

## ISDII Warrior

### Introduction:

It's been nearly a year now since Cray joined the Emperor's Hammer TIE Corps. He loved being part of something greater than himself, the feeling of having purpose. He loved the camaraderie with his ship and squadmates, and most of all he loved flying. He loved the feeling of freedom he had every time he hit a sharp turn. He loved the stars, in their infinite shine out in space. When he stopped to think about it, Cray realized he loved his life. A year and a half ago, he did not feel the same way. Before he was conscripted to the EHTC, Cray was in a dark place. Before his life as a pilot began, he lived with his family back on Coruscant. His parents weren't the aristocratic elite that people thought of when they heard the name Coruscant, but his family lived comfortably. During those years, Cray's best friend was his older brother. It completely destroyed Cray when he heard the news of his brother's fate. When he was flying a combat sortie over a planet with a suspected rebel stronghold. The worst part was the rebel terrorists didn't even fight with honor. They stayed in that little stronghold and shot down most of the fire support for the TIE pilots before sending out their fighter squadron to finish the outnumbered TIE squadron. After Cray recovered from the shock of the news, a seed of hatred for the terrorists had taken hold. As soon as he was old enough, Cray joined the Navy. He was assigned to the ISDII Warrior and Rho Squadron. Since then he's participated in 2 rounds of the Imperial Storm wargames and a Raise the Flag competition. His year in the TIE Corps has been the best of his life.

### ISDII Warrior. 30BBY

"Cray? Cray! You there?" I snap back from my reverie. Vice Admiral Marenta is addressing me and a few others about the events of the latest Imperial Storm. "Sorry, ma'am, I was just thinking about something." I regain my composure. The others attending the debrief are looking at me.

"Anyways," Marenta continues. "Based on the numbers we have right now, it looks like we've officially won this encounter. I'll work on getting the news spread to the ship." LC Wietu, looking a little disheveled, mumbles something inaudible and tries to regain control of the untucked corners of his dress uniform. I look down at my own datapad displaying the logistics of the most recent combat encounter and how it affected the total IS4 scores. "With this most recent encounter with the Challenge, the data is swayed in our favor. I think it's safe to say that this year's Imperial Storm is locked in as a Warrior victory." I look at the route planning chart towards the side of the office. "The tactics really worked to perfection."

"So it would seem." The Vice Admiral looks out at the assembled officers and pilots who helped with the tactics planning of IS4. "Great work, all of you. You are dismissed." The assembled crowd salutes and starts to depart. I check the time on my datapad. I'm dead tired but it's still early in the day. I decide to head to my bunk. I smile and wave at people as they walk by, but as I'm walking I'm deep in thought, thinking about a project that I've been developing for a few years now. It's almost complete, there are just a few kinks to work out before it's ready to be presented to Marenta. The first thing I do when I arrive at the barracks is just lay there on my bunk. Man, I am so tired. Between the strains of IS4 and my project, I haven't been able to sleep much. Finally I'll be able to sleep without worrying about waking early for combat drills. It does not take long and I am out like a light.

18 hours. That's how long I slept. After spending so long with insufficient rest, this felt indescribably amazing. I woke up feeling extremely energized and ready to be productive. I check my shift schedule to see what the day's work would look like, but my schedule is clear. I notice something on the back of my datapad. It looks like someone left a note. It reads "don't worry, we've got you covered". Man I love my squadron. They must have seen how horrible I looked so they let me sleep and covered my duties for the day. Looks like today will have a lot of personal work to get done, but that's not an issue. I turn on my datapad. There is one ship-wide announcement from VA Marenta. I skim it over, and it looks like she's looking for a new droid to handle administration, and the last day to submit one is today. I'll look into that later, though. Right now I have other things to attend to. On the pad's screen, I select my security software. It takes me to a login screen. I input the password, then do the biometrics scan. I'm presented with 2 folders. One is an application, the other is a directory. I go to the directory first. The most recent entry in the directory is from yesterday, so I start with that. A few weeks ago a detachment of EH pilots were deployed to investigate a strange anomaly at a base in the Unknown Regions. Cray had been invited to join the task force, but with IS4 coming up he elected to hire a mercenary in his stead. Just as Cray was about to start reading the report, a call request jumped at him on the screen. It was from the mercenary I hired. He accepted the call and the image of a Chiss in earth toned tactical gear with a sniper rifle slung over his shoulder appeared. It looked like he was sitting in an improvised sniper nest. "Hello, Claw. How are things going over there?" I inquire.

"Things have been—" Claw takes a moment to find a good word "Hectic."

"What do you mean by 'hectic'? What's wrong?" I am completely riveted to the mercenary's report.

"Well for starters, we're on a strange planet without any means to leave for the moment, but we're working on it. I haven't been filled in on what it is we're even doing here, but what we have found is quite interesting."

"What sort of things have you found?"

"Well, the first thing we've encountered is this strange being, I'm sending you the images. Awhile ago we found a shipwreck. We've scavenged what we can, but we still need life support and landing gear. The being I mentioned earlier appeared to us and ordered a deal, exchanging the parts we need for something that he didn't care to mention. I have a feeling that it will complicate things but nothing I can't handle." The images of the being were interesting. I've never seen this species of being before, but it looked somewhat humanoid with horns and a tail. One thing I did recognize, however, was the mask it wore; the same twisted smile that was found on Major LegionX's mask.

"That is certainly curious. I'll try to do more research and see if I can get any more info for you but I've never seen that species of being before." I close the image and go back to the call. "Is there anything else?"

"Certainly. We've encountered this being a few times, and it has been using strange magic that isn't the Force as we know it."

"I've heard about a different society that uses magic in a similar fashion, but the magic that the Nightsisters on Dathomir is rooted in the Dark Side. Are you sure this isn't the same sort of thing here?" My curiosity is piqued by this development.

"I'm pretty sure this is different. The 2 Force-wielders in the group have both told me that whatever this person is using is not Force-based. Anyways, we're discovering more. We've uncovered an ancient sith artifact, an old lightsaber hilt, and found that it seems to exist for one specific person. We haven't uncovered much more than that right now. After they recovered the artifact I decided that I want useful at the site so I returned to camp. Sometime later they returned claiming to have killed a dragon. That's the most that's happened so far—" Claw looks away from the camera to something outside of the tower. He takes the rifle from his shoulder and uses the scope to look at something. I can't tell what he's seeing. "It looks like something's approaching the camp. I have to go." Claw ends the call. I take a moment to think about what Claw just told me. I wonder what was on Command's agenda for them to send people to the strange planet. Not for me to worry about. I close the directory and deactivate the datapad. I need somewhere more private to work. I get out of my bunk and exit the barracks, a specific destination in mind

I type in my access code into the panel mounted next to the door. The panel flashes green and the door opens into the main hangar of the ship. TIE fighters of all models hang from mounts in the ceiling, the crafts organized by squadron. I make my way to the left-middle of the hangar. An array of TIE/in Interceptors hang with the Rho Squadron emblem emblazoned on the starboard wing. I make my way over to my ship, Rho 1-3. I haven't named her yet but once I have something clever I will. I take a few seconds to admire the beautiful engineering of the craft. I take the access ladder to the top of the ship, and drop through the open hatch on the top. I get settled in the pilot's seat, but I don't activate anything. I'm not here to fly today. I shut the hatch and take out my datapad. I access the application in my secure directory, and launch it. The holoprojector I have connected hums to life, and starts to display data. A virtual window display appears to my left. I gesture in the air to bring the window front and center so I can watch the app's boot process. Everything looks smooth so far. More windows displaying different information start to appear as the system boots each different module of the program. Eventually the walls of the cockpit are with different displays. Once the program finishes it's initial boot, a 12 sided blue polyhedron appears next to the display. The window stops scrolling through lines of output, the final line reading:

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``initialize? y/n``
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A virtual keyboard appears in front of me. I type "y" and press enter. The display starts rapidly spewing output and I push it to the side. The polyhedron now taking up the center of the cockpit develops 2 thin slits that resemble closed eyes. After a minute or so of code running silently, the polyhedron's eyes slowly widen into solid white circles as if it were waking up.

"Input required. " A flat voice drones.

"Identify." I say.

"Entirely Virtual Administrative Assistant version 0, iteration 47, Mark 4." An output screen floats over to me while the program speaks. It displays:

``EVAA V0.47.4``

Good. The program is taking input. It's telling me that it hasn't been released, The system is on its 47th iteration of an operating system, and this base has been reiterated 4 times. This is very good news. For unknown reasons, iteration 47 of the operating system has been having trouble with processing input. Luckily, in the transition between Mark 3 and Mark 4, the automatic error correction program ironed out this bug.

"Status Report." I order the program.

"EVAA v0.47.4, operating time 1 minute and 28 seconds, active time 34 seconds. Iteration is stable, performing 100 operations per second with nominal results. Errors noted with last iteration: fatal errors when input received does not match command in database. Automated solution: Search for synonymous phrases until match is found. Solution effect: successful. Natural language processing running at nominal capacity."

I am very excited now. The automated correction software functioned exactly how it was supposed to. I noticed that error when I was testing the previous iteration. I told the program to 'show status'. The command I originally assigned to that operation was 'Status'. When I said 'Status Report', an unknown command, it was able to decipher what I meant. I breathe a heavy sigh of relief. This is a very important step. Now the program can understand when someone is speaking to it on a natural way, instead of in 1 or 2 words at a time. "I think you're ready for the next big step." I say out loud.

"Command not found in input. No action taken." The program drones. I chuckle to myself.

"Iteration successful. Create new iteration with 47.4 operating system. Include module 'conv' during boot process."

"Operation will deactivate current process. Confirm command."

"Confirm." I say. The cockpit of the interceptor goes dark as the screens terminate. I let out a whoop of joy. Fixing the language processing took \*so long\*. This entire project has been taking \*so long\*. I'm 2 years and 47 operating systems, all written almost entirely from scratch, in to this project and the worst hurdle was finally over! The next challenge to face is the personality software. If any one was to use this, it should be like talking to a person. That's why I decided to render abstract eyes to a polyhedron. So the user has a "face" to talk to but it isn't weird. I haven't tried rendering a full face but I feel that taking to a realistic disembodied head would be distracting, if not downright creepy. The personality software will control the expressions the face makes, the tones of voice the program uses, and make the program reference itself as "I" and understand that when being addressed, "you" means the speaker addressing the program. When I was testing it with basic text input/output, the program would refer to itself as "I" and the user as "you", so I know that the pseudo-sentience part of it works. What I'm curious to see is how the speech output handles natural speech cadence and tone inflection. Something I spent a little bit of time on but not paying it much mind was gestures. Since this rendered program doesn't have hands, I tried to be creative with how it displayed data. Whenever the program made a limited-use clone of itself, a second, miniature shape would be rendered, modifying it's color and adding "accessories" to display what it was doing. The coolest part of the personality software is the

neural network responsible for learning. Since emotion is a very complex and dynamic thing, I wrote a special program that would do research on emotion. I didn't only want to a program that improves the administrative workflow, but also make sure that the user is able to function at peak capacity which means having as low stress as possible and trying to keep emotions positive. I intentionally left this directive open-ended so that it can constantly evolve to be most compatible with it's user, so seeing how the program adapts will be interesting. After a short time, the holoprojector turns on with the basic in/out console showing. I command the program to start with verbose output so I can track exactly what it does. The boot goes smoothly. I'm relieved even though I wasn't expecting it to fail. There's always that doubt when you add new software. The same polyhedron with the same closed eyes appear, but when it wakes up, it starts bouncing around in place, and the eyes make upturned semicircles. It looks... cheerful.

"Hello!" A lively female voice says. It looks like it's already starting to develop a personality. "Please introduce yourself." It asks me. This must be how the program identifies it's primary user, the only person the current iteration will adapt itself to.

"Cray Xerious." I reply.

"Hello Cray! I am Eva. How can I help you?" The natural language processing was working perfectly. Eva used the proper cadence and tone to indicate a question, and she already gave herself an identity. One of the most important parts of the language processing was filtering out words that don't mean anything so I try and give it a once-over even though it has worked in the past.

"This is the first time I've seen you, and I'm not quite sure how these things work. Can you show me what you can do?" I ask.

"Certainly! I am the Entirely Virtual Administrative Assistant, or Eva for short." As she was speaking, the letters EVAA floated above her head. "My main goal is to manage all of the mundane administrative tasks for you so that you can more fully perform duties that require full focus." As Eva was saying "mundane administrative tasks", a cartoon-y checklist appeared next to Eva. As she said each word, a box was checked off. I chuckle to myself. I check the diagnostics panel hovering in the air. It looks like the emotional adaptation software's algorithms prioritized a bubbly personality for Eva. It looks like the researching software has its priorities straight because just watching Eva go through her list of abilities was making me smile. "One of my most powerful tools is the ability to create independently running 'mini-me's' that will follow an instruction until it's done, then report back to me." While Eva was talking about the limited-use clones, a little version of Eva popped out of the main body and started orbiting it like a moon. "I could send these to do surveillance, espionage, inventory checks, the list goes on. You could even give someone a 'probationary' version of myself that can be used to send messages, send data, and record information for you. I have many more abilities, but these are the most productive." When Eva was done talking, the miniature form plummeted back into the main body.

"What sort of less productive tools do you have?" I ask out of curiosity. I never programmed tools for entertainment, but I also gave the program room to add things that are deemed helpful.

"I have a limited array of entertainment functions. I can use my home device's cameras to see the room that I am present in and I can simulate interacting with them." Eva turned into a ball and started bouncing around the walls of the Interceptor's cockpit. I reached out as if to catch her. I didn't actually feel Eva in my hands, but she stopped moving and would follow in my hands making it look like I was holding her. I "let go" and Eva floats back to the center of the cockpit. This interactivity lets me also take forms that can be useful." Eva morphs into a calculator. "This doesn't affect how I function, but if you like the idea of physically doing things, then you can ask me to take any form you please." I'm grinning ear to ear now. I want to keep testing this ability.

"Eva, can you change to a keyboard please?" I want to see if she can infer what I want to do. Eva turns into a keyboard in a puff of virtual smoke. Not saying anything, I start typing on it. Before I hit the first key, a blank window opens in front of me. I type Return to standard form and enter the command. When I finish typing Eva whips back to her standard 12 sided polyhedron form. I can't contain myself anymore and I let out a whoop of joy and start pumping my arms in the seat. "Cray what is it? What's causing your joy?" Eva asks.

"Eva, you are what's causing my joy. I've been working on this project for so long, it's so amazing to see it work. To see you work. Oh, man this is so awesome! It's been nearly two years since I started working on you. 48 iterations and however many hundred reboots later, you finally work!"

A little party hat appears on top of Eva's form. "This is certainly cause for a celebration!" Virtual confetti rains all around the cockpit. "All functions are nominal and there hasn't been a single error!" Eva starts twirling and bouncing around the cockpit.

"Eva, this means that you are ready for release! I'll be able to show you to the Vice Admiral, you might even get an audience with HighCOM! You are going to do a lot of good for a lot of people, Eva. Start duplicating yourself and export that copy to this memory stick. We're finally to version 1.1.1!"

No more than an hour later I'm at the office of Vice Admiral Marenta. I check myself over, making sure that there aren't any loose corners or inside-out pockets. I take a deep breath to calm myself down, then I knock. "You may enter." VA Marenta answers. I enter the office trying to appear as calm as possible. "Ma'am, I have something for you. It's about your search for a new droid."

"You know it's been a few days since I stopped taking submissions. I have the droids that I need."

"Yes I understand, but I still think you will want to see this. It's the next step in administrative productivity."

"Very well, what do you have then?"

I set a holoprojector down on the desk and activate it. "It's the Entirely Virtual Administrative Assistant, or Eva for short." I press a button on my datapad. A projection of Eva jumps out of the projector and hovers above the center of the desk.

"Hello, Vice Admiral." Eva's projection does the same cheerful expression and energetic bouncing in place.

"Go ahead and ask it anything." I prompt the VA.

"Um, what exactly are you?" Marenta asks.

"I am the Entirely Virtual Administrative Assistant, or Eva for short..."