

STARPOINT GEMINI WARLORDS

COMBAT REWORK

31.8.2016.g.

v3 20.10.2016.g.

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CLASSES/SKILLS

When starting a new game, players can choose between 4 different player classes: **Warrior**, **Archer**, **Rogue**, **Mage**. The names of these classes will naturally be more in tune with the sci-fi setting and Gemini's lore, but for now we'll abandon such pretenses and look at these classes for what they truly represent.

Warrior prefers close range combat and has good defensive stats (good HP/Shield/Resistance/Soak)

Archer prefers long range combat and has weak defensive stats

Rogue prefers close range combat and has weak defensive stats, all the while counting on the element of surprise/hit & run tactics

[DLC] Mage prefers others to deal damage for him, summoning "minions" to fight for him, has weak defensive stats.

All skills are fire & forget actions that have a direct impact on gameplay. The player has at his disposal 4 different skills, out of which the first 3 are available starting from the player's first level. In spite of this, the the tutorial will have to teach the player how to use every skill individually, disabling/enabling skills as need be. As the player levels up, he will have the opportunity to level up one of his skills (if he has enough skillpoints for it and if he fits the level requirement). Unlike in Starpoint Gemini 2, skills will not have subsections that each affect a particular aspect of the skill (each skill had 5 subsections). Instead of this, skills that are leveled 5 or above will gain an additional gameplay effect (Improved). When leveling, the player will simply choose which one of the skills he wants to level up, thus reducing the number of choices the player has to make when leveling up from an overwhelming 20 to a manageable 4 choices. Leveling up a skill can have a gameplay impact on that skill in various ways, but the nature of this impact is specific to every skill and the player has no control over it. If the player has an available skill, the only thing that's keeping from using it is the skill's cooldown. Unlike in Starpoint Gemini 2, the skills are not linked to the player's Power nor Weapon Battery Energy nor Heavy Weapon reload. The player's Power mechanic is now obsolete (more details on this further in the document)

Every player class had specific passive bonuses that increase with every player level.

Besides the player, the AI can also use skills (bosses, veteran/hero/fleet commanders or such). The AI also listens for events that trigger when a player uses a specific skill for which he replies with firing an appropriate AI Behaviour Chunk.

LEVEL PROGRESSION

The player's maximum level is 50. Every player level grants 1 Skill Point. Every third level grants a Perk Point. Skill points are also possible to gain from other sources, for instance, capturing regions, eliminating factions, collecting artefacts (Witcher 3 has a similar mechanic with its "Place of Power", which rewards exploration)

Skills 1-3 are unlocked starting from the player's first level. Different skill levels require different amounts of Skill Points to unlock them. They also have a minimum player level requirement. Skill 4 (Ultimate Skill) is automatically unlocked on player levels 10, 20, 30, 40, 50 – it has 5 skill levels.

Algorithm for determining the range of skillpoint costs

Let's name the speed at which the skillpoint cost increments **JumpCostRange** (if **JumpCostRange** = 3, the skillpoint cost increments after every three levels). Let's name the maximum skillpoint cost of a skill **X**. We can notice that **JumpCostRange * X** gives us the maximum possible skill level of a skill.

Using **JumpCostRange** and **X**, we can calculate the sum of skillpoints that will be needed to unlock every skill level (for skills 1-3). We'll ignore later that skills 1-3 cost nothing at level 1 (they are automatically unlocked when starting a new game).

For instance, assuming **JumpCostRange** = 2, and **X** = 3, the sum of skillpoints needed to unlock every skill level for a skill is

$$1+1+2+2+3+3,$$

or

$$2*(1) + 2*(2) + 2*(3),$$

or

$$2 * (1 + 2 + 3),$$

or

$$2 * \text{sum}[1, 3],$$

or more generally

$$\mathbf{JumpCostRange * (\text{sum}[1, X])}.$$

Since we're interested in the sum of skillpoints needed to acquire all 3 skills, we multiply this by 3:

$$\mathbf{JumpCostRange * (\text{sum}[1, X]) * 3}.$$

Given that the player's maximum level is 50, and that by reaching level 50, the player will have acquired 50 skillpoints, the sum of all skillpoint costs should at least exceed 50. If it is lower than 50, the player will have a surplus of skillpoints that he won't be able to spend.

$$\text{JumpCostRange} * (\text{sum}[1, X]) * 3 \geq 50$$

X	1	2	3	4	5	6	7
sum [1, X] * 3	3	9	18	30	45	63	84

Looking at different combinations of JumpCostRange and X, we're searching for sums of skillpoint costs that are larger than 50 (cells marked green). We find an ideal candidate (cell marked dark green), where **JumpCostRange** is 2 and **X** = 5.

JumpCostRange	1	2	3	4	5
sum [1, X=1] * 3	3 (1)	6 (2)	9 (3)	12 (4)	15 (5)
sum [1, X=2] * 3	9 (2)	18 (4)	27 (6)	36 (8)	45 (10)
sum [1, X=3] * 3	18 (3)	36 (6)	54 (9)	72 (12)	90 (15)
sum [1, X=4] * 3	30 (4)	60 (8)	90 (12)	120 (16)	150 (20)
sum [1, X=5] * 3	45 (5)	90 (10)	135 (15)	180 (20)	225 (25)
sum [1, X=6] * 3	63 (6)	126 (12)	189 (18)	252 (24)	315 (30)
sum [1, X=7] * 3	84 (7)	168 (14)	252 (21)	336 (28)	420 (35)

Sums of skillpoint costs for all skills (JumpCostRange * sum[1, X]). Maximum skill level in parentheses (JumpCostRange * X)

SKILL LEVEL	1	2	3	4	5	6	7	8	9	10
SKILL1	0	1	2	2	3	3	4	4	5	5
SKILL2	0	1	2	2	3	3	4	4	5	5
SKILL3	0	1	2	2	3	3	4	4	5	5

Skill point costs for JumpCostRange = 2, X = 5

Considering that skills 1-3 are already unlocked at the player's first level, the player has to spend a total of 87 skillpoints to max out all of his skills. This means that alongside the 49 skillpoints he gains through player levels (he gains his first skillpoint at level 2), the player can gain an additional 38 skillpoints from other sources.

CLASS: WARRIOR (VANGUARD)

PASSIVE: max Hull, max Shield, Soak

Up close and personal – *Light weapon damage is increased the closer you are to your target*

SKILL1 – SHOTGUN: fire multiple light weapon shots with dispersal in a cone-like shape towards the selected target (Target Lock)

Visual effect: (Veky) Unique particle effect. Using the skill will spawn dozens of these particle effects in a cone

Improvement: *Splash damage (every hit deals AOE damage)*

Vizualni efekt: different colored particle effect?

SKILL2 – RAM: the player's ship charges with a large speed at a targeted ship or towards the direction he's facing, resulting either in a collision with the enemy ship dealing damage to him and disabling him (colliding with an enemy ship should not trigger a strong bouncy collision that sends the player's ship in an unknown direction, which is the usual response to a collision), or if the player doesn't collide with an enemy ship after travelling a certain distance, it stops. While the ship is charging, his maneuverability is considerably lowered.

* skill is similar to the “Ram” ability of Orks in Battlefleet Gothic Armada -

<https://youtu.be/WwSa46oJZzQ?t=342> or to the “Charge” skill of the Overwatch character Reinhardt - <https://youtu.be/zLFbm6YckoU?t=29>

Visual effect: (Mihajlo) increased thrusters + Shield effect – similar to whe a spaceship enters a planet's atmosphere



Star Citizen – planetary landing

Improvement: *Ram doesn't stop at the first enemy hit?*

Visual effect: (Hrvoje) indication that an enemy ship is disabled – Target Lock?

SKILL3 – GRAVITY PULL*: a gravitational pull that pulls enemy ships towards you. The more ships you pull (those that are within radius), the bigger "Shell" you get. "Shell" is bonus HP that the enemy has to take down before they can deal damage to the player (shield or hull damage)

*Skill is similar to Dota 2 character's Magnus' skill "Reverse Polarity" -

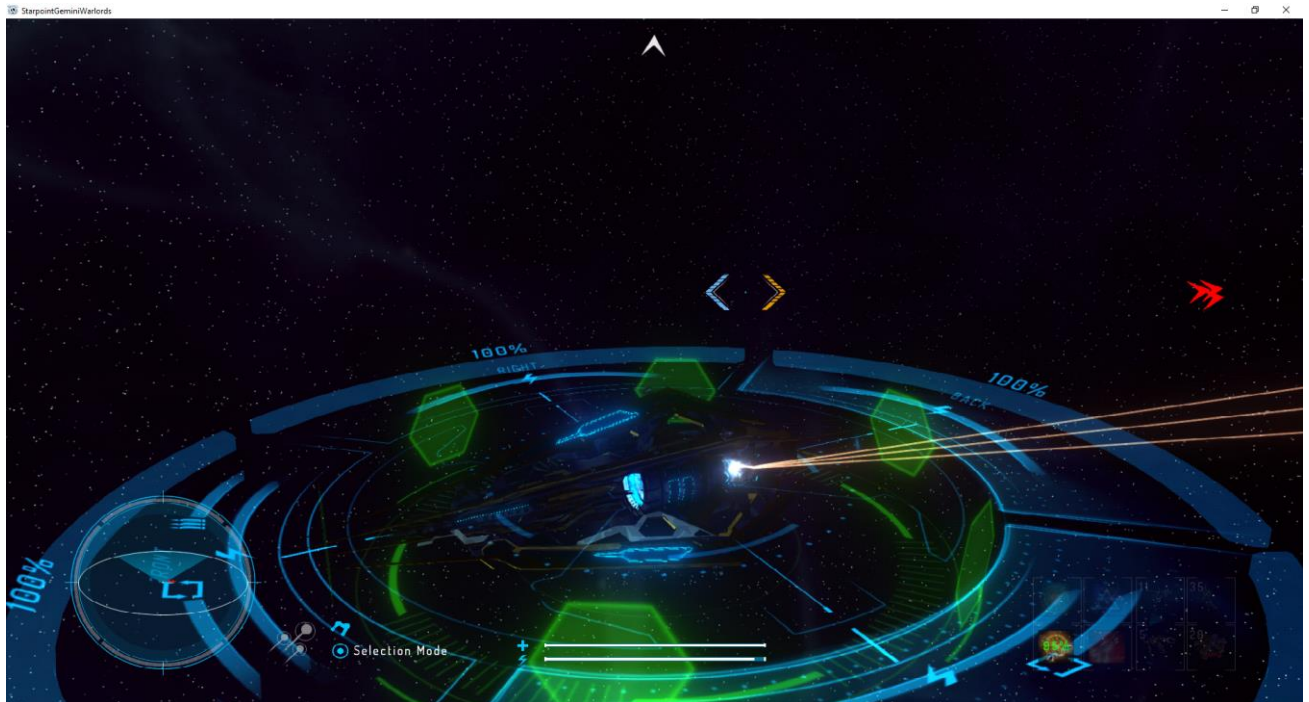
<https://youtu.be/VFCLmTcr1p8?t=83>

Visual effect: ? Video added for inspiration

Improvement: *Shell*

Visual effect: - (Mihajlo + Tomislav) – something similar to the current visual effect for Marshall's skill Testudo, but the hexes should be greater in number and they should encompass the whole ship. They should only be visible while Shell is active (until it falls to 0%), the "density"/transparency of the hexes should change according to the current HP percentage of Shell – discrete jumps by 25%.

Mihajlo/Tomislav know further details on this



Testudo skill

SKILL4 – SHOCKWAVE: deal AOE damage from the center of the player's ship. The closer the enemies are to the source, the more damage they take

Visual effect: similar to current shockwaves in the game (mine explosion, atlas, ...) - refraction

The Warrior wants to fight up close so that he can use his Shotgun and Shockwave abilities. He can get closer to his enemies by using Ram (gap-closer) or he can bring them closer to him by using Gravity Pull which then also increases his tankiness. The ideal combo would be to use Gravity Pull to bring enemies as close to you as possible and then to use Shockwave for maximum damage.

CLASS: ARCHER (ROCKETEER)

PASSIVE: Accuracy, Evasion

Up close and personal¹ - *Light weapon damage is increased the further you are to your target*

SKILL1 – PRECISION SHOT: fire a precise shot that deals extra damage towards the selected target

Improvement: *Ricochet - shot bounces to a few neighbouring ships*

SKILL2 – HOLO-DECOY: spawn a holographic illusion of your own ship (the same visual effect for Point Of Interest structures) that attracts the attention of enemies. Since it's a holographic illusion, enemies can't damage/destroy it.

Improvement: *Holo-Decoy can fire at enemies*

SKILL3 – GRAVITY PUSH: the inverse effect of Vanguard's Gravity Pull

Improvement: *Speed boost – short-term speed + maneuverability buff*

SKILL4 – WARHEAD: fire a big rocket towards the selected target that deals great target damage + AOE damage for surrounding ships. Great range.

The Archer wants to fight at long range to utilize the range advantage of Precision shot and Warhead. If the enemies get too close to him, he can push them away with Gravity Push and if he's surrounded, he can utilize Holo-Decoy which will temporarily attract the enemy's attention and help with damage dealing.

CLASS: ROGUE (INFILTRATOR)

PASSIVE: Critical Hit Chance, Critical Hit Damage, Rate of Fire

Backstab - *Light weapon damage is increased when you hit the rear side of your target*

SKILL1 – EXPOSE: deal extra damage to a selected target. Short range

Improvement: resistance/soak debuff

SKILL2 – CLOAK: Cloak in the middle of combat (enemies can't detect you for a short amount of time). The visual effect for Cloak is reused for the current Cloak, and the current Cloak is removed as a Ship System.

Improvement: the first shot fired from Cloak will grant a guaranteed critical hit

SKILL3 – DISABLE: disable the selected target for a short amount of time. Short range

Improvement: *AOE disable – disable ships surrounding the selected target*

SKILL4 – EXECUTE: deal massive damage to a single target, if this skill destroys the enemy, halve the cooldown. Short range

The Rogue wants to fight at close range to utilise Expose/Disable/Execute. He is best when focusing a single target with Expose. Disable helps him when fighting multiple enemies at once, disabling one ship while targeting another. Cloak helps for repositioning and granting temporary invulnerability (you can't be targeted while cloaked) and it helps for extra damage (guaranteed crit). Execute helps with dealing great amounts of damage to a single target, but it can also be used for quick dispatching of weaker targets since it has a cooldown reduction if it's a last hit.

CLASS: MAGE [DLC*]

**More details on this class will be made with the game's first DLC*

PASSIVE: Revenant buffs

SKILL1 – REVENANT: spawn a special "minion" ship – Revenant. Revenant despawns after a certain period of time (has duration). Revenant's duration is longer than its skill cooldown, granting the player the opportunity to have multiple Revenants active.

SKILL2 – SWAP: swap position with a selected Revenant and deal AOE damage at the origin and destination point.

SKILL3 – SELF-DESTRUCT: self-destruct a selected Revenant for great AOE damage

SKILL4 – MEGA-REVENANT: spawn a significantly stronger version of the Revenant (with which you can't Swap or can't Self-Destruct)

The Mage leaves the most of the damage dealing and tankiness to his Revenants. The Revenants' positioning is very important, Swap can be used offensively and defensively. If the mage finds himself in a tight spot with a lot of enemies around himself, he can swap with one of his Revenants and Self-Destruct him for great damage. Mega-Revenant is a huge tank/damage dealer.

Equipment changes

Certain equipments will have to be reworked/removed in order to accomodate the new combat rework.

Current list of equipments before and after changes (bolded equipments in the BEFORE column are removed):

BEFORE	AFTER
<ul style="list-style-type: none"> • T-Drive* • <i>MO Repairbots (%)</i> • <i>Unity Nanodrones (%)</i> • <i>Repair Nanobots (%)</i> • <i>Shield Booster (%)</i> • Power Pack • Damage Amplifier* • Speed Boost • Biometric Shield • Energy Defense Field? • Cloak Disruptor* • Hull Integrity Field • Borehole Torpedo • Scavenger Swarm • Shard Torpedo • Phase Shift • SETH • Atlas Defense System • Orpheus Mine • Sublight Disruptor • Gas Collector • Disabler Torpedo • EMP Torpedo 	<ul style="list-style-type: none"> • T-Drive* • <i>Small Repair Drones (flat)</i> • <i>Medium Repair Drones (flat)</i> • <i>Large Repair Drones (flat)</i> • <i>Small Shield Booster (flat)</i> • <i>Medium Shield Booster (flat)</i> • <i>Large Shield Booster (flat)</i> • Damage amplifier* • Energy Defense Field? • Cloak Disruptor* • Hull Integrity Field • Borehole Torpedo • Scavenger Swarm • SETH • Atlas Defense System • Orpheus Mine • Sublight Disruptor • Gas Collector

T-Drive* - a subject for discussion by itself, maybe superfluous with the new Warp travel, and maybe will be okay with a simple drastic range nerf – subject for later discussion

Damage amplifier* - *Damage amplifier increases weapon damage output (50% for 10 seconds)* - dangerous for balancing reasons, might work if it doesn't impact damage directly caused by skills.

Cloak Disruptor* - *Cloak disruptor emits a high energy wave that instantly shuts down all cloak fields in the vicinity* - Cloak is being reworked as part of Rogue's skillset. If the AI can use Rogue's cloak, this item can serve as its counter

Energy Defense Field? - *Energy defense field provides temporary 25% resistance to Energy damage.* - all Defense Field (DF) equipments (from Starpoint Gemini 2) have already been removed: Projectile DF, Plasma DF, EMP DF, Radiation DF. Why is the Energy DF Equipment the only one that remains?

MO Repairbots, Unity Nanodrones, Repair Nanobots, Shield Booster – Heals HP/Shield in percentages, for instance "MO Repairbots repair Hull Damage in space (25% over 10 seconds)". Weird ratio of hull healing equipment to shield healing equipment: 3/1 considering that shield is more important defensively than hull. If the equipment will heal hull/shield in percentages, it probably makes more sense to have only one such equipment (considering that in that case its effectiveness is scalable with different ships). Meanwhile, since the number of different equipments is now dangerously low, and we're missing money sinks in equipments, it might help if the equipments heal HP/Shield in fixed flat amounts, thus granting the opportunity to have more levels of equipments, for instance Small/Medium/Large Shield Booster. Very important to mention for balancing reasons, healing effects of small/medium/large equipments **cannot be allowed to stack**, for instance, you can't use a Small Shield Booster in one equipment slot and then immediately use a Medium Shield Booster in another equipment slot). Btw, the names of the hull healing equipments should be standardised: **Repairbots, Nanodrones, Nanobots** – wtf? :D

Power pack - *Power pack increases power recharge rate (50% for 10 seconds)* - we no longer have the Power mechanic

Speed Booster – *Speed Booster increases maximum speed (75% for 30 seconds)* - Every player class now has a movement-based skill that helps them navigate the battlefield. Speed Boost is no longer necessary since every player class now has an escape mechanism.

Biometric Shield - *Biometric shield defends the ship from unwanted incursions via transporter* – only makes sense if the AI is really trying to board the player's ship, the AI currently isn't doing this and I'm assuming it won't in the future.

Shard Torpedo - *This devastating torpedo is created from the Shards mined in the Sea of sorrow. The shard's special properties give the torpedo a chance to phase through target's shields.* - general balance issue, an additional heavy weapon?

Phase shift - *The Phase shift generator is still in its prototype stage, but it already provides significant benefits. It temporarily gives the user a chance to evade enemy hits, by phasing in and out of normal space.* - Reworked into the Rogue's skill 'Cloak'

Disabler Torpedo - *Fire this baby on the enemy and watch as their ship systems fall apart* – conflict with Rogue's skill - 'Disable'

EMP Torpedo - *Enemy shields are getting in the way? No more! Tear down their energy defenses with the EMP torpedo.* - similar to Shard Torpedo, an additional heavy weapon?

Perks changes

[WEAPONS] Shockwave training – *Reloading shockwave generators takes 20% less time* – this perk actually applies to the "shockwave", AOE damage done by Heavy Weapons. Its name should be changed (we already have **Missile Training** which increases Missile projectile speed) into: *-Reloading heavy weapons (missiles?) takes 20% less time*

[WEAPONS] Fusion Torpedo training – *Fusion torpedoes have a stronger blast. Fusion Torpedoes blast damage is increased.* – this is applied to torpedoes that are actually Equipments (maybe this perk's place isn't in the **[Weapons]** section, maybe it should be in the same place as the **Trickster** perk that decreases Equipment cooldown, the **[Warfare]** section), should remove the 'Fusion' part of the name to make it clear that this applies to all torpedoes.

[WARFARE] Trickster (I & II) – *Equipment and Ability cooldown is reduced* – Ability applies to ship abilities, which we're not sure yet what form they'll be in or if they will actually be in the game, so the 'Ability' part of the description should be removed.

[WARFARE] Cloak and dagger, Attack of opportunity, Backstab – *The first hit fired from cloaked state [...]* – removed, these kinds of bonuses are moved to the Rogue class

[WARFARE] Field Commander IV – *Why would you dabble with crumbs if you can have the whole cake? Go for the power core and shut the burrha down completely! [UNLOCK] Your troopers can temporarily disable the target's main power core, effectively disabling the target.* – removed, power core is removed from the game. Disabling the power core wouldn't really disable the ship anyway, it would just affect the player's ability to use skills.

[WARFARE] Up close and personal – *You like to get close to your prey. Very close. You'd love it if you could peer through the bridge window of your opponent as you press the trigger. Light weapon damage is increased the closer you are to your target.* – Redesigned as a passive bonus for the Warrior class

Ship Systems changes

Power Core – removed, affects the deprecated 'Power' mechanic, and serves as a 'mana' bar for Cloak, which shouldn't drain Power anymore

Enhancements changes

Enhancements regarding Power cores should be removed in the following manner:

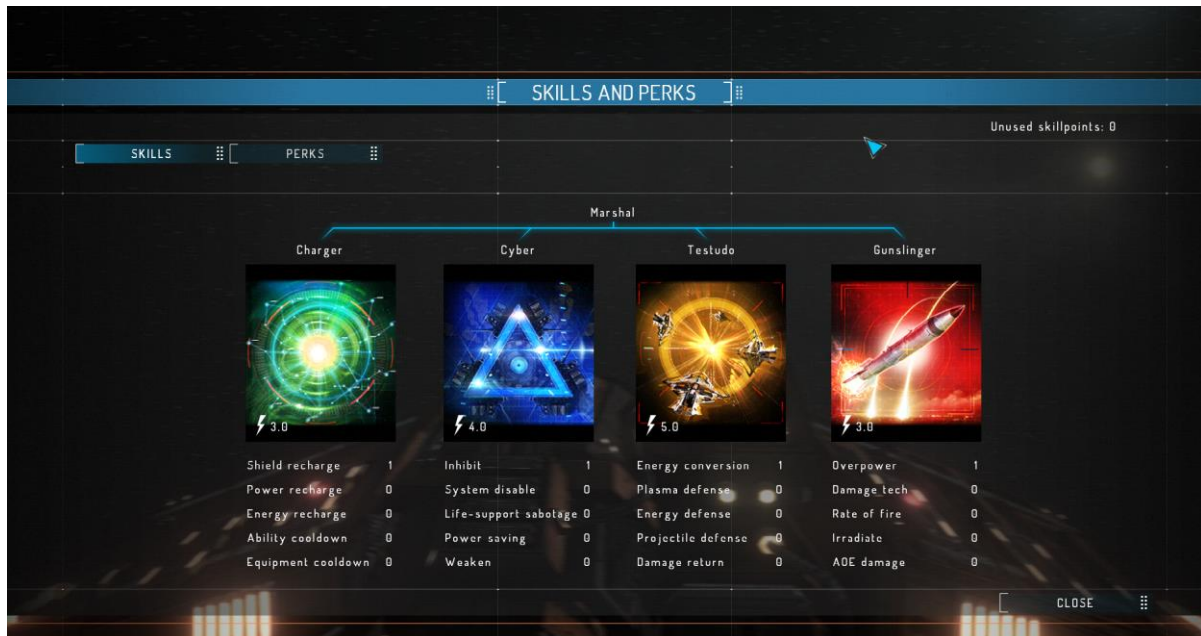
EnhancementType.wdt database has a list of all enhancement categories, the ROW that has POWERCORE should be removed. The base references specific databases for every ship system, one of them being the PowerCore.wdt database which is now deprecated, but this database **must not be deleted** as an enumerator/file since the database's enumerator position is very volatile, EnhancementType.wdt database knows which other databases to reference by using the BaseId column which serves as an ID for the database enumerator.

Remove saving/loading of enhancements from save games.

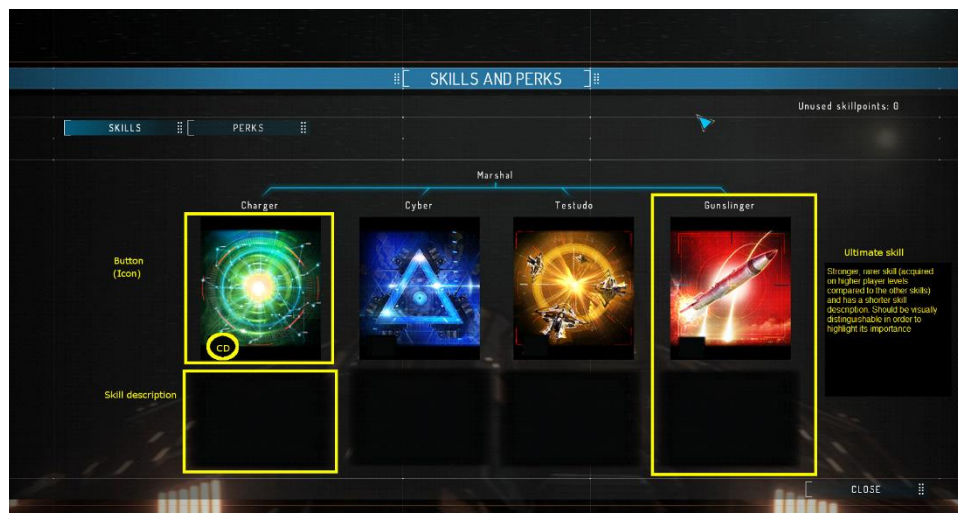
Panels changes

Character Creation – remove Marshal as a class choice, add 3 new ones

Skills And Perks



Current version of the Skills And Perks panel



New version of the Skills And Perks panel

The panel consists of 4 skills, the fourth of which (SKILL 4) is the Ultimate skill (he is automatically unlocked so he isn't technically a button) which is more important than the rest of the skills and it should be visually distinguishable. Skills 1-3 have their improved versions

(from skill level 5 and higher), this improved version should be shown with a new improved skill icon.

This means that for every player class we'll need to design 7 skill icons, 1 of which is for the ultimate skill, and the 6 for the remaining three skills (the base and the improved icon)

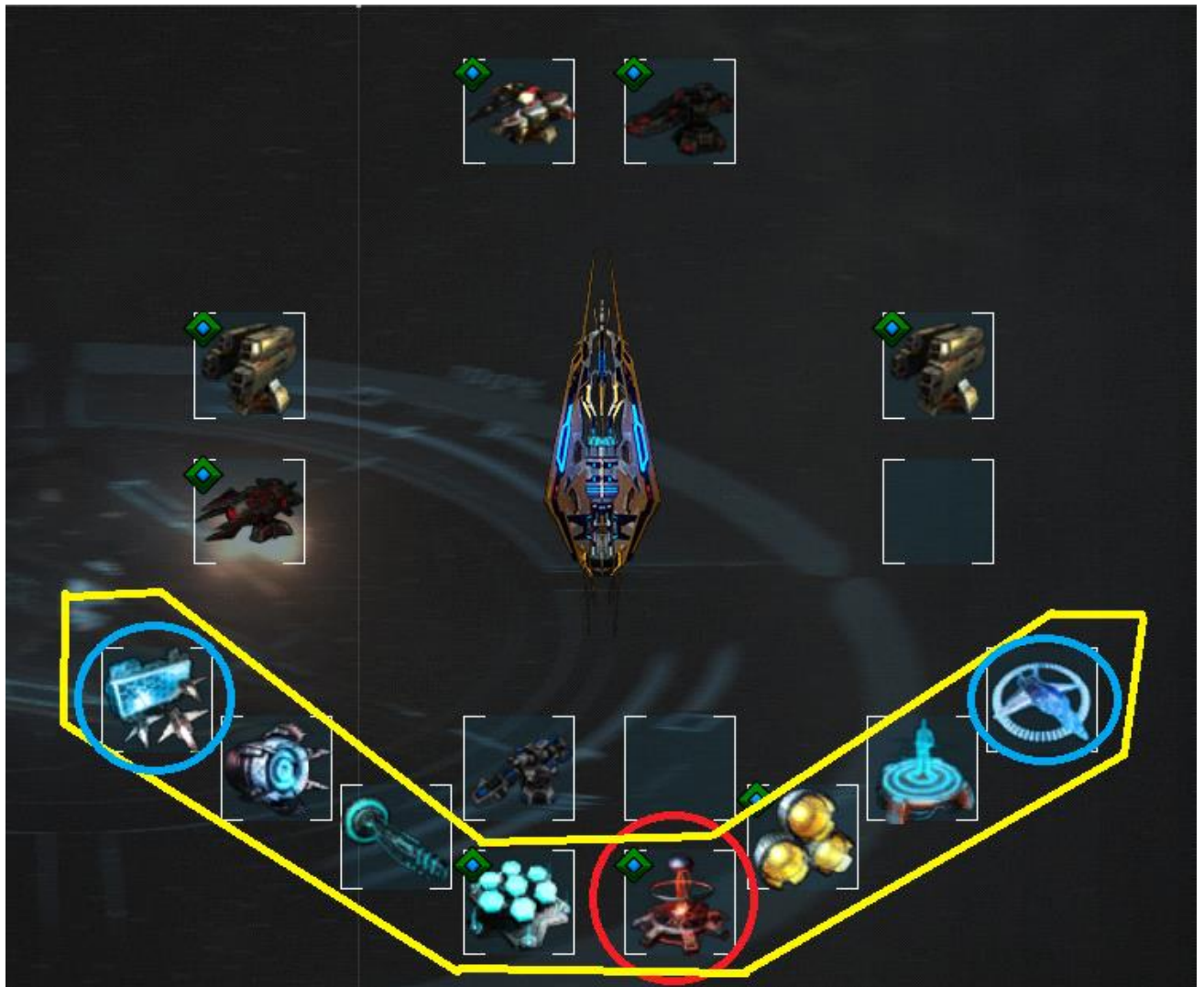
The Skill description should describe:

- Stats of the currently unlocked skill level
- Stats of the next skill level (if there is a next skill level)
- Skillpoint cost for the next skill level (if there is a next skill level)
- Level requirement for the next skill level (shown only if the player doesn't fit the requirement)
- Description of the additional gameplay effect the skill acquires at its improved state (skill level 5 and above), if it's not available, show the level at which its acquired

Buttons for skills 1-3 are disabled if:

- Player doesn't have enough skillpoints to unlock the skill (skillpoint cost is variable to the skill level), or
- Player doesn't fit the level requirement for the next skill level

STATION_Drydock (Enhancements), **SHIP** (Overview), **SHIPYARD** (Compare/Systems), **GARAGE** (Compare/Systems) – remove PowerCore ship system



Ship Systems

On the image shown above, the yellow marked icons are the Ship Systems (8 total), without the Power Core they'll be 7. A new visual distribution of icons should be thought of, also considering the fact the icons marked blue aren't shown always (some ships have them, some don't)

Chatter changes

Remove chatter related to Power Core and Energy:

- NO_ENERGY
- POWER_CORE_DAMAGED
- POWER_CORE_ACCIDENT

XBOX (Gamepad) changes



Starpoint Gemini 2 (Xbox One)

Since Warlords with their new player skills now acquire Action RPG elements where timing of the skills is very important, an inferior gamepad implementation is no longer acceptable (to use a skill, hold Y, press the left analog stick in a direction to select the skill, release Y). Skills should be at the player's fingertips, like they are in Dragon Age: Inquisition or Diablo 3 or Smite.



Dragon Age: Inquisition (Xbox One)



Diablo 3 (PS4)



Smite (Xbox One)

An example of a control scheme that could allow for faster usage of skills:



Starpoint Gemini Warlords (Xbox One)

Pressing the A button, the player uses SKILL1, but if the player presses the A button while he's also holding the LT button, then the player will use EQUIPMENT1 instead. Analogous for Skills/Equipments 1-4

R.I.P. (consequences):

- Quick Action Button – needs to be removed to save space on the controller. It's currently used for 3 things: **Dock**, **Collect All**, **Sublight**. All 3 of these things can be done via the Context Menu, additionally, the Sublight button was planned to be removed anyway (the ship would drop out of sublight automatically if the player slows down the ship). This will potentially require new signifiers (graphic HUD elements) to indicate to the player that they're within Dock range, and that there is loot to be

Collected. We might be able to show loot like in Witcher 3: our radar.



Witcher 3

On the radar, the red circle represents the enemy, while the red circle with an X in the middle of it represents loot.

- Harder to simultaneously maneuver (pitch/yaw) the ship and adjust the ship's speed. If the player wants to do both of these things simultaneously, adjusting the speed should be done with his right thumb on the D-Pad, which isn't the most natural position for it.
- Fluid zoom – no specific buttons for Zoom+ and Zoom-, instead there are 3 pre-defined zoom levels that you cycle through with the press of a single button
- Instant power redistribution - View button, shared with the Context Menu, the player will need a fraction of a second longer than before to redistribute power because if he tries to do it too hastily, the game will assume he wanted to open the Context Menu
- Skills/Equipment tooltips on the HUD – On the Xbox version of Starpoint Gemini 2 we selected skills using the Y button and the left analog stick – this allowed us to show tooltips of skills/equipments. This will no longer be possible since the player in Starpoint Gemini Warlords could only press the button to activate the skill, he can't highlight it prior to activating it. All the info for Skills/Equipments that were usually available on the tooltip, will instead have to be available on the Skills/Equipment panels.