Reimagining a Classic:

The Design Challenges of Deus Ex: Human Revolution



Gameplay Director – Eidos Montréal – Square Enix



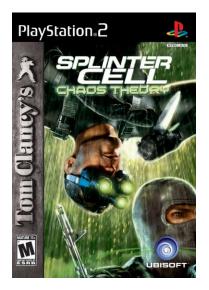
THE BORING STUFF...

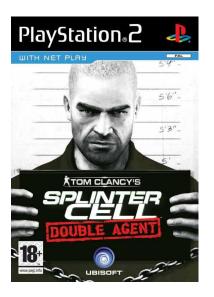
WHO AM I?

- Started in the industry in 2000.
- Worked at Ubisoft Montréal for 5 years.
- · Joined Eidos Montréal in 2007.

SHIPPED GAMES...









MY ROLE ON DX:HR:

- Senior game designer.
- Responsible for:

Augmentations



GDC 2012 - François Lapikas - Eidos Montréal / Square Enix





Combat AI



GDC 2012 – François Lapikas – Eidos Montréal / Square Enix





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But I digress...

WHY AM I HERE?

- **Challenge #1** Capturing the "Deus Ex" feel.
- Challenge #2 Conversation boss fights.
- **Challenge #3** Hacking!
- **Challenge #4** The upgrade system.

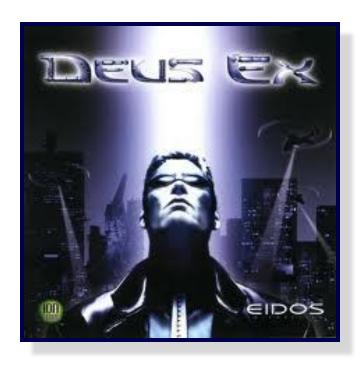
WHY AM I HERE?

Challenge #5 – The energy system.

Challenge #6 – The infamous boss fights.

Challenge #7 – Balancing

HISTORY LESSON - WHAT IS DEUS EX?



Action role-playing game combining elements of first-person shooters and of role-playing games.

Often praised as the "Best PC Game of All Time".

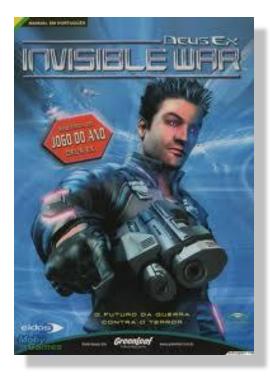


DEUS EX

Every time you mention it, SOMEONE will reinstall it.

Apparently, it's also a form of mind control.

THERE WAS A SEQUEL



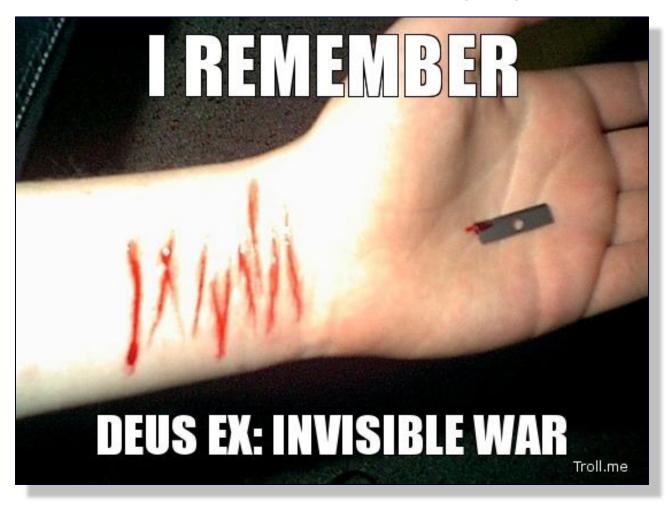


Metascore

Generally favorable reviews based on 44 Critics

What's this?

Summary: Fifteen years following the events depicted in the multi-award winning "Deus Ex," the world is just beginning to recover from catastrophic depression. As an elite anti-terrorist agent, you must fight numerous militant factions bent on violently reshaping the world to suit their own agendas. ... Expand



THERE WAS ANOTHER SEQUEL



79 out of 100

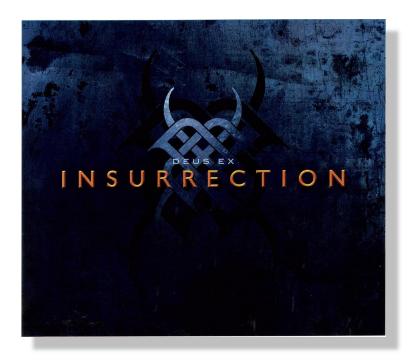
Metascore

Generally favorable reviews based on 44 Critics

What's this?

Summary: In Project: Snowblind, you can experience war through the eyes of the first of a new breed of supersoldiers. As Lt. Nathan Frost, your mission is to stop a renegade regime from eradicating the civilized world. You must use your newly implanted enhancements, tools, weapons, and vehicles in yo... **Expand**

AND ANOTHER SEQUEL...



I don't like those odds.



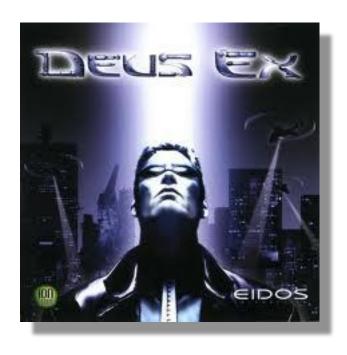


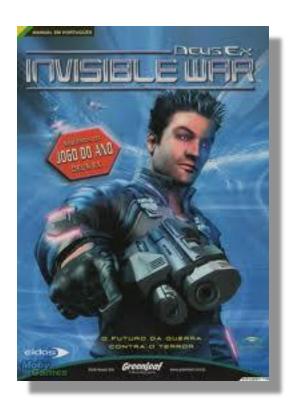


STARTING OUT RIGHT:

A solid foundation is everything!

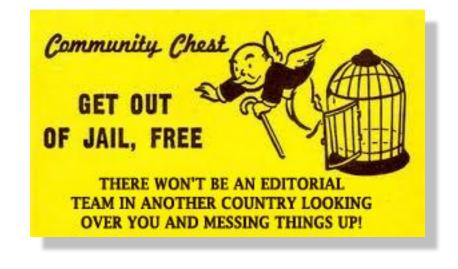
WHAT WE STARTED WITH:





GDC 2012 – François Lapikas – Eidos Montréal / Square Enix







PREPARING FOR THE BIG DIVE

GDC 2012 – François Lapikas – Eidos Montréal / Square Enix



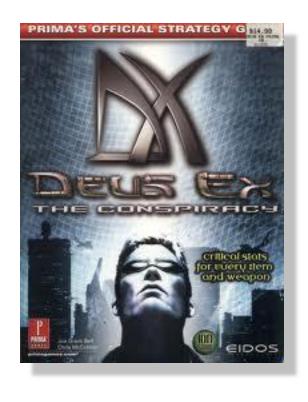




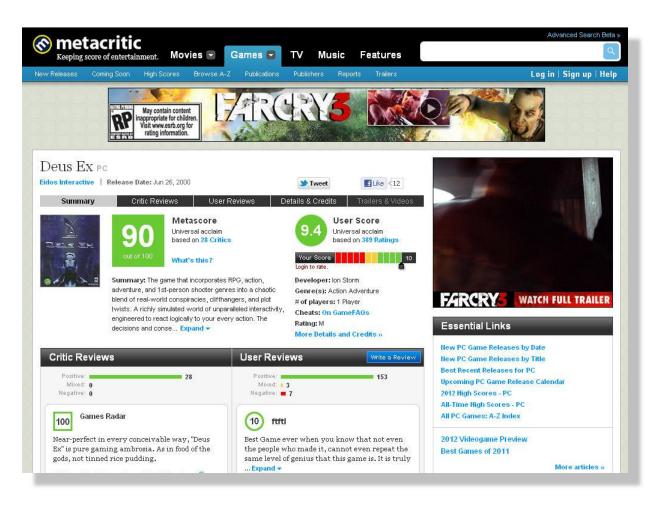






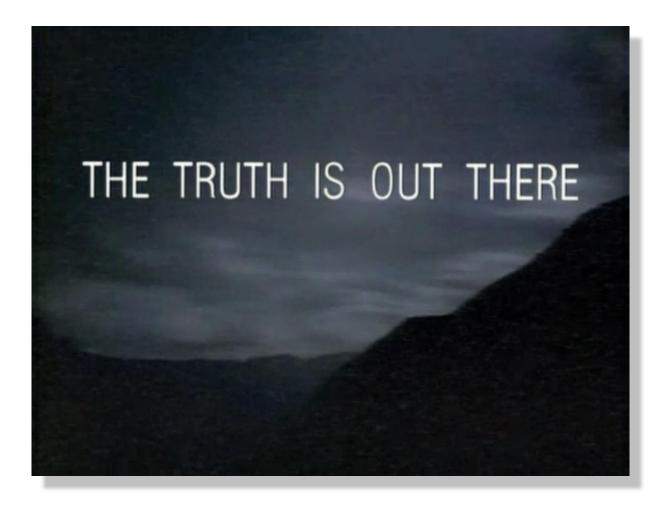


	Topics
1	Announcement: About the Deus Ex section
8	Sticky: How to run Deus Ex on modern systems
۵	Moved: omfG!
0	Interesting glitch
0	Bad fanart thread
۵	Re-Release
۵	God damn it, Miguel
۵	Moved: Hey people
0	PS2 DX [D Goto page: 1, 2]
0	Moved: Deus Ex Unreal Revolution
۵	Yahtee(zero punctuation) Finally does DX!
0	Deus Ex: The Conspiracy [Remake]
۵	Moved: Join Alpha
۵	Mega64: DEUS EX TRIBUTE
۵	Let's play Deus Ex





Our Critique of Deus Ex



ACTIONS

WHAT WE SEE

- Stat-based shooter.
- · Stealth has no feedback.
- Hacking is completely passive.
- Nano-augs are what give the main character his uniqueness.

WHAT WE THINK

- Combat is frustrating.
 Player is made artificially worse so he has to upgrade himself.
- Nano-augs are mostly stat-boosters.
- Stealth is broken. You don't have enough information to make good decisions. Whether you'll be seen or not borders on randomness.

WHAT WE PREFER

- Combat relies on player's skills. It's no longer affected by character statistics.
- Augmentations must be exciting to use. They must affect more than stats. Each augmentation gives a distinct ability.
- No artificial penalties. The player must not be weakened artificially just so he has something to upgrade later on.

RPG

WHAT WE SEE

- Can upgrade weapons.
- Can choose your augmentations.
- Can upgrade skills.
- Can customize your character's appearance before the game begins.
- Large scale story.
- Dialog system with choices.
- Inventory management.

WHAT WE THINK

- Heavy management kind of game.
- No clear feedback on player character progression.

WHAT WE PREFER

- Experience system (XP) should affect all gameplay pillars (combat, stealth, hacking and social)
- Next upgrade level must feel exciting to reach. The player should look forward to it.
- Make sure player understands how upgrades fit into his game strategy.

OPEN-ENDEDNESS

WHAT WE SEE

- Multi-pathing.
- Multi-solutions.
- Playing with environmental physics.
- Multiple endings.

WHAT WE THINK

- Intimidating openendedness (where do I go? What should I do?).
- Very experimental and simulation-oriented.

WHAT WE PREFER

- Semi-open maps.
- Multiple entry points.
- Small sandbox.
- Support multi-solutions, by having multiple ways to get past an obstacle.
- Use environmental physics as a gameplay tool.
- Multiple resolutions, but same ending for all (objectives don't change).
- Provide a world of meaningful interactions (no more moving plants around).

HINTING AT A NEW DIRECTION

It's about choice!

Every choice has a consequence.

Make it simpler.

Make it spectacular and rewarding.

It's about choice!

This can be explained best by the "What if?" scenario. As the player explores the game and comes up against challenges, he'll be asking himself "what if I do this?" or "what if I try that?" And each time the game should answer back: "Yes, that is possible."

Every choice has a consequence.

Every time the player makes a choice, there should be a set of consequences associated with it, both good and bad.

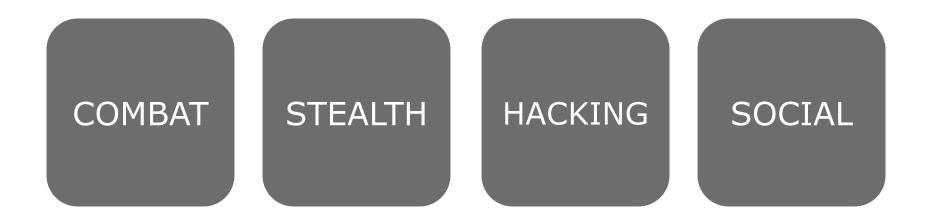
Make it simpler.

Now, our goal is not to dumb it down. We have no illusions, a Deus Ex game will never be as simple to play as a Halo. But by streamlining some features, we are confident we can create a game that is both elegantly manageable and rich at the same time. Metroid Prime is a good example of this type of design philosophy.

Make it spectacular and rewarding.

So our goal is not only to make a game that is fun and open, we also want the player's actions to have a visceral and gratifying feeling to them. He shouldn't just do something because it's useful, he should also do it because he <u>likes</u> it.

SETTING THE PILLARS



MORE IMPORTANT

LESS IMPORTANT

FINDING THE "PLAYER FANTASY"

Nailing the setting:

- Prequel, close to 2030s.
- Detroit.
- Corporate war.

Premise:

- Security agent for a biotech corporation.
- Gets attacked, which sets up the whole game.

REFERENCES WE USED

"Children of Men meets X-Men"

Combat References

- Rainbow 6 Vegas (cover system and tactical shooting)
- Metal gear Solid (Boss Fights)
- F.E.A.R. (AI)
- Bioshock (various weapons for various obstacles)
- Call of Duty (Health System)
- Resident Evil 4 (Contextual actions, hit location, inventory system, economic system)
- Die Hard 4 (initial gunfight sequence for its use of cover and its general viscerality)

Stealth References

- Chronicles of Riddick: Escape from Butcher Bay (hiding in shadows, dragging and hiding bodies, a more organic approach to stealth)
- Metal Gear Solid (investigative AI, alarm cool-down system, feedback to user)

Hacking References

 Shadowrun pen & paper (hacking using programs, tension divided between the actual hacking and the physical world)

Social References

- Grand Theft Auto (well realized cutscenes, characters that have distinct personalities)
- Mass Effect (general quality and believability of the dialog scenes)

Tone of the Game References

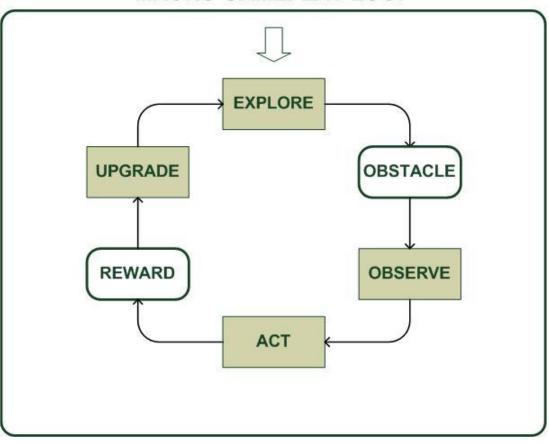
- Children of Men (the chaos, the drama, the setting)
- X-Men (tensions between mutants and humans, sense of spectacle, the impact of mutant powers on everyday life)
- Bioshock (treating mature themes in mature ways, immersive setting)
- Rome (see how powerful individuals and their emotions shape history)

Conspiracies References

- The Firm (appearances are deceiving, once you're in you can't get out)
- Deception Point (how the government tries to manipulate the public opinion with huge lies)
- Dune Series (plans, within plan, within plans)

MAJOR GAMEPLAY LOOPS

MACRO GAMEPLAY LOOP



MACRO GAMEPLAY LOOP **EXPLORE UPGRADE OBSTACLE** REWARD **OBSERVE** ACT

Explore: The players gets to use his abilities to move around the environment in order to get closer to his objective or to search for loot, alternative paths, hidden areas, etc. Some places might only be accessible if the player has purchased specific upgrades.

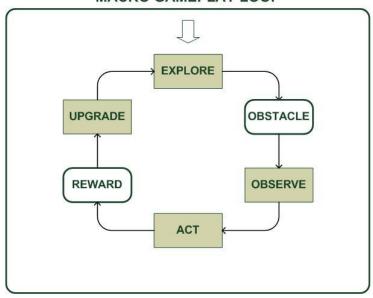
Obstacle: On his way to his current objective, the player is confronted by a series of obstacles, which must be circumvented to progress.

MACRO GAMEPLAY LOOP **EXPLORE OBSTACLE UPGRADE** REWARD **OBSERVE** ACT

Observe: The first step to defeat any obstacle is to observe. Multiple tools are available to aid this process. They can provide the player with targeted information that can aid him make better judgement calls.

Act: The player must decide on a course of action and act upon it. There is usually more than one way to get around any obstacle. Sometimes one way is better than another and others times, all options are equal and it's just a matter selecting something more suitable to your play style.

MACRO GAMEPLAY LOOP

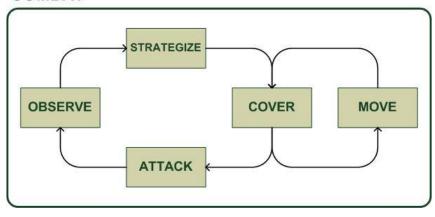


Reward: The player is rewarded for defeating the obstacle, either in the form of loot or experience points.

Upgrade: The player can spend his resources to upgrade his character. This may unlock new possibilities for use in the next iteration of the gameplay loop.

COMBAT STRATEGIZE **OBSERVE** COVER MOVE **ATTACK**

COMBAT



Observe: The first step of combat is to observe the enemy to find flaws that may be exploited or to look at the environment for possible components that may be used against the enemy.

Strategize: The second step is to develop a strategy; including which weapon to use, where to move, etc.

Cover: We see cover as a major feature of the gameplay, similar to Gears of War and Rainbow Six Vegas. Therefore, any combat sequence will almost always involve the use of cover. It's the starting point from which everything else flows.

OBSERVE COVER MOVE

Move: From your initial cover position, you may elect to move to another cover and to engage the enemy in combat. Moving can be done either by leaving cover and freely moving around, or by switching from one cover to another using a contextual action.

Attack: The game will feature mostly ranged combat. However, if you manage to get close to your opponents, you'll be able to take them down using contextual actions made possible by the strength and agility augmentations [they were renamed later].

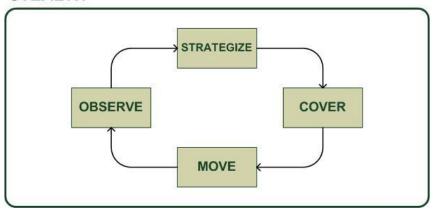
STEALTH STRATEGIZE **OBSERVE** COVER MOVE

STEALTH STRATEGIZE OBSERVE MOVE

Observe: For a successful stealth approach, information is key. That's why you need to really observe the environment, study patrol paths, look out for security devices, etc. To help you, you'll have access to a series of tools and augmentations.

<u>Strategize:</u> With the right information in hand, the time comes to make a decision as to how to approach the situation.

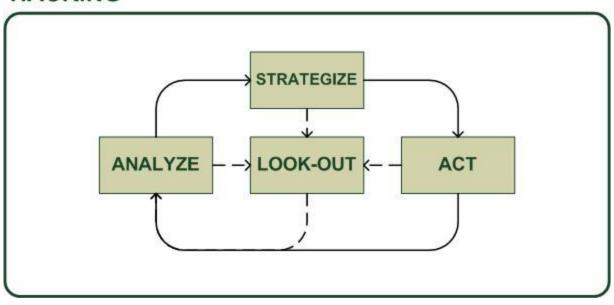
STEALTH



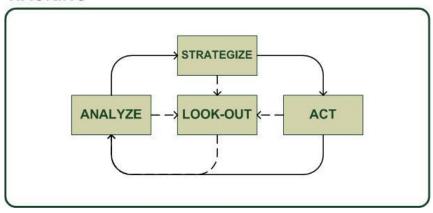
Cover: Again, much like it's the case for combat; cover will be an integral part of the stealth experience, as it allows you to control the line-of-sight between you and any detection device. Combined with hiding in shadows [a feature that was cut later on], these will be your two primary tools to remain undetected.

Move: Use movement either to go around the obstacle and continue on unnoticed or use it to get close enough to disable it.

HACKING



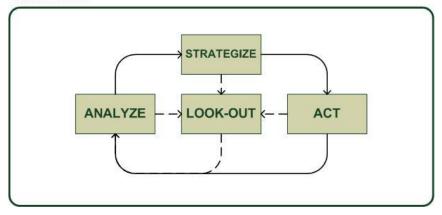
HACKING



Analyse: Hacking is not so much about observing than it is about analysing what's there. Having a complete picture of the strength and type of security in place is crucial for selecting the right tools for the job.

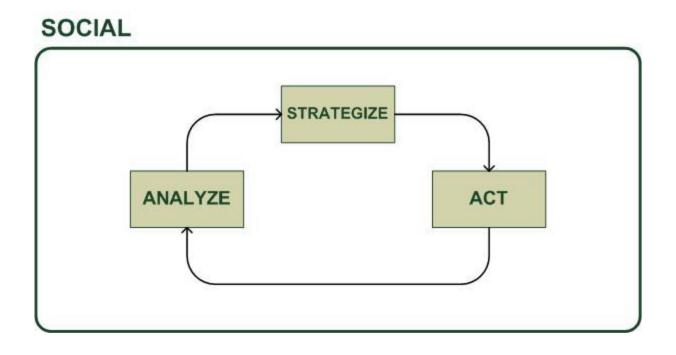
Strategize: Programs are to hacking what weapons are to combat. You have to know when to use one over the other. Your strategy may also change depending on what you're trying to do, whether it's just disabling a device or trying to take it over.

HACKING



Act: Give your orders and let your programs do the job. Some tuning might be required from time to time to redirect your efforts or to stave off an unexpected enemy attack.

Look-out: One particularity of hacking is that you remain in the game the whole time. You can look around and can get caught by patrolling guards. If you see someone, you might have to hide for a little while.

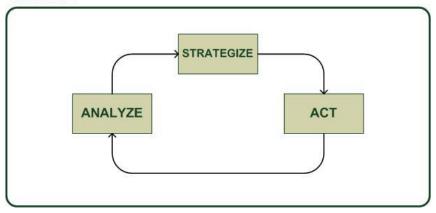


STRATEGIZE ANALYZE ACT

Analyse: Dealing socially with people means talking to them. But to do that effectively, you have to size them up first. You have to determine their personality by looking at their demeanour and how they respond to your queries.

Strategize: Now that you know which type of personality you're dealing with, you have to tailor your approach to it. Some people will react better when some pressure is applied, while others require more subtlety.

SOCIAL



Act: Choose among the options available to you. And see where it leads. And since you remain in control of the camera, you can also look around and attempt to find clues that may help get what you want out of each conversation [a feature that was cut later].

DETAILED SYSTEMS DIRECTIONS

Combat Philosophy

Combat must be:

- Straightforward (clear and easy to grasp)
- Intense & Visceral
- Strategic
- Useful for completing the game (it's possible to complete the game using only combat).

Combat in a nutshell:

- Once the enemy is alerted, it falls into ranged combat, focused on shooting and using cover.
- It is possible to get into close-range during a fight, but doing so is difficult and the user is most likely to die trying, unless he's equipped with a suite of combative enhancements.
- Combat will consist of about 80% ranged combat and 20% melee combat.
- Melee combat takes the form of contextual actions the user can perform once close to the enemy.
 There is no traditional melee combat in which the user is asked to swing objects such as clubs or wrenches.

Combat Philosophy (cont'd)

Scope of the enemies:

- Humans: Like enemies in Rainbow 6: Vegas. Only a few bullets are required to take them down.
- Augmented humans: harder to kill. They are more like the Locusts in Gears or War. Quite a few bullets are required to finish the job.
- Robots: very resistant. Depending on their size, huge amounts of firepower may be required to dispatch them.
- Enemies can be mixed-and-matched, meaning that you may encounter normal humans, augmented humans and robots all at the same time.
- Encounters can features as many as 6 enemies at once, although most of them will feature about 3 at a time.

Tactical philosophy:

- Select the right weapon for the right situation.
- Use the environment, by using cover or by shooting at objects in the world that can help you.

Stealth Philosophy

Stealth must:

- Have clear rules.
- Have clear feedback.
- Be useful for completing the game (the game can be completed using only stealth).
- Open the door to the full use of physical-oriented augmentations.
- Provide a kind of "cat & mouse" experience with the NPCs.
- Failing a stealth challenge can be recovered through combat or loop back into stealth.

Stealth in nutshell:

- Using a stealthy approach allows the user to benefit from 2 possibilities:
 - Pass an obstacle unseen (thus safely).
 - Get close to an enemy so a contextual action can be used.
- The user is not able to distract NPCs using thrown objects. Stealth is meant to be a puzzle, so the player must adapt to what happens. He's not the one in charge.

Stealth Philosophy (cont'd)

Scope:

• Stealth can be used to circumvent any detection device, including NPCs (augmented or not).

Tactical Philosophy:

- · Stay behind cover.
- Exploit multi-paths.
- Exploit augmentations (such as cloaking).
- Use relevant UI information (given by the stealth enhancer upgrade).
- Hide (after a failure).
- Hide bodies.
- Remove obstacles (i.e. disable enemies, hack, etc.).

Hacking Philosophy

Hacking must:

- · Involve tension.
- Make the player fearful of getting caught.
- Be active, by requiring the user to actually do something.
- Evolve and become more difficult over time.
- Be central to the game's progression at some key moments in the game.

Hacking in a Nutshell:

- It must be useful to the player.
- There must be one universal game mechanic used for all hacking instances.
- The player is allowed to keep an eye on his surrounding, by moving the camera sideways. The hacking proper takes place on a screen in front of the character.
- Hacking is time-based. The task must be completed before the timer reaches zero or there will be consequences.



Hacking Philosophy (cont'd)

Hacking in a Nutshell (cont'd):

- The user is allowed to become a more powerful hacker by using increasingly sophisticated software.
- The experience should be tense, though rewarding.

Scope:

- Any relevant electronic device should be hack-able, such as computers, locks, robots, cameras, turrets, ATMs & phones (to retrieve stored messages).
- Hacking allows the user to:
 - Get money.
 - Get information.
 - Change the behavior of an electronic device (shut it down, change its alliance).
 - Create items (such as a fake pass card to open a restricted door).
 - Complete an objective (such as implanting a virus).

Social Philosophy

Social must:

- Feature meaningful interactions. We don't want dialog for the sake of dialog. The player will just skip through it.
- Provide active choices. The user must have decisions to make during social interactions.
- Convey key story elements.
- Have consequences depending on how you interact with other characters.
- Be goal-oriented. Each interaction must give something to the user and it must be clear what's at stake from the onset.

Social in a nutshell:

- There are 3 tiers of characters:
 - Tier 1 Story characters. They give the user objectives.
 - Tier 2 Interactive characters. By interacting successfully with them, the user can get **goodies**.
 - Tier 3 Cosmetic characters. They exist to populate the world.

Social Philosophy (cont'd)

Social in a nutshell (cont'd):

- Every interactive conversation with a tier 2 character must yield a **goodie**.
- Even though there's no meaningful interaction to be had with 3rd tier character, you can still suffer some consequences when interacting with them. For example, gang members may jump you.
- Actions and choices made in previous conversation can impact the choices available or the disposition of the NPCs in the current conversation.

Scope:

- "Goodies" can be:
 - Information
 - Items
 - Money
 - Story elements
 - Help

Social Philosophy (cont'd)

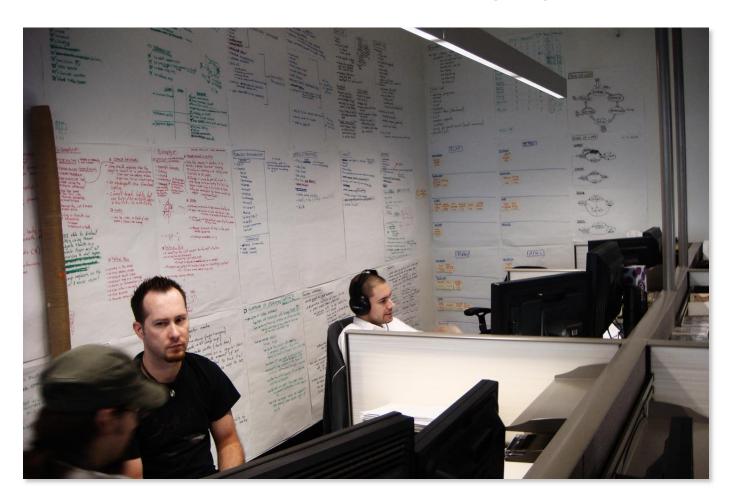
Scope (cont'd):

- Conversations can end in one of three ways:
 - Positively: NPC gives up the goods.
 - Neutrally: NPC loses interest and does not wish to converse anymore.
 - Negatively: NPC is angry and puts an end to the conversation. He may even respond violently.

Tactical Philosophy:

- Observe the character to try and determine his main traits.
- Based on your observations, select the options that will bring the conversation to a positive resolution.





END OF CONCEPTION



PRE-PRODUCTION

THE BLUEPRINT PROCESS

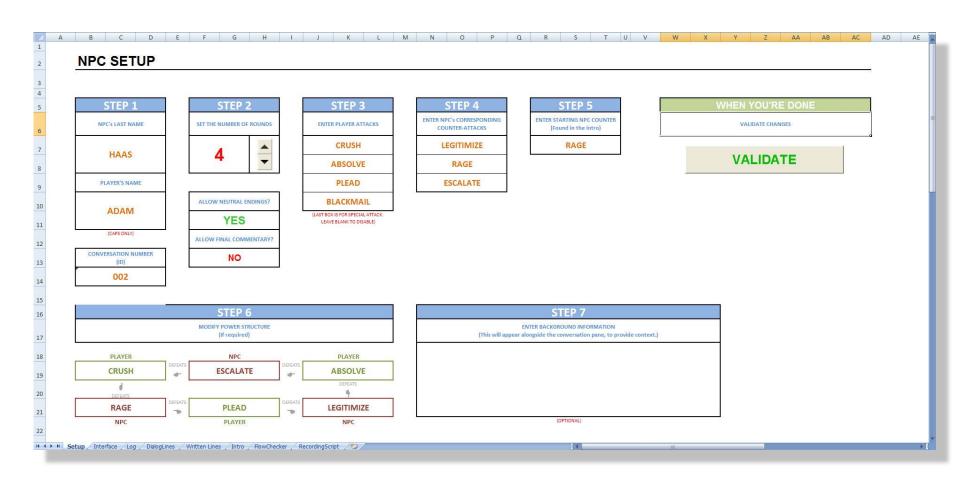
	A	80	BE	BF	BG	ВН	BI	the conspiracy. MTL-SISO liza facet-of-ace and learn who else was involved with the scientists' kidnappings. the truth about Eliza (she's an Al designed to spread lies as truth). prote of Jensen's connection to the overall conspiracy: nd Megan were researching with Adam's DNA. lentists were kidnapped because of it. Isalas Sandoval's involvement in the kidnappings. Eliza. Eliza.	BK
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2	ACTS	and the second s							
	WORLD LOCATION MAP ID • LEVEL TY	MONTREAL Picus Communications							
	Storyline		down "ELIZA" but ends up walkin	g into a direct confrontation with the Illumin	nati's nascent Al and a spec ops team se	ent to prevent him from reaching it.			
5									
	Main Goal	Show the depth, power, and all-enco	mpassing reach of the Illuminati,	introduce the tool that players will use to de	efeat them during the end game choice, a	and advance the player's personal o	onnection to the conspiracy.		
7	SEQUENCE ID	MTL-S150							
	Sequence Description	Get introduced to Eliza while avoidin	ig spec ops traps that have been	laid to prevent this.			Talk to Eliza face-to-face and learn w	who else was involved with the scientist	s' kidnappings.
8	Goalfe) of the Segui	1. Introduce and start building up ELI2	7.4				1 Develope to the book shoot Cline (about	on Al designed to prove dilegas as touth?	
	doai(s) or the Seque			s ability to control (and alter) the news and :	spread its messages all over the world				
		3. Show that really powerful conspira							
				unconnected with our story through addition	nal storyline opportunites.				
		5. Re-introduce the spec ops.					3. Reveal Isaias Sandoval's involven	nent in the kidnappings.	
9	MODE	S. O. O.						36A5-XX	
	What do we want the	Expect the unexpected.							
	player to feel?								
	MICRO GOALS								
	Actions	Locate Eliza inside the duplicitous, o					Speak to Eliza.		
	Sequence General Conditions	 Player can choose to exit the dialo There is no possibility for a neutra 		Doing so will result in the 'fail' condition; he	e cannot restart the gameplay.		 Eliza must not die the boss fight death too. 	must be designed in such a way that, if	she can die, her death results in your
14									
	In-Game Main Objectives	Infiltrate Pious to reach room 404.		Get to the restricted area and locati the source of the transmission (room 0101).	e		Retrieve the voice recording from Eliza's back-up drive.	Defend Eliza (and yourself) from the spec ops attack.	Get to the extraction point when ready and return to Detroit.
	In-Game Secondary								
	Objectives								
16									
	CHOICES & CONSE			7				4	
	What are the choices				Player can choose to exit the dialog gameplay with Eliza at any time but it's provoking a failure.				

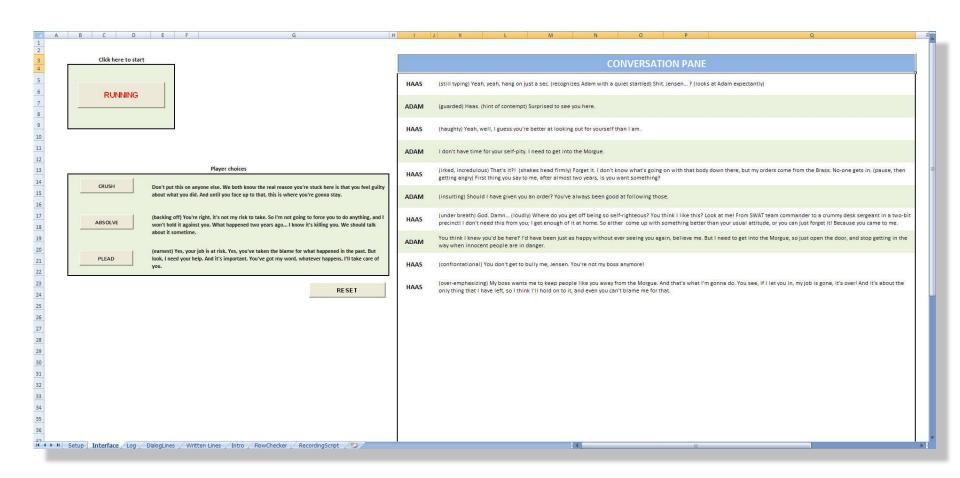
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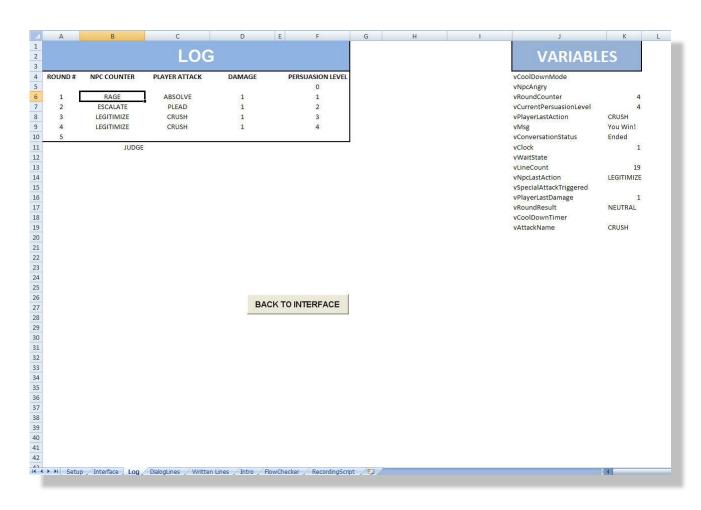
DESIGNING THE CONVERSATION SYSTEM



(Early mock-up of the conversation boss fights.)



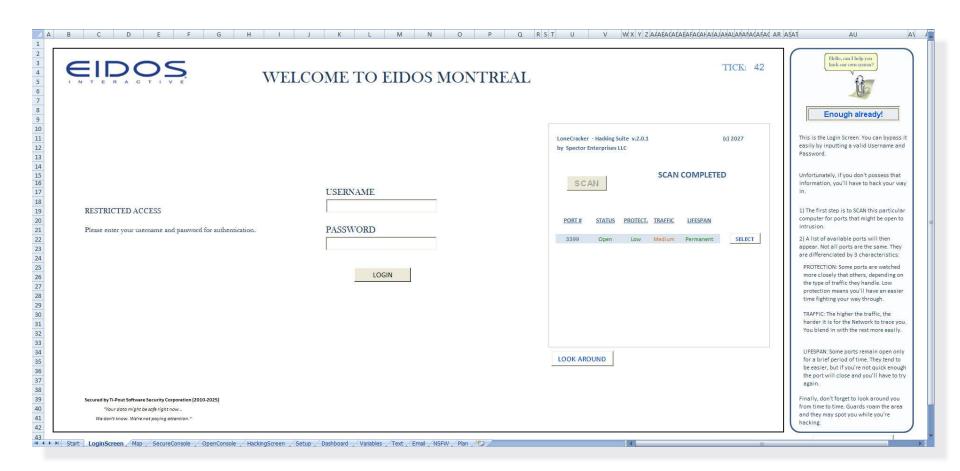


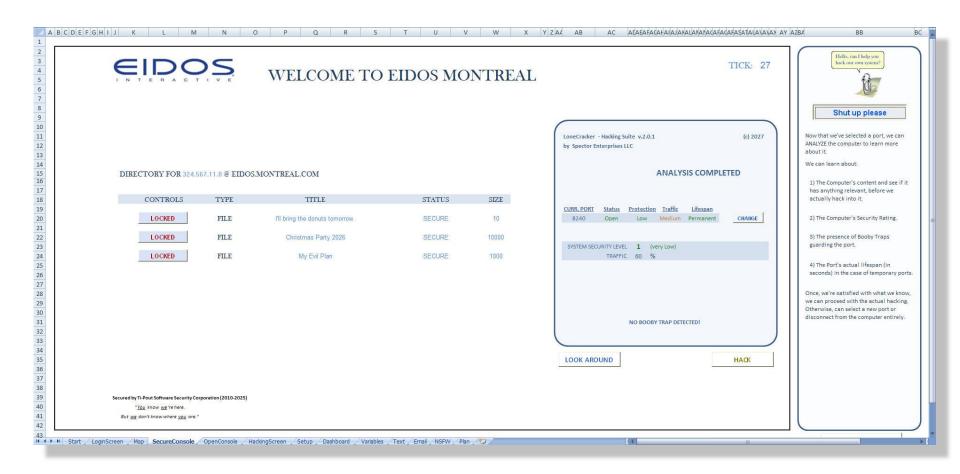


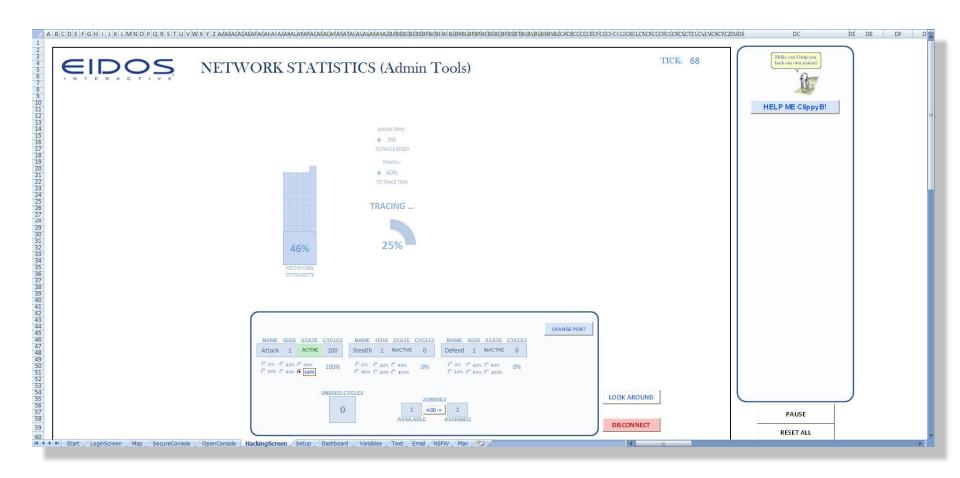
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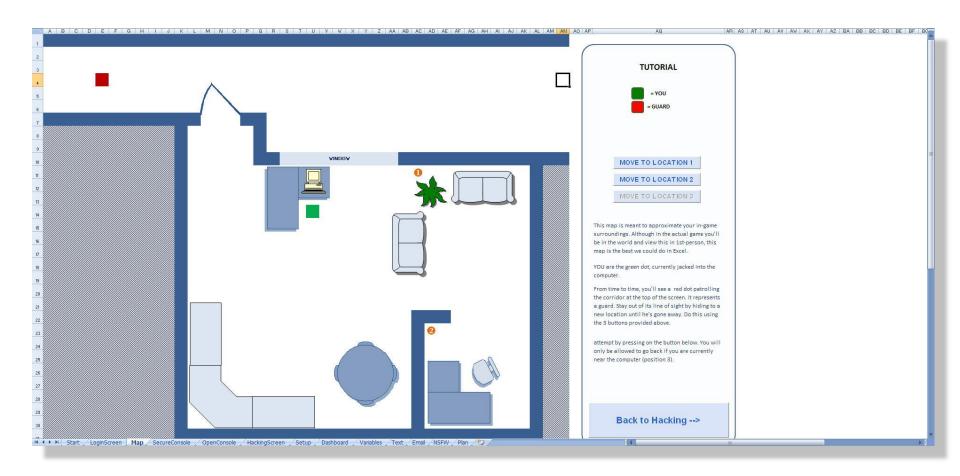
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	Round 2	Ac	lmit	13	29%	4	31%	3	23%	6	46%	45				
		Dis	credit	18	40%	10	56%	3	17%	5	28%					
		Do	odge	14	31%	5	36%	7	50%	2	14%					
	Round 3	Ac	lmit	19	42%	10	53%	3	16%	6	32%	45				
		Disc	credit	12	27%	4	33%	5	42%	3	25%					
		Do	odge	14	31%	3	21%	6	43%	5	36%					
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	Round 4	Ac	lmit	7	16%	2	29%	3	43%	2	29%	45				
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		Do	odge	21	47%	11	52%	7	33%	3	14%					
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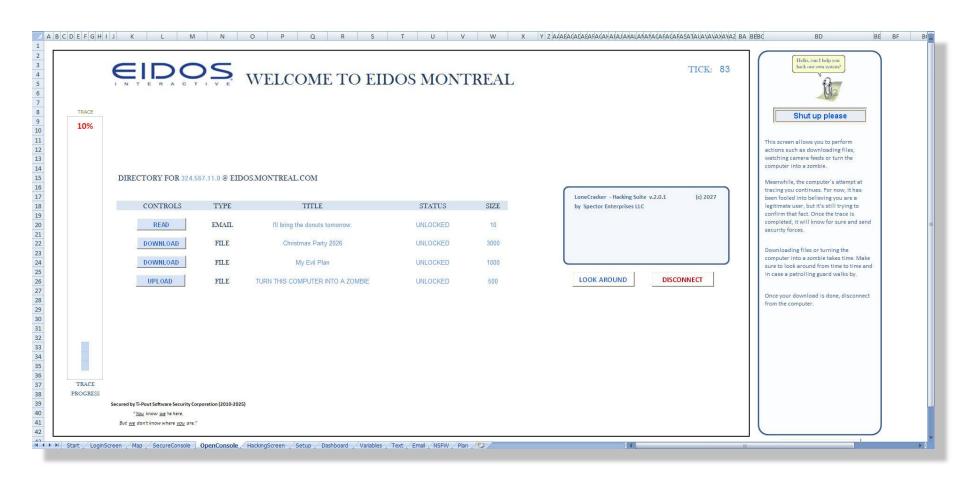
DESIGNING THE HACKING SYSTEM

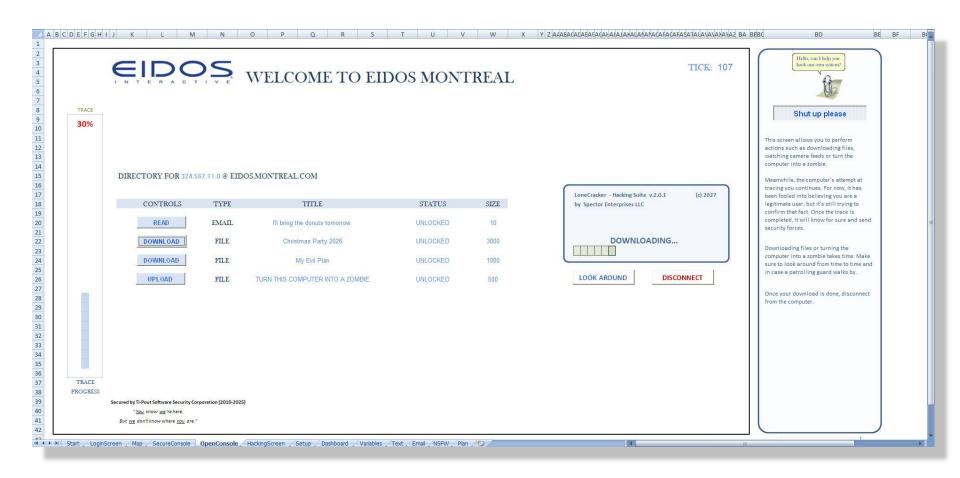


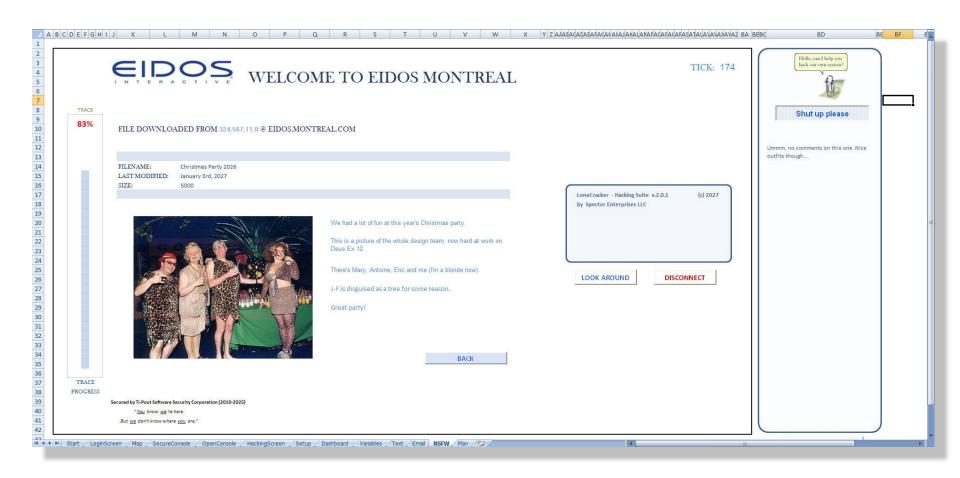


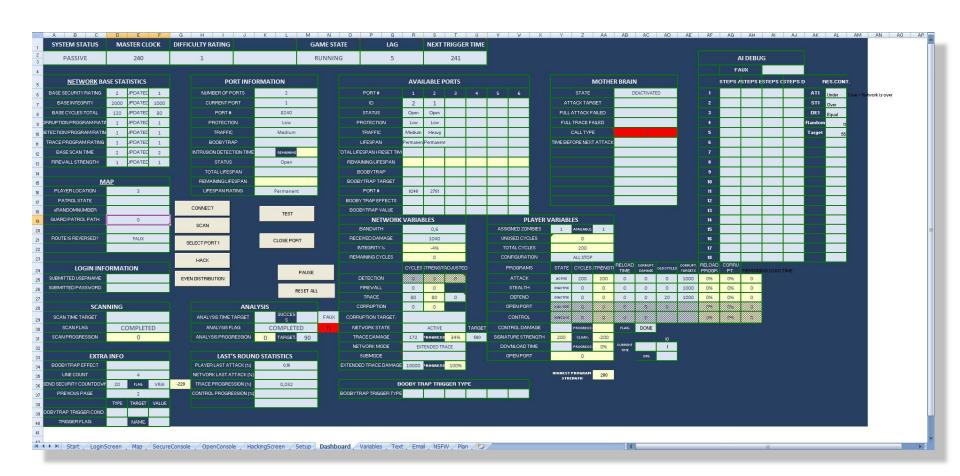




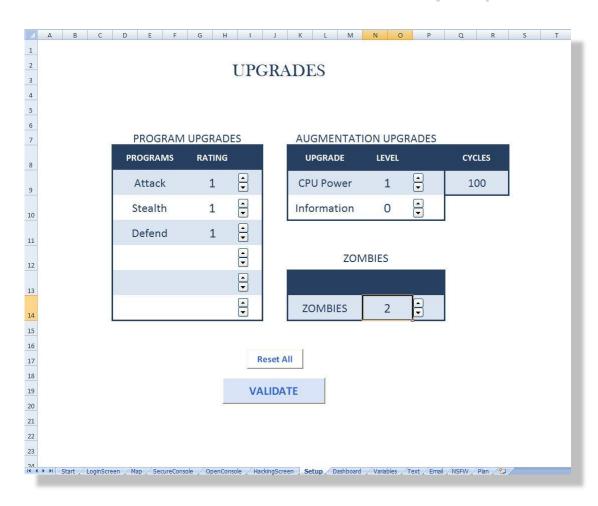








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AND THEN I TOOK AN ARROW TO THE KNEE...

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ABOUT THE ENERGY SYSTEM



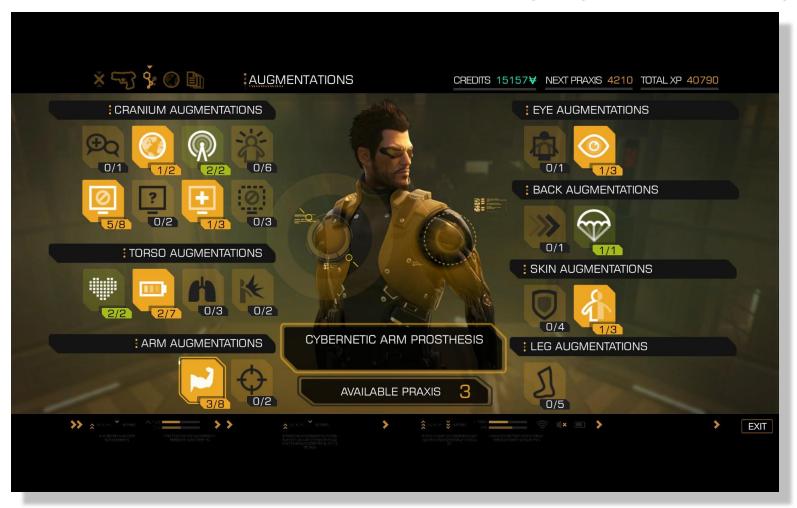
PRODUCTION

TROUBLE WITH BOSS FIGHTS

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CHANGING THE UPGRADE SYSTEM



BALANCING / DEBUG

BALANCING THE GAME

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CONCLUSION

THANK YOU!



in François Lapikas