exit at the "YINTEGRATOR" and "YANGLE" blocks.

Perform simple arithmetic on the numbers: GCD = Greatest Common Denominator, AVG = average (arithmetic mean), 50/50 = split into two halves.

The current wiring yields 180 and 180 (in phase); they should be 90 and 270 (opposite phase). There are only 55 swaps possible, and many of them can quickly be ruled out. The rest is trial and error.

2.10 Christmas Party

(Mandatory Puzzle) Prof. Chronos needs Wesley's locker combo; ghostly voices from 1986 heard at the high school in 2011 help teams find where it might be recorded.

Open Time Period

Sunday, 4 - 6 AM

Location

Name And Address: Paine Memorial High School Teachers' Lounge, actually Highlands Rec Center, 1851 Lexington Ave. San Mateo

Parking: Free lot

Bathroom: Yes

Food: No

GC PoC: Erik & Melissa

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned causing Prof. Chronos to bounce randomly through time
- The players have fixed the time machine
- The players have figured out that she wanted to be sent to 5/31/1986 at 2:15 PM. Doctor When chose to send her to Paine Memorial High School.
- For some strange reason, Prof. Chronos needs the combination to a school locker...and perhaps there are records of old 1986 combinations somewhere at the school in 2012

Props

- DVD player + remote
- 4x Speakers
- AV Receiver w/6-channel amp
- 4x bare-end or banana plug cables for connecting the receiver to speakers
- 2x 1/8" to dual RCA cables
- CD player, OR MP3 player with audio file loaded
- Coffee maker
- Plastic inbox trays, qty. 5
- Plant
- Door sign
- Hint sheet for Faculty Christmas Party puzzle

Staff Instructions

Your Role: Peach Frontier Lab Assistant.

What To Wear: lab coat + Peach Frontier Laboratories name badge

What Your Character Knows:

- Everything in Plot Setup
  - You do not know the stuff about Trenchwood Institute
  - You do not know that Prof. Chronos sent the players here to get a locker combination
- The laboratory's sensors detected some tachyonic radiation at this high school
- You are surprised and delighted that the visitors have arrived because this is all way over your head

Puzzles At This Site: Faculty Christmas Party

Where To Get Materials: GC HQ

Site Setup:

- Set up audio system and set on repeating loop play
- Call GC

Handout Instructions:

You may have to "patrol" outside the Teachers' Lounge to intercept teams as they arrive.

'**Before 4:45 AM**' Welcome teams that arrive before this time into Lounge and say words to the effect of

> Thank heavens you're here. The laboratory's sensors detected some tachyonic radiation at this high school of all places. So I was sent to investigate. Now I hear all these strange sounds...but my grad school classes never covered this. Can you figure it out?

'**After 4:45 AM**' Skip these teams that arrive after this time over this puzzle by intercepting them outside the Lounge and saying words to the effect of

> Thank heavens you're here. The laboratory's sensors detected some tachyonic radiation in the principal's office of this high school of all places. So I was sent to investigate. But my grad school classes never covered this Can you figure it out? The office is around the corner.

Hints: Since neither the lab nor your character know that Prof. Chronos wants the players to find a locker combination, you can't really help them.

'**Answers**: n/a; teams should go off on their own to the "Principal's Suite" (which is around the corner)

Site Close Down:

- Turn off the the sound system and carefully dismantle it
- Carefully remove the speakers, etc. from the prop enclosures--they are fragile!
- Disconnect all cables, and coil the speaker cables nicely
- Pack them all up and return to GC HQ
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Prof. Chronos has been sent to the right time & place, but she's lost her bolt cutters and can't get into Wesley's locker to take the envelope. She thinks the teams might be able to find the combination if they go to the school in the present day - but she doesn't know where the locker combinations are kept. At the high school, the players hear strange, disembodied voices in one room - pieces of conversations from a past Christmas party, made audible in the present by the tachyonic vibrations caused by Prof. Chronos' time travel to the school. It turns out that the voices form a classic logic puzzle (where Mr. Green sits next to a woman but not someone wearing red, etc.), and matching all elements in the puzzle yields a coincidentally useful phrase indicating where the combos are.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

CHECK PRINCIPALS SUITE (with a hint to look in picture frame)

Puzzle Solution

The first step is to notice that there are four conversations with the same five teachers, and that there is some sort of standard logic puzzle about these five teachers. Let's label these voices by their personality:

- MOUSE: male, mousy, insecure, eager to please
- SMUG: male, smug, sarcastic, a southern drawl
- CHIPPER: female, chipper, manic, City Girl Squawk
- DEADPAN: female, deadpan, bored
- ACCENT: male, stuffy, paternal

Also, for convenience, let's number the conversations:

1. This conversation has SMUG mentioning the room arrangement: numbered 1-9 along the hallway, with odd numbers on one side and even numbers on the other.
2. This conversation has a champagne cork and a chorus "I do not own a watch!"
3. This conversation has CHIPPER say that the male names are male and the female names are female.
4. This conversation has ACCENT go into detail about the final message extraction.

By listening to the conversation, we can find out that these are the attributes we must match up:

- First names: Alfred, Charlie, Ulysses (all male); Kimberly, Nicole (both female)
- Last names: Campbell, Harrison, Iverson, Landau, Peterson
- Subjects taught: Endocrinology, Isomorphisms, Robotics, Spectroscopy, Thermodynamics
- Room numbers: 5 distinct numbers in the range 1-9, subject to certain restrictions
- Break periods: 5 distinct numbers from 1 to 5.

The first step is to match some names with the voices:

- ACCENT is Ulysses (SMUG addresses him as such in Conv. #1)
- MOUSE is Alfred (SMUG and DEADPAN both addresses him as such in Conv. #2) Landau (he makes an accident with a champagne cork in Conv. #2, and the incident is referenced in Conv. 4).
- SMUG is Charlie (by elimination, the only male name left) Harrison (he reacts to ACCENT mentioning "Harrison" in Conv. #1)
- CHIPPER is Kimberly (DEADPAN addresses her as such in Conv. #3)
- DEADPAN is Nicole (by elimination, the only female name left) Campbell (CHIPPER addresses her as "Campbell" in Conv. #3)
- We still have the surnames Peterson and Landau left, but we don't know yet which is Ulysses and which is Kimberly.

The next step is to notice from DEADPAN Nicole's first line in Conv. #3 that one of the teachers is in Room 8 and has a 4th-period break. Who is it?

- It's not DEADPAN Nicole Campbell, since she expresses desire for Room 8 in Conv. #3.
- It's not CHIPPER Kimberly, same reason.
- It's not ACCENT Ulysses, since in Conv. #3 he asserts that his room has a number less and 6.
- It's not SMUG Charlie Harrison, since in Conv. #1 ACCENT Ulysses mentions that SMUG Charlie Harrison has two neighbors, and Room 8 would be at the end of one side of the hallway as the numbers only go from 1 to 9.
- Therefore, MOUSE Alfred must teach in Room 8 and have the 4th period break.

Now we should look at which five of the nine rooms are used.

- From Conv. #1, we can infer that three of the rooms are consecutive on one side of the hall, and the other two are consecutive on the other side of the hall.
- Since Room 8 is in use (see above), we can deduce from that and the previous rule that Room 6 is in use and Room 2 is not.
- From DEADPAN Nicole's line about multiples in Conv. #2, we can also deduce that Room 1 can't possibly be in use.
- This leaves the following possibilities: 56789, 35678, 34568, 45678, 46789.
- From DEADPAN Nicole's line about multiples in Conv. #2, we can eliminate 56789 (no multiples) and 34568 (3/6 and 4/8 are both multiples).

Now let's try to figure out the break periods.

- SMUG Charlie Harrison is first:
  - Although we can't figure out which one of 35678, 45678, or 46789 is correct, we can at least see that Charlie has two neighbors, must be in room 5 or room 6.
  - Since according to MOUSE Alfred in Conv. #3, nobody has a break period with a number that is equal to or one away from their room number, we know that Charlie doesn't have break period 5.
  - Charlie also doesn't have break period 4 because Alfred has it.
  - According to DEADPAN Nicole in Conv. #3, Charlie doesn't have periods 2 or 3 as that's when his favorite soap opera is on.
  - So, SMUG Charlie Harrison must have break period 1.
- According to MOUSE Alfred in Conv. #2, Kimberly and Nicole have consecutively-numbered break periods. Since the only unassigned periods

remaining are (2,3,5), they must be periods 2 and 3, although we don't know which is which yet.
- This means that ACCENT Ulysses has period 5.

Now we can determine more about the rooms:

- MOUSE Alfred is in Room 8 (previously deduced).
- What room is ACCENT Ulysses in?
  - From his own admission in Conv. #3, he teaches in a room with a number less than 6.
  - From MOUSE Alfred in Conv. #3, nobody has a break period with a number that is equal to or one away from their room number. As ACCENT Ulysses has period 5, this means he does not have any of rooms 4, 5, or 6.
  - From our room number analysis, only one of 35678, 45678, or 46789 is correct.
  - The only possibility consistent with all three above statements is that ACCENT Ulysses is in room 3, and the five rooms are 35678.
- What room is SMUG Charlie Harrison (period 1) in?
  - ACCENT Ulysses says that Harrison shares two walls with neighbors, so the only possible room from 35678 that fits Charlie Harrison is room 5.
  - The remaining rooms are 6 and 7, which go with Kimberly and Nicole, but we don't know which is whose.

We can figure out the remaining surnames now:

- Peterson is in a room number higher than 5 (Charlie's), according to DEADPAN Nicole in Conv. #2.
- We already know that ACCENT Ulysses has room 3.
- So, the surname assignment must be:
  - ACCENT Ulysses Iverson
  - CHIPPER Kimberly Peterson

And now we can figure out the remaining rooms:

- Campbell has a higher room number than Peterson, according to SMUG Charlie in Conv. #3.
- So, Peterson must be in room 6, and Campbell must be in room 7.

A review of our data so far:

- SMUG Charlie Harrison, Room 5, Break Period 1
- CHIPPER Kimberly Peterson, Room 6, Break Period 2 or 3
- DEADPAN Nicole Campbell, Room 7, Break Period 2 or 3
- MOUSY Alfred Landau, Room 8, Break period 4
- ACCENT Ulysses Iverson, Room 3, Break period 5

Now for the teaching subjects:

- Who teaches Spectroscopy?
  - According to Conv. #2, Dr. Iverson has a break right after the Spectroscopy teacher's break.
  - So, this means that MOUSE Alfred Landau is the Spectroscopy teacher.
- When is the Robotics break period?
  - Break period 4 is MOUSE Alfred Landau's, and he teaches Spectroscopy. So it's not break period 4.
  - According to Conv. #3, the administration is thinking about changing its break period to be earlier in the day. So it's not break period 1.
  - According to Conv. #2, Robotics' break period is immediately followed by the Isomorphisms teacher's break. So it's not break periods 3 or 5.
  - Therefore, Robotics must be break period 2.
  - And so Isomorphisms must be break period 3.
  - These are taught by Kimberly and Nicole, but we don't know which is which (yet).
- What does SMUG Charlie Harrison teach?
  - He asserts in Conv. #1 that he doesn't teach Thermodynamics.
  - Therefore, he must teach the remaining subject, Endocrinology.
- And by elimination, ACCENT Ulysses Iverson teaches Thermodynamics.

Finally, we can distinguish the last step by using the watch:

- According to Conv. #3, CHIPPER Kimberly Peterson has a watch (that she doesn't know how to silence).
- According to Conv. #4, the Isomorphisms teacher doesn't have their watch with them.
- Therefore, the Isomorphisms (break period 3) teacher must be Nicole, and the Robotics (break period 2) teacher must be Kimberly.

Now on to message extraction. ACCENT Ulysses spells out the steps pretty specifically in the Conv. 4 -- sort by break period, then read out both initials, the first letter of the subject, and the room number indexed into the subject. This results in:

- **C**harlie **H**arrison, Room 5, **E**ndo**C**rinology
- **K**imberly **P**eterson, Room 6, **R**obot**I**cs
- **N**icole **C**ampbell, Room 7, **I**somor**P**hisms
- **A**lfred **L**andau, Room 8, **S**pectro**S**copy
- **U**lysses **I**verson, Room 3, **T**h**E**rmodynamics

This reads out to be "CHECK PRINCIPAL'S SUITE". There is also a strong hint from Ulysses that the players should look in the right "frame".

Unnecessary and/or Redundant Information:

- Conv. #2: Landau teaches in a higher-numbered room than Charlie.
- Conv. #2: MOUSE is being addressed as Alfred twice.
- Conv. #2: Kimberly and Nicole teach in consecutively numbered rooms.
- Conv. #2: The Spectroscopy teacher does not own a watch.

2.11 Locker Combo

(Mandatory Puzzle) Teams need to figure out the master locker combo from the principal's notes.

Open Time Period

Sunday, setup 4:30 PM, open 5:00 till all teams (16 first weekend, 17 second weekend) pick up (estimated between 7:00 - 7:30 AM)

Location

Name And Address: Paine Memorial High School Principal's Suite, actually Registration Office, Highlands Rec Center, 1851 Lexington Ave. San Mateo

Parking: Free lot

Bathroom: Yes

Food: No

GC PoC: Erik & Melissa

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned causing Prof. Chronos to bounce randomly through time
- The players have fixed the time machine
- The players have figured out that she wanted to be sent to 5/31/1986 at 2:15 PM. Doctor When chose to send her to Paine Memorial High School.
- For some unknown reason, Prof. Chronos needs the combination to a school locker...and perhaps there are records of old 1986 combinations somewhere at the school in 2012
- By analyzing ghostly voices overheard within the Teachers' Lounge the players know that the combination records are in the Principal's Suite. (FYI, some tortoise teams may get sent directly to the Principal's suite.)

Props

- Set dressing, including desk picture frame
- 16 or 17 copies of picture frame insert
- Painter's tape

Staff Instructions

Your Role: Tiresias, the school janitor (and also mysterious game fairy of the universe).

What Your Character Knows: Everything--you're Tiresias!

Setup:

- Set out all props
- Make sure they are the 2012 versions (such as the playoff bracket)

Handout Instructions:

- Discreetly keep track of how many teams have picked up...so you know when to leave!
- You're pretending to tidy up as a "normal" janitor would...but all-knowing Tiresias is really there to subtly help the visitors
- Only let one team at at time in the office.
- "Reset" the props after each team leaves, especially putting a new insert in the desk picture frame.

Site Close Down:

- Box up all props and return to GC HQ

- Clean up location
- Call GC HQ
- Go to gym

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The teams have discovered that the principal keeps the master locker combo in his office. They go to his office and find - lo and behold - a list of locker combos hidden away. However, the combination changes each year, and the list only goes back to 1987! Undaunted, the players figure out the pattern, and deduce what the 1986 locker combo was, and convey this to Prof. Chronus.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

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1-11-9
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Puzzle Solution

2.12 Restaurant Coupon

(Optional Puzzle) Figure out complex takeout food order to satisfy ravenous lab assistants.

Open Time Period

See Consolidation 2

Location

Paine Memorial High School Gym (see Consolidation 2)

Plot Setup

See Consolidation 2

Props

- 16 or 17 instruction sheets (handwritten to match storyline)
- 16 or 17 copies of restaurant coupon printout (printed on *both* sides)
- 16 or 17 combined order forms?
- Scissors

Staff Instructions

Your Role: Peach Frontier Laboratories Lab Assistant.

Where To Get Materials: GC HQ

Handout Instructions: Lab assistant at gym says words to the effect of,

> It's been a long night and everyone is starving. All the lab assistants are tied up in calculations.

> I hate to ask this of you, but here are some restaurant delivery menus. Would you please order us some food? Just work out an order and give it to one of the lab assistants when you're done.

> Oh, but we have some picky eaters, so there are some constraints: we only have $100 with which we have to feed all 20 of us. There have to be at least 5 vegetarian meals and at least 10 non-vegetarian meals. And, oh...we don't want to be bad customers...so we always give each delivery driver a $3 tip.

And hands out puzzle.

Answers: Says words to the effect of

> Thank you so much for this. We're starving.

Site Close Down: n/a

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The set up would be something like, "We hate to ask you to do such a menial thing, but the lab assistants are getting hungry so we need to phone in orders to a few delivery restaurants. We only have 3 $20s, 6 $10s, 3 $5s, (etc.) and can't make change. We need at least n burgers, but no more than m. Monica is a vegetarian so we need to have at least one vegetarian meal. Sam is gluten intolerant. We need both diet cola and regular. (etc.)

"Here's a set of delivery coupons that you can use. Would you please work out an order that will please everyone, write it down on this form, and cut out the appropriate coupons?"

We would make up all sorts of coupons (Sam's Chinese Food, Belmont Burgers, etc.; one or more per establishment). Each coupon would have it's own constraints, such as

- Expiration date (i.e., some coupons that would really help the order...won't be valid)
- Not valid in combination with any other offer (on two coupons from the same establishment)
- Only original coupons accepted--no photocopies

And, most importantly, the coupons would be printed on both sides of the same sheet of paper. That means that cutting out and using certain coupons would prevent using certain other coupons on the reverse side.

The coupons could be for things like,

- 50% off 2nd meal of equal or lesser value
- Free litre of Coke with order of $15 or more

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

This puzzle would not solve to a particular phrase. Rather, the players would have to write down precisely which items should be ordered from each restaurant. They would also have to cut out and hand in the required coupons.

Puzzle Solution

Teams must submit the following order - which costs exactly $100 - as well as seven appropriate coupons.

- 5 Tofurkey from Tofu House, with coupon - $27.45 + $3.00 tip = $30.45
- 4 Spam Sushi, with coupon - $21.96 - $10 coupon + $3.00 tip = $14.96
- 1 Schintzel meal from Schnitzelfest, with five "other" coupons

(Maria's, Weekday Combo, Burgermania, and two Pizza coupons) = $7.69 - $7.50 + $3.00 tip = $3.19

- 10 Imperial combos from Won Hung Lo - regular price = $48.40 + $3.00 tip = $51.40

Total = $100.00

2.12 Restaurant Coupon

(Optional Puzzle) Figure out complex takeout food order to satisfy ravenous lab assistants.

Open Time Period

See Consolidation 2

Location

Paine Memorial High School Gym (see Consolidation 2)

Plot Setup

See Consolidation 2

Props

- 16 or 17 instruction sheets (handwritten to match storyline)
- 16 or 17 copies of restaurant coupon printout (printed on *both* sides)
- 16 or 17 combined order forms?
- Scissors

Staff Instructions

Your Role: Peach Frontier Laboratories Lab Assistant.

Where To Get Materials: GC HQ

Handout Instructions: Lab assistant at gym says words to the effect of,

> It's been a long night and everyone is starving. All the lab assistants are tied up in calculations.

> I hate to ask this of you, but here are some restaurant delivery menus. Would you please order us some food? Just work out an order and give it to one of the lab assistants when you're done.

> Oh, but we have some picky eaters, so there are some constraints: we only have $100 with which we have to feed all 20 of us. There have to be at least 5 vegetarian meals and at least 10 non-vegetarian meals. And, oh...we don't want to be bad customers...so we always give each delivery driver a $3 tip.

And hands out puzzle.

Answers: Says words to the effect of

> Thank you so much for this. We're starving.

Site Close Down: n/a

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The set up would be something like, "We hate to ask you to do such a menial thing, but the lab assistants are getting hungry so we need to phone in orders to a few delivery restaurants. We only have 3 $20s, 6 $10s, 3 $5s, (etc.) and can't make change. We need at least n burgers, but no more than m. Monica is a vegetarian so we need to have at least one vegetarian meal. Sam is gluten intolerant. We need both diet cola and regular. (etc.)

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- 50% off 2nd meal of equal or lesser value
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Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

This puzzle would not solve to a particular phrase. Rather, the players would have to write down precisely which items should be ordered from each restaurant. They would also have to cut out and hand in the required coupons.

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Teams must submit the following order - which costs exactly $100 - as well as seven appropriate coupons.

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Total = $100.00

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Open Time Period

See Consolidation 2

Location

Paine Memorial High School Gym (see Consolidation 2)

Plot Setup

See Consolidation 2

Props

- 16 or 17 instruction sheets (handwritten to match storyline)
- 16 or 17 copies of restaurant coupon printout (printed on *both* sides)
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Staff Instructions

Your Role: Peach Frontier Laboratories Lab Assistant.

Where To Get Materials: GC HQ

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> Oh, but we have some picky eaters, so there are some constraints: we only have $100 with which we have to feed all 20 of us. There have to be at least 5 vegetarian meals and at least 10 non-vegetarian meals. And, oh...we don't want to be bad customers...so we always give each delivery driver a $3 tip.

And hands out puzzle.

Answers: Says words to the effect of

> Thank you so much for this. We're starving.

Site Close Down: n/a

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The set up would be something like, "We hate to ask you to do such a menial thing, but the lab assistants are getting hungry so we need to phone in orders to a few delivery restaurants. We only have 3 $20s, 6 $10s, 3 $5s, (etc.) and can't make change. We need at least n burgers, but no more than m. Monica is a vegetarian so we need to have at least one vegetarian meal. Sam is gluten intolerant. We need both diet cola and regular. (etc.)

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Puzzle Answer

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Teams must submit the following order - which costs exactly $100 - as well as seven appropriate coupons.

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- 10 Imperial combos from Won Hung Lo - regular price = $48.40 + $3.00 tip = $51.40

Total = $100.00

2.13 Consolidation 2

(Mandatory Puzzle) Final fixes before Prof. Chronos can be returned to the present.

Open Time Period

Sunday, approximately 5:24 AM - 7:30 AM

Location

Name And Address: Paine Memorial High School Gymnasium, actually gymnasium, Highlands Rec Center, 1851 Lexington Ave. San Mateo

Parking: Free lot

Bathroom: Yes

Food: No

GC PoC: Erik & Melissa

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
- Peach Frontier Laboratories has taken its place
- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
- But it malfunctioned causing Prof. Chronos to bounce randomly through time
- The players have fixed the time machine
- The players have figured out that she wanted to be sent to 5/31/1986 at 2:15 PM. Doctor When chose to send her to Paine Memorial High School.
- For some unknown reason, Prof. Chronos needs the combination to a school locker sent to her; the players have uncovered this combination and given it to Doctor When back in the Lab to send to her
- Doctor When has sent the visitors to the school gym to watch Prof. Chronos finally get rescued. Apparently it's the location of some sort of chronotonic nexus where many different timelines intersect...which means it gets excellent View-O-Scope reception.

Props

- 16 or 17 copies of the Peach Frontier versions of each role puzzle
- Staff instructions for role puzzles overall and each role puzzle (from Act I)
- Sound system (including microphones)
- Videos of Act II, Scenes 4 & 5
- 16 or 17 copies of local restaurant suggestions
- Lab coat (should already have from previous site)
- Peach Frontier Laboratories name badge and lanyard (should already have from previous site)
- 90 blank Chronomentometer grids (approximately 5 per team)
- Any leftover Chronomentometer design kits
- Projector
- Screen
- Wei-Hwa and his laptop and his phone and a USB cable for tethering Assistant for Wei-Hwa (if possible)
- 2 copies of Act II lab assistant skit

Staff Instructions

Your Role: Lab assistants at Peach Frontier Laboratories.

What To Wear: lab coat + Peach Frontier Laboratories name badge

What Your Character Knows:

- Everything in Plot Setup, except
  - You do not know the stuff about Trenchwood Institute
  - You do not know that the numbers the visitors asked Doctor When to Prof. Chronos are a locker combination

Puzzles At This Site:

- Restaurant Coupon
- All role puzzles
- Extra chronomentometers

Where To Get Materials: GC HQ

Setup Instructions:

- Call GC when you arrive (so we know you are setting up)
- Set up props
- Set up G.R.O.S.S. display
- Set up A/V system for skit and showing the video
- Call GC when you are ready for teams

Handout Instructions: The main activity at the gym is to watch the remaining Act II videos at 7:20 AM. If a team arrives before then offer them a choice of how to pass the time: they can either rest (in their vans?) or help with the final fixes on the time machine (more puzzles).

If team arrives after 7:00 AM then say something like:

> Great to see you. We almost have the time machine able to send that strange series of numbers back to Prof. Chronos. Please hang out till 7:20 AM and I think we'll be able to show you the results then.

If team arrives before 7:00 AM then say something like:

> Great to see you. Unfortunately although we got the View-O-Scope working well enough for you to watch Prof. Chronos in 1986, the rest of the machine isn't yet able to send that strange series of numbers back to her. If you're up to it, you can help us with the final repairs. But you also look sort of tired, so you're welcome to rest till we have it fixed.

If the team chooses to rest, then say something like:

> I understand. You guys get some rest. **But be back here by 7:20 AM, no later.** We expect to have it fixed by then and we'll be able to show you the results of all your hard work.

If team chooses to help, then use the staff instructions of the Restaurant Coupon puzzle.

If they finish after 7:00 AM, then just ask them to wait with words to the effect of,

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If they finish before 6:00 AM, ask them for more help by doing the remaining role puzzles. See their instruction sheets for handout wording.

Once they've finished the remaining role puzzles or after 7:00 AM, say to them

> Thanks so much for doing that. I think the only thing left is to get all those chronomentometers fixed. But you've done so much already, I hesitate to ask you to fix more of them... but then again, you're so talented at doing that and we still have a lot left to repair, and the lab boys are getting better at fixing them. So, if you want, you can take a break, or you can help us fix the remaining ones. There are more Chronomentometer Restricted Arrangement Particulars available on the G.R.O.S.S. system.

- Do lab assistant skit (see attached script)
- Show videos

Then say words to the effect of

> Hooray, you've rescued Professor Chronos! Unfortunately we've had to cancel the reception at the museum because of our...technical difficulties. Instead please just return to the lab for debriefing.

> Hold it...there's a bit of residual tachyonic radiation at the lab...probably wouldn't cause cranial warts.

> Well, those darn OSHA government regulators might object. Why don't you just let it die down a bit. Wait till 8:45 AM. We'll resume

promptly at 9 AM. Perhaps you could get yourself some breakfast between now and then--here's a list of nearby restaurants. But definitely don't go back before 8:45 AM.

- Hand out local restaurant suggestion sheets
- Usher them out

Site Close Down:

- Pack up A/V equipment and all 2012 artifacts
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Chronomentometer puzzles must be collectively solved by the teams. They work together in mild competition until all teams have arrived.

There are a maximum of 40 puzzles per team (640 puzzles in week 1, 680 puzzles in week 2) available. Initially, only 10 puzzles per team are "broken" (160 puzzles in week 1, 170 puzzles in week 2). A GC member should be pacing the release of new "broken" puzzles so that teams are on track to have everything solved at the end of the consolidation.

GROSS is available at: http://peachfrontier.com/cmm/gross.html

The admin console is at: http://peachfrontier.com/cmm/nimda.html

The display dashboard is at: http://peachfrontier.com/cmm/dashboard.php

GROSS should display properly on smartphones and Internet-enabled tablets.

It'll be blindingly obvious once you log in and when you see the display dashboard that individual team information is anonymized and only role information is shared. At least, that's my hope.

There are five "fake teams" -- the "Lab" and one team from each faction. The "fake teams" solve TASCs periodically -- namely, the system makes suggestions and the human GC member approves them. The goal is to keep the five total SCOREs close. Yes, it's not fair. Neither is Mario Kart.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

Puzzle Solution

2.13 Consolidation 2

(Mandatory Puzzle) Final fixes before Prof. Chronos can be returned to the present.

Open Time Period

Sunday, approximately 5:24 AM - 7:30 AM

Location

Name And Address: Paine Memorial High School Gymnasium, actually gymnasium, Highlands Rec Center, 1851 Lexington Ave. San Mateo

Parking: Free lot

Bathroom: Yes

Food: No

GC PoC: Erik & Melissa

Plot Setup

- All evidence of Trenchwood Institute and its timeline has mysteriously disappeared.
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- Iconoclast scientist Prof. Chronos has attempted to demonstrate her time machine before an audience of VIPs.
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- Wei-Hwa and his laptop and his phone and a USB cable for tethering Assistant for Wei-Hwa (if possible)
- 2 copies of Act II lab assistant skit

Staff Instructions

Your Role: Lab assistants at Peach Frontier Laboratories.

What To Wear: lab coat + Peach Frontier Laboratories name badge

What Your Character Knows:

- Everything in Plot Setup, except
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Puzzles At This Site:

- Restaurant Coupon
- All role puzzles
- Extra chronomentometers

Where To Get Materials: GC HQ

Setup Instructions:

- Call GC when you arrive (so we know you are setting up)
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Puzzle Solution

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Then say words to the effect of

> Hooray, you've rescued Professor Chronos! Unfortunately we've had to cancel the reception at the museum because of our...technical difficulties. Instead please just return to the lab for debriefing.

> Hold it...there's a bit of residual tachyonic radiation at the lab...probably wouldn't cause cranial warts.

> Well, those darn OSHA government regulators might object. Why don't you just let it die down a bit. Wait till 8:45 AM. We'll resume

promptly at 9 AM. Perhaps you could get yourself some breakfast between now and then--here's a list of nearby restaurants. But definitely don't go back before 8:45 AM.

- Hand out local restaurant suggestion sheets
- Usher them out

Site Close Down:

- Pack up A/V equipment and all 2012 artifacts
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Chronomentometer puzzles must be collectively solved by the teams. They work together in mild competition until all teams have arrived.

There are a maximum of 40 puzzles per team (640 puzzles in week 1, 680 puzzles in week 2) available. Initially, only 10 puzzles per team are "broken" (160 puzzles in week 1, 170 puzzles in week 2). A GC member should be pacing the release of new "broken" puzzles so that teams are on track to have everything solved at the end of the consolidation.

GROSS is available at: http://peachfrontier.com/cmm/gross.html

The admin console is at: http://peachfrontier.com/cmm/nimda.html

The display dashboard is at: http://peachfrontier.com/cmm/dashboard.php

GROSS should display properly on smartphones and Internet-enabled tablets.

It'll be blindingly obvious once you log in and when you see the display dashboard that individual team information is anonymized and only role information is shared. At least, that's my hope.

There are five "fake teams" -- the "Lab" and one team from each faction. The "fake teams" solve TASCs periodically -- namely, the system makes suggestions and the human GC member approves them. The goal is to keep the five total SCOREs close. Yes, it's not fair. Neither is Mario Kart.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

Puzzle Solution

3.00 Registration Redux

(Mandatory Event) Visitors turn in their waivers and are given "security badges"

Open Time Period

Sunday, 8:30 AM-9:00 AM

Location

Name And Address: "Trenchwood Institute" -- Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

Parking: School lot, free

Bathrooms: Yes

Food: No

GC PoC: Erik Stuart, (650) 395-8463, lab@trenchwood.com

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.

Props

- Table
- Chairs for registration staffers
- 16 envelopes, each labeled with a team name
- Lab coat (one for each staffer)
- Trenchwood Institute name badge and lanyard (one for each staffer)
- Pens

Staff Instructions

Your Role: You are a lab assistant at Trenchwood Institute, called away from your research tasks to be a registration clerk.

What To Wear: Lab coat and Trenchwood Institute name badge

What Your Character Knows:

- You think it is Saturday.
- You think you've never seen the players before in your life.
- You don't know what Doctor When will be demonstrating. You've been so focused on your little part of the endeavor that you don't know the "big picture" (and Doctor When is very secretive).

Puzzles At This Site: none in this event

Where To Get Materials:

- Chairs and tables onsite
- Everything else from GC HQ

Setup Instructions:

- Set up chairs and tables outside of Institute
- Place a pile of lanyards on the table

Handout Instructions: The interaction should go something like:

> RECEPTIONIST: Good morning. I see you're on our exclusive guest list. Have you completed your non-disclosure agreement and liability waiver?

VISITOR: What?! We gave them to you yesterday.

RECEPTIONIST: That's impossible. We just opened registration this morning.

VISITOR: I swear. I handed them to you myself.

RECEPTIONIST: Sir, I assure you I've never seen you before in my life.

But I wouldn't worry about it. Sometimes the lab equipment leaks a wee bit of radiation that causes people to have déjà vu. And elephantitis. Well, hardly ever. The elephantitis that is.

And here are your security badges. I see you already have lanyards. Welcome to the Trenchwood Institute. Prepare to be amazed!

The receptionist hands over a packet of security badge inserts. The visitors take the pack and pass through the doors.

Site Close Down:

- Join the presentation inside 3.01 Introductory Lecture 1, Reprise
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The players sign in, get their badges, and then enter the Institute.

Hints

N/A

Puzzle Answer

N/A

Puzzle Solution

N/A

3.00 Registration Redux

(Mandatory Event) Visitors turn in their waivers and are given "security badges"

Open Time Period

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Plot Setup

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Props

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- You think it is Saturday.
- You think you've never seen the players before in your life.
- You don't know what Doctor When will be demonstrating. You've been so focused on your little part of the endeavor that you don't know the "big picture" (and Doctor When is very secretive).

Puzzles At This Site: none in this event

Where To Get Materials:

- Chairs and tables onsite
- Everything else from GC HQ

Setup Instructions:

- Set up chairs and tables outside of Institute
- Place a pile of lanyards on the table

Handout Instructions: The interaction should go something like:

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RECEPTIONIST: Sir, I assure you I've never seen you before in my life.

But I wouldn't worry about it. Sometimes the lab equipment leaks a wee bit of radiation that causes people to have déjà vu. And elephantitis. Well, hardly ever. The elephantitis that is.

And here are your security badges. I see you already have lanyards. Welcome to the Trenchwood Institute. Prepare to be amazed!

The receptionist hands over a packet of security badge inserts. The visitors take the pack and pass through the doors.

Site Close Down:

- Join the presentation inside 3.01 Introductory Lecture 1, Reprise
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The players sign in, get their badges, and then enter the Institute.

Hints

N/A

Puzzle Answer

N/A

Puzzle Solution

N/A

3.00 Registration Redux

(Mandatory Event) Visitors turn in their waivers and are given "security badges"

Open Time Period

Sunday, 8:30 AM-9:00 AM

Location

Name And Address: "Trenchwood Institute" -- Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

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Bathrooms: Yes

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Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.

Props

- Table
- Chairs for registration staffers
- 16 envelopes, each labeled with a team name
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- Pens

Staff Instructions

Your Role: You are a lab assistant at Trenchwood Institute, called away from your research tasks to be a registration clerk.

What To Wear: Lab coat and Trenchwood Institute name badge

What Your Character Knows:

- You think it is Saturday.
- You think you've never seen the players before in your life.
- You don't know what Doctor When will be demonstrating. You've been so focused on your little part of the endeavor that you don't know the "big picture" (and Doctor When is very secretive).

Puzzles At This Site: none in this event

Where To Get Materials:

- Chairs and tables onsite
- Everything else from GC HQ

Setup Instructions:

- Set up chairs and tables outside of Institute
- Place a pile of lanyards on the table

Handout Instructions: The interaction should go something like:

> RECEPTIONIST: Good morning. I see you're on our exclusive guest list. Have you completed your non-disclosure agreement and liability waiver?

VISITOR: What?! We gave them to you yesterday.

RECEPTIONIST: That's impossible. We just opened registration this morning.

VISITOR: I swear. I handed them to you myself.

RECEPTIONIST: Sir, I assure you I've never seen you before in my life.

But I wouldn't worry about it. Sometimes the lab equipment leaks a wee bit of radiation that causes people to have déjà vu. And elephantitis. Well, hardly ever. The elephantitis that is.

And here are your security badges. I see you already have lanyards. Welcome to the Trenchwood Institute. Prepare to be amazed!

The receptionist hands over a packet of security badge inserts. The visitors take the pack and pass through the doors.

Site Close Down:

- Join the presentation inside 3.01 Introductory Lecture 1, Reprise
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The players sign in, get their badges, and then enter the Institute.

Hints

N/A

Puzzle Answer

N/A

Puzzle Solution

N/A

3.01 Introductory Lecture 1, Reprise

(Mandatory Presentation) Exact repeat of Act I, diverging when players solve first puzzle instantly.

Open Time Period

Sunday, 8:45 AM - 9:15 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline

Props

- PowerPoint presentation on Erik's Laptop File:PPT for intro speech.ppt
- projector
- screen
- PA system
- time machine set with sound/light/smoke special effects.
- seats for players
- portable tachyon detector
- yearbook

Staff Instructions

Puzzles At This Site: none in this event

Site Set Up:

- Make sure one toggle burner board is in time machine
- Make sure portable tachyon detector is near entrance to time machine
- Make sure yearbook is on set

Handout Instructions: See the script for the latest dialog.

Hints: n/a

Answers: n/a

Site Close Down:

- No close-down, scene automatically continues to 3.02 Core Dump 1 Redux

Detailed Description

Hints

n/a

Puzzle Answer

n/a

Puzzle Solution

3.02 Core Dump 1 Redux

(Mandatory Puzzle) Same as Act I.

Open Time Period

Sunday, around 9:15 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.

Props

One Toggle Burner board

Staff Instructions

Puzzles At This Site: none

Setup Instructions: none (toggle burner should already be in time machine--see 3.01 Introductory Lecture 1, Reprise)

Handout Instructions: See the script. Prof. Chronos pulls a core dump from the time machine and goads the audience into shouting out the answer.

Hints: n/a

Answers: n/a

Site Close Down: n/a--site stays open

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

n/a

Puzzle Answer

Exact same as in Act I.

Puzzle Solution

3.03 Tachyon Midi Ether Co-Keypad 1 Redux

(Mandatory Puzzle)

Open Time Period

Sunday, around 9:20 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- Prof. Chronos pulled out a core dump and the players were able to (surprisingly quickly) tell Prof. Chronus unscramble it diagnose that there's a problem with machine's midi ether co-keypads

Props

none

Staff Instructions

Puzzles At This Site: none

Setup Instructions: none (toggle burner should already be in time machine--see 3.01 Introductory Lecture 1, Reprise)

Handout Instructions: See script. Prof. Chronos looks inside the time machine and notices that co-keypad #34 is broken. She is then shocked that the visitors just happen to have a new design on their camera phone.

Hints: n/a

Answers: n/a

Site Close Down: n/a--site stays open

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Same exact broken co-keypad #34 as in Act I, with same solution

Hints

n/a

Puzzle Answer

Same as Act I.

Puzzle Solution

3.04 Choose Your Own Adventure Redux

(Mandatory Puzzle) Same as Act I.

Open Time Period

Sunday, around 9:21 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- Prof. Chronos pulled out a core dump and the players were able to (surprisingly quickly) tell Prof. Chronus unscramble it diagnose that there's a problem with machine's midi ether co-keypads
- Prof. Chronos was also amazed that the visitors just happened to have a new design for co-keypad #34 on their camera phones.

Props

Staff Instructions

Puzzles At This Site: none

Setup Instructions: none (toggle burner should already be in time machine--see 3.01 Introductory Lecture 1, Reprise)

Handout Instructions: See script. Prof. Chronos needs tells the visitors she also needs the password to Doctor When's supercomputer. When they also happen to have that answer, she realizes something is up.

Hints: n/a

Answers: n/a

Site Close Down: n/a--site stays open

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

n/a

Puzzle Answer

Puzzle Solution

Password = "BUFFYROCKS"

3.05 Yearbook (Jiffy Pop) Solve

(Mandatory Puzzle) A puzzle that is a [Bootstrap Paradox (http://en.wikipedia.org/wiki/Bootstrap_paradox)]: The teams solve it, and then later have a hand in its creation.

Open Time Period

Sunday, approximately 9:23 AM - 10:13 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer

Props

16 or 17 physical puzzle baggies, one for each team.

Staff Instructions

Handout Instructions: See script. Prof. Chronos asks the visitors how they solve everything so quickly. Together they figure out that they're in an infinite time loop.

This reminds the Professor of a strange message about infinite loops that appeared in her high school yearbook.

Hints: See below.

Answers: After a team gives the correct answer jump straight to the "Hand Out Instructions" of 3.07 Calibration Redux

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The basic concept behind this puzzle is that it needs to be a [Bootstrap paradox (http://en.wikipedia.org/wiki/Bootstrap_paradox)]: we call it the "Jiffy Pop" because the slogan for that brand of popcorn was "as fun to make as it is to eat." The team has to first solve the puzzle, and then later on in the Game realize that they need to help create it, sending it to the point in time when they received it. Hence, the puzzle has two stages -- "Stage A": Solving the puzzle, and "Stage B": Creating the puzzle. Ideally there is a lot of time (real-life-time, not story-time) between "Stage A" and "Stage B" for best dramatic effect.

Specifically, Catherine is reminded of an oddity she saw in the 1986 yearbook. It was a poem written on peculiar shapes. Thinking it might be a jigsaw, she and Wesley cut it up, but got nowhere with it. She offers it to the players to solve, and it yields an imperative message from the past to interfere with Wesley's letter.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- The pieces look like they fit together. (In fact, they do! This is a jigsaw puzzle.)

- The clock times look important. Try seeing how they might go together.

- The words have a consistent orientation (either up or down relative to the triangle), but the clock times are often slanted. However, 12:XX and 6:xx are never slanted. Does this mean anything?

- On a normal clockface, 12:00 and 6:00 aren't slanted either. Maybe the times mirror a clock somehow.

- Pick a minute reading (e.g., 12:15, 2:15, 4:15, etc.) and try to "assemble the clock", going in a circle.

- Some of your pieces will have other clock times. Assemble those too, and keep going until you're done.

- (Does the pattern look like anything? Maybe an hourglass?)

- The words don't make any sense read straight across. Maybe those number pairs mean something.

- Number pairs have different orientations. All the pairs with one orientation go together.

- The number pairs (x,y) have x from 1-7 and y from 1-8. The puzzle has up to 7 "columns" and 8 "rows".

- Reading number pairs in order (left to right, then top to bottom), take the Xth word in the Yth row.

- Note that X refers to the Xth "word". If a row only has three words in it, then (1,3) selects the 1st word in the row, even though that row is in the same "column" as the 3rd word in the top or bottom row.

- Common other ways to try to use the pairs to get messages: 1) trying to make a loop from one word to another (e.g., if the pair is (1,5), go to word (1,5), then find the number pair on that word, etc.) and 2) trying to reorient the coordinate system to match the orientation of the number pair. Good ideas, but not correct.

- The "unused words" are clearly those that haven't already been "used" by the messages.

- Once they get the correct messages, it's just a matter of making sure the players know what to do - go back in time and change the word "right" to "left" on Doctor When's envelope.

- If players think the messages seem slightly cryptic - remember that these messages had to be hidden in a yearbook entry. Something like GO BACK IN TIME AND CHANGE RIGHT TO LEFT ON DOCTOR WHEN'S ENVELOPE would have been far too obvious! (Though how the message got there in the first place is a mystery...)

Puzzle Answer

The "answer" is a series of messages, reading:

1) Woe! You're trapped in endless loops unable to unite them forever in final bliss 2) To transform their future lives journey back in time and modify the writing on the newspaper 3) Words not used will help show what to do

... with the "words not used" giving the message "Substitute right with its reflection".

Players should therefore realize that they need to go back in time and change the word "right" to "left" on the newspaper that Doctor When put in his younger self's locker.

Puzzle Solution

Each piece has one or more times on it - 12:00, 2:05, 4:10, and so on.

There are two keys to assembling the pieces correctly. Note that words always read right-side-up.

1) Pieces with the same minute reading form a rough circle, with their hour components arranged like a clockface - 12:XX at the top, 2:XX in the upper right, 4:XX in the lower right, 6:XX at the bottom, 8:XX in the lower left, and 10:XX in the upper left.

2) Groups of pieces go in order of their minute readings - :00, :05, :10, and so on up to :55 - from left to right, then top to bottom (just like a normal English printed page).

The resulting shape forms an hourglass pattern, with yellow "sand" trickling through the neck. (Note that a down shape above an up shape forms an hourglass as well.)

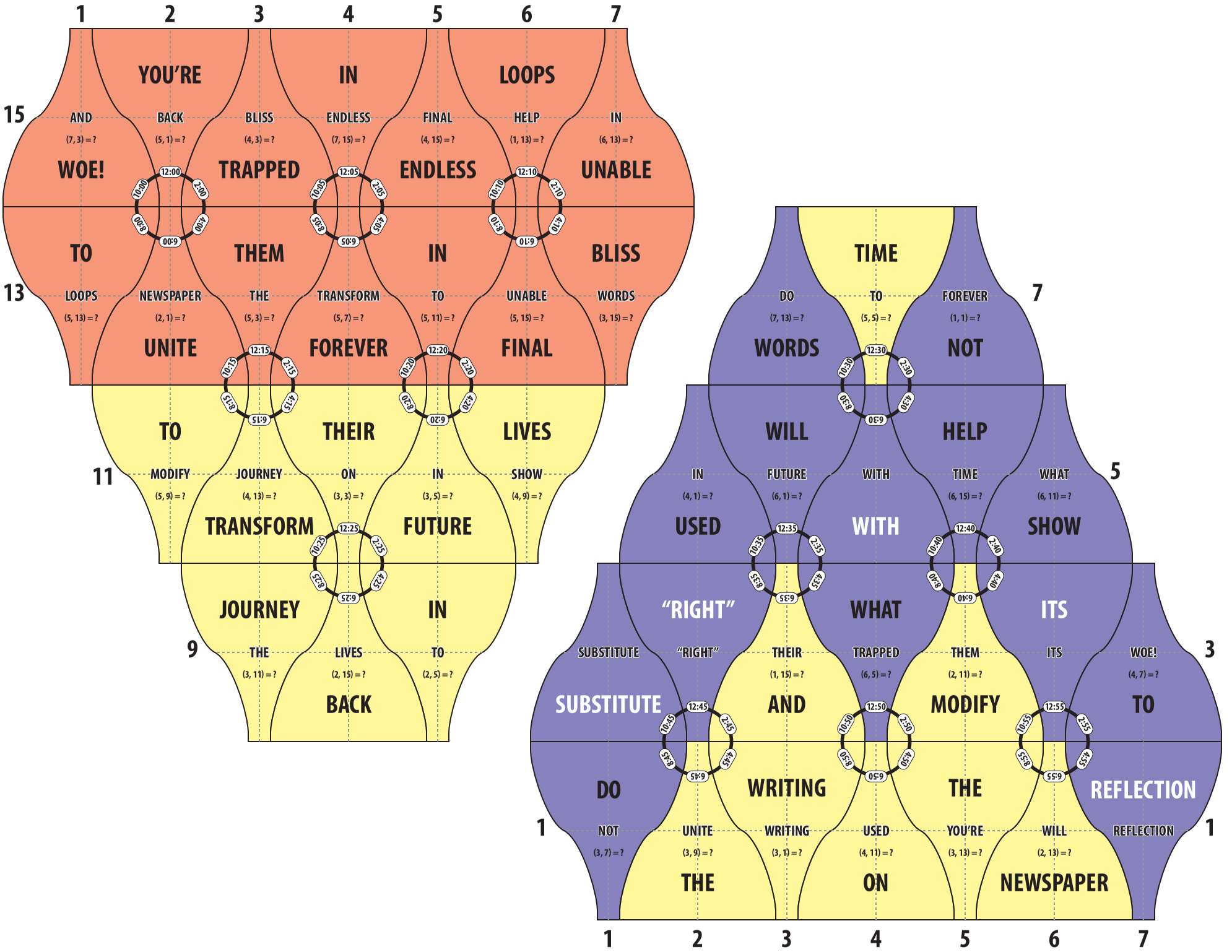
Having formed the correct pattern, you use the number pairs (x,y) on the pieces to find the three messages. Each message is associated with one color.

"Read" the pieces of a given color from left to right and top to bottom, finding the word indicated by the coordinate in the Cartesian grid shown on the hourglass.

The RED pieces give the message Woe! You're trapped in endless loops unable to unite them forever in final bliss. The YELLOW number pairs give the message To transform their future lives journey back in time and modify the writing on the newspaper. The BLUE pieces give the message Words not used will help show what to do

The only words that are not found in the above steps (i.e., the "words not used") are, in order from left to right, Substitute Right With Its Reflection.

Original files (these are being revamped): File:Yearbook.doc File:Yearbook.pdf


1 2 3 4 5 6 7
15
YOU'RE IN LOOPS
AND (7, 3) = ? WOE!
BACK (5, 1) = ?
BLISS (4, 3) = ? TRAPPED
ENDLESS (7, 15) = ?
FINAL (4, 15) = ? ENDLESS
HELP (1, 13) = ?
IN (6, 13) = ? UNABLE
12:00 2:00 4:00 6:00 8:00 10:00
12:05 2:05 4:05 6:05 8:05 10:05
12:10 2:10 4:10 6:10 8:10 10:10
13
TO THEM IN BLISS
LOOPS (5, 13) = ? UNITE
NEWSPAPER (2, 1) = ?
THE (5, 3) = ?
TRANSFORM (5, 7) = ? FOREVER
TO (5, 11) = ?
UNABLE (5, 15) = ? FINAL
WORDS (3, 15) = ?
12:15 2:15 4:15 6:15 8:15 10:15
12:20 2:20 4:20 6:20 8:20 10:20
11
TO THEIR LIVES
MODIFY (5, 9) = ?
JOURNEY (4, 13) = ?
ON (3, 3) = ?
IN (3, 5) = ?
SHOW (4, 9) = ?
TRANSFORM FUTURE
12:25 2:25 4:25 6:25 8:25 10:25
9
JOURNEY IN
THE (3, 11) = ?
LIVES (2, 15) = ?
TO (2, 5) = ?
BACK
TIME
DO (7, 13) = ?
TO (5, 5) = ?
FOREVER (1, 1) = ?
7
WORDS NOT
12:30 2:30 4:30 6:30 8:30 10:30
WILL HELP
IN (4, 1) = ?
FUTURE (6, 1) = ?
WITH (6, 15) = ?
TIME (6, 15) = ?
WHAT (6, 11) = ?
5
USED WITH SHOW
12:35 2:35 4:35 6:35 8:35 10:35
12:40 2:40 4:40 6:40 8:40 10:40
"RIGHT" WHAT ITS
SUBSTITUTE (3, 3) = ?
"RIGHT" (3, 15) = ?
THEIR (1, 15) = ?
TRAPPED (6, 5) = ?
THEM (2, 11) = ?
ITS (6, 11) = ?
WOE! (4, 7) = ?
3
SUBSTITUTE AND MODIFY TO
12:45 2:45 4:45 6:45 8:45 10:45
12:50 2:50 4:50 6:50 8:50 10:50
12:55 2:55 4:55 6:55 8:55 10:55
DO WRITING THE REFLECTION
1
NOT (3, 7) = ?
UNITE (3, 9) = ?
WRITING (3, 1) = ?
USED (4, 11) = ?
YOU'RE (3, 13) = ?
WILL (2, 13) = ?
REFLECTION
1
THE ON NEWSPAPER
1 2 3 4 5 6 7

3.05 Yearbook (Jiffy Pop) Solve

(Mandatory Puzzle) A puzzle that is a [Bootstrap Paradox (http://en.wikipedia.org/wiki/Bootstrap_paradox)]: The teams solve it, and then later have a hand in its creation.

Open Time Period

Sunday, approximately 9:23 AM - 10:13 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer

Props

16 or 17 physical puzzle baggies, one for each team.

Staff Instructions

Handout Instructions: See script. Prof. Chronos asks the visitors how they solve everything so quickly. Together they figure out that they're in an infinite time loop.

This reminds the Professor of a strange message about infinite loops that appeared in her high school yearbook.

Hints: See below.

Answers: After a team gives the correct answer jump straight to the "Hand Out Instructions" of 3.07 Calibration Redux

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The basic concept behind this puzzle is that it needs to be a [Bootstrap paradox (http://en.wikipedia.org/wiki/Bootstrap_paradox)]: we call it the "Jiffy Pop" because the slogan for that brand of popcorn was "as fun to make as it is to eat." The team has to first solve the puzzle, and then later on in the Game realize that they need to help create it, sending it to the point in time when they received it. Hence, the puzzle has two stages -- "Stage A": Solving the puzzle, and "Stage B": Creating the puzzle. Ideally there is a lot of time (real-life-time, not story-time) between "Stage A" and "Stage B" for best dramatic effect.

Specifically, Catherine is reminded of an oddity she saw in the 1986 yearbook. It was a poem written on peculiar shapes. Thinking it might be a jigsaw, she and Wesley cut it up, but got nowhere with it. She offers it to the players to solve, and it yields an imperative message from the past to interfere with Wesley's letter.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- The pieces look like they fit together. (In fact, they do! This is a jigsaw puzzle.)

- The clock times look important. Try seeing how they might go together.

- The words have a consistent orientation (either up or down relative to the triangle), but the clock times are often slanted. However, 12:XX and 6:xx are never slanted. Does this mean anything?

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- Some of your pieces will have other clock times. Assemble those too, and keep going until you're done.

- (Does the pattern look like anything? Maybe an hourglass?)

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- The number pairs (x,y) have x from 1-7 and y from 1-8. The puzzle has up to 7 "columns" and 8 "rows".

- Reading number pairs in order (left to right, then top to bottom), take the Xth word in the Yth row.

- Note that X refers to the Xth "word". If a row only has three words in it, then (1,3) selects the 1st word in the row, even though that row is in the same "column" as the 3rd word in the top or bottom row.

- Common other ways to try to use the pairs to get messages: 1) trying to make a loop from one word to another (e.g., if the pair is (1,5), go to word (1,5), then find the number pair on that word, etc.) and 2) trying to reorient the coordinate system to match the orientation of the number pair. Good ideas, but not correct.

- The "unused words" are clearly those that haven't already been "used" by the messages.

- Once they get the correct messages, it's just a matter of making sure the players know what to do - go back in time and change the word "right" to "left" on Doctor When's envelope.

- If players think the messages seem slightly cryptic - remember that these messages had to be hidden in a yearbook entry. Something like GO BACK IN TIME AND CHANGE RIGHT TO LEFT ON DOCTOR WHEN'S ENVELOPE would have been far too obvious! (Though how the message got there in the first place is a mystery...)

Puzzle Answer

The "answer" is a series of messages, reading:

1) Woe! You're trapped in endless loops unable to unite them forever in final bliss 2) To transform their future lives journey back in time and modify the writing on the newspaper 3) Words not used will help show what to do

... with the "words not used" giving the message "Substitute right with its reflection".

Players should therefore realize that they need to go back in time and change the word "right" to "left" on the newspaper that Doctor When put in his younger self's locker.

Puzzle Solution

Each piece has one or more times on it - 12:00, 2:05, 4:10, and so on.

There are two keys to assembling the pieces correctly. Note that words always read right-side-up.

1) Pieces with the same minute reading form a rough circle, with their hour components arranged like a clockface - 12:XX at the top, 2:XX in the upper right, 4:XX in the lower right, 6:XX at the bottom, 8:XX in the lower left, and 10:XX in the upper left.

2) Groups of pieces go in order of their minute readings - :00, :05, :10, and so on up to :55 - from left to right, then top to bottom (just like a normal English printed page).

The resulting shape forms an hourglass pattern, with yellow "sand" trickling through the neck. (Note that a down shape above an up shape forms an hourglass as well.)

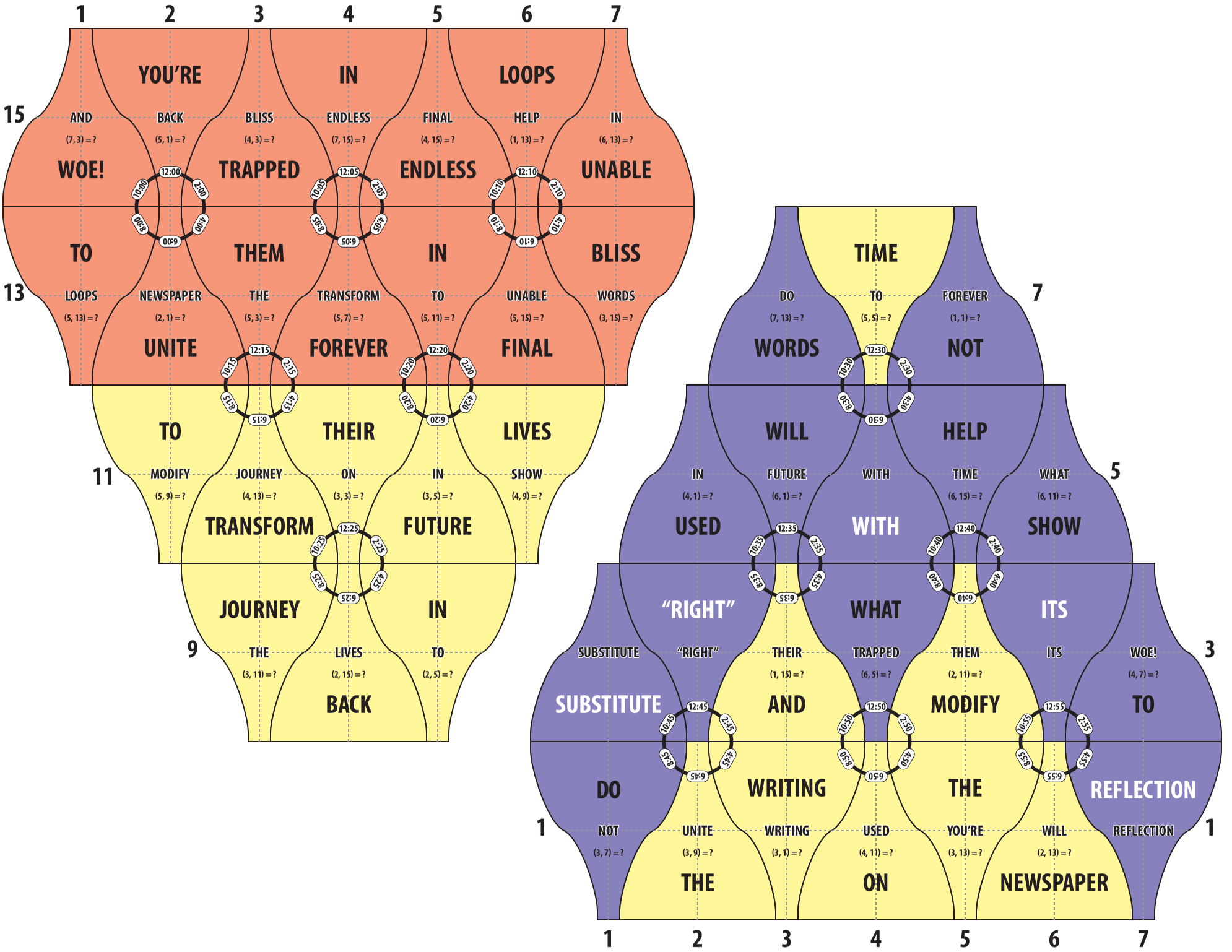
Having formed the correct pattern, you use the number pairs (x,y) on the pieces to find the three messages. Each message is associated with one color.

"Read" the pieces of a given color from left to right and top to bottom, finding the word indicated by the coordinate in the Cartesian grid shown on the hourglass.

The RED pieces give the message Woe! You're trapped in endless loops unable to unite them forever in final bliss. The YELLOW number pairs give the message To transform their future lives journey back in time and modify the writing on the newspaper. The BLUE pieces give the message Words not used will help show what to do

The only words that are not found in the above steps (i.e., the "words not used") are, in order from left to right, Substitute Right With Its Reflection.

Original files (these are being revamped): File:Yearbook.doc File:Yearbook.pdf


1 2 3 4 5 6 7
15
YOU'RE IN LOOPS
AND (7, 3) = ? WOE!
BACK (5, 1) = ?
BLISS (4, 3) = ? TRAPPED
ENDLESS (7, 15) = ?
FINAL (4, 15) = ? ENDLESS
HELP (1, 13) = ?
IN (6, 13) = ? UNABLE
12:00 2:00 4:00 6:00 8:00 10:00
12:05 2:05 4:05 6:05 8:05 10:05
12:10 2:10 4:10 6:10 8:10 10:10
13
TO THEM IN BLISS
LOOPS (5, 13) = ? UNITE
NEWSPAPER (2, 1) = ?
THE (5, 3) = ?
TRANSFORM (5, 7) = ? FOREVER
TO (5, 11) = ?
UNABLE (5, 15) = ? FINAL
WORDS (3, 15) = ?
12:15 2:15 4:15 6:15 8:15 10:15
12:20 2:20 4:20 6:20 8:20 10:20
11
TO THEIR LIVES
MODIFY (5, 9) = ?
JOURNEY (4, 13) = ?
ON (3, 3) = ?
IN (3, 5) = ?
SHOW (4, 9) = ?
TRANSFORM FUTURE
12:25 2:25 4:25 6:25 8:25 10:25
9
JOURNEY IN
THE (3, 11) = ?
LIVES (2, 15) = ?
TO (2, 5) = ?
BACK
TIME
DO (7, 13) = ?
TO (5, 5) = ?
FOREVER (1, 1) = ?
7
WORDS NOT
12:30 2:30 4:30 6:30 8:30 10:30
WILL HELP
IN (4, 1) = ?
FUTURE (6, 1) = ?
WITH (6, 15) = ?
TIME (6, 15) = ?
WHAT (6, 11) = ?
5
USED WITH SHOW
12:35 2:35 4:35 6:35 8:35 10:35
12:40 2:40 4:40 6:40 8:40 10:40
"RIGHT" WHAT ITS
SUBSTITUTE (3, 3) = ?
"RIGHT" (3, 15) = ?
THEIR (1, 15) = ?
TRAPPED (6, 5) = ?
THEM (2, 11) = ?
ITS (6, 11) = ?
WOE! (4, 7) = ?
3
SUBSTITUTE AND MODIFY TO
12:45 2:45 4:45 6:45 8:45 10:45
12:50 2:50 4:50 6:50 8:50 10:50
12:55 2:55 4:55 6:55 8:55 10:55
DO WRITING THE REFLECTION
1
NOT (3, 7) = ?
UNITE (3, 9) = ?
WRITING (3, 1) = ?
USED (4, 11) = ?
YOU'RE (3, 13) = ?
WILL (2, 13) = ?
REFLECTION
1
THE ON NEWSPAPER
1 2 3 4 5 6 7

3.05 Yearbook (Jiffy Pop) Solve

(Mandatory Puzzle) A puzzle that is a [Bootstrap Paradox (http://en.wikipedia.org/wiki/Bootstrap_paradox)]: The teams solve it, and then later have a hand in its creation.

Open Time Period

Sunday, approximately 9:23 AM - 10:13 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer

Props

16 or 17 physical puzzle baggies, one for each team.

Staff Instructions

Handout Instructions: See script. Prof. Chronos asks the visitors how they solve everything so quickly. Together they figure out that they're in an infinite time loop.

This reminds the Professor of a strange message about infinite loops that appeared in her high school yearbook.

Hints: See below.

Answers: After a team gives the correct answer jump straight to the "Hand Out Instructions" of 3.07 Calibration Redux

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

The basic concept behind this puzzle is that it needs to be a [Bootstrap paradox (http://en.wikipedia.org/wiki/Bootstrap_paradox)]: we call it the "Jiffy Pop" because the slogan for that brand of popcorn was "as fun to make as it is to eat." The team has to first solve the puzzle, and then later on in the Game realize that they need to help create it, sending it to the point in time when they received it. Hence, the puzzle has two stages -- "Stage A": Solving the puzzle, and "Stage B": Creating the puzzle. Ideally there is a lot of time (real-life-time, not story-time) between "Stage A" and "Stage B" for best dramatic effect.

Specifically, Catherine is reminded of an oddity she saw in the 1986 yearbook. It was a poem written on peculiar shapes. Thinking it might be a jigsaw, she and Wesley cut it up, but got nowhere with it. She offers it to the players to solve, and it yields an imperative message from the past to interfere with Wesley's letter.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- The pieces look like they fit together. (In fact, they do! This is a jigsaw puzzle.)

- The clock times look important. Try seeing how they might go together.

- The words have a consistent orientation (either up or down relative to the triangle), but the clock times are often slanted. However, 12:XX and 6:xx are never slanted. Does this mean anything?

- On a normal clockface, 12:00 and 6:00 aren't slanted either. Maybe the times mirror a clock somehow.

- Pick a minute reading (e.g., 12:15, 2:15, 4:15, etc.) and try to "assemble the clock", going in a circle.

- Some of your pieces will have other clock times. Assemble those too, and keep going until you're done.

- (Does the pattern look like anything? Maybe an hourglass?)

- The words don't make any sense read straight across. Maybe those number pairs mean something.

- Number pairs have different orientations. All the pairs with one orientation go together.

- The number pairs (x,y) have x from 1-7 and y from 1-8. The puzzle has up to 7 "columns" and 8 "rows".

- Reading number pairs in order (left to right, then top to bottom), take the Xth word in the Yth row.

- Note that X refers to the Xth "word". If a row only has three words in it, then (1,3) selects the 1st word in the row, even though that row is in the same "column" as the 3rd word in the top or bottom row.

- Common other ways to try to use the pairs to get messages: 1) trying to make a loop from one word to another (e.g., if the pair is (1,5), go to word (1,5), then find the number pair on that word, etc.) and 2) trying to reorient the coordinate system to match the orientation of the number pair. Good ideas, but not correct.

- The "unused words" are clearly those that haven't already been "used" by the messages.

- Once they get the correct messages, it's just a matter of making sure the players know what to do - go back in time and change the word "right" to "left" on Doctor When's envelope.

- If players think the messages seem slightly cryptic - remember that these messages had to be hidden in a yearbook entry. Something like GO BACK IN TIME AND CHANGE RIGHT TO LEFT ON DOCTOR WHEN'S ENVELOPE would have been far too obvious! (Though how the message got there in the first place is a mystery...)

Puzzle Answer

The "answer" is a series of messages, reading:

1) Woe! You're trapped in endless loops unable to unite them forever in final bliss 2) To transform their future lives journey back in time and modify the writing on the newspaper 3) Words not used will help show what to do

... with the "words not used" giving the message "Substitute right with its reflection".

Players should therefore realize that they need to go back in time and change the word "right" to "left" on the newspaper that Doctor When put in his younger self's locker.

Puzzle Solution

Each piece has one or more times on it - 12:00, 2:05, 4:10, and so on.

There are two keys to assembling the pieces correctly. Note that words always read right-side-up.

1) Pieces with the same minute reading form a rough circle, with their hour components arranged like a clockface - 12:XX at the top, 2:XX in the upper right, 4:XX in the lower right, 6:XX at the bottom, 8:XX in the lower left, and 10:XX in the upper left.

2) Groups of pieces go in order of their minute readings - :00, :05, :10, and so on up to :55 - from left to right, then top to bottom (just like a normal English printed page).

The resulting shape forms an hourglass pattern, with yellow "sand" trickling through the neck. (Note that a down shape above an up shape forms an hourglass as well.)

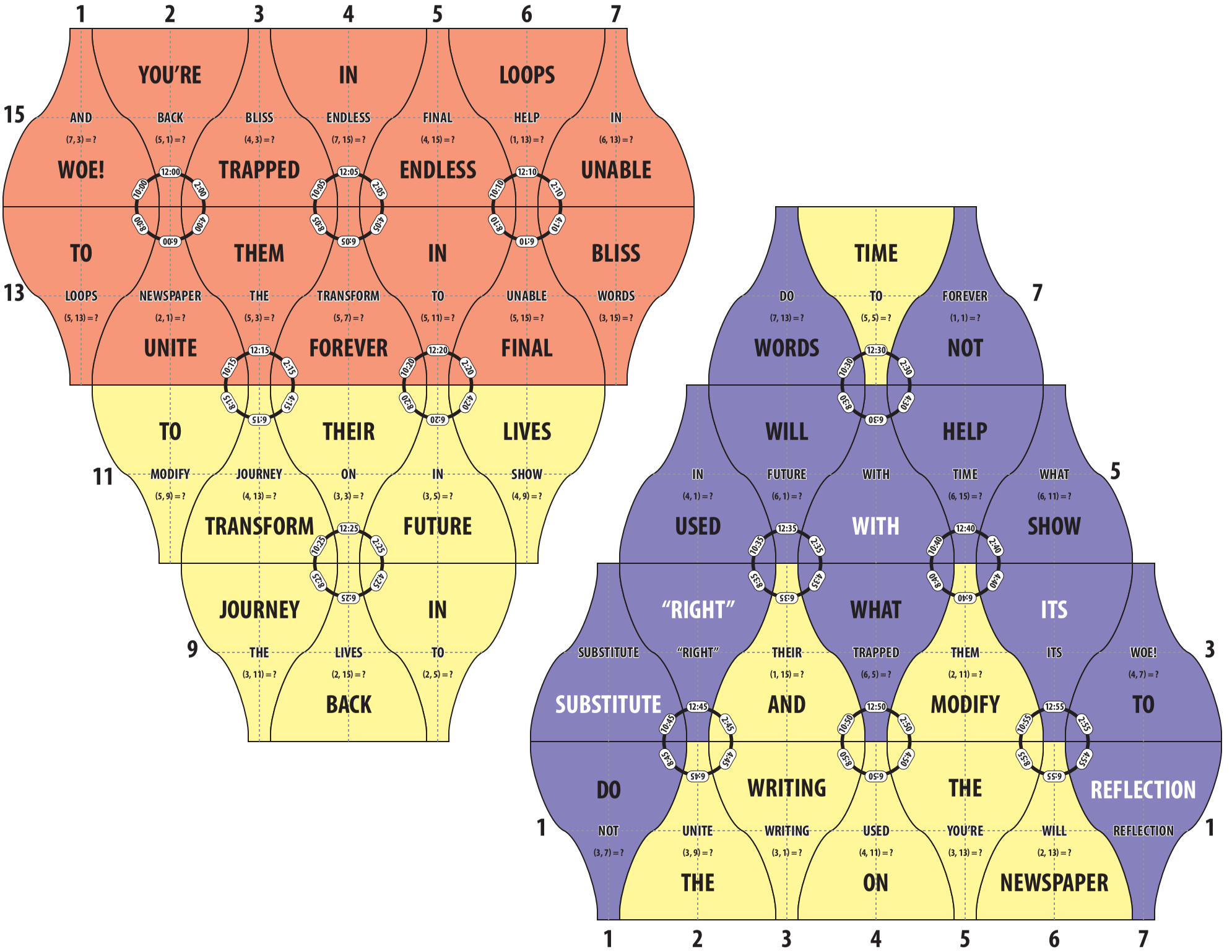
Having formed the correct pattern, you use the number pairs (x,y) on the pieces to find the three messages. Each message is associated with one color.

"Read" the pieces of a given color from left to right and top to bottom, finding the word indicated by the coordinate in the Cartesian grid shown on the hourglass.

The RED pieces give the message Woe! You're trapped in endless loops unable to unite them forever in final bliss. The YELLOW number pairs give the message To transform their future lives journey back in time and modify the writing on the newspaper. The BLUE pieces give the message Words not used will help show what to do

The only words that are not found in the above steps (i.e., the "words not used") are, in order from left to right, Substitute Right With Its Reflection.

Original files (these are being revamped): File:Yearbook.doc File:Yearbook.pdf


1 2 3 4 5 6 7
15
YOU'RE IN LOOPS
AND (7, 3) = ? WOE!
BACK (5, 1) = ?
BLISS (4, 3) = ? TRAPPED
ENDLESS (7, 15) = ?
FINAL (4, 15) = ? ENDLESS
HELP (1, 13) = ?
IN (6, 13) = ? UNABLE
12:00 2:00 4:00 6:00 8:00 10:00
12:05 2:05 4:05 6:05 8:05 10:05
12:10 2:10 4:10 6:10 8:10 10:10
13
TO THEM IN BLISS
LOOPS (5, 13) = ? UNITE
NEWSPAPER (2, 1) = ?
THE (5, 3) = ?
TRANSFORM (5, 7) = ? FOREVER
TO (5, 11) = ?
UNABLE (5, 15) = ? FINAL
WORDS (3, 15) = ?
12:15 2:15 4:15 6:15 8:15 10:15
12:20 2:20 4:20 6:20 8:20 10:20
11
TO THEIR LIVES
MODIFY (5, 9) = ?
JOURNEY (4, 13) = ?
ON (3, 3) = ?
IN (3, 5) = ?
SHOW (4, 9) = ?
TRANSFORM FUTURE
12:25 2:25 4:25 6:25 8:25 10:25
9
JOURNEY IN
THE (3, 11) = ?
LIVES (2, 15) = ?
TO (2, 5) = ?
BACK
TIME
DO (7, 13) = ?
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FOREVER (1, 1) = ?
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WORDS NOT
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WILL HELP
IN (4, 1) = ?
FUTURE (6, 1) = ?
WITH (6, 15) = ?
TIME (6, 15) = ?
WHAT (6, 11) = ?
5
USED WITH SHOW
12:35 2:35 4:35 6:35 8:35 10:35
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"RIGHT" WHAT ITS
SUBSTITUTE (3, 3) = ?
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12:50 2:50 4:50 6:50 8:50 10:50
12:55 2:55 4:55 6:55 8:55 10:55
DO WRITING THE REFLECTION
1
NOT (3, 7) = ?
UNITE (3, 9) = ?
WRITING (3, 1) = ?
USED (4, 11) = ?
YOU'RE (3, 13) = ?
WILL (2, 13) = ?
REFLECTION
1
THE ON NEWSPAPER
1 2 3 4 5 6 7

3.07 Calibration Redux

(Mandatory Puzzle) Shorter version of Act I, with new solution.

Open Time Period

Sunday, approximately 9:48 AM - 10:23 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.

Props

Each lab assistant doing this event should have

- laptop computer
- disk with Trenchwood version of Computer Remote Access Program
- 16 or 17 copies of "So you're going to be a time traveler..."
- 32 or 34 copies of Mission Dossier

Staff Instructions

Your Role: Lab Assistant at Trenchwood Institute.

What To Wear: lab coat + Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the stuff about Peach Frontier Laboratories.

Puzzles At This Site: This document just covers Calibration Redux

Where To Get Materials: GC HQ + your own laptop computer

Setup Instructions: n/a

Handout Instructions: This is a very complex series of activities you need to guide our (sleep-deprived) players through. For each team you will:

1. During the process of calibration help them discover that the Doctor has not bounced around in time as long as the last time
2. Watch The Doctor--Watch the video of Doctor When in 1986
3. Guide the players to realizing that this time the envelope is not in 2012 and that they will have to go into the past themselves.
4. Introduce them into the functioning of the return time wormhole archway
5. Introduce them to the four main steps steps of their mission
6. Send them to mission training

The interactions should go something like this (but feel free to improvise):

> VISITOR: Who would have guessed--there's a hidden message! It says, "Woe! You're trapped in endless loops unable to unite them forever in final bliss. To transform their future lives journey back in time and modify the writing on the newspaper. Words not used will help show what to do." The "words not used" say "Substitute right with its reflection."

LAB ASSISTANT: Well, then we had better repair the time machine ASAP! Using your design for co-keypad #34 we almost have the time machine working. But now we need to recalibrate it before we can use it to carry out those instructions. The Temporal View-O-Scope has recorded flashes of the different times and places Doctor When has randomly bounced to. If you can predict the next time he'll materialize in, we can use that to set everything right. You don't by any chance know that, too?

VISITOR: Last time it was at the Big Bang.

Lab assistant fiddles with the machine.

LAB ASSISTANT: Darn it, that didn't work. Maybe we've already altered the timeline. Let's look at the View-O-Scope log.

The visitors review the Temporal View-O-Scope footage again on a lab computer using access code 100030. It is exactly the same as in Act I, but ends after only a few vignettes. (Most importantly, it ends before Doctor When loses his envelope.) Based on their memory and/or notes of the longer film from Act I, the visitors know that the next place the Doctor will be is France right before the revolution.

VISITOR: Good thing we double checked. Actually the next place he'll be is France right before the revolution.

LAB ASSISTANT: I'm recalibrating using that. It works!

I've opened a portal taking him to the destination coordinates he programmed into the time machine before he left. Let's just lock the View-O-Scope onto him and see what he's up to.

Enter code 100031 into your copy of the View-O-Scope Computer Remote Access Program and watch the Doctor in 1986.

LAB ASSISTANT: That's odd...I thought he'd come right back to 2012.... Now what was that you were saying about changing a newspaper?

VISITOR: The yearbook pieces told us to change the writing on the newspaper.

LAB ASSISTANT: What newspaper?

VISITOR: That envelope that Doctor When had contained a newspaper with a message on it.

LAB ASSISTANT: But we just saw Doctor When put the envelope in the locker! That newspaper is in 1986.

VISITOR: This is a problem. In the last timeline, we found the envelope here in 2012 and sent it back to him. But this time we fixed the machine so quickly he didn't bounce around in time long enough to lose the envelope.

LAB ASSISTANT: Then I suppose we'll have to go back to 1986 and change the writing there. But wait...none of the lab assistants or even Prof. Chronos can go back...we're the only ones who know how to operate the time machine. Who could possibly undertake this task?

VISITOR: Uh...we could go back....

LAB ASSISTANT: What?! That plan is crazy...so crazy it just might work!

OK, so you've never time traveled before. Don't worry. This should be easy. No pressure. But the structural integrity of the universe does depend on you.

All you have to do is step into the chamber, wait till it opens a time wormhole, and then walk through into 1986! After you exit the wormhole just walk over to the high school, find the locker, remove the envelope, change the writing on the newspaper according to the instructions from the yearbook pieces, put the envelope back in the locker...and try not to disturb anything else in the timeline unless you have to.

When you're done I'll project a return time portal archway for you. You'll be able to see it, but the people in 1986 won't.

By the way, it's quite a coincidence that your mission takes you to Paine Memorial High School. Our instruments have detected that there's some sort of chronotonic nexus where many different timelines intersect quite near the lockers at the gym. I have absolutely no idea why that gym is so important. But it does mean that it is an excellent location to project the return time portal archway. So that's where you go after you put the envelope back in the locker.

Once you get to the archway, if it glows green, that means head on through. If it's red, then it's not quite ready.

Oh, and I probably shouldn't even bother to mention this, but if it flashes red, that means there's some sort of temporal anomaly that you'll have to fix. But that's very unlikely to happen.

Oh, and just to be safe be sure to bring anything you might need with you! In particular, anything from 1986 that might prove useful...

VISITOR: Like a cassette tape? Or a Choose Your Own Adventure Book?

LAB ASSISTANT: Sure! Oh, and I suppose those yearbook pieces are from 1986, too. Better bring those just in case. You do know where the high school is, right? Remember, your smart phones and internet devices won't work in 1986 -- and you won't have your car, either! So if there's anything you'll want out of your car, get it before you go.

If the players suggest bringing something very bulky or heavy, like a boom box, improvise some reason why that won't be necessary ("that technology will probably be easy to find in 1986")

We want this mission to go perfectly for you. So here's a little pamphlet that a helpful government agency prepared as well as a mission dossier we threw together.

The lab assistant hands them a flyer entitled, "So You're Going To Be A Time Traveler" and two copies of the mission dossier.

And just to be doubly sure, the Doctor envisioned a time when there would be many time travelers. To prepare them, he drafted a training simulation. Head over to the Chrononaut Rapid Acclimation Protocol.

The lab assistant ushers them over to Mission Training a/k/a "Chrononaut Rapid Acclimation Protocol."

Site Close Down: n/a...the site stays open.

Other Instructions:

3.07 Calibration Redux

(Mandatory Puzzle) Shorter version of Act I, with new solution.

Open Time Period

Sunday, approximately 9:48 AM - 10:23 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.

Props

Each lab assistant doing this event should have

- laptop computer
- disk with Trenchwood version of Computer Remote Access Program
- 16 or 17 copies of "So you're going to be a time traveler..."
- 32 or 34 copies of Mission Dossier

Staff Instructions

Your Role: Lab Assistant at Trenchwood Institute.

What To Wear: lab coat + Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the stuff about Peach Frontier Laboratories.

Puzzles At This Site: This document just covers Calibration Redux

Where To Get Materials: GC HQ + your own laptop computer

Setup Instructions: n/a

Handout Instructions: This is a very complex series of activities you need to guide our (sleep-deprived) players through. For each team you will:

1. During the process of calibration help them discover that the Doctor has not bounced around in time as long as the last time
2. Watch The Doctor--Watch the video of Doctor When in 1986
3. Guide the players to realizing that this time the envelope is not in 2012 and that they will have to go into the past themselves.
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VISITOR: Last time it was at the Big Bang.

Lab assistant fiddles with the machine.

LAB ASSISTANT: Darn it, that didn't work. Maybe we've already altered the timeline. Let's look at the View-O-Scope log.

The visitors review the Temporal View-O-Scope footage again on a lab computer using access code 100030. It is exactly the same as in Act I, but ends after only a few vignettes. (Most importantly, it ends before Doctor When loses his envelope.) Based on their memory and/or notes of the longer film from Act I, the visitors know that the next place the Doctor will be is France right before the revolution.

VISITOR: Good thing we double checked. Actually the next place he'll be is France right before the revolution.

LAB ASSISTANT: I'm recalibrating using that. It works!

I've opened a portal taking him to the destination coordinates he programmed into the time machine before he left. Let's just lock the View-O-Scope onto him and see what he's up to.

Enter code 100031 into your copy of the View-O-Scope Computer Remote Access Program and watch the Doctor in 1986.

LAB ASSISTANT: That's odd...I thought he'd come right back to 2012.... Now what was that you were saying about changing a newspaper?

VISITOR: The yearbook pieces told us to change the writing on the newspaper.

LAB ASSISTANT: What newspaper?

VISITOR: That envelope that Doctor When had contained a newspaper with a message on it.

LAB ASSISTANT: But we just saw Doctor When put the envelope in the locker! That newspaper is in 1986.

VISITOR: This is a problem. In the last timeline, we found the envelope here in 2012 and sent it back to him. But this time we fixed the machine so quickly he didn't bounce around in time long enough to lose the envelope.

LAB ASSISTANT: Then I suppose we'll have to go back to 1986 and change the writing there. But wait...none of the lab assistants or even Prof. Chronos can go back...we're the only ones who know how to operate the time machine. Who could possibly undertake this task?

VISITOR: Uh...we could go back....

LAB ASSISTANT: What?! That plan is crazy...so crazy it just might work!

OK, so you've never time traveled before. Don't worry. This should be easy. No pressure. But the structural integrity of the universe does depend on you.

All you have to do is step into the chamber, wait till it opens a time wormhole, and then walk through into 1986! After you exit the wormhole just walk over to the high school, find the locker, remove the envelope, change the writing on the newspaper according to the instructions from the yearbook pieces, put the envelope back in the locker...and try not to disturb anything else in the timeline unless you have to.

When you're done I'll project a return time portal archway for you. You'll be able to see it, but the people in 1986 won't.

By the way, it's quite a coincidence that your mission takes you to Paine Memorial High School. Our instruments have detected that there's some sort of chronotonic nexus where many different timelines intersect quite near the lockers at the gym. I have absolutely no idea why that gym is so important. But it does mean that it is an excellent location to project the return time portal archway. So that's where you go after you put the envelope back in the locker.

Once you get to the archway, if it glows green, that means head on through. If it's red, then it's not quite ready.

Oh, and I probably shouldn't even bother to mention this, but if it flashes red, that means there's some sort of temporal anomaly that you'll have to fix. But that's very unlikely to happen.

Oh, and just to be safe be sure to bring anything you might need with you! In particular, anything from 1986 that might prove useful...

VISITOR: Like a cassette tape? Or a Choose Your Own Adventure Book?

LAB ASSISTANT: Sure! Oh, and I suppose those yearbook pieces are from 1986, too. Better bring those just in case. You do know where the high school is, right? Remember, your smart phones and internet devices won't work in 1986 -- and you won't have your car, either! So if there's anything you'll want out of your car, get it before you go.

If the players suggest bringing something very bulky or heavy, like a boom box, improvise some reason why that won't be necessary ("that technology will probably be easy to find in 1986")

We want this mission to go perfectly for you. So here's a little pamphlet that a helpful government agency prepared as well as a mission dossier we threw together.

The lab assistant hands them a flyer entitled, "So You're Going To Be A Time Traveler" and two copies of the mission dossier.

And just to be doubly sure, the Doctor envisioned a time when there would be many time travelers. To prepare them, he drafted a training simulation. Head over to the Chrononaut Rapid Acclimation Protocol.

The lab assistant ushers them over to Mission Training a/k/a "Chrononaut Rapid Acclimation Protocol."

Site Close Down: n/a...the site stays open.

Other Instructions:

3.07 Calibration Redux

(Mandatory Puzzle) Shorter version of Act I, with new solution.

Open Time Period

Sunday, approximately 9:48 AM - 10:23 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.

Props

Each lab assistant doing this event should have

- laptop computer
- disk with Trenchwood version of Computer Remote Access Program
- 16 or 17 copies of "So you're going to be a time traveler..."
- 32 or 34 copies of Mission Dossier

Staff Instructions

Your Role: Lab Assistant at Trenchwood Institute.

What To Wear: lab coat + Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the stuff about Peach Frontier Laboratories.

Puzzles At This Site: This document just covers Calibration Redux

Where To Get Materials: GC HQ + your own laptop computer

Setup Instructions: n/a

Handout Instructions: This is a very complex series of activities you need to guide our (sleep-deprived) players through. For each team you will:

1. During the process of calibration help them discover that the Doctor has not bounced around in time as long as the last time
2. Watch The Doctor--Watch the video of Doctor When in 1986
3. Guide the players to realizing that this time the envelope is not in 2012 and that they will have to go into the past themselves.
4. Introduce them into the functioning of the return time wormhole archway
5. Introduce them to the four main steps steps of their mission
6. Send them to mission training

The interactions should go something like this (but feel free to improvise):

> VISITOR: Who would have guessed--there's a hidden message! It says, "Woe! You're trapped in endless loops unable to unite them forever in final bliss. To transform their future lives journey back in time and modify the writing on the newspaper. Words not used will help show what to do." The "words not used" say "Substitute right with its reflection."

LAB ASSISTANT: Well, then we had better repair the time machine ASAP! Using your design for co-keypad #34 we almost have the time machine working. But now we need to recalibrate it before we can use it to carry out those instructions. The Temporal View-O-Scope has recorded flashes of the different times and places Doctor When has randomly bounced to. If you can predict the next time he'll materialize in, we can use that to set everything right. You don't by any chance know that, too?

VISITOR: Last time it was at the Big Bang.

Lab assistant fiddles with the machine.

LAB ASSISTANT: Darn it, that didn't work. Maybe we've already altered the timeline. Let's look at the View-O-Scope log.

The visitors review the Temporal View-O-Scope footage again on a lab computer using access code 100030. It is exactly the same as in Act I, but ends after only a few vignettes. (Most importantly, it ends before Doctor When loses his envelope.) Based on their memory and/or notes of the longer film from Act I, the visitors know that the next place the Doctor will be is France right before the revolution.

VISITOR: Good thing we double checked. Actually the next place he'll be is France right before the revolution.

LAB ASSISTANT: I'm recalibrating using that. It works!

I've opened a portal taking him to the destination coordinates he programmed into the time machine before he left. Let's just lock the View-O-Scope onto him and see what he's up to.

Enter code 100031 into your copy of the View-O-Scope Computer Remote Access Program and watch the Doctor in 1986.

LAB ASSISTANT: That's odd...I thought he'd come right back to 2012.... Now what was that you were saying about changing a newspaper?

VISITOR: The yearbook pieces told us to change the writing on the newspaper.

LAB ASSISTANT: What newspaper?

VISITOR: That envelope that Doctor When had contained a newspaper with a message on it.

LAB ASSISTANT: But we just saw Doctor When put the envelope in the locker! That newspaper is in 1986.

VISITOR: This is a problem. In the last timeline, we found the envelope here in 2012 and sent it back to him. But this time we fixed the machine so quickly he didn't bounce around in time long enough to lose the envelope.

LAB ASSISTANT: Then I suppose we'll have to go back to 1986 and change the writing there. But wait...none of the lab assistants or even Prof. Chronos can go back...we're the only ones who know how to operate the time machine. Who could possibly undertake this task?

VISITOR: Uh...we could go back....

LAB ASSISTANT: What?! That plan is crazy...so crazy it just might work!

OK, so you've never time traveled before. Don't worry. This should be easy. No pressure. But the structural integrity of the universe does depend on you.

All you have to do is step into the chamber, wait till it opens a time wormhole, and then walk through into 1986! After you exit the wormhole just walk over to the high school, find the locker, remove the envelope, change the writing on the newspaper according to the instructions from the yearbook pieces, put the envelope back in the locker...and try not to disturb anything else in the timeline unless you have to.

When you're done I'll project a return time portal archway for you. You'll be able to see it, but the people in 1986 won't.

By the way, it's quite a coincidence that your mission takes you to Paine Memorial High School. Our instruments have detected that there's some sort of chronotonic nexus where many different timelines intersect quite near the lockers at the gym. I have absolutely no idea why that gym is so important. But it does mean that it is an excellent location to project the return time portal archway. So that's where you go after you put the envelope back in the locker.

Once you get to the archway, if it glows green, that means head on through. If it's red, then it's not quite ready.

Oh, and I probably shouldn't even bother to mention this, but if it flashes red, that means there's some sort of temporal anomaly that you'll have to fix. But that's very unlikely to happen.

Oh, and just to be safe be sure to bring anything you might need with you! In particular, anything from 1986 that might prove useful...

VISITOR: Like a cassette tape? Or a Choose Your Own Adventure Book?

LAB ASSISTANT: Sure! Oh, and I suppose those yearbook pieces are from 1986, too. Better bring those just in case. You do know where the high school is, right? Remember, your smart phones and internet devices won't work in 1986 -- and you won't have your car, either! So if there's anything you'll want out of your car, get it before you go.

If the players suggest bringing something very bulky or heavy, like a boom box, improvise some reason why that won't be necessary ("that technology will probably be easy to find in 1986")

We want this mission to go perfectly for you. So here's a little pamphlet that a helpful government agency prepared as well as a mission dossier we threw together.

The lab assistant hands them a flyer entitled, "So You're Going To Be A Time Traveler" and two copies of the mission dossier.

And just to be doubly sure, the Doctor envisioned a time when there would be many time travelers. To prepare them, he drafted a training simulation. Head over to the Chrononaut Rapid Acclimation Protocol.

The lab assistant ushers them over to Mission Training a/k/a "Chrononaut Rapid Acclimation Protocol."

Site Close Down: n/a...the site stays open.

Other Instructions:

3.07 Calibration Redux

(Mandatory Puzzle) Shorter version of Act I, with new solution.

Open Time Period

Sunday, approximately 9:48 AM - 10:23 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.

Props

Each lab assistant doing this event should have

- laptop computer
- disk with Trenchwood version of Computer Remote Access Program
- 16 or 17 copies of "So you're going to be a time traveler..."
- 32 or 34 copies of Mission Dossier

Staff Instructions

Your Role: Lab Assistant at Trenchwood Institute.

What To Wear: lab coat + Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the stuff about Peach Frontier Laboratories.

Puzzles At This Site: This document just covers Calibration Redux

Where To Get Materials: GC HQ + your own laptop computer

Setup Instructions: n/a

Handout Instructions: This is a very complex series of activities you need to guide our (sleep-deprived) players through. For each team you will:

1. During the process of calibration help them discover that the Doctor has not bounced around in time as long as the last time
2. Watch The Doctor--Watch the video of Doctor When in 1986
3. Guide the players to realizing that this time the envelope is not in 2012 and that they will have to go into the past themselves.
4. Introduce them into the functioning of the return time wormhole archway
5. Introduce them to the four main steps steps of their mission
6. Send them to mission training

The interactions should go something like this (but feel free to improvise):

> VISITOR: Who would have guessed--there's a hidden message! It says, "Woe! You're trapped in endless loops unable to unite them forever in final bliss. To transform their future lives journey back in time and modify the writing on the newspaper. Words not used will help show what to do." The "words not used" say "Substitute right with its reflection."

LAB ASSISTANT: Well, then we had better repair the time machine ASAP! Using your design for co-keypad #34 we almost have the time machine working. But now we need to recalibrate it before we can use it to carry out those instructions. The Temporal View-O-Scope has recorded flashes of the different times and places Doctor When has randomly bounced to. If you can predict the next time he'll materialize in, we can use that to set everything right. You don't by any chance know that, too?

VISITOR: Last time it was at the Big Bang.

Lab assistant fiddles with the machine.

LAB ASSISTANT: Darn it, that didn't work. Maybe we've already altered the timeline. Let's look at the View-O-Scope log.

The visitors review the Temporal View-O-Scope footage again on a lab computer using access code 100030. It is exactly the same as in Act I, but ends after only a few vignettes. (Most importantly, it ends before Doctor When loses his envelope.) Based on their memory and/or notes of the longer film from Act I, the visitors know that the next place the Doctor will be is France right before the revolution.

VISITOR: Good thing we double checked. Actually the next place he'll be is France right before the revolution.

LAB ASSISTANT: I'm recalibrating using that. It works!

I've opened a portal taking him to the destination coordinates he programmed into the time machine before he left. Let's just lock the View-O-Scope onto him and see what he's up to.

Enter code 100031 into your copy of the View-O-Scope Computer Remote Access Program and watch the Doctor in 1986.

LAB ASSISTANT: That's odd...I thought he'd come right back to 2012.... Now what was that you were saying about changing a newspaper?

VISITOR: The yearbook pieces told us to change the writing on the newspaper.

LAB ASSISTANT: What newspaper?

VISITOR: That envelope that Doctor When had contained a newspaper with a message on it.

LAB ASSISTANT: But we just saw Doctor When put the envelope in the locker! That newspaper is in 1986.

VISITOR: This is a problem. In the last timeline, we found the envelope here in 2012 and sent it back to him. But this time we fixed the machine so quickly he didn't bounce around in time long enough to lose the envelope.

LAB ASSISTANT: Then I suppose we'll have to go back to 1986 and change the writing there. But wait...none of the lab assistants or even Prof. Chronos can go back...we're the only ones who know how to operate the time machine. Who could possibly undertake this task?

VISITOR: Uh...we could go back....

LAB ASSISTANT: What?! That plan is crazy...so crazy it just might work!

OK, so you've never time traveled before. Don't worry. This should be easy. No pressure. But the structural integrity of the universe does depend on you.

All you have to do is step into the chamber, wait till it opens a time wormhole, and then walk through into 1986! After you exit the wormhole just walk over to the high school, find the locker, remove the envelope, change the writing on the newspaper according to the instructions from the yearbook pieces, put the envelope back in the locker...and try not to disturb anything else in the timeline unless you have to.

When you're done I'll project a return time portal archway for you. You'll be able to see it, but the people in 1986 won't.

By the way, it's quite a coincidence that your mission takes you to Paine Memorial High School. Our instruments have detected that there's some sort of chronotonic nexus where many different timelines intersect quite near the lockers at the gym. I have absolutely no idea why that gym is so important. But it does mean that it is an excellent location to project the return time portal archway. So that's where you go after you put the envelope back in the locker.

Once you get to the archway, if it glows green, that means head on through. If it's red, then it's not quite ready.

Oh, and I probably shouldn't even bother to mention this, but if it flashes red, that means there's some sort of temporal anomaly that you'll have to fix. But that's very unlikely to happen.

Oh, and just to be safe be sure to bring anything you might need with you! In particular, anything from 1986 that might prove useful...

VISITOR: Like a cassette tape? Or a Choose Your Own Adventure Book?

LAB ASSISTANT: Sure! Oh, and I suppose those yearbook pieces are from 1986, too. Better bring those just in case. You do know where the high school is, right? Remember, your smart phones and internet devices won't work in 1986 -- and you won't have your car, either! So if there's anything you'll want out of your car, get it before you go.

If the players suggest bringing something very bulky or heavy, like a boom box, improvise some reason why that won't be necessary ("that technology will probably be easy to find in 1986")

We want this mission to go perfectly for you. So here's a little pamphlet that a helpful government agency prepared as well as a mission dossier we threw together.

The lab assistant hands them a flyer entitled, "So You're Going To Be A Time Traveler" and two copies of the mission dossier.

And just to be doubly sure, the Doctor envisioned a time when there would be many time travelers. To prepare them, he drafted a training simulation. Head over to the Chrononaut Rapid Acclimation Protocol.

The lab assistant ushers them over to Mission Training a/k/a "Chrononaut Rapid Acclimation Protocol."

Site Close Down: n/a...the site stays open.

Other Instructions:

3.07 Calibration Redux

(Mandatory Puzzle) Shorter version of Act I, with new solution.

Open Time Period

Sunday, approximately 9:48 AM - 10:23 AM

Location

See 3.00 Registration Redux

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.

Props

Each lab assistant doing this event should have

- laptop computer
- disk with Trenchwood version of Computer Remote Access Program
- 16 or 17 copies of "So you're going to be a time traveler..."
- 32 or 34 copies of Mission Dossier

Staff Instructions

Your Role: Lab Assistant at Trenchwood Institute.

What To Wear: lab coat + Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the stuff about Peach Frontier Laboratories.

Puzzles At This Site: This document just covers Calibration Redux

Where To Get Materials: GC HQ + your own laptop computer

Setup Instructions: n/a

Handout Instructions: This is a very complex series of activities you need to guide our (sleep-deprived) players through. For each team you will:

1. During the process of calibration help them discover that the Doctor has not bounced around in time as long as the last time
2. Watch The Doctor--Watch the video of Doctor When in 1986
3. Guide the players to realizing that this time the envelope is not in 2012 and that they will have to go into the past themselves.
4. Introduce them into the functioning of the return time wormhole archway
5. Introduce them to the four main steps steps of their mission
6. Send them to mission training

The interactions should go something like this (but feel free to improvise):

> VISITOR: Who would have guessed--there's a hidden message! It says, "Woe! You're trapped in endless loops unable to unite them forever in final bliss. To transform their future lives journey back in time and modify the writing on the newspaper. Words not used will help show what to do." The "words not used" say "Substitute right with its reflection."

LAB ASSISTANT: Well, then we had better repair the time machine ASAP! Using your design for co-keypad #34 we almost have the time machine working. But now we need to recalibrate it before we can use it to carry out those instructions. The Temporal View-O-Scope has recorded flashes of the different times and places Doctor When has randomly bounced to. If you can predict the next time he'll materialize in, we can use that to set everything right. You don't by any chance know that, too?

VISITOR: Last time it was at the Big Bang.

Lab assistant fiddles with the machine.

LAB ASSISTANT: Darn it, that didn't work. Maybe we've already altered the timeline. Let's look at the View-O-Scope log.

The visitors review the Temporal View-O-Scope footage again on a lab computer using access code 100030. It is exactly the same as in Act I, but ends after only a few vignettes. (Most importantly, it ends before Doctor When loses his envelope.) Based on their memory and/or notes of the longer film from Act I, the visitors know that the next place the Doctor will be is France right before the revolution.

VISITOR: Good thing we double checked. Actually the next place he'll be is France right before the revolution.

LAB ASSISTANT: I'm recalibrating using that. It works!

I've opened a portal taking him to the destination coordinates he programmed into the time machine before he left. Let's just lock the View-O-Scope onto him and see what he's up to.

Enter code 100031 into your copy of the View-O-Scope Computer Remote Access Program and watch the Doctor in 1986.

LAB ASSISTANT: That's odd...I thought he'd come right back to 2012.... Now what was that you were saying about changing a newspaper?

VISITOR: The yearbook pieces told us to change the writing on the newspaper.

LAB ASSISTANT: What newspaper?

VISITOR: That envelope that Doctor When had contained a newspaper with a message on it.

LAB ASSISTANT: But we just saw Doctor When put the envelope in the locker! That newspaper is in 1986.

VISITOR: This is a problem. In the last timeline, we found the envelope here in 2012 and sent it back to him. But this time we fixed the machine so quickly he didn't bounce around in time long enough to lose the envelope.

LAB ASSISTANT: Then I suppose we'll have to go back to 1986 and change the writing there. But wait...none of the lab assistants or even Prof. Chronos can go back...we're the only ones who know how to operate the time machine. Who could possibly undertake this task?

VISITOR: Uh...we could go back....

LAB ASSISTANT: What?! That plan is crazy...so crazy it just might work!

OK, so you've never time traveled before. Don't worry. This should be easy. No pressure. But the structural integrity of the universe does depend on you.

All you have to do is step into the chamber, wait till it opens a time wormhole, and then walk through into 1986! After you exit the wormhole just walk over to the high school, find the locker, remove the envelope, change the writing on the newspaper according to the instructions from the yearbook pieces, put the envelope back in the locker...and try not to disturb anything else in the timeline unless you have to.

When you're done I'll project a return time portal archway for you. You'll be able to see it, but the people in 1986 won't.

By the way, it's quite a coincidence that your mission takes you to Paine Memorial High School. Our instruments have detected that there's some sort of chronotonic nexus where many different timelines intersect quite near the lockers at the gym. I have absolutely no idea why that gym is so important. But it does mean that it is an excellent location to project the return time portal archway. So that's where you go after you put the envelope back in the locker.

Once you get to the archway, if it glows green, that means head on through. If it's red, then it's not quite ready.

Oh, and I probably shouldn't even bother to mention this, but if it flashes red, that means there's some sort of temporal anomaly that you'll have to fix. But that's very unlikely to happen.

Oh, and just to be safe be sure to bring anything you might need with you! In particular, anything from 1986 that might prove useful...

VISITOR: Like a cassette tape? Or a Choose Your Own Adventure Book?

LAB ASSISTANT: Sure! Oh, and I suppose those yearbook pieces are from 1986, too. Better bring those just in case. You do know where the high school is, right? Remember, your smart phones and internet devices won't work in 1986 -- and you won't have your car, either! So if there's anything you'll want out of your car, get it before you go.

If the players suggest bringing something very bulky or heavy, like a boom box, improvise some reason why that won't be necessary ("that technology will probably be easy to find in 1986")

We want this mission to go perfectly for you. So here's a little pamphlet that a helpful government agency prepared as well as a mission dossier we threw together.

The lab assistant hands them a flyer entitled, "So You're Going To Be A Time Traveler" and two copies of the mission dossier.

And just to be doubly sure, the Doctor envisioned a time when there would be many time travelers. To prepare them, he drafted a training simulation. Head over to the Chrononaut Rapid Acclimation Protocol.

The lab assistant ushers them over to Mission Training a/k/a "Chrononaut Rapid Acclimation Protocol."

Site Close Down: n/a...the site stays open.

Other Instructions:

3.08.01 Mission Training-"Chrononaut Rapid Acclimation Protocol"

(Mandatory Activity) Drill the "mission dossier" into the players' minds by making them play a human board game with 80s trivia and giant dice.

Open Time Period

Sunday, approximately 10 AM - 10:45 AM

Location

Name and Address: Exterior of Highlands Elementary School

Parking: Yes

Bathroom: Yes

Food: No

GC PoC: (650) 395-8463, lab@trenchwood.com

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players are going to have to go back to Paine Memorial High School in 1986 and do the newspaper-altering mission

Props

- Sidewalk chalk
- Sign boards
- "What's This" items:
  - Speak & Spell
  - Laserdisc
  - Chinese Jacks
  - Atari game cartridge
- Boom box?
- Computer speakers?

Staff Instructions

Your Role: Trenchwood Institute Lab Assistant.

What To Wear: Trenchwood Institute name badge + ?

What Your Character Knows: Everything in plot setup except the details of Peach Frontier Laboratories.

Puzzles At This Site: Just Mission Training

Where To Get Materials:

Setup Instructions: GC HQ

Handout Instructions: Run teams through the game, much like the host of "Family Feud."

Site Close Down:

- Clean up
- Return materials to GC HQ
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Some of the safety directions are very explicit. This activity offers the chance for players to actually obey the directions, physically (if only metaphorically). These include:

- Don't Step on a butterfly
- Don't Kill Hitler
- Don't date your hot mom
- Don't use your cell phone

Hints

?

Puzzle Answer

?

Puzzle Solution

?

3.08 Send Me Back Redux

(Mandatory Activity) Players watch a View-O-Scope image of the Doctor in 1986.

Open Time Period

When?

Location

Status: something

GC PoC: someone

Parking: N/A

Notes: None Reserved

Plot Setup

With the players' help, Prof. Chronus has repaired and re-calibrated the time machine. The lab assistant activates the machine to send Doctor When to the time/space coordinates he pre-programmed into the machine. The lab assistant activates the View-O-Scope so the players can see what he's up to.

Props

Short movie of Doctor When delivering the letter.

Staff Instructions

Your Role: Lab Assistant.

Handout Instructions: Do something.

Site Close Down: n/a/ site stays open.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

n/a

Puzzle Solution

3.09 Send Players To 1986

(Mandatory Activity) Players enter the time machine and go back to 1986.

Open Time Period

Sunday, approximately 10:15 AM to 11:00 AM

Location

Name And Address: "Trenchwood Institute" -- Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

GC PoC: Erik Stuart, (650) 395-8463, lab@trenchwood.com

Parking: School lot, free

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players are going to have to go back to Paine Memorial High School in 1986 and do the newspaper-altering mission
- The players have gone through the Institute's crash course on how to be a time traveler

Props

Staff Instructions

Your Role: Lab Assistant.

What To Wear: lab coat + Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the stuff about Peach Frontier Laboratories.

Puzzles At This Site: none in this document, just the activity of sending the teams through the time machine

Where To Get Materials: n/a

Setup Instructions: n/a

Handout Instructions: The dialog should go something like (feel free to trade off the opening lines between the two lab assistants):

> LAB ASSISTANT 1: Welcome back. Are you certified chrononauts now?

> VISITOR: Yes!

> LAB ASSISTANT 1: What are your four mission objectives?

> VISITOR: Find the locker, change the message on the newspaper, check the return time wormhole archway in the gym, return to 2012.

> LAB ASSISTANT 1: Perfect. And do you have everything you want to bring with you?

> VISITOR: Yes.

If the players are lugging anything very bulky or heavy, like a boom box, improvise some reason why that won't be necessary ("that technology will probably be easy to find in 1986")

> LAB ASSISTANT 1: One last thing. You've done so much for us that your sort of like a Trenchwood lab assistants yourselves...though hopefully with better hours.

> So I hope you'll join us in a Trenchwood lab assistant tradition: Before each big event we all say our motto. Will yo do it with us?

> IN UNISON (with hand gestures): Let's do it...for science!

> LAB ASSISTANT 1: Wow...you even did the hand gestures...it's like you've done this before. [looks suspiciously] No, don't tell me.

> [to lab assistant 2] Activate the quantum chronomentometers!

Lab Assistant 2 pushes various buttons. The machine's lights blink more rapidly and its sounds grow more urgent.

> LAB ASSISTANT 2: The chronomentometers are online!

> LAB ASSISTANT 1: Excellent. Now, energize the tachyon midi-ether co-keypads!

Lab Assistant 2 pushes more buttons and the machine's lights and sounds ramp up to almost reckless levels.

> LAB ASSISTANT 2: The co-keypads are fully charged!

> LAB ASSISTANT 1: I can't believe it...it's working this time. You had better hurry in before...

> LAB ASSISTANT 2: ...before Doctor When gets into any more danger! Enjoy your trip!

The lab assistants usher the visitors into the time machine. The time machine activates and the players walk through a tunnel with cool lighting and sound effects, exiting outside the lab. They then walk to Paine Memorial High School.

Site Close Down: Once last team goes to 1986

- Transform set to Ethereal Endways, Inc.
- Move wormhole tunnel to gym
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

3.09 Send Players To 1986

(Mandatory Activity) Players enter the time machine and go back to 1986.

Open Time Period

Sunday, approximately 10:15 AM to 11:00 AM

Location

Name And Address: "Trenchwood Institute" -- Highlands Elementary School, 2320 Newport St, San Mateo, CA 94402

GC PoC: Erik Stuart, (650) 395-8463, lab@trenchwood.com

Parking: School lot, free

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players are going to have to go back to Paine Memorial High School in 1986 and do the newspaper-altering mission
- The players have gone through the Institute's crash course on how to be a time traveler

Props

Staff Instructions

Your Role: Lab Assistant.

What To Wear: lab coat + Trenchwood Institute name badge

What Your Character Knows: Everything in Plot Setup except the stuff about Peach Frontier Laboratories.

Puzzles At This Site: none in this document, just the activity of sending the teams through the time machine

Where To Get Materials: n/a

Setup Instructions: n/a

Handout Instructions: The dialog should go something like (feel free to trade off the opening lines between the two lab assistants):

> LAB ASSISTANT 1: Welcome back. Are you certified chrononauts now?

> VISITOR: Yes!

> LAB ASSISTANT 1: What are your four mission objectives?

> VISITOR: Find the locker, change the message on the newspaper, check the return time wormhole archway in the gym, return to 2012.

> LAB ASSISTANT 1: Perfect. And do you have everything you want to bring with you?

> VISITOR: Yes.

If the players are lugging anything very bulky or heavy, like a boom box, improvise some reason why that won't be necessary ("that technology will probably be easy to find in 1986")

> LAB ASSISTANT 1: One last thing. You've done so much for us that your sort of like a Trenchwood lab assistants yourselves...though hopefully with better hours.

> So I hope you'll join us in a Trenchwood lab assistant tradition: Before each big event we all say our motto. Will yo do it with us?

> IN UNISON (with hand gestures): Let's do it...for science!

> LAB ASSISTANT 1: Wow...you even did the hand gestures...it's like you've done this before. [looks suspiciously] No, don't tell me.

> [to lab assistant 2] Activate the quantum chronomentometers!

Lab Assistant 2 pushes various buttons. The machine's lights blink more rapidly and its sounds grow more urgent.

> LAB ASSISTANT 2: The chronomentometers are online!

> LAB ASSISTANT 1: Excellent. Now, energize the tachyon midi-ether co-keypads!

Lab Assistant 2 pushes more buttons and the machine's lights and sounds ramp up to almost reckless levels.

> LAB ASSISTANT 2: The co-keypads are fully charged!

> LAB ASSISTANT 1: I can't believe it...it's working this time. You had better hurry in before...

> LAB ASSISTANT 2: ...before Doctor When gets into any more danger! Enjoy your trip!

The lab assistants usher the visitors into the time machine. The time machine activates and the players walk through a tunnel with cool lighting and sound effects, exiting outside the lab. They then walk to Paine Memorial High School.

Site Close Down: Once last team goes to 1986

- Transform set to Ethereal Endways, Inc.
- Move wormhole tunnel to gym
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

3.10 Detention and Dance

(Mandatory Puzzle) Players must figure out how to escape detention so they can complete the first step of their mission.

Open Time Period

10:15 AM Sunday - 12:30 PM Sunday.

Location

Name And Address: "Paine Memorial High School" -- actually Highlands Rec. Center, 1851 Lexington Ave. San Mateo, CA 94402

This puzzle uses three sites at this location: the entrance (where all teams arrive), a sectioned-off section of the Gym, and an area outside the Student Journalism Office.

GC PoC: Erik & Melissa

Parking: Outside, parking lot (no teams park there)

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players have been sent through the repaired time machine back to Paine Memorial High School in 1986 and so that they can do the newspaper-altering mission
- The time machine has created some sort of disguise field around the players so that they blend in to the era they are visiting

Props

Entrance

- Checkoff list of teams

Gym

- List of teams
- Door sign
- Painter's tape
- Chair
- Tape player with Time Warp tape
- Wall sign, "PASS WITH HARD WORK"
- 16 or 17 Copies of SAT practice test
- 32 or 34 blank SAT answer sheets
- 1 copy of SAT answer key
- 16 or 17 notes sending teams to dance class

Outside

- Boom box
- mix CD of 80's music
- "Buffy's Awesome Dance List" - 16 sheets

Staff Instructions

Note To All Staff: During this portion of the Game you're pretending you're in 1986. So don't let the players see you use any modern technology (such

as cell phones and laptop computers).

Entrance

Your Role: You are a student hall monitor at Paine Memorial High School.

What To Wear:

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Puzzles At This Site:

Where To Get Materials:

Handout Instructions: No handouts. When a team arrives at the school, tell them

> "Hey - it's Saturday! If you're here on Saturday, that means you're supposed to be in detention!"

To you, the players look like 1980's high school students. Feel free to ad-lib some comments to that effect (referring to their spiked hair or bangs, leg warmers or pegged jeans). Don't listen to any objections that they're not high school students: you're taking them to Detention no matter what (or else they'll have to leave campus entirely).

Escort the teams quickly to the right door to the gym (marked with a sign saying "DETENTION"). Open the door and announce, "More troublemakers!" Check off the team on your list. Then hurry back to the front of the school to pick up the next team. Repeat until all teams have been sent to detention.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Gym

Your Role: You are the bane of every high school student's existence: the evil test proctor. Like the one in "Breakfast Club," but with the charm of the principal in "Back To The Future.".

What To Wear:

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Puzzles At This Site: Only Detention

Where To Get Materials: GC HQ

Setup Instructions:

- Have a list of teams so that you can check when they've all arrived.
- Have a sign on the door saying "DETENTION".
- Have a chair to sit in and a tape player.
- Have copies of the SAT practice tests.
- Have copies of the SAT answer sheets.
- Have the SAT answer key.
- Have a tape player and tape with the Time Warp on it.
- Have 16 notes to teams telling them to send one person to dance class.

Handout Instructions: When teams arrive, discreetly check their team name off from the list and then say to them:

> You little hooligans! You're mine now. I can keep you in detention all day if I want to, so you'd better behave and hope I change my mind.

> Now: the state of California says I have to make this an "educational opportunity," but I wouldn't waste a teacher's valuable time on you

> young punks! So I had our janitor Tiresias make up some "busy work" for you. It's SAT practice - even though you slackers don't look like anything close to college material. Now get to work!”

Give each team ONE copy of the SAT practice test, and TWO copies of the SAT answer sheet.

5 minutes after a team arrives, poke your head out the door (as if talking to someone), then go to the team and hand them a Note, saying something like:

> “Turns out it's a lucky day for one of you. Buffy, the head cheerleader, needs an extra person to help fill out the group in her dance class. Of course, I'd bet that all of you have two left feet. In my day, I could really cut a rug, but y'all don't look fit to kiss Gene Kelly's shoes! Anyway, Buffy needs one person, so decide who it is and get going."

Give the team the Note.

When the player comes back from dance class, say:

> “Flunked out that quick, huh? Get back to work!”

Answers: When the players finish and want to go outside, follow them. They should perform the Time Warp dance as a team - you should dance with them, and use the tape player to play the Time Warp if possible! When they’re done, say:

> “Oh, that was wonderful! I love the Rocky Horror Show! I guess you're good kids after all - you can leave detention early.”

Hints: Teams can’t call for hints, since they’re in 1986. If they want help on individual SAT answers, they can ask you. You should ask them to perform a dance of your choice - The Robot, YMCA, disco, and The Twist are examples. The number of answers they get for doing a dance is up to you; we advise that you start out giving out one or two answers per dance, and for slower teams give up to 5 answers (or even more) per dance. Ideally, all teams should finish this puzzle by 12:30. Once they have the answers to the SAT questions, they get the first message by using pairs of answers as 2-digit base 5 (with answers A=0, B=1, C=2, D=3, E=4), and then making the resulting number into a letter. To hint this, point out that the answer sheet seems to highlight pairs of answers. If they’re still not getting it, point out that question 79 is very odd - in fact, it doesn't have a specific answer: if x=44, what base is x in? It could be any base greater than 4! Of course, this is a clue that x - corresponding to the 24th letter - is 44 in base 5.

The SAT test gives the answer DANCELETTERSCAESARSHIFTSIXPERFORMOUTSIDE.

The players need to take the letter of each dance (as given on Buffy's Dance List) performed by their teammate who learned the dance sequence (in Dance Class) and apply a 6-letter Caesar shift. The resulting message says GROUPTIMEWARP, so the team should go outside with you and perform the Time Warp dance. They should have the song on the mix tape from Act 2, and they can use your tape player to learn the dance (which provides verbal instructions in the lyrics). Answers: The final answer is for the teams to perform the Time Warp for you (outside, so the other teams can’t see it). If they’ve brought a tape with the Time Warp on it, they can use your tape player to play the music while they dance!

Site Close Down: Once last team leaves,

- Clean up
- Open up partition to rest of gym so that the science fair can use the full gym
- Pack up all materials and return to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Outside

Your Role: You are Buffy, head cheerleader...and alpha female...at Paine Memorial High School (or her assistant)

What To Wear:

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Puzzles At This Site:

Where To Get Materials:

Handout Instructions: When players arrive, say “Welcome to dance class!” Buffy will lead the dance instruction. Your job is to operate the tape player, and ensure safety. Make sure players stay on flat ground (not sand). Make sure there are no loose objects where players are dancing. Make sure players are dancing “under control.” Also, make sure players are *actually dancing* - not just writing down what Buffy does or says. If a player is merely watching and taking notes, tell them:

“This is dance class! You have to dance!”

It’s fine if they take notes *while* they’re dancing.

When players *leave* the class, hand them a copy of *Buffy’s Awesome Dance List* and tell them:

“Make sure to show your friends what you’ve learned!”

If any players are very hesitant to dance, suggest to them that they go back and have one of their friends come to dance class in their place.

Site Close Down: Once last dance student has left

- Clean up
- Return materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Players are sent to Saturday detention; to escape (so that they can continue with the plot), they must figure out how to appease the Mean Proctor. They are first given an SAT practice test designed by Tiresias the janitor, which suggests that one person get a bathroom pass and go to dance class, where they learn a dance routine taught by Buffy. Meanwhile, the other players are given a current events quiz. When the dancer returns, the quiz answers and dances are combined to give a final instruction, which tells the team to perform the Time Warp for the proctor (outside). The proctor is so delighted that he/she lets them go.

Hints

- Hints for this puzzle should generally come from the Mean Proctor or his assistants (see Staff Instructions).

- If players need help with the tests or need to verify answers, the Mean Proctor will give them answers from his answer key, but requires the asker to do a dance in exchange. (The dances and dance/answer exchange rate are subject to the proctor's discretion.)

- If players are stuck with the SAT message, point out that the answer key always shades answers in pairs. If still stuck, point out that question 79 is very strange.

- Players should be discouraged from looking up answers online - e.g., the Mean Proctor may say "put that Walkman away!"

- If teams simply come up to the Proctor and say "Time Warp" or "Team Time Warp" or something like that, the Proctor can respond, "I LOVE the Time Warp! Would you do it for me? But not in front of everyone - here, let's go outside."

Puzzle Answer

The puzzle is completed when the team collectively takes the proctor outside and dances the Time Warp for him.

Puzzle Solution

- The SAT practice test is mostly composed of actual SAT questions. If players need help, or need to verify answers, the Mean Proctor will give them answers from his answer key, but requires a dance in exchange. (The dances and dance/answer exchange rate are subject to the proctor's discretion.)

- Pairs of SAT answers become 2-digit base-5 numbers (where a=0, b=1, c=2, d=3, e=4) between 0-24, which then becomes a letter (with 1=A, 2=B, and so on). The SAT test thus spells DANCELETTERSCAESARSHIFTSIXPERFORMOUTSIDE.

- Meanwhile, the dancer learns a dance routine containing the following dances, in order: In & Out Arm Wave, Sprinkler, Moonwalk, (walk like an) Egyptian; Twist; Robot; Flashdance; Shopping Cart; Hokey Pokey; Thriller; Chicken Dance; Sprinkler; Twist.

- Doing a 6-letter Caesar shift on the letter of each dance from Buffy's Dance List (ALIOJNCGYQULJ) gives "GROUPTIMEWARP".

- The whole team must perform (outside) the Time Warp for the Mean Proctor.

3.11 TRASH

(Mandatory Puzzle) Locate the letter after Chronos discards it.

Open Time Period

Sunday, approximately 11:30 AM - 2 PM

Location

Name And Address: "Paine Memorial High School" -- actually Highlands Rec. Center. This puzzle uses three sites at that location: Lockers, Dumpster, Principal's Suite

GC PoC: Erik & Melissa

Parking: N/A

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players have been sent through the repaired time machine back to Paine Memorial High School in 1986 and so that they can do the newspaper-altering mission
- The time machine has created some sort of disguise field around the players so that they blend in to the era they are visiting
- The players have just escaped from Detention and so can resume their mission

Props

- The envelope,
- locker hallway garbage can with sign,
- poster with TRASH rules,
- whiteboard with the TRASH daily log,
- pile of blank paper,
- magnets or other 1"-diameter round objects in sets of 4,
- principal's suite garbage can (with basketball hoop and some garbage inside),
- 1986-appropriate basketball poster for principal's office

Lockers

- Props for inside locker, including torn picture of Buffy (these should already be onsite)
- “TRASH Can C” sign (should already be onsite)
- 100 or so iridescent smiley-face stickers
- List of teams

Dumpsters

- T.R.A.S.H. Poster (should already be in place)
- Daily Log whiteboard (should already be in place)
- 16 or 17 T.R.A.S.H. rules handouts
- 16 or 17 hint #1 handout
- 16 or 17 hint #2 handout

Principal's Office

- Sign over door, "Principal's Suite"

- Sign "T.R.A.S.H. Can B" (may already be on site)
- Trash can (may already be on site)
- Kareem Abdul-Jabbar poster (may already be on site)
- 1986 NBA playoff bracket poster (may already be on site)
- mini basketball hoop (may already be on site)
- 16 or 17 Manila envelopes, each with a newspaper clipping inside

Staff Instructions

Note To All Staff: During this portion of the Game you're pretending you're in 1986. So don't let the players see you use any modern technology (such as cell phones and laptop computers).

Lockers

Your Role: Assistant to Tiresias, the high school's head janitor.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup Instructions:

- Make sure correct props are in locker 413 (combo 1-11-9)
- Make sure there's no envelope in locker

Handout Instructions:

(Most) Teams will come to this location twice. So when a team comes for the first time discreetly check off the team on the list so that when they come back the second time you know they've been there before.

The two two things they will come to do are:

1) To search the locker to find the envelope (these teams will NOT be trying to put an envelope in the locker). To these teams, you should say as soon as they start poking around the locker:

> "What is this, Grand Central Station? This is the third time someone's been poking around this hallway - first the dorky guy in the lab coat, then the woman in the lab coat, then you guys. Just don't make a mess."

The teams should use the locker combination that they learned in Act 2 to open the locker, whereupon they will find NO ENVELOPE and a picture of Buffy torn in half. (They saw Chronos do this in Act 2.)

At this point, three things should suggest to the players that the envelope is in the trash can: 1) the fact that it's not in the locker; 2) your telling that them that a woman in a lab coat has already been here; and 3) the torn picture of Buffy. If they can't figure out to look in the trash can, however, you can suggest to them that the woman in the lab coat took something out of the locker and threw it in the trash can.

IMPORTANT:

- do not let players take anything out of the locker - say "that's the property of a student! Leave it there!".
- Do not let them fiddle with any lockers other than 413 - say something like "those lockers are under repair. Please don't touch them."
- after the players have searched the locker, make sure the torn picture of Buffy is still on top, and then close the locker again for the next team

When they search the trash can, they will find that it's empty. At this point, they should notice the sign above the can that says "Can C" and also "Lost something? Information about T.R.A.S.H. is located at the main dumpster (near the entrance to the parking lot at the front of campus)." This tells them to go look at the dumpster, where they'll find the TRASH puzzle.

If teams are confused about how to find the envelope, point out the sign above the trash can, and suggest that they go to the dumpster at the front of the school to figure out what's happened to the contents of the trash can.

At 2 PM, you will place an envelope with a newspaper in the trash can; teams that do this step at 2 PM or later will therefore skip the TRASH puzzle.

2) To place the envelope with the altered newspaper in the locker. These teams may try to slide the envelope through the space at the top of the locker - it probably won't fit. Eventually, they'll open the locker and place the envelope inside. Do not let them take anything in the locker - say "that's the property of a student! Leave it there!."

After they've placed the envelope in the locker and closed it, give each player an iridescent smiley-face sticker and make sure each attaches it to

himself in a visible location.

The players should know to go to the gym next. But if they're confused say words to the effect of “I hear there’s a big science fair going on at the gym. Why don’t you go check it out - and say hello to Tiresias, our janitor?”

When they leave, open the locker, REMOVE THE ENVELOPE, and close the locker.

Site Close Down:

- Clean up.
- Return all materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Dumpsters

Your Role: You are Johnny Doe, an assistant to Tiresias, the head janitor of Paine Memorial High School.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup Instructions:

- Make sure there is a TRASH poster on the dumpster.
- Make sure there is a “Daily Log” whiteboard easily visible near the poster.
- Make sure there are copies of the TRASH rules for the players. There are two different pages: a list of bullet points, and a grid.
- Make sure there are hint materials for you to give to the players.

Handout Instructions:

Keep track of when each team arrives. You do not hand out anything when teams first arrive. If players ask about TRASH, or mention that they lost an envelope or are trying to find something, tell them that the poster explains the school’s TRASH system.

You will hand a hint to each team at 15-minute intervals (10-minute intervals after 12:20pm). 15 minutes after a team arrives, go to them and say “You guys seem pretty interested in TRASH! My boss invented it - here’s his business card,” and give the team ONE Tiresias business card.

30 minutes after a team arrives, go to them and say “Wow, you’re really into TRASH. My boss Tiresias wrote this flyer about it - you might find it interesting,” and give them THREE copies of the flyer called “TRASH and the Fourth Dimension, Volume I.”

45 minutes after a team arrives, go to them and say “Whoops, I forgot to give you this before - here’s Volume II of the flyer,” and hand them THREE copies of the flyer called “TRASH and the Fourth Dimension, Volume II.”

After 12:20pm, reduce these intervals to 10 minutes each.

After 1 PM, give out both flyers 10 minutes after you’ve given the business card.

Our goal is to have teams finish TRASH by 1:45 PM.

If teams get all three hints and it’s after 1:30 PM (or they’re really stuck and demand a hint), you can give them ONE copy of the maze diagram.

At 2pm, you should give all players the answer: “Wait, are you guys looking for an envelope? I think I saw it when it was going through the TRASH cycle. I think it’s in can B.”

Site Close Down:

- Clean up.
- Return materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Principal's Office

Role: You are an assistant janitor at Paine Memorial High School.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup instructions:

- Make sure sign is over door.
- Make sure there is a trash can with a sign saying TRASH Can B.
- Put one envelope in the can.
- Place a small amount of (not too gross) garbage over the envelope.
- Place something (a 3-ring binder? A clipboard?) over the garbage can so that players can't see inside.
- Make sure there is a small poster showing Kareem Abdul-Jabbar on the wall.
- Make sure there is a 1986 NBA playoff bracket on the wall.
- Make sure there is a mini basketball hoop above the trash can.
- Make sure you have a stack of envelopes (each one with a newspaper page inside).

Handout Instructions: There's no puzzle here. Instead, teams will come here to find the envelope after they've solved the TRASH puzzle.

Answers: When teams arrive and ask to look in the trash can, say:

> You can only go through trash cans in this school if you're certified in TRASH. To prove to me that you're qualified, you must tell me the contents of all trash cans in this school."

The correct answer is:

- Can A (in the detention room) has recycling (after 1pm, "garbage and recycling" is also acceptable)
- Can B (in the principal's office) contains both garbage and recycling
- Can C (in the locker hallway) is empty
- Can D (in the journalism classroom) contains recycling

If they get it right, say:

> "Wow! You must be a TRASH expert. You can look in this can."

The teams should find the envelope and take it. After they leave, you should place another envelope beneath the garbage. If a 2nd team enters the principal's office while one team is there with you, ask the 2nd team to wait outside until the first team has left.

After 1:50 PM, DO NOT ask for the contents of the cans; simply let a team look in the can when they ask.

Hints: Teams cannot call in for hints, since they're in 1986.

If teams are just "exploring" and don't know the contents of the cans, tell them they'll have to get more knowledge of TRASH and that TRASH instructions are available at the dumpster. If it's before 1pm and teams give the answer:

- Can A (in the detention room) has both garbage and recycling
- Can B (in the principal's office) contains both garbage and recycling
- Can C (in the locker hallway) is empty
- Can D (in the journalism classroom) contains recycling

Tell them:

> It sounds like you know a lot about TRASH, but you're not quite an expert. Remember that expert janitors complete a TRASH cycle in as few steps as possible!

Detailed Description

Present at the puzzle site are:

- A poster with some cute graphics, labels and locations for the four cans (A/B/C/D), and the rules of the TRASH (Tiresias Recycling And Sanitation Heuristic) system.

- A whiteboard showing the Daily Log, which describes the starting position of the TRASH cans (can A has garbage, can B has garbage, can C has recyclables, and can D has recyclables. (Can C was empty, but Chronos put recyclables - namely, the envelope - in it.) The whiteboard also shows the daily ending condition, which is that can C must be empty.

- The TRASH rules form a four-dimensional maze. The assistant janitor has a detailed description of the maze. Janitors move from place to place in the maze by moving contents from one can to another.

- The goal of the maze is to get can C empty again. The shortest solution to do so takes 26 steps. Players must find the exact final position (i.e., know the contents of each can) to be allowed to look in one of the cans.

- After solving the maze, players must check the route that the envelope traveled to find its final location, then go to that location and search the can.

- Using the notation E, G, R, B for Empty, Garbage, Recycling, Both, the starting position is GGRR (for cans ABCD respectively). The correct route through the maze is:

0) GGRR (envelope is placed in C and remains here until step 22)

1) GGBR

2) GBBR

3) BBBR

4) BGBR

5) RGBR

6) RGRR

7) RGRB

8) EGRB

9) EGRR

10) EGBR

11) EBBR

12) EBRR

13) EBRB

14) RBRB

15) RRRB

16) BRRB

17) BRRG

18) BERG

19) BEBG

20) BRBG

21) BRBB

22) BRGB (envelope goes to can B and stays there)

23) RRGB

24) RBGB

25) RBGR

26) RBER

The file below contains the mockup for the daily log whiteboard, the graphics for the TRASH poster, hint materials, and (on the final slide) the drawing of the maze.

File:TRASH3.ppt

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- This may be a fairly hard puzzle for many teams, so hints have been built in to the structure of the puzzle. Every 15 minutes, the assistant janitor will hand them a clue.

- The first clue is Tiresias' business card, which lists as interests "The Fourth Dimension" and "Mazes", a strong hint that the system is a 4-D maze.

- The second clue is a flyer/brochure on how 4-D mazes can be represented as 4 2-D mazes.

- The third clue gives an example of how to represent the TRASH system as a maze.

- The assistant janitor will be able to provide further guidance for struggling teams.

- One key to the "four-grid" interpretation of the maze is that you don't interpret each grid as a can - you interpret cans A and B as the X and Y coordinates of the dot in the top left grid, and cans B and C as the X and Y coordinates of the dot in the bottom right grid. See the third clue for more context.

- Some teams may find the second-shortest path to the end goal, which is characterized by EGER (cans A and C empty, can B with garbage only, and can D with recycling only and the envelope). A team that suggests this answer should be told that "it sounds like you understand TRASH very well, but you're not quite EXPERTS yet - check the poster for what EXPERT janitors do. (But you're really close.)". If they show any sign of frustration or if they're behind, they should be told that they should back up a few steps from their finish and find a slightly shorter route.

Puzzle Answer

The envelope is inside the garbage can in the principal's office. To get access to the can, the players will also need to know that can A holds recycling only, can B (the principal's office can) contains both garbage and recyclables, can C is empty, and can D holds recyclables only.

Puzzle Solution

3.11 TRASH

(Mandatory Puzzle) Locate the letter after Chronos discards it.

Open Time Period

Sunday, approximately 11:30 AM - 2 PM

Location

Name And Address: "Paine Memorial High School" -- actually Highlands Rec. Center. This puzzle uses three sites at that location: Lockers, Dumpster, Principal's Suite

GC PoC: Erik & Melissa

Parking: N/A

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players have been sent through the repaired time machine back to Paine Memorial High School in 1986 and so that they can do the newspaper-altering mission
- The time machine has created some sort of disguise field around the players so that they blend in to the era they are visiting
- The players have just escaped from Detention and so can resume their mission

Props

- The envelope,
- locker hallway garbage can with sign,
- poster with TRASH rules,
- whiteboard with the TRASH daily log,
- pile of blank paper,
- magnets or other 1"-diameter round objects in sets of 4,
- principal's suite garbage can (with basketball hoop and some garbage inside),
- 1986-appropriate basketball poster for principal's office

Lockers

- Props for inside locker, including torn picture of Buffy (these should already be onsite)
- “TRASH Can C” sign (should already be onsite)
- 100 or so iridescent smiley-face stickers
- List of teams

Dumpsters

- T.R.A.S.H. Poster (should already be in place)
- Daily Log whiteboard (should already be in place)
- 16 or 17 T.R.A.S.H. rules handouts
- 16 or 17 hint #1 handout
- 16 or 17 hint #2 handout

Principal's Office

- Sign over door, "Principal's Suite"

- Sign "T.R.A.S.H. Can B" (may already be on site)
- Trash can (may already be on site)
- Kareem Abdul-Jabbar poster (may already be on site)
- 1986 NBA playoff bracket poster (may already be on site)
- mini basketball hoop (may already be on site)
- 16 or 17 Manila envelopes, each with a newspaper clipping inside

Staff Instructions

Note To All Staff: During this portion of the Game you're pretending you're in 1986. So don't let the players see you use any modern technology (such as cell phones and laptop computers).

Lockers

Your Role: Assistant to Tiresias, the high school's head janitor.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup Instructions:

- Make sure correct props are in locker 413 (combo 1-11-9)
- Make sure there's no envelope in locker

Handout Instructions:

(Most) Teams will come to this location twice. So when a team comes for the first time discreetly check off the team on the list so that when they come back the second time you know they've been there before.

The two two things they will come to do are:

1) To search the locker to find the envelope (these teams will NOT be trying to put an envelope in the locker). To these teams, you should say as soon as they start poking around the locker:

> "What is this, Grand Central Station? This is the third time someone's been poking around this hallway - first the dorky guy in the lab coat, then the woman in the lab coat, then you guys. Just don't make a mess."

The teams should use the locker combination that they learned in Act 2 to open the locker, whereupon they will find NO ENVELOPE and a picture of Buffy torn in half. (They saw Chronos do this in Act 2.)

At this point, three things should suggest to the players that the envelope is in the trash can: 1) the fact that it's not in the locker; 2) your telling that them that a woman in a lab coat has already been here; and 3) the torn picture of Buffy. If they can't figure out to look in the trash can, however, you can suggest to them that the woman in the lab coat took something out of the locker and threw it in the trash can.

IMPORTANT:

- do not let players take anything out of the locker - say "that's the property of a student! Leave it there!".
- Do not let them fiddle with any lockers other than 413 - say something like "those lockers are under repair. Please don't touch them."
- after the players have searched the locker, make sure the torn picture of Buffy is still on top, and then close the locker again for the next team

When they search the trash can, they will find that it's empty. At this point, they should notice the sign above the can that says "Can C" and also "Lost something? Information about T.R.A.S.H. is located at the main dumpster (near the entrance to the parking lot at the front of campus)." This tells them to go look at the dumpster, where they'll find the TRASH puzzle.

If teams are confused about how to find the envelope, point out the sign above the trash can, and suggest that they go to the dumpster at the front of the school to figure out what's happened to the contents of the trash can.

At 2 PM, you will place an envelope with a newspaper in the trash can; teams that do this step at 2 PM or later will therefore skip the TRASH puzzle.

2) To place the envelope with the altered newspaper in the locker. These teams may try to slide the envelope through the space at the top of the locker - it probably won't fit. Eventually, they'll open the locker and place the envelope inside. Do not let them take anything in the locker - say "that's the property of a student! Leave it there!."

After they've placed the envelope in the locker and closed it, give each player an iridescent smiley-face sticker and make sure each attaches it to

himself in a visible location.

The players should know to go to the gym next. But if they're confused say words to the effect of “I hear there’s a big science fair going on at the gym. Why don’t you go check it out - and say hello to Tiresias, our janitor?”

When they leave, open the locker, REMOVE THE ENVELOPE, and close the locker.

Site Close Down:

- Clean up.
- Return all materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Dumpsters

Your Role: You are Johnny Doe, an assistant to Tiresias, the head janitor of Paine Memorial High School.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup Instructions:

- Make sure there is a TRASH poster on the dumpster.
- Make sure there is a “Daily Log” whiteboard easily visible near the poster.
- Make sure there are copies of the TRASH rules for the players. There are two different pages: a list of bullet points, and a grid.
- Make sure there are hint materials for you to give to the players.

Handout Instructions:

Keep track of when each team arrives. You do not hand out anything when teams first arrive. If players ask about TRASH, or mention that they lost an envelope or are trying to find something, tell them that the poster explains the school’s TRASH system.

You will hand a hint to each team at 15-minute intervals (10-minute intervals after 12:20pm). 15 minutes after a team arrives, go to them and say “You guys seem pretty interested in TRASH! My boss invented it - here’s his business card,” and give the team ONE Tiresias business card.

30 minutes after a team arrives, go to them and say “Wow, you’re really into TRASH. My boss Tiresias wrote this flyer about it - you might find it interesting,” and give them THREE copies of the flyer called “TRASH and the Fourth Dimension, Volume I.”

45 minutes after a team arrives, go to them and say “Whoops, I forgot to give you this before - here’s Volume II of the flyer,” and hand them THREE copies of the flyer called “TRASH and the Fourth Dimension, Volume II.”

After 12:20pm, reduce these intervals to 10 minutes each.

After 1 PM, give out both flyers 10 minutes after you’ve given the business card.

Our goal is to have teams finish TRASH by 1:45 PM.

If teams get all three hints and it’s after 1:30 PM (or they’re really stuck and demand a hint), you can give them ONE copy of the maze diagram.

At 2pm, you should give all players the answer: “Wait, are you guys looking for an envelope? I think I saw it when it was going through the TRASH cycle. I think it’s in can B.”

Site Close Down:

- Clean up.
- Return materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Principal's Office

Role: You are an assistant janitor at Paine Memorial High School.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup instructions:

- Make sure sign is over door.
- Make sure there is a trash can with a sign saying TRASH Can B.
- Put one envelope in the can.
- Place a small amount of (not too gross) garbage over the envelope.
- Place something (a 3-ring binder? A clipboard?) over the garbage can so that players can't see inside.
- Make sure there is a small poster showing Kareem Abdul-Jabbar on the wall.
- Make sure there is a 1986 NBA playoff bracket on the wall.
- Make sure there is a mini basketball hoop above the trash can.
- Make sure you have a stack of envelopes (each one with a newspaper page inside).

Handout Instructions: There's no puzzle here. Instead, teams will come here to find the envelope after they've solved the TRASH puzzle.

Answers: When teams arrive and ask to look in the trash can, say:

> You can only go through trash cans in this school if you're certified in TRASH. To prove to me that you're qualified, you must tell me the contents of all trash cans in this school."

The correct answer is:

- Can A (in the detention room) has recycling (after 1pm, "garbage and recycling" is also acceptable)
- Can B (in the principal's office) contains both garbage and recycling
- Can C (in the locker hallway) is empty
- Can D (in the journalism classroom) contains recycling

If they get it right, say:

> "Wow! You must be a TRASH expert. You can look in this can."

The teams should find the envelope and take it. After they leave, you should place another envelope beneath the garbage. If a 2nd team enters the principal's office while one team is there with you, ask the 2nd team to wait outside until the first team has left.

After 1:50 PM, DO NOT ask for the contents of the cans; simply let a team look in the can when they ask.

Hints: Teams cannot call in for hints, since they're in 1986.

If teams are just "exploring" and don't know the contents of the cans, tell them they'll have to get more knowledge of TRASH and that TRASH instructions are available at the dumpster. If it's before 1pm and teams give the answer:

- Can A (in the detention room) has both garbage and recycling
- Can B (in the principal's office) contains both garbage and recycling
- Can C (in the locker hallway) is empty
- Can D (in the journalism classroom) contains recycling

Tell them:

> It sounds like you know a lot about TRASH, but you're not quite an expert. Remember that expert janitors complete a TRASH cycle in as few steps as possible!

Detailed Description

Present at the puzzle site are:

- A poster with some cute graphics, labels and locations for the four cans (A/B/C/D), and the rules of the TRASH (Tiresias Recycling And Sanitation Heuristic) system.

- A whiteboard showing the Daily Log, which describes the starting position of the TRASH cans (can A has garbage, can B has garbage, can C has recyclables, and can D has recyclables. (Can C was empty, but Chronos put recyclables - namely, the envelope - in it.) The whiteboard also shows the daily ending condition, which is that can C must be empty.

- The TRASH rules form a four-dimensional maze. The assistant janitor has a detailed description of the maze. Janitors move from place to place in the maze by moving contents from one can to another.

- The goal of the maze is to get can C empty again. The shortest solution to do so takes 26 steps. Players must find the exact final position (i.e., know the contents of each can) to be allowed to look in one of the cans.

- After solving the maze, players must check the route that the envelope traveled to find its final location, then go to that location and search the can.

- Using the notation E, G, R, B for Empty, Garbage, Recycling, Both, the starting position is GGRR (for cans ABCD respectively). The correct route through the maze is:

0) GGRR (envelope is placed in C and remains here until step 22)

1) GGBR

2) GBBR

3) BBBR

4) BGBR

5) RGBR

6) RGRR

7) RGRB

8) EGRB

9) EGRR

10) EGBR

11) EBBR

12) EBRR

13) EBRB

14) RBRB

15) RRRB

16) BRRB

17) BRRG

18) BERG

19) BEBG

20) BRBG

21) BRBB

22) BRGB (envelope goes to can B and stays there)

23) RRGB

24) RBGB

25) RBGR

26) RBER

The file below contains the mockup for the daily log whiteboard, the graphics for the TRASH poster, hint materials, and (on the final slide) the drawing of the maze.

File:TRASH3.ppt

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- This may be a fairly hard puzzle for many teams, so hints have been built in to the structure of the puzzle. Every 15 minutes, the assistant janitor will hand them a clue.

- The first clue is Tiresias' business card, which lists as interests "The Fourth Dimension" and "Mazes", a strong hint that the system is a 4-D maze.

- The second clue is a flyer/brochure on how 4-D mazes can be represented as 4 2-D mazes.

- The third clue gives an example of how to represent the TRASH system as a maze.

- The assistant janitor will be able to provide further guidance for struggling teams.

- One key to the "four-grid" interpretation of the maze is that you don't interpret each grid as a can - you interpret cans A and B as the X and Y coordinates of the dot in the top left grid, and cans B and C as the X and Y coordinates of the dot in the bottom right grid. See the third clue for more context.

- Some teams may find the second-shortest path to the end goal, which is characterized by EGER (cans A and C empty, can B with garbage only, and can D with recycling only and the envelope). A team that suggests this answer should be told that "it sounds like you understand TRASH very well, but you're not quite EXPERTS yet - check the poster for what EXPERT janitors do. (But you're really close.)". If they show any sign of frustration or if they're behind, they should be told that they should back up a few steps from their finish and find a slightly shorter route.

Puzzle Answer

The envelope is inside the garbage can in the principal's office. To get access to the can, the players will also need to know that can A holds recycling only, can B (the principal's office can) contains both garbage and recyclables, can C is empty, and can D holds recyclables only.

Puzzle Solution

3.11 TRASH

(Mandatory Puzzle) Locate the letter after Chronos discards it.

Open Time Period

Sunday, approximately 11:30 AM - 2 PM

Location

Name And Address: "Paine Memorial High School" -- actually Highlands Rec. Center. This puzzle uses three sites at that location: Lockers, Dumpster, Principal's Suite

GC PoC: Erik & Melissa

Parking: N/A

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players have been sent through the repaired time machine back to Paine Memorial High School in 1986 and so that they can do the newspaper-altering mission
- The time machine has created some sort of disguise field around the players so that they blend in to the era they are visiting
- The players have just escaped from Detention and so can resume their mission

Props

- The envelope,
- locker hallway garbage can with sign,
- poster with TRASH rules,
- whiteboard with the TRASH daily log,
- pile of blank paper,
- magnets or other 1"-diameter round objects in sets of 4,
- principal's suite garbage can (with basketball hoop and some garbage inside),
- 1986-appropriate basketball poster for principal's office

Lockers

- Props for inside locker, including torn picture of Buffy (these should already be onsite)
- “TRASH Can C” sign (should already be onsite)
- 100 or so iridescent smiley-face stickers
- List of teams

Dumpsters

- T.R.A.S.H. Poster (should already be in place)
- Daily Log whiteboard (should already be in place)
- 16 or 17 T.R.A.S.H. rules handouts
- 16 or 17 hint #1 handout
- 16 or 17 hint #2 handout

Principal's Office

- Sign over door, "Principal's Suite"

- Sign "T.R.A.S.H. Can B" (may already be on site)
- Trash can (may already be on site)
- Kareem Abdul-Jabbar poster (may already be on site)
- 1986 NBA playoff bracket poster (may already be on site)
- mini basketball hoop (may already be on site)
- 16 or 17 Manila envelopes, each with a newspaper clipping inside

Staff Instructions

Note To All Staff: During this portion of the Game you're pretending you're in 1986. So don't let the players see you use any modern technology (such as cell phones and laptop computers).

Lockers

Your Role: Assistant to Tiresias, the high school's head janitor.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup Instructions:

- Make sure correct props are in locker 413 (combo 1-11-9)
- Make sure there's no envelope in locker

Handout Instructions:

(Most) Teams will come to this location twice. So when a team comes for the first time discreetly check off the team on the list so that when they come back the second time you know they've been there before.

The two two things they will come to do are:

1) To search the locker to find the envelope (these teams will NOT be trying to put an envelope in the locker). To these teams, you should say as soon as they start poking around the locker:

> "What is this, Grand Central Station? This is the third time someone's been poking around this hallway - first the dorky guy in the lab coat, then the woman in the lab coat, then you guys. Just don't make a mess."

The teams should use the locker combination that they learned in Act 2 to open the locker, whereupon they will find NO ENVELOPE and a picture of Buffy torn in half. (They saw Chronos do this in Act 2.)

At this point, three things should suggest to the players that the envelope is in the trash can: 1) the fact that it's not in the locker; 2) your telling that them that a woman in a lab coat has already been here; and 3) the torn picture of Buffy. If they can't figure out to look in the trash can, however, you can suggest to them that the woman in the lab coat took something out of the locker and threw it in the trash can.

IMPORTANT:

- do not let players take anything out of the locker - say "that's the property of a student! Leave it there!".
- Do not let them fiddle with any lockers other than 413 - say something like "those lockers are under repair. Please don't touch them."
- after the players have searched the locker, make sure the torn picture of Buffy is still on top, and then close the locker again for the next team

When they search the trash can, they will find that it's empty. At this point, they should notice the sign above the can that says "Can C" and also "Lost something? Information about T.R.A.S.H. is located at the main dumpster (near the entrance to the parking lot at the front of campus)." This tells them to go look at the dumpster, where they'll find the TRASH puzzle.

If teams are confused about how to find the envelope, point out the sign above the trash can, and suggest that they go to the dumpster at the front of the school to figure out what's happened to the contents of the trash can.

At 2 PM, you will place an envelope with a newspaper in the trash can; teams that do this step at 2 PM or later will therefore skip the TRASH puzzle.

2) To place the envelope with the altered newspaper in the locker. These teams may try to slide the envelope through the space at the top of the locker - it probably won't fit. Eventually, they'll open the locker and place the envelope inside. Do not let them take anything in the locker - say "that's the property of a student! Leave it there!."

After they've placed the envelope in the locker and closed it, give each player an iridescent smiley-face sticker and make sure each attaches it to

himself in a visible location.

The players should know to go to the gym next. But if they're confused say words to the effect of “I hear there’s a big science fair going on at the gym. Why don’t you go check it out - and say hello to Tiresias, our janitor?”

When they leave, open the locker, REMOVE THE ENVELOPE, and close the locker.

Site Close Down:

- Clean up.
- Return all materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Dumpsters

Your Role: You are Johnny Doe, an assistant to Tiresias, the head janitor of Paine Memorial High School.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup Instructions:

- Make sure there is a TRASH poster on the dumpster.
- Make sure there is a “Daily Log” whiteboard easily visible near the poster.
- Make sure there are copies of the TRASH rules for the players. There are two different pages: a list of bullet points, and a grid.
- Make sure there are hint materials for you to give to the players.

Handout Instructions:

Keep track of when each team arrives. You do not hand out anything when teams first arrive. If players ask about TRASH, or mention that they lost an envelope or are trying to find something, tell them that the poster explains the school’s TRASH system.

You will hand a hint to each team at 15-minute intervals (10-minute intervals after 12:20pm). 15 minutes after a team arrives, go to them and say “You guys seem pretty interested in TRASH! My boss invented it - here’s his business card,” and give the team ONE Tiresias business card.

30 minutes after a team arrives, go to them and say “Wow, you’re really into TRASH. My boss Tiresias wrote this flyer about it - you might find it interesting,” and give them THREE copies of the flyer called “TRASH and the Fourth Dimension, Volume I.”

45 minutes after a team arrives, go to them and say “Whoops, I forgot to give you this before - here’s Volume II of the flyer,” and hand them THREE copies of the flyer called “TRASH and the Fourth Dimension, Volume II.”

After 12:20pm, reduce these intervals to 10 minutes each.

After 1 PM, give out both flyers 10 minutes after you’ve given the business card.

Our goal is to have teams finish TRASH by 1:45 PM.

If teams get all three hints and it’s after 1:30 PM (or they’re really stuck and demand a hint), you can give them ONE copy of the maze diagram.

At 2pm, you should give all players the answer: “Wait, are you guys looking for an envelope? I think I saw it when it was going through the TRASH cycle. I think it’s in can B.”

Site Close Down:

- Clean up.
- Return materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Principal's Office

Role: You are an assistant janitor at Paine Memorial High School.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup instructions:

- Make sure sign is over door.
- Make sure there is a trash can with a sign saying TRASH Can B.
- Put one envelope in the can.
- Place a small amount of (not too gross) garbage over the envelope.
- Place something (a 3-ring binder? A clipboard?) over the garbage can so that players can't see inside.
- Make sure there is a small poster showing Kareem Abdul-Jabbar on the wall.
- Make sure there is a 1986 NBA playoff bracket on the wall.
- Make sure there is a mini basketball hoop above the trash can.
- Make sure you have a stack of envelopes (each one with a newspaper page inside).

Handout Instructions: There's no puzzle here. Instead, teams will come here to find the envelope after they've solved the TRASH puzzle.

Answers: When teams arrive and ask to look in the trash can, say:

> You can only go through trash cans in this school if you're certified in TRASH. To prove to me that you're qualified, you must tell me the contents of all trash cans in this school."

The correct answer is:

- Can A (in the detention room) has recycling (after 1pm, "garbage and recycling" is also acceptable)
- Can B (in the principal's office) contains both garbage and recycling
- Can C (in the locker hallway) is empty
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If they get it right, say:

> "Wow! You must be a TRASH expert. You can look in this can."

The teams should find the envelope and take it. After they leave, you should place another envelope beneath the garbage. If a 2nd team enters the principal's office while one team is there with you, ask the 2nd team to wait outside until the first team has left.

After 1:50 PM, DO NOT ask for the contents of the cans; simply let a team look in the can when they ask.

Hints: Teams cannot call in for hints, since they're in 1986.

If teams are just "exploring" and don't know the contents of the cans, tell them they'll have to get more knowledge of TRASH and that TRASH instructions are available at the dumpster. If it's before 1pm and teams give the answer:

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Tell them:

> It sounds like you know a lot about TRASH, but you're not quite an expert. Remember that expert janitors complete a TRASH cycle in as few steps as possible!

Detailed Description

Present at the puzzle site are:

- A poster with some cute graphics, labels and locations for the four cans (A/B/C/D), and the rules of the TRASH (Tiresias Recycling And Sanitation Heuristic) system.

- A whiteboard showing the Daily Log, which describes the starting position of the TRASH cans (can A has garbage, can B has garbage, can C has recyclables, and can D has recyclables. (Can C was empty, but Chronos put recyclables - namely, the envelope - in it.) The whiteboard also shows the daily ending condition, which is that can C must be empty.

- The TRASH rules form a four-dimensional maze. The assistant janitor has a detailed description of the maze. Janitors move from place to place in the maze by moving contents from one can to another.

- The goal of the maze is to get can C empty again. The shortest solution to do so takes 26 steps. Players must find the exact final position (i.e., know the contents of each can) to be allowed to look in one of the cans.

- After solving the maze, players must check the route that the envelope traveled to find its final location, then go to that location and search the can.

- Using the notation E, G, R, B for Empty, Garbage, Recycling, Both, the starting position is GGRR (for cans ABCD respectively). The correct route through the maze is:

0) GGRR (envelope is placed in C and remains here until step 22)

1) GGBR

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5) RGBR

6) RGRR

7) RGRB

8) EGRB

9) EGRR

10) EGBR

11) EBBR

12) EBRR

13) EBRB

14) RBRB

15) RRRB

16) BRRB

17) BRRG

18) BERG

19) BEBG

20) BRBG

21) BRBB

22) BRGB (envelope goes to can B and stays there)

23) RRGB

24) RBGB

25) RBGR

26) RBER

The file below contains the mockup for the daily log whiteboard, the graphics for the TRASH poster, hint materials, and (on the final slide) the drawing of the maze.

File:TRASH3.ppt

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- This may be a fairly hard puzzle for many teams, so hints have been built in to the structure of the puzzle. Every 15 minutes, the assistant janitor will hand them a clue.

- The first clue is Tiresias' business card, which lists as interests "The Fourth Dimension" and "Mazes", a strong hint that the system is a 4-D maze.

- The second clue is a flyer/brochure on how 4-D mazes can be represented as 4 2-D mazes.

- The third clue gives an example of how to represent the TRASH system as a maze.

- The assistant janitor will be able to provide further guidance for struggling teams.

- One key to the "four-grid" interpretation of the maze is that you don't interpret each grid as a can - you interpret cans A and B as the X and Y coordinates of the dot in the top left grid, and cans B and C as the X and Y coordinates of the dot in the bottom right grid. See the third clue for more context.

- Some teams may find the second-shortest path to the end goal, which is characterized by EGER (cans A and C empty, can B with garbage only, and can D with recycling only and the envelope). A team that suggests this answer should be told that "it sounds like you understand TRASH very well, but you're not quite EXPERTS yet - check the poster for what EXPERT janitors do. (But you're really close.)". If they show any sign of frustration or if they're behind, they should be told that they should back up a few steps from their finish and find a slightly shorter route.

Puzzle Answer

The envelope is inside the garbage can in the principal's office. To get access to the can, the players will also need to know that can A holds recycling only, can B (the principal's office can) contains both garbage and recyclables, can C is empty, and can D holds recyclables only.

Puzzle Solution

3.12 Yearbook (Jiffy Pop) Puzzle, Closing the Loop

(Mandatory Puzzle) Re-construct the puzzle that was received earlier.

Open Time Period

Gym: Sunday, 11:30 AM-3 PM

Yearbook Office: Sunday, 11:30 AM-3 PM

Location

Name And Address: "Paine Memorial High School" -- actually Highlands Rec. Center, 1851 Lexington Ave. San Mateo, CA 94402; this puzzle uses two sites at this location: the Gym and the Student Journalism Office.

GC PoC: Erik & Melissa

Parking: N/A

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players have been sent through the repaired time machine back to Paine Memorial High School in 1986 and so that they can do the newspaper-altering mission
- The time machine has created some sort of disguise field around the players so that they blend in to the era they are visiting
- The players have successfully altered the newspaper and want to return home through the return time wormhole archway

Props

Each teams' original Jiffy Pop gadget; "presidents poster"

Gym

- return time wormhole archway
- remote control for archway

Student Journalism Office

- Sign over door (may already be on site)
- Posters of USA presidents (may already be on site)
- Painter's tape (may already be on site)
- Counter bin (may already be on site)
- Stack of 11" X 17" paper (may already be on site)
- Set of gold star stickers
- Poster of proofreading marks (may already be on site)
- Poster of writing checklists (may already be on site)
- "Cheat sheet" list of the presidents
- Wax machine
- Wax
- Layout board
- Scissors
- Presidential trivia tests

Staff Instructions

Note To All Staff: During this portion of the Game you're pretending you're in 1986. So don't let the players see you use any modern technology (such as cell phones and laptop computers).

Gym

Your Role: You are Tiresias, the all-knowing game fairy (not that there's anything wrong with that), currently posing as the head janitor of Paine Memorial High School.

Handout Instructions: There's no puzzle here. Instead, teams will come here twice:

1) After they've placed the envelope in the locker. These teams will be wearing iridescent smiley-face stickers (but not gold stars). When they approach you, make the archway flashing red. Then say:

> Howdy, y'all! I'm guessing your mission went well. But what's up with your return portal? That flashing red can't be good. You didn't screw up the timeline, did you?

Teams will probably be confused. Then say:

> Think, think! Did you kill your grandfather? Assassinate Hitler? Step on a butterfly? Not step on a butterfly? Did you forget to leave something for your future self to find?

Teams now must realize that the the "cryptic poem" - which Doctor When cut into the yearbook pieces that formed a secret message that told them to go back in time - was originally "written" by them. If teams aren't getting this, be more and more explicit.

> What about that message that told you to go back time in the first place? Do you remember where that came from?

Teams might need to be reminded that Chronos said that the pieces came from a "cryptic poem" in the yearbook. (The "hourglass" grid they assembled back at the lab wasn't a cryptic poem - it didn't make any sense at all.) They need to go find out what that original yearbook entry was, and make sure it gets in the yearbook somehow.

When they finally figure this out (or are told), say:

> Oh, that's so Time Travel 101. Well, get to it. Don't want the universe to implode. Secret messages aren't going to write themselves! Y'all better get to the student journalism office and get that message in the yearbook. Then come on back and we can check the archway again.

Teams proceed to the journalism office for the Jiffy Pop 2 puzzle.

2) After they've completed Yearbook 2 (getting the cryptic message in the yearbook) - these players will have gold stars from the journalism assistant. When they approach you, make the archway solid red (not flashing red) and say:

> That looks better! The archway isn't blinking anymore. It's still not glowing green, so why don't you stick around for a few minutes, and something dramatic might happen! If you haven't had lunch, you can go eat, or you can check out the science fair.

Players are now done with the mandatory puzzles. They're free to have lunch, solve optional puzzles (Lunch, Apple II, making banners, etc.), or look at the science fair exhibits - and you can point them toward any of these options.

Hints: Teams cannot call in for hints, since they're in 1986. Teams that are stuck must rely on you; see the instructions above.

Answers: The "answer" in step 1 is for teams in steps 1 or 2 to realize they're "not done yet" - they have some sort of "time loop" they have to close (getting the cryptic poem in the yearbook).

The "answer" in step 2 is for teams to realize that they're pretty much done and that they can kill time until the finale.

Site Close Down: Clean up.

Other Instructions:

- Stay in character--you are Tiresias, a janitor at Paine Memorial High School.
- Except...if a team says "time out," then break character.
- If a team comes to you before placing the envelope in the locker (they have neither the "I gave a gift to a student" or the journalism "gold star" stickers), remind them that they probably have some important business to attend to. Because you're Tiresias, you can help them remember what they need to do - find the envelope, change the writing on the newspaper, and put it back in the locker.

Student Journalism Office

Your Role: You are an assistant journalism teacher at Paine Memorial High School.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup Instructions:

- Turn on the waxer--it needs time to heat up!
- Set out pasteup boards
- Make sure there is a sign on the door saying Journalism Office.
- Make sure there is a poster on the wall showing the presidents in a strange grid.
- Make sure there is a bin on the counter with a sign saying “PLACE YEARBOOK SUBMISSIONS HERE”.
- Make sure you have a set of gold star stickers.
- Make sure there are two posters on the wall - Proofreading Marks and Writing Checklist.
- Make sure you have a list of the order of the presidents. Keep this hidden.

Handout Instructions:

- There’s nothing for you to hand out to teams. The puzzle here is contained in the presidents poster and the yearbook pieces that teams brought with them to the school.
- Don't let players eat lunch in here
- Don't let players not working on the puzzle hang out in here
- Don't let players take the posters off of the walls.
- Don't let players who are not wearing iridescent smiley-face stickers hang out in here. (The stickers indicate they've completed a required prior puzzle.) Perhaps tell such players, "don't you have better things to do?"

Hints:Teams cannot call in for hints, since they’re in 1986. They need to rely on you. If teams ask about how they submit something to the yearbook, tell them simply to wax their typesetting or artwork, lay it out on a piece of paste-up board and drop it in the bin. If they’re confused about what to do and say something like “we’re supposed to write some sort of cryptic poem,” you can say:

> I’m not sure what you want to submit. On a totally unrelated note: do you see that poster with the presidents on it? Isn’t that grid on the top strange? Have you ever seen anything like it?

The players have seen the grid before - it’s the same shape that they assembled earlier that morning with the cut-out pieces that Chronos gave them. It looks like an hourglass laying on its side.

They should do what the poster says: take the pieces from the "hourglass" configuration and reassemble them into the lower configuration, by finding the piece associated with the George Washington place on the president grid and placing it in slot #1 on the lower grid, finding the piece associated with John Adams and placing it in slot #2, and so on.

When done, the "poem" grid has a row of four pieces, four rows of nine pieces each, and a final row of four pieces. The configuration also has a pattern with a blue X on alternating red and yellow columns. The poem reads: On the Unused Future Trapped in loops in time unable to go right Words in the newspaper will help them to unite Change back and revise the show to its opposite You're finally writing a new ending with happiness infinite Replace what you create

Players may worry that they don’t know all of the presidents. There are several ways for them to make progress anyway:

1. They should know the first few presidents (Washington, Adams, Jefferson...) and the last several (44, 43, 42, 41, Reagan, Carter...). Then, they should be able to "get close" with many presidents, at least putting them in the right era.
2. Each piece must have the right orientation (triangle up or down). For instance, if players know that Harding and Coolidge come between Wilson and Hoover, but can't remember whether Harding or Coolidge comes first, the orientation should tell them.
3. They're constructing an actual poem, so they should try to make intelligible English lines of poetry.
4. They may notice that the colors seem to be forming a pattern - red and yellow stripes with a big blue X.
5. They can get help from other players - or, eventually, from you.
6. They can scrutinize the presidential trivia test; the answers aren't there, but they can deduce some information just from the questions.

If a team is having trouble with a few last presidents, or it’s after 2:20, you can help them with the president order. If it’s after 2:35 PM, you should help teams construct the poem. All teams should be done with the puzzle by 2:55 PM.

Answers: Once they reconstruct the poem, it's possible that they may have forgotten what to do next, and expect the poem to give them some sort of clue. Although the poem is meant to reflect what the players are doing - helping When and Chronos unite, "revising the show", and writing a new,

happy ending - it doesn't give any instructions.

Instead, players need to remember that their goal is to "close the loop" and create the message that Wesley will cut out and then Catherine will give to them in 2012 - and to do so, they need to put the completed poem in the yearbook submission bin.

- To submit their answer, the players should actually run their puzzle pieces through the waxer and arrange them on the paste-up board. Then they'll put the board in the "submissions" basket.
- Check their work.
  - If it's wrong, "reject" their submission. You can telling them that it's not "laid out correctly" or that their submission doesn't quite seem like "yearbook material" or something similar to guide them in the right direction.
  - If it's correct give each player a "I submitted to the yearbook" sticker and instruct them to put it on their person.
- After each correct submission, discreetly take it out of the bin and hide it away so the other teams don't see it. (We want them to have the illusion that they're the only ones putting the poem in the yearbook.)
- You may run out of paste-up board. If so, feel free to peel the pieces off of a submitted board and then put the newly-blank board back in the pile.

Site Close Down:

- Clean up
- Return materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.
- It is possible teams may ask about the “teacher’s lounge” (and may specifically ask about TRASH cans in the teacher’s lounge). This is not the teacher’s lounge (it will be in the future, but you don’t know that), and there are no TRASH cans here.

Detailed Description

Like the slogan for "Jiffy Pop" popcorn, this puzzle is supposed to be as fun to make as it is to solve. They've already solved it, now they make it. They are sent to the school Journalism room to insert their puzzle into the yearbook, assembled according to pattern established by a nearby poster of U.S. Presidents.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- The process of reconstructing the poem starting from the "hourglass" shape should be fairly straightforward - assuming the players know the presidents! Of course, since they're in 1986, they can't do internet research...

- If players are having trouble figuring out the order of the presidents, there are a few tricks they can use:

1) They should know the first few presidents (Washington, Adams, Jefferson...) and the last several (44, 43, 42, 41, Reagan, Carter...). Then, they should be able to "get close" with many presidents, at least putting them in the right era.

2) Each piece must have the right orientation (triangle up or down). For instance, if players know that Harding and Coolidge come between Wilson and Hoover, but can't remember whether Harding or Coolidge comes first, the orientation should tell them.

3) They're constructing an actual poem, so they should try to make intelligible English lines of poetry.

4) They may notice that the colors seem to be forming a pattern - red and yellow stripes with a big blue X.

5) Finally, they can get help from other players - or, eventually, from the lab assistants.

Once they reconstruct the poem, it's possible that they may have forgotten what to do next, and expect the poem to give them some sort of clue. Although the poem is meant to reflect what the players are doing - helping When and Chronos unite, "revising the show", and writing a new, happy ending - it doesn't give any instructions.

Instead, players need to remember that their goal is to "close the loop" and create the message that Catherine will cut out and give to them in 2012 - and to do so, they need to put the completed poem in the yearbook submission bin.

(The last line of the poem - "replace what you create" - can be interpreted as an instruction: they players "create" the poem by assembling it, and then "replace" it in the submission bin. This is vague and cryptic, though, and is meant more as "potentially consistent" than as a necessary instruction.)

If players need to leave the journalism room and go back to consult with Tiresias, that's fine. For instance, Tiresias could remind them that they need to close the loop by sending themselves the message - and where did they get the message? From the yearbook, so they'd better figure out how to get it printed in the yearbook.

Puzzle Answer

Submission of correct configuration is approved by GC staffer

Puzzle Solution

The journalism office has a poster showing two grids:

1) 44 presidents (the 1st 40, plus the 4 slots for the presidents elected post-1986) in the "hourglass" configuration from the solution of the first Jiffy Pop puzzle.

2) Below this, another grid in a different shape with numbers 1-44.

Players take the pieces from the "hourglass" configuration and reassemble them into the lower "poem" configuration, by finding the piece associated with the George Washington place on the president grid and placing it in slot #1 on the lower grid, finding the piece associated with John Adams and placing it in slot #2, and so on.

When done, the "poem" grid has a row of four pieces, four rows of nine pieces each, and a final row of four pieces. The configuration also has a pattern with a blue X on alternating red and yellow columns.

The poem reads:

On the Unused Future

Trapped in loops in time unable to go right

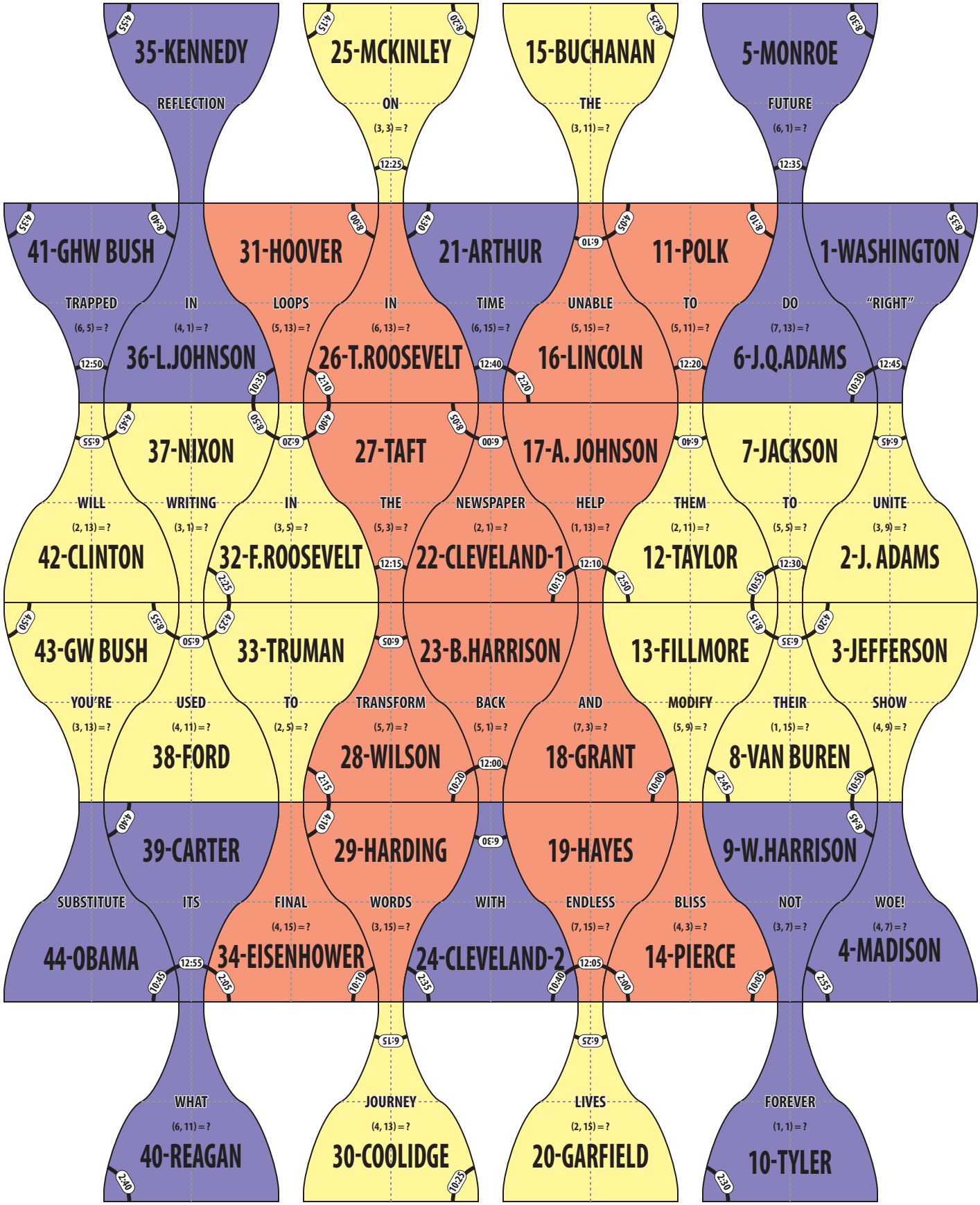
Words in the newspaper will help them to unite

Change back and revise the show to its opposite

You're finally writing a new ending with happiness infinite

Replace what you create

Players must reassemble the poem with the pieces from the first Jiffy Pop puzzle, affix it to a piece of paper found in the journalism room, and place it in the bin of submissions for the yearbook - thereby ensuring that the poem will be printed in the yearbook, where Catherine can find it and cut it out and give it to the players in 2012, thus "closing the loop".


35-KENNEDY
REFLECTION
4:55
25-MCKINLEY
ON
(3, 3) = ?
4:15
8:20
12:25
15-BUCHANAN
THE
(3, 11) = ?
8:25
5-MONROE
FUTURE
(6, 1) = ?
8:50
12:35
41-GHW BUSH
TRAPPED
(6, 5) = ?
4:35
8:40
12:50
36-L.JOHNSON
IN
(4, 1) = ?
10:35
31-HOOVER
LOOPS
(5, 13) = ?
8:00
26-T.ROOSEVELT
IN
(6, 13) = ?
2:10
21-ARTHUR
TIME
(6, 15) = ?
4:30
12:40
16-LINCOLN
UNABLE
(5, 15) = ?
2:20
11-POLK
TO
(5, 11) = ?
6:10
12:20
6-J.Q.ADAMS
DO
(7, 13) = ?
10:30
1-WASHINGTON
"RIGHT"
8:35
12:45
37-NIXON
WILL
(2, 13) = ?
4:45
6:55
42-CLINTON
WRITING
(3, 1) = ?
8:50
6:20
32-F.ROOSEVELT
IN
(3, 5) = ?
4:00
2:25
27-TAFT
THE
(5, 3) = ?
8:05
12:15
22-CLEVELAND-1
NEWSPAPER
(2, 1) = ?
6:00
12:10
10:15
17-A. JOHNSON
HELP
(1, 13) = ?
2:50
7-JACKSON
THEM
(2, 11) = ?
6:40
12:30
10:55
12-TAYLOR
TO
(5, 5) = ?
6:45
2-J. ADAMS
UNITE
(3, 9) = ?
43-GW BUSH
YOU'RE
(3, 13) = ?
4:50
8:55
38-FORD
USED
(4, 11) = ?
4:25
6:50
33-TRUMAN
TO
(2, 5) = ?
6:05
28-WILSON
TRANSFORM
(5, 7) = ?
2:15
12:00
10:20
23-B.HARRISON
BACK
(5, 1) = ?
18-GRANT
AND
(7, 3) = ?
10:00
13-FILLMORE
MODIFY
(5, 9) = ?
8:15
6:35
8-VAN BUREN
THEIR
(1, 15) = ?
2:45
3-JEFFERSON
SHOW
(4, 9) = ?
4:20
10:50
39-CARTER
SUBSTITUTE
4:40
44-OBAMA
ITS
12:55
10:45
34-EISENHOWER
FINAL
(4, 15) = ?
2:05
29-HARDING
WORDS
(3, 15) = ?
4:10
10:10
24-CLEVELAND-2
WITH
6:30
2:35
19-HAYES
ENDLESS
(7, 15) = ?
12:05
10:40
14-PIERCE
BLISS
(4, 3) = ?
2:00
9-W.HARRISON
NOT
(3, 7) = ?
8:45
10:05
4-MADISON
WOE!
(4, 7) = ?
2:55
40-REAGAN
WHAT
(6, 11) = ?
2:40
30-COOLIDGE
JOURNEY
(4, 13) = ?
6:15
10:25
20-GARFIELD
LIVES
(2, 15) = ?
6:25
10-TYLER
FOREVER
(1, 1) = ?
2:30

MODIFY

3.12 Yearbook (Jiffy Pop) Puzzle, Closing the Loop

(Mandatory Puzzle) Re-construct the puzzle that was received earlier.

Open Time Period

Gym: Sunday, 11:30 AM-3 PM

Yearbook Office: Sunday, 11:30 AM-3 PM

Location

Name And Address: "Paine Memorial High School" -- actually Highlands Rec. Center, 1851 Lexington Ave. San Mateo, CA 94402; this puzzle uses two sites at this location: the Gym and the Student Journalism Office.

GC PoC: Erik & Melissa

Parking: N/A

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players have been sent through the repaired time machine back to Paine Memorial High School in 1986 and so that they can do the newspaper-altering mission
- The time machine has created some sort of disguise field around the players so that they blend in to the era they are visiting
- The players have successfully altered the newspaper and want to return home through the return time wormhole archway

Props

Each teams' original Jiffy Pop gadget; "presidents poster"

Gym

- return time wormhole archway
- remote control for archway

Student Journalism Office

- Sign over door (may already be on site)
- Posters of USA presidents (may already be on site)
- Painter's tape (may already be on site)
- Counter bin (may already be on site)
- Stack of 11" X 17" paper (may already be on site)
- Set of gold star stickers
- Poster of proofreading marks (may already be on site)
- Poster of writing checklists (may already be on site)
- "Cheat sheet" list of the presidents
- Wax machine
- Wax
- Layout board
- Scissors
- Presidential trivia tests

Staff Instructions

Note To All Staff: During this portion of the Game you're pretending you're in 1986. So don't let the players see you use any modern technology (such as cell phones and laptop computers).

Gym

Your Role: You are Tiresias, the all-knowing game fairy (not that there's anything wrong with that), currently posing as the head janitor of Paine Memorial High School.

Handout Instructions: There's no puzzle here. Instead, teams will come here twice:

1) After they've placed the envelope in the locker. These teams will be wearing iridescent smiley-face stickers (but not gold stars). When they approach you, make the archway flashing red. Then say:

> Howdy, y'all! I'm guessing your mission went well. But what's up with your return portal? That flashing red can't be good. You didn't screw up the timeline, did you?

Teams will probably be confused. Then say:

> Think, think! Did you kill your grandfather? Assassinate Hitler? Step on a butterfly? Not step on a butterfly? Did you forget to leave something for your future self to find?

Teams now must realize that the the "cryptic poem" - which Doctor When cut into the yearbook pieces that formed a secret message that told them to go back in time - was originally "written" by them. If teams aren't getting this, be more and more explicit.

> What about that message that told you to go back time in the first place? Do you remember where that came from?

Teams might need to be reminded that Chronos said that the pieces came from a "cryptic poem" in the yearbook. (The "hourglass" grid they assembled back at the lab wasn't a cryptic poem - it didn't make any sense at all.) They need to go find out what that original yearbook entry was, and make sure it gets in the yearbook somehow.

When they finally figure this out (or are told), say:

> Oh, that's so Time Travel 101. Well, get to it. Don't want the universe to implode. Secret messages aren't going to write themselves! Y'all better get to the student journalism office and get that message in the yearbook. Then come on back and we can check the archway again.

Teams proceed to the journalism office for the Jiffy Pop 2 puzzle.

2) After they've completed Yearbook 2 (getting the cryptic message in the yearbook) - these players will have gold stars from the journalism assistant. When they approach you, make the archway solid red (not flashing red) and say:

> That looks better! The archway isn't blinking anymore. It's still not glowing green, so why don't you stick around for a few minutes, and something dramatic might happen! If you haven't had lunch, you can go eat, or you can check out the science fair.

Players are now done with the mandatory puzzles. They're free to have lunch, solve optional puzzles (Lunch, Apple II, making banners, etc.), or look at the science fair exhibits - and you can point them toward any of these options.

Hints: Teams cannot call in for hints, since they're in 1986. Teams that are stuck must rely on you; see the instructions above.

Answers: The "answer" in step 1 is for teams in steps 1 or 2 to realize they're "not done yet" - they have some sort of "time loop" they have to close (getting the cryptic poem in the yearbook).

The "answer" in step 2 is for teams to realize that they're pretty much done and that they can kill time until the finale.

Site Close Down: Clean up.

Other Instructions:

- Stay in character--you are Tiresias, a janitor at Paine Memorial High School.
- Except...if a team says "time out," then break character.
- If a team comes to you before placing the envelope in the locker (they have neither the "I gave a gift to a student" or the journalism "gold star" stickers), remind them that they probably have some important business to attend to. Because you're Tiresias, you can help them remember what they need to do - find the envelope, change the writing on the newspaper, and put it back in the locker.

Student Journalism Office

Your Role: You are an assistant journalism teacher at Paine Memorial High School.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup Instructions:

- Turn on the waxer--it needs time to heat up!
- Set out pasteup boards
- Make sure there is a sign on the door saying Journalism Office.
- Make sure there is a poster on the wall showing the presidents in a strange grid.
- Make sure there is a bin on the counter with a sign saying “PLACE YEARBOOK SUBMISSIONS HERE”.
- Make sure you have a set of gold star stickers.
- Make sure there are two posters on the wall - Proofreading Marks and Writing Checklist.
- Make sure you have a list of the order of the presidents. Keep this hidden.

Handout Instructions:

- There’s nothing for you to hand out to teams. The puzzle here is contained in the presidents poster and the yearbook pieces that teams brought with them to the school.
- Don't let players eat lunch in here
- Don't let players not working on the puzzle hang out in here
- Don't let players take the posters off of the walls.
- Don't let players who are not wearing iridescent smiley-face stickers hang out in here. (The stickers indicate they've completed a required prior puzzle.) Perhaps tell such players, "don't you have better things to do?"

Hints:Teams cannot call in for hints, since they’re in 1986. They need to rely on you. If teams ask about how they submit something to the yearbook, tell them simply to wax their typesetting or artwork, lay it out on a piece of paste-up board and drop it in the bin. If they’re confused about what to do and say something like “we’re supposed to write some sort of cryptic poem,” you can say:

> I’m not sure what you want to submit. On a totally unrelated note: do you see that poster with the presidents on it? Isn’t that grid on the top strange? Have you ever seen anything like it?

The players have seen the grid before - it’s the same shape that they assembled earlier that morning with the cut-out pieces that Chronos gave them. It looks like an hourglass laying on its side.

They should do what the poster says: take the pieces from the "hourglass" configuration and reassemble them into the lower configuration, by finding the piece associated with the George Washington place on the president grid and placing it in slot #1 on the lower grid, finding the piece associated with John Adams and placing it in slot #2, and so on.

When done, the "poem" grid has a row of four pieces, four rows of nine pieces each, and a final row of four pieces. The configuration also has a pattern with a blue X on alternating red and yellow columns. The poem reads: On the Unused Future Trapped in loops in time unable to go right Words in the newspaper will help them to unite Change back and revise the show to its opposite You're finally writing a new ending with happiness infinite Replace what you create

Players may worry that they don’t know all of the presidents. There are several ways for them to make progress anyway:

1. They should know the first few presidents (Washington, Adams, Jefferson...) and the last several (44, 43, 42, 41, Reagan, Carter...). Then, they should be able to "get close" with many presidents, at least putting them in the right era.
2. Each piece must have the right orientation (triangle up or down). For instance, if players know that Harding and Coolidge come between Wilson and Hoover, but can't remember whether Harding or Coolidge comes first, the orientation should tell them.
3. They're constructing an actual poem, so they should try to make intelligible English lines of poetry.
4. They may notice that the colors seem to be forming a pattern - red and yellow stripes with a big blue X.
5. They can get help from other players - or, eventually, from you.
6. They can scrutinize the presidential trivia test; the answers aren't there, but they can deduce some information just from the questions.

If a team is having trouble with a few last presidents, or it’s after 2:20, you can help them with the president order. If it’s after 2:35 PM, you should help teams construct the poem. All teams should be done with the puzzle by 2:55 PM.

Answers: Once they reconstruct the poem, it's possible that they may have forgotten what to do next, and expect the poem to give them some sort of clue. Although the poem is meant to reflect what the players are doing - helping When and Chronos unite, "revising the show", and writing a new,

happy ending - it doesn't give any instructions.

Instead, players need to remember that their goal is to "close the loop" and create the message that Wesley will cut out and then Catherine will give to them in 2012 - and to do so, they need to put the completed poem in the yearbook submission bin.

- To submit their answer, the players should actually run their puzzle pieces through the waxer and arrange them on the paste-up board. Then they'll put the board in the "submissions" basket.
- Check their work.
  - If it's wrong, "reject" their submission. You can telling them that it's not "laid out correctly" or that their submission doesn't quite seem like "yearbook material" or something similar to guide them in the right direction.
  - If it's correct give each player a "I submitted to the yearbook" sticker and instruct them to put it on their person.
- After each correct submission, discreetly take it out of the bin and hide it away so the other teams don't see it. (We want them to have the illusion that they're the only ones putting the poem in the yearbook.)
- You may run out of paste-up board. If so, feel free to peel the pieces off of a submitted board and then put the newly-blank board back in the pile.

Site Close Down:

- Clean up
- Return materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.
- It is possible teams may ask about the “teacher’s lounge” (and may specifically ask about TRASH cans in the teacher’s lounge). This is not the teacher’s lounge (it will be in the future, but you don’t know that), and there are no TRASH cans here.

Detailed Description

Like the slogan for "Jiffy Pop" popcorn, this puzzle is supposed to be as fun to make as it is to solve. They've already solved it, now they make it. They are sent to the school Journalism room to insert their puzzle into the yearbook, assembled according to pattern established by a nearby poster of U.S. Presidents.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- The process of reconstructing the poem starting from the "hourglass" shape should be fairly straightforward - assuming the players know the presidents! Of course, since they're in 1986, they can't do internet research...

- If players are having trouble figuring out the order of the presidents, there are a few tricks they can use:

1) They should know the first few presidents (Washington, Adams, Jefferson...) and the last several (44, 43, 42, 41, Reagan, Carter...). Then, they should be able to "get close" with many presidents, at least putting them in the right era.

2) Each piece must have the right orientation (triangle up or down). For instance, if players know that Harding and Coolidge come between Wilson and Hoover, but can't remember whether Harding or Coolidge comes first, the orientation should tell them.

3) They're constructing an actual poem, so they should try to make intelligible English lines of poetry.

4) They may notice that the colors seem to be forming a pattern - red and yellow stripes with a big blue X.

5) Finally, they can get help from other players - or, eventually, from the lab assistants.

Once they reconstruct the poem, it's possible that they may have forgotten what to do next, and expect the poem to give them some sort of clue. Although the poem is meant to reflect what the players are doing - helping When and Chronos unite, "revising the show", and writing a new, happy ending - it doesn't give any instructions.

Instead, players need to remember that their goal is to "close the loop" and create the message that Catherine will cut out and give to them in 2012 - and to do so, they need to put the completed poem in the yearbook submission bin.

(The last line of the poem - "replace what you create" - can be interpreted as an instruction: they players "create" the poem by assembling it, and then "replace" it in the submission bin. This is vague and cryptic, though, and is meant more as "potentially consistent" than as a necessary instruction.)

If players need to leave the journalism room and go back to consult with Tiresias, that's fine. For instance, Tiresias could remind them that they need to close the loop by sending themselves the message - and where did they get the message? From the yearbook, so they'd better figure out how to get it printed in the yearbook.

Puzzle Answer

Submission of correct configuration is approved by GC staffer

Puzzle Solution

The journalism office has a poster showing two grids:

1) 44 presidents (the 1st 40, plus the 4 slots for the presidents elected post-1986) in the "hourglass" configuration from the solution of the first Jiffy Pop puzzle.

2) Below this, another grid in a different shape with numbers 1-44.

Players take the pieces from the "hourglass" configuration and reassemble them into the lower "poem" configuration, by finding the piece associated with the George Washington place on the president grid and placing it in slot #1 on the lower grid, finding the piece associated with John Adams and placing it in slot #2, and so on.

When done, the "poem" grid has a row of four pieces, four rows of nine pieces each, and a final row of four pieces. The configuration also has a pattern with a blue X on alternating red and yellow columns.

The poem reads:

On the Unused Future

Trapped in loops in time unable to go right

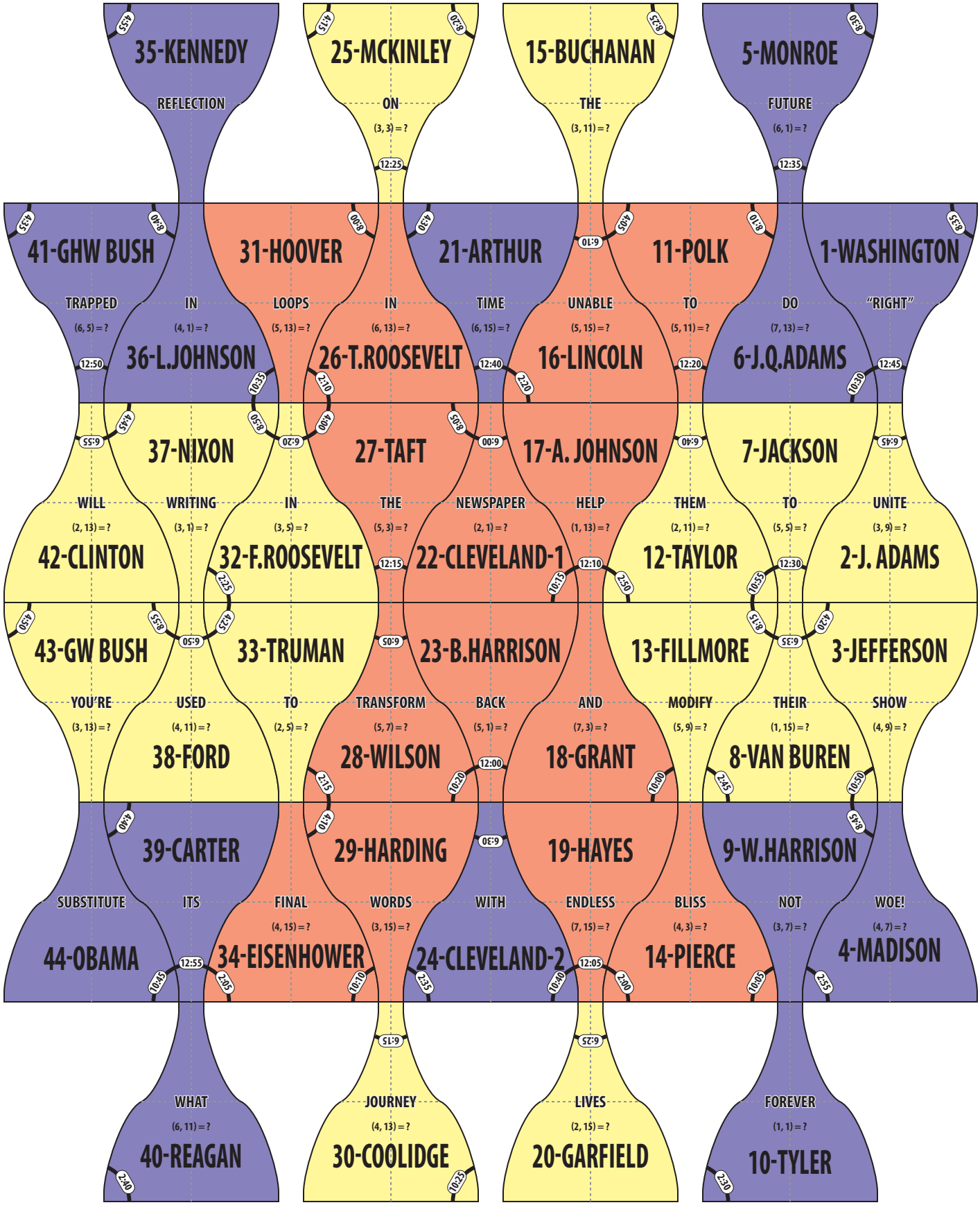
Words in the newspaper will help them to unite

Change back and revise the show to its opposite

You're finally writing a new ending with happiness infinite

Replace what you create

Players must reassemble the poem with the pieces from the first Jiffy Pop puzzle, affix it to a piece of paper found in the journalism room, and place it in the bin of submissions for the yearbook - thereby ensuring that the poem will be printed in the yearbook, where Catherine can find it and cut it out and give it to the players in 2012, thus "closing the loop".


35-KENNEDY
REFLECTION
4:55
25-MCKINLEY
ON
(3, 3) = ?
4:15
8:20
12:25
15-BUCHANAN
THE
(3, 11) = ?
8:25
5-MONROE
FUTURE
(6, 1) = ?
8:50
12:35
41-GHW BUSH
TRAPPED
(6, 5) = ?
4:35
8:40
12:50
36-L.JOHNSON
IN
(4, 1) = ?
10:35
31-HOOVER
LOOPS
(5, 13) = ?
8:00
26-T.ROOSEVELT
IN
(6, 13) = ?
2:10
21-ARTHUR
TIME
(6, 15) = ?
4:30
12:40
16-LINCOLN
UNABLE
(5, 15) = ?
2:20
11-POLK
TO
(5, 11) = ?
6:10
12:20
6-J.Q.ADAMS
DO
(7, 13) = ?
10:30
1-WASHINGTON
"RIGHT"
8:35
12:45
37-NIXON
WILL
(2, 13) = ?
4:45
6:55
42-CLINTON
WRITING
(3, 1) = ?
8:50
6:20
32-F.ROOSEVELT
IN
(3, 5) = ?
4:00
2:25
27-TAFT
THE
(5, 3) = ?
8:05
12:15
22-CLEVELAND-1
NEWSPAPER
(2, 1) = ?
6:00
12:10
10:15
17-A. JOHNSON
HELP
(1, 13) = ?
2:50
7-JACKSON
THEM
(2, 11) = ?
6:40
12:30
10:55
12-TAYLOR
TO
(5, 5) = ?
6:45
2-J. ADAMS
UNITE
(3, 9) = ?
43-GW BUSH
YOU'RE
(3, 13) = ?
4:50
8:55
38-FORD
USED
(4, 11) = ?
4:25
6:50
33-TRUMAN
TO
(2, 5) = ?
6:05
28-WILSON
TRANSFORM
(5, 7) = ?
2:15
12:00
10:20
23-B.HARRISON
BACK
(5, 1) = ?
18-GRANT
AND
(7, 3) = ?
10:00
13-FILLMORE
MODIFY
(5, 9) = ?
8:15
6:35
8-VAN BUREN
THEIR
(1, 15) = ?
2:45
3-JEFFERSON
SHOW
(4, 9) = ?
4:20
10:50
39-CARTER
SUBSTITUTE
4:40
44-OBAMA
ITS
12:55
10:45
34-EISENHOWER
FINAL
(4, 15) = ?
2:05
29-HARDING
WORDS
(3, 15) = ?
4:10
10:10
24-CLEVELAND-2
WITH
6:30
2:35
19-HAYES
ENDLESS
(7, 15) = ?
12:05
10:40
14-PIERCE
BLISS
(4, 3) = ?
2:00
9-W.HARRISON
NOT
(3, 7) = ?
8:45
10:05
4-MADISON
WOE!
(4, 7) = ?
2:55
40-REAGAN
WHAT
(6, 11) = ?
2:40
30-COOLIDGE
JOURNEY
(4, 13) = ?
6:15
10:25
20-GARFIELD
LIVES
(2, 15) = ?
6:25
10-TYLER
FOREVER
(1, 1) = ?
2:30

MODIFY

3.12 Yearbook (Jiffy Pop) Puzzle, Closing the Loop

(Mandatory Puzzle) Re-construct the puzzle that was received earlier.

Open Time Period

Gym: Sunday, 11:30 AM-3 PM

Yearbook Office: Sunday, 11:30 AM-3 PM

Location

Name And Address: "Paine Memorial High School" -- actually Highlands Rec. Center, 1851 Lexington Ave. San Mateo, CA 94402; this puzzle uses two sites at this location: the Gym and the Student Journalism Office.

GC PoC: Erik & Melissa

Parking: N/A

Plot Setup

- Players have just fixed Prof. Chronus's time machine and are returning to Peach Frontier Laboratories to see her re-materialize.
- But upon returning to the lab they found it is once again Trenchwood Institute and they realized they are right back at the beginning of the Act I timeline
- The Doctor's time machine demonstration has once again gone awry.
- The visitors have instantly solved three key technical problems for fixing the time machine: unscrambling the core dump, designing a new co-keypad #34, and hacking the password to the supercomputer
- The Doctor realized the players are in an infinite time loop...which reminded him of strange poem in his high school yearbook...which he didn't understand at the time...but the players decoded to reveal instructions on how to break the loop.
- The players have been sent through the repaired time machine back to Paine Memorial High School in 1986 and so that they can do the newspaper-altering mission
- The time machine has created some sort of disguise field around the players so that they blend in to the era they are visiting
- The players have successfully altered the newspaper and want to return home through the return time wormhole archway

Props

Each teams' original Jiffy Pop gadget; "presidents poster"

Gym

- return time wormhole archway
- remote control for archway

Student Journalism Office

- Sign over door (may already be on site)
- Posters of USA presidents (may already be on site)
- Painter's tape (may already be on site)
- Counter bin (may already be on site)
- Stack of 11" X 17" paper (may already be on site)
- Set of gold star stickers
- Poster of proofreading marks (may already be on site)
- Poster of writing checklists (may already be on site)
- "Cheat sheet" list of the presidents
- Wax machine
- Wax
- Layout board
- Scissors
- Presidential trivia tests

Staff Instructions

Note To All Staff: During this portion of the Game you're pretending you're in 1986. So don't let the players see you use any modern technology (such as cell phones and laptop computers).

Gym

Your Role: You are Tiresias, the all-knowing game fairy (not that there's anything wrong with that), currently posing as the head janitor of Paine Memorial High School.

Handout Instructions: There's no puzzle here. Instead, teams will come here twice:

1) After they've placed the envelope in the locker. These teams will be wearing iridescent smiley-face stickers (but not gold stars). When they approach you, make the archway flashing red. Then say:

> Howdy, y'all! I'm guessing your mission went well. But what's up with your return portal? That flashing red can't be good. You didn't screw up the timeline, did you?

Teams will probably be confused. Then say:

> Think, think! Did you kill your grandfather? Assassinate Hitler? Step on a butterfly? Not step on a butterfly? Did you forget to leave something for your future self to find?

Teams now must realize that the the "cryptic poem" - which Doctor When cut into the yearbook pieces that formed a secret message that told them to go back in time - was originally "written" by them. If teams aren't getting this, be more and more explicit.

> What about that message that told you to go back time in the first place? Do you remember where that came from?

Teams might need to be reminded that Chronos said that the pieces came from a "cryptic poem" in the yearbook. (The "hourglass" grid they assembled back at the lab wasn't a cryptic poem - it didn't make any sense at all.) They need to go find out what that original yearbook entry was, and make sure it gets in the yearbook somehow.

When they finally figure this out (or are told), say:

> Oh, that's so Time Travel 101. Well, get to it. Don't want the universe to implode. Secret messages aren't going to write themselves! Y'all better get to the student journalism office and get that message in the yearbook. Then come on back and we can check the archway again.

Teams proceed to the journalism office for the Jiffy Pop 2 puzzle.

2) After they've completed Yearbook 2 (getting the cryptic message in the yearbook) - these players will have gold stars from the journalism assistant. When they approach you, make the archway solid red (not flashing red) and say:

> That looks better! The archway isn't blinking anymore. It's still not glowing green, so why don't you stick around for a few minutes, and something dramatic might happen! If you haven't had lunch, you can go eat, or you can check out the science fair.

Players are now done with the mandatory puzzles. They're free to have lunch, solve optional puzzles (Lunch, Apple II, making banners, etc.), or look at the science fair exhibits - and you can point them toward any of these options.

Hints: Teams cannot call in for hints, since they're in 1986. Teams that are stuck must rely on you; see the instructions above.

Answers: The "answer" in step 1 is for teams in steps 1 or 2 to realize they're "not done yet" - they have some sort of "time loop" they have to close (getting the cryptic poem in the yearbook).

The "answer" in step 2 is for teams to realize that they're pretty much done and that they can kill time until the finale.

Site Close Down: Clean up.

Other Instructions:

- Stay in character--you are Tiresias, a janitor at Paine Memorial High School.
- Except...if a team says "time out," then break character.
- If a team comes to you before placing the envelope in the locker (they have neither the "I gave a gift to a student" or the journalism "gold star" stickers), remind them that they probably have some important business to attend to. Because you're Tiresias, you can help them remember what they need to do - find the envelope, change the writing on the newspaper, and put it back in the locker.

Student Journalism Office

Your Role: You are an assistant journalism teacher at Paine Memorial High School.

What Your Character Knows: Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.

Setup Instructions:

- Turn on the waxer--it needs time to heat up!
- Set out pasteup boards
- Make sure there is a sign on the door saying Journalism Office.
- Make sure there is a poster on the wall showing the presidents in a strange grid.
- Make sure there is a bin on the counter with a sign saying “PLACE YEARBOOK SUBMISSIONS HERE”.
- Make sure you have a set of gold star stickers.
- Make sure there are two posters on the wall - Proofreading Marks and Writing Checklist.
- Make sure you have a list of the order of the presidents. Keep this hidden.

Handout Instructions:

- There’s nothing for you to hand out to teams. The puzzle here is contained in the presidents poster and the yearbook pieces that teams brought with them to the school.
- Don't let players eat lunch in here
- Don't let players not working on the puzzle hang out in here
- Don't let players take the posters off of the walls.
- Don't let players who are not wearing iridescent smiley-face stickers hang out in here. (The stickers indicate they've completed a required prior puzzle.) Perhaps tell such players, "don't you have better things to do?"

Hints:Teams cannot call in for hints, since they’re in 1986. They need to rely on you. If teams ask about how they submit something to the yearbook, tell them simply to wax their typesetting or artwork, lay it out on a piece of paste-up board and drop it in the bin. If they’re confused about what to do and say something like “we’re supposed to write some sort of cryptic poem,” you can say:

> I’m not sure what you want to submit. On a totally unrelated note: do you see that poster with the presidents on it? Isn’t that grid on the top strange? Have you ever seen anything like it?

The players have seen the grid before - it’s the same shape that they assembled earlier that morning with the cut-out pieces that Chronos gave them. It looks like an hourglass laying on its side.

They should do what the poster says: take the pieces from the "hourglass" configuration and reassemble them into the lower configuration, by finding the piece associated with the George Washington place on the president grid and placing it in slot #1 on the lower grid, finding the piece associated with John Adams and placing it in slot #2, and so on.

When done, the "poem" grid has a row of four pieces, four rows of nine pieces each, and a final row of four pieces. The configuration also has a pattern with a blue X on alternating red and yellow columns. The poem reads: On the Unused Future Trapped in loops in time unable to go right Words in the newspaper will help them to unite Change back and revise the show to its opposite You're finally writing a new ending with happiness infinite Replace what you create

Players may worry that they don’t know all of the presidents. There are several ways for them to make progress anyway:

1. They should know the first few presidents (Washington, Adams, Jefferson...) and the last several (44, 43, 42, 41, Reagan, Carter...). Then, they should be able to "get close" with many presidents, at least putting them in the right era.
2. Each piece must have the right orientation (triangle up or down). For instance, if players know that Harding and Coolidge come between Wilson and Hoover, but can't remember whether Harding or Coolidge comes first, the orientation should tell them.
3. They're constructing an actual poem, so they should try to make intelligible English lines of poetry.
4. They may notice that the colors seem to be forming a pattern - red and yellow stripes with a big blue X.
5. They can get help from other players - or, eventually, from you.
6. They can scrutinize the presidential trivia test; the answers aren't there, but they can deduce some information just from the questions.

If a team is having trouble with a few last presidents, or it’s after 2:20, you can help them with the president order. If it’s after 2:35 PM, you should help teams construct the poem. All teams should be done with the puzzle by 2:55 PM.

Answers: Once they reconstruct the poem, it's possible that they may have forgotten what to do next, and expect the poem to give them some sort of clue. Although the poem is meant to reflect what the players are doing - helping When and Chronos unite, "revising the show", and writing a new,

happy ending - it doesn't give any instructions.

Instead, players need to remember that their goal is to "close the loop" and create the message that Wesley will cut out and then Catherine will give to them in 2012 - and to do so, they need to put the completed poem in the yearbook submission bin.

- To submit their answer, the players should actually run their puzzle pieces through the waxer and arrange them on the paste-up board. Then they'll put the board in the "submissions" basket.
- Check their work.
  - If it's wrong, "reject" their submission. You can telling them that it's not "laid out correctly" or that their submission doesn't quite seem like "yearbook material" or something similar to guide them in the right direction.
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- After each correct submission, discreetly take it out of the bin and hide it away so the other teams don't see it. (We want them to have the illusion that they're the only ones putting the poem in the yearbook.)
- You may run out of paste-up board. If so, feel free to peel the pieces off of a submitted board and then put the newly-blank board back in the pile.

Site Close Down:

- Clean up
- Return materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.
- It is possible teams may ask about the “teacher’s lounge” (and may specifically ask about TRASH cans in the teacher’s lounge). This is not the teacher’s lounge (it will be in the future, but you don’t know that), and there are no TRASH cans here.

Detailed Description

Like the slogan for "Jiffy Pop" popcorn, this puzzle is supposed to be as fun to make as it is to solve. They've already solved it, now they make it. They are sent to the school Journalism room to insert their puzzle into the yearbook, assembled according to pattern established by a nearby poster of U.S. Presidents.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

- The process of reconstructing the poem starting from the "hourglass" shape should be fairly straightforward - assuming the players know the presidents! Of course, since they're in 1986, they can't do internet research...

- If players are having trouble figuring out the order of the presidents, there are a few tricks they can use:

1) They should know the first few presidents (Washington, Adams, Jefferson...) and the last several (44, 43, 42, 41, Reagan, Carter...). Then, they should be able to "get close" with many presidents, at least putting them in the right era.

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Instead, players need to remember that their goal is to "close the loop" and create the message that Catherine will cut out and give to them in 2012 - and to do so, they need to put the completed poem in the yearbook submission bin.

(The last line of the poem - "replace what you create" - can be interpreted as an instruction: they players "create" the poem by assembling it, and then "replace" it in the submission bin. This is vague and cryptic, though, and is meant more as "potentially consistent" than as a necessary instruction.)

If players need to leave the journalism room and go back to consult with Tiresias, that's fine. For instance, Tiresias could remind them that they need to close the loop by sending themselves the message - and where did they get the message? From the yearbook, so they'd better figure out how to get it printed in the yearbook.

Puzzle Answer

Submission of correct configuration is approved by GC staffer

Puzzle Solution

The journalism office has a poster showing two grids:

1) 44 presidents (the 1st 40, plus the 4 slots for the presidents elected post-1986) in the "hourglass" configuration from the solution of the first Jiffy Pop puzzle.

2) Below this, another grid in a different shape with numbers 1-44.

Players take the pieces from the "hourglass" configuration and reassemble them into the lower "poem" configuration, by finding the piece associated with the George Washington place on the president grid and placing it in slot #1 on the lower grid, finding the piece associated with John Adams and placing it in slot #2, and so on.

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The poem reads:

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Trapped in loops in time unable to go right

Words in the newspaper will help them to unite

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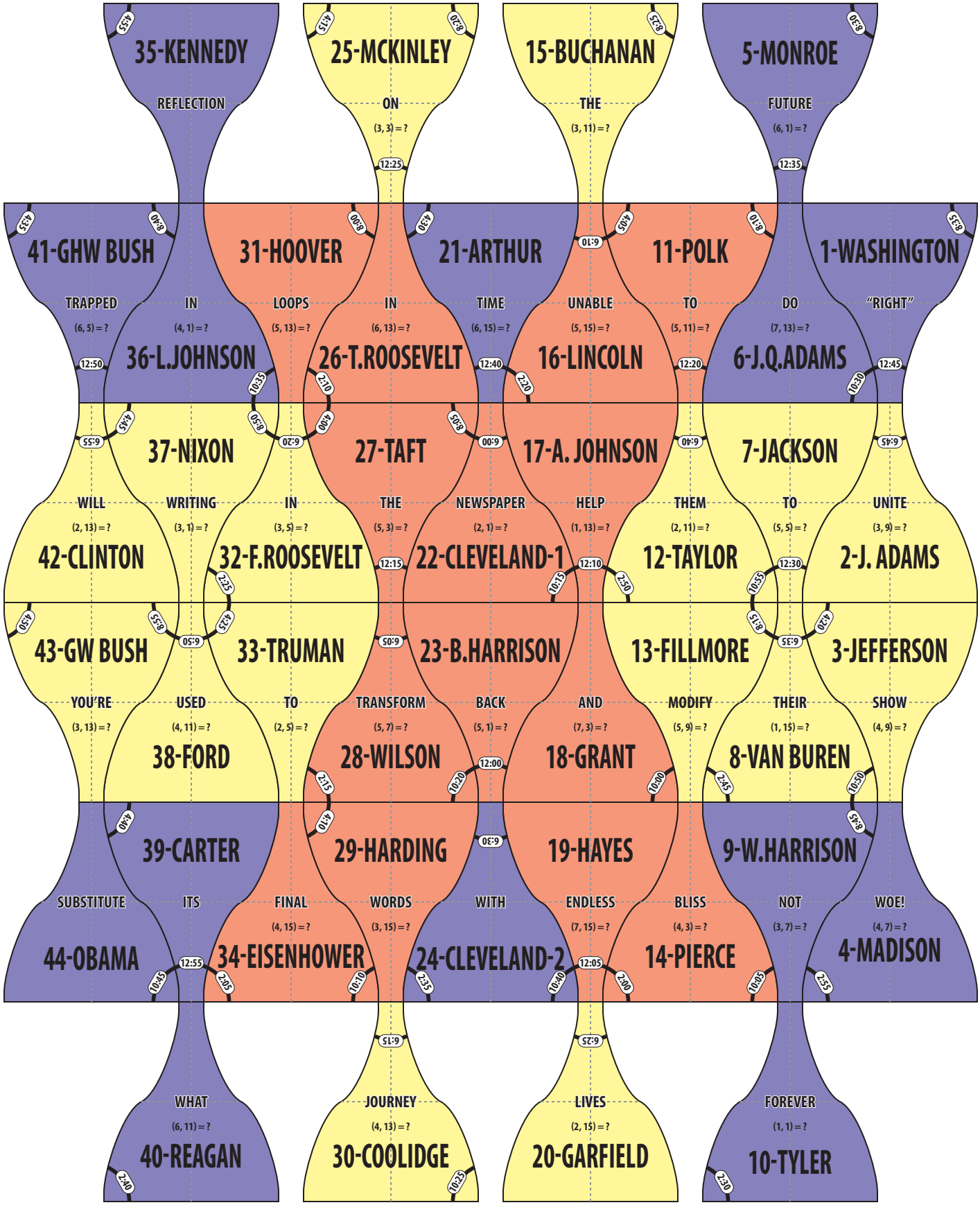
You're finally writing a new ending with happiness infinite

Replace what you create

Players must reassemble the poem with the pieces from the first Jiffy Pop puzzle, affix it to a piece of paper found in the journalism room, and place it in the bin of submissions for the yearbook - thereby ensuring that the poem will be printed in the yearbook, where Catherine can find it and cut it out and give it to the players in 2012, thus "closing the loop".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4:45
6:55
42-CLINTON
WRITING
(3, 1) = ?
8:50
6:20
32-F.ROOSEVELT
IN
(3, 5) = ?
4:00
2:25
27-TAFT
THE
(5, 3) = ?
8:05
12:15
22-CLEVELAND-1
NEWSPAPER
(2, 1) = ?
6:00
12:10
10:15
17-A. JOHNSON
HELP
(1, 13) = ?
2:50
7-JACKSON
THEM
(2, 11) = ?
6:40
12:30
10:55
12-TAYLOR
TO
(5, 5) = ?
6:45
2-J. ADAMS
UNITE
(3, 9) = ?
43-GW BUSH
YOU'RE
(3, 13) = ?
4:50
8:55
38-FORD
USED
(4, 11) = ?
4:25
6:50
33-TRUMAN
TO
(2, 5) = ?
6:05
28-WILSON
TRANSFORM
(5, 7) = ?
2:15
12:00
10:20
23-B.HARRISON
BACK
(5, 1) = ?
18-GRANT
AND
(7, 3) = ?
10:00
13-FILLMORE
MODIFY
(5, 9) = ?
8:15
6:35
8-VAN BUREN
THEIR
(1, 15) = ?
2:45
3-JEFFERSON
SHOW
(4, 9) = ?
4:20
10:50
39-CARTER
SUBSTITUTE
4:40
44-OBAMA
ITS
12:55
10:45
34-EISENHOWER
FINAL
(4, 15) = ?
2:05
29-HARDING
WORDS
(3, 15) = ?
4:10
10:10
24-CLEVELAND-2
WITH
6:30
2:35
19-HAYES
ENDLESS
(7, 15) = ?
12:05
10:40
14-PIERCE
BLISS
(4, 3) = ?
2:00
9-W.HARRISON
NOT
(3, 7) = ?
8:45
10:05
4-MADISON
WOE!
(4, 7) = ?
2:55
40-REAGAN
WHAT
(6, 11) = ?
2:40
30-COOLIDGE
JOURNEY
(4, 13) = ?
6:15
10:25
20-GARFIELD
LIVES
(2, 15) = ?
6:25
10-TYLER
FOREVER
(1, 1) = ?
2:30

MODIFY

3.13 Lunch puzzle

(Optional Puzzle) Doris the Lunch Lady will give a special prize to anyone who figures out what the Mystery Meat really is.

Open Time Period

Sunday, 12:15 - 3pm

Location

Name And Address: "Paine Memorial High School" -- actually Highlands Rec. Center, 1851 Lexington Ave. San Mateo, CA 94402.

The puzzle will be outside, on the basketball court.

GC PoC: Erik & Melissa

Parking: Outside, parking lot (no teams park there)

Plot Setup

None required

Props

- 80+ cookies
- Pretzels
- Lunch for teams
- Ms. PacMan machine
- Sign
- Stand for sign
- dry erase markers

Staff Instructions

Your Role: You are Doris, the crusty lunch lady.

What Your Character Knows:

- Due to the disguise field that the time machine projects around the players, they appear to you to be students. You know nothing of Trenchwood Institute or time travel.
- With all the budget cuts, you can't be too picky about what to put in mystery meat.

Setup Instructions:

- Make sure a table is on the blacktop.
- Get the Lunch Menu whiteboard and lean it BEHIND the table (out of sight).
- Make sure there is a box of Ms. Pac-Man cookies out of sight under the table.
- Make sure there are several garbage bags in which players can throw away their garbage.
- La Boulangerie will deliver lunch boxes to you.

Handout Instructions: You hand out lunch (the actual lunch boxes from La Boulangerie). The puzzle (which is optional) is on the lunch menu whiteboard.

Teams that have finished mandatory puzzles will have a gold star and an American flag sticker on their badges. For them ONLY, say

> "I'll betcha can't solve old Doris' puzzle!" (Cackle.) "Here, take a look at today's menu. Figure out what the Mystery Meat is, and you win a prize!"

Have them come around to the back of the table, where they can see the menu.

(Teams that have NOT finished TRASH and Yearbook 2 should be doing those puzzles instead of this puzzle - they can come back to the Lunch puzzle once they're done with their mission.)

The whiteboard says “Figure out what the Mystery Meat actually is, and Doris might give you a prize!" If teams ask about the mystery meat, say:

> That’s for me to know and you to figure out, bucko!”

Answers: The answer to puzzle is ROADKILL. If teams come to you and say “the mystery meat is roadkill!”, you should respond:

> So ya solved my frickin’ puzzle. Whaddya want, a cookie?” (Pause.) “Okay, here - have a cookie.

Hand each team member a Ms. Pac-Man cookie.

If players ask “what’s next” after they finish lunch, you can say something like “How should I know? Go ask someone else - like that janitor Tiresias. He seems to know everything around here. I think I saw him at the gym.”

Site Close Down:

- Clean up.
- Return materials to GC HQ

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.
- During this portion of the Game you're pretending you're in 1986. So don't let the players see you use any modern technology (such as cell phones and laptop computers).

Detailed Description

When they get to lunch on Sunday, there's a whiteboard with the school lunch menu, written in several colors and covering all weekdays, weekends, a special, and beverage. It also says that Doris will give a prize to anyone who figures out what the Mystery Meat really is.

Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

-The scrawled "Forgot to pac your lunch, Missy?" suggests a Ms. Pac-Man theme.

-Each item contains one Ms. Pac-Man "fruit". There is a Ms. Pac-Man game at the high school, which players can go play in order to figure out the orders of the fruit appearing.

- The word "Liquids" (instead of Beverages or Drinks), the colored titles, and the all-caps titles all suggest that the title words are important data.

- Combining the fruits as index with the titles, and ordering with the canonical ROYGBIV color order, gives an easy answer.

Puzzle Answer

ROADKILL

Puzzle Solution

Each item on the menu includes one of the "fruits" in Ms. Pac-Man. Those fruits are, in order of appearance in the game:

1. Cherries

2. Strawberry

3. Peach

4. Pretzel (yes, this counts as a "fruit")

5. Apple

6. Pear

7. Banana

The titles (Monday, Tuesday, Weekends, Liquids, etc.) are written in the colors of the rainbow. Taking the menu items in ROYGBIV order and indexing the "fruit number" into the title gives the answer: ROADKILL.

Lunch items

Menu item	Menu title	Color	Fruit index	Letter
Sloppy Joes... (pretzel)	Thursday	Red	4	R
Mac & cheese... (strawberry)	Monday	Orange	2	O
Tacos & beans... (pear)	Tuesday	Yellow	6	A
Cheese pizza... (banana)	Wednesday	Green	7	D
Assorted sandwiches... (pretzel)	Weekends	Blue	4	K
Fish sticks... (peach)	Friday	Indigo	3	I
Mystery Meat... (apple)	PMHS Lunch Special	Violet	5	L
Cherry Coke... (cherries)	Liquids	Violet	1	L

3.16 Happy Ending

(Mandatory Presentation) The "Science Fair Incident" played out live.

Open Time Period

Sunday, 3 PM

Location

Name And Address: Highlands Rec. Center--Gym

GC PoC: Erik & Melissa

Parking: N/A

Plot Setup

The players watch the results of their tampering play out live, instead of on a viewer. With Doctor When moving two feet to the left instead of to the right, they'll both escape sliming...and Catherine will fall into his arms. Romance ensues, and Buffy is slimed instead.

Props

Science Fair exhibits. Slime rig.

Staff Instructions

Your Role: Students and faculty at the high school.

Puzzles At This Location: none

Handout Instructions: See script.

Site Close Down: As soon as players leave, everything may be packed up (but you may want to watch the Denouement first)

- Return Rec Center's equipment (tables, mats, etc.) to appropriate storage locations
- Return Doctor When materials (science fair projects, signs, audio equipment, etc.)
- Mop up and sweep up

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.
- During this portion of the Game you're pretending you're in 1986. So don't let the players see you use any modern technology (such as cell phones and laptop computers).

Detailed Description

Hints

n/a

Puzzle Answer

n/a

Puzzle Solution

n/a

3.17 Dénouement

(Mandatory Presentation) Wrap-up lecture, not puzzle

Open Time Period

Sunday, 3:20 PM

Location

Name And Address: Highlands Elementary School

GC PoC: someone

Parking: N/A

Plot Setup

Players have done something different to the timeline and sent their Jiffy Pop puzzles back to themselves. Prof. Chronus, Doctor When...and Buffy! step out of the machine. (Strangely, the fashion sense of Doctor When and Prof. Chronus has vastly improved, but Buffy's got much worse.)

Props

Staff Instructions

Your Role: Ethereal Endways lab assistants.

Handout Instructions:

- Buffy settles down the crowd
- The time machine reactivates
- Doctor When & Prof. Chronos reappear
- They give a closing speech.
- Game over

Site Close Down: After "after party"

- Strike set
- Put away all Elementary School property
- Clean up
- Return set and Doctor When materials to GC HQ
- Return your name badge(s) and lanyard to GC HQ at the end of your shift

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description

Hints

n/a

Puzzle Answer

n/a

Puzzle Solution

n/a

Cartoon Puzzle

(Optional Puzzle) Mis-ordered cartoon panels

Open Time Period

When?

Location

Status: something

GC PoC: someone

Parking: N/A

Notes: None

Plot Setup

Though unsigned, players learn this artwork was made by Catherine. (Perhaps for art class)

Props

.

Staff Instructions

Your Role: Lab Assistant.

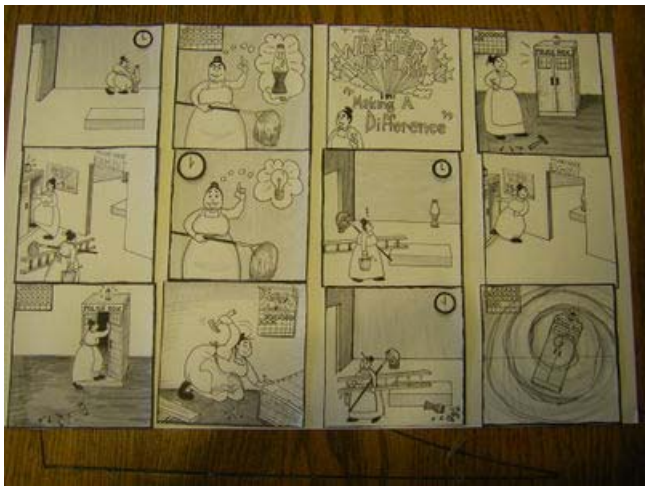
Handout Instructions: Do something.

Site Close Down: Clean up.

Other Instructions:

- Stay in character.
- Except ... if a team says "time out," break character and help them.

Detailed Description



Hints

Ask teams what they have done, probing details if necessary (often this will get a team unstuck by themselves).

Puzzle Answer

I HATE BUFFY

Puzzle Solution

Ignore clocks and calendars for now. Re-order the panels to form a coherent story: "Washer Woman breaks vase with ladder. Decides to build a time machine. Uses it to move the vase before it broke, then leaves. Younger self, instead of breaking vase, is inspired by its shape to invent the lava lamp."

The story flows in this order:

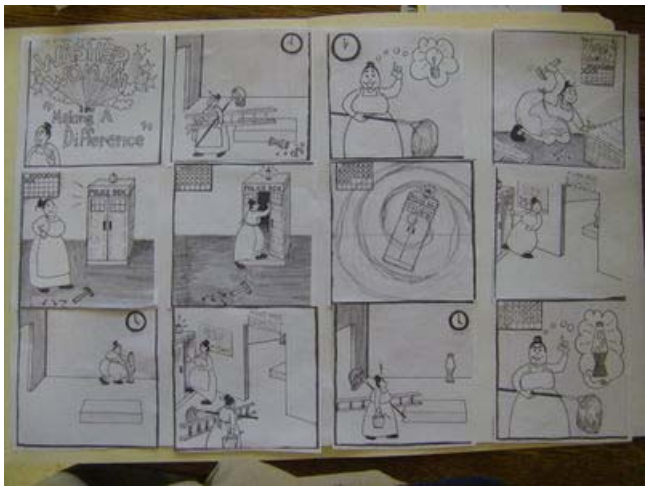
```
 9 12  1  5
10  3 11  8
 6  4  2  7
```

Or, if a solver had labeled the panels as given:

```
 1  2  3  4    A  B  C  D
 5  6  7  8    E  F  G  H
 9 10 11 12    I  J  K  L
```

then the correct order is:

```
3, 11, 6, 10, 4, 9, 12, 8, 1, 5, 7, 2
C, K, F, J, D, I, L, H, A, E, G, B
```



Once arranged, take the absolute difference of the clock or calendar numbers appearing in successive panels.

10:00, 1:00, 9th day, 8th day, 28th day, 23rd day, May 25, 4:00, 10am, 4:00, 29th day

Differences = 9, 8, 1, 20, 5, 2, 21, 6, 6, 25

Converting 1-26 to A-Z yields:

```
I H A T E B U F F Y
```