Team logs in using the id password given to them.

Players will be allowed to do google search.

## Page 0 (Prologue):

Your team has just joined the TPA (Temporal Protection Authority) and you receive a message from the future.

Agent C: This is agent C from the future. Something has been into the systems of TPA( Temporal Protection Authority ). We still don't know if it's a deed of a person or something else. All we have is this code u0054u0052. But this is horrifying. The thing is trying to change major historical events. And also, don't get surprised if you don't find the history as you know it, because it is not as you know it. It is not as you know it...

### Page 1( Level 1 ):

Page 1 contains a search bar of TPA archives and the code found in that message by the side. The objective of the level is to search the appropriate search-code in the search bar.

#### Solution:

The code received is u005400520024 which translates to "TR\$" now this must be case sensitive i.e. capital T, capital R should be put in the search bar. Level 1 is kept easy.

#### Page 2:

Page 2 has a search result of "TR\$". It shows us the information about a psycho Soft-Physicist. Soft Physics is a future branch of physics and computer science which aims to use the capability of AI to encompass the physics beyond our limit and use it to delve into the secrets of the universe. It shows the scientist was shot dead by the future TPA officers due to his malicious acts. After his death the only note that officers found in his lab was "Where Nile's embrace meets the builders' grace,..-- ..... .....

#### Page 3(Level 2):

This level has two text fields. It's the time machine interface of TPA. Demanding for co-ordinates and year which they have to travel.

#### Solution:

Where Nile's embrace meets the builder' grace means the great pyramid of Giza. Whose co-ordinates if searched on google are 29.9792° N, 31.1342° E. And the rest is morse code which translates to 2550BCE. So, you just have to fill the fields and the level is passed.

# Page 4(pre-level 3):

It has following text:

You reached the great pyramid of Giza in the year 2000BCE. You go inside it to find a glass-box with four glasses in it, which can switch their places at random. And it has a small computer beside it. You try to hack that computer but the code is indecipherable. The sample of the code looks like,

" $[ \angle \equiv \not\equiv \not \triangleleft ]$ ". This seems like some language we already know. Which language is it? Down lies a text field to know the name of the language.

### Solution:

It is HTML. It has opening and closing tags if you look closely.

- [ Represents the opening < html > tag.
- | Represents the closing </html> tag.
- ∠ Represents the opening <head> tag.
- ∢ Represents the closing </head> tag.
- $\equiv$  Represents the opening <body> tag.
- **≢** Represents the closing </body> tag.

<html>

<head></head>

<body></body>

</html>

# Page5(Level 3)

It shows those glasses. With a message "The secret lies in glass one".



Something like this...

But the glasses rotate so fast that it is impossible to keep track of glass1 beneath which the secret lies. And the glasses are also 8(1/8 chance to win at random selection). If you choose the wrong glass they rotate again.

#### Solution:

We have to inspect and keep the glass-1 selected as the rotating starts so when it ends you choose the correct glass because you will have it selected using the inspect menu. If you find it, a pen-drive lies beneath the glass. And the glass box opens, you receive the pen-drive.

#### Page 6(level 4)

After the pen drive level, when we open the USB there's a file in that. In that it's written ""Vwruplqj ri Edvwlooh" - An important event in the French history". The decoded text is attained by applying -3 to each character and it becomes "Storming of Bastille". Participants are expected to put the encoded phrase from above in a textarea at the end of the screen and decode it. The right answer, as stated above, is achieved by using - and 3 on the encoded text. We will give a hint to the participants stating that they have to create a decoder on their own, a basic program using any language, and print out all the 26 possibilities of the encoded text by adding/subtracting ascii to each character. The right answer, as stated above, is achieved by applying -3 to each character or +23.

# Page 7(level 4)

Once they get that the next page opens up and we get Agent C's message saying that there is suddenly an advanced futuristic bomb transported through time right underneath the Bastille prison where all the insurgents of France are supposed to gather and rebel to collect armaments and gunpowder for the French Revolution. We now have 5 mins to disarm the bomb. Then the bomb disarmament screen appears where there are 10 entangled wires of different color connected and plugged at 2 ends. The guidelines say we have to cut 3 wires to disarm the bomb. Somewhere on that same screen there is a list of hints/riddles which help us decide which wires to cut and which to not cut. Hints can be obvious or convoluted such as "Leave the bell peppers alone" meaning to not cut red, green and yellow wires or "The color which isn't on any flag" meaning purple. Such hints will be there leaving only 3 colors. Three wires out of ten are supposed to be cut and then the city of Paris is safe and the timeline is not altered.

# Page 8 (Backstory)

The pen-drive reveals a dark truth. The plan of the evil scientist temporal renegade. We learn that his name is Andwyn Grothbeck from the Unified Norse Republic in the year 3170 CE. The Unified Norse Republic is just the merging of modern-day Iceland, Sweden and Norway formed to oppose the tyranny of the growing European Union in the European Civil war of 2535CE.

Over the years of studying soft-physics Andwyn has found that humans developed the ability of time travelling by harnessing the power of computers to build Artificial intelligence which can think beyond the 3-dimensions, which is a major breakthrough in physics. The term soft-physics was coined in 3165 CE to advocate hyper-intelligent Al's contributions in the branches of physics. Andwyn's wife, Gertrude Grothbeck, was a soft-psychist too, but in one of the experiments she was conducting she lost her life. That experiment was the one where both of them had tried to build the first time travelling engine of mankind. The experiment went very wrong and Gertrude could not survive the explosion which followed the failure of the time travel engine. He tried every way to bring her back but didn't succeed. Using soft-physics, Andwyn computed 140,605 alternate but similar timelines and saw only one foreseeable timeline where Gertrude managed to survive the

explosion. He resolves to do anything to just see her again and decides to build a second time machine. The second time he successfully manages to build a time travelling engine and decides to undergo the quest.

The timeline T2, which Andwyn was now obsessed to achieve, had some conditions which needed to be met. Through further calculations and comparisons using soft-physics, Andwyn noted that he had to complete 4 events in order for the timeline T2 to occur:

i] The French revolution should fail i.e the monarchy of King Louise XVI should prevail and the rebels(basically all people of commoner status in France) should fail to overthrow and execute him. The obvious way to do this is to stop the Storming of Bastille from succeeding.

This attempt is level 4 and Andwyn has already tried this but we have stopped him.

ii] The invention of the microprocessor during the late 1900's which was a big boost in the advancement of technology.

The next few levels(IvI.5 -6 approx) is based on this.

iii] To stop the assassination of North Korea's leader Kim Jong Un in 2030 CE, after which World War III would ensue where North Korea would wage war on the west leading to another long and bloody war in human history lasting from 2030-2041 CE leading to loss of life and property at a very critical level. This task again takes a few levels(IvI.7-8)

After this point, we get a message from Agent C saying that the original timeline T1 and the ideal timeline T2 are very close to being merged. If both are merged the temporal continuum would be disrupted leading to both the timelines getting destroyed and everything, everywhere ceasing to exist. Agent C tells us to hurry up and save the timelines. Andwyn is blind in his quest to reunite with his lost love and does not care about the consequences of whatever he is doing.

iv] The last task is to go to 3170 CE and stop the time travelling Andwyn from killing his T2 timeline version. That is the final requirement for Andwyn of T1 timeline(the one we are trying to stop) to merge both the timelines and live a happy life with Gertrude. Here we confront Andwyn and have 2 options, whether to sympathize with him and support him to kill his T2 version and reunite with Gertrude OR to stop him from killing himself. Since this is the last level, the choice will lead to any 1 of 2 endings.

### /\*This part is extra info. Not part of backstory or anything\*/

Ending 1: If you support Andwyn of T1 in killing his T2 version, that creates a paradox(read more on <u>Grandfather paradox</u>). He gets to reunite with his wife for a few moments, but as Agent C said earlier, the temporal continuum is now disrupted and the timelines are destroyed. Sort of like the ending of Netflix's DARK s3, Andwyn-T1 and Gertrude-T2 spend their final moments in each other's embrace but soon everything fades to dust.

Ending 2: You are in 3170CE where the entire era and time is unknown to you and you have to stop Andwyn of T1 from murdering his T2 version. The last level will be based on this. You hunt Andwyn-T1 in a futuristic maze before he hunts himself(T2 version) and kills him. Once you win, you

are sent to the epilogue page where you are congratulated and awarded by Agent C for completing the mission successfully and saving both the timelines.

### Page 9(level 5)

Once the bomb is disarmed we inspect it and notice these numbers written on the bomb. 646383367498934448. This can be solved by T9 cipher. T9 cipher is a cipher like we used to type on old Nokia phones like 6 is "n"4 is "i" etc. The number translates to nineteen sixty eight.

Then in further level the pin 1968 is used as a year there must be some puzzle to decode the location of the place in the year 1968. The place is Area 51. We learn that the invention of microprocessors- the backbone of modern computers- was not done by humans but was found in an alien spaceship that crashed in Area 51 in 1968. Andwyn aims to destroy that spaceship before humans find the microprocessors.

Another encrypted message 'Zivz 51, Mvezwz' is the 2nd code you need to decipher. This is done using the Atbash cipher and the uncoded version is 'Area 51, Nevada'. The Atbash cipher just reverses the characters from the alphabetical order. Ex: A becomes Z, B becomes Y, R becomes I etc..

Both '1968' and 'Area 51, Nevada' are the time and destinations of the next level.

#### Page 10(level 6)

We are now in Area 51 from the year 1968 CE. Since computers of the 1970's had poor storage, security and primitive technology, Andwyn has decided to erase all data regarding microprocessors from Area 51's database by initiating a system destruction sequence for the whole base. He has left behind a funny, nonsensical set of instructions which are to be followed in order to stop the destruction sequence. An example of the instructions are:

"The king commanded his councillor to prompt advice from the citizens regarding the floods."

"After a long day of starving, the kid yelled 'Give me D pasta!' "  $\,$ 

etc...

At the end of the screen there is a textarea where the solution is to be written.

SOLUTION: The key here is to read the instructions carefully and multiple times as the details aren't obvious. Instruction 1 contains clues such as 'Command Prompt' and instruction 2 contains clues such as D drive...

All the instructions together form a file path to a .txt file saved at that file path and the participant is supposed to check the contents of the file in the Command Prompt itself. The participant can then extract the inner text of that file and paste it on the textarea of the competition screen and advance to the next level.

## Page 11(level 7)

We are now in North Korea in 2030 CE on the day of Kim Jong Un's assassination. We know from the backstory-reveal that Andwyn is supposed to be here too and he has to prevent the assassination from happening. Well, our job is to make sure the assassination succeeds and history is not altered. So, what Andwyn has done is that he has surrounded Kim Jong Un with an invisible nano-particle bulletproof shield which is undetectable to 21st century body scanners. Our task is to hack into the shield's system and corrupt it, rendering it useless and making sure that the assassination is successful and the temporal continuum remains undisturbed.

On the screen we see a download button which supposedly contains a file of the text we are supposed to copy paste to succeed the level. Obviously, this is a trick and the file contains the wrong text. We have to find the correct file which has the solution... but there is only one download button on the screen.

SOLUTION: Participants are supposed to go to the inspect menu and see what file the 'Download' button is pointing to. Initially the file path is something like '.../fake.pdf' (OR .../false.pdf) and participants are expected to change it to '.../real.pdf' (OR .../true.pdf). Once they do this and press the download button they will be able to download the correct file and copy-paste the right solution.

### Page 12(CHOICE PAGE FOR FINAL LEVEL)

In this page we will actually be in 3170 CE after behind-the-scenes time travelling from 2030 CE. Here we will meet Andwyn who will tell us about himself; how he had been scorned and scoffed at and bullied throughout his life. He says Gertrude(his only ever friend and soon to be wife) was the only person who understood him. Together, they had made leaps and bounds and founded soft physics. He says that he misses her and would do anything to have her again, even if it is only for mere moments.

Once Andwyn's conversation is over you can see red-alert messages from Agent C to exterminate the target on spot and urgently because both the timelines are about to merge. It is a shocking fact because as a player, the participants have successfully avoided Andwyn from averting history at each of the points in time. But that's when Andwyn himself reveals that he had always set up back ups. In the Storming of Bastille, he had planted a mini-bomb INSIDE OF the main bomb that we had defused which was set to detonate 10 mins exactly after the outer bomb was defused, in 1968 Area 51 he had used advanced AI to corrupt the primitive systems and self-destruct the military base anyways(hence destroying all microprocessors brought onto Earth by aliens) and in 2030 North Korea even though Kim Jong Un's shield was removed and he was vulnerable to bullets, Andwyn made to sure kill all the assassins out in the public thus anyways resulting in Kim Jong Un surviving.

Realizing this, you now have two options. To be touched by how far a man can go for his lost loved ones or to do your duty and stop two timelines from getting destroyed. Basically, either of the two options will lead to a separate ending.

# PAGE 13(FINAL LEVEL)

Scenario 1: If participants choose the option where they have decided to side with Andwyn and let him see his wife one last time- leading to the destruction of both timelines- we go to a page where we get Agent C's message saying how we have now failed and both the timelines will be destroyed yet he somehow managed to acknowledge our decision by speaking about sympathy and how anyone would have done whatever Andwyn did after losing a loved one... In the background, we see the graphic of a man and his wife hugging one another on a lush green field with futuristic structures in the background and the graphic slowly fading away(just how ppl fade out at the end of DARK S3 ending when all 3 timelines are destroyed). After total darkness for 3-4 seconds, we come back to level 1 and have to play the game anew.

The choice made by the participant was WRONG. He has to replay all the levels (leading to a delay of 5-10 mins) before reaching the final level again and making the other choice of doing his duty as a TPA member.

Scenario 2: The participants reach here only and only if they have chosen to side with TPA. So before we get to the grand final level, here's some theme for it. The final level happens in 3170 CE of timeline T2. In 3170 CE there's this Grand Central Super Secure Facility (better name TBD) where the data of every human being alive is present (sort of like a passport or aadhar card but digital). It has a high level of security and hence no one can break into it and neither can anyone hack into the database. This facility has one major control over humans that whenever anyone's data is removed from the database, the person actually dies in real life. This system reduces crime and makes executions easier hence it's prevalent and widely accepted. But, Andwyn T1 wants to misuse it and kill Andwyn T2. That can only be possible if he deletes Andwyn T2's data from the Grand Central Super Secure Facility(GCSSF). And that's what we have to stop.

The final level has 3 components: We have come to 3170 CE of timeline T2 2 hours before Andwyn has, hence we have 2 hours to set traps or something to stop him from killing Andwyn of T2 and ending both timelines. But firstly, we ourselves have to hack into the Grand Central Super Secure Facility. The first component of the final level has a num pad and a display pad. That's all. We have to enter the key to pass into the GCSSF.

SOLUTION: There's nothing else on the screen apart from the numpad and the display pad. Hence, we gotta stretch our neural muscles a bit and open the Console where the instructions are given. The instructions are simple. "Enter all the years you have been to while chasing Andwyn in chronological order. Signs can be ignored." We have to enter: 2550 1789 1968 2030 3170. There won't be spaces in the solution. This can actually act as a litmus test to see if someone has actually cheated in the game or not.

Now that we have snuck into the GCSSF, the next step is that we have to beat the AI which guards the human life database room. We break into the systems of the AI and re-program the firewall. But it requires one small thing on our part. We have to beat/ draw the AI in a Connect-4 game. If you draw you advance to the 3rd component but if you beat the AI you get +5 mins AND you advance to the next level. The game will last only till one point so if AI gets one point by connecting 4 dots horizontally/vertically/diagonally you lose otherwise if you get a point you win and if all holes are filled and it's a tie so you still advance to the next level. The grid will be 6x6 with 18 pieces for AI and 18 for you.



The third component of the final level is slightly different and the very, very last piece of activity to be done by the participant. In this component, we will have very easy to basic CTF related questions mainly based on netstat commands. The plot-motive here is to lodge a virus within the database which when accessed whenever later will trigger the safety and alert sequence of the GCSSF. This way, two hours later when Andwyn(T1) comes to access it the security sequence will be triggered, and as soon as he logs in, he will be arrested on the spot. There will be 5-6 CTF questions and each of the questions will have a slight story attached to them. The commands have to be entered in a textarea below the question. Example of questions + answers:

Q] Now that we are in the human life database server, we need to check all the active ports on the system. Please enter a command to check all ports.

Command] netstat -ano

Q] We find that Andwyn of T2 is in port 5400, please enter a command to check all services using port 5400

Command] netstat -ano | find /i "5400"

Q] You have forgotten netstat documentation and need to find a command. Enter a command which lets you see all the netstat commands and their description.

Command] netstat --verbose **OR** netstat /?

Q] We need to check the statistics of the protocol ICMPv6. Enter a command which lets us do that Command] netstat -s -p icmpv6

# PAGE ENDGAME

You get a message from Agent C regarding your success in stopping Andwyn Grothbeck and saving the two timelines. Then the next page is basically a "Game Over" page where it's also written "Thank you for playing Puzzle Rush" below.