PRIVATEER 3

DESIGN SPECIFICATIONS
Version 1.11
Aug 25, 1997

EA Eyes Only

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GENERAL FEATURES:

Overview:

The goal for this game is to make it the number one combat/trading game this century. Privateer 3 will be a space game based in the Wing Commander universe that allows the player the freedom to fly where they want, when they want. Like Wing Commander, Privateer 3 will be a mixture of space flight combat, detailed story lines, and cinematics.

Network: Because you can't be number one without a good network component, Privateer 3 will be specifically tailored as a multi-player game first. The single-player game will be a necessary, but secondary feature. We are trying to avoid the short-sightedness of some games that design a single player game and attempt to put a multi-player wrapper

Public Servers: One of Privateer's big attractions will be its multi-player features. We want to allow the players to set up their own servers and play the game with their friends over a the Internet. This will avoid Origin having to set up costly server equipment, while giving the public the freedom to customize the game to their specifications. We plan to use Mpath as a central router between the thousands of players and the hundreds of public servers.

Sequel: Being the third iteration, Privateer 3 will not be a direct sequel to P1, but is a fresh new beginning because P2 mistakenly strayed from the formula and from the Wing Commander universe. P3 allows the player to assume a new character who was not in any of the previous games.

Background: Privateer 3 is a game that is based in the Wing Commander universe, specifically after the period that Wing IV is set. In the P3 universe the Kilrathi empire has fallen, and the turmoil in the border worlds caused by the Black Lance squad has failed. The player will be able to travel around this universe and see the gritty side of the future. Where Wing Commander mainly concentrates on the life aboard a space fleet carrier. Privateer 3 will allow the player to wander into dark, seedy bars and converse with shady characters.

Alliances (Guilds): Unlike previous Wing Commanders and Privateers, there is no plan for a solid linear story. We want to allow the player greater flexibility to create their player they way they see fit. Because of the number of careers you can experience, (Merchant, Mercenary, Pirate, Confed) we want to create a series of sub-plots that the player can experience that will mold their character depending upon the career path they chose. This will allow the player greater versatility within the story and more diversity should they replay the game.

Story: From the P2 post mortem, many people complained about linear plot lines. By designing multiple sub-plots with guild based plots Privateer should allow the player to explore many stories at the same time and allow them to play them in difference sequences for more replay value.

Schedule:

Alpha - E3 demo	**4/27/98**
Beta	**6/22/98**
Final	**8/17/98**
Sign Off	**8/31/98**
Ship	**9/14/98**

HARDWARE/SOFTWARE REQUIREMENTS

Hardware requirements:

Single Player:

- Pentium 200
- 32 megs of RAM
- 8x speed CD ROM
- Hardware accelerated video card (4 megs)
- sound card
- Joystick

Network:

- **Modem**
- **ISDN / cable modem**
- **IPX / TCP/IP Network Protocol**
- **Low-Latency Internet Connection with Support for 32-Bit Applications**

NOTE: We will only be able to support a resolution of **640x480** since that is the most that 3D Hardware Accelerated cards support.

NOTE: There will be a push to use DVD, AGP and MPEG technology, though that is currently not in the design. We need to do further tests to find out the feasibility and ramifications of these technologies.

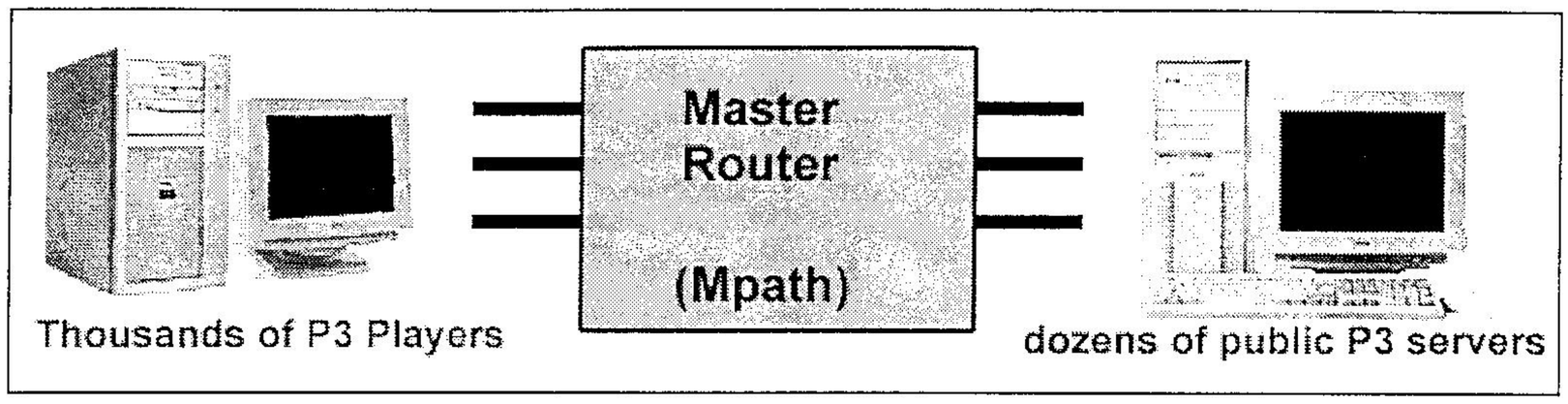
Game Storage:

Currently we are aiming to ship the disk on 2-3 CDs. (Depending upon if we have enough cinematic AVI's to warrant this many.) Disk swapping will only be for the single-player game, and will be on a quad by quad basis, and only when an AVI is needed. The multi-player will not have any cinematic AVI's.

Translation:

Using the ACE engine's built in multi-language capabilities, Privateer 3 will simultaneously ship in both English and German. Depending upon Prophecy's success there may be the chance of doing French, Italian or Japanese versions of the game, but these would ship at a much later date.

NETWORK AND MULTI-PLAYER



Features:

- **64 players per server as a default (More depending upon server's bandwidth)**
- **Ease of Internet play**, via Mpath.
- **Arena combat,** for those who just wish to dog fight
- **Alliances** (Guilds) that allow greater player interaction
- **Open/Closed games** for public and private servers, requiring passwords.
- **Chat** feature allows players to talk to each other throughout the universe.
- **Customizable universes** - allows sysop to change the variables for their server.
- **Two executables** - One to run the P3 game, and a separate one to establish a P3 server.
- **Real-time audio** communications using Mpath's technology.
- **Autopatch** - when players call in to Mpath they automatically get patches. Patches would be required to play over the internet since we could patch cheats that the players may invent.

Ease of Use: The quickest way to make this a popular game is to make locating a multi-player game as easy as possible. A player should only have to click on the Internet play feature for them to be linked to Mpath, (like Quake and Diablo.) From there they will have a wide selection of servers to join, choice of games, chat rooms, as well as a search engine to locate friends/enemies. The "Gizmo" screen needs to have icons representing trade/arena games, open/closed games, Death Match/Capture the Flag, etc.

Public servers: Privateer 3 is designing the game so that players can easily run a "universe" of their own. These universes will be accessible by using the P3 multi-player interface to contact Mpath. A player will just need to run the P3 server executable to set up the type of game they want and launch the program. The server will automatically contact Mpath so that it can join the other servers for section on the Gizmo screen.

Data Storage and Cheating:

Mpath: Players entering the server will have their information given to them from Mpath, where their ship information is stored. Storing player information on Mpath greatly reduces (almost eliminates) cheating. During the game, the player's data will be stored server side. When a player exits the game, (or looses connection,) their updated information is uploaded and stored on Mpath.

Server: Some data must be stored on the server, such as commodity prices, and all data regarding player created Alliances.

Local LAN: Players will have the ability to set up a game on a local LAN. Given this, we will require a front end that allows players to join and enter their callsign. Their data will stored on the server just like in the Mpath model, except the player data will never be received, nor updated to Mpath. This means that both models are generally the same, except that the updates to Mpath are switched off and all information is stored on the server.
NOTE: Players will never be able to upload non-Mpath data on to Mpath as this will cut down on cheating.

Dynamic Changes: With the number of players who could be on-line (32 to 64 players) there could be a problem if too many players congregate in one area. Since it wouldn't fit with the fiction to "turn off" jump routes, we will be able to keep the game up to a decent frame rate with dynamic reductions of quality based on the number of players in the area. For the Arena in the multiplayer game, we may just limit the number of players who can participate.

MPATH GIZMO:
When the Player selects "Internet game" and Mplayer is launched, the player will be greeted by the Mpath screen. The player can choose what room they want (Trade game, Arena, Capture the Flag, Death Match, etc.)
From there the player will be presented with a screen of icons, each icon represents a server connected to the router. In this screen players who have not yet connected to a server can chat with each other, directing and grouping with each other in order join the same games.

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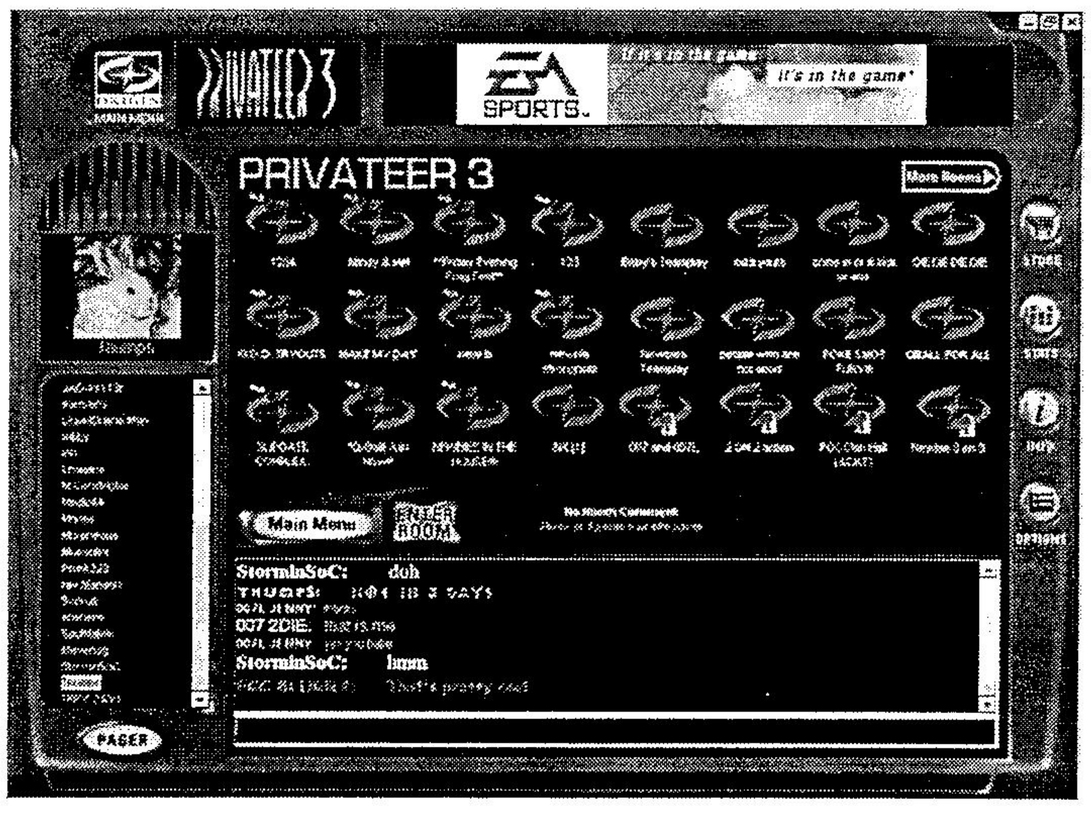


Each game has an icon, which shows latency to the server. When you select the game you want to play, you enter another room, but this screen shows you the people who are in playing it. Once you click on the Play button, you are then re-directed to that server.

When you exit the server, you are sent back to the main chat area room where by you may select another game, or exit Mpath.

(NOTE: In any of the rooms, realtime voice communication is provided by Mpath. Also, pager options are available)

First time on a Server:

When a player connects to a server for the first time they will need to set up some parameters before they can play.

1) **Callsign** - This is the name they will be known on the server. This is different than the name they can use for setting up their account on Mpath since Mpath require a real name. The Callsign will be unique to the server.
2) **Player Bio** (Optional) - This allows people to describe themselves/their character to other players. (This information would be available in the game at each planet's information kiosk.) This information could be typed in ahead of time and downloaded from an INI file. This would prevent players from having to create a new bio each time they move from server to server.
3) **Ship & player data** - This will be supplied by Mpath, if the player has played before. If not, this data will be supplied by the server as the default ship.
4) **Starting port** - The player will be able to select between the three worlds in the starting system. This is in an effort to keep all new players appearing at the same location.

Mpath vs. Non-Mpath servers: There is a major difference between the two methods as detailed below. Mainly though, the two will be exclusive; Mpath players can not transfer to non-Mpath games, and non-Mpath can not transfer to Mpath games. This will further reduce cheating.

Process for a first timer logging on from Mpath:

When a player logs on some key decisions are made:

Has the player logged onto this server before?
Does server have a record of the player's unique name from Mpath?
⇒ **YES:** Accept the player and ship data.
⇒ **NO:** Make the player enter a unique Callsign. This is the callsign the player will be used for game-mail, targeting information, alliance data, etc. Store player's Mpath name and Callsign on server.

Does the player have any ship data from Mpath?
Is the ship type field zero?
⇒ YES: Accept the data and take player to his ship's last position.
⇒ NO: Give the player the default data and take him to the FIRST TIME screen.

Does the player have an empty bio field?
Is the bio field 0 bytes?
⇒ **YES:** Store default message "Rookie of the first degree" as player's bio. They can change it later on the player's screen.
⇒ **NO:** download the 1k bio field P3.INI stored on the player's side.

Process for a first timer logging on Non-Mpath server:

When a player logs on to a LAN certain things will be different. Mainly, when a player sets up a non-Mpath server a unique number will be generated, (either a 10 digit random number, or a checksum of the sysop's name and system.) From this number we will be able to determine if the player has logged on before. Since data from these servers is not stored on Mpath player's will not be able to transfer from server to server.

Has the player logged onto this server before?
Does player have the server's unique number in their P3.INI?
⇒ **YES:** Accept the player. Check the password in the P3.INI, then give him access to his personal and ship data.
⇒ **NO:** Make the player enter a unique Callsign and password. (This is callsign the player will be used for game-mail, targeting information, alliance data, etc.) Make the player's machine store the server's unique number and password in the player's P3.INI for future use.

Does the player have any ship data?
Is the ship type field zero?
⇒ YES: Accept the data and take player to his ship's last position.
⇒ NO: Give the player the default data and take him to the FIRST TIME screen.

Does the player have an empty bio field?
Is the bio field 0 bytes?
⇒ **YES:** Store default message "Rookie of the first degree" as player's bio. They can change it later on the player's screen.
⇒ **NO:** download the 1k bio field P3.INI stored on the player's side.

Storage Requirements on the server:

Because the servers will be run by the public, disk storage space will be a factor. Safeguards must be maintained in order for the systems to function properly.

1) When a player logs on the system needs to check to see if it can add the player. If the server's drive is below 10 megs, the player will be disallowed, and the sysop will receive a warning.
2) Every week the system will purge all players who have not logged in for four weeks. This will allow new players to use previously used callsigns.

ARENA

Types of Arenas

- **Trade Game Arena -** These arenas are in the trading game and are accessible at a Pleasure planet. Players fight in Arenas for money and to challenge other players and Alliances. Ship destruction is REAL in trade game arenas.
- **Death Fest Arena -** These are games that are set up by a sysop purely for players to slaughter each other. Money is not the option here, only kill ratios and bragging rights.

Types of Arenas for Trade Game

- Single player vs. AI
- Multi player - player vs. player/AI fighters/combination

Features/Options for Trade Game

- Spectator view
- Betting on combatants
- Earning money by destroying other players and AI fighters
- Choosing a combat zone - (First player in arena chooses, deep space, space station, mine field, etc.)

Types of Arenas for Death Fest

- Single player vs. AI (practice arena)
- Multi player team mode (capture the flag)
- Multi player Death Fest Arena (Free for all, Last Man Standing)

Features/Options for Death Fest

- Spectator view?
- Power-up and non-power-up games
- AI players or Bots to boost number of players
- Choosing a combat zone - (First player in arena chooses, deep space, space station, mine field, etc.)

Trading Game:

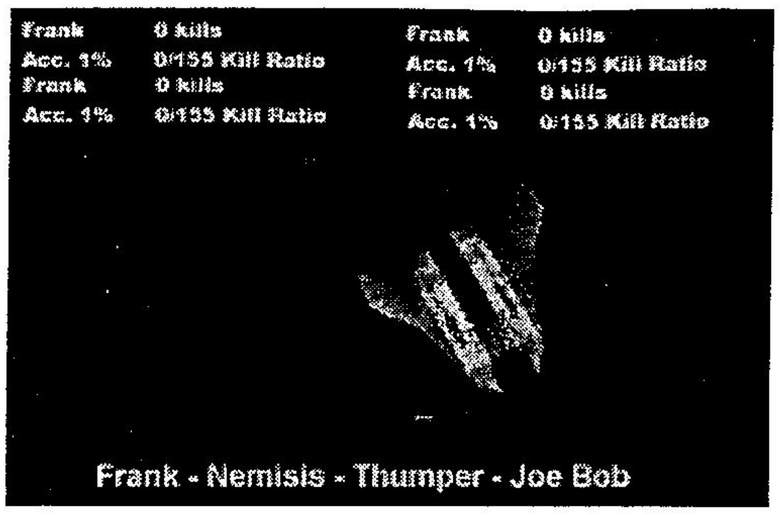
In the arenas that ARE within the trading game, players will be able to participate in sectioned off areas where this blood sport is legally permitted. Player's would take their ship from the trading game, and bring it into the arena where it could be destroyed just as in regular flight. (This would be like the arenas in Autoduel.) Every time a player destroys a ship his account is credited with a percentage value of that ship (such as 10% total value).

Access:

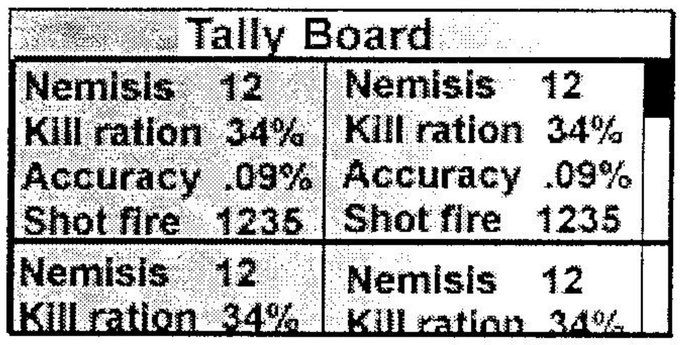
Access to the trade game arenas is via the Port Screen on a Pleasure Planet. The first player to enter the arena is able to set the variables, such as map, AI pilots, etc. Players wishing to enter the arena can view the variables as well as who is already in the arena.

Betting:

Players will be able to place bets via an Information Kiosk on other players and AI bots within the Arena. Ranking the odds of player will be based on the number of kills and the firepower of their ship.



Arena Viewing: People who want to watch arena combatants can do so from the ***Information Kiosk.*** They can select by Callsign who they want to watch. The spectator camera is mounted behind the combatant's ship or drone view and the spectator can adjust their view by using the joystick or keyboard. This adjusted view is moved from camera to camera when a player switches combatants or to drone view. Spectators can also see stats of the players.



Tally board: When any arena games are concluded, a tally board displays the highest ranking players first, along with stats such as number of kills, kill ratio (kill/times killed), accuracy (number of shots/number of shots hit). For Last Man Standing the first players out are allowed to become spectators as they wait for the next game.

Death in the Arena: That is, if you die, you lose your ship. However, your insurance will cover you. That means in fighting in the arena the player only has to worry about that 10-20% of the money they'd lose for getting their ship destroyed. It would be best not to enter the arena with cargo.

Logging and LSC: If players log out to escape death in arena fights, any money they have earned in that arena battle are NOT credited to their accounts... they can log back in with a damaged ship and no money earned for their kills. Same things happens if they LSC (lose server connection).

Multi-player Arena Options

Type of Game:
Non-trading game types would be chosen by the sysop. Types of games include:

- **Death fest -** A regular Everybody vs. Everybody. Players are regenerated after death.
- **Capture the Flag** - This allows players to choose teams, red or blue, and fly through an opponent's flag. Players must fly back to their base with the "flag" in order to score.
- **Slaughter** - This is like CTF except there are no teams. Number of captured flags goes to an individual rather than a team. Think of this as being Smear The Queer.

Maps:

- There will be ten different maps to choose from.
- Maps will include deep space combat zones as well as inner space station combat.
- If we are able to ship and editor this will allow players to build their own, though we are not counting on this as an option.

Game ends when:

- **Unlimited play** - Players can continue their type of game indefinitely.
- **Number of kills/flags** - Game ends after a pre-determined number of kills or flags.
- **Time limit** - Game ends after a pre-determined amount of time.
- **Last man standing** - There can be only one! When only one is left, the game shows the tally board.

Team play options:

- **SAFETY:** hurt everybody, cannot hurt team-mates
- **UNLIMITED AMMO:** Player's missiles regenerate.
- **POWER UPS** - Different power ups show up during the game as glowing spheres in space that the player can fly through and absorb. Sysop can also determine type and frequency of power placement.
    1) Red Sphere - Double damage from guns.
    2) Green Sphere - Warp Shield prevents player from taking damage for 30 secs.
    3) Blue Sphere - Stealth shield turns player invisible for 1 minute. Player will de-cloak while firing.
    4) Purple Sphere - Regenerate (energy/shield)
    5) Yellow Sphere - Makes shields twice as strong

Multi-player Trade Arena

Access: There are 4 arenas (one per quadrant) all located on Pleasure Planets. You access the arena versus the port screen. Braden Quadrant: Felicity, Satrakh Quadrant, Thanatos Quadrant: Tara, Archangel Quadrant: New Vegas. In order to fight in the arena you must land at one of the four ports mentioned and access the Arena Screen via an Information Kiosk.

Type of Arena: deep space, asteroid field, derelict ships, mine fields, pulsars, black holes or combinations.
Type of fight: AI or Human opponents or a combination.

Mode of Combat:

- One on One - This is just a space duel
- LMS - Last Man Standing: This is an every man for himself fight, with the last man left alive winning,
- Team - Players choose the color they want to be, (red, blue, green, white, etc)
- Alliance vs. Alliance battles (no AI involved).

Earning Money: Winnings are determined as follows:

a) No entrance fee required,
b) Each time you kill a ship, you gain 10% of the total value of that ship credited to your account,
c) If you quit or log (or lose server), those winnings are deducted from your account,
d) d) All your kills are recorded (number of kills – maybe total winnings too)

Miscellaneous notes: If you lose server – you have lost the fight and are back at the arena screen. The arena has a fixed radius – if you get near the boundaries of the arena you are warned and if you cross the boundaries you lose by forfeit (you chickened out). You can QUIT an arena combat at any time, but it is the same as forfeiting (that is, you lose any money you gained, and you keep any damage done to your ship).

ARENA VIEWING & WAGERING:

Before the game begins all non-combatants can place bets. (If some one places a bet, then they go into the arena, the get their money back immediately.) Odds are computed on the following two items:

1) Number of arena kills the player has, and
2) The total value of his ship.

NOTE: You only win a wager if the person or TEAM you bet on to win actually wins – if they forfeit, log, or lose server you lose your bet.

ALLIANCES (GUILDS) AND RANKS

Overview

The player must have reasons to advance besides just putting better weapons on their ship. Advancing through levels should substitute for the player not being able to follow a linear plot. The player should be able to switch between the different Alliances during the game, though they will have to pay a price be it in credits, killing non-aligned ships, carrying out missions, or trading information.

Single-Player:

In the single-player the user can join and rise up though arbitrary ranks within the game's Alliances such as merchant. mercenary, and pirate. Though they can be a member of a Alliance and rise in the ranks, they play no part in the Alliance's planning or management. They are a member who can pick and choose from the guild missions.

Multi-Player:

In Multi-player the AI Alliances do not exist and thus you can't join them. Only Alliances that are created by players can exist and be joined. In the multi-player the user is given a rank and can only rise in rank if the guild leaders appoint him. As a manager they will have the responsibility for purchasing and maintaining the Alliance's station.

MULTIPLAYER ALLIANCES:

Overview:

The main difference in Alliances between single-player and multi-player is the fact that the public can set up their Alliance and run it like a business. The Alliance can have a president, and several ranks. Those on the top of the totem pole will be responsible for collecting money from the members, purchasing the Alliance station, and paying the monthly fees for maintaining it.

Because players will have the ability to create their own Alliances, they need an incentive to do so. Not only should there be benefits for creating Alliances, but there should be ways to promote interaction between Alliances, both peaceful and destructive.

Communications: When an Alliance is formed and players added and deleted, game-mail and private Alliance chat room accessibility are limited to the Alliance members.

Alliance Stations: Alliance leaders will have the option to buy these behemoths. They will also be able to dip into the Alliance's coffers and outfit it with defenses. The purchaser, (the president) has to designate at which nav point the station will be accessible from. He also has the option to move the station, (by moving the nav point it is accessible from) within the same quad adjacent to the previous one, within a 24 hour period.

Benefits: Members will get free fuel and free repairs while at their station. They can also store and swap cargo that they ship in to the station.

Stock: When an Alliance station is purchased, its stock appears on the stock exchange. One million shares is generated at 5cr a share, of which 490,000 shares are put on the stock market and can be purchased, the other 510,000 shares are given to the absolute President of the Alliance. The President can give shares to his Alliance members if he wishes. However, the station is owned by the Alliance which controls 51% of the shares, so players should be careful how they dispose of their shares. Shares prices are updated every game turn and are based on the amount of cargo stored in the station and equipment, (measuring the alliance's worth.) If the base is destroyed, all the stocks disappear.

Station Destruction: If the station is destroyed, the cargo from the Alliance station will be dumped into containers and tossed into space for players to retrieve. All the money that was in the Alliance's account will be divided among all the non-members within the quad, (to the victors the spoils.)

Station Takeover: Enemy ships can attempt to take over a space station if 1) The shields are down, 2) They are not being tractor beamed 3) Over half the stations defenses have been eliminated. Once docked they can assume control of the station within one minute. If their ship is destroyed, the takeover doesn't happen.

Human Interaction: Though it would be possible to subtract equal shares for everything from every member of the Alliance, we thought there would be more interaction if it were all in the hands of the players. This would allow more human interaction (treachery and villainy) and not take one iota of time to code.

STORING CARGO AT AN ALLIANCE STATION: Alliance members will have the option of storing cargo at their alliance station. This will act just like a commodity exchange except for the fact that no money is exchanged.
Ledger: Because this will be a communal pool, members will have to go on the honor system. We may want to put in a record of all transactions so that those who do not obey the honor system can be tracked. Only high ranking officials have access to the warehouse ledger.
Rank: To insure that first level members do not join an Alliance and pilfer the company store, we may want to make sure only members of a certain rank have access to the cargo area.

MULTIPLAYER ALLIANCE MENUS:

The menu that the player can view depends upon their rank.

Initiate Status:

They can only gain access to the chat room of the Alliance, and the Alliance station. But not the warehouse on the station, just the repair bay.
Bulletin Board
Disassociation: player can remove himself from the Alliance by dis-ing it.

Member Menu:

View Members stats
Locate members
Bulletin Board
Location of Alliance Station
Pay dues in Alliance account
Disassociation: player can remove himself from the Alliance by dis-ing it.

Commander Menu:

View Members stats
Locate members
warehouse ledger
Bulletin Board
Location of Alliance Station
Deposit to Alliance account
Buy/Sell Equipment for station from Alliance account
Hire AI Mercs - (Mercs require daily pay and automatically subtract it from the account.)
Disassociation: player can remove himself from the Alliance by dis-ing it.
Add/remove person to Alliance - game-mails all members
promote/demote alliance member ranking - game-mails all members
Invite player to become a member via game-mail

President and Co-President Menu :

View Members and stats
Locate members
Ledger - see who has added and subtracted from the warehouse
Location of Alliance Station/change location
Deposit to Alliance account
Bulletin Board
Buy/Sell equipment for Station from Alliance account
Hire AI Mercs - (Mercs require daily pay and automatically subtract it from the account.)
President's
Add/remove person to Alliance - game-mails all members
Promote/demote Alliance member ranking - President can swap rank with other member
invite player to join alliance via game-mail.
Change alliance bio, icon, etc.

Transfer Alliance stock to member/player
Retire alliance station- sells back the station
Dissolve Alliance
Create Self-Destruct Password
Initiate Self-Destruct and set 30, 60, or 120 second timer to self-destruct the station (powerplants on overload)

Station Upkeep:

If the president or other leaders do not pay the maintenance fee for the station, it will revert back to Confed. All of the cargo within it will be lost. Any ships stored inside will be launched into space.

Dues:

Though it will be a large responsibility to collect the dues from the members, this will stimulate human interaction. Alliance dues will be collected at the top of every month, game time.

When a player sends in his dues the leaders will receive a receipt showing that he paid. The player will get a carbon copy game-mail.

Station upkeep will be drawn from the Alliance fund automatically. If there is not enough money, all the member will receive a game-mail notifying them of the balanced owed. (This is to get players to pay up, or get their the president to action.) The system will attempt to deduct the balance the next week. If that fails, the system will send out one more message. If that fails, the station will be foreclosed. Since anyone can put money into the Alliance account. there shouldn't be any reason why the Alliance can not pay up within two weeks.

CUSTOMIZIBLE SERVER FEATURES:

Overview:

These are the options that a sysop has over his server. These include the options he can set the game up to run, as well as the changes he can make to the universe to customize his universe.

SYSOP GAME OPTIONS:

Master Server (MPath)
Port
Host name
Type of game: (trade game/Arena, free-for-all/team play)
Skill level settings per quad
Allow real-time audio
Password Protected
Max. Clients
Ban list (ban's Mpath Member ID from entering)
un-ban (remove ban from Mpath Member ID)

Arena Combat Options:
Game ends when: Unlimited play, number of kills, time limit.
Pick out map
Ranks players
Type of power-ups and their frequency.

Team play options:
- SAFETY: hurt everybody, cannot hurt team-mates, penalize for killing teammate
- UNLIMITED AMMO: Players ammo and missiles regenerate.
- POWER UPS - Different power ups show up during the game as glowing spheres in space.

SERVER TOOLS OPTIONS:

Sysop can modify the universe by changing the values for:
Prices for armaments and defensive devices
Fixing any Alliance variables, in case of a bug.

Note: Sysop can not modify player stats. If some one is too powerful and is screwing up the game they have the option of banning that player, not equalizing their stats.

FLIGHT MODEL

Overview

Currently, the Prophecy flight model flies more like an airplane than it does a space ship. For Privateer 3 we would like to add increased flexibility of boosters while still adhering to Newtonian physics.

Physics: Privateer 3 should have a realistic feel to flight and conform to physical laws. Our goal is to come up with a way to make the player's ships feel like friction-less craft that require boosters in order to move. There will be two modes for movement, one computer assisted and one non-assisted. This will be a software upgrade that the players can purchase to give them better maneuverability within large space stations.

- **Non-Assisted** - This should operate like Lunar Lander, where the craft still moves in the direction it has been directed. A player will have to compensate manually to stop this momentum by firing other boosters to stop them. (This is because the computer is automatically firing retro boosters to stop you.)
- **Assisted** - This should operate like Descent, where as long as you press the button the craft moves. When the button is released, the craft immediately stops. (This is because the computer is automatically firing retro boosters to stop you.)

Joystick Movement: YPR (Yaw, Pitch, and Roll) handled by the joystick. Like other games that require a great amount of maneuverability, the joystick will be a must for directing ship movement. Keys on the joystick (if the player programs it) or keys on the keyboard will direct the booster direction. This combination should cover all the maneuvers that a player would want to pull off. Use of macros should allow players to pull of more complicated maneuvers at the touch of a single button.

JOYSTICK

UP/LEFT (Pitch down while rotating c-clockwise)	**UP** (Pitch down)	**UP/RIGHT** (Pitch down while rotating clockwise)
LEFT ONLY (Rotate ship left—top button held it rolls left)		**RIGHT ONLY** (Rotate ship Right top button held it rolls right)
DOWN/LEFT (Pitch up while rotating c-clockwise)	**DOWN** (Pitch up)	**DOWN/RIGHT** (Pitch up while rotating clockwise)

KEYBOARD

throttle forward = engines acceleration
afterburner = full afterburner
up key = booster straight up
right key = booster straight right
throttle backwards = braking booster
halt = fire boosters until craft stops
down key = booster straight down
left key = booster straight left

Inertia: One way this will be implemented is in the size ratio of ships. The larger and heavier the ship, the harder it will be to turn due to inertia. Large freighters will not be able to maneuver around like a fighter, which will lead the player to rely on turrets for defense. The more weight a player adds to their ship, as in cargo, armaments, armor, the less likely they will have a maneuverable craft. Players will have to make a conscious decision between heavy armor and a fast, maneuverable craft.

STARTUP MENU SYSTEM

Startup:

1) After starting the program the first thing that the player will see is the EA/ACTION and ORIGIN logo screens.
2) Loose Cannon's screen should follow the Intro cinematic.
3) When the P3 logo appears, the Intro should fade to black. The Game Style Menu fades up to allow the player to select the type of game.
4) If ESC is pressed during the Intro cinematic, the cinematic is quickly faded down. The Game Style menu will appear next.

GAME STYLE MENU:

This allows the player to select the style of game they wish.

1)	**SOLO PLAY**	Takes player to the Solo Menu
2)	**MULTIPLAYER**	Takes player to the Network Menu
3)	**PILOT TRAINING**	Takes the player training Menu
4)	**INTRODUCTION**	Plays the Introduction Cinematic again (loops until any key is pressed)
5)	**OPTIONS**	Player can change joystick, gamma correction, etc.
6)	**QUIT**	

SOLO MENU:

The options for solo play are as follows:

1)	**START NEW GAME**	Takes player to the beginning of single player game.
2)	**LOAD GAME** (ghosted)	Takes player to Solo Load/Save Menu.
3)	**ARENA**	Allows player to use the Arena against AI players.
4)	**Back**	Takes player to the Game Style Menu.

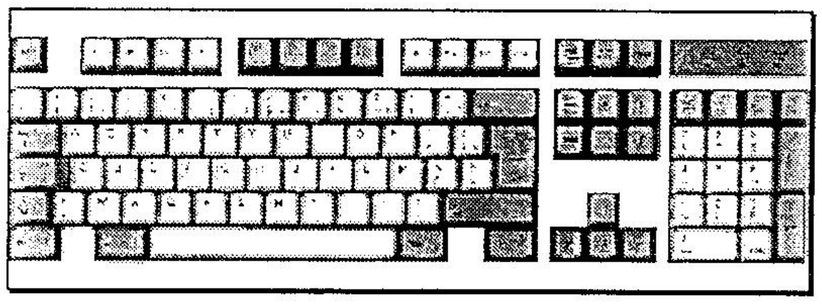
SOLO LOAD/SAVE MENU:

This menu allows the solo player to resume a previous solo mission which they saved. This is the same menu that the play gets in the game if they wish to load/save.

1) **LOAD** Double-clicking on the name loads the game. Last save game is always highlighted first.
2) **SAVE** (ghosted) - If the player does not enter this menu from the game, they have no data to save and the option does not apply. Before the data is saved the system checks to see if there is enough room on the hard drive. If not, it warns that the player must delete a game.
3) **DELETE** (ghosted) - Asks if the player wishes to permanently remove the slot. Players can delete slots just by highlighting it and pressing DEL. If the player does not have any save games this option does not appear.
4) **Back -** takes player to the Game Style Menu.

GAME PLAY OPTIONS:

a) **SKILL LEVEL** - Many people would like the option to weaken or toughen the enemies. (according to the P2 post-mortem) This option would just tweak reaction time during battle.
b) **Invulnerability** - Some players want the option to be able to cheat through the harder parts of the game, (according to the P2 post-mortem.)
c) **Gamma Correction**
d) **Volume control for SFX and Music**
e) **Graphics detail level**
f) **control type** - Mouse, joystick, throttle control, rudder pedal control
g) **Video options** - subtitled or not
h) **Redefine keyboard/joystick**



Players will be able to redefine their keyboard to suit their own needs if one of the 3 predefined keyboard configurations (Privateer 3, Wing Commander, Descent) does not meet their needs.

Players will be able to name and save their configurations so that multiple configurations can be stored, and even transferred.

Players will also have the option to program their multi-function joysticks.
These functions will be included in the keyboard configuration file so that they can be transferred. (Players hate going over to a friends house to play a game and having to totally reprogram the keyboard to suit their needs.)

NOTE:

- The only games that are available are previously saved solo games and not the Multiplayer games.
- When a player saves a game, the last entry into the ship log is displayed next to it with the game time. (Example: 6/24 - Landed at Sparta) If the player hits enter or save, the description is saved as the computer created it. If they player begins to type, the can chance the description. Pressing Enter or Save saves the game with the changed description.

NETWORK MENU:

The options for network play are as follows:

1) **Mpath** - If a connection is existing to the Internet - the player will have the option to play multi-player on Mpath. This will launch the Mpath software and show you a list of existing servers and people online. (MPATH is now a free to the public, using an advertising based sales model)
2) **Local LAN** - If this is selected, Local LAN Menu is next.
3) **Back** - Takes player to the Game Style Menu.

MASTER ROUTER GAME MENU:

This area is actually handled by Mpath:

After logging into Mpath, a list of games they support will be show. Some of the Privateer "Type" of games will be listed, as follows:

1) **Privateer 3 combat/trading game** - Goes to Trading Game Mpath menu.
2) **Deathfest Arena** - Goes to Deathfest Mpath menu.
3) **Capture the flag** - Goes to the Capture the flag room.

Upon entering a room, you will be in a center chat area, where the different servers hosting that type of age are listed. You can then enter that "game" room, and be launched to the server.

LOCAL LAN GAME MENU:

The options are as follows:

1) **Search for IPX game -** User can find a game on a LAN and select the one they want. (The type of game depends on what the server is set up for.)
2) **Back** - takes player to the Network Menu.

PILOT TRAINING MODE:

This allows the player to play special missions that are constructed to teach the player how to fly

Pilot Training mode will walk the player through the flight control features of the game, as well as aquatint the player with the keyboard. Because we are looking at allowing the player to redefine their keyboard, the trainer will need to dynamically change to compensate for any keyboard changes.

1) **Flight Training 101 -** This will place the pilot if a very elementary setting. No one attacks as this scenario walk the player through flying the ship, using the tractor beam, and landing at a port.
2) **Flight Training 102** - This allows the player to fly in and out of space stations. and instructs them in the use of their thrusters for close quarter maneuvering.
3) **Combat Training 301-** This show the player the combat controls (switching guns, switching missiles)
4) **Combat Training 302 -** This allows the player to go up against tougher enemies, and use more sophisticated weapons.
5) **Combat Training 303** - This allows the player to tackle the space station and destroy them.

IN-GAME MENU SYSTEM:

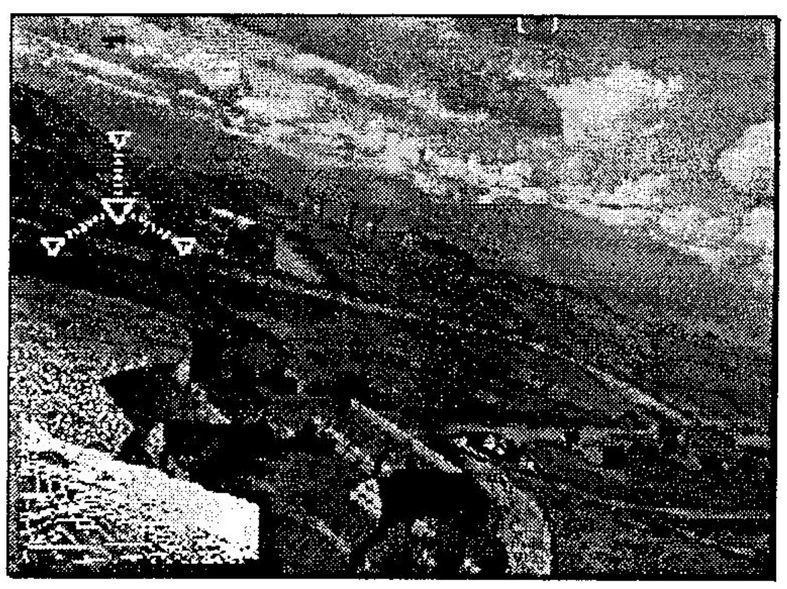
Individual worlds and ports:

There are two main types of ports that the players will encounter:

Planet Side Ports - Planets are actually polygonal spheres. When a player gets a certain distance from them the player will switch over to a cinematic sequence, watching their ship landing on the planet. (There are 28 planets)

Space Based Ports - These include space station and asteroid stations (planetoid.) These will need large portals that players can fly into and out of with their ships. On these stations we will want entrances that have landing lights guiding the player in, and exits that warn players not to approach (to avoid collisions.) There are 19 asteroid based stations and 16 space stations.

Number of Space based ports - Since worlds will be spheres there will little to change except the texture to make it unique. We will want to have a variety of designs for space stations though. Depending upon the number of space based ports the artists feel we can pull off, we will want to design the space based station on their function (military, Techno, agriculture, mining.) *If it is possible, we may want to make some based on their geography, (Kilrathi, Confed, Pirate.)*



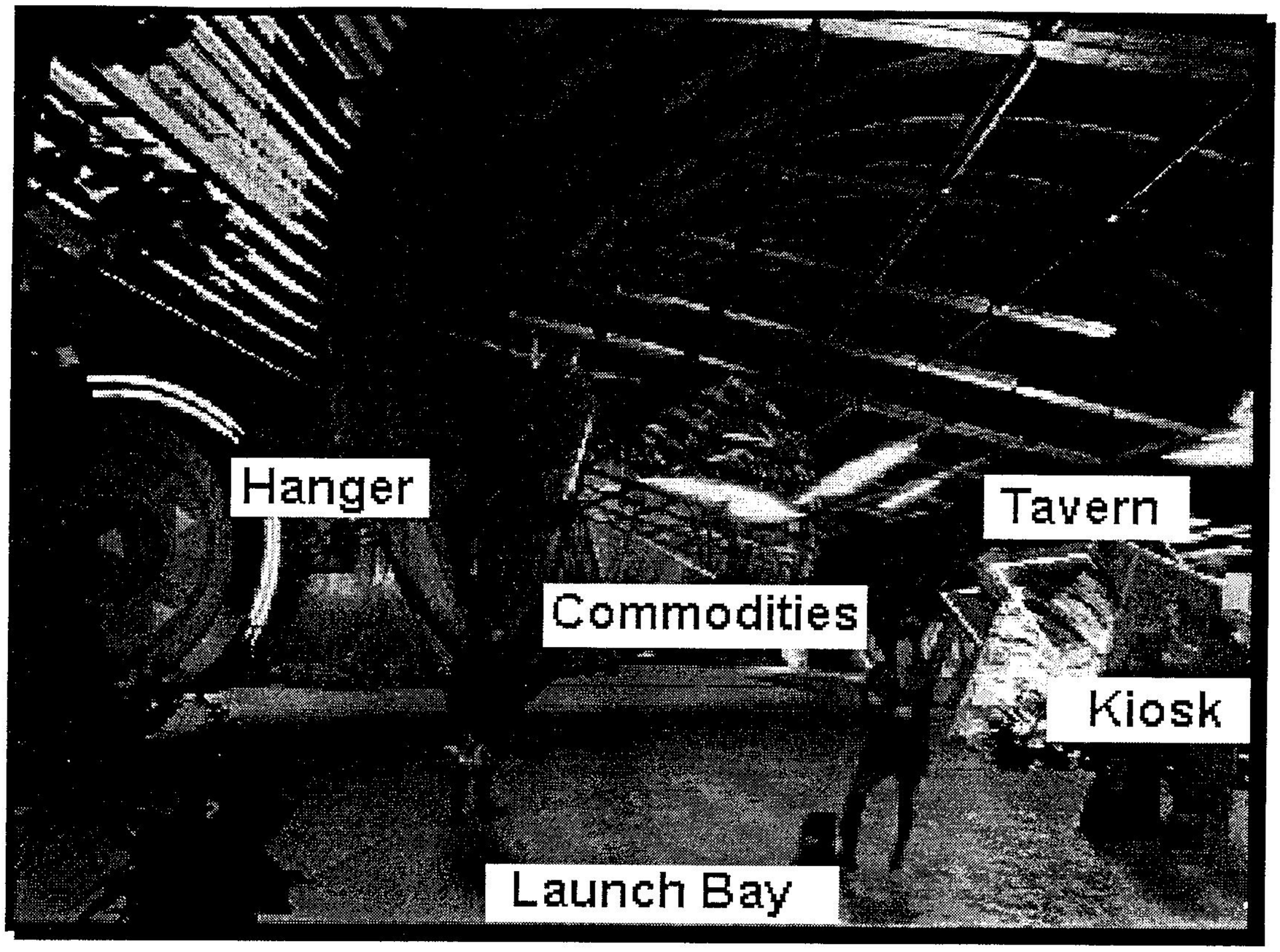
Landing Sequence - If the port is on a world and we can't show a landing sequence in a game sequence we need to provide a canned cinematic. This will not be needed for landing on asteroids and platforms that we can just allow the player to land in the game engine.
Take off sequence -If a cinematic shows the player landing, it should show them leaving.

Port Screen Image

Each unique port (world, station, asteroid) should have a unique port screen. This should reflect the places industry, as well as technology level. Because there are 63 worlds we may will want to use things in a modular fashion. Mining stations should basically use the same components, (with just a little retexturing, and a different camera angle, props moved, lighting changed, etc.)

Appearance of the World: The port screen should reflect the government, alignment, and industry of the world. (Example: if the world is a Techno-totalitarian planet, it should look like a scene from Blade Runner. A corporate mining world should look like a scene from Outland.)

Multiple port screens: We will want to have multiple port screens for those planets that can experience revolution/war/outbreak. This way when the player hears of the news, the changes will be reflected in the art the next time they land.

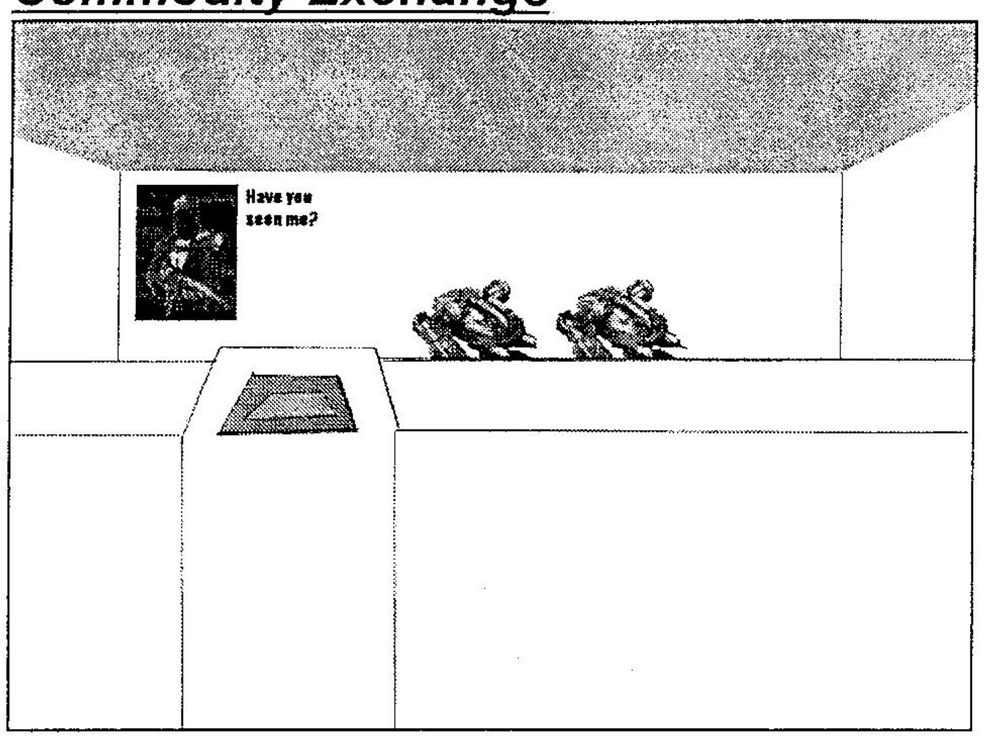


Port Screen should contain:

1) **Hangar Buy/Sell ship and parts -** This is a doorway near the edge of the screen that leads to the hangar where the player's ship is docked at. (optional)
2) **Commodity Exchange (optional) -** This is a doorway that leads to place where the player can by and sell their cargo.
3) **Information Exchange -** This is a place where the player can meet NPCs and visit the info kiosk (bar/tavern/temple/library) (optional)
4) **Load/Save/Information Kiosk -** This allows the player to easily load/save a game. as well as access to game options (standard)
5) **Launch -** This should be at the bottom of the screen, taking the player back to their ship. (standard)

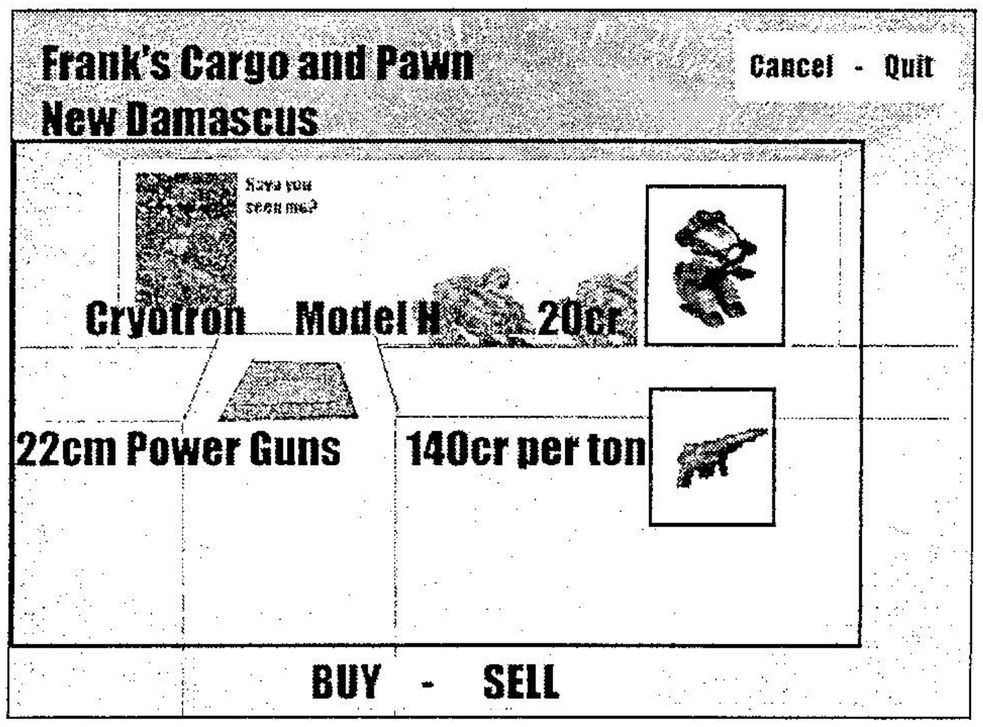
NOTE: all screens should have roughly the same scale and the same camera angle. (Should be at player's eye level to the set.) This should remain constant throughout all the screens. ***This should be finalized as early as possible.***

Commodity Exchange



Clicking on this area takes the player to the commodity exchange. This is the area where the player can buy and sell cargo. The player is introduced to warehouse. This warehouse screen is generic for the nine different types of worlds (Tech, mining, agriculture, etc.)

NOTE: This commodity screen of a warehouse is an effort to keep everything from looking like a computer screen.



Within a second the ordering screen should mask the commodity screen. Player will be presented with a list of the different items that are for sale as well as the prices and the amount of cargo space they have left.

"Sell" displays the contents of the ship's manifest. The player will see their tonnage as well as the profit they can make.

Commodity Exchange standard for the port:

1) **Name of the Port**
2) **Cancel all transactions button:** Allows player to disregard all transactions made during session.
3) **List of the commodities -** Though there are 50 commodities, not every world will have every commodity available. If commodity is not available, or the port has run out, the commodity will not appear as an option, (why give them options they can't select?)
    a) **Commodity name**
    b) **Amount on hand in metric tons**
    c) **Current Price**: price gets changed every hour, sometimes naturally, sometimes due to random news events.
4) **Buy/Buy All** - Allows players to purchase small increments of a commodity, or enough to fill their cargo hold as the supply allows.
5) **Sell/Sell All** - Allows the player to sell small increments of a commodity, or unload their haul.

Also the Player's data should be in its own area:

1) **Number of credits**
2) **Number of tons the player can hold/is holding**
3) **List of commodities previously purchased**
   a) **Number of tons:** This shows how many tons the player has of a give commodity.
   b) **Price last purchased:** This is last price commodity was purchased at. This is used to calculate the player's profit margin.
   c) **Profit Margin:** Price last purchased - current price
   d) **Cargo Margin:** Profit Margin * Number of tons

Information exchange

This takes the player to the bar/tavern/ library/temple to where they can expect to find cinematic encounters in the single-player. The bar/tavern/library/temple should represent what the people of this world use as watering holes or gathering places.

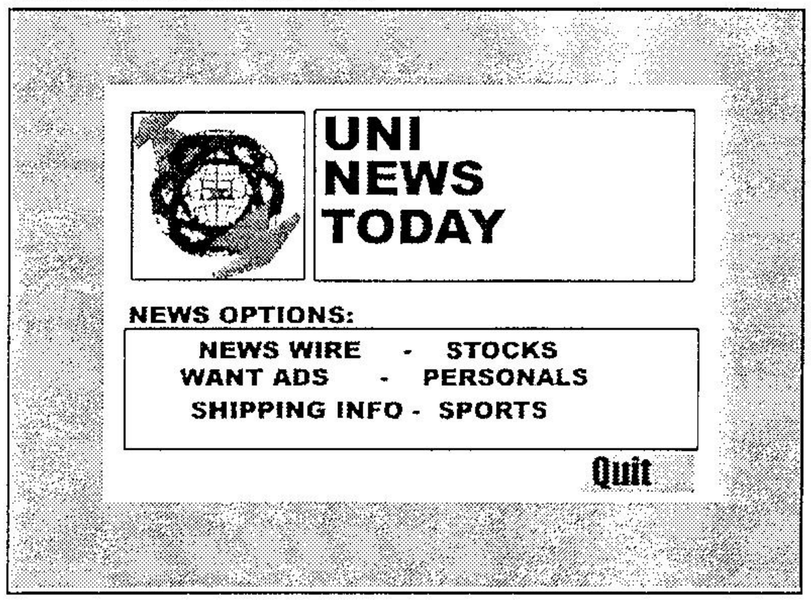
NPCs will be added to the static bar in hot reqs that animate. When these hot reqs are clicked on, a cinematic sequence will run.

NOTE: If we do not have the time to make these all unique, these bars are generic to the type of industry the planet has, (mining, Techno, agriculture.) Even then some will be unique just by changing a texture here and there, changing the light color, intensity, atmosphere, moving the camera, etc...

NOTE: In the corner of each room there should be an information kiosk.

Note: At the bottom of the screen should be the EXIT BAR.

Information Kiosk

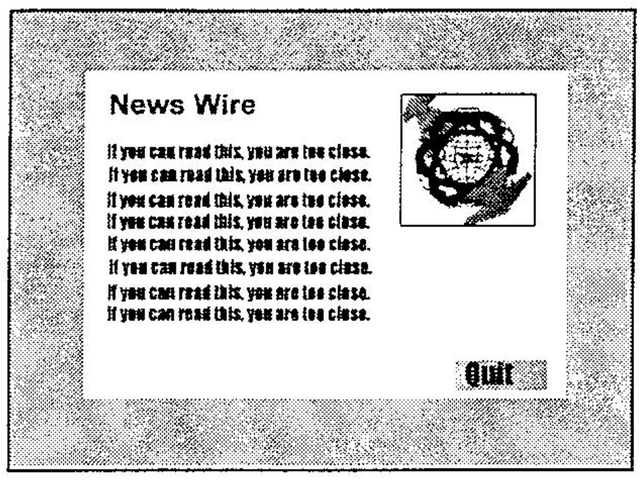


Inside the bar/tavern/library/temple there should always be an ATM looking machine that serves many purposes. Options are dictated if the player is playing a single or multi player game.

NOTE: We may want to make this look like a news service, like a futuristic USA TODAY.

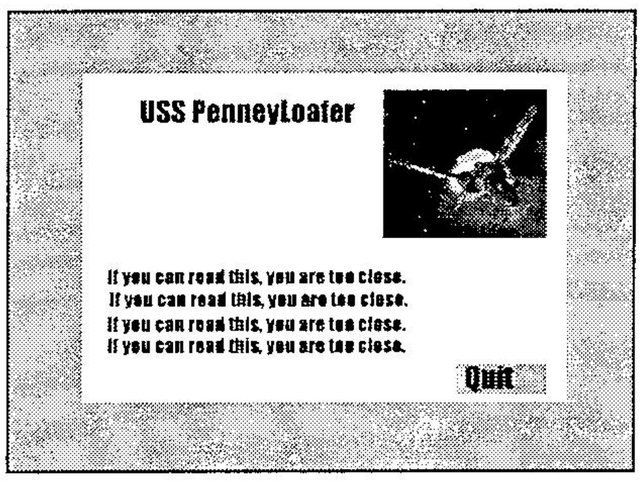
NOTE: We can even add a computer voice that confirms transactions and selections.

SINGLE PLAYER:



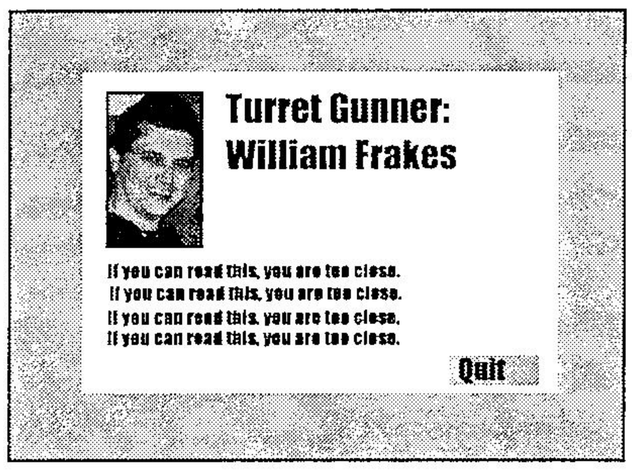
News Wire: This gives a list of the 100 major events that have recently happened. Events are revolutions, economic changes, and the destruction of certain ships, (If a player destroys a pirate base or kills a wanted outlaw, the news of it will show up here.)

Needed: A large area that can contain text that the player can scroll up or down. A 2D animating news globe icon. QUIT button takes player back to kiosk screen.



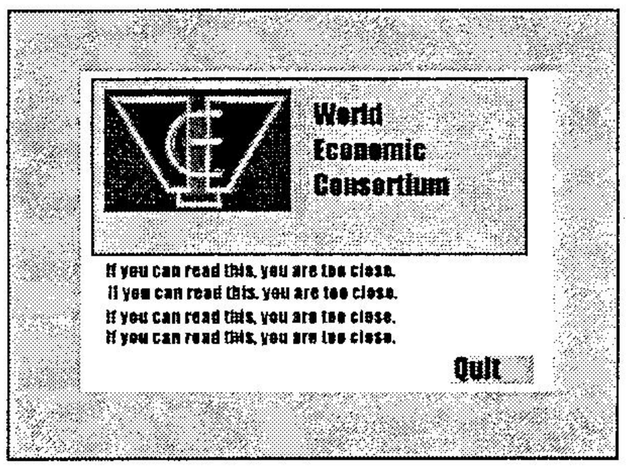
SHIPS - This allows players to access information on ships, such as pirate ships, freighters, and capital ships.

Need: Scrolling area for 50 ships. This lists ship types as well as ship names. If selected, a 2D picture of the ship, plus some data will appear. QUIT takes player to Kiosk screen.



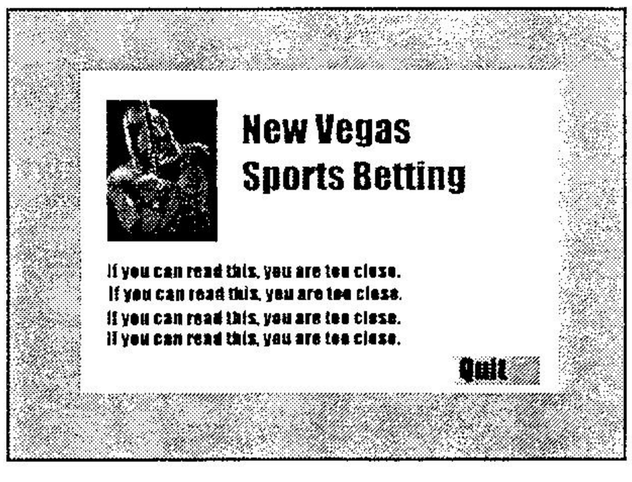
Want Ads - This allows players to hire AI wingman. For a set price, an AI wingman and turret gunners will follow the player and fight or haul freight beside the player for a fixed price.

Need: An area where a player can select from 10 names. A picture, title (wingman or turret gunner), name, AI rank, wage appears. A voice will confirm the transaction. QUIT takes player back to Kiosk.



Buy/Sell Stock - This allows players to purchase stocks with their extra money. Stocks change every 15 minutes based on random market fluctuations that show up on the news reader.

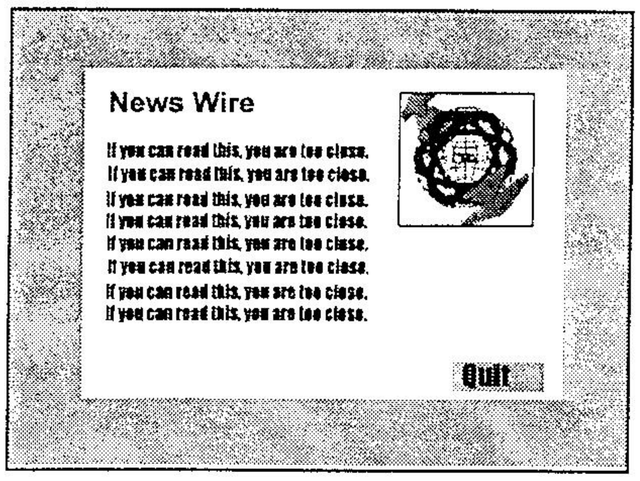
Need: An area the player can scroll through 50 names. Clicking on a name brings up company logo, name, bio, outstanding shares, player owned (& profit margin if sold) share, dividends, and price. Player can input number of shares to buy. May want stock ticker at the bottom of screen. (Alliance name could be hypertexed to take them to the alliance screen.) QUIT takes player back to Kiosk.



Sports Wagering: For multi-player we may want this to be an area where the player can bet on the sports wagering for the arena.

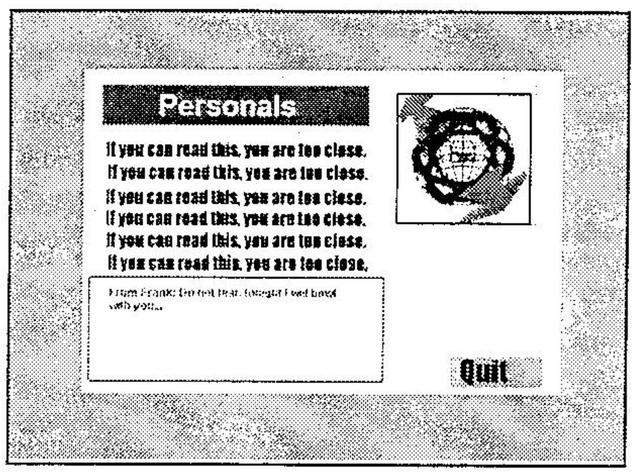
Need: Player can select between 10 combatants, (up to 8 players, and 2 AI.) It lists their names, kills and odds. Player can input number of credits they wish to place on combatants. This is updated every 15 minutes and players are paid off. This sports betting is the same on every world.

MULTI-PLAYER:



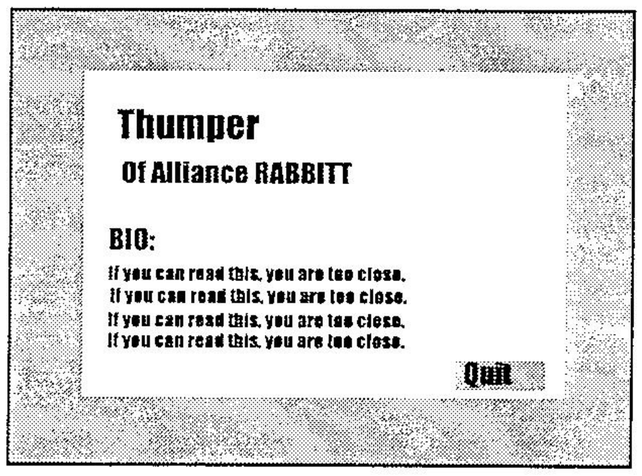
News Wire: This gives a list of the 100 major events that have recently happened. Events are revolutions, economic changes, and the destruction of certian ships, (If a player destroys a pirate base or kills a wanted outlaw, the news of it will show up here.) Player deaths are also recorded here, (they do not show up if they were killed in the arena though.)

Needed: A large area that can contain text that the player can scroll up or down. A 2D animating news globe icon. QUIT button takes player back to kiosk screen.



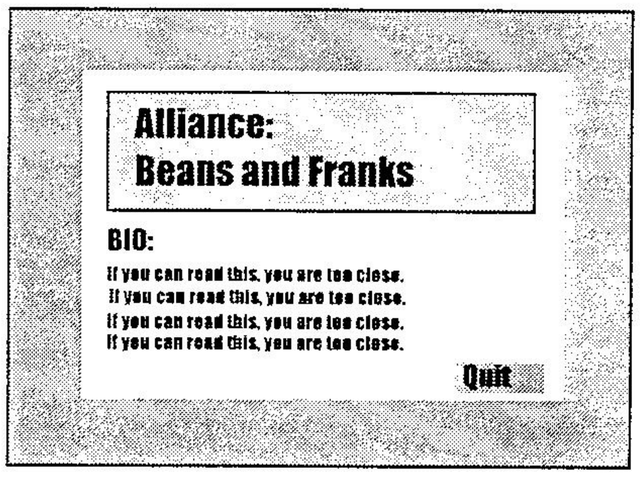
Personals: This allows a player to input their own message (for a 100cr fee.) This is so players can leave their own messages, (To anyone who kills Frank, a 2000cr bounty!) Players can also read the last 50 messages left by other players. NOTE: We need to let the sysop modify and delete messages!

Need: A large area the player can scroll down to see the previous 50 messages. Button to add a message, (if player has 100cr.) Area where player can type, (player limited to 255 chars.) SEND button to send personals.
QUIT button to return to info kiosk.



Player Information - This allows players to access information on players who use this server.

Need: This lists the name of everyone who has log onto this server. It shows names, alliances, player created bio information, and whether or not they are in the game.
If we have an Alliance Icon players can display their icon. (Alliance name could be hypertexed to take them to the alliance screen.)



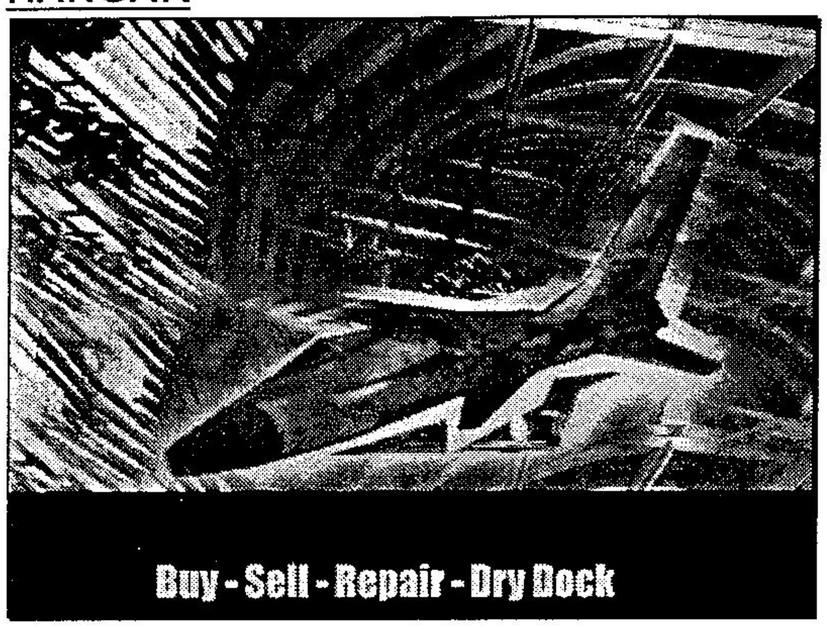
Alliance information - This allows players to see the bio of an alliance created by its president.
Need: This lists all the alliances formed on this server that the player can scroll through and select.
By selecting one a player gets their name, icon, bio, president's name, the Alliance's net worth, and their name on the stock market. (name could be hypertexted to take them to the stock market.)

NEW: A section that a player can start a new Alliance for a fee. The player who purchases it would be the president, and he can enter the name, bio, and icon for the Alliance. (Could could be used as the same screen for the president's menu for making changes to the Alliance.)

Want Ads - Same as single player.
Buy/Sell stock - is the same as single player.
SHIPS - same as single player

Ship Buy/Sell/Repair and Weapons Exchange

HANGAR



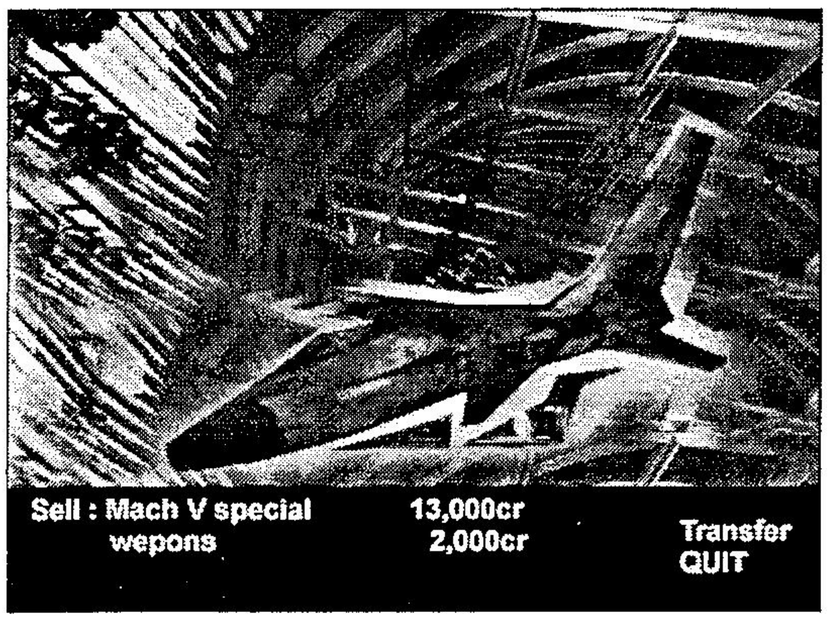
The hangar is a 2D bitmap, one background for planet, asteroid, and space station. The player is able to view their ship by using the cursor keys to turn their ship around.
Player's options are:
BUY/SELL
REPAIR
EQUIP
DOCK
QUIT
(Note: these are always at the bottom of each of the following screens.)

When weapons are installed, or repairs are made, the ship rotates to a quad that allows the player to see the work. During this time we can have a campy salesman's voice trying to talk you into more upgrades for your ship.

Ship Sales

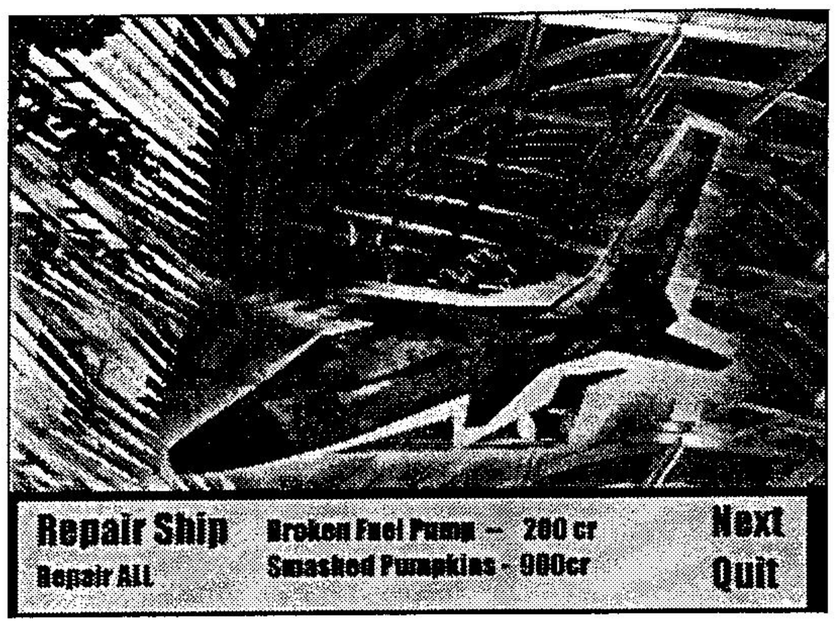
Buying: This is the local space ship shop that allows the player to trade in and upgrade their ship to the newest model. This could be an electronic catalog that pops up in the corner of the screen. The player can cycle through the models and they one they select to buy or describe appears in the hangar.

- Cycle through all models of ships
- Stats chart
- Buy button
- Go to repair/accessory/dry dock screens
- Cancel leaves the screen without any changes



SELL: Sell button / leads to estimates the price for your ship.

- List the resale price for the chassis.
- List the resale price for all transferable items.
- Transfer button transfers all items from the chassis to the player's new ship, (player must purchase new ship first.)
- SELL sells ship and takes player back to Hangar screen. Player's ship disappears.
- QUIT goes back to hangar screen without selling ship.



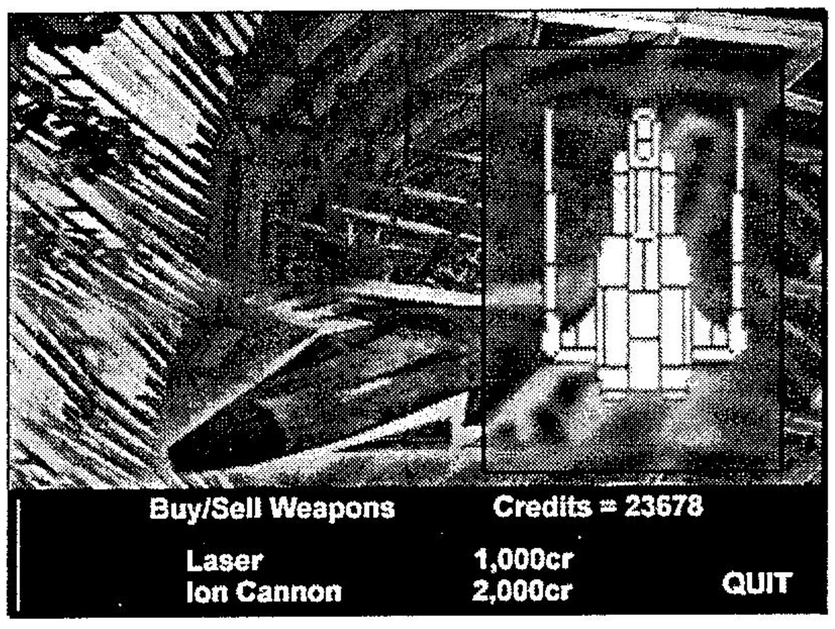
Repair bay

There is also an area that allows the player to selects the items they want repaired on their ship.

- Displays a list of damaged items and their price
- Allows players to repair individual items
- Repair All Button fixes everything.
- Cancel leaves the screen without any changes

NOTE: The ship needs to spin so the camera can see the object that needs repair. The broken object should change to wire frame, followed by the fixed texture appearing.

NOTE: We need to show Salvaged weapons here as items to be repaired and put on hard points.



Weapon and accessory sales

This allows the player to choose what to remove from their ship and what they can install on their ship. At this screen we will want to show the player's ship as a diagram so that they know what hard points are free and filled.

- Displays a graphic of filled and unfilled hard points
- A list displays all weapons and accessories.
- A description button lists the weapons model name and its damage
- Cancel leaves the screen without any changes

NOTE: We need to show Salvaged weapons here as items to be sold for salvage value. Salvaged weapons are in the ships hold, not hard points.

NOTE: When equipment is added, the ship should rotate so the player can view it, the equipment appears as a wire frame. The texture appears as pure white, then fades in the correct texture values. If equipment is changed, the texture fades leaving a wire frame. The wire frame changes to the new equipment, followed by the texture fading from pure white.

Dry Dock

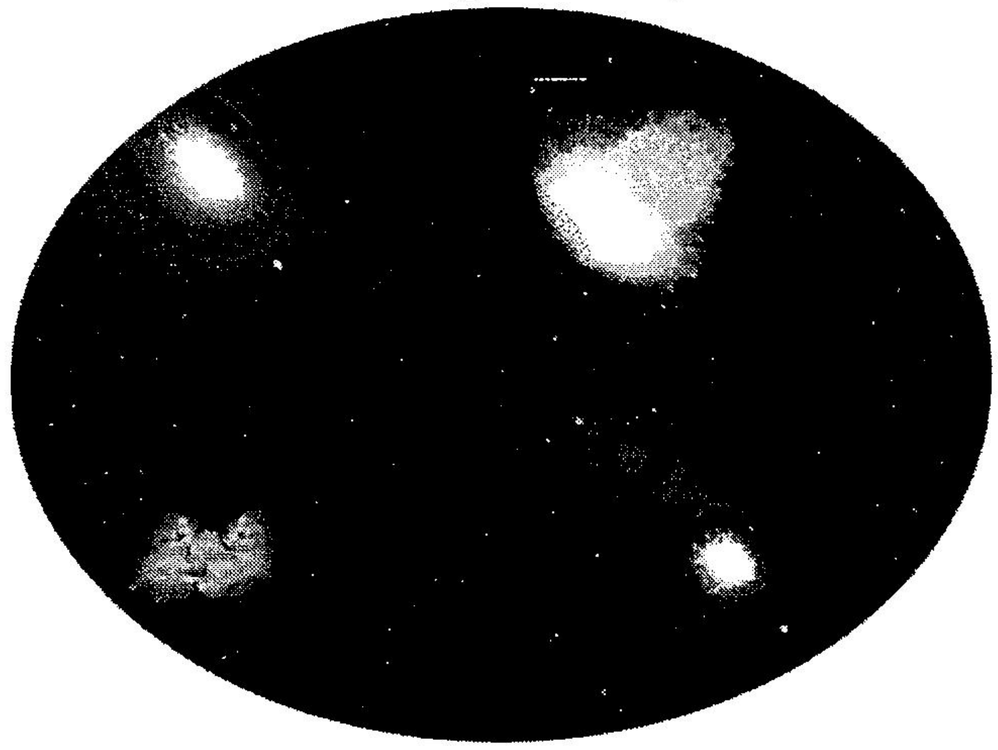
This option lets the player store the ship that he is currently using.

- Price for dry docking the players ship - Yes/No button for accepting price.
- Retrieving a previously stored ship from dry dock.

Misc. Art tasks:

360 Degree Bitmap:

Each Nav point in the universe should have a 360 degree bitmap associated with it.



Instead of a Nav point just having the heavenly bodies bitmaps, every Nav point should have fully rendered 360 degree bitmap that matches the contents of the system. Because we do not have enough time to render bitmaps for all the systems, most will be generic.

The system bitmaps that will be needed:

- Nebula bit maps
- Yellow sun
- Red Giant
- Blue starts
- and combinations including binary systems

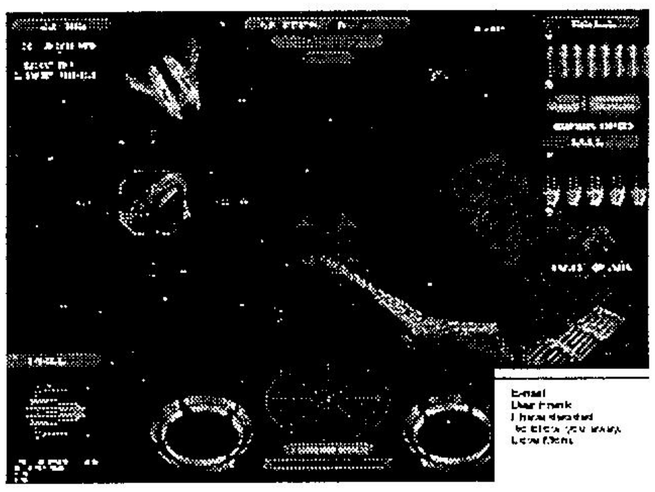
NOTE: These systems should also contain nebulas gas streams that allow the player to orientate themselves in space just by looking at the slight discoloration in space, (black-purple-blue.) This would be similar to looking up at night and seeing the variances in color produced by the spirals of the Milky Way.

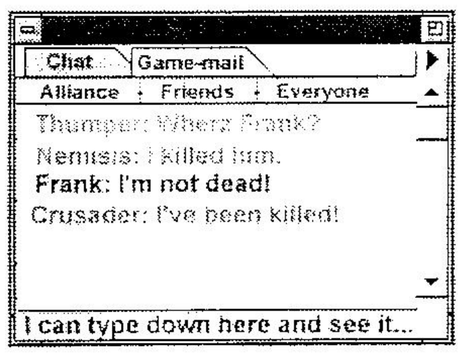
MISCELLANEOUS GAME MENUS

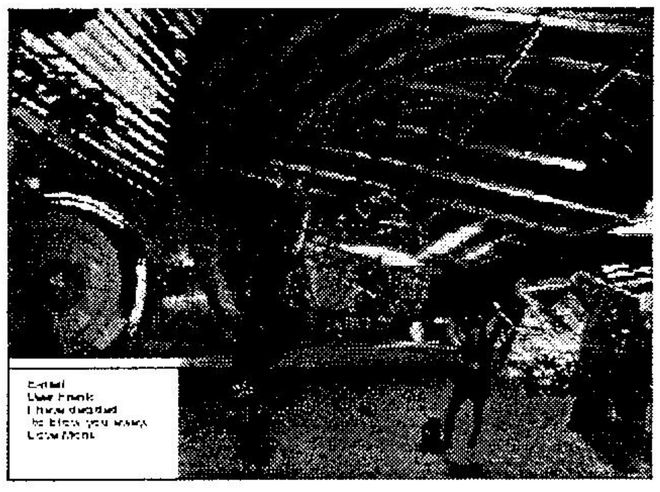
Communications Menu

For multi-player communication will be a major issue. Players will want to be able to call up a communications window at any point during play. Players will want to be able to talk to their comrades and enemies while dog fighting. They will also want to talk to their buddies while they are selecting what to purchase planet side, (Hey, what is the price of Di-Cor in your sector?)

Communication Window:
Anywhere, anytime... The player should be able to communicate via game-mail or chat mode. The intention is to make a window that is resizable so that we give the player the freedom to make it any size they need. If they want it up during space flight, they can, and they can put it in an out of the way place.







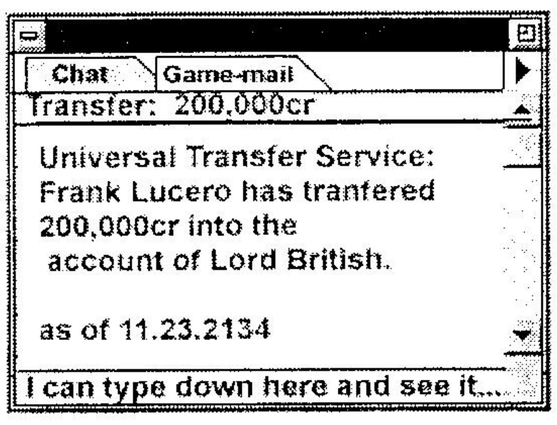
Chat - is the real-time communications between players on the same server. You can only chat with people who are presently on-line in select rooms. These rooms include:

- Alliance - Everyone who is in your alliance has access to this chat room.
- Friends - A private room for everyone who you designate access.
- Everyone - Everyone has access to this chat room. This is for flaming each other.

Game-mail - is sending a player on the server a message. If they are on-line they will receive a beep telling them they have mail. If they are not currently on the server, their mail will be stored and they can retrieve it later, (they will be beeped on start up if they have game-mail waiting.) A player can send game-mail to:

- Alliance - Everyone who is in your alliance gets this mail when it is sent.
- Friends - A select group who you have chosen will receive this mail when sent.
- Individual Player - A player can send main to an individual player. (There is no way to send mail to everyone.)

Note: The first name at the top of the Everyone list is the Sysop. If the player has a gripe they can easily send it to the man (or woman) in charge.



Wire Service - Since players will be able to transfer money to each other, the "wire-service" will function just like game-mail. When a Player selects a single player, (or an Alliance coffer) the money will be transfered immediately if the player is on-line. If the player is not on-line, the e-mail and the money will wait for them until they log on next. (We can just make the wire service money transfer a field in the game-mail.)
The wire service e-mail will automatically state who sent how much to whom. The sender will have an area they can type in a brief comment. ("I'm sending this to pay off my Alliance dues for the past 3 months, sorry...")

In-flight communications:
The players should be able to broadcast a chat to everyone in the local area while they are flying. This way players can warn their wingman and taunt their enemies.

- **Text -** The player should be able to hit a key and type what can be directed to other players. The text needs to show up on the HUD. Macros can be programmed for the player to quickly send their favorite text lines.
- **SFX tokens -** The player should be able to send tokens that activate pre-made SFX. These SFX would be taunts or kudos that would be created by Origin. When a player sends a token, the receiver's machine would play the pre-made SFX from the P3 directory rather than sending the SFX file across the net. Player's could create their own token SFX packages and trade them among their friends for humorous game play, (SFXs from Quake, lines from movies, toilets flushing.)
- **Voice Compression (only if we use Mpath) -** Players would be able to use Mpath technology to record and send small sound bites. Though this might slow the game down slightly, the benefit of letting the players talk together as if they were on an intercom would be a huge advantage. Being able to record and store sound bites would also allow players to hook in macros so that players could use the bits just like taunts. **NOTE:** if we go this route it would be nice to record the computer taunts in the same compression ratio. This way there will be little difference between the player recorded messages and the computer generated messages. **NOTE:** We may want to provide the players with a utility to convert their own wave files (canned SFX, etc.) into compressed format for easy use.

PLANETS AND SPACE PORTS

Overview:

Each port that the player can travel to has different characteristics that when combined, create unique worlds with particular trading needs. Some worlds even consider different commodities as contraband, so research is useful for new routes.

Worlds: Each world will have it's own look for its environment to fit with its description. We currently have 63 Ports (Planets, Space Stations, and Asteroid Stations) at which players can land.

Quads: There are four quads that make up the sector. Because not all areas in the map will be visible at first, some worlds may take a little work to find, (such as the pirate bases.) The player should begin in Braden Quadrant so that all the cheap prices and low tech items can be geared for them. They will not have to fear being blasted out of the sky immediately because this area is heavily patrolled to insure the peace is kept.

Space Locales:

These are places players can actually fly to in their ships while in space. Many are in hidden areas. The idea is to have somewhere to go while in space where the player can actually DO something other than interact with NPC's and buy/sell cargo on normal ports. These can tie into sub-plots in the single player game, but also exist in the multi-player game.

Asteroid Field: Very generic, with lots and lots of rocks. These are polygonal objects. Players will find that navigating an asteroid field at high speed is a risky thing indeed. Players can put down OEM mining machines on specific asteroids and come back later to pick up the ore. (The OEM should appear on the player's radar as a blip, but on no one else. Other players may find and destroy it, but it will not be as easy as looking for a blip on a radar.) Moreover, players can use a mining laser and mine for ore themselves, using a tractor beam to pick up the "ore" which is randomly generated (ie: iron, cesium, platinum, di-cor).

Black Hole: Bitmap. Warning buoys for known black holes to steer ships clear of this danger. No warning for unknown or "hidden" black holes. Effect is, get too close and it sucks you in like a tractor beam... The closer you get the harder to get away from it's "event horizon". There is a point of no return, if you cross this point no matter how powerful your engines or powerplants, you will be destroyed...

Nebulas: Nebulas are giant clouds of inonized gases (mostly hydrogen), so they look very different from normal space and are highly lighted. Space could be reddish orange instead of black. (Think of the Nebula in Wrath of Khan). Nebulas are notorious covers for pirate bases because shields barely work in them (offering only the scant 10cm of protection no matter their shield ratings, without a Nebula Phase shield). Players can get free hydrogen fuel in nebulas if they have an EM fuel scoop on their ships. It is also possible to make scanners less effective in nebulas, degrading capabilities by two levels. (Being inside an nebula will be putting the player a nebula 360 degree bitmap, with some possible atmosphere changes, such as translucent clouds.)

Old Battlefields: Like an asteroid field except instead of rocks there are huge blasted remants of ships. Just as dangerous as an asteroid field but also a lot smaller.

Pulsar: Much like a black hole, this is a space hazard to be avoided. Get too near one, and all your scanners and electronic equipment gets fried... get closer and YOU get fried.

Derelict Ships: Giant old ships that could be flown through. Maybe hidden equipment could be salvaged from them.

SHIP CONSTRUCTION AND FUNCTIONALITY

Overview:

Ships are modular and range in size from very small 35 ton one man fighters to gigantic 2000 ton capital ships. There are six basic attributes of any ship: Size (tons), Hard Points, Shields, Power plant, Engine, and Modules. The determining factor for the type of shields, engines, and power plants is Size. That is, larger shields and power plants take up huge amounts of space that will not fit in small hulled ships. With a modular design, any ship can take any piece of equipment, limited only by size and "module" space. Small ships cannot take the best of everything, in fact, hardly any ship can except the very largest. There are ten sizes of ships, ranked according to hull size. The largest hull available is a space station and cannot move (i.e.: it's not a ship at all, just a weapons and cargo platform). Each hull has a size in tons, hard points, turrets, modules, a "Size X", Power plant and Shields associated with it. They are described in detail below.

POLYGONAL SHIP CONSTRUCTION

Player ships:
The player will be able to purchase chassis on which they can build their ship. There will be 9 levels of chassis. A player can customize the ship to be more suited for being a fighter, (smaller, better handling) or more suited as a freighter, (larger with more cargo room.)

Non-Player ships: Because we want the universe to be filled with interesting ships, the ships that the AI will control, (such as attacking pirates, patrolling Confed fighters) will NOT be one of the 9 chassis that the player can purchase. Instead, these will be unique to their own areas. Kilrathi pirates will have their own unique ships, while human pirates have their own unique looking ships. The player, (be they a pirate) will have to settle for one of the 9 chassis.

Modular Ship Parts:

A way to show the player that the engine that they have just purchased is better and bigger would be to actually modify the ship. Each ship should be designed so that it can swap in and out various pieces.

Child Objects we need to be able to add to a ship:

ENGINES: Impulse type engine (Ion, pulse, jump, hyper) These must be built for each chassis.
AFTERBURNER : These must be built for each chassis.
TURRETS : These may need to be built for each chassis.
GUNS AND MISSILE PODS on wing tip hardpoints (If the hardpoint is in the nose it is 'in' the ship.) These should be able to be transferable between all the chassis.
THRUSTERS: As the ship turns the rear thrusters can point in the opposite direction. (Though the thrusters for lateral movement do not have to move, we can still attach gas jets that shows when a player is using them.)

NOTE: Add-ons such as shields, power plants, ECMs, ECCMs, drones, and mines layers should NOT require any visible changes to the ship as they are all mounted inside the hull.

Hard Points and turret placement: Weapons such as guns and missile pods require hardpoints, (missiles pods require two side by side hard points.) Turrets are a different matter and can ONLY be placed on turret placements. Likewise, guns and missiles can NOT be put in turret placements.

Armor Textures: This will be the easiest part to changing components on ships. This will be for changes in levels of armor. Each type of armor should have its own material and color characteristic that distinguishes itself. There are only three levels of armor; ***Plasteel (white), Durasteel (silver), Carbidium (gold).***

Ship Damage

A ship's defenses are composed of different elements:
Shield: The shield protects the ship and can be regenerated according to the player's power level. When the ship's shield is reduced to zero, then the ship's armor will start to go down. Very few weapons have the ability to breach a ship's shields and do damage directly to the armor.
Armor: This is the ship's last line of defense. Once the ship's armor is breached the ship is destroyed. Armor does not regenerate, unless the player has a repair mech, and even then it is slow.
Damage Section: Each fighter or freighter is divided into four sections. Each ship has a front, rear, right, and left shield and armor section that has independent damage points associated with it. Only by shooting off the rear shields can the player begin to attack the rear armor.

Visible Damage to Ships:

To increase the quality of the game ships should be able to take visible damage. This can be in three parts. Shield, heat and residual damage.

Shield Damage:

- When a ship's shield takes damage there will be a shield effect localized to the area effected. Other ships just blanket the entire ship with an effect, but because we are planning on having huge ships, we need the ability to localize.
- Shield damage should be one color for hitting a healthy shield, and another for one that is about to fold. This way players have visual cues when a shield is starting to give way and expose the armor. (There are no explosions associated with hitting a shield, unless the impact was by a missile or mine.)
- Shield damage to a warp shield is another effect all together. This way a player has visual cues that the player is invulnerable, but potentially open to attacks on their armor.

Heat damage:

- When a ship's armor takes a hit, there will be an associated bitmap explosion.
- There will be a debris package in the form of particles that will be cast off from the ship.
- The area where the impact occurred needs to calculated so that the appropriate texture map can have an applied bitmap. A "heat" marking can be added to make it look as if this area is red hot. This heat patch will glow and shrink with time.
-

Residual Damage

- Anytime the armor is damaged there will be a debris package.
- When the ship is destroyed the 3D model will be "broken" apart. Instead of throwing debris to represent the ship being blown up, the actual 3D model will be used.

Damage Points on the Ship

Each craft will have certain points that will take damage depending upon the section. Damage to the front of the ship will affect the front boosters, while damage to the rear of the ship may effect the afterburners.

Front Section
Front weapons
Breaking and reversing boosters
Hull

Port Section
left mounted weapons
steering to the right
scanners
Hull

Core Section
Internal mechanics
damage to inertial dampeners
damage to central computer and HUD
Power Plant
Hull

Starboard Section
right mounted weapons
steering to the left
jammers
Hull

Rear Section
Rear mounted weapons
Engine and afterburner
Hull

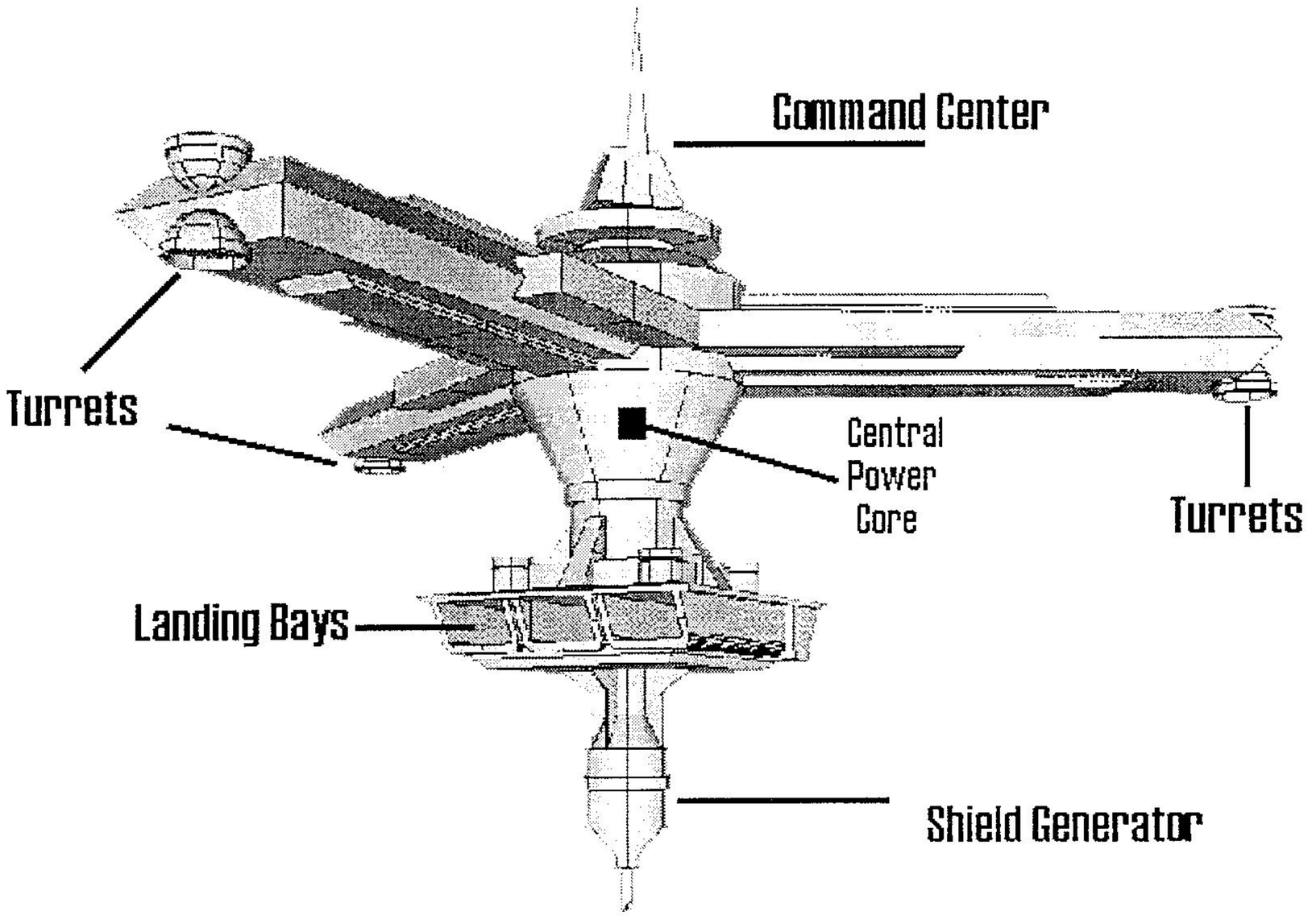
The damage to these areas will only be suffered once the ship has taken damage to its armor. Players will be forced to become heroic in the efforts to compensate for the disaster their ship has become. They will most likely wish to head for the nearest repair bay once their ship has suffered such debilitating effects. The Core Section has a 20% chance of getting something damaged when the ship is hit. Each Hull Type has damage points shown in the following chart. Damage is randomly distributed in a section of the ship – until all equipment or hull is gone. Once all of a ships HULL Damage Points are gone, the ship is totally destroyed. It takes a lot of firepower to destroy stations...

Hull Type	Damage Points per Section	Total Damage to Destroy Ship or Station
1	4	20
2	6	30
3	8	40
4	12	60
5	16	80
6	20	100
7	30	150
8	40	200
9	50	250
10	100	500

Damage to the Inertial Dampeners will also be a possible should the player take critical amounts of damage to the structural integrity of their vessel. Damage to the ID's will suddenly change the physics regarding the pilot. The pilot (or camera) will begin to swing suddenly turning turns, and the player will experience Black out and Red outs due to the physical relation between him and the speed of his ship.

Though this will increase the PO factor of the game, players will respect this as it will increase the "virtual reality" of the game. Because this will only happen after the craft has began to take critical structural damage, players will feel that this is their reward for messing up. Conversely, they will also feel elated should they survive a dog fight with such handicaps.

Orbital Platforms and Space Stations



Space Ports:

About two-third of the locations that the player can visit are either space stations or planetoids (hollowed out asteroids.) With these players will be able fly their ship into the giant structures and land. Some that will be designed for attacking will be large enough for players to fly into and around inside.

- **Friendly Ports:** Most of the ports that the player will encounter will be friendly. allowing the player to land, service their ship, and buy and sell commodities. Some of these ports will only be friendly if the player is aligned with them. Pirate stations will fire upon a player unless they are a recognized pirate.
- **Hostile Ports:** These are ports that the player will find hard, if not impossible. to land at. Even Confed ports will become hostile if the player happens to be on the wrong side of the law. Along with the turrets, players can expect to be attacked by fighters at a hostile port.

Attacking stations:

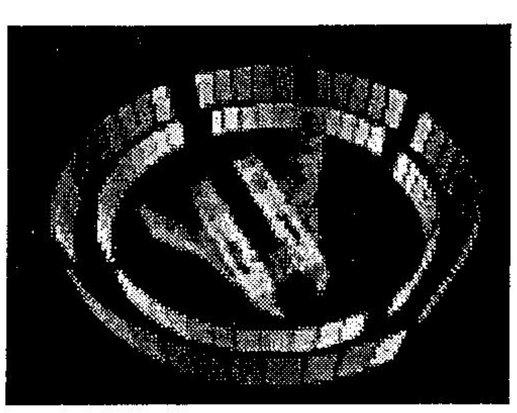
In both Single- and Multi-player, the players will be able to assault large space stations. In these scenarios players will need to attack parts of the superstructure in order to accomplish the destruction of the station.

- **Turrets:** These are the defenses of the station and will shoot at all hostile ships. The are placed so that they can defend the landing bays and the shield generator.
- **Command Center:** The computers and scanners that run the weapons systems are housed in these locations. By destroying the Command Center the weapons defending the stations will become less accurate, becoming less of a threat. Players will most likely want to attack this point first.
- **Shield Generator:** These produce the force fields that prevent hostile ships from flying into the landing bays. The destruction of the shield generator means that the player can enter the ship.
- **Landing Bays:** These are the entry points into the ship. From here players can fly into the ship to attack the Central Power Core. Destruction of the Power Core means that the station will explode within two minutes. Any players who do not get beyond the blast radius will be destroyed along with the station.

HEADS UP DISPLAY

PLAYER DAMAGE DISPLAY

This should look like the P2 display as it showed the ship with two rings (one armor/one shield) circling it. This allows the player to see where damage is being done to which quad of the ship. The quad area should change color to represent how serious the damage is.



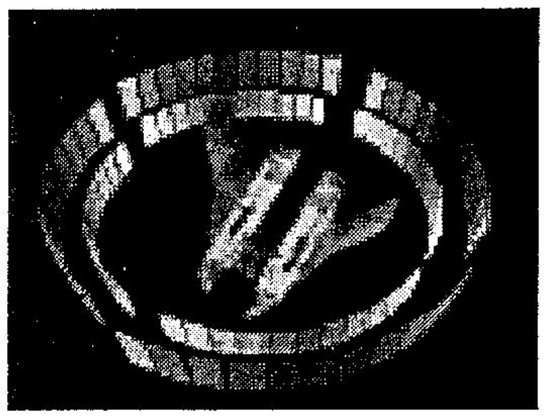
For the shield ring: This runs from green, to yellow, to red, to flashing red (which means the shied is dead.)
For the Armor ring: The armor remains a solid color and the ring grows thinner as the armor is blasted away. The last sliver of the armor should flash to show that the armor is about to be breached. (When this happens, a warning klaxon , or a bitching betty should sound.)

Showing Ship Damage in 3D: To show the player where damage has been taken, the ship that is in the middle of the two rings should actually be a scaled version of the ship from a remote camera that only views the ship. Because we are planning to overlay damage spots onto the players ship, the ship in the armor/shield display will accurately portray the player's damage. The ship will yaw only (not pitch or roll), showing the damage, to keep the player aware of where the damage is and not confusing him.

TARGET DAMAGE DISPLAY and READ OUT

This should look like the Player's Damage Display, except the ship in the middle of the rings is a scaled version of the target ship. Though the shield ring should have the same green/yellow/red effect, the armor ring should be in a different color as the player's armor ring.

Scaled Ship - The scaled object is an actual camera locked onto the object at a fixed distance, (determined by the ship's chassis size.) As the object turns (yaws) the rings turn with it. This is the best way for the player to be able to see which way the small blip he has targeted is turning.
Scanner Read Out - Next to the damage display a readout of the ship's information should print out, *(depending upon the player's scanners.)*

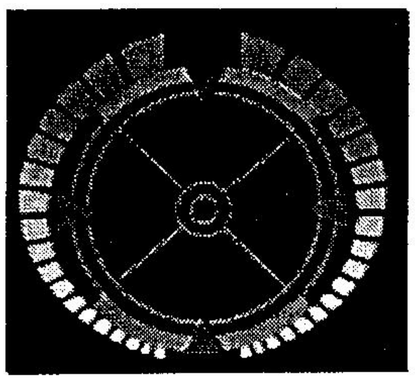


Ship's name
Ship Hull Type, Armor Type
Power plant Type, Shield type, Scanner, ECM, ECCM (green/yellow/red shows damage)
4 Ion, 2 Laser (green/yellow/red shows damage)
40 Grain, 60 PA, 20 Med

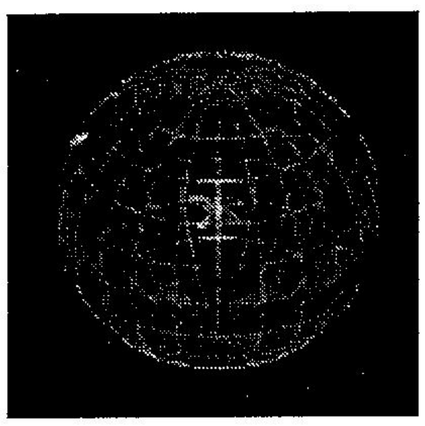
If target is a container, pod or pilot - Because they do not have shields or armor the rings will not appear around them. When a container is targeted, the player must get in range of the container to identify it.

- "UNKNOWN" is not in range
- "STRING_NAME" if in range
- targeting system keeps track of all targets previously identified. Player can cycle through all previous targets from the actionsphere, as long as they still exist.

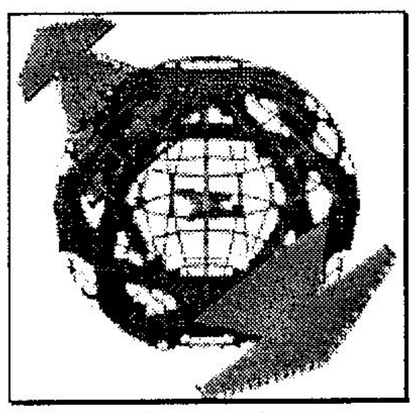
(TAS) TARGET ACQUISITION SCANNER



2D TAS Scanner
Like most 2D radar displays, this display represents the front of the player's ship as being the central circle, the quads are to the sides of player, outer ring is behind player. Since we will inherit Prophecy's radar display, with minor modification they will be used as the low grade radar system the player begins with. Not until the fourth upgrade will the radar become 3D. In case the player decides that the 3D is too confusing, the 2D will still be an option they can change.



3D TAS Scanner
Should the player upgrade to a level 4 scanner, suddenly the world makes a bit more sense on the target scanner. The player will see a 3D sphere with their ship in the middle. The player's ship will always remain facing the same direction as a reference. The other ships in the area will be plotted in space in their relation to the player's ship.



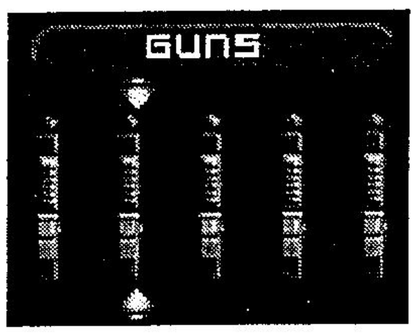
Locating ships on the TAS Scanner:
In an effort to help the player gauge the actual placement of the other ships in 3D space, the surrounding ships will be larger or smaller in according to their relation of the player.
The ships away from the player in the cockpit, (those facing out towards the cockpit windows) should be *smaller* in scale than closer to the player.
Though all this will mean is that those "larger" ships are two to three pixels rather than single pixels, this will help players determine where their enemy is on the three dimensional display.

Blip colors: Because the player can be good or bad, the blip color will only show if the player is aligned or not aligned with the target in question. Other than that, we are attempted not to stray too far from the Wing Commander display in order for fans not to become confused.

Blip color	Target Type
Red	Enemy ship (Non-Aligned)
Blue	Friendly ship (Aligned)
Orange	Cap ship or Station
Yellow	Missile
Gray	Neutral ship
Purple	Retrievable Object (Cargo Container, Pod, Ejected Pilot)
White	Stealth ship
Cycling	The targeted ship will cycle whatever color it is between light and dark.(A Non-aligned ship would cycle red)

Direction: In an effort to show the direction of the ships on the scanner we will attempt to give each blip a three pixel lead. The current location of the ship is the brightest pixel with the two previous locations being subsequently darker. This way, a player will only have to look at their scanner to see which way their targets are heading.

GUN AND MISSILE DISPLAY



Gun Display

Each gun will have its own icon and each one will be visibly different. For every gun that is active, an icon should appear in the gun display. (There is no FULL GUNS icon, just a list of which ones are being used.)

The weapon icons will be color coded to indicate selected weapons and damage levels.
Green lit = no damage
Yellow lit = marginal damage
Red lit = critical damage - (gun fires in uneven bursts)
Gray lit = destroyed
Should show both left and right guns.

Missile Display

Displays currently selected missile type and # of available missiles. A color code will indicate if the selected weapon's launcher is damaged:

Green lit = no damage
Yellow lit = marginal damage
Red lit = critical damage - (delays in launching missile)
Gray lit = destroyed

COMMUNICATIONS and MESSAGES

In-Coming Text Message Area - These are the text messages that are being broadcasted in the action sphere, (though most messages should be of an audio nature.) There are only four lines for text, but the player will have the option of expanding it, and cycling back through the past 20 messages.

- All messages are transparent, though the player can make them solid via the options menu.
- Green messages are generic in nature.
- Yellow messages are directed towards the player.
- Red messages announce the destruction of a local ship.

Broadcast	Alliance	Mute

In-Coming Audio Buttons - These are for the audio messages that are being broadcasted in the action sphere. The player can listen to generic messages, or switch to Alliance mode that allows only fellow members' audio to get though. There is also a MUTE button that turns all audio communications off. This will be a good option if there is too much audio traffic in the area.

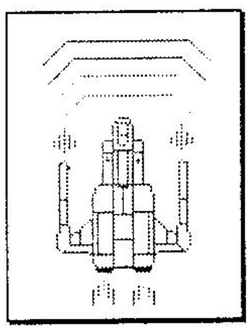
Mail

Game-Mail: This flashes when the player has game-mail that they have not yet read.

SOS

SOS: This flashes when the player has game-mail SOS that they have not yet read.

POWER DISTRIBUTION DISPLAY



Power Distribution Display
Pressing a hot key Activated/Deactivated the display. The player can manipulate the power distribution for their Engines, Shields and Weapons systems via the joystick (tophat etc) or hotkeys.

CAMERA

This area shows a camera view that the player can select. The choices are Target, Rear, and Missile.

- **Target Cam** - Gives the player a close-up view of their selected target. Aids in seeing which way the target is facing and which way it is turning.
- **Rear Cam -** A camera view from the rear of the player's ship. Used to see if some one is on your tail.
- **Missile Cam -** This view only becomes active when the player launches a missile. It immediately switches from target or rear cam to a view within the head of the missile. The view is always from the last missile launched. It switches back to rear or target cam 3 seconds after the missile detonates.
- **Drone Cam** - (This may not be necessary if we make drones fly just like being in a cockpit.)

Meters and Gauges

Because the center area should have very basic, semi-transparent gauges, the digital gauges should be more out of the player's view, located at the top of the ship's cockpit.

450 KPS

Digital Speedometer - Shows actual speed numerically. This is the speed of the ship heading forwards. The ship can head backwards, in which case the speed is shown as a negative number.

SET: 600

Digital Set Speed- Set Speed Indicator shows current set speed numerically. Afterburner is not affected by this setting.

JUMP

Jump - This shows when the player can safely jump to their next Nav point. When the player first jumps in the display is red, meaning certain death if they jump without any navigational direction. When the ship has reached 50% accuracy, this gauge turns yellow. At 100% the gauge turns green.

Red	95% chance jump will fail
Yellow	50% chance jump will fail
Green	No chance the jump will fail

FUEL: 99999

FUEL- When fuel reaches 0 the player can only travel at half speed, and they can not use their afterburner.

Defensive Measures

• DF	• **ECM**
• IR	12 Decoy
• HS	23 Decoy
• FF/SK	• ECCM

MISSILE WARNING

This warns of incoming missiles. A warning light shows what type of missile is actively heading for the player. The light will flash in accordance to the distance to the ship, the closer the missile, the faster the light. If there are two or more missiles approaching, the light is gauged by the closest one. If the missile loses lock, the next closest missile is tracked. If the ship is reading a missile, but has not launched, the light is solid on as a warning.

ECM - Shows player is actively being jammed. Red light means you are being jammed, green means you aren't.
Decoys and ECCM package: It also shows if they player has a deterrent against the weapon. The number of decoys (Distortion Projector for Image Recognition) and (Thermal Generators for Heat Seeker) and (ECCM package against Friend/Foe and Shield Killer missiles.) The light for the ECCM package means that the unit has enough energy for it attempt to scatter the approaching missile. If the light is not on, the unit has no juice.

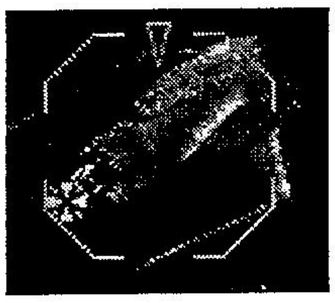
- Yellow means missile has lock, but has not launched.
- Red means missile is on its way.
- Purple means the player has more than one missile of that type on his tail.
- Because Dumb fires are just that, there is no active defense against them.

12	X Mine
14	B Mine
01	R Drone
03	F Drone

- **Mines and Drones:** Unlike the missile warning, the mines and drones are less important to keep track of by the player.

Target Reticles and ITTS

NOTE: If we have time, we want to make each type of ship (Confed, Kilrathi, etc.) unique by giving it is own HUD design for its reticles. This is an effort to make each ship feel unique for the player.



Center Reticle
Persistent display, denotes (roughly) the center of the HUD.
The reticle should have minimal clutter since this will block the view of the target.
Though it is simplistic, it can still convey important information:

Target Direction Arrow - orbits the reticle
This arrow circles the reticle pointing the shortest direction towards the target. If a player turns into the direction of the arrow they should easily find their prey. Arrow should also indicate target alignment.

- RED is for non-aligned
- Blue is for friendly
- Gray is for neutrals

Port Direction Arrow - orbits the reticle
When a large object such as a planet, space station or platform is in the area this arrow will track it similar to the target direction arrow. This arrow is white.

Analog Gun Energy - gauge on reticle
This shows the current gun energy available. Will lower as guns are fired and rise back to maximum as the guns are recharged. (Cloaking device will also draw from this power pool.)

Analog Speedometer - gauge on reticle
This shows how fast the ship is cruising according to its top speed.

- If a ship does not have an afterburner, the ship can cruise at maximum speed.
- If it has an afterburner, the ship will cruise midway down the gauge. When afterburner is supplied the speed will reach maximum.
- This gauge is just a view of how fast the ship is traveling. The digital speedometer will supply the player will the exact speed in KPS.

Missile hash marks - on reticle

- Flashing Green means missile has lock.(Tone announces lock.)
- Green - missile is ready to launch, waiting for lock.
- Yellow - missile is being readied. (Player either just launched or is changing missile type. If the player is changing type of missile, it takes a second for launcher to change out new load out. Need sfx for readying noise.)
- Red - missile launcher is out of commission.

NOTE: Each color has different shape to help distinguish it.
NOTE: Player can not launch missile without lock.
NOTE: Dumb Fires can be launched immediately since they do not require lock.

Match speed - (MS) on reticle
This shows that the computer is attempting to match the speed of the targeted ship. Player activates this from the keyboard and prevents player from over flying his target.

Smart Targeting - (ST) on reticle
This shows that the computer is only targeting non-aligned and neutral ships. Player can activates this from the keyboard and prevents them from accidentally locking on allies.

ITTS cursors and Brackets:

There are two independent ITTS cursors.

1) The gun ITTS cursor is the part of the HUD that shows the player how much of a lead they need to give a ship in order for the player to hit it with the guns they have selected.
2) The missile lock follows the ship that is targeted and begins flashing when target locked.

Missile Target Lock indicator - If the player has a missile selected that require a lock and a targeted ship comes into view, this will display the locking animation (cross-hairs converged on the target for a lock).

Cross-hairs begin flashing once lock has been established.

Gun Target Lock indicator - These cross-hairs have a different shape reticle for each weapon :

- Pulse Lasers
- Beam Laser
- Mass Drivers
- Meson Blaster
- Neutron gun
- Ion Cannon
- Particle Cannon
- Proton Blaster
- Tachyon Gun
- Plasma Cannon
- Linear Accelerator
- Combination - will have to have a separate reticle.

Digital ITTS Activation Gauge - This gives the range to the Target if it is outside of the ITTS system in meters. The gauge counts down as the target approaches. Once it is in range this gauge disappears.

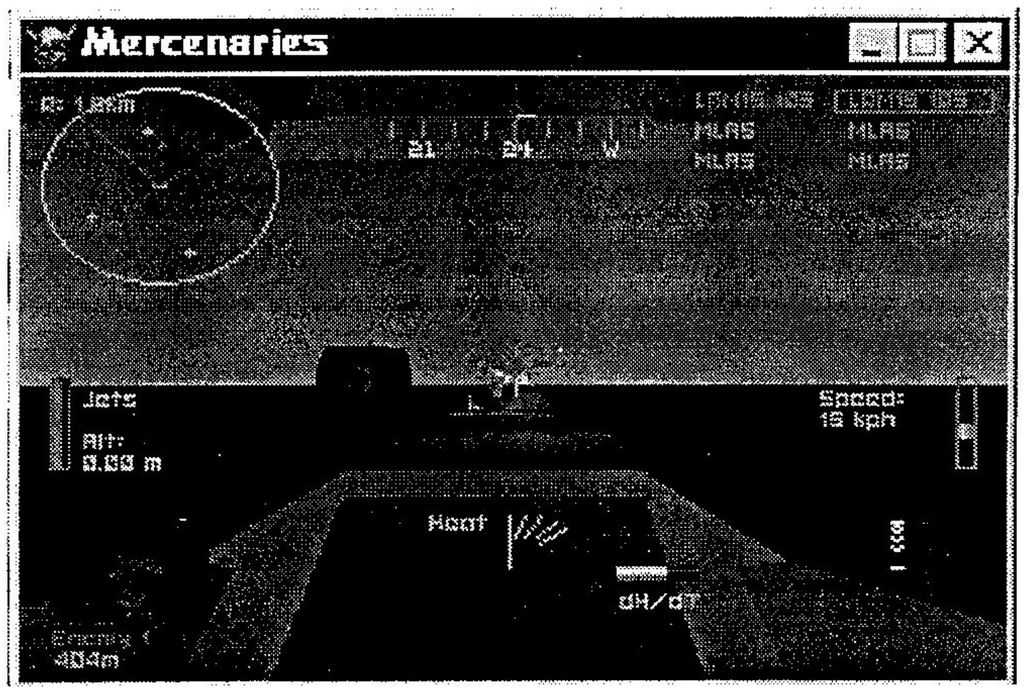
Blinking gun ITTS cursor - The cursor begins blinking when the player has their target in "the Zone." This means that the target is within the center reticle and the target is the correct distance for the chosen weapon. When the Player fires while the cursor is blinking they should hit the target 90% of the time.

Brackets

These designate which ship is being targeted. Bracket color reflect state of alignment of the target

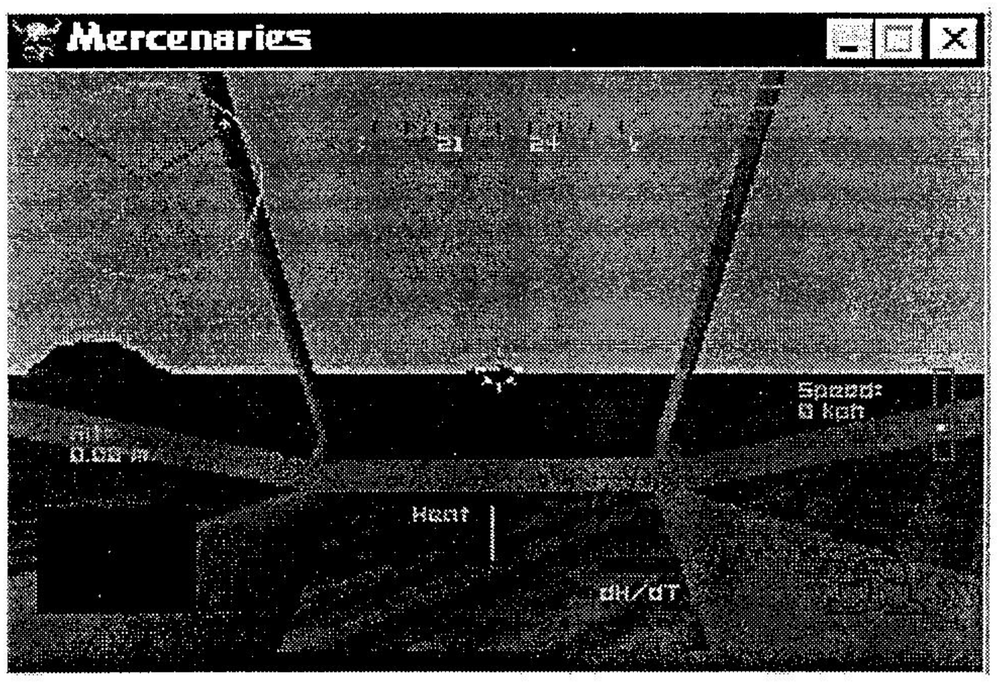
- RED is for non-aligned (enemy)
- Blue is for friendly
- Gray is for neutrals

COCKPIT FRAMES



The visible cockpit: The idea behind the cockpit frames is to help project the idea that the player is flying something other than an SVGA monitor. The player should be able to see just out the cockpit window. though they do not need to see the ships nose. (Think of the view of driving a Mini Van.) This "nose piece" should give the player the sense that they are in a ship, as well as reflect light sourcing produced by the lens flares and nearby explosions.

Turrets: Turrets will also have to have frames so that the player feels they are firing from a ship, and not a computer screen.



Nose pieces and ear pieces: Because we would like to take advantage of a polygonal cockpit, we would like to build a forward section "nose piece" and "ear pieces" that exist to the right and left of the player. Since we plan to support "head turning" (the player can actually turn their camera in the cockpit to look out the port or starboard windows,) this polygonal cockpit should give the player the full sense that they are pilots in an space going vessel.

Different Frames: Because the player will be able to buy 18 different ships, the player should have 18 different frames to give the effect that they are in different ships.

Red Alert Status: Because of the nose and ear pieces will reflect interior and exterior light, it will be possible to warn the player that hostile ships are in the area. Like Battlestar Galactica, when an enemy ship is in the area the interior of the ship will take on a red highlight, (along with a short warning SFX.) This will not affect the look of the HUD, just the interior lighting. When the last enemy has been dispatched, the interior lighting will return to normal. These lighting effects would also work if we wish to light up the cockpit with small explosions as the craft takes critical amounts of damage.

Head Turning

Head turning will allow the player to turn their head from right to left to give them 180 degrees of view from the cockpit. With light from the outside of the ship being reflected on the nose and ear pieces, the player will get subtle cues that they are inside a cockpit as they turn their head from side to side.
Though the HUD will be locked to the front view, players will still be able to choose and select targets for their missiles and tractor beam as they look right or left.

Head Jogging: As a player flies the craft, the camera will simulate the player's head as it reacts for forces of gravity. When the craft's armor takes a hit, the player's head (camera) will rock from side to side from the shock. When the player steers into a tight turn, the camera will move in the opposite direction, simulating the player's head being forced by inertia. This should not be a set amount, but based on a physics model. The more force, the more the camera should move. (If the inertial dampeners are out, the camera should have sharp, dramatic movements.) This will be optional.

Star Movement

Of course the movement of the stars or "space dust" should move in the direction that the ship is moving. But the stars should become "longer" or "stretched" the faster the player goes. The player should notice this somewhat if they accelerate to full speed. This should become visibly pronounced as afterburners are applied. *(For a good use of this check out Colonial Wars on the Playstation. It is very effective in showing speed.)*
If we wish to explain the phenomenon, we can add a blue trail to all the stars coming towards the camera, and a red tail to all those going away. *(For an explanation of blue and red shift, see Einstein.)*

Black and Red out (optional)

The player should be able to experience all the wonders of the physical world, even those that work against them. For the most part players will not have to worry about inertia as they bank and steer their craft. This is in thanks due to inertial dampeners invented by Lockheed/Martian Research as man's space vehicles quickly superseded the forces that his body could withstand.

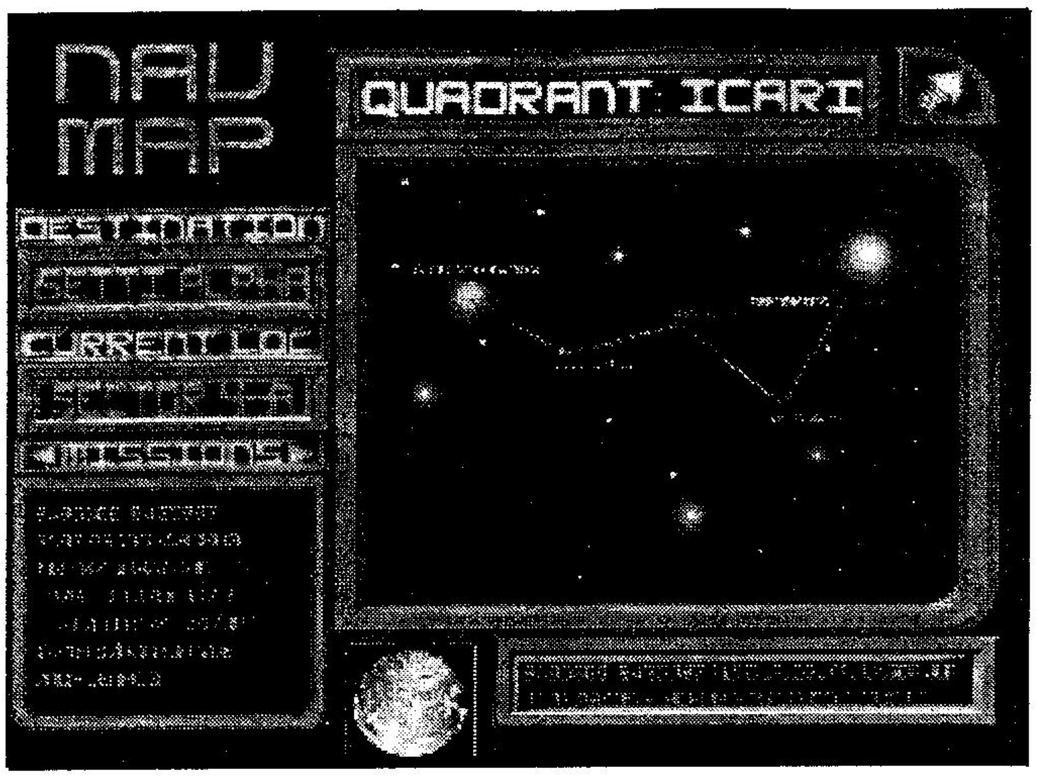
But, should a player lose his inertial dampeners due to damage, the lovely freedoms that the player has come to take for granted will shortly come to an end. With out the ID working, hard turns and sharp dives will quickly give the player more to worry about than that pirate on their tail.

Black outs (caused by too many positive G's forcing blood to the brain) and Red outs (too man negative G's robbing the brain of blood) will give the players a more realistic game, while causing them to take certain precautions while the ID's are down. This realistic "handicap" will amaze the player with the realistic flight model much the same way as the planned damage points will convey virtual flight. (If the players starboard engine is damaged, they will not have the ability to turn to the left as greatly as when the booster is working.)

Lens Flares (optional)

This has become such a standard in space games we would look naked if we didn't include them. The trick will be to make them look better than other games. Simple tricks that we can try will be minor, but effective.

Matching the flare to the sun - We can vary the stars in the system between red giants and blue dwarfs (smurfs). These suns would cause different color flares as well as different shapes. Large suns could have up to 8 flares, while small ones may have only three.
Binary Stars - We can have two or maybe even three stars nearby, causing multiple flares. This would give players different feels for different systems.
Rotating flares - Most flares are just circles. We would add imperfections to them so that as a player rolls, they would see the flare rotate as well.



Nav map:

Because players will not be able to fly and choose their new nav point, (the joystick can only be used for one thing at a time,) the nav map will be a sexy screen that pops up when the navigational key is selected.

Key features to the Nav map:

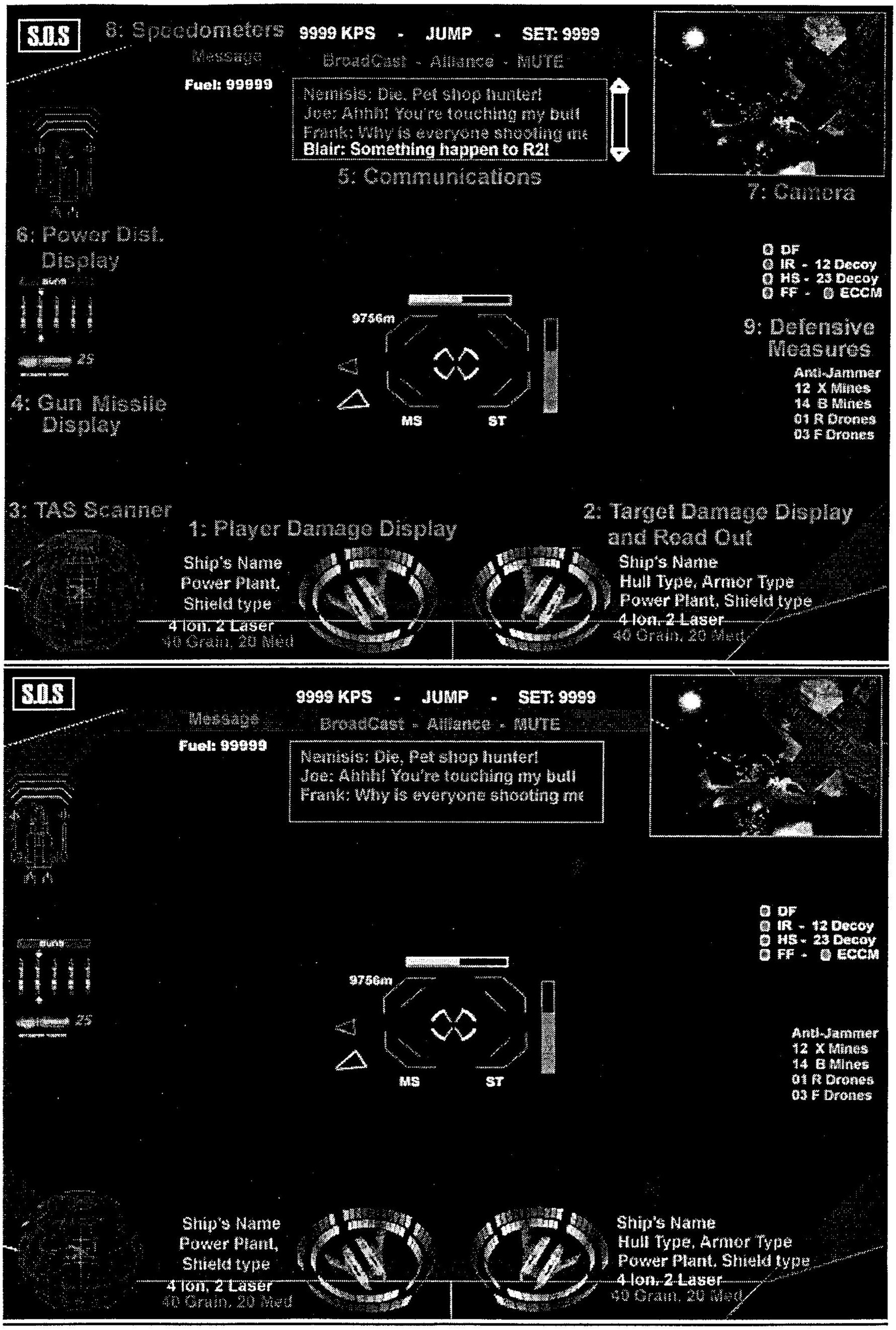
- Being able to click on a nav point or port and having the computer figure out the best route between systems and quads.
- Clicking on a port and having information about the world/port pop up in the info window.
- Clicking on the Mission Specs button to see the mission specs for the assignments you have undertaken.
- Clicking on the Missions Available and search through the want-ads for missions to go on. (The reason this is here is so players will not have to land to get new tasks to perform.)
- Brining up the player's diary to see where they've been and where they need to go next.
- Using the joystick or mouse to rotate the current quad in 3D.

The Available Missions button brings up a screen by which the player can select an either a Ai mission in the same quad. Since the player is only limited to 3 random missions, they will need to drop one if they wish to add one once they have three.

NOTE: inside regular HUD player needs to know current selected destination, number of nav points till destination is reached, and a warning that destination has been achieved.

In-Flight Nav map:

To allow the player to set a nav point while in combat we will allow players to pull up a small representation of their system by using a hot key. Using this same hot key will toggle through all the nav points in the system so that they can change jump destinations. For making elaborate jump plans they will have to consult the full nav map.


S.O.S
8: Speedometers
9999 KPS - JUMP - SET: 9999
Message
BroadCast - Alliance - MUTE
Fuel: 99999
Nemisis: Die, Pet shop hunter!
Joe: Ahhh! You're touching my butt
Frank: Why is everyone shooting me
Blair: Something happen to R2!
5: Communications
7: Camera
6: Power Dist. Display
0 DF
0 IR - 12 Decoy
0 HS - 23 Decoy
0 FF - 0 ECCM
9: Defensive Measures
Anti-Jammer
12 X Mines
14 B Mines
01 R Drones
03 F Drones
9756m
MS
ST
4: Gun Missile Display
3: TAS Scanner
1: Player Damage Display
Ship's Name
Power Plant,
Shield type
4 Ion, 2 Laser
40 Grain, 20 Med
2: Target Damage Display and Read Out
Ship's Name
Hull Type, Armor Type
Power Plant, Shield type
4 Ion, 2 Laser
40 Grain, 20 Med

MISCELLANEOUS DETAILS

MUSIC

For the time being we are planning on using the same music format that Prophecy is using, that is, streamed non-red book. This is being used so that the maximum amount of music can be stored on the CD.

But because this limits the number of minutes of original music we can ship with, we will want to add the option of allowing the player insert their red-book CD and stream it during play.

NOTE: Because the theme of the game is a dark and gritty future, using the Techno-Punkish sound of Cobalt 60 would not be a bad thing. (Especially if we can get them for the same price that Prophecy did.) But we are open to going with another group, as long as they have the same kind of sound, appeal to a mass audience.

SFX

We will be aiming to have the highest quality of SFX for Privateer, including the use of 3D sound effects that are already built into the Prophecy engine.

Sound effects should be pre-loaded whenever the player's craft enters an action area. The action area should be predetermined, as in, the limited amount of variables such what kind of vessel will the player encounter, (pirate, freighter, Confed) should be known before the player's craft finishes it 3rd person traveling view. Because of the amount of memory we are requiring, the few predetermined SFX should be loaded into memory so that they can easily be played on command.

COMMs

Unlike previous Wing Commanders, the plan for Privateer 3 is not to have the video portion of the comms show up. These take up a lot of screen space, CPU time, and hard drive space and add very little to the game. For P3 the plan is to eliminate the video portion and stick with just the comms as wave files.

One of the major changes that player's may or may not notice is the reduction of comms from other ships. Previous Wing Commanders have required up to 30 different comms per pilot, which makes it impossible to store all of them for easy access. Getting rid of all the comms except for the attack comm, and any story related comms will greatly reduce the need to store SFX. Story elements can also be handled in such a manner such as. "Hey, if you don't kill me, I'll make you a better deal," or "Meet me on the Pleasure Planet and I'll deliver the goods."

Instead of 30 different things people say during a battle, the push will be to have to have 30 random attack phrases. This will insure that all pirates that you meet don't say the same thing when they attack. This also means we will be doing away with the corny death screams.

NOTE: As with plot elements, the player's journal, or ship's log will be updated. This way the player will never get lost in the plot, or forget what or who they need to do next.

SHIP'S LOG/PLAYER DIARY

To insure that the player does not get lost in the plots, every time the player completes part of a plot a note of it is made in the player's diary. A note of anything the player needs to do next is also logged.

With a sequential listing of the major points, the player should easily be able to tell where they've been and where they are going. This is also handy if they forget to save. The player will be able to look at their old save game and know at what point they have to start over.

Example:

12/1 Delivered Powered Armor to the Rebels at New Damascus.
12/2 Acquired retrieval mission for derelict ship at Nav 124.
12/4 Destroyed Alicia's ship at Nav 126. Going to Antwerp to collect 10,000cr bounty.

NOTE: This will have to be stored on the player side since we can not store all this on Mpath.

Skill Level

Skill level will dictate how well and how fast the enemy reacts. On the load/save screen players will have the option of raising or lowering the skill level. Skill level will range from 1-10. When the player begins it will be set on 3. Enemy won't use their missiles until level 4.

In each system the enemy will have a skill level base to make them easy in quad one, hard in quad four. As the player gains more kills, the skill level index will climb. If a player does not like the fact that the enemy are getting better, they can just crank down the skill level via the load/save screen.

Skill level does not apply to multi-player because everyone has to have the same level. But the skill level index will still apply to the different quads.

Tally board screens for Arena

Though not a menu, the tally board screen should have the same design concepts incorporated into it as the rest of the menus.

The kill board should contain the following for each player. There is a scroll bar so that the player can scroll down to see all of the players' stats. They are listed by the number of kills on top, with the lowest score displayed at the bottom of the screen.

Player Name
Confirmed Kills: Times Killed:
Shots fires: Hit Ratio %
Efficiency Rating: Kills / Killed + Hit Ratio
Killed Player 1 x times
Killed Player 2 x times
Etc.

SPACE TRAVEL

Space flight will remain largely like it was for Privateer One. Players will be able to fly within their systems without a Jump Engine just on sheer impulse power alone. The Jump Engine will be required should a player want to jump to another system or Section.

The Hyperdrive will be a new device that shows up in sub-plot #4. This device allows the player to select the system they wish to jump to and jump directly to it without having to pass through all the systems in between. This is a new experimental device of unknown origin, (possible Steltech) that can only fit on smaller ships, (not for Capital ships.)

TRADING CARGO BETWEEN PLAYERS

In multiplayer players will have two ways in which to trade cargo:

- **In space:** using the jetison cargo option players will be able to jetison their cargo by which other players can tractor beam in that cargo.
- **At an Alliance Station:** Players will be able to store cargo off at an Alliance station and it will be stored there as a warehouse for all of the members. Other players will be able to remove cargo since this will be a communal pool. NOTE: We may want to log all debts and credits to the pool so that members can see who is taking things they shouldn't be.

Both of these ways are not foolproof as they may allow one player to cheat another. We feel that this is a good thing as it allows more human interaction, such as back-stabbing, deception, skullduggery.

EJECTING CARGO

Because players will want the ability to off load cargo in space and eject it to distract pirates we will need a quick and easy system for accomplishing this.

All cargo will be grouped into their own sections. A player will have a hot key to bring up a list of all the sections:

Iron Ore	100 tons
Grain	200 tons
Scrap	10 tons

By repeatedly pressing the hot key they player can change which section is to be ejected. By pressing ENTER while the ejection menu is up ejects the highlighted section. No matter how many tons the cargo is, it will always fit into one container. (This is so space will not become littered with boxes.)

We plan on allowing the player to purchase BTC's (booby trapped cargo) containers. When one of these is tractored onboard it detonates, doing direct damage to the ship's armor and not its shield. A single BTC will always take up a single section so that players can carry multiple BTC's.

Only the best scanners can tell the difference between a BTC and a real cargo container.

SPECIAL EFFECTS

Overview:

Because P3 will ONLY be hardware accelerated video cards we will have the speed to dramatically enhance the quality of the look of our game. Many effects, such as colored lighting and shading which would have been a sizable hit to the CPU, are now easily performed by the card. The following lists many of the effects we will be "pushing the envelope" in order to make Privateer 3 a sizable leap over anything Origin has tried to accomplish before.

Space Flight Effects

- **Translucency**

Weapons: One of the most widely used effects is the ability to make energy bolts and shield effects translucent. This offers the player a better quality of effects over standard bitmapped effects.
Exhausts: For both the rear engines and for any directional thrusters we will want to see translucent colored exhausts. This will be accomplished by using various sized and colored
Missile exhausts: This will be by using a two intersecting rectangles that are translucent to various degrees. These will be streamed behind the missile to give the effect of an exhaust.
Explosions: These will be scaleable translucent bitmaps. The bitmaps will animate and streamed behind one another to give the illusion that not only is it burning, but it is leaving a fiery trail behind.
Jump Points: We will want to have some kind of spherical object that represents the jump point a player must enter in order to initiate their jump sequence. When the player gets to a jump point there they will see a ring of jump buoys. When a player enters the ring the buoys will begin to glow and an orb will begin to grow in the center of the ring. (With the jump sequence initiated, we will want to set the player's camera outside the ship so that they can watch the effects.) The ships jumps when the translucent orb has reached full size.
Power-Ups: We will want translucent spheres, or cubes that the player has to fly through in order to receive a power-up in the arena.
Damage: This will also come in the form of heat damage being applied to ships in the form of a alpha-channeled bitmap that is applied on impact and shrinks as the heat dissipates. When a ship is struck by an energy bolt, the area will have a translucent impact applied. This impact (the bitmap) will shrink with time.

- **Multiple light sources**

Because 3D accelerator cards will allow the use of light sources, space can now by lit from a single source, simulating a single sun. Binary systems will give the player two light sources. This will give the player a heightened sense of realism over the space flight simulators where the "depths of space" are ambiently lit. The place the lighting effect will really effect the player is off the ship's cockpit frames. These will need to be polygonal objects that the player always sees while they are in foreword, left and right window modes as will as turret mode.

- **Space dust**

The easiest way in which to give the illusion that the player is moving through space is through the use of space dust moving past the cockpit window. Because we don't want to appear to be a cheap windows screen saver, the dust will not be single-pixel objects. Instead, the dust will "smear" past the camera, being between 5-10 pixels in length. The smear length will be dependent upon the player's speed, with the greatest smear only happening when a player uses their jump drive. To add a small sense of reality, the ends of the smears should be slightly Doppler shifted, with stars coming towards the player being slightly blue, while the stars going away being slightly reddish.
When a player has used their jump drive and are arriving at their destination, through the cockpit the player should see the stars smeared to their greatest extent. We will want to turn off the screen while the stars are smeared, so that the appeared elongated BEFORE the player sees them. As the player returns to normal speed, the smear length will become shorter.

- **360 degree bitmap:**

In order to make space look less like white pixels on a black background P3 will use a 360 degree bitmap to represent the depths of space surrounding the player's craft. This will allow players to see gaseous swirls and nebulous spirals off in the depths of space. Since these objects can stretch around the player in all directions this will be a significant enhancement to the engine over the "heavenly bodies" bitmaps.

- **Lens Flares:**

With hardware acceleration P3 will not only be able to provide lens flares, but also colored lighting from the suns too. The colored lighting will be used to further awaken the player's sense of reality as suns range in colors from red to yellow to blue. With multiple light sources we will even be able to create binary systems, giving the player two lens flares in their cockpit. The translucent flares will be created with slight distortions so that as the lens flares move around the cockpit windows, they will rotate slightly to enhance the flare's effect. (Lens flares will have the option of being turned on or off by the player.)

- **Black Outs and Red Outs**

When a player's inertial dampeners have been damaged the players will experience the reality of being allowed to take turns and dives too fast. Pulling too many G's will cause the player to temporary "black out" (known as gamma correction) and "red out" (tint the world red) when they experience too many negitive G-forces. (This will be an option that the player can turn on or off.)

- **Head turning and Head Shaking**

Like in most flight sims, P3 will give the player the ability to turn their head (camera) right or left so that they can look out of their side windows. To enhance the effect that the player is in a cockpit the player's head will tilt from side to side as they bank into turns, and shake when the ship gets hits, or the player fires their larger weapons. This effect can also be translated to the player in the form of movement through their force feed joysticks. (This will be an option that the player can turn on or off.)

- **Landing Sequences**

To simulate the player's ship landing on a planet we want to use the player's actually ship being "flown" down towards one of the planet's bases. The way this will be accomplished is by rendering the ship as it goes through a series of scripted movements while the ship is being displayed over a matching AVI cinematic. This will allow the player to see their ship, (with its unique characteristics that they player has chosen,) land on the planet. The lighting of the ship will need to be adjusted to match the look of the AVI.

- **Hanger and Information Kiosk**

Because we will already have the detailed 3D models, P3 will use them instead of 2D art in most of the kiosk screens that the player will use to buy, sell and view items.

- **Space station Self Destruction:**

Because we will allow players to blow up their Alliance stations we will need an effect. In its most simple state we will just fact the screen to white, (along with comm static). Because the station's self destruction is so powerful, anyone who witnesses this fade to white will be killed. As space fades back to black, all ships in the area will be delivered a fatal amount of damage.

- **Shockwave**

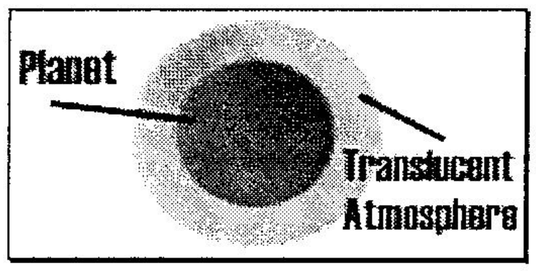
Because other games already have this, (Colony Wars) we should attempt to have this same effect in Privateer 3. The expanding shockwave ring effect would only be used for the destruction of large ships, including capital ships and stations.

- **Texture burning**

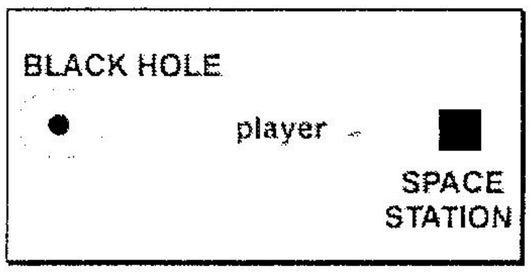
In order to destroy large objects we will need a way of avoiding large pieces suddenly just disappearing from the universe. This could be achieve in a number of ways:

1) By reducing the size of a large piece by either subtracting textures and ploys from the ends of the object.
2) By "derezing" the textures, by first brightening them (as if they are getting hotter) then by subtracting pixels from the textures as the texture values are being reduced to black. This way the large object would look like burned up and disintegrated. We would not have to worry about debris for these larger objects.
3) A combination of the two methods.

Special Space effects:



Planets: Because planets will be polygonal spheres in space, planets will also have a translucent "atmosphere" sphere around them to simulate it having an gaseous envelope around it. Both of these objects should rotate, with the atmosphere moving faster than the planet.



Black Holes: These areas will have an object end of the universe that will look like a dark area with the light from the stars clustered near its edge (the event horizon.) This object could be "pulled" in the middle to make the area look as though it is "tearing." (If this doesn't look realistic, we will settle for a 360 degree bitmap.)

The space dust in this area should not be geared towards the player, but constantly moving towards the black hole. (This will really give the player the feeling that something is wrong with the physics in this area.)
When the player jumps into this area they should need to fly towards the space station or jump buoy, and away from the black hole. The player should experience a constant pull towards the hole, forcing them to fly away from it to keep from getting pulled in. If they player has a level one engine and doesn't have an afterburner they will have to rely on their jump engine to get them out of the area. If a player flies towards the hole and at certain area they will be "sucked in." (The player will get a klaxon warning them before this time.) Since we don't have death in multiplayer, being sucked in will mean getting thrown to a random nav point in the same quad.

Nebulas: These areas will have 360 degree bitmaps representing being within a gaseous cloud, (space is far from being black in these areas.) To further enhance the effect we will form large polygonal clouds that the player can fly though. These clouds will have a fog effect within them. The polygons will also have their RGB values "flashed" to simulate lightning effects.

Neutron Star: These are stars that sent out a pulse which can damage ships within the action sphere of the nav point. This will be implemented as being a larger polygonal shape (as used in nebulas) that is lit and "sweeps" the nav point. During these sweeps the player will take some damage, be it to their shields or to their internal components. Players will quickly learn to avoid these areas, choosing to fly the long way around these nav points, or daring to jump through them quickly.

SHIP DESTRUCTION

Ship Destruction Repercussions:

- **IN MULTIPLAYER:** The player will find themselves at the nearest base, with cash equal to their insurance value on their ship, about 70-80% back on their ship and weapons. All cargo is lost.
- **IN SINGLE PLAYER:** Players will NOT be able to buy insurance. They will have to load/save like usual.

Destruction:

A ship can be destroyed in two ways: 1) Total destruction happens when the hull takes over 5 times its damage potential in one blow, and 2) Partial destruction occurs when the last bit of hull takes less than 5 times its damage potential, but the damage points are all gone. For example a Type 3 Hull has 8 damage points left... it it takes between 8 and 39 damage points in one blow, it is not totally destroyed and can be salvaged, but if it takes 40 or more damage points in one attack it is disintegrated, with nothing left except scrap and a few cargo pods.

Scrap Value:

When a ship is totally blown up, the only things left from it should be some of its cargo containers and a quantity of scrap based on the chassis size. These parts will hang around for two minutes before disappearing, (unless some one is very close to them.) These are the only rewards for disintegrating people. Occasionally, the player will be able to tractor beam a damaged weapon. They will be able to store these in the cargo hold and return to a base where they can either be sold or repaired and put on the player's ship.

Salvaging Equipment:

If a ship has not been totally destroyed, a player can tractor beam a hunk of destroyed ship and you may get some equipment (almost destroyed weapons, scanners, etc). Each piece of equipment has a salvage value, which is a percentage chance it can be salvaged. Inexpensive equipment has a high salvage percentage, and expensive equipment has a low salvage percentage. All equipment salvaged is downgraded to the most damage it can take just short of being totally destroyed. Only equipment that was previously NOT destroyed can be salvaged. When the player lands at a shipyard, he can bring up his salvage box listing his pieces of damaged equipment, which he can now sell or place on his ships hard points.

Death and Insurance:

The current idea is to treat death as a hindrance. A player will get insurance when they purchase a ship. When they get blown up they will get 70-80% back on their ship and weapons in credits, though they will lose all cargo. Their ranks and Alliances will stay the same. They will be "picked up" and taken to the closest planet where they can make future purchases. If they have a ship in dry dock they can recall that ship which will be brought to the planet they are currently at, and they can use the insurance money for whatever they choose.

Welfare ship: The only difference to this will be the player's first ship. If they get blown up, they will not receive money for their ship, but they will get their whole ship back. They will still lose money on weapons and cargo. (The reason for this is so players will cheat by creating new ships, destroying them, and giving their money away.)

Single-player Death:

There is no insuracne in Single Player. Like most games this will require a load/save device. This is necessary since players will be playing plot lines and will need to pick up where they left off. We don't want players dying and loosing their plot critical payloads.

Self-destruction:
We wanted to allow players the option of destroying their own ship. When a player detonates their power plant they are able to do damage to all ships in a given radius, (based on the power plant's level.) Alliance station should they be detonated should destroy all ships at the Nav point, (this is a way for the alliance member to go out with a big bang.) Players set a self-destruct button which turns blinking green and a text message appears on the console asking "Do you want to self-destruct?" Yes or No. Clicking Yes starts a 10 second timer til the ship blows. An Alliance station is a bit different. The President creates a self-destruct password which is required to initiate self-destruct sequence. He enters the password (and can give it to whoever he wants) to start the powerplant overload. The station will then self-destruct in 60 seconds destroying everything in the action sphere.

Bounties:
To show that a player has killed another player, (to be paid for a bounty by another player,) the Kiosk will list all major news events, such as player deaths. They will list who killed who, unless the killer was cloaked. If you are a bounty hunter you will need to de-cloak in order to get credit for a kill.

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TRADE ROUTES

Overview

What we want to attempt with the world model is to simulate a real universe. This universe will run and operate without influence from the player, wherein ships will carry cargo between worlds, ferrying supplies back and forth keeping the economies of worlds balanced. The player will be able to attack these ships, disrupting supply routes, and thus, changing the economics of worlds.

Trade routes: Trade routes will be established between worlds where by freighters will fly from port to port. (Certain quads will have their own golden triangles that the freighters will follow.) Destroying these freighters will NOT affect the worlds they supply.

AI Pirate: Not only can the player interact with the trade ships, there will be a random amount of pirate encounters. Pirates too will move around the system, searching for prey. These pirates will also be encountered if the player is escorting ships from port to port. Players can attack the AI pirates and gain bounties. Destroying the pirates creates new pirates at the pirate base that will follow the pre-established patterns.

SOS encounters: When the AI pirates encounter an AI freighter, the freighter will send out an SOS to all players in the quad. A battle will ensue, and if the freighter isn't rescued in time, the ship will be blown up. A news report will be broadcast about the ship's destruction.

Merc and Confed: These players will also patrol the systems, though much more rarely. With these being the police of the void, they will scan for contraband, and attack all who are not legal. They may show up for SOS calls, and players may even find them fighting luckless pirates. The players may take the bounty by finishing up the buccaneer, or do a favor for the pirate by taking down the constabulary.

NOTE: The problem with this way is that the player must get to the area very quickly after receiving the message since the universe waits for no one. All fights between Ai Vs, Ai will need to be fraction of the real damage so that the fight will last longer.
Also, in multi-play, since anyone can go to this encounters, the possibility of multiple players showing hoping to accomplish the same task will lead to disappointment. Only one player can rescue the princess at a time.

MISSIONS and SUB-PLOTS

Overview:

The primary goal of the plot design will be to focus the story, (or cinematic section of the game,) to revolve around two different types of plots: story sub-plots and Alliance plots.

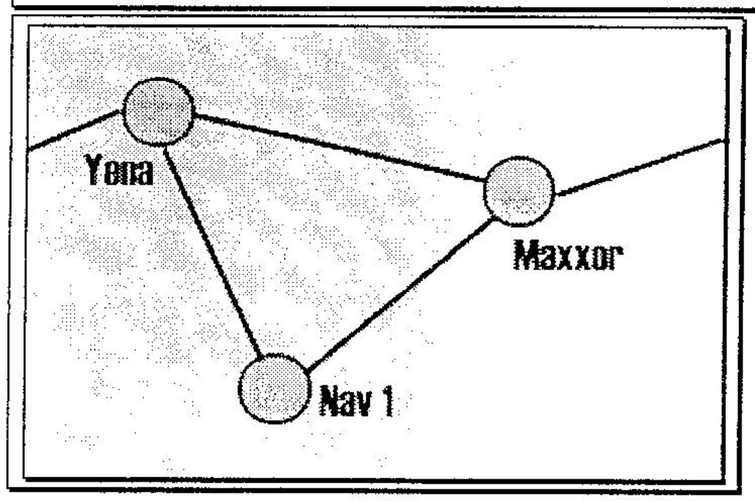
Story Sub-Plots:

The sub-pots are five individual plots rather than one all-encompassing plot that leads the player. The individual sub-plots will be quad based and are designed in such a way that the first four plots should be completed before the last plot is concluded. The final plot will contain the mega-spectacular event that tells the player that they have finished the game. But unlike other games with story lines, the player will be able to continue to play the game after all the sub-plots have been exhausted.

Alliance Plots:

The guild plots revolve around the different careers that the player may undertake in order to build their character. As the player performs more tasks for their guild, they build their characters wealth and reputation. Though a player may conclude one guild plot, they can play another guild plot if they so desire.

A Typical Mission:



a) Player will need to go to from Yena to Nav 1 in order to rendezvous with derelict ship.

b) At Nav 1 the player encounters a pirate ship. The ship attacks because the player is not an outlaw. By dispatching the ship, the player gains an unexpected bonus for its destruction.

c) At Nav one the player docks with the derelict ship. In doing so he adds the cargo of xenomorphs to his ship and manifest.

d) By doing this, two Confed fighters approach as the player leaves the derelict ship. They scan the player and learn of the contraband. They attack.

e) They player can either attack the Confed and become an outlaw, or run from the Confed and remain in good standing with the law. (Smuggling doesn't automatically make you an outlaw, blowing up Confed friendly ships does.)

f) Flying to Maxxor, the player is greeted by a smuggler who pays the player for the cargo.

Making Money: With a mission like this the player can earn money by money by both trading (the xenomorphs) and by fighting (destroying the pirates.)

Dynamic Choices: By choosing to engage or not engage the Confed ships, the player is able to make career choices with their guns, rather than to click on choices during a cinematic in a bar on a planet.

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The guilds or alliances that are listed in this document are:

A) Traders and teamsters:

- Merchant (Mercantile Alliance) - The above-the-table legal traders
- Smugglers - The below-the-table illicit traders

B) Soldiers of fortune:

- Mercenaries and Scouts- The legal soldiers for hire, mainly to protect freighters and to scout nav points.
- Assassins (Scythe)- The soldiers for hire who do only dirty deeds. They pay much more than Bounty Hunting.

C) Renegade Entrepreneurs:

- Pirates - The renegades who acquire wealth illegally.
- Bounty Hunters or Privateers- These are the legal assassins for hire. They never have jobs that will get the player in trouble with the law. These are contracted out by Confed.

D) **Misc. (Guilds the player can align with, but not join.)**

- Kilrathi - They can be both friend and foe. Some accept humanity, others are either pirates or renegades.
- Black Lance - These are the humans who the player will want to avoid. They are basically the armed insurrectionists of the future who have little love for both Confed and Kilrathi.

Game-mail Plot Points:

- When a player completes a task they will get an game-mail either stating that their account has been debited, or the location to where they can pick up their cash.
- Should a player not complete the task, they will be informed by game-mail. The game-mail may even state where to go to get another job.
- If a player performs an action that drops them from the guild, they will get a game-mail stating the fact. (If you become a pirate, the other guilds will send you mail stating that they do not allow their members dabbling in illegal activities.)
- When a player pays a fine, or kills enough bad guys to get back in with the guild, the player will receive a game-mail saying that they have been re-instated.

Sub-plots vs. Random encounters:

The sub-plots should not be confused with the random encounters. The random encounters will be missions that the player can gain access to through a computer interface. Multi-player can easily use random encounters as well as AI encounters. The sub-plots will be tied to cinematic and will be tailored to each quad.

SUB-PLOT MISSIONS:

Sub-Plot One: Exploring the Underworld

The first quad indoctrinates the player on how to trade for profit. A "fixer" sets up the player for his first runs which introduces him to the golden triangle of the system. Because the player's ship does not have a ***jump drive,*** he will not be able to leave this system until he has earned enough to purchase one, or been given one by a fixer.

Quad plot synopsis:

NOTE:Quad Software is availible from from Kloss or from the Science or Military stations.

1) **Bar:** Kloss and bodyguards are huddled in the back of a smoke filled bat at New Damascus. He offers the player a jump engine if he works for him. The first run is to take some "goods" to Vigilance.
2) **Port screen:** These will be received by a pickup on the Vigilance Platform. He only serves to acknowledge that the player has made their delivery. (We need a generic "guy in the shadows" who receives goods. We could play any wave file for him describing the pickup. Afterwards he leaves, heading towards the players ship to collect the goods.)
3) **Bar:** Returning to New Damascus, Kloss asks the player to go to a nearby jump point and pick up a package.
4) **In Flight:** When the player does, the player will see a frieghter, just as it drops the package a group of mercs jump in. Before it knows what hit it, the frieghter is destroyed. Mercs from a rival mob attack the player. (These guys are wimps as this is the beginning of the game.)
5) **e-mail:** If the player jumps out with the package, they will receive an e-mail telling them to get the package. If they go back to New D, Kloss will not be at the bar. If we have generic guy in the shadows he could give a warning not to fail Kloss.
6) **Port Screen:** Generic guy in the shadows tells the player that Kloss is waiting for him in the bar. (This is in an effort to get the player into the bar before they repair their ship. Kloss repairs the player's ship for them.)
7) **Bar:** When the player returns with the package Kloss apologizes for the player getting shot up. He tells the player he will repair the player's ship and give the player a jump drive. But he needs the player to pull a job first. Kloss asks the player to use one of his ships to make a jump out of the system to one of the local systems. (Warns the player that if they don't they will be hunted down.) The player must go to Felicity and meet with the boss' daughter who is running the pleasure planet.
8) **In Flight:** On the way to Felicity, two rival fighters jump in. When they see Kloss' ship, they decide to turn and run. They player will have one minute to blast them before the jump out.
9) **Casino:** There Alacia (Kloss's daughter) is reluctant to hand over the package. (profits from the pleasure planet) but does after some grumbling.
10) **In Flight:** The Player must fly it directly back, or risk getting attacked if they go any other route. (A flag sets off mercenaries at other nav points if they are entered.)
11) **Encounter:** When a player jumps into a nav point off the route between Felicity and New D, they will get a comm message, and attacked. These are ships from the rival mob.
12) **Bar:** Upon returning, Kloss tells the player that he has installed a jump drive in the player's ship. He has installed a jump drive in the player's ship. He offers the player Jump software if he continues to work for him. The next mission Kloss needs the player escort a ship to the Kane system.
13) **In Flight:** After the player launches, the freighter will greet them with a com. The freighter jock warns about a rival mob in the area.
14) **In Flight:** Along the way the ship will be attacked by the rival mob. The fighters will be easy to destroy as they have low AI.
15) **e-mail:** During this mission the player will receive a message from UNKNOWN asking if they would like meet. To do so, they must go to Durango. (Kloss will disappear from his bar at this time, he can not be contacted until the player meets with the rival.)
16) **Cabana:** On Durango, Brek will tell the player that his boss (Kloss' rival) wants to hire them. He asks the player to take out Kloss' right hand man. (Bolloc will be on his way to Felicity on a mission for Kloss.) Brek mentions that Bolloc radio will be fixed so he can not warn Kloss. He warns that if the player doesn't do it, some one will.
17) If they player takes the rivals job, and destroys Bolloc, the player will get an e-mail saying that the bounty has been paid. (Either way Bolloc dies. This way the player gets paid for it.)

18) **Bar:** Kloss talks about a rival trying to move in on his territory. Talks about some one blowing up his courier coming back from Felicity. Wants the player to make a run just like just like his first one to Felicity. Kloss says the player could become his right hand man.
19) **Casino:** On Felicity, the Player meets Alacia again. She tells the player that certain elements are aligning against her father and that the player may be on the loosing side. She is worried that her father may not be able to survive this gang war.
20) **e-mail:** Brek, asked the player to return to Durango for a job that will pay a huge price.
21) **Cabana:** Brek offers the player a great deal of money to take out Kloss for his boss. He says that he can catch him in his shuttle on his way between New D and Felicity. (set a flag)
22) **In Flight:** (If flag is set) If the player goes back to New D the player will encounter Kloss' ship. Kloss' ship is under attack. Kloss will radio the player for help.
23) **e-mail:** If the player allows Kloss to be destroyed, they will receive an e-mail from Brek stating that the money was deposited in the player's account. Thus ends the plot.
24) **com:** If the player defends Kloss' ship and destroys the attackers, Kloss will invite the player to New D to receive a token of his esteem.
25) **Bar:** If the player does not allow Kloss' and lands at New D, Kloss will give the player a reward. Kloss anounces that he knows the player has met with his rival. But Kloss wants the player to meet with them again and offer them more money to work for him. After all, Kloss is just a businessman. He would rather have them work for him than to have a gang war.
26) **Cabana:** When the player returns to see Brek to make him the offer Brek curses the player. He says that Kloss is no businessman, but a ruthless killer. And because the Player has met with him, he will be hunted down and killed. He says that he must return and warn his boss.
27) **In Flight:** When the player leaves the station, they will watch as Brek's ship gets blasted out of space in front of the player.
28) **e-mail:** The player will receive e-mail from Kloss stating that his daughter is missing. He wants the player to be on the look out for her.
29) **e-mail:** One game date later the player will receive a message stating that if the player comes to Felicity, they will learn of Kloss' daughter's whereabouts.
30) **Casino:** On Felicity, Alacia greets the player. Surprise, she's the rival mob boss. She's trying to establish herself she she doesn't think her father will last too much longer. But she knows he's not going to give her the family empire, that is for her brother. She offer the player a lot of money if he takes out Kloss. She gives the player a gun to kill Kloss with. She can not do the job, nor can it be trusted to anyone else. Her right hand man Brek was suppose to do it, but now he's dead.
31) **e-mail:** Kloss' wants the player to return to New D. pronto.
32) **Bar:** Returning to New D, Kloss asks the player to retrieve a package from Felicity. The player will be given a choice to use or not use the weapon.
33) **Cinematic:** If the weapon is used, the player kills Kloss in a cinematic. As soon as this happens, the player is rushed from the bar in a flick to their ship. **Scripted encounter:** Fighters will launch to intercept the player.
34) **E-mail:** (If Kloss is dead) Alacia will reward the player. She even states that the player will be allowed get repairs for free at Felicity. She says that if she ever needs an assassin again she will look the player up. (end of the plot.)
35) If the player does not use the gun, Kloss instructs the player to go to Felicity to pickup a package. The cinematic ends with Kloss motioning to one of his men.
36) **Casino:** When the player gets back to Felicity, Alacia is angry. She bitches that she'd be in charge of his system right now if the player had assassinated Kloss. Inflamed, she wants the player dead. At this point, one of Kloss' men steps forward and kills her. (Not to save the player, but because he was the one Kloss instructed to follow the player.)

e-mail: Kloss thanks the player for helping him dispose of his rival. But, because the player collaborated with the enemy, their ties are forever severed. But, Kloss sends the player the quad maps so that the player can quietly "leave town."

Sub-Plot Two: Kilrathi vs. Outcasts (Black Lance)

The second quad is an area that is held in tension by the fact that both Kilrathi and the Outcasts inhabit this system. Thought the Kilrathi are peaceful, the Outcasts want them destroyed. The outcome of this quad selects which of the two will ultimately control the Kilrathi planets. This will also set up who the player will use to aid him for the fifth sub-plot.

1) **In Flight:** When the player ship is entering through the jump gate into the quad for the first time they will watch a In Flight sequence that shows the focus of the war in this area. A Kilrathi freighter is being attacked by a large unknown fighter which appears to be Outcast in nature. The Kilrathi refuse to surrender, claiming they are peaceful. Shortly after this, the player's craft comes out of stasis and they can join in the fight, or run. (The Outcast ship never transmits.)
2) **e-mail:** Very quickly the player will receive an SOS comm from the Kilrathi freighter. They say that are unarmed and are being unlawfully attacked by Outcasts.
3) **In Flight:** Whether they player helps out or not, the freighter shortly goes up in a ball of energy. Shortly the Outcast ship jumps out.
4) **e-mail:** From Kilrathi: They invite the player to Fang in an effort to find out what happened to the freighter.
5) **Temple:** At Fang the player can meet with a Kilrathi high priestess, Saaltha'Ra and and ex-general, Mang'Kla. The ex-general will explain that the Black Lance still hate the Kilrathi and are determined to destroy them, even though this small area of Kilrathi are peaceful. The Kilrathi Priestess will ask the player help defend them since their warriors, the Bloodhunters, have left them. Though the Kilrathi can not promise much, the can offer friendship. They ask if the player will escort a ship for them to Sakhat'Re in exchange for free weapons and repairs.
6) **In Flight:** if the Player is to escort a ship, along the way they will encounter stealth Outcast ships. The scene will allow the escorted Kilrathi cargo ship to jump in and warn that they thought they saw two ships. Shortly, the ships uncloak, unload some missiles, then recloak. The player is then allowed to defend the Kilrathi ship outside of stasis.
7) **In Flight:** If the player takes out the two ships and gets the escort to its port, or even if they fail, the player will be approached by another ship when the jump to a new system. This Outlaw ship warns the player not to help the Kilrathi, and even invites them to Redemption in order to join the Outcasts. They tell the player that they should be true to their race.
8) **E-mail:** If the player goes back to the Kilrathi without visiting the Outlaws, the Kilrathi Priestess requests that the player goes to check out what the Outcasts have to say. She asks the player to act as an ambassador of sorts. (If they player lands on the Kilrathi planet they will not be able to meet with the Priestess as the temple doors are closed.)
9) **Riechstag:** At Redemption, the Outcast leader will give their view. They claim that the Kilrathi are secretly gearing up for a massive war and that the Outcasts are the only thing that stand between life and death for the humans in this quad. They ask the player to attack an escorted Kilrathi ship that is heading for Fang. They claim that it has weapons that are destined for the Sakhat'Re system as they want to re-equip and attack human outposts. They claim they will give the player weapons and free repairs if they destroy the ship.
10) **e-mail:** After the player takes off from Redemption, the Kilrathi ask them to return to Fang. They have a cargo ship that needs protection.
11) **In Flight:** The player will get to watch the Kilrathi freighter jump in during the In Flight. The player will watch as the same unknown fighter (Outcast style) attacks and destroys the cargo ship. The fighter quickly jumps out.
12) **e-mail:** the Player will get a message asking them to land on Fang.
13) **Temple:** The general calls for the death of the player for destroying the ship. The priestess says that the player shall live since they have no proof. Player claims it was Outcast. The ex-general is furious. He tells the player to prove his loyalty by retrieving a cargo from an destroyed Kilrathi cruiser that is deep with Outcast territory. He says that the cargo are crystals used in the production of stealth technology. Without them, the cats can not produce more devices. If the player can return with this, this will prove that the player is not working for the Outcasts.
14) **In Flight:** If the player gets to the nav point with the derelict ship, Outcast ships decloak in a scene and threaten the player. Shortly, they attack.

15) **e-mail:** The general will advise the player to meet him near Fang. He claims that the Outcasts are looking for the player because he has the crystals and will do everything to stop him. He wants to transfer the cargo to himself to protect the cargo and the player.
16) **In Flight:** Near Fang, the player will jump into a system and be met by the general. In stasis, the player will eject the cargo, which will be picked up by the general by tractor beam. Shortly the general will jump out.
17) **e-mail:** The outcasts will request that the player return to Redemption. They claim that the player has just forced the Outcasts to go to war with the Kilrathi. The player must explain their action or War is at hand!
18) **Riechstag:** At Redemption, the Outcasts tell the player that what they took from the derelict ship was not stealth technology, but Steltek technology. The Outcasts were storing it there in the hopes of figuring out how to use it someday on the Kilrathi. Obviously, the Kilrathi know how to use it, which means they must be ready to go to war. The player must get the technology back from the Killrathi before the Outcasts launch their attack.
19) **e-mail:** The priestess asks if you can check out why the ex-general has not returned after the rendezvous with the player. She fears that he is overstepping his limits and wants to plunge the Kilrathi into a war with the Outcasts as the first step to retaking the quad. She asks that the player visit a military outpost where the ex-general has retreated to. The nav point is secret, but the Priestess gives the player the coordinates to get there.
20) **In Flight:** When the player gets to the secret nav point and jump to the nav point for the first time, the Outlaw ship that the player saw at the beginning of the sub-plot will block his way to the station. The pilot is a Bloodhunter and says that the player will not be able to make it to the base. He says the general's glorious war will begin soon, forcing the Kilrathi worlds to again declare war on the humans. After this com is over, the ship attacks. (If the player catches on, they will realize that the Bloodhunters were using captured Outcasts ships on raids against their own kind in order to spur them in a war.)
21) **e-mail:** The player gets an e-mail from the priestess. She is now aware of what the ex-general was up to. She begs that the player takes out the station in hope of keeping the peace. NOTE: There needs to be one empty nav point between were the player mets the Outcast ship, and the space station.
22) **e-mail:** The Outcasts send mail stating they have receive data from Kilrahi explaining the events. They agree that the station should be destroyed in order to keep the peace. Losing the Steltek technology is more important than being destroyed by it.
23) Player must attack the base and blow it up. The player will be aided by a wave of Kilrathi fighters. When all the fighters are destroyed, a wave of Outcast fighters will attack. But, it is up to the player to destroy the station.
24) (Losing Scenario) If the player jumps out and does not destroy the station within a game day, the notice of a war will appear on the information kiosk. Concurrently, all port screens for Kilrathi worlds will change to Kilrathi worlds that now have Outcast banners hung in their town squares. (The Outcasts have taken over the Kilrathi worlds in the war, and the prestess has been sent into exile.) The player can now not get stealth technology, except from the Outlaws. The player will get e-mail from the ex-general, thanking him to his contribution to the Bloodhunter cause. The plot ends without much climax since the player did not succeed in finishing it. (NOTE: The threads are left open so that they can be reattached in the fifth plot.)
25) (Winning Scenario) If the player takes out the station within a game day, (they may need to go back to a base for repairs, to rearm, etc.) the player will get to watch a scripted scene of the Kilrathi base blowing up. While the player is in stasis, a Kilrathi fighter will show up to face the player. A com message will play. It is the general and he says that the war is not yet over. He claims that "we will meet again," and warps out. An e-mail from the priestess thanks the player and offers him free equipment if and when the player returns to the Kilrathi worlds. (NOTE: The threads are left open so that they can be reattached in the fifth plot.)

NOTE: An old character from the previous games can show up, such as Hawk. He hates the cats and would make sense if he where the leader of the Outcasts.

Sub-Plot Three: Pirate Extermination (not in detailed format)

This quad is the pirate sub-plot which will give the player ***a Nebula Phase Shield*** that allows a ship's shields to function inside Nebulas, without it, shields barely work. Because of the nebula in the quad, this is technology that is needed, especially since only the pirates have it. This gives them a big advantage when attacking merchant ships.

Quad plot synopsis:

The planet Felicity is a very rich world – it is a pleasure planet with every conceivable luxury available including black market goods. The pirates want to control this world (much like 40's era Las Vegas) instead of intercepting cargo all the time. The Mercantile Consortium wants the player to stop the pirates, find their hidden base, and destroy them.

1) Go to Ahriman get an email message from Corporate Director Brandon Keach to escort his ship to Felicity. If the player complies, during the escort they will be attacked by pirates.
2) Upon landing on Felicity, Keach offers player the job of delivering the Phase Shield technology to him and his corporation.
3) Player is sent to recon areas around nebula to find nav points into nebula by using a scanner given to them by Keach. Scanner should reveal a new nav point not shown on the map before.
4) If the player goes into the new nav point they will be attacked by a pirate named Ricktor. Should the player defeat him, he will eject. If the player doesn't return with him, Keach will tell him to go get him. The player must return with Ricktor.
5) Keach learns from Ricktor how the player can slip past the pirate's defenses. The player has his ship ID changed to Ricktor's to pass as a pirate ship. The player must then head into Nebula, find the pirate base, dock there and download technical plans for the Phase Shield.
6) Upon returning, they will be rewarded with a nebula shield. Ahriman will now be able to protect his place and sell the technology to Confed.

Sub-Plot Four: Getting Steltek technology (not in detailed format)

When the player finishes this sub-plot they will receive a Steltek ***Hyper Drive*** (Prototype Confed device to jump long distances.) This will immediately start the fifth plot.

Quad plot synopsis:

1) The player is contacted via game-mail by a mysterious stranger for a hazardous duty with big rewards. When the player lands on the correct planet, they will find the unnamed stranger at the space port. The nav point is given to intercept a freighter.
2) If the player jumps into the nav point, the merchandise will be jettisoned because the ship is under attack by stealth fighters, (player will get a mayday when they enter the nav point.) The merchandise is snapped up by an attacking ship, (Assassins guild) and the ship will jump out.
3) As the player returns, the stranger tells him that things are worse than he thought. The player must fly to a certain planet in order to investigate.
4) After leaving the port, the player will get an game-mail from the Confed patrols in the sector, warning him that he needs to stay away.
5) (full plot yet detailed)

Sub-Plot Fifth: (not in detailed format)

This is the last sub-plot. This is the plot that leads up to the dramatic, mega spectacular event that tells the player that they have won the single player game. If they still want to fly around the universe they still will be allowed even after the fifth sub-plot is concluded.

When the player has the Hyper drive, Stealth technology and nebula shield, strange things will begin to happen with the universe.

Quad plot synopsis:

1) During space flight, the player will be hit by a shock wave, damaging his ship, though it is in deep space and nothing is around to damage it, (galactic quakes.) Soon the news will begin broadcasting the disappearance of planets in the neighboring sector (we can actually eliminate nav points as well as ports), along with millions of inhabitants. Next, the player will receive a game-mail regarding an urgent nature. (If the player doesn't answer the game-mail, they will keep getting galactic quakes, doing more and more damage. Game-mails will keep warning them that they must reply.)
2) A brilliant scientist who made his reputation long ago in quantum physics, informs the player of the things needed to be done to explore the Charybdis Nebula. If the player doesn't have a Nebula Shield, he tells player to go to quadrant 3 and meet X which start that subplot off. It is flag dependent on what he says. So if the first time the player meets him and has gotten everything, he'll tell player to explore Nebula, find Jump Point to another sector, and explain more about space-time rips.
3) Though he doesn't understand why this has happened, he fears that this has something to do with the disappearance of Dr. Bernard Hsu. He tells the player to seek out a high ranking Kilrathi in the second quad.
4) An ancient Kilrathi high priest will reveal to the player the true nature of the disturbance. It seems a group of militant Kilrathi had decided that the war was yet not over. Though other Kilrathi in the universe had conceded after the destruction of Kilrah, these militants were going to continue the fight. But they were going to use one last weapon that was going to change the war forever. They were going to use a weapon theorized by Dr. Bernard Hsu to tear a hole in the fabric of time and space. *(They theorized that they could use it to travel back in time and save Kilrah from destruction from the humans. OR, the device is just a planet killer that is uncontrollable.)* Unfortunately, using it has torn a hole in space. Slowly, but surely, all the worlds in its path are being swallowed into a galactic void as long as the device is active. Shaul'd, the leader of the Kilrathi fanatics, realizes that the device will not allow them to travel back to save Kilrah. Instead, he is willing to destroy the galaxy, rather than let it be desecrated by the humans. To seal off this encroaching darkness, the player must use the hyper drive and phase shield to jump to the next sector through a nebula.
5) Once in the next sector, the player will have to land at the only port left in that sector. There he will meet either Kilrathi or Black Lance who he befriended in quad 2.
6) Using the allies as wingman, the player will have to attack the fanatic's space station in an all out offensive that will make the assault on the Death Star look like a Sunday picnic. The player will have to make several run into the massive station to knock it out.

End Game Cinematic:

When the player takes out the station, the outro flick takes over. It shows the space station blowing up in a frenzy of energy. The leader of the fanatics, Shenta'Ria, tries to escapes in his own ships. He curses the player for thwarting the Bloodhunter's plans. He vows to return with the Stelteck technology and defeat the Confederation. (This allows a hook into Privateer 4. Shenta'Ria winds up getting sucked into the events that follow, thus allowing the player to wonder if this is the last we have seen of him, or will he appear at a later date.)

Suddenly, the explosions and all the matter in the area are sucked into an implosion that detonates a sphere of expanding plasma. As the energy dissipates, the player sees that a "blue hole" and condensed at the core.

After a flick in which the player is able to close the portal which threatens to suck all matter from our universe to the next, the player is thrown from the area and is returned to the previous sector as the rip in space is sealed shut, though the player's ship is almost destroyed. The player is the sole survivor of the galactic collapse.

Conclusion:

Though the sector has been "emptied" a new creation in the universe, a "blue hole" has been created. (Though no one knows what this is, it could be a jumping off point for Privateer 4.) If the player wishes to continue playing, they are allowed, as this is the conclusion to the single player plot line.

Player Initiated Randomly Generated Missions:

Mission acquisition: Players will be able to get missions at an information booth on a planet, and the player will be able to select missions these during flight from the Nav screen. This will prevent players from having to land just to get mission data. Since AI ships will be flying non-stop, players need to be able to get mission data real-time rather than delaying it by landing. The player will only be allowed to have 3 missions contracted at a time. They can drop a mission simply by deselecting it in order to acquire another one.

Generated missions: When a player requests a generated mission the parameters for the mission are generated and stored in the player's database so that they can recall the information while they are in the ship. This generates the scenario, and the scenario will exist in the universe until someone completes it. If someone other than the mission agent completes it, they will receive a game-mail message thanking them for completing it, and receive the bounty. The original mission agent will receive a message that the mission is aborted.

Data Storage: Since these generated missions exist only on the server for a short time, once a player logs off, these are dumped. Because we will not want to store this information on Mpath, nor will it pertain to any other server, the generated mission data will be useless for the player in the future. (The only acception to this is if the player drops carrier, but that will just have to be their loss.)

Types: There are seven (8) main types of missions that all missions are categorized by. Everything is either a combination or a derivation on these themes.

1) **Defend** - Defend a space station or base.
2) **Escort** - Going from point A to point B, protecting another ship.
3) **Shuttle** - Going from point A to B with a cargo (could be commodities or people).
4) **Bounty** - Going to point A and destroying something or someone.
5) **Scout** - Going to a number of Nav points to check them out, scan the area to identify something or someone.
6) **Retrieve** - Going to point A and tractor beaming something. This may require destroying something first.
7) **Exploration** - Mapping out an unknown system for a fee.
8) **Combination** - Scout an area to find the dread pirate Roberts and Bounty to kill him.

Payment - Payment for generated mission is always paid at the time of completion. Unlike sub-plot Missions, there is no reason to return to the contractor for payment. If the mission is to assassinate someone, the bounty is paid when the hit is carried out. A comm message must announce that the mission is completed too.

Termination of Mission - The contract for the mission is terminated if:

1) The player exits the action sphere without completing the mission. (If the player exits the action sphere without assassinating his target, that target is not going to stay around for him to come back.)
2) The player drops the mission, which allows them to replace it with another.
3) The player leaves or drops carrier, erasing the mission all together.

Random Generation:
the mission selector in the information exchange at the space port should all have the same general data to draw random missions from:
Type of mission - *Which of the random themes is the mission based on.*
Contractor - *This is a fictional character/corporation/guild who hires the player for the mission. This is mainly a flavor factor for the mission.*
Terms for completion - *If the player doesn't know what is the goal they may not be able to complete the mission.*
Place (Nav location) - *If the player doesn't know where the mission is, they can not complete the mission.*
Payment - *Unlike the General missions, payment is always in credits.*

Random Encounters in Space Flight

Overview:

Though we want players to encounter AI ships that are flying around the quads, we also need some more ships for people to randomly encounter. This mainly applies to the nav points off the beaten path where the trade route ships would not be found. Random encounters also help to distribute the encounters, or people would just wait at the same nav point for the AI ships to keep coming by.

For every NAV point there will be a certain percentage chance that an encounter will happen with a certain group of ships. When the percentage is matched, the other ships will jump in, (though they came from no where.) If ships jump out, they too jump back into the void.

Types of encounters:

1) **Passing freighters. -** They have random cargo that they can eject in times of trouble. Sometimes the cargos are booby trapped. (In bad sectors the freighters have merc escort. Sometimes the escorts will be cloaked!)
2) **Confed fighters -** (these are always near Confed posts) They check for contraband. They attack if the player is a known criminal, or is carrying contraband. If attacked they call in more Confed ships.
3) **Mercs -** (these are always near boarder planets, stations, and mining asteroids.) They attack if the player is a known criminal or is carrying contraband.
4) **Kilrathi -** If a player is a Friend or Known to the Kilrathi they will not be attacked. If the player is Unknown or an Outcast they will be attacked.
5) **Pirate -** If the player's ship is less than or equal to the pirate ship, then they will be attacked. If there are multiple pirate ships they will always attack. Depending upon their morale, they will flee if too much damage is taken.

Alignment:

All ships have alignment; be they player or computer generated:

1) **Friend**
2) **Foe**
3) **Traitor**
4) **Neutral**

FRIEND: If a player attacks a Friend (such as a freighter, Confed, Merc, or Kilrathi) then the player is labeled a Foe. For every Friend the player attacks, they will have to destroy 3-5 Foes in order to become a Friend again.
FOE: Being a Foe means you are a known criminal and Mercs and Confed will immediately attack you. If a player attacks a Foe, (such as a Pirate, or Outcast) then they will get brownie points.
If the player is a Foe and attacks a Foe, this will help them become a friend again, though it will make them a Traitor.
TRAITOR: These are known criminals who are also hated by Foes. If while you are a Traitor, you are hunted by both sides. The best bet is to keep killing Foes until you can become a Friend again. But killing 2-3 Friends will get you back to being a Foe again if you care to hang out with your pirate friends.
NEUTRAL: These are ships like Privateer missions from Confed. These are people the Confed wants you to knock off, but do not have any alignment. These means that you can kill them and not effect your alignment.

What does player become if he attacks an NPC

	Player FRIEND	Player FOE	Player TRAITOR
NPC FRIEND	FOE	FOE	FOE
NPC FOE	FRIEND	FRIEND	FRIEND

During an encounter players have two choices:

1) If they are attacked they can fight and try to defeat their foes.
2) If they are not attacked, they can choose to attack.
3) If they attacked they can eject their cargo, if in a freighter. This will temporarily break the attack if the aggressor is AI.

Switching Sides:

People will accidentally switch sides so we must make allowances for people to switch back. If a player destroys a ship of a matching alignment they will need to destroy 2-3 ships of the rival alignment in order to rejoin. (If the player is a pirate and destroys another pirate, the player is considered a traitor. They will need to destroy two Confed ships before the AI pirates stop treating them as Foes. Because the player is not aligned with either side, both sides will attack.)

But, the more times a player changes sides, the harder it will be to rejoin. The first time they will need to destroy two ships, next four, next eight, etc. This will act as a preventative from players constantly changing sides.

Escape or Retreat:

To escape a fight a player can Auto-pilot or Jump. If a player gets to a NAV point, it will take them some time to calculate their next auto-pilot or jump sequence. If there are no ships in the area, it takes 10 seconds. If there are any ships, it takes one minute, regardless if there is any action going on.

- The player will receive a warning if they try to jump before the calculations are complete.
- The player must not move change the pitch or yawl while the ship is making the jump calculations. Any changes will force the computer to start over. This forces the pilot to either attack the aggressor right away, and jump after they are dead, or patiently wait while they are getting attacked for their computer to make the necessary calculations.

Note: A display on the HUD should show the progress of the time to jump.

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APPENDIX

APPENDIX A: --------SHIP CHASSIS AND EQUIPMENT

APPENDIX B:- ------------------EQUIPMENT GLOSSARY

APPENDIX C: -------------WEAPONS AND EQUIPMENT

APPENDIX D: ------------------STOCK MARKET INDEXES

APPENDIX E: ------------------------ECONOMY SYSTEM

APPENDIX F: -------------RANDOM ECONOMIC EVENTS

APPENDIX G: -------------------GOVERNMENTAL TYPES

APPENDIX H: SYSTEMS AND BASES BY QUADRANT

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APPENDIX A: SHIP CHASSIS AND EQUIPMENT

Cost: The cost of the ship hull in credits.
Hard Pt: This is the ships available Hard Points. Most weapons take just one hard point to mount. However, certain powerful weapons take more than one. For example, a linear accelerator takes 6 Hard Points to mount and usually goes onto large capital ships only.
Tons: This is the ships maximum internal capacity in tons. Powerplants, Engines, Shields, internal Cargo space and some equipment requires space in tons. Some equipment requires both space in tons and module space.
Turrets: The number of turrets that will fit on the hull.
Mod: Refers to equipment Modules such as afterburners or repair mechs. These items do not take up huge amounts of space (as in tons) but do require energy and a little room Large ships have room for lots of extra sensors, equipment, fuel scoops etc... small ships do not.
Size X: This is for the physics system. Large hulled ships cannot turn as fast as small hulled ships. See Acceleration Table to find the ships value, then divide the rating by the Size X number. For example, a Type VI Hull with Di-Cor Power plant has a "Good" Acceleration of 56. Divide 56 by the Size X of 1.5 to get a turn rate of 37 which is "Fair".
Powerplant: Five types of powerplants. Ships cannot take a Powerplant that won't fit in their hull. Each level of Powerplant generates 30 Giga Joules (Gj) of power. The Powerplant listed is not a maximum, only a recommendation for that hull type. It is possible to take more than one type of Powerplant, though there is little reason to do so unless you are equipping a space station.
Shields: Five types of energy shields ranging from weak to very strong. Other types of shields do different things, like make a ship "invisible". Shields cannot be taken larger than specified. Each shield takes 10 Gj per level to operate and offers 10cm Tritanium armor equivalent protection. The shield listed is not a maximum, only a recommendation for that hull type.

Ship Type	Cost	Hard Pt	Tons	Turret	Modules	Size X	Power	Shields
Small I	50k	3	35	na	3	1	2	2
Small II	100k	4	70	na	4	1.1	2	3
Small III	150k	5	120	na	5	1.2	3	4
Medium IV	200k	6	200	1	6	1.3	4	4
Medium V	250k	7	350	2	8	1.4	5	4
Medium VI	500k	8	500	3	10	1.5	5	5
Large VII	750k	10	750	4	12	1.6	5	5
Large VIII	1 M	12	1000	6	15	1.8	5	5
Large IX	1.5 M	16	2000	8	20	2.0	5	5
Station X	5M	32	10000	20	50	10.0	5	5

The Max Speed Table compares the type of power plant with the type of hull to determine the maximum acceleration for that particular ship. Note that this is for Ion engines only. The first number is the max kps, the second is the energy in Gj required. For ships with Pulsar or SD Pulsar or other equipment that modifies ship speed, you must modify these amounts accordingly.

Max Speed Table (kps) with Ion Engine

Hull Type	K5	K20	K30	DiCor	Quad DiCor
Small I	600 10	600 10	--	--	--
Small II	500 10	600 15	--	--	--
Small III	400 10	500 15	600 20	--	--
Medium IV	300 15	400 20	500 30	600 40	--
Medium V	200 20	300 30	400 40	500 50	600 60
Medium VI	100 25	200 35	300 45	400 55	500 65
Large VII	--	100 40	200 50	300 60	400 70
Large VIII	--	--	100 55	200 65	300 75
Large IX	--	--	--	100 70	200 80

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The Acceleration Table compares the type of power plant with the type of hull to determine the maximum acceleration for that particular ship. Note that this is for Ion engines only. For ships with Pulsar or SD Pulsar or other equipment that modifies ship speed, you must modify these amounts accordingly.					
Acceleration Table (kps) for Ion Engine					
Hull Type	**K5**	**K20**	**K30**	**DiCor**	**Quad DiCor**
Small I	Superb: 90	Superb: 100	-	-	-
Small II	Excellent: 80	Superb: 98	-	-	-
Small III	Good: 60	Excellent: 80	Superb: 96	-	-
Medium IV	Fair: 40	Good: 60	Excellent: 80	Superb: 94	-
Medium V	Poor: 20	Fair: 38	Good: 58	Excellent: 78	Superb: 92
Medium VI	Poor: 18	Fair: 34	Fair: 36	Good: 56	Excellent: 76
Large VII	--	Poor: 20	Fair: 32	Fair: 34	Good: 54
Large VIII	--	Poor: 17	Poor: 20	Fair: 30	Good: 52
Large IX	--	--	--	Poor: 20	Fair: 40

The turn rate table shows how fast a ship can turn in degrees per second. Usually the smaller the hull, the faster it can turn. Divide the Acceleration number by the Size X number to get the turn rate.					
Turn Rate (dps)	**Poor**	**Fair**	**Good**	**Excellent**	**Superb**
TR Range	1-24	25-34	35-44	45-59	60+

Shield and Engine Recharge Table **Poor 0.5cm/sec Fair: 1cm/sec Good: 2cm/sec Excellent 3cm/sec**					
Shield Type	**K5**	**K20**	**K30**	**DiCor**	**Quad DiCor**
Hayles/Zinder 1	Good	Excellent	-	-	-
Hayles/Zinder 2	Fair	Good	Excellent	-	-
Hayles/Zinder 3	Poor	Fair	Good	Excellent	-
Quasar 1	Poor	Poor	Fair	Good	Excellent
Quasar 2	Poor	Poor	Fair	Fair	Good

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APPENDIX B: EQUIPMENT GLOSSARY

Engines: Affect movement in normal space or hyper space. There are three engines that propel a spacecraft through normal space: **Ion, Pulsar**, and **SD Pulsar**. The Ion is the most basic, with each level above it producing a faster maximum speed. Additionally, there are **Jump** and **Hyperdrive** Engines. Jump drives are for moving from system to system through jump points. Without a jump drive you cannot travel between star systems. Hyperdrives are for traveling huge distances in a single jump. Hyper points have only been found in nebulas so far... Finally, there are engine modification equipment that can increase the maximum speed of a spacecraft. These include **Afterburners** which can double a ships speed and **GDS Intercoolers** which marginally increase a ships speed.

Powerplants: These are the fusion plants that power all of a ships engines, shields, and equipment. Hydrogen is the fuel used to power them. Each powerplant comes with its own internal fuel storage space, which becomes larger with each model. There are five grades of powerplants, each getting larger in tons and producing more power. The K5, named after Fedor Karastylisch, the inventor of the fusion process it's based upon, is a basic powerplant capable of generating 30 Giga Joules of energy. K5 through K30 powerplants are available at any shipyard. The Visek Di-Cor powerplant is made by Visek Industries, the sole producer of these powerful devices. Utilizing Di-Cor as a fuel source, they can easily outstrip the hydrogen fusion plants in energy output – moreover. they do not require refueling as often as hydrogen powered fusion plants, but when they need refueling, they require at least 5000 credits.

Shields: Shields are an energy field that protects the armor of the ship from being pierced. Once the shields are down, damage is now imparted directly on the armor. Damage to shields only temporally depletes the ship's energy reserves, while damage to the armor permanently removes vital protection.
Two scientists, Linda Hayles and George Zinder, are responsible for the creation of the kinetic-energy absorbing shield effect over one hundred and twenty years ago. However, the company they founded, HZS Enterprises, actually produces the shields you can purchase at any shipyard. There are three grades of HZ Shields available, each more powerful and more energy consuming than the last. An improvement on the HZ effect is the Quasar Shield or Q-shield, which can blunt all but the most powerful weapons. Quasar shields are available only at the most Technically Advanced Shipyards. All of these shields are ablative-re-energizing. That is. damage directed at them "reduces" the shielding effect, and only through time can the shield be restored. All shields are rated in Tritanium armor centimeter equivalent. All hulls are made of Tritanium due to it's strength and resilience.
Cloaking shields are a product of Kilrathi technology, and render a ship practically invisible. Only the most advanced scanners can pick up a cloaked ship. One side effect of a cloaking field on a ship is that it cannot gain a target lock on any vessel, thus needing to de-cloak to fire effectively.
Phase "Nebula" Shields enable normal shields to function fully. If a spacecraft travels through a nebula without a phase shield activated, his HZ or Quasar shields will only offer a scant 10 cm of armor protection, no matter what their rating may be...
Dampening Field is an extra-spatial effect modulator that creates a "null-space" around the ship for exactly five seconds. This makes the ship immune to all damage for that time. However, the energy drain is enormous, and the ship cannot fire during that period as well. This will also leave the ship's armor open for attack after the dampening field has faded so use of this is device is reserved for extreme emergencies.
Erickson Enerflux units are magnetohydrodynamic fluctuators that actually enable a shield system to "regenerate" faster than normal.

Scanners: There are seven different types of scanners available, each more advanced than the previous. The most basic model, a Seker Mark III, can only see ships in "gray", can "lock" weapons onto enemies, but can ascertain no ship or weapons information. All scanners take up one module space.

Ecm Units: These stand for Electronic Counter Measures, and are used against an enemies missiles, in order to break their lock on your ship. Each unit has a progressively better chance to break a missile lock. All three types available are made by different companies.

Eccm Units: Electronic Counter Counter Measures, designed to circumvent ECM devices. A ship with an ECCM unit has a better chance for their missiles to lock onto an enemy ship, even if the target has an ECM.

Weapon Enhances: These include devices that enhance weapons re-fire rate specifically, and also the amount of ordnance that can be carried.
HK Cooling Unit: manufactured by Hobart Kryton Corporation, this device will allow your energy weapons to recharge 5 percent faster.
Albra Semiconducting Unit: This unit, made by Albra Semiconductors, works even better, giving a 10% improvement in weapons re-fire rate.
Reloaders: Refers to Missile, Torpedo, and Drone auto-reloaders made by HSWS. These devices store the munitions inside the ship, and automatically reload the ordnance when the launcher is empty. It takes some time to do this, but when a ship is short on Hard Points, these can make the difference between life and death...

Armor: Once the shields have become damaged, the last line of defense for a ship is its armor. Once the armor has been pierced the ship will either rapidly decompress, or have one of its energy cells compromised, causing the stored fuel to instantly ignite. Both scenarios are equally fatal to the occupants.

There are three types of armor, **Plasteel, Durasteel, and Carbidium.** Each progressively adds more protection to a ship, but also slow it down, adding to the Size X value. Heavy armor can slow a ship down quite a bit, and generally only the largest capital ships can take Carbidium armor, since it's weight in tons is prohibitive to smaller hulled ships.

Software

Various types of software are available and can be purchased at the shipyard buy/sell screen. Software takes no space in tons or in module space.

Navigation Software:
Quadrant Maps - gives the player all the known nav points on their nav screen. Some nav points and systems are still not known until the player actually flies there. A player must have a quad map in order to jump to it. The jump drive will fail if the player attempts to jump to a quad that they do not own the software for.

Miscellaneous

Cargo Hold: Ships do not start with a cargo hold, they must purchase one. Good news is that cargo holds are very cheap to outfit, costing a measly 25 credits per ton.
Tractor Beam: Used for transferring items from space into the ship. Items that are brought aboard are usually stored in a reserve hold exclusive for the tractor beam. In this way there is always room for tractored items, such as cargo, pilots, and scrap. Tractored items will show up on the ship's manifest.
Turret: Only medium sized ships and larger can utilize a turret.
Repair Mechs: There is just so much a human can work on, especially during a dog fight. A repair mech can crawl through the underbelly of the ship and quickly get to work on all the systems without having to dock in port. Sensitive to keeping the ship in working order, the mechs handle problems on a precedence basis.
Though only one mech can only effect repairs to one system at a time, jobs are completed in order of priority (which the player doesn't govern.) Mech fix armor, shield, weapons, then other systems. The more mechs, the more systems can be worked on at a time. Having two mechs does not mean work goes twice as fast.
Jump Engine Tracker: A useful device that works by locking onto a target ship for 10 seconds to gain a positive "ID" on their jump engine. Since all jump engines produce a unique "signature", once you have a lock you can track the target ship no matter where they jump to. Their ship will show up on the Nav Screen. A ship which Cloaks can break this lock.
OEM (O.re E.xtractor M.achine) aka a Mining Machine: A self contained mining machine that can be deposited on an asteroid and left to drill for ore. Holds up to 75 tons of ore, but the device requires 100 tons of cargo space to fit inside a ship.
Cargo Shield Unit: Shields up to 25 tons of cargo from scanners. Ideal for smuggling contraband such as exotics or xenomorphs...
EM Fuel Scoop: Electromagentic fuel scoop that allows a ship to refuel inside a hydrogen cloud, or anywhere there is a significant source of hydrogen. Very useful. Free fuel!

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Scramblers: are used to prevent opponents from learning of your ship's details.
Level 1: 50% chance of scrambling info.
Level 2: 75% chance of scrambling info.
Level 3: 90% chance of scrambling info.
Inertial Dampeners: Makes sure players don't black or red out while performing high speed maneuverings. The player will quickly become painfully aware when these systems are out. To compensate for loosing these systems, players will have to watch their speed while making donuts in the heavens.
Repulser Field: This will be needed for low speed traversing inside large space stations. Without it the player will beat up their ship with all the minor damage of bumping into walls.
Mines: Players can drop mines for those unlucky enough to be tailing them. They can drop homing mines that gravitate towards the nearest ship, thus allowing people to fence off areas, such as near their ore plant.
Sentry Pods: Dropped like mines, these pods will actively fire upon any perceived hostile threat in the area. They are excellent for guarding ore plants, and for general dog fighting when the numbers are not in the player's favor. They can be used in battle too. Once dropped they can be retrieved via the tractor beam.
Decoys: Decoys are used to lure missiles away from the player's ship. It is very important that the player uses the correct decoy for the correct missile since the wrong decoy will have little effect. Good scanners provide the essential information.

- Thermal Generator: 50% effective for decoying heat seeking missiles.
- Image Distorter: 75% effective for decoying IR missiles.
- ECM Decoy: 75% effective for decoying FF missiles.

Cost in credits	Ship Equipment	Function	Mod	Tons	R %
	Engines				
3000	Afterburner	Accelerates ship to 100% of max speed	1	-	2
10000	Ion Engine	For movement in normal space		5	2
25000	Pulsar Engine	Adds 5% to Maximum Speed		10	3
40000	SD Pulsar Engine	Adds 10% to Maximum Speed		30	3
8000	GDS Intercooler	Adds 2% to Maximum Speed	1	3	2
50000	Jump Engine	Allows interstellar jumps		25	5
500000	Hyper Drive Engine	Allows huge interstellar jumps		50	8
	Powerplants				
10000	K5 Fusion power plant	30 Gj Power plant for ships - basic model		10	4
25000	K20 Fusion power plant	60 Gj Good power		20	5
50000	K30 Fusion power plant	90 Gj Excellent power		40	6
100000	Visek Di-Cor Power plant	120 Gj Extreme power		75	7
200000	Quad-cooled Di-Cor PP	150 Gj Most powerful plant available		150	8
	Shields				
10000	Hayles/Zinder Shields I	10 cm 10 Gj: Absorbs low damage		5	3
20000	Hayles/Zinder Shields II	20 cm 20 Gj: Absorbs medium damage		10	4
45000	Hayles/Zinder Shields III	30 cm 30 Gj: Absorbs high damage		20	5
90000	Quasar Shield I	40 cm 40 Gj: Absorbs very high damage		40	6
200000	Quasar Shield II	50 cm 50 Gj: Extremely high damage		100	7
150000	Cloaking Shield	Invisible to almost all scanners; can't fire while cloaked; 30 Gj **Needs unique "cloaked" effect. Cloak doesn't work in nebula.**	1	20	10
60000	Phase "Nebula" Shield	Allows shields and scanners to work fully in Nebulas	1	15	8
250000	Dampening Field	Immune to damage for 5 seconds	1	50	8
25000	Erikson Enerflux Unit D3	Increases shield recharge rate by 5%	1		5

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50000	Erikson Enerflux Unit D15	Increases shield recharge rate by 10%	1		6
	Scanners				
5000	Seker Mk III	gray targets lock only no ship info	1		3
10000	Seker Mk V	Gray only and "locks" targets ship info	1		3
20000	Seker Mk IX	Color codes and "locks" missile info	1		4
30000	Barris System I	Color, locks, tells target systems	1		4
50000	Barris System II	"Leads" targets, tells cargo	1		5
75000	Barris System III	Can see cloaked ships but not lock on "scan" ships for illegal goods	1		5
125000	Kryton Ultimate	Can see and "lock" on cloaked ships	1		6
	ECM Units				
5000	Spatial Jamming Mk I	Jams FF/SK missiles 30% of the time	1		3
15000	HSWS 360	Jams FF/SK missiles 60% of the time	1		4
45000	Aurora 5K	Jams FF/SK missiles 90% of the time	1		5
	ECM Units				
100	Image Distortion Unit	Jams IR missiles 50% of the time			3
300	Thermalite Charge	Jams HS missiles 60% of the time			4
	ECCM Units				
15000	Spatiale Anti-Jammer	Lowers ECM effectiveness 25%	1		3
80000	HSWS Defrequencer	Lowers ECM effectiveness 40%	1		4
	Weapon Enhancers				
10000	HK Cooling Unit	Increases weapon recharge rate by 10%	1		3
20000	Albra Semiconducting Unit	Increases weapon recharge rate by 15%	1		4
8000	HSWS Missile Auto Reloader	Holds 10 extra missiles for launchers	1		3
16000	HSWS Torpedo Reloader	Holds 2 extra torpedoes for launchers	1		4
20000	HSWS Drone Reloader	Holds 3 extra drones	1		4
	Armor				
2500	Plasteel Armor	Add .01 to Size X; Ablative Armor 10cm		5	3
10000	Durasteel Armor	Add .03 to Size X; Ablative Armor 20cm		25	3
50000	Carbidium Armor	Add .1 to Size X; Ablative Armor 30 cm		100	3
	Miscellaneous				
25 per ton	Cargo Hold	Adds 1 Ton of cargo space to a ship - ships don't have cargo space automatically		1 ton	
500	External Cargo Pods	Adds 10 tons to Cargo no armor protection	1 HP		
8000	Tractor Beam	Fits in either a turret or Module space one per ship	1		4
10000	Turret	Holds 2 Hard Points of weapons			
30000	Repair Mech	Slowly repairs 1 ship system at a time	1		3
100000	Repair Mech II	Slowly repairs 2 systems: priority basis	1		5
50000	Jump Engine Tracker	Locks on target ship, then you can track them wherever they go	1		5
200000	Mining machine	Cargo space: 100 tons	--	--	
60000	Cargo Scan Shield Unit	Renders 25 tons "invisible" to scans Players must designate what is going into the hidden area. Contraband is not hidden automatically. 2 shield per ship limit.	1		4
3000	EM Fuel Scoop	Allows for refueling in hydrogen clouds	1	5	4
500000	Fighter Bay	Allows ship to carry five 70 ton fighters		500	4

APPENDIX C: WEAPONS AND EQUIPMENT

HP: The number of hard points the weapon requires to install.
Range: maximum range in meters.
Gj: Gigajoules of energy used by the weapon.
Damage: Shows the amount the weapon destroys in centimeters (cm) of shield strength, or armor
Re-fire: Delay in seconds between firing weapons
R %: Percentage of the cost of the weapon to repair it

Credits	Weapons	Description	HP	Range	Gj	Damage	Re-fire	R %
1000	Pulse Laser	Low damage, low energy use	1	4800	4	1.8	0.3	3
2000	Beam Laser	Moderate damage, low energy use	1	5000	5	2.1	0.33	3
3000	Mass Driver	Medium damage, low energy use	1	3700	6	2.8	0.35	3
5000	Meson Blaster	Medium damage, low energy use	1	4400	8	3.2	0.4	4
7500	Neutron Gun	High Damage, high energy use	1	3400	18	6.0	0.65	4
10000	Ion Gun	Good damage, medium energy use	1	3200	10	4.1	0.42	4
15000	Particle Cannon	High Damage, medium energy	1	3500	11	5.0	0.5	4
20000	Proton Blaster	Good Damage, med. Energy,	1	4000	12	4.6	0.43	4
30000	Tachyon Cannon	Good Damage, medium energy use	1	4250	8	4.8	0.42	4
45000	Pulse Cannon	High damage, high energy	2	5000	15	7.0	0.55	5
70000	Plasma Cannon	Furnace "Hellbore" Plasma Cannon	2	3000	20	10.0	0.70	5
250000	Linear Accelerator	To take out Cap. Ships	6	6000	30	25	2.0	10
10000	Missile Launcher	Can hold any 10 missiles	2	-				4
40	Dumb Fire	Fires straight, no lock	-	8000		13	0.3	
80	Heat Seeker	Locks on enemy engine	-	7300		16	0.3	
120	IR Missile	Image Recognition	-	7700		18	0.3	
200	FF Missile	Targets EM signature of enemy ships	-	7200		18	0.3	
250	AP Missile	Penetrates armor better	-	7000		12 AP	0.3	
1000	Guided Missile	Allows player to steer missile in Missile Cam mode.	-	7000		12 AP	0.3	
1000	SK Missile	Shield Killer - doesn't effect armor		6000			0.3	
20000	Drone Launcher	Holds up to 3 drones	2	-				4
500	Decoy drone	Missiles target decoys instead 90%	-	9000		none	0.3	
1000	Recon drone	Intel gathering drone	-	12000				
5000	Attack drone	Fires Lasers at enemies	-	4500	-	1.8	0.3	
15000	Torpedo Launcher	Can hold 2 torpedoes	2					5
100	Torpedo	Heavy damage	-	3800		22	2.5	
2000	Mining laser	To mine ore from asteroids	1	4000	8	2.0	0.3	3
2000	Mine Layer	Can hold 10 mines or sentry pods	1					
1500	Sentry Pod	Fires at enemies from stationary spot		4000		1.8	0.3	-
50	Mine	Contact mine		--		10		
75	Proton Mine	High Damage		--		13		
100	EM Mine	Damages Sensors only		--		--		

APPENDIX D: STOCK MARKET INDEXES

Stock Market Table			
Company	**Sym**	**Products**	**Val**
Holte Space Weapons Systems	HSWS	Ship hulls; weapons; powerplants	187
Aurora Engineering Inc.	AEI	Ship Avionics	23
Rhineholt Industries	RHD	Wetware and computer systems	75
Nelson Plasteel	NPL	Construction, plasteel	36
Orbital Manufacturing	ORM	Fasteners for industrial parts	29
Digital Transportation Systems	DTS	Communication systems	12
Davis BioMedicals	DBM	Nanoteks	48
AJC Pharmaceuticals	AJP	Exotics; drugs	56
HZS Enterprises	HZS	Shielding systems	145
General Space Development	GSD	Ship hulls, all ship products	171
TranSystems Ltd	TAK	Cargo shipment	64
Sathori Industries	SHD	Shipbuilding	90
Spatiale Fabrique	SPF	Nav computers; sensors	48
Seker Electronics Corp.	SEC	Ship scanners	37
Albra Semiconductors	ALS	Semicondutors; Ship weapons	32
Erickson Magnetics Inc.	EMI	Weapons and sensors	59
Hobart Kryton Corporation	HKC	Powered Armor; Munitions	83
Orion Development Corp.	ODV	Chemicals, Factory machinery	26
Pulsar Technologies	PST	Gravitic research	8
Confed Mining	COM	Ore Mining & Manufacturing	44
Pleiades Mining Company	PMC	Gemstone mining	51
Visek Industries	VSN	Di-Cor Mining, Powerplant manuf.	257
Triton Machinery Co.	TIC	Farm Machinery	27
Ciba Factorum	CFN	Cybernetic parts	62
Kima Trading Co.	KMT	Blood wine & skins	32
Barstons Imports	BSM	Luxury goods; companions	65
Armand Manufacturing	AMM	Biotek and High Energy Weapons	58
Dietrich Systems Inc.	DSI	Loaders and power generators	24
Mikythos General Products	MGP	Grain; livestock; agri products	50
Barris ScanTech	BAR	Ship navigation and sensors	42
Furnace Metals Ltd	FMI	Rare metals, platinum & cesium	80
Hyades DigiCode	HYS	Computer software	135
ChemCorp Inc.	CMC	Petrochemicals	75
Siva Newhon Medsystems	SNM	Blood, medikits	66
General Mech Inc.	GMI	Droids, companions, all mechs	121
Agothe Velis Trane Co.	AVT	Lumber, synthetic foods	38
Mnemonics Ltd	MNE	Software & Wetware	137
Predation Inc.	PRE	Xenomorphs	61
Empreyn Duras Mining Consortium	EDMC	Mining; Transuranics;Ore freighters	99
Dalamas Shipping Co.	DLS	Shipping and freighters	18
Rescue Inc.	RES	Salvage	22
Imperial Cassiopeia Line	ICL	Luxury liners	46

FoodCorp	FOO	Livestock & Synth foods	14
Sybaris Elene	SYE	Luxury goods	83
DenebFuzion AL	DFL	Power generation systems	129
BiologicTekniques SPC	BTP	Cloned organs	215
Damascus Star	DAM	Entertainment systems	31
Nova Metals & Technologies	NMT	Tritanium; ship systems; weapons	151
BASA Luxor	BAL	Entertainment; luxury; companions	72
Travis Bethesda Metalworks	TBM	Mining and metals	91

APPENDIX E: ECONOMY SYSTEM

P3 will have scores of commodities that can be bought and sold across dozens of interstellar markets. Moreover, in Multi-player mode, goods will be traded and sold by online players amongst themselves. This will be the key challenge – to make the multi-player economic system robust and fun without being unbalancing or having players discover a weakness that can be exploited to ruin the game.

The following chart lists all of the commodities categorized according to type. On the left most column each commodity is listed by name and on the top row is listed each type of planet the item can be traded at. These planet types are: Agricultural, Mining, Pirate, Industrial, Scientific, Medical, Pleasure, Military, and Technology. Every planet type has a guaranteed 100% commodity that can always be purchased there. For example, every Agriculture planet has a 100% chance they will have a supply of grain and each Mining colony has a 100% chance of having some iron ore. Thus, there are guaranteed low-profit runs from these planets.

Each commodity has three lines – first is the unit price in credit increments (cr). Second is the percentage chance the item can be found and third is the number of units or tons that can be purchased. These values are updated every real hour. When a player purchases a commodity, it is taken from the sellers inventory. For example, one player buys all of the IRON ORE, say 200 tons, at Vigilance, and another player shows up, there is no ore to be found! We also shall have Storage Facilities you can rent on planets, to store cargo.

	Commodity	**Agri**	**Mine**	**Pirate**	**Ind**	**Sci**	**Med**	**Pleas**	**Mil**	**Tech**
	Scientific									
1	Computer Hardware	100-120	110-130	105-125	90-110	105-135	110-120	100-110	100-110	115-125
		na	na	na	70%	60%	na	na	60%	na
					10-30	5-20			20-40	
2	Computer Software	40-45	40-60	40-55	30-45	60-70	40-50	50-55	40-55	35-50
		20%	20%	10%	80%	75%	40%	35%	50%	80%
		40-50	30-55	5-15	60-100	30-60	25-50	20-45	40-80	80-120
3	Wetware	200-220	210-225	250-275	190-220	220-240	215-225	220-230	200-220	205-230
		na	na	na	45%	25%	30%	na	70%	55%
					20-30	10-20	5-10		30-50	25-50
	Ores	**Agri**	**Mine**	**Pirat**	**Ind**	**Sci**	**Med**	**Pls**	**Mil**	**Tech**
4	Cesium	140-160	100-160	120-180	160-200	120-140	120-150	120-150	120-170	140-180
		na	75%	na	40%	na	na	na	25%	50%
			40-120		30-50				20-45	50-80
5	Di-Cor	500-550	490-520	550-600	600-700	550-600	500-550	490-520	500-520	580-720
		na	35%	na	na	na	na	na	na	na
			60-200							
6	Iron	70-80	60-75	70-80	85-90	70-80	70-85	60-70	60-75	75-85
		na	100%	na	na	na	na	na	na	na
			30-500							
7	Platinum	370-380	330-360	370-390	390-430	380-400	370-395	350-370	380-410	375-410
		na	50%	na	45%	25%	na	na	15%	25%
			40-80		40-70	20-35			15-30	30-40

	Black Market	Agri	Mine	Pirat	Ind	Sci	Med	Pls	Mil	Tech
8	Transuranics	600-710	550-600	580-670	700-800	590-660	600-700	600-700	710-820	700-850
		na	50%	na	na	na	na	na	15%	20%
			20-45						15-35	30-60
9	Cloned Organs	440-480	445-490	450-500	440-500	390-440	500-550	520-600	450-500	480-530
		na	na	na	na	50%	30%	na	na	20%
						10-40	5-20			15-30
10	Xenomorphs	2k-3k	2k-3k	2k-3k	2k-3k	4k-5k	3k-4k	1k	2k-3k	2k-3k
		na	na	30%	na	na	na	5%	na	15%
				2-20				1-5		2-3
11	Powered Armor	800-900	900-1.2k	1k-1.4k	900-1.1k	800-900	900-1.1k	800-900	700-800	900-1.2k
				50%					50%	40%
				10-40					30-60	10-25
12	Biotek Weapons	300-380	320-400	400-550	320-380	310-390	320-380	320-380	300-380	350-420
		na	na	45%	na	na	na	na	80%	35%
				25-60					50-80	30-50
13	High Energy Weapons	200-250	320-380	300-400	250-285	240-270	240-280	250-290	250-320	240-300
		na	na	50%	na	na	na	na	60%	30%
				30-60					40-60	20-50
	Industrial	**Agri**	**Mine**	**Pirat**	**Ind**	**Sci**	**Med**	**Pls**	**Mil**	**Tech**
14	Plasteel	50-75	65-80	50-65	40-50	50-70	50-70	50-70	60-75	55-80
					70%					45%
					200-400					50-100
15	Factory Machinery	160-180	160-180	160-180	200-230	150-170	150-170	150-170	160-180	150-190
					20%					30%
					40-80					30-50
16	Mining Equipment	230-245	270-325	230-245	180-220	230-245	230-245	230-250	230-245	210-260
					45%					45%
					50-90					25-40
17	Farm Machinery	250-300	210-235	210-235	160-200	210-235	210-235	210-235	210-235	210-260
					55%					55%
					60-100					25-40
18	Petrochemicals	60-75	70-85	50-75	40-65	60-70	60-70	60-70	65-80	55-65
					40%					33%
					30-250					40-300
19	Agrochemicals	70-85	50-75	50-75	30-65	60-70	60-70	60-70	65-80	55-65
					40%					33%
					40-300					40-300
20	Tritanium (processed)	160-180	160-180	160-180	130-155	150-170	150-170	150-170	160-200	150-190
					60%					30%
					25-250					20-100
	Medical	**Agri**	**Mine**	**Pirat**	**Ind**	**Sci**	**Med**	**Pls**	**Mil**	**Tech**
21	Blood	25-50	25-50	35-60	30-55	25-50	10-30	25-50	25-50	30-50
							80%			
							10-200			
22	Cybernetic Equipment	250-300	250-320	270-300	250-300	250-300	200-240	250-280	260-320	250-300
							45%			
							25-80			
23	Medkits	30-40	35-45	35-50	30-35	30-40	20-30	30-40	30-45	25-40

							100%			
							5-200			
24	Nano-Teks	400-500	400-500	400-550	400-500	450-600	300-400	400-500	400-500	380-520
							30%			
							40-80			
	Agriculture	**Agri**	**Mine**	**Pirat**	**Ind**	**Sci**	**Med**	**Pls**	**Mil**	**Tech**
25	Grain	10-15	20-22	20-23	22-25	20-22	20-23	19-22	19-25	20-30
		100%								
		50-500								
26	Livestock	80-110	100-130	130-160	110-155	100-130	100-130	100-150	100-130	120-150
		65%								
		60-200								
27	Synthetic Foods	25-35	35-45	35-45	35-45	35-45	35-45	40-50	35-45	35-45
		70%								
		30-300								
28	Lumber	50-70	70-80	70-80	70-80	70-80	70-80	80-100	70-80	70-90
		50%								
		40-400								
	Hardware	**Agri**	**Mine**	**Pirat**	**Ind**	**Sci**	**Med**	**Pls**	**Mil**	**Tech**
29	Comm Systems	40-55	40-55	40-55	35-50	40-55	40-55	40-55	45-55	30-45
					20%					50%
					10-100					10-100
30	Loaders	100-120	100-150	100-120	100-140	100-120	100-120	100-120	100-120	75-100
										50%
										20-80
31	Entertainment Systems	75-90	75-100	80-120	75-95	70-90	70-90	90-115	70-90	50-80
										70%
										20-85
32	Power Generators	155-165	155-165	155-165	165-180	155-165	155-165	155-165	155-165	125-150
										45%
										30-60
	Luxuries	**Agri**	**Mine**	**Pirat**	**Ind**	**Sci**	**Med**	**Pls**	**Mil**	**Tech**
33	Kilrah Blood Wine	2-2.3k	2.5-3k	3-4k	2-2.3k	2-2.3k	2-2.3k	2-4k	2-2.3k	1k-2k
	*found in Kilrah space									20%
										5-30
34	Gemstones	400-500	250-350	700-900	500-600	400-500	400-500	750-850	400-500	400-500
			40%							
			20-50							
35	Skins	240-280	240-280	240-280	240-280	240-280	240-280	300-320	240-280	180-230
										25%
										20-85
36	Exotics (drugs)	50-100	60-120	40-50	60-75	60-75	60-75	60-130	60-75	60-75
				100%						
				60-120						
37	Companions	1.5-2k	1.7-2.5k	900-1.2k	1.5-2k	1.5-2k	1.5-2k	1.8-2.3k	1.5-2k	1.5-2k
				60%						
				10-40						

	Ship Commodities	Agri	Mine	Pirat	Ind	Sci	Med	Pls	Mil	Tech
38	Hydrogen Fuel	10-15	10-15	20-30	10-15	10-15	10-15	10-15	10-15	12-16
									100%	
									5-500	
39	NavComputers	130-150	140-150	150-160	120-140	140-150	140-150	140-150	145-165	140-150
					35%					
					30-80					
40	Salvage	50-60	60-70	50-60	50-60	50-60	50-60	50-60	50-60	50-60

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APPENDIX F: RANDOM ECONOMIC EVENTS

These events happen randomly and affect certain worlds in ways to increase or decrease prices. Essentially these mostly deal with "disasters" since that can be very profitable to someone running the desperately needed commodity to the stricken planet or outpost. However, some of the goods at the place go UP in price due to these events – e.g.: strikes cause planets to increase prices. Players SHOULD be able to cause some of these events. For example, running Xenomorphs repeatedly into a system should increase the chance that it becomes infested. Another example would be arms smuggling to a system where it goes into Rebellion – and then causes the government to change hands. We can explain these events system wide displayed on holo-terminals.

Time: Events should happen every hour. This gives the players enough time to find out about them and try to capitalize on them.

Type of Event	**Planet Type affected**	%	**Planet Buys**	%	**Planet Sells**
Crop failure	Agriculture	120	Agrichemicals	130	Grain
Plague	Any	150	All Med	75	All
Rebellion	Any	150	Weapons	160	All
Solar Flares	Any	125	Comm units	140	Medical
Miner strike	Mining	150	Entertainment	150	All
Workers Strike	Industrial	120	Exotics & Biotek weapons	150	All
Computer Virus	Science	130	Computer Software	90	All
Starvation	Any	150	All Agri but wood		
Interstellar War	Any	150	Weapons & Ship com.s	140	All
Xenomorph infestation	Any	190	Powered Armor & HE Wpns	70	All
Unusual Seismic events	Any	125	All Science		
Mining accident	Mining	125	Mining Equipment	120	Ores
Industrial Accident	Industry	120	All Industry		
Tourists kidnapped	Pleasure and Pirate	85	Companions (pirate)	90	Companions (pleasure)
Mech malfunction	Any	110	Science		
Wall street Panic	Everywhere	80	All	130	All
Drought	Agriculture	125	Nanoteks	150	All
Pirate base destroyed	Any	150	Exotics		
Bounty harvest	Agriculture			90	Grain
Blood banks depleted	Any	125	Blood		
Holiday	Any			95	All
New Mining field open	Mining	110		90	Gemstones & Ores
Cyber Virus	Any	120	Cybernetic Equipment	115	All
Mutiny	Military	120	Weapons	120	All
Powerfailure worldwide	Any	125	Power generators	130	All
Earthquake	Any	125	Plasteel & Ind. Machinery	115	All

APPENDIX H: SYSTEMS AND BASES BY QUADRANT

System: The name of the star system. Systems have numerous navigation points and possibly ports to land at.
Type: Designates the type of port: **P** stands for Planet, **A** is for Asteroid Station, and **S** designates Space Station.
Star: The classification of the star type at the system. Some systems are binaries and trinaries.
Port: The name of the Port.
Commodities: The type of commodities which can usually be obtained at the port.
Govt: The governmental type that controls the port.
Contra: Contraband that is considered illegal at this port. When you land, you are scanned and if any contraband is detected, you will be fined, and the contraband siezed. Not all ports consider the same commodities to be contraband.
Jump to: Shows the other systems the player can jump to.

Braden Quadrant

System	Type	Star	Port	Commodities	Govt.	Contra band	Jump to
Outpost 37	S	O3	Outpost 37	Science	Corp	8-13,36	Poseidon
Poseidon	P S	G2	Oceanis Skanda Station	Agricultural Military	Demo Demo	8-13 8-13,36	Outpost 37, Furnace, Kane, N34
Furnace	S	B7	Furnace	Mining	Corp	8-12	Kane, Poseidon
Kane	P A	F3 K5	Tiburon Durango	Industrial Mining	Tot Tot	8-13,29,36 8-13,29,36	XSR-568, Furnace, Poseidon
Asgard	S	M4	Thor	Mining	Anar		Mjolnir, Haegus Field 410, N34
N34		M5	None				Poseidon, Asgard, New Damascus, Calypso
New Damascus	P	K7	New Damascus	Agricultural	Mona	8-13,36	Sanction, N34, Skurge (hidden)
ND-38		A3	None				Sanction
Mjolnir	A	B8	Odin	Mining	Anar		Asgard, XSR-568
Primus	P	A5 G4	Perseus	Agricultural & Medical	Rep	8-13,36	Fang, Haegus Field 410 (hidden)
HGC-57		O6	None				Sanction, Tara's System
Skurge	S	A2	Kom	Pirate	Anar		New Damascus (hidden), Felicity
Sanction	P P S	G3 G2 K4	Maxxor Yena Vigilance	Industrial Agricultural Mining	Corp Envi Olig	8-13,36 8-13,26	HGC-57, Spacek's Star, New Damascus, ND-38, Felicity
Calypso	P	F2	Calypso	Industrial	Mona	8-13	N34, Felicity
Felicity	P	G1	Felicity	Pleasure & Agricultural	Matr	8-13,36	Calypso, Skurge, Trantor, Sanction
Spacek's Star		B3	None				Sanction, ZTA-3
Trantor	A	O8	Tierra	Mining	Corp	8-13,36	Felicity, Kavios 56
ZTA-3	S	M2	Thomasville	Science	Corp	8-13,36	Spacek's Star
XSR-568		A7	None				Kane, Claw
Haegus Field 410		na	None				Asgard, Primus (hidden)

Satrakh Quadrant

System	Type	Star	Port	Commodities	Govt.	Contra band	Jump to
Varas'teth	A	M4	Bar'kal	Pirate	Anar		Talus IV, Claw
Talus IV	P	K7	Talus IV	Agricultural	Tot	8-13,29,36	Varas'teth, Barsun Khar, YG-12N
YG-12N		O2	None				Phaedra, Stakan Tor, Talus IV
Phaedra	S	B4	Phaedra	Medical	Corp	8-13	YG-12N
Stakan Tor		M9	None				YG-12N, Blood Fist (hidden jump pt.)
Barsun Khar		K4	None				Sakhat'Re, Talus IV
Claw	P	G2	T'karas	Agricultural	Kilr	35,36	Varas'teth, XSR-568, Devlin
Fang	P A	G5 B3	Zedemak Matrang III	Agricultural Mining	Kilr Kilr	35,36 35,36	Sakhat'Re, Primus
Echo Station Y7		A3 A5	None				T'karath
Devlin		F2	None				Claw, Redemption
Sakhat'Re	P P	K6 F3	Sakhat'Re II Akar	Tech Industrial	Kilr Kilr	35,36 35,36	Talus IV, Barsun Khar, Fang, T'karath, Nakar G'tok, TGC-1333
T'karath		na	None				Ras'Kamar, Echo Station Y7, Sakhat'Re Blood Fist (hidden jump pt.)
Blood Fist	A	B8	Kulantor	Pirate	Anar		Nakar G'tok, T'karath (h), Stakan Tor (h)
TGC-1333		O9	None				Sakhat'Re, Judgment
Nakar G'tok	P	K3	G'tok IV	Industrial	Olig	10	Sakhat'Re, Blood Fist, N78
Ras'Kamar	A	G3 K5	Kamar	Mining Dragonis Nebula	Corp	8-11	T'karath, Caliban (hyper jump)
Redemption	A S	A4	Djado Osade Military Base	Mining Military	Anar Corp	8-13,36	Haferis, P-K51G, Sakhat'Re, Devlin
P-K51G		B2	None				Redemption, Pegasus (hidden)

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K'tr'sek Khar Quadrant

System	Type	Star	Port	Commodities	Govt.	Contra band	Jump to
Kavios 56		A6	None				Trantor, Trajan
Pallos	P	K3	Kiran	Medical	Demo	8-13,29.36	Trajan, Dharma
Trajan	P P	F5 G4	Augustus Caesar	Agriculture Industrial Military	Repub Repub	8-13,36 8-13,36	Kavios 56, Pallos, Exis
Tara's System	S	G3	Tara	Pleasure	Corp	8-13	HGC-57, Vanatol
TSE-31		B2 B7	None				Vanatol, Caliban
Caliban	A	O4	Tempest	Mining	Theo	8-13	TSE-31, Pericles
Thanatos	A	A5	Death	Pirate	Anar		Khoslos, Charon
Khoslos	A	B9	Tora	Mining	Corp	10	Thanatos, K'tr'sek Khar
Charon		na	None	Asteroids			Thanatos, Alejandra
Siva	S	K3	Rama	Pirate	Anar		Dharma
K'tr'sek Khar	A A P	A6 B7 B5	Savlak Vaktus Ganesha	Mining Agriculture Industrial	Anar Olig Matr	 8-13 8-13	Exis, Vanatol, Khoslos
Dharma	S	M3	Dharma	Industrial	Tot	8-13,29,36	Siva, 3556-CWB, Vanatol, Pallos
3556-CWB	P	F2	Jonas' IV	Agriculture	Repub	8-13	Dharma, Quevom
Exis	P P	K8 K6	Exis Denham	Mining Agriculture	Corp Mona	8-13	K'tr'sek Khar, Trajan
Vanatol	P	G4	Vanis	Tech	Corp	10	Tara's System, K'tr'sek Khar, Dharma, TSE-31

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Archangel Quadrant

System	Type	Star	Port	Commodities	Govt.	Contra band	Jump to
Haferis	A P	G2	Yazd Shira	Mining Agriculture	Theo Theo	8-12, 36 8-12,36	Redemption, Novaya Zemlya
Lysea Prime	A	B2	Lysea	Mining	Corp	8-13	Durenmar, Carson's Star, N78
Pegasus		O1	None				Carson's Star
Durenmar	P	A4	Kamina	Agriculture	Envir	BM,IND,26	Lysea Prime, Carson's Star
Carson's Star	P A	G7	Kitt Trapperville	Tech Mining	Corp Demo	8-13 8-13	Pegasus, Durenmar, Judgment, Lysea Prime
Charybdis Nebula		B3	None				N78 (hidden)
N78		na	None				Charybdis Nebula (hidden), Nakar G'tok, Lysea Prime
MFH-31		M5	None				Novaya Zemlya
Novaya Zemlya	P	G4	Ursula	Scientific & Agri	Demo	8-13	Haferis, Pericles, MFH-31, ZTA-3
Pericles	S	F5	Theseus Station	Medical	Corp	8-13	Novaya Zemlya, Caliban, Archangel
Archangel	P	K7	Archangel	Tech	Olig	8-13,36	Pericles
Alejandra	S	F3	Covington	Industrial	Corp	8-13	Europa, Charon
Braxton AE 449	A	B8	Braxton	Mining	Corp	8-13	Pericles, Vjilnia, Quevom
Quevom		K4	None				Braxton AE, 3556-CWB
Homestead	P	K8	Homestead	Industrial	Repub	8-12	Fakari 991, Vjilnia
Vjilnia Naval Station	S	A3	Vjilnia Station	Military	Confed	8-13,36	Descarte, Homestead, Braxton AE, Europa
Fakari 991		na	None				New Vegas, Judgment, Homestead
Judgment		B7	None				Fakari 991, Carson's Star, TGC-1333
Descarte	S	M2	Escalon	Scientific	Demo	8-13,36	Vjilnia, Europa (hidden)
Europa	P	G3	New Paris	Pleasure & Tech	Mona	8-13,36	Alejandra, Vjilnia, Descarte (hidden)
New Vegas	A	A6	Vegas	Pleasure	Corp	8-13,36	Fakari 991

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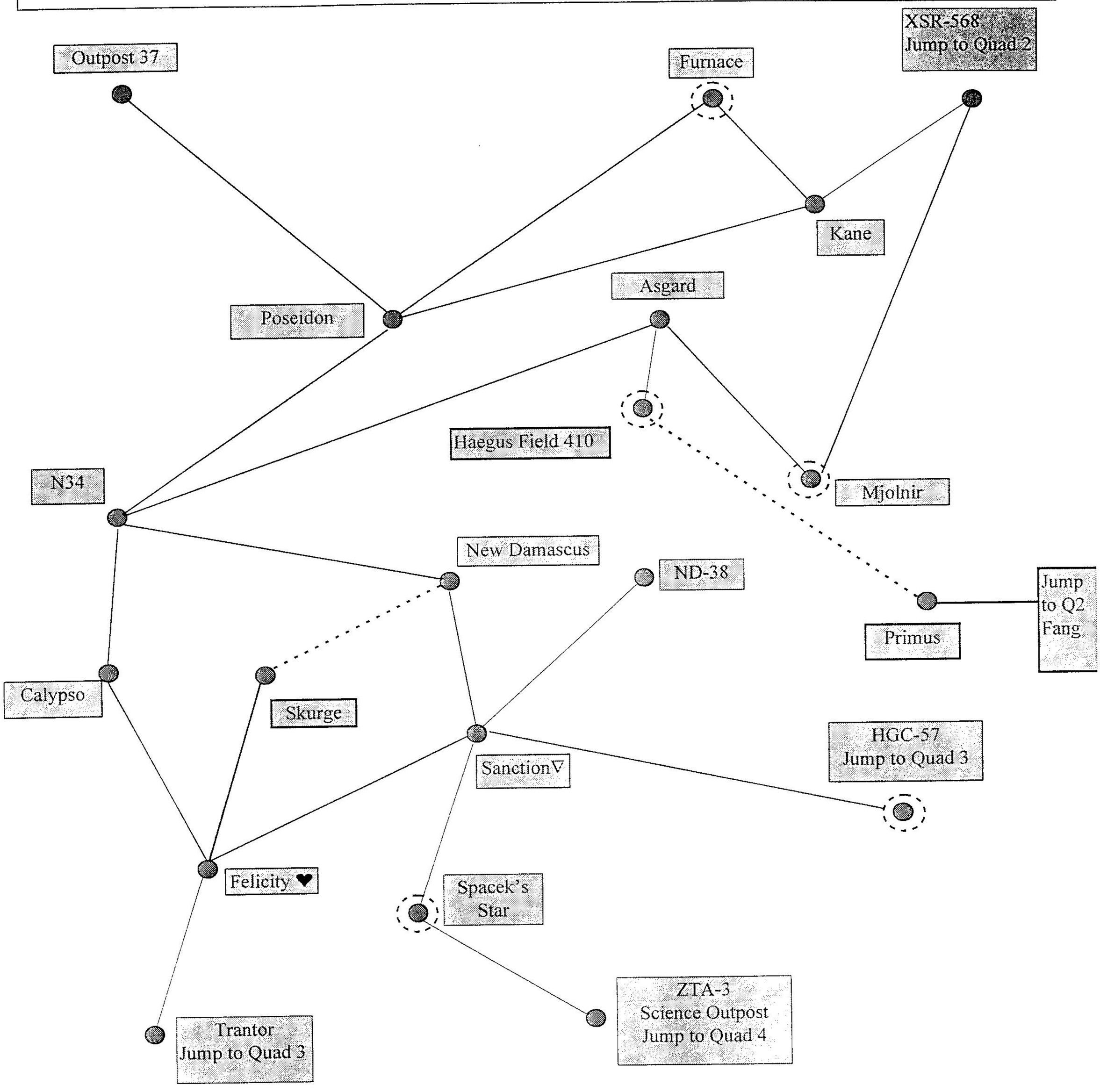
Total Ports (Planets, Space Stations, Asteroid Stations): 63
Mining: 17 Agriculture: 13 Industrial: 9 Science: 4 Medical: 4 Pleasure: 4 Pirate: 5
Military: 4 Tech: 5
Planets: 29 Space Stations: 17 Asteroid Stations: 17

Port	Commodity	Port	Commodity	Port	Commodity
Outpost 37	Science	Zedemak	Ag	Exis	Ag
Oceanis	Ag	Matrang III	Mining	Denham	Ag
Furnace	Mining	Sakhat'Re	Tech	Vanis	Tech
Tiburon	Industrial	Akar	Industrial	Yazd	Mining
Durango	Mining	Kulantor	Pirate	Shira	Ag
Thor	Mining	G'tok IV	Industrial	Lysea	Mining
New Damascus	Ag	Kamar	Mining	Kamina	Ag
Odin	Mining	Djado	Mining	Kitt	Tech
Perseus	Ag & Medical	Osade	Military	Trapperville	Mining
Kom	Pirate	Kiran	Medical	Ursula	Sci & Ag
Maxxor	Industrial	Augustus	Ag	Theseus Station	Medical
Yena	Ag	Caesar	Mil & Industrial	Archangel	Tech
Vigilance	Mining	Tara	Pleasure	Covington	Industrial
Calypso	Industrial	Tempest	Mining	Braxton	Mining
Felicity	Pleasure & Ag	Thanatos	Pirate	Homestead	Industrial
Tierra	Mining	Tora	Mining	Vjilnia	Military
Thomasville	Science	Rama	Pirate	Escalon	Scientific
Bar'kal	Pirate	Savlak	Mining	New Paris	Pleasure & Tech
Talus IV	Ag	Kes	Mining	Vegas	Pleasure
Phaedra	Medical	Dharma	Industrial	Skanda	Military
T'karas	Ag	Jonas' IV	Ag	Ganesha	Industrial

Star Type	Temperature (Kelvin)	Color	Misc
O	25,000-50,000 K	Blue	
B	11,000-25,000 K	Blue	
A	7500-11,000 K	Blue-white	
F	6000-7500 K	White	
G	5000-6000 K	Yellow-white	
K	3500-5000 K	Red-orange	
M	2000-3500 K	Red	

QUAD ONE: BRADEN



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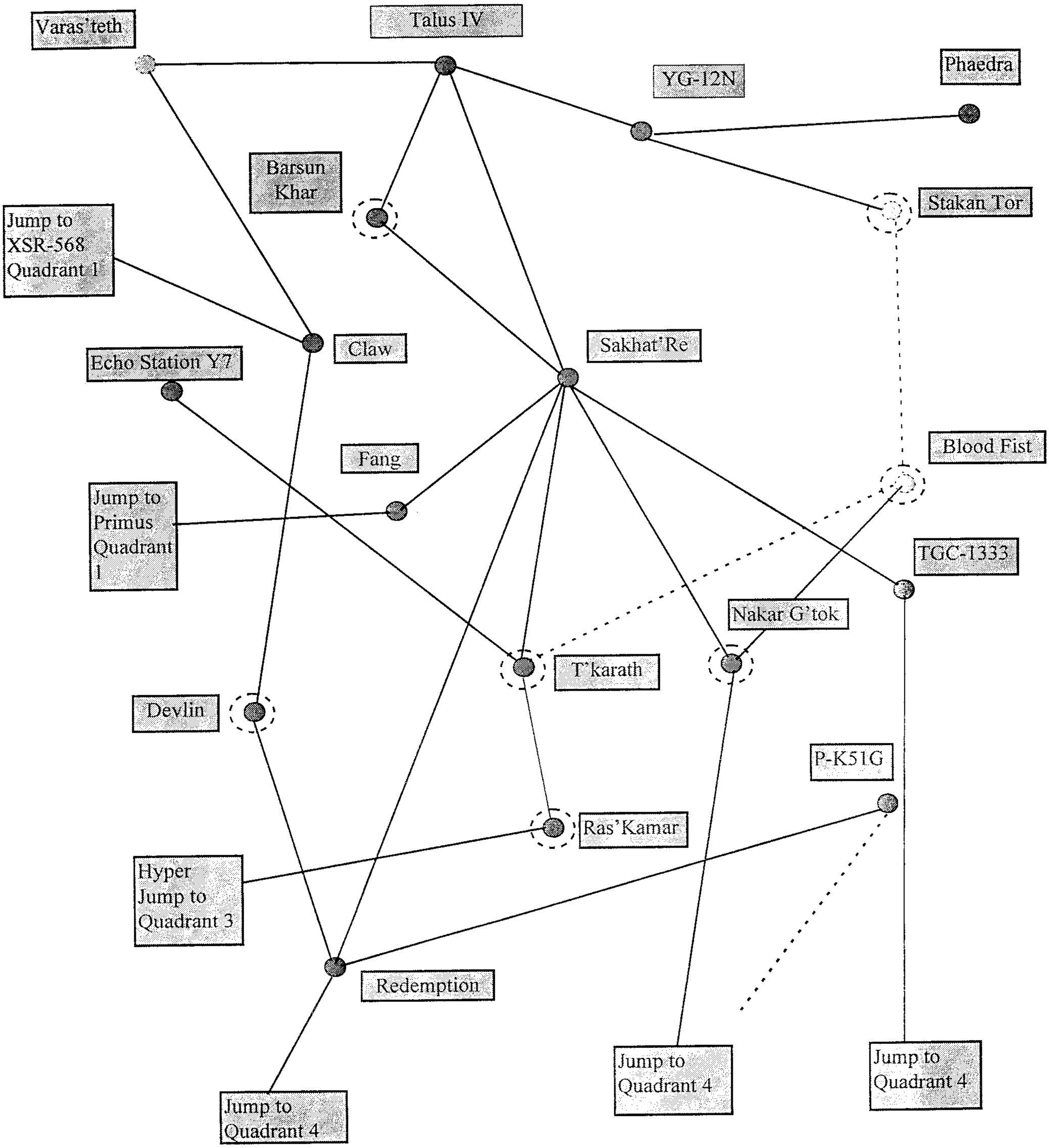
QUAD TWO: SATRAKH



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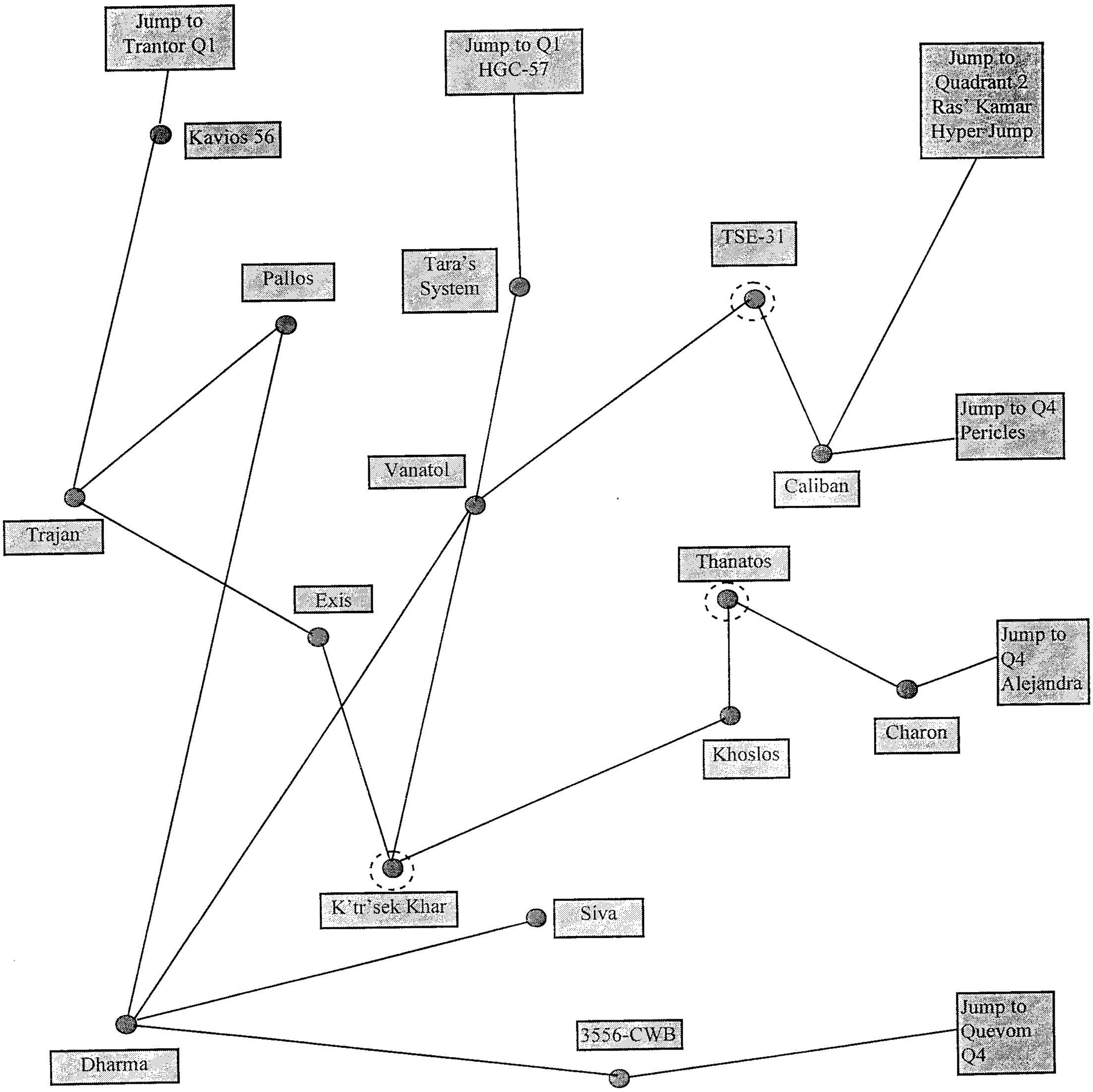
QUAD THREE: K'TR'SEK KHAR



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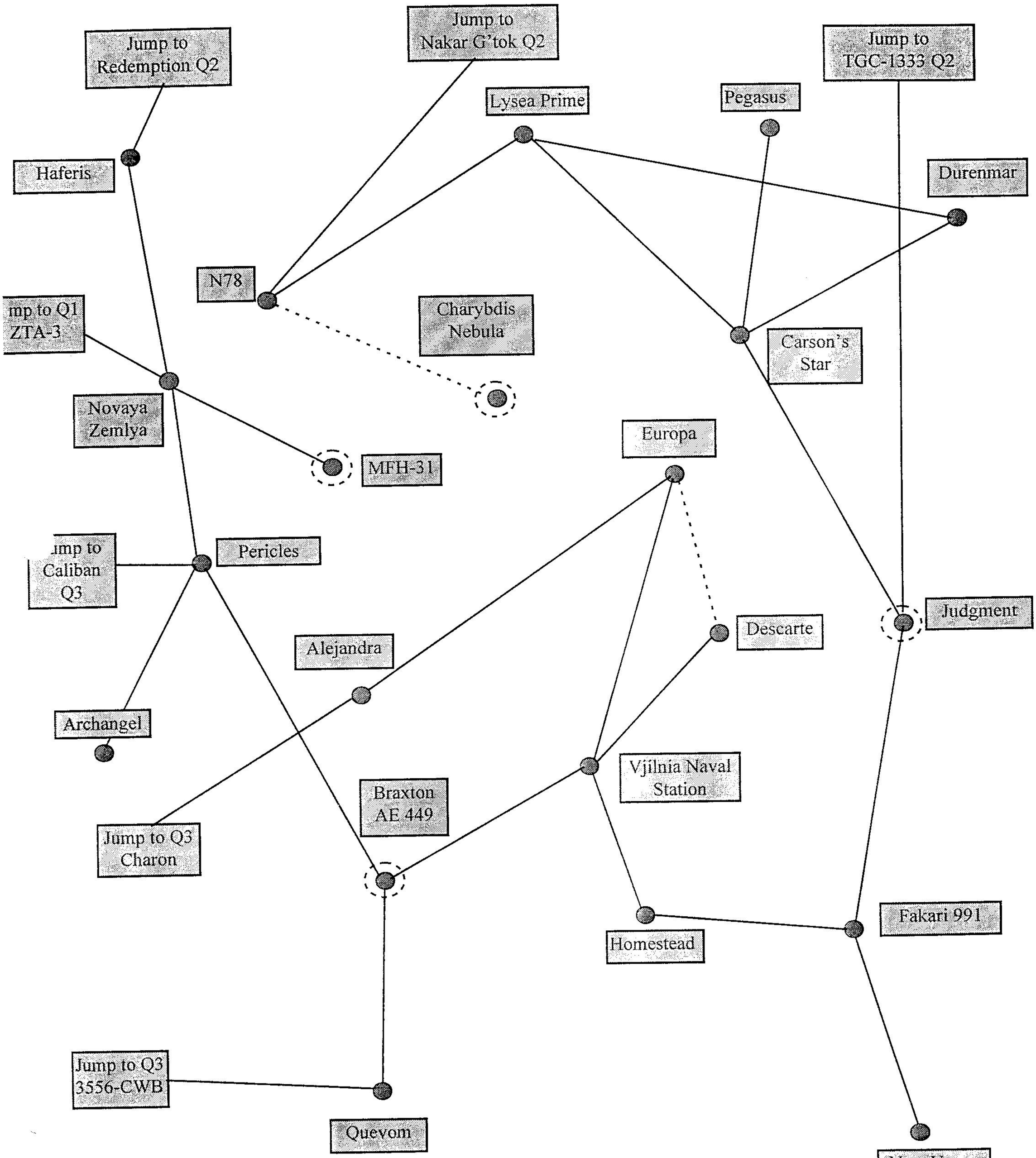
QUAD FOUR: ARCHANGEL



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