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Prologue

In the 23rd century, six races discovered the secret of the leap drive. Finally able to break the bonds of relativity and travel faster than the speed of light, the exploration and conquest of space began.

The discovery of the leap drive took years of planning, even after scientist proved it was theoretically possible. Utilizing the principles of quantum mechanics on a macroscopic scale, it amplifies the speed of a ship by a factor of millions.

But space is not empty, and in many cases it is not friendly. Your race will encounter other alien races, and how you deal with them is your decision as ruler of your people. You will create alliances and trade agreements with some, and engage in horrendous battles with others. Pick your friends wisely and your enemies with even more care.

Your role will encompass every aspect of your empire, from building ships and deploying fleets to leading mechanized troops in the conquest of alien worlds. You'll also devote resources to terraforming and colonizing the worlds you control. Develop your planet's surface by building cities, linear accelerators and planetary defenses.

It is the beginning of a new era for your people. Lead them well, because your race is now Starbound...

Welcome

Thanks for playing Starbound II for the Macintosh! This manual will describe how to play Starbound II and give you a feel for the full registered version of the game.

One of the key aspects in the design of Starbound II was to make the game flexible and expandable. Because of this, addendums to this manual and addendums to the game (such as new races to play and new AI's to play against) are constantly being added to our web site. You can also post questions about how to play, find other people to play against, and make suggestions about features you like to see in the future on the web site. The URL is **http://www.catfish-software.com**

We've put a great deal of work into making Starbound II a great game to play and hope you like it enough to purchase it.

Joshua Grass & Samuel Hamilton
Catfish Software

Registering the game

Registering Starbound II is very easy. When you are playing the unregistered demo you will be prompted to register the game every time you start it up. If you decide that you like the demo and want to be able to play the full version of the game you'll need to get a serial number to enter along with your name. There are two ways to do this:

Electronically

The first step is to go to our web-site (**www.catfish-software.com**). From there you'll see a link that says "I'd like to register a product". Click on this link and you'll be connected to Digi-buy™ where you can register using a credit card or e-cash. Digi-buy will then send me an e-mail containing you name and address. Once I receive the e-mail I will send you back a serial number and a key. When you register Starbound you will need to enter your name as it appears in the e-mail, the serial number and the key to unlock the game. Then you will be able to play the full version!

US Mail

If you don't have access to the World-Wide Web, don't have a credit card or don't trust sending information using the web, you can send me a check, money order or travellers check through the mail. My address is:

Joshua Grass
2 Fort Hill Terrace
1st Floor
Northampton, MA 01060

Be sure to include your full name in the letter, and a way for me to reach you (e-mail or mail address). Unfortunately I have no way to process credit cards myself, so if you send credit card information I will be unable to help you.

What's in the full version?

The full version includes the ability to play more than one computer opponent, allows computer opponents to colonize other worlds, and creates galaxies with more than five stars. If interest is high enough (i.e. enough people register) I will develop networking for the game.

Why register?

Starbound II only cost $20, and I've worked on it for two years now. Personally, I believe that it is a better game than many games that cost twice as much (if they come out on the Mac at all). Unlike a lot of shareware authors I plan on being open about the number of copies that are registered, so people who are interested can come to the web site and see how the product is doing. I think that this will help a lot of other shareware authors set their expectations. It will allow people to look at their software, judge how it compares to Starbound II and at least make some estimate of the number of copies they might sell. This information is nearly impossible to get, although dozens of shareware authors are looking for it all of the time.

Overview

Starbound II is a space-strategy game. This means that you will begin with a fairly well developed homeworld and your goal is to reach a peaceful federation of planets at the end of the game. This can be done by forming alliances with some races and eliminating others. Once all of the remaining players(computer and human) are in a peaceful alliance the end of the game is reached. In the most aggressive type of game, this means that the game is over when only one race is left.

Starbound II has over a dozen features that can be set at the beginning of a game depending on the level of control you wish to have over the game. Not only does this make writing a manual difficult, but it also allows you to play the type of game you want to play. If you're not interested in controlling trade, you can turn it off and it will not effect the game. Space and ground combat can be resolved in a number of ways as well. By turning on or off features you can also control the duration of the games you play. A simple game of Starbound can take less than an hour and a complex game can take several days.

If you activate all of the options for a game you'll have to control the following aspects of your empire:

Planetary development
- Terraforming the surface of your planets
- Building planetary structures
- Converting the atmosphere to a breathable mixture of gasses
- Developing the planet's technology

Ship construction and deployment
- Determining ship classes to build
- Designing ship classes
- Joining ships into fleets
- Navigating through space
- Setting up patrol and trade paths
- Controlling ship-to-ship and ship-to-planet combat

Planetary combat
- Landing invasion forces on a planet
- Deploying defensive forces
- Resolving troop combat
- Targeting structures for orbital bombardment

Trade and Diplomacy
- Developing and maintaining relationships with alien races
- Balancing resources to maximize planetary output
- Exchanging information with alien races
- Forming alliances and breaking treaties

It sounds like a lot to take care of, but the interface for Starbound II makes handling all these aspects manageable. Most items will only need to monitored occasionally and

Starbound II notifies you when changes(such as a planetary structure being completed) have occurred.

I've spent a lot of time developing a good design (in my own humble opinion) for game play, and every screen you use in Starbound II has been redesigned several times to improve the interface. The hope is to make Staround II deep and smooth, meaning that you have the ability to control a great deal, but that you can also set a course for your empire and need to do very little to stay on that course.

Beginning a game

When you select new from the file menu you'll be presented with the following dialog:
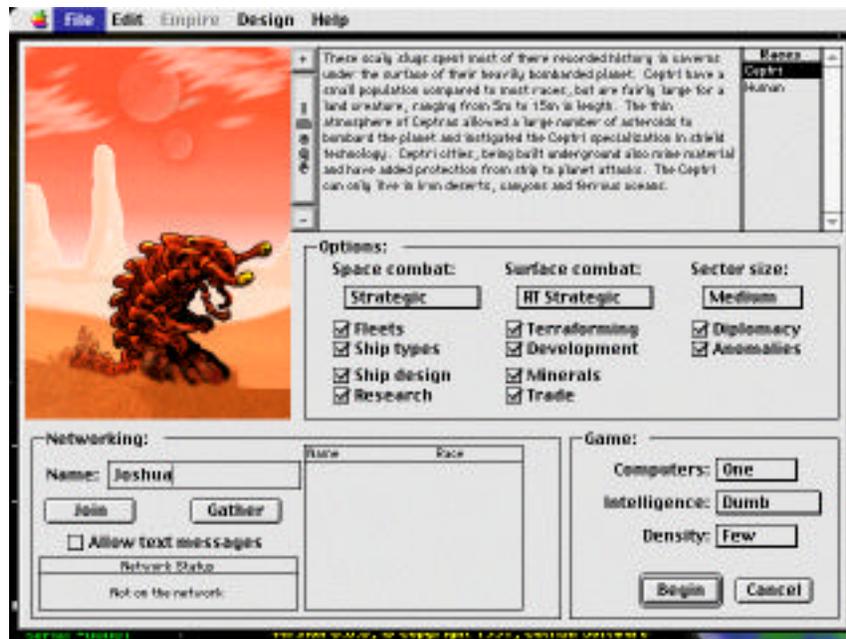
The start dialog contains five areas that control your game:

The race images

In the top left corner of the dialog is an image of your race. To the right is a button titled "Image" with a plus and minus buttons above and below it. Pressing the plus and minus buttons allow you to scroll through the images and animations associated with the race. The "Image" button will take you back to the initial race image. This information includes an image of the race, a picture of their homeworld, and 3-D representations of the different ship types they can build.

The race description

In the top right corner of the dialog is a text window that contains information about the race, it's specialization, and information about it's culture. To the right is a list of all of the races that you can play. This list will cahnge as you download more races from our site.

The options area

In the center of the dialog is a list of options that can be turned on or off to control game play. These options are:

- **Space combat**
  You can resolve space combat in one of three ways: Have the computer calculate the winner automatically, turn-based strategic combat, or real-time strategic combat.
- **Fleets**
  With this option on you can combine individual ships into fleets that can be maneuvered and entered into combat together.

- **Ship types**
  This option allows you to build several different classes of ships, each with their own design. If the option is turned off then you only have your standard cruiser class and possibly trade ships.
- **Ship design**
  If the design feature is on, then you can design the systems that are present on each class of ship. You can also change the design of the six ship classes as your race becomes more advanced. If you turn this option off, you will be forced to use the pre-defined designs for the race.
- **Research**
  If the research option is selected then new technology must be researched before it can be used. Otherwise, you begin the game knowing all of the research items.
- **Surface combat**
  Planetary combat can be resolved in one of four ways. If the none option is selected then it is assumed that your ships in orbit simply annihilate all the structures and people on a planet. If the calculated option is selected then you still land troops on the planet, but the troop combat is mathematically determined when two squads meet. Turned-based strategic combat and real-time strategic combat allows you to control troop engagement manually.
- **Terraforming**
  If the terraforming option is selected then you must terraform the atmosphere and terrain of the planets you land on.
- **Development**
  If the development option is selected then you can build planetary structures to increase the production and capabilities of your planet. If it is turned off then worlds are just production centers based on population.
- **Minerals**
  If the minerals option is selected then the planets mineral scarcity can influence the cost of developing certain technologies.
- **Trade**
  This option allows you to transfer production point from one planet to another. Production points are increased in the transfer based on the distance between the two worlds, the increase is doubled if the world you are trading with is alien.
- **Sector size**
  It is possible to play Starbound II in four different sized regions of space. Only the small sector size allows you to see all of space at once. At the other sizes you'll have to scroll in order to see all of space.
- **Diplomacy**
  If the diplomacy option is selected then it is possible to communicate and form relations with alien races. you may also use propaganda to force them to do your bidding. Diplomacy also allows you to define borders for your empire.
- **Anomalies**
  If the anomalies option is selected then nebulas, asteroid belts and wormholes exist in your region of space. These anomalies can give key tactical advantages.

The Network area
Depending on the interest in Starbound II the network may or may not be implemented in the future. For now, even in the registered version, it is not available.

The Game area

The game area allows you to select the number of computer opponents, their intelligence, and the number of planets.

- **Computers**
  The number of computer opponents to play against you in this game. The number of human players and computer players cannot be more then six.

- **Intelligence**
  The intelligence of the computer opponents, this value can be Dumb, Average, Smart and Brilliant. This value is used to determine which AI scripts are used by the game at start-up.

- **Density**
  The density of planets in the galaxy.

Technology

Technology is measured in four ways, and in Starbound II each planet in your empire has different technological levels. Developing technology takes time, and even though you may have one world that has very high technology, new worlds begin as technological backwaters. Even these "primitive" worlds are advanced compared to our present day technology, but are nothing compared to 23rd century wonders.

Weapon

Weapon technology denotes the destructive power of your ship's armaments. Each race develops different weapon delivery systems, but the level of destruction they can do are all measured on the same scale. Weapon systems are recharged by a ship's main power system and can fire periodically without need of recharging at a friendly planet.

Shield

Shield technology denotes the ability to handle and dissipate harmfully directed energy. Although each race uses different technology to protect their ships, the effect is the same, to erect a barrier of specific matter between the ship and the source of damage. Each ship's shield material needs to be refueled at a friendly planet, but the cost is negligible.

Movement

Since the leap drive multiplies a ship's speed by a fixed constant, a ship's movement technology effects both its interplanetary and combat speed. Engines still use a standard Newtonian propulsion system, but are able to grab enough reaction mass from the free hydrogen in open space to run indefinitely.

Detection

All races use an active Tachyon detection system to detect other ships at faster than light speeds. Creating a Tachyon emitter is simple 21st century technology, but creating a sensitive detection array is a much more difficult procedure. Different races use different construction techniques to build detection arrays on their ships and planets.

Technology not only measures the quantitative level, but as technology levels rise, new ship designs and ground forces can be created from a planet. In the event that this occurs, you will be informed so that you can modify the planet's spending.

Construction

Along with spending planetary resources on developing technology, each planet also spends resources on building ships and developing the planet.

Build

Build spending is used to construct a ship in orbit as well as load troops and colonist into the ship. Because ships have large crews and maintenance fees, ship spending also goes to the upkeep of all ships built on that world. In general, a fully developed world will be able to support around a dozen ships without seriously impacting spending in other areas. Because the fund used to build ships is the same to maintain them, if you set the fund to a certain level, the planet will stop making ships once it reaches a point where the fund can only support the active fleet of the planet. If a ship is in orbit that needs to be restocked with troops then ship resources are first used to restock that ship and construction of the present ship is placed on hold.

Planet

Planetary development allocates resources to terraforming the surface, building planetary structures and keeping your planetary populace happy. If the Terraforming or Development option are on, then you can set how planetary spending is divided between construction and direct spending. Construction spending is evenly divided between all of the construction tasks you have started. Direct spending is spent on social programs to increase the happiness of the population.

Layout of a turn

Ever turn in Starbound II is one month long. A turn is divided into four stages:

The event stage

At the beginning of the turn the event window will apear, informing you or events that are occurring in your empire. This could be the construction of a new starship, a fleet leaving orbit, or the completion of a terraforming project. The event window allows you to query the objects that had the event, for example a planet, and alter their planetary spending or assign new projects. Once you have seen all of the events for the turn, the event window disappears.

The planetary combat stage

If any ships are orbitting a hostile world then planetary combat begins. Only the races involved will see the planetary combat window. Planetary combat is divided into six turns that are each five days long. Planetary combat for each world will be finished before the sector stage takes place. So, for example, if there were Human ships in orbit around Ceptras and Ceptri ships in orbit around Earth, all six planetary combat turns on Earth would take place, then all six planetary combat turns would take place on Ceptras, then the sector stage would begin.

The sector stage

Now the sector window will become activated and you can scan fleets, move your fleets manually, assign them paths by clicking on a fleet and dragging it to a location, open a planet window and alter spending or assign new projects, engage in space combat, or colonize new worlds. After all of the ships in the sector have moved the turn will be over. If the auto turn option is on then the next turn will begin automatically, otherwise you will have to hit tab or command-T to manually end the turn. Even when the turn is over you can still look at planets and fleets. And you can still alter planetary spending and assign new projects.

The planet stage

This stage is done by the computer. This is when the planetary output is spent to build projects, repair ships, build structures, etc... It's when the computer simulates the month on each of the planets. Generally it won't take more than a few seconds.\

The Research stage

This stage is done by the computer. This is when the research contributed by all of the worls in your empire is used to develop theoritical and applied knowledge.

Sector window

Small
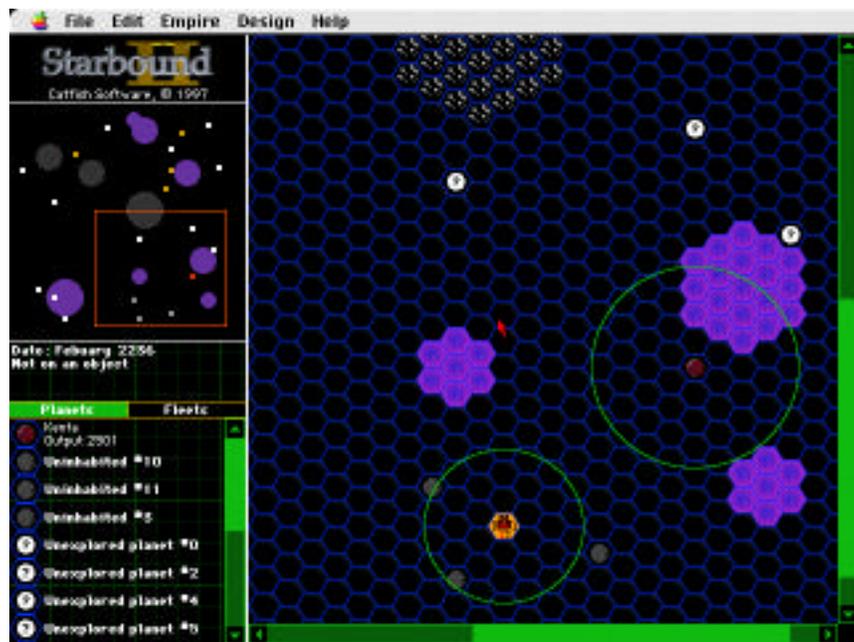
Large

The sector window is the your eyes and ears of your empire. If you are playing in a small sized sector (left), then you will be able to see the entire sector on your screen. Otherwise, your will see a portion of the sector on the right hand side of the screen and an overview, map, and list of fleets or planets on the left. The sector window is the first thing you will see when you begin a new game, and it is how you access all of your fleets and planets. Below is a description of the different areas on the two types of boards you can play on, but lets look at the board first. Each hex in Starbound II contains one of four types of objects:

Note: Here's I've shown the six statrting races for the game, as new races are added, each will have it's own set of planet, ship, and fleet icons.

Planets

Planets are either known or unknown(a white question mark). Once a ship is within detection range(The green circles) of a planet it is identified as uninhabited or inhabited by one of the six races. You can tell which race by the planet icon:

| Human | Ceptri | Tonos | Jacko | DNuri | YXaWk | No one |

Click on your planet to go to the planet window.

Ships

Lone ships display information about their technology levels, positioned around the ship icon. Left = Weapon tech, Right = Shield tech, Bottom left = Movement, Bottom right = Detect. Each race has it's own race icons:

| Human | Ceptri | Tonos | Jacko | DNuri | YXaWk |
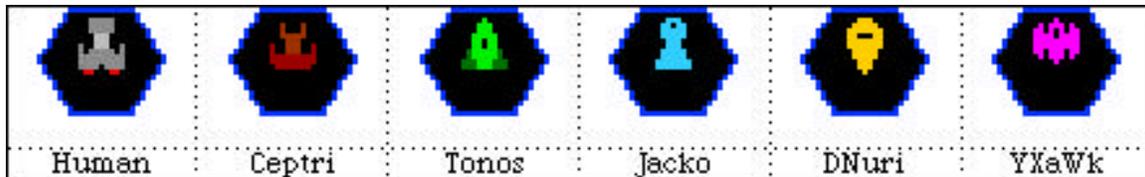
Fleet

Fleets also contain the number of ships in the fleet(Left) and the amount of movement left(right). Each race has it's own fleet icons:

| Human | Ceptri | Tonos | Jacko | DNuri | YXaWk |
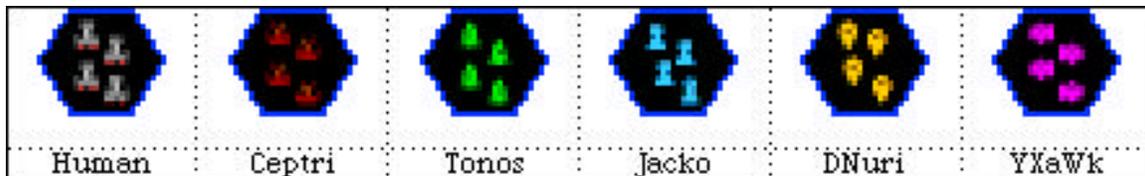
Click on your ship or fleet to go to the fleet window.

Anomalies

Anomalies are objects in space that influence ship that pass through. There are four types of anomalies:

Empty Space	Asteroids	Nebulas	Wormholes
No Effect	Movement reduced to 1	Detection reduced to 1	Links to another wormhole

Finally it is important to note that your empire *can only see the regions enclosed by detection circles*. These regions have a green outline so that you can tell which regions of space you can see. Any action outside of these regions are invisible to you, including planetary conquests. So a planet that you see as uninhabited, may be taken over while you can't detect the planet. When you return you'll see that the planet has changed ownership.

From the main window you can:
• Move ships or fleets(a single space, or *drag to give a ship or fleet a destination*)
• Open the ship or fleet window
• Open the planet window
• Join and separate fleets
• Attack planets, ships or fleets
• Detect other alien ship and planet activities

The small sector window
Below is a description of the areas that are visible in the small sector window (the left image above):

Logo(Top left)
So you know what game your playing!

Cursor Region(Top right)
In the top right corner you will see the cursor region. This area tells you what you can do depending on the current ship and the cursor position. Depending on your possible actions the cursor will change to different states. Below is a list of all of the possible cursor states and the possible actions you can take.

	This is the cursor you see if you cannot do any action where the cursor is pointing.
	The move cursor means that you can move a ship to a nearby hex by clicking.

ATT	The Attack cursor means that a click will allow you to attack.
SCN	The scan cursor means that clicking here will scan the hex, containing a ship or planet, for information. This is how you get to the planetary window or the ship window. You can also click and drag on a ship of fleet to give it a destination that is several hexes away.
REIN	The reinforce cursor allows you to immediately land a ship on a planet. You will select the landing site and the ship and it's crew will begin building a city at that location.
ORB	The orbit cursor allows you to enter a ship into orbit around the planet.
JOIN	The join cursor means that you can join the ships in the current fleet to the fleet your cursor is on.
COL	The colonization cursor allows you to colonize a nearby uninhabited planet.

The cursor region tells you which actions you can take depending on where your cursor is pointing. It also tells you actions that you can take by holding down a modifier key while clicking. This can be extremely important in certain situations. For example, if the current ship is located next to a planet you are interested in scanning, you need to hold down the shift key while clicking so that you don't put the ship in orbit.

You can also use the space bar to skip a fleet's turn, or hit return to bring up the ship info window on the current ship.

The Rating region(Bottom left)
Tells you the number of planets you hold, your overall ship power, your total output and how that ranks with the other players.

The Date region(Top center)
The date region tells you the date in months on the human calendar. Which can be important for estimating the time until ships and structures will be completed. Each turn in space is one month.

The Opponent region(Bottom Center)
The opponent region tells you how many computer and network opponents are still left in the game.

The Technology region(Bottom right)
Tells you the average technology level of all of the planets you control and how that ranks with the other players.

The large sector window

Below is a description of the areas shown in the large sector window (the right image above):

The sector map (Top left)

This area shows a large scale map of the sector of space. Only planets, and spacial anomalies are visible in this view, along with a rectangle showing what area you are currently focused on.

The date and cursor region (Middle left)

Just below the sector map is the current date and a list of cursor actions (see cursor region for the small map).

The object list (Bottom left)

The object list shows a list of all the objects you can currently see. You can toggle between planets or fleets. The list are sorted by the race owning the object (so your planets are listed first, then each race's planets and finally each unknown planet). If you click on an object in the object list, the viewing area will center on the object.

Viewing area (Right)

The viewing area shows an area of the sector at normal magnification. Here you can move and scan fleets or zoom in on planets.

Event window

The event window lets you know when key events have occured in your empire. The event window appears at the beginning of each turn(month) in the sector window.

The event window has three areas: The movie area which shows a small movie or cut scene representing the event. The text area, which provides more information about the specific event. And the query area, which allows you to find out more about the event. Clicking on the text area or hitting space will move to the next event. Clicking on the query area or hitting return will provide more informaiton about the event. In this case, hitting return would take us to the planet window for Earth and show us the ships in orbit.

There are dozens of different event types that you will encounter over the course of the game. They are an attempt to handle some of the monitoring of planets and fleets that ordinarily you would have to do.

Fleet window

The fleet window allows you to find out information about individual ships or fleets. The fleet window will appear in a number of circumstances:

- You scan a fleet
- You split a fleet
- You join two fleets
- You scan an enemy fleet

The fleet window will look very similar in all four of these situations, but the title bar will tell you the action you are performing.

In the image above I have scanned a fleet and I am initially shown an overview of each ship in the fleet(right hand side). On the bottom left are three buttons:

- **Sleep** Puts the fleet to sleep until an enemy ship comes in it's detection range.
- **Path** Assign a fleet a path of destination, very useful for trade and transporting colonist.
- **OK** Leave the ship window.

Also note that specific keys are yellow. These are keyboard shortcuts. You can hit return for the OK button.

If you select a ship, a red border will appear and the right half of the window will begin displaying information about the selected ship. You can change the ships position in the fleet by clicking on an empty square(this can be useful for combat because the ships on the right are closest to the enemy). Clicking on the ship again will bring up the fleet summary (see above image).
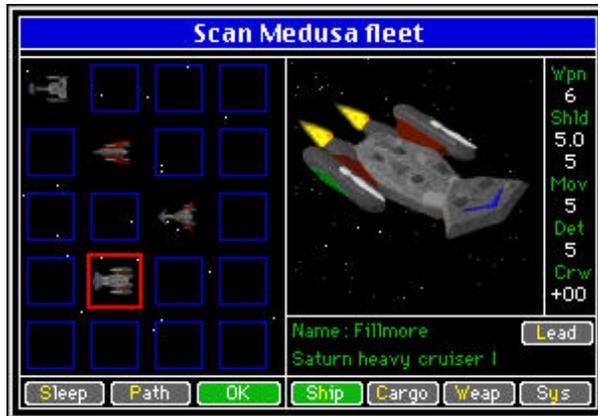
Once a specific ship is selected, you can view the ships cargo(the cargo button), and set the manifest(which troops it will load when at a homeworld). See a list of the firing systems(the weap button), and see a list of the non-firing systems. You can also make the ship the lead ship by hitting the lead button. The fleet is named after the lead ship, this can be useful for remembering what a fleet's purpose is, for example, in this game the Calipso fleet is guarding my border.

If you are joining, splitting or entering orbit with a fleet, the only difference will be the bottom left button. If no ship is selected it will be invalid "--", otherwise you can click on it to select which ships will join or split from the current fleet. A green border will form around ships that are executing the action.

Note: In the image above notice the "crw" modifier. This represents the experience of the crew. As a ship fights and survives more battles, the crew becomes more experienced and able to improve the performance of the ship. Be sure to keep track of ships with a high crew value and refit their ships so they can use the top-of-the-line toys. An experienced crew can easily outmatch a less experienced crew even if the newbies are in a superior ship.

You can find out a variety of information about the ships in your fleet(You cannot see this information if you are scanning an enemy ship). You can see the contents of the cargo hold of a ship and change the manifest so that it will load different troops when it next docks at a friendly world.
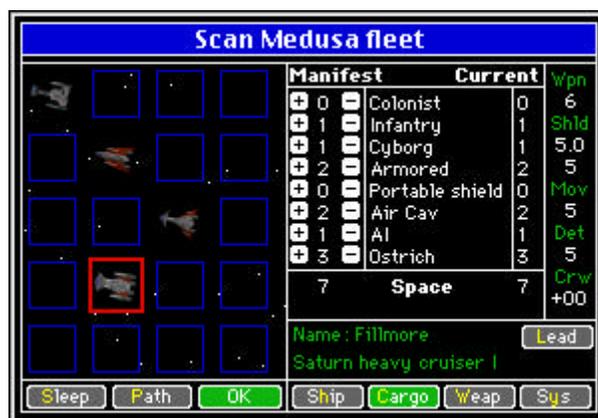
You can also see which systems the ship has.
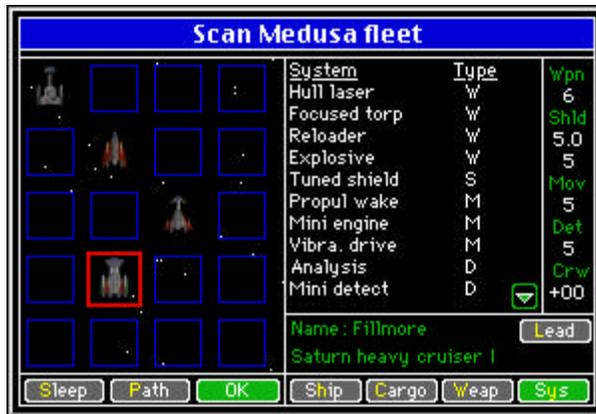
And you can give paths to fleets.
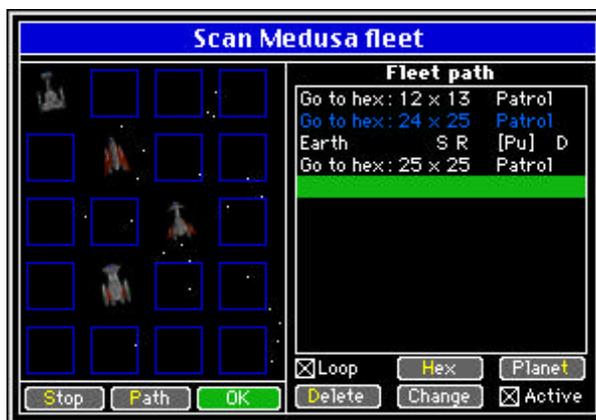
Paths are a method for automating your fleets movements. Paths allow you to patrol an area of space and stop if you see an enemy fleet, ferry supplies from one world to another, and colonize worlds. To create a path, click on the path button and then click on the hex or planet buttons to add commands to the path. Once you click on either button, the ship info window will disappear and allow you to click on the sector. If you are adding a planet to the path you will be given a dialog of options, allowing you to control dropping off colonist and material, repairing you fleet, reloading your fleet, and picking up material. If you select a hex you can toggle(with the change button) whether you will ignore enemy fleets or stop the path if you see an enemy fleet. Using the change button you can also change the commands the fleet will execute at the planet. You can insert or delete path commands by moving the green high-light bar and adding a hex or a planet or pushing the delete button. The command that is blue is the command that is currently be executed. This can be changed by double-clicking a command. Finally, you can turn the path on or off, and control whether the path will loop using the two check boxes.

In the sector window, fleets that are executing paths (as opposed to fleets heading toward a destination) have purple lines marking out their path. You can click and draw a fleet to give it a destination (in yellow) that it will head towards.

Planet window

If the Sector window is your eyes and ears for the empire, the planet window is it's heart. From this window you control the spending and development of all of the planets in your empire. The planet window is complicated, but easy to manage once you have an idea of the purpose of each of the five regions.

The Surface region(top left)

The Surface region shows the terrain of your planet, the structures, the status of construction, and the population contained in each hex. In the image above you can see Earth after several years of development. The yellow rimmed hex shows the hex currently selected(top right) and on the top left are four buttons to display different information. B=show buildings, P=show population, M=show materials, W=show structures being worked on. Clicking on a hex select that hex and bring up the Build display of the construction region is there is a structure, or the terraform display if there is no structure. Clicking in the same hex again will toggle between the build and terraform displays. To build a structure in an empty hex, click on the hex twice, go to the construction region, select the structure you'd like to build and click on the build button. Latter in the manual is a description of the structures and terrain types. The hexes with the purple boarders are shielded by planetary defense systems.

The Summary region(top right)

The summary window tells you information about the overall state of the planet. Clicking on the planet button allows you to rename the planet. Below that is the all important Atmosphere composition. Each race has it's own preferred atmosphere, and when colonizing a new world, it's important to devote resources to atmospheric converters so that the atmosphere will be changed.

Next is the technology levels of the planet. These values range from 1 to 9, and represent how advanced the planet is. Below that is the population, the maximum population of the

planet, the output and the output multiplier.   Your population will increase over time based on the strucures you build and the natural population growth rate of the race. The maximum population can increase by terraforming and building certain structures. Output is based on the number of people and the strucutres on the planet, and the output multiple is based on the attitude of the world's population. At the bottom of the summary region is the attitude of the population and a button to bring up the attitude dialog.

The attitude window can be vitally important in determining what ails your unhappy planet. Each of the 17 attitude factors add or subtract from the total happiness of the world. If you need more information about a happiness factor, just click on the name and a description of the factor and a few solutions will appear in the bottom half of the window. The attitude of your planet is vitally important because the output multiplier is calculated using the attitude of the population. Depending on the attitude of your population, a world can produce between 150% and 50% of it's normal output. The graph below shows the output multiplier as a function of the attitude of the planet:

Percent (y-axis)

Attitude (x-axis)
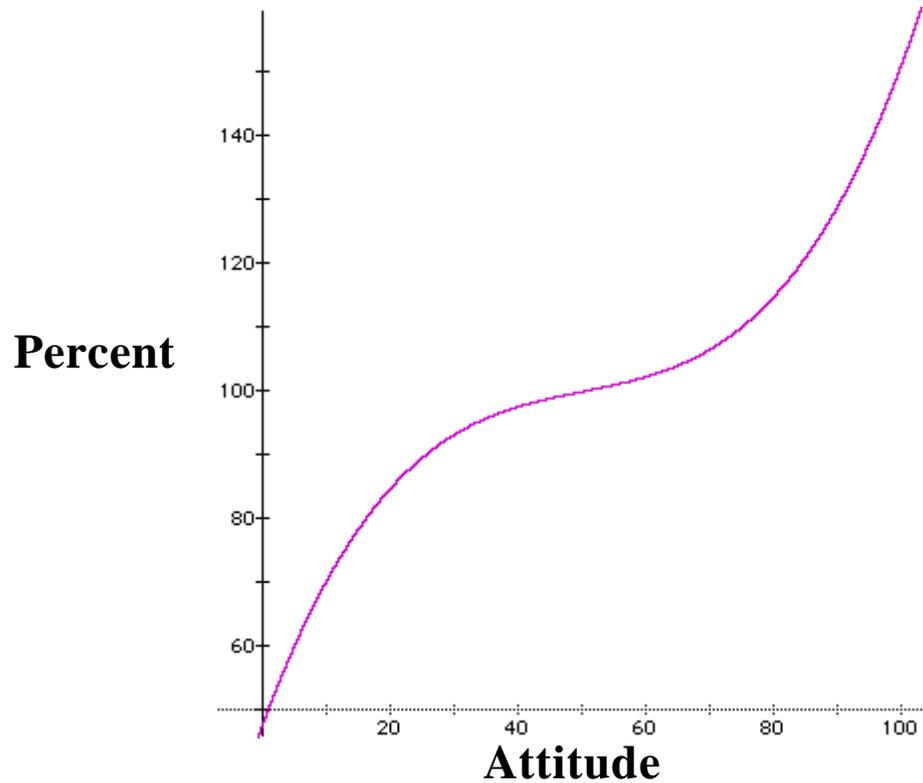
The Spending region(middle left)

The Spending region allows you to allocate planetary spending to six categories. These technology and construction categories are described earlier in this manual. Here we will just describe the information shown in the region.

For the technology spending categories(Weapon, shields, move, and detect) the blue bar represents the current spending. The text on the left represents the estimated time until the next level is reached and the text on the right represents the numerical amount spent on the category plus a percentage modifier from structures. In this case the +2% comes from two universities that increase the rate the technology is introduced to the planet.

For the ship spending category the blue bar represents the current spending. The text on the left represents the estimated time until a ship is completed, and the text on the right represents the numerical amount spent on ship construction.

For the Development category things are a little more complicated. The red bar represents the upkeep spending of the planet, you must spend at least this amount or the structures will begin to deteriorate on the planet. The green bar represents the amount being spent on

building planetary structures, and the blue bar shows the amount being spent on direct planetary spending(direct planetary spending goes to increasing the happiness of the population, see the attitude window). You can change the distribution of the development spending by moving the triangle below the development bar.

The Mineral & Graph region(bottom left)

The mineral region shows the abundance the six elements used by all of the races in Starbound II. Each mineral is used in a specific technology. For example, Mercury is used in shield tech. The number under the the name represent the current abundance(53) and the base abundance from the planet(53b). The base abundance represent how hard it is to find the material and it's relative cost to extract from the planet. The higher the abundance, the cheaper it is for a world to advance in that technology. For example, with Earth plutonium abundance at 30, raising a level in weapons tech costs 1.65 time normal. For worlds with a high abundance of a material the cost can be below one. But an abundance greater then 75 has the same cost modifier as a world with an abundance of 75. That's why it would be a good idea to ship Palladium from Earth to a Palladium poor world. A trade ship can carry ten abundance points from one world to another, and the abundance of a world will move back toward it's base at a rate of 1 point per month. So if we took a load of palladium from Earth, the abundance would decrease to 80(the multiplier would still be .75) and return to it's base of 90 in ten months.

The Graph region shows the historical graphs of many characteristics associated with the planet. These include population, maximum population, planetary output, attitude, technology levels, number of structures and ship savings. The attitude graph can be particularly useful.

The Construction region(bottom right)

The Construction region is the most useful and most complicated region in the planet window. From this region you can select which ship to build, construct and planetary destroy structures, terraform regions on the planet, and investigate the ships in orbit around the planet. You go to different construction areas by clicking on the bar on the top right(ship, build, terraform, orbit). You can also use keyboard shortcuts for the yellow letters.

Ship Construction

Ship construction allows you to specify which ship type you are constructing. The image in the top left shows either the state of the ship construction if you've selected the ship you are currently building(top view) or an image of the ship you've selected(angled view). Below it is information about the ship currently being built. To the right is a list of all of the ship types you can build, the check mark shows the ship currently being constructed and the inverted text shows the ship type(in this case both are set to the Saturn class ship). Below is a text description of the ship selected. In the top right is a list of the cargo that can be loaded on-board the ship. The plus and minus buttons allow you to set the troops that are loaded on the ship when it's first created. If you select a troop type you can see an image of the troop type and a description. Below I've selected the Cyborg troops, note that I'm still building the Saturn class ship.

Structure Construction

The structure window is how you create, destroy and find out information about planetary structures you can place on your planet. The image will show the planetary structure, and if it's not complete, you can quickly see the progress made so far. Below it is the name of the structure, the cost, the upkeep and whether it is shielded from orbital bombardment. The top right has a list of all of the structures that can be built, along with the icon used to represent them on the surface image. Below that are a set of buttons depending on the context: If the structure has not yet been started, then a create button is present. If the structure is being built there is a pause and a destroy button. And if the structure is complete, there is a destroy button(In this image the structure is complete). In the bottom right is a text description of the selected structure(you can click on different structures to read information about them).

Terraforming

The terraforming window will give you a text description of each of the twelve terrain types in Starbound II, along with the maximum population, the current population, and whether you can build on this terrain type. Clicking on the name will bring up the description. The text below the terrain image will also inform you if this terrain is shielded from orbital bombardment and if because of a nearby farming structure you can house extra people there(In this case an extra 13,360 people). If the terrain you select is different then the terrain actually present, a terraform button will be appear(in this case you have the option of terraforming the hex to Ocean). Click that to begin terraforming. If you are in the process of terraforming, there is a stop and pause button.

Orbital View
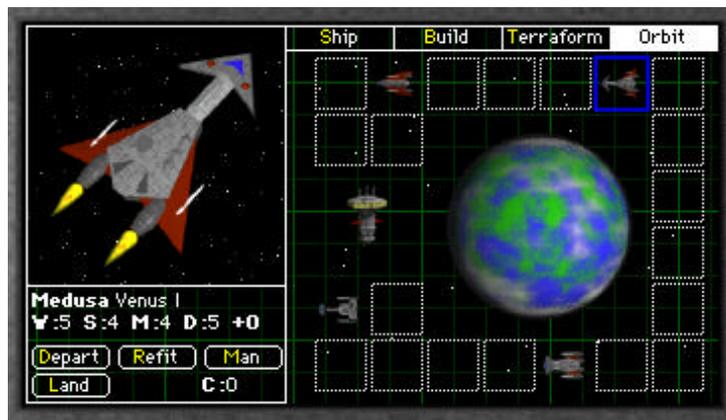
The orbital view allows you to:

- Move ships in orbit by clicking on a ship(the blue square) and clicking on an empty square.
- **Order a ship to leave orbit.** This is done by clicking on the ship, then clicking on the leave button. A red border will surround the ship, letting you know that the ship will leave the next turn. All the ships leaving will form one fleet.
- **Refit a ship.** This allows you to upgrade the tech levels of a ships and/or refit a new generation of ship systems if you have designed a new generation of that ship type. For example, if I had created a Saturn mark II design, I would be able to refit the Gabriel shown above. (Note: You can't see this button in the above screen shot).
- **Alter the ship's manifest.** This allows you to alter the cargo that the ship will load at the end of the turn. Remember, altering the manifest will not effect the cargo on board until the next month.
- **Land a ship on the planet to add colonist to a planet and build a new city using the ship.** This is done by selecting a hex on the surface region and hitting the land button. You'll see an animation of the ship landing with information about the number of colonist and the scrap value of the ship. You may only land a ship on an empty hex.
- **Colonize a hex.** This allows you to land a drop ship on the world and add the ship's colonist to the planet's population. (Note: You can't see this button in the above screen shot).

Note: You can cycle through the ships in orbit by hitting the tab key.

Landing window

The landing window will appear when you are colonizing a new world or reinforcing a world you already own. Although it's possible to move a ship into orbit and then land, reinforcing saves you the turn of parking your ship in orbit. And in games with the fleet option off, reinforcing a planet is the only way to land a ship on a planet that you already own. On the top is an image of what the landing window looks like when landing on a new world, and on the bottom is the landing window when you are reinforcing a world.
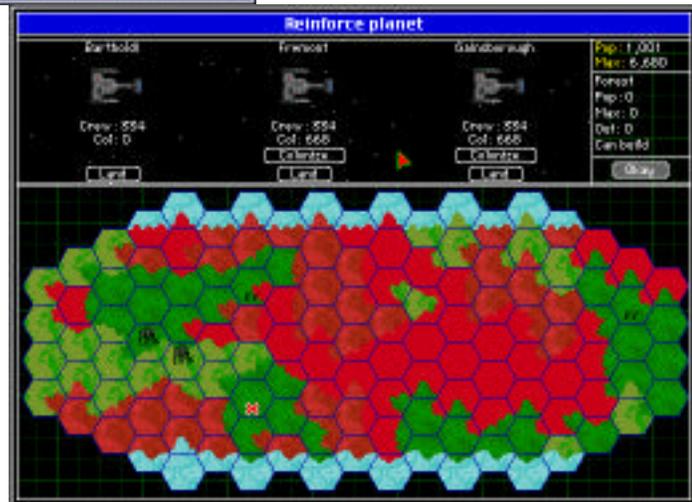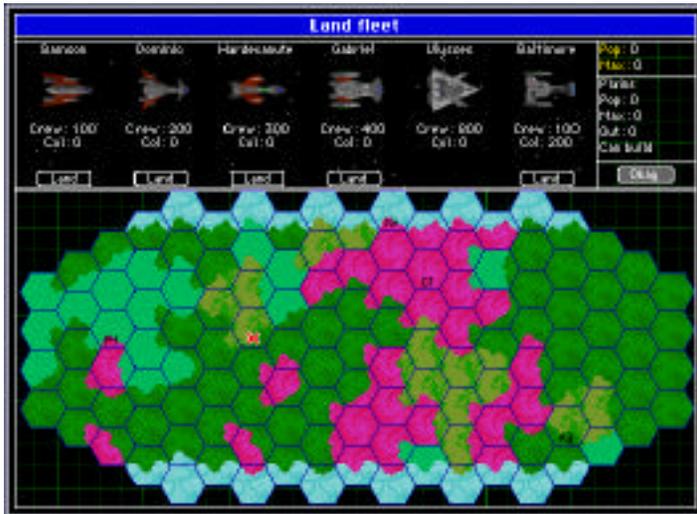
The left image is a fleet colonizing a new world. On the top left is information about each ship, the number of crew and colonist it contains, and a button to allow them to land on the planet(Note that dreadnought class ships may not land on a planet). You may also colonize a planet, which means that you only send down the colonist that are on-board the ship (note that the ship with 0 colonist is unable to colonize). On the top right is information about the total planet population, the maximum amount the planet may hold, and information about the selected hex(the red x). This tells you how much the hex can hold(don't worry, excess population will spill over to other hexes), it's current output and whether you can build there or not.

Clicking the okay box leaves the landing window and ships that have not been landed remain in the fleet.

Trade

Trade is a key component to achieving victory in Starbound II. Building a large and diverse trade structure can greatly increase the output of an empire. Trade in Starbound II is based on the idea that trade between distant worlds increases the overall output of an empire, and trade with alien worlds increases it even more. Every world has it's own slightly different economy, where certain goods are common and others are rare. By building trade fleets that ship goods from one world to another, you can take advantage of that diversity.

Trading in Staround II is easy, simply take a trade ship to a world, pick up trade goods, navigate the trade ship to another world and drop the trade goods off. Trade goods are collected from and deposited to your planetary reserve. The further apart the two worlds are the greater the increase in the effective value of the goods will be. For example, human trade ships carry 400 units, and the effective value increases by 10 for each hex distance the two worlds are. So a trade ships that picks up 400 units from Earth and carries them to Proxima (8 hexes away) will drop off 480 units into Proxima's reserve. This trade ship can then pick up 400 units from Proxima and return them to Earth and deposit 480 units in Earth's reserve. Trade ships can be used to trade between worlds, or if you only drop goods off in one direction, they can be used to increase a worlds effective output.

The path function in the fleet window is an excellent way to set up trade routes. It's important to realize how vulnerable trade ships are, so be sure to escort them with some defensive ships.

Trade with an alien world can pay off even more. When you trade with an alien world, the distance bonus is generally much higher. So for the Humans, if we were to trade with the Ceptri world of Kenta (8 hexes away) instead of Proximus, the effective cargo would be worth $400 + (10 + 20) \times 8 = 640$ units, when we brought the goods back to Earth. There are a few things to note when you trade with Alien worlds though: 1) You must have goods in your cargo hold when you go to trade (it's called trade, not stealing!). 2) You must have at least a trade agreement with the race in order to trade with them (see diplomacy).

An empire with a good trade network developed will be much more powerful than an empire that devotes itself to exclusively building warships. And trade hilights the power of using diplomacy to build formal diplomatic agreements with other races. A race with a trading partner can be a formidable opponent. Of course, trade fleets make great targets...

Research

If you have decided to turn the research option on at the start of a game, you will be in charge of directing the development of technology for your empire. To do this, select the research item from the empire window:
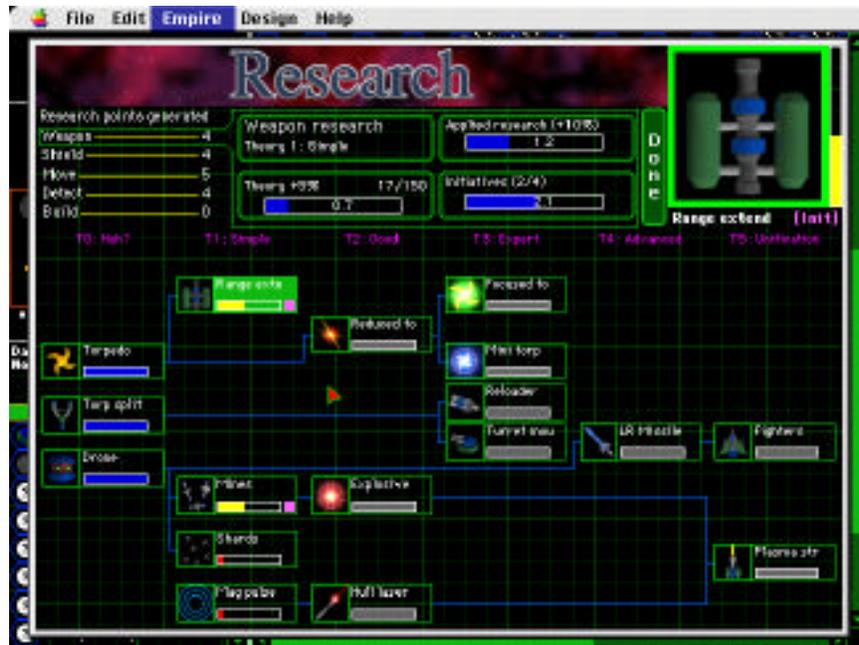
Research areas

Research is divided into five categories (weapons, shields, move, detect and build). Each planet in your empire will contribute a number of points toward research. Research in one area cannot be used in any other area. The number of research points for an area is calculated by:

- For weapons, shields, move, detect
  You get one research point for each tech on each of your planets (i.e. Planet 1 has weapon tech 4 and planet 2 has weapon tech 2, you get 6 weapon research points).

- For build
  You get one research point for each ship class improvement on the planet (i.e. Planet 1 has 2 ship class improvements and planet 2 has 3 ship class improvements, you get 5 ship building research points).

To select a research area click on it's name at the top left of the dialog. In the picture above, I have selected the weapons research field. To the right of the list of fields are four boxes that represent the theoretical knowledge you have in the field (between 0 and 5), and how much you are spending on theoretical research, applied research and initiatives.

- **Theoretical research**
  Theoretical research has two benefits: First, in order to research an item, you must have a theory level equal or greater to the items requirements. For example, Mini Torpedos require a theoretical knowledge of 3 (Expert). The second advantage to developing theory is that it increases the effective spending on applied research by 5% for each level. For example, if you have a theory knowledge of 4, all of your applied research receives a bonus of 20%. Often it is smart to develop a strong theoretical

spending program early on and then rapidly surpass other races with your increased effective spending.

- **Applied research**
  Applied research represents research energy spent on all available projects, much like giving money to a large research lab and not specifying a particular project to develop. Undirected research spending is usually slightly more effective then research inititives, but the results are more random. The applied bonus represents how much more effect applied spending is then spending on research initiatives. This value varies by race, so some races are much better at using undirected research money then others.

- **Initiatives**
  Initiatives represent research spending directed toward one or more specific technologies. Although not as effective as applied research, you can use initiatives to totally control your races progress through the technological tree. To make a research item an intiative, simply click on it in the tech tree, then click on it's name under the large image at the top right of the research dialog. A small purple box will appear to the right of the progress bar. In the image above, I have made Mines and the Range extender research inititives.

Note: Starbound II is smart about your research spending, if you have research spent on initiatives, but no research items are selected, then those resources will go into applied research. Also if you currently can't research any tech item, all of you research will go into theoretical research.

Technological tree

Below the research area portion of the research dialog is the technological tree, this graphic shows the theoretical level needed to research an item an the parents that must be known before an item can be researched (the blue lines). For example, in order to research the plasma stream you must have a theory level of five and know the explosion and hull laser tech items. Each race will have it's own technological tree for each of the five research areas, so spend a moment looking at the tree at the start of the game.

Diplomacy
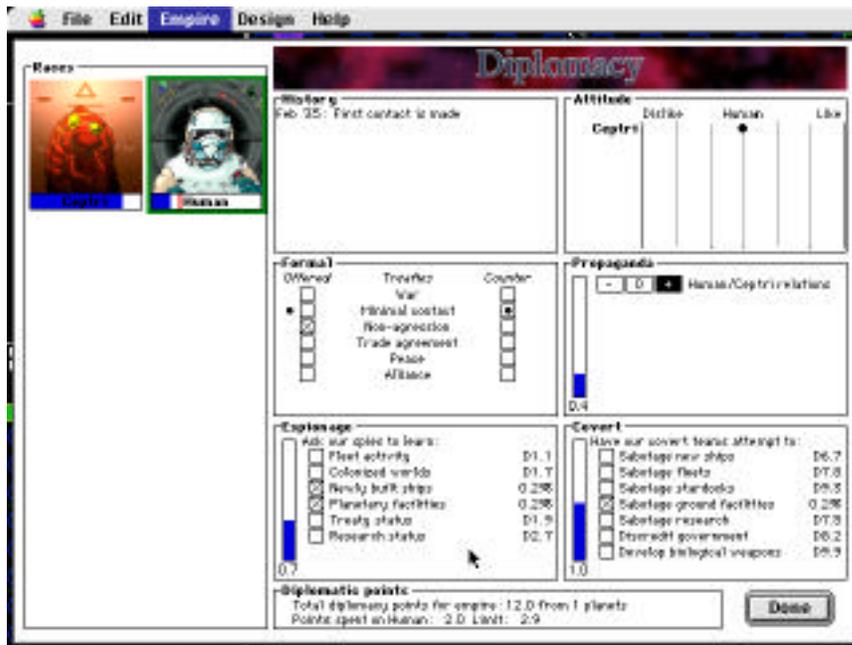
Diplomacy on others
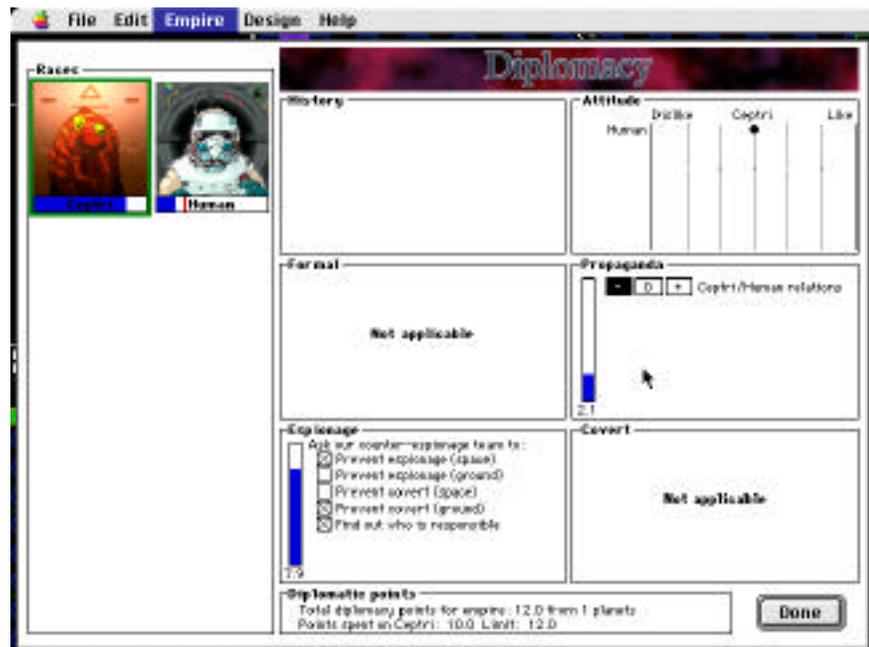
Diplomacy on self

If the dioplomacy option is activated at the beginning of the game, then you will be able to control the diplomatic actions of your empire throughout the game. Diplomatic action are purchased through diplomatic points. A fully developed planet will contribute around 15-20 diplomatic points to your empire (although this can change based on your race's diplomatic skill). Each planet's diplomatic points are based on the square root of their

output divided by four, multiplied by their diplomatic point multiplier (see the race guide). A broad number of actions fall under that category of diplomacy:

- Formal agreements. Formal agreements are legally binding documents (so far, every sentient race has some form of law) that state the official attitude between two races. Because of the barriers of langauge and culture, most formal agreements are simple. Formal agreements will limit the action that you can take, for example, if you have a non-aggression agreement or above, you cannot attack the race. You must first change the agreement, wait until the end of the month and then you can attack. The circles in the formal agreement boxes represent the current formal agreement and the X represents how you want to change it in the next month. Below is a list of the formal agreements and what they represent:

    - **War** - You are in a state of war. Everything goes.
    - **Minimal contact** - Similar to war, but a less agressive stance. You can still attack fleets, but you agree that attacking planets is out of bounds.
    - **Non-agression** - You may not attack planets or fleets. You can still use covert operations to damage the enemy though.
    - **Trade agreement** - You agree to allow trade ships between your two races. Trade agreements can pay off greatly since the benifits of trade between alien worlds is much greater then trade within your empire (see trade).
    - **Peace** - You agree not only to trade with each other but to trade cultural and scientific knwoledge. Pragmatically, peace is no different than a trade agreement, but to your people peace can greatly increase their security, happiness and productivity.
    - **Alliance** - Alliances are the highest level of formal agreement that two races may have. It represents a mingling of their governments at all but the highest level. Once an alliance is formed it cannot be broken. Nor may your race do any covert operations on each other any more.

    Only the lowest formal agreement level holds, so if you offer peace with a race that is only offering you minimal contact, you are bound only by the limits of minimal contact. Also, your people will want you to form formal agreements that match your races attitude toward that race. The six areas in the attitude box (seperated by dashed lines) show how your race feels about other races.

- Propaganda. Propaganda is your empires ability to sway the perceptions of other races (and your own). **Do not underestimate the power of propaganda!** You can use propaganda to change not only your own feelings about races, but each others. A powerful diplomatic race can use propaganda to force two races into war and mop up the remains afterwards. To use propoganda, click on the race whose perceptions you wish to change. Then in the propaganda box, click on the relationship you wish to sour (or improve). Each diplomatic point will change the attitude of a race one percent every six months.

- Espionage. Espionage represents actions that, while not totally legal, do not do any real damage to the race you are spying on. Knowledge is power, and espionage can often find out information that a fleet of patrol ships could not. The list of espionage activities are:

    - Fleet activity (space) - If your spies are sucessful, you will be able to observe fleet activity for the entire month of every ship in the races fleet.
    - Colonized worlds (space) -If your spies are successful, you will see the newest world colonized by the race.

- Newly built ships (space) - If your spies are successful, you will be able to see the newest ship built by the race.
- Planetary facilities (ground) - If your spies are successful, you will be able to see the surface of a planet, including all of it's ground facilities.
- Treaty status (ground) - If your spies are successful, you will be able to learn the treaty status of a race with all the other races.
- Research status (ground) - If your spies are sucessful, you will learn the theory level and current project of the race in each field.

To the right of each espionage action is the relative difficulty of the task. The D value is the number of diplomatic points required to buy a 1% chance of the action occurring. **Note: if you select more then one task, the diplomatic points for the area (under the blue bar) will be split for each task.**

- Covert operations.
    - Sabatoge new ships (space) - A covert team will destroy a ship being built in a stardock.
    - Sabatoge fleets (space) - A covert team will destroy one or more ships in a fleet by sabatoging the leap drive of certain ships in the fleet.
    - Sabatoge stardocks (space) - A covert team will try the impossible, penetrate a alien stardock and cause a reactor overload. Very hard to accomplish, but will destroy the stardock and possible all the ships in orbit.
    - Sabatoge ground facilities (ground) - A covert team will attempt to overload a ground reactor causing one or more ground facilities to be destroyed.
    - Sabatoge research (ground) - A covert team will attempt to destroy a research lab, setting back research on one or more items.
    - Discredit government (ground) - A covert team will attempt to discredit the government, lowering the happiness of the entire empire for a period of time.
    - Develop biological weapons (ground) - A covert team will attempt to introduce a biological weapon to a world in the races empire. This is extremely hard and risky to do. After a biological attack, many races will do nothing but try to wipe your race out. Biological attacks can decimate entire worlds.

Covert operations also have difficulty factors (that are much higher), that will givee you an idea of the difficulty of the action.

- Counter-espionage. If you select yourself in the diplomatic dialog, in the area usually reserved for spy action will be a list of counter-spy actions (see below). When you select an action from the counter spy list, your diplomatics points for that area will be subtracted from any race attempting to use spy or covert operations on you. You may also select "find out who is responsible" and have a chance of determining the culprit. Like spy and covert actions, the more actions you select, the more your diplomatic points for that area will be divided.
    - Prevent space espionage - attempts to prevents all of the (space) espionage actions.
    - Prevent ground espionage - attempts to prevents all of the (ground) espionage actions.
    - Prevent space covert - attempts to prevents all of the (space) espionage actions.
    - Prevent ground covert - attempts to prevents all of the (ground) espionage actions.
    - Find out who is responsible - attempt to tell you who did it after the fact.

Finally, on the left hand portion of the diplomacy dialog is a list of all of the races in the game. If the name is italicized, then you have not yet encountered them. In order to use diplomacy on a race you must first find a world they control. After that you will be able to use diplomacy on them, but for some time, you will be limited in the amount you can spend. The red line in the spending bar under each race represents the limit to diplomacy spending you can use on a race. As the game progresses and your spy network learns more about the race, the limit will increase (every three months). The race guide for the race will tell you how much your diplomatic limit will increase every three months.

Space combat: calculated

Calculated combat speeds up game play immensely by allowing you to focus on the strategic elements of the game and ship design. Fleet level tactics are not your concern. Below is an image of the calculated space combat window. Combat will resolve itself in a few seconds as you watch. Below is a picture of the calculated space combat window:
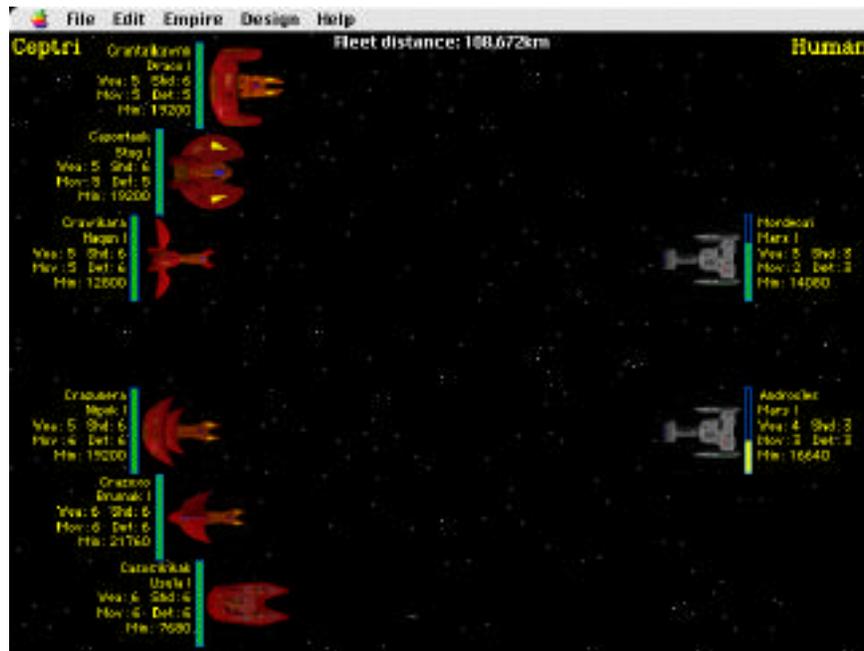
You can increase or decrease the speed of the space combat window by pressing the '+' and '-' keys.

Space combat: strategic & real-time

Strategic combat can be played one of two ways: either in a simultaneous turn-based approach, or in real-time. In both cases game play will be similar. The only exception is that in turn-based strategic combat players are given breaks to consider tactics (you hit return to continue the turn). The strategic combat window is shown below:
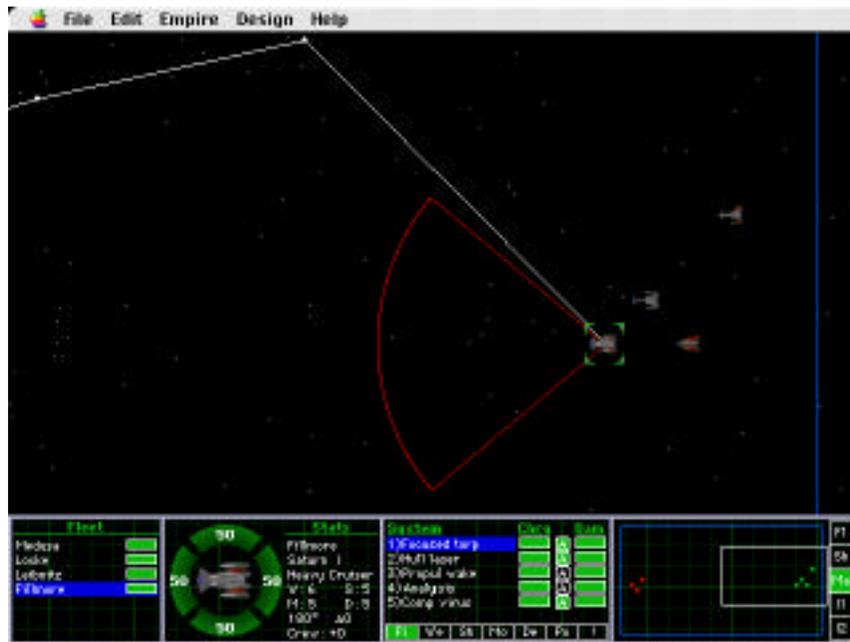
The strategic combat window contains six components:

The main view

The main view has two zoom levels, so you can look at action over a large or small region of space or zoom in to look at a particular battle. Each of your ships can be selected by clicking on them. The current friendly ship is high-lighted with a green box(bottom middle).

Movement

The current ship can be given way-points to follow by clicking on empty space to set the first way-point and holding the shift key to add more way-points. Each way point ends with a dot. You can remove the last way-point by hitting the delete key. If you want to set a destination were a ship is present, holding the shift key will force a way-point(even the first one) no matter where you click. Only the path of the selected show is shown so that the screen doesn't become too cluttered.

Targeting

To select a target for the current ship, hold down the command key while clicking on a ship. This will put a yellow corner marker around the target(The satellite in this case). If the target is within the firing arc(the red wedge), your ship will fire whatever systems are activated(more on this latter). Some weapons can fire outside of the firing arc.

Note: If you assign a ship a target and no path, the ship will automatically head toward the target until it is close enough to fire.

Enemy info

Clicking on an enemy ship without the command key down will bring up information about the ship on the bottom right. The current enemy will have a purple edge marker. clicking on the ship again will deselect the ship and the bottom right will show the enemy fleet status.

Fleet summary

The fleet summary on the bottom left list the names of each ship and a bar representing how their shields are doing. Since Starbound II uses directional shields, don't trust the bar too much, it averages all of the shields. So there could be a case where a ship is just getting pounded on side and looks like it's doing okay.

Friendly ship status

To the right is the friendly ship shield display. This informs you of the state of each of the four shield generators on board ship. Once a shield is down, damage begins to effect the hull directly. The hull values are displayed in red, once the shield is down. Not only will this likely lead to the damage of key systems, but once to hull has reached 0 the ship will be destroyed. Each of the four ship section also has it's own hull value, so damage to the port hull won't decrease the value of the rear hull. It is also possible that a computer virus will take your shields off-line, if this occurs the shields will appear blue and the red hull values will appear. A ship's hull value is determined by it's ship class, see the ship type descriptions for more information. To the right of the shields is a list of the ship stats. This area tells you the name, type and generation of the ship. Below that are the weapon, shield, move and detect values, certain weapons can decrease these stats. Below that is information about the angle and speed of the ship.

System list

To the right of the stats is the system list. The system list has seven categories, one for the fire control systems, and one for the other systems on board the ship in each category: Weapon, shield, move, detect, power and one for crew messages. By clicking on the bottom boxes you can examine every system on-board your ship. Every system on the ship has a damage bar and there is a slight probability every time the ship is damaged that a system may be damaged. If a ship is damaged in an area without shields, that probability is greatly increased. Fire control systems also have a charge bar and an activation button. Once a weapon is fired it takes sometime for it to be recharged, while the system is recharging the bar will display the amount of time left and be purple. Some systems can remain activated for certain periods of time(for example, a cloaking system) while a persistent system is on, the bar is blue and shows you amount of time left until it needs to be recharged. Deactivating a persistent system before it runs out of time will decrease the amount of time needed to recharge. Clicking on the activation button will tell that system to fire as soon as it is recharged. A few systems have a limited number of shots, in this case the number is listed in the damage bar. Finally, it's also possible for a system to go off-line when infected with a virus. If this happens to the right of the name will be the text "Error" and the number of minutes until it is back on line will be displayed. Each turn in turn-based combat is 10 minutes.

The crew message area(the "!" in the bottom bar) informs you when the crew has gained or lost experience and when the crew effect has occurred. Some crew effects include: Repairing damaged systems, rebalancing the shields, finding weaknesses in opponents

shields and systems, increasing system effectiveness, increasing ship thrusts and other effects. Crew effects can change the balance of the game, so be sure to keep track of them and exploit them as much as possible. Ships with a high crew rating are powerful units and should be guarded and upgraded frequently.

Additional information area

On the right of the status bar is the additional information area. This area can be used to look at the enemy fleet, look at a specific enemy ship, look at the map of the area of combat(the bue rectangle is the retreat edge), and go over the instruction for turn-based strategic combat. I would highly suggest going over the instruction areas a few time just to make ure you are acquainted with the keyboard commands.

Strategic combat notes:

- If you have a ship with an analysis system, you can find out information about the state of the enemy ships systems by targeting the ship and activating the analysis system(it requires a fire-control system). Once you do a window will appear next to the ship, much like the system list. you can click on the bar at the bottom right to look at the different systems.

- When a ship of yours is cloaked, a green highlight will appear around the ship. If an enemy ship suddenly appears with a green highlight, that means that your detection systems have seen through the cloak. He doesn't know, so feel free to lure him in.

- When you activate a holographic projection system, a copy of your ship will appear right on top of you with a green edge. Click on the hologram and give it a destination. Your opponent won't see the green edge so he won't know which ship is the hologram. If your opponent clicks on the ship it will read just as yours does. Note also that you can't give hologram way-points just one destination.

- If a ship suddenly gets a green edge that means it's a hologram and your detection systems have figured it out. To be sure, select the enemy ship and it will say that it's a hologram.

Strategic key commands:

'	Select ship
,	Select system
<, >	Select weapon
Space	Activate toggle
Return	End turn
Z	Zoom
X	Expand
C	Center
N	Target next enemy ship

Strategic mouse commands:

On unit	Select
On enemy	Info
+ command	Target
On space	Destination
+ shift	Add way point

Planetary combat window

Orbital combat begins once a planet's defensive fleet has been destroyed and an enemy fleet is in orbit around the world. If the surface combat option is set to "None" then it is assumed that the enemy fleet in orbit destroys the planets defenses and can begin sending down colonist immediately(and you never see the orbital combat window). If the surface combat option is set to "Calculated", "Strategic" or "Real time" then at the beginning of each month the orbital combat window will open for each planet that has an enemy fleet in orbit.
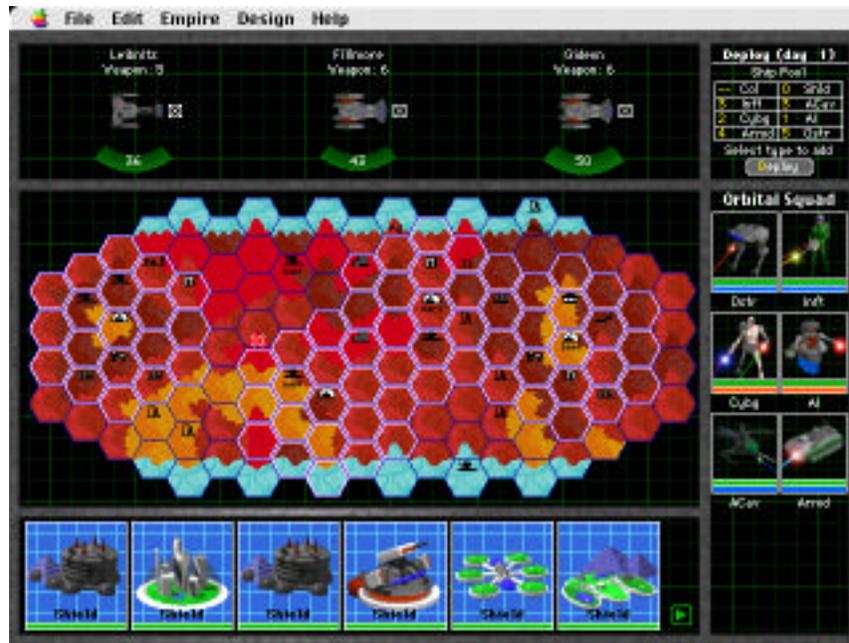
The orbital combat window is made up of five areas. At the top left is the **orbit area**, which shows which fleets are in orbit, their weapon strength (x 2 if the ship has an orbital bombardment device) and the current shields of the ship. At the top right is the **summary area** which contains instructions and some information. In the middle left is the **planet surface**, which displays the structures and squads on the planet's surface. At the bottom left is the **structure list**, a list of all of the structures on the planet, their defensive strength(the green bar at the bottom), and whether their are shielded or not by planetary defenses. This list will also display the active structures, for example, during the plantary deployment stage it will show all of the barracks. To the right is the **squad area** which displays the health and ammunition of the current squad.

Each turn of orbital combat encompasses five days, so there are six turns of orbital combat during each turn in the sector window(each turn in the sector window is one month). Each orbital combat turn is divided into six stages:

Planetary bombardment

Each ship in orbit is allowed to orbitally bombard one target, this may be a structure or a terrain hex. If there are enemy troops located in this hex then they will also take some damage, less if they have a portable shield unit. To fire on a hex simply click that hex on the surface window. To leave orbit, click on the leave button in the summary area. When a structure has take sufficient damage it will be destroyed. Terrain will be blasted into unlivable craters after sufficient damage. Ships may also decide to leave orbit at this stage.

Planetary defense

Each planetary defense system is allowed to fire at a ship in orbit. The planetary structure will do the same amount of damage as the planet's weapon technology level. To fire at ship in orbit, simply click on the ship. If for some reason you wish to skip firing from a orbital defense, click on the skip button in the summary area and you will move to the next planetary defense system. Planet's with a large number of defense systems can quickly decimate an invading fleet.

Orbital deployment

The orbital fleet may deploy one squad each turn composed of troops in the cargo holds of all of the ships still in orbit. The summary area will list all of the available troops. Click on a unit type to add it to your squad. A squad may contain up to eight units. To remove a unit, click on the unit in the squad area. Click on the deploy button to send the quad down to the planet in a drop ship. Troops may be landed by drop ship on any hex unoccupied by a structure or a squad.

Planetary deployment

Planet's are allowed to deploy one squad from each of their barracks. The summary area will list the number of troops available in that barracks. Click on the unit to add it to your squad, and click on the deploy button when you are done. If you already have troops in that hex, then the units will be added to the squad. If the hex contains enemy troops, then you will immediately enter combat.

Planetary troop movement

Squads owned by the planet are allowed to move one hex each turn. Holding down the command button allows you to scan an enemy squad, or the health of a structure. Moving a squad into a hex occupied by an enemy squad will begin ground combat. Moving a squad into a hex occupied by a friendly squad will allow you to transfer troops.

Orbital troop movement

Squads owned by the orbiting fleet are also allowed to move one hex each turn. Holding down the command button allows you to scan an enemy squad, or the health of a structure. Moving a squad into a hex occupied by an enemy squad will begin ground combat. Moving a squad into a hex occupied by a friendly squad will allow you to transfer troops. Moving a squad into a hex occupied by a structure will allow you to attack the structure directly. Because of the nature of planetary defense systems, ground attacks against unguarded structures are highly effective ways of destroying them. Although quantitatively a star ship has weapons hundreds of times more powerful then a infantry unit, planetary structures have little defense against a ground assault except to protect itself with it's own troops. If a troop occupies a hex with a structure it will damage the structure at the end of its turn.
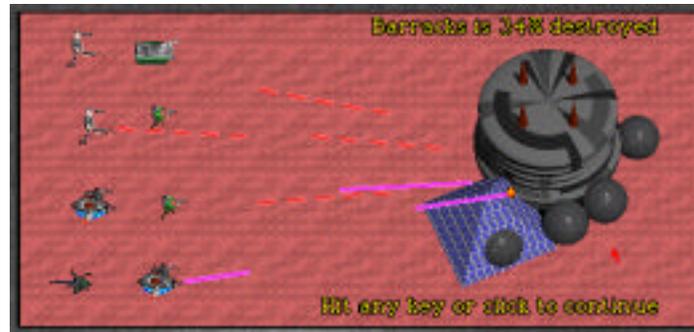
At the end of the orbital troop movement stage, the next orbital turn begins. At the end of six orbital turns, orbital combat is continued on another planet, or the sector turn begins.

Ground combat: calculated

When two squads occupy the same hex, ground combat begins. Depending on the ground combat setting you chose at the start of the game, ground combat will be resolved in one of three ways. This section describe ground combat if the calculated option has been choosen.

Calculated ground combat takes into account the make-up of both squads and mathematically determines the winner based on the unit strengths, the terrain, and the luck of battle. This way you do not need to spend time managing each battle. Below is an image of the calculated ground combat window:

You can increase or decrease the speed of the space combat window by pressing the '+' and '-' keys.

Ground combat: real time

When two squads occupy the same hex, ground combat begins. Depending on the ground combat setting you chose at the start of the game, ground combat will be resolved in one of three ways. This section describe ground combat if the real time option has been choosen.

The real time window is composed of five areas:

The main area

The main window offer one of two views of the battle field, either the normal view(show above) or a strategic view, which shows an area twice as large(you toggle between these two views using the 'z' key). Clicking on your own piece will select that piece, shift clicking on a piece will add it to your group, command clicking on a piece will make that unit the current piece and not remove the member if it is in the current group. Clicking on an enemy piece will select it in the target window(bottom right) and command clicking on a enemy piece will make the selected group attack the enemy piece. To give a group a destination, simply click on an empty area area in the battle field. A small blue box will display the destination. Using the shift key you can add way points to the destination, which will also appear as small blue boxes.

The squad area

The squad area displays all of the units in your squad, along with a bar representing their armor. Units with a blue outline are the selected group, and the unit with a small white square in the top left corner is the current unit. This is the unit that will be centered on the screen if you hit the 'c' key and it is also the unit displayed in the unit area. You can select units from the squad area just as if you were clicking on them in the main area, using the shift and command keys to alter the group.

The unit area

The unit area displays information about the current unit. Including an image, the unit type, the current armor(the 'A' bar), stats about the unit, stats about the primary weapon,

stats about the secondary weapon and the number of charges the secondary weapon has remaining. There are four buttons in the unit area. The question mark will bring up some instructions. The "off", "on" and "lock" buttons set the status of your secondary weapon. "On" will fire the secondary weapon once and then go to the "off" status, whereas "lock" will continue to fire the secondary weapon until turned off.

The map area

The map areas gives you a large scale view of the entire battle field. Your units are bright green, and the enemy units are bright red. The white box shows which area of the battlefield you are currently viewing. You can move the view area by clicking on the map, and scan the area by dragging the white box.

The current target area

The current target area show the currently selected enemy unit along with the unit's armor.

Real time ground combat proceeds until all of the units from one side have been destroyed.

Real time key commands:

A	Select all units
S	Select left units
D	Select right units
Z	Zoom toggle
C	Center on current unit

Real time mouse commands:

On unit	Select
+ shift	Add to group
+ command	Select in group
On enemy	Info
+ command	Target
On ground	Destination
+ shift	Add way point

Ship design

If the Ship Design Option is on, you will be able to design your own ship types during the course of the game. Designing a ship is a fairly easy task once you understand the basic mechanics behind how a starship works. To access the ship design dialog, select the "Ship design..." item from the empire menu.
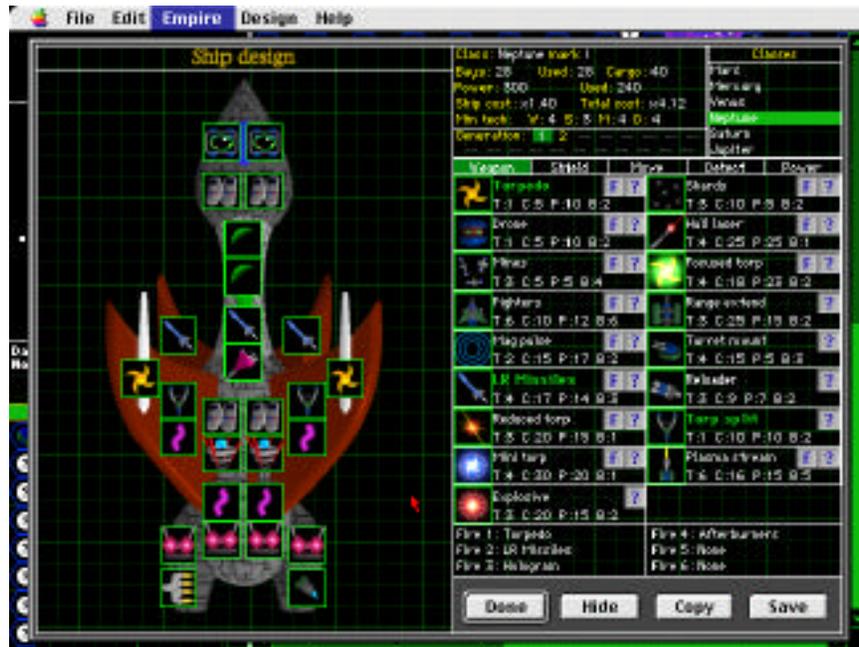
Each race in Starbound II can have up to eight different hull designs in the course of progressing out into space. One of these hull designs is for a standard Stardock and one is for a standard interplanetary trade ship, these designs are not alter though the course of the game. The other six hull designs (some races may have fewer, but six is the maximum) have all been built to employ a plug in modular system of bays. Each bay is the same size(10m x 10m x 10m), and are connected into a standard power system. If you play Starbound II with the Research Option on your scientist will develop these systems over the course of the game, if not, it is assumed that your scientist have already developed all of the ship systems before play began.

When you open the ship design dialog will see an image of the ship class that you are designing along with information about the current design, and a list of the systems that you can add to the design under five categories: Weapons, Shields, Movement, Detection and Power. Below that list is a list of the fire control systems that have been installed. All ships must have a minimum set of systems. These are:

- A weapons system
- A shield system
- An engine for intra-planetary movement
- A leap drive for inter-planetary movement
- A powerplant

Without all of these minimum systems the design cannot be implemented. Also a ship must have a system assigned to every bay. If you don't want to install any more systems you

can fill in empty bays with Cargo holds(under the power system type). As the game progresses you will design higher generation ship designs. All planets build the highest generation ship design that has been implemented. You are allowed to have 19 generations of ship designs for each ship type. Older ships do remain the generation that they were when built unless they are refitted at a star dock. The Ship design dialog has 6 components: The ship image(left), the design information(top center), generation information(top center), ship types(top right), system list(center right), the fire control list(bottom right) and the bottom buttons.

The Ship Image

Shows the ship type and all of the bays and their contents. If you click on a bay while no system is selected the system list will change to show the system you clicked on and your cursor will change to the install cursor. If a system is selected and number of the bays will pulse a purple color telling you where that system may be placed. Some systems may not be installed in certain types of ships. If you have a system selected and no bays pulse, then this type of ship may not have the system. For example, only the dreadnought class is large enough to support fighters. If you click on a bay that is pulsing, it will replace the current contents with the selected system. If the selected system is the same as the current contents, it will empty the bay. If you want to just look at the ship without the bays, you can click on the hide bays button. Note: if you are looking at a design that has already been implemented you may not change it. If you want to modify a design, click on the copy button and that generation of that design will be copied to the new design generation and you will be moved the new design generation so you and can alter and implement it.

Design Information

Shows general information about the current generation of the design. This includes the full name of the design, the number of bays and the number used, the power from the powerplant and the amount used, the ship cost(the base cost of that hull) and the total cost(the cost of the hull and the systems on board), and the minimum tech levels required to build the ship.

Generation Information

Just below the design information area is a list of the generations created so far for this ship type. you can click on the numbers to go to another generation of the design. Numbers in white represent designs that have been implemented, the last white number is the current design generation. The number in yellow represents the new design generation, this is the design you can alter and eventually implement.

Ship Types

Shows a list of the ship types that you can design. Clicking on one of these names will take you to a different ship type.

System List

This is the mechanism by which you select and find out information about specific ship systems. At the top are five rectangle you can click on to view the different ship system categories: Weapon, Shield, Move, Detect and Power systems. Underneath is a list of all the systems you can currently install in a ship. Each entry has the system icon, the name, the minimum tech required(T), the cost(C), the Power(P) and number of Bays(B). If a system is fully installed, the text will be in green, if it is partially installed the text will be in yellow. Also every system entry has a question mark button which will give you information about the system. And systems that need to have a fire control have an F

button. Clicking on the F button will change the cursor to the fire control cursor, which you can then click on the Fire Control List to install.

Fire Control List

Contains a list of the fire control systems that have been installed in this design. All systems with an F button must have a fire control system installed. You can remove a Fire control system by clicking on the RMV button to the right of the fire control(not shown in this image).

Bottom buttons

- **Done**
  Leaves the design dialog. It does not, implement the design.
- **Show/Hide**
  Allows you to see the ship type with and without the bays.
- **Implement/Copy**
  If you are working on the new design the button will say "Implement" and by clicking on it you will implement the ship design. Several checks will be done to make sure that the design is valid, if it is not a Design Error alert will appear telling you what needs to be fixed. If you are looking at a design that has already been implemented the button will say "Copy" and by clicking on it you will copy the design to the new design generation and you will be moved to the new design generation so that you can edit it.
- **Save/Load**
  If you build a design you are particularly fond of you can save it for latter use. You will be prompted for a file name, and I've made a Designs folder to keep the files in one central location. I would recomend putting the name of race and the ship class in the file name. If you want to load a design you've previously built, click on load and select the file. If the ship is not compatible (e.g. it is the wrong class, the wrong race, you don't have a ship system that it uses) a warning will appear telling you what's wrong.

Notes on ship design

I recommend looking at the first generation designs(with the Research Option off) when you first start playing so that you can get a feel for how to design a ship. Use the copy button and play around altering designs paying close attention to the descriptions of the systems in this manual. Also be sure you understand how the power systems work.

Ship systems overview

In the tables below you will find a description of the 66 different systems that your starships can incorporate into their design. The systems are divided into five different areas: Weapons, Shields, Movement, Detection and Power. If you are playing a game with the Ship Design option on, you will be able to design your own star ship classes using these systems. You will also have to develop these systems as your progress through the game. If the Ship Design option is turned off then each class of ship will use a set of pre-defined systems and you will not have to research systems yourself, they will come with the creation of the ship class. Each class of starship has a certain number of bays in which to house Ship systems(see Ship Descriptions).

Min Tech represents the minimum technology level that you must have in order to be able to produce a ship equipped with this system in the category. For example, a ship may be designed with a fighter system, but only planets with a weapons technology of 6 or greater may build ships that have a fighter system. Be sure, when your designing ships to think about the minimum tech requirements of your current design group. If the technology minimums are too high, many of your newer planets will not be able to build ships until their technology levels have risen.

Fire is listed to right of several of the system names. This means that the system needs a fire control slot in order to be installed. Each ship has a maximum of six fire control slots, so be sure not to build a ship with more than six fire control systems(don't worry, the design editor won't let you implement a design with more then six). Since Starbound II allows you to resolve space combat in an arcade style, you may want to think about where to place certain systems in regard to your joystick.

Bays represents the number of bays required by the system. More advanced systems generally require more bays. Also, it's important to note that the cost and power requirements of a system is per bay. So a system with 4 bays actually uses 4 times the amount of power listed and costs 4 times as much.

Cost represents the modifier cost for installing the system. The total cost of building a ship is the (Ship Cost) + (System costs)/100. You'll see that an advanced ship will sometimes have cost modifiers up to 10! This is how much more expensive this ship is than an empty Cruiser. Remember that the cost of a ship is based on the technology level of the ship, so a W:1 S:1 M:1 D:1 ship is cheaper then a W:2 S:1 M:3 D:1 ship. The total cost is this base cost multiplied by the total cost for the ship type and the systems in the design.

Power represents the amount of power drawn by each bay of the system. In order to successfully implement a design you must have a power plant that generates more power then the power drawn by all of the systems. When you power plant is attack in combat this will cause systems to take longer to recharge.

Weapon systems

Torpedo   **Fire**
Min Tech: 1   **Bays:** 2   **Cost**: 5   **Power**: 10
Standard issue torpedo. The ship's weapon level increases the damage and
the detection level increase the guidance.
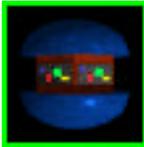
*Drone*   **Fire**
Min Tech: 1   **Bays:** 2   **Cost**: 5   **Power**: 10
Dropped in space it will follow any enemy ship that comes close to it.
Weapon tech increases damage. Costs 1 shield to deploy.

Mines   **Fire**
Min Tech: 3   **Bays:** 4   **Cost**: 5   **Power**: 5
Mines will cover a region of space which will explode if any enemy ship
passes through.

Fighters   **Fire**
Min Tech: 6   **Bays:** 6   **Cost**: 10   **Power**: 12
Fighter will leave the ships at a cost of 1 shield and attack the nearest
enemy ship. Any damage will destroy them.

Magnetic Pulse   **Fire**
Min Tech: 2   **Bays:** 2   **Cost**: 15   **Power**: 17
An area of effect weapon. Not as much damage or range as a torpedo, but
aiming is not necessary.

Long Range Missile   **Fire**
Min Tech: 4   **Bays:** 3   **Cost**: 17   **Power**: 14
These weapons have a huge range but take a fairly long period of time to
load and fire. Weapon tech increases damage.

Reduced Torpedo   **Fire**
Min Tech: 3   **Bays:** 1   **Cost**: 20   **Power**: 15
This torpedo assembly takes less space than a normal torpedo, but damage
is reduced by one level.

Mini Torpedo   **Fire**
Min Tech: 4   **Bays:** 1   **Cost**: 30   **Power**: 20
This torpedo assembly takes less space than a normal torpedo but delivers
the same amount of damage.

Explosive
Min Tech: 3   **Bays:** 2   **Cost**: 20   **Power**: 15
Added to a torpedo system, this will allow a torpedo to explode near an
enemy ship, causing damage in an area.

Shards   **Fire**
Min Tech: 3   **Bays:** 2   **Cost**: 10   **Power**: 5
Like mines, these objects are stationary and cause damage to ships that
pass through them. They do not disappear after use.

Hull Laser   **Fire**
Min Tech: 4   **Bays:** 1   **Cost**: 25   **Power**: 25
A short range omni-directional weapon.

Focused Torpedo   **Fire**

Min Tech: 4   **Bays:** 2   **Cost**: 18   **Power**: 23

This enhanced torpedo system increases the damage level by one. So a weapon tech of 4 does as much damage as a standard torpedo with a weapon tech of 5.
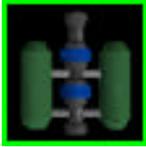
Range Extender

Min Tech: 3   **Bays:** 2   **Cost**: 25   **Power**: 15

This device increases the range of your ships weapons.
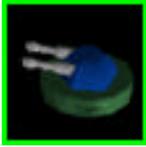
Turret Mount

Min Tech: 4   **Bays:** 3   **Cost**: 15   **Power**: 5

Increase the size of the firing arc for your weapons.
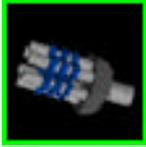
Reloader

Min Tech: 3   **Bays:** 2   **Cost**: 9   **Power**: 7

Decreases the amount of time needed to reload torpedoes, drones, mag pulse, LRM and Hull laser by 75%.

Torpedo Splitter

Min Tech: 1   **Bays:** 2   **Cost**: 10   **Power**: 10

Added to a torpedo system this splits the torpedo into two 3/4 strength torpedoes firing at slightly different angles.

Plasma Stream   **Fire**

Min Tech: 6   **Bays:** 5   **Cost**: 16   **Power**: 15

An extremely powerful weapon, this system fires a spray of high-energy plasma for a short range.

Shield systems
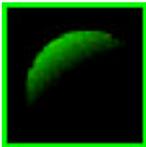
Normal Shield

Min Tech: 1   **Bays:** 2   **Cost**: 10   **Power**: 15

Standard shield system.
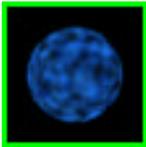
Stasis Field   **Activate**

Min Tech: 1   **Bays:** 2   **Cost**: 10   **Power**: 10

Creates an invulnerable shield around the ship for a brief moment. The ship may not fire during that time.

Holographic Projector   **Activate**

Min Tech: 3   **Bays:** 1   **Cost**: 15   **Power**: 15

Creates a double of your ship that mirrors your actions.

Cloaking Device   **Activate**

Min Tech: 4   **Bays:** 3   **Cost**: 10   **Power**: 12

Hides your ships from enemy scans. Higher shield tech prevents "flicker."

Reduced Shield
Min Tech: 3   **Bays:** 1   **Cost**: 30   **Power**: 20
A smaller shield assembly, the effective shield strength is reduced by one level.
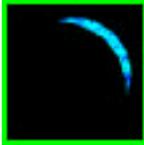
Mini Shield
Min Tech: 4   **Bays:** 1   **Cost**: 45   **Power**: 20
A smaller shield assembly with the same shield strength as a normal shield.

Damage Reduction
**Min Tech**: 5   **Bays:** 4   **Cost**: 15   **Power**: 2
Through the use of ablative hull materials damage from all attacks is reduced by one level.

Damage Absorption
Min Tech: 6   **Bays:** 3   **Cost**: 23   **Power**: 20
Energy from enemy attacks is redirected into the weapons systems, decreasing the reload time.
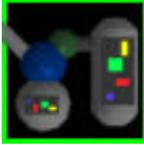
Shield Regenerator
Min Tech: 3   **Bays:** 6   **Cost**: 7   **Power**: 3
This huge system allows a ship to process it's own shield material in deep space, thus not needing to dock at planets.

Tuned Shield
Min Tech: 4   **Bays:** 2   **Cost**: 30   **Power**: 20
Although the same size as a normal shield assembly, this system increases the effective shield strength by one level.

Repair Drone   **Fire**
Min Tech: 2   **Bays:** 1   **Cost**: 25   **Power**: 15
Allows the transfer of shield material in combat from one ship to another. Each drone drains 10 shields and repairs 15.
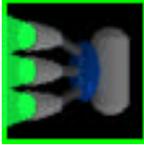
Shield Collector
Min Tech: 4   **Bays:** 4   **Cost**: 15   **Power**: 20
Allows reclamation of shield material expelled by ships when attacked. Range decreases the amount collected.
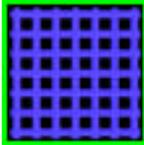
Superconductor Coat
Min Tech: 3   **Bays:** 4   **Cost**: 10   **Power**: 2
Distributes the damage from an attack to all four shield emitters, effectively reducing the damage.

Movement systems

Normal Engine
Min Tech: 1   **Bays:** 2   **Cost**: 15   **Power**: 10
Normal Newtonian engine used in the 23rd century.
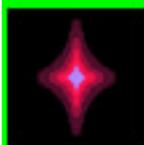
Micro Leap   **Fire**
Min Tech: 2   **Bays:** 2   **Cost**: 15   **Power**: 20
Allows a ship to randomly leap in the area of combat. As the movement tech increases the leap becomes more targeted.

Reduced Engine
Min Tech: 3 **Bays:** 1 **Cost**: 30 **Power**: 15
This smaller engine system reduces the power by one level but requires less space.

Mini Engine
Min Tech: 4 **Bays:** 1 **Cost**: 35 **Power**: 20
A smaller engine with better technology takes up less space but delivers the same amount of power.

Inertial Generator   Fire
Min Tech: 1 **Bays:** 2 **Cost**: 10 **Power**: 10
Allows the ship to instantly stop in space, great for dodging torpedoes.

Inertial Projector   Fire
Min Tech: 3 **Bays:** 3 **Cost**: 14 **Power**: 9
Allows the ship to hold a target in space, making it easier to hit.

Retro Rockets
Min Tech: 2 **Bays:** 2 **Cost**: 15 **Power**: 10
Increases the rate at which a ships can turn.
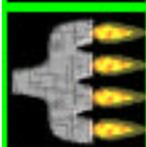
Afterburners   Activate
Min Tech: 3 **Bays:** 1 **Cost**: 27 **Power**: 23
Momentarily gives the ship greatly increased thrust.
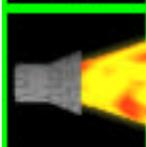
Propulsion Wake   Fire
Min Tech: 3 **Bays:** 1 **Cost**: 14 **Power**: 10
Allows the engines to damage enemy ships by focusing the propulsion.
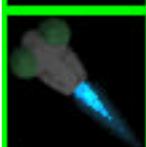
Enhanced Engine
Min Tech: 4 **Bays:** 2 **Cost**: 19 **Power**: 15
Due to advances in engine design this engine can produce thrust one level higher then the movement tech of the ship.

Normal Leap Drive
Min Tech: 1 **Bays:** 4 **Cost**: 10 **Power**: 5
Allows a ships to travel Faster Than Light at a rate of 1 hex/ movement tech.

Vibrational Leap Drive
Min Tech: 3 **Bays:** 4 **Cost**: 15 **Power**: 10
Allows a ship to travel Faster Than Light at a rate of 1.5 hexes/ movement tech.
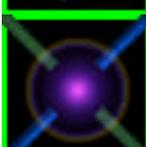
Gravimetric Leap Drive
Min Tech: 6 **Bays:** 3 **Cost**: 30 **Power**: 20
Allows a ship to travel Faster Than Light at a rate of 2 hexes/ movement tech.

Detection systems

Normal Detect
Min Tech: 1 **Bays:** 2 **Cost**: 10 **Power**: 5
Normal detection array, allows a ship to scan in a radius of 1 hex/detection tech.

Analysis
Fire
Min Tech: 2 **Bays:** 1 **Cost**: 15 **Power**: 5
Allows a ship to analyze the systems on board an enemy ship.

Anti-Missile Defense
Min Tech: 2 **Bays:** 1 **Cost**: 30 **Power**: 10
Allows ships to prematurely detonate long range missiles based on the detection tech of the ship and the missile.
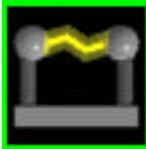
Draining System
Fire
Min Tech: 4 **Bays:** 3 **Cost**: 24 **Power**: 10
Draws power from enemy fire systems, forcing them to recharge before they can be used.

Reduced Detect
Min Tech: 3 **Bays:** 1 **Cost**: 25 **Power**: 3
This smaller detection array reduces the effective range of detection by one level.

Mini Detect
Min Tech: 4 **Bays:** 1 **Cost**: 30 **Power**: 3
More advanced detection technology allows this detection system to be smaller but suffer no penalties.

Targeting Computer
Min Tech: 4 **Bays:** 1 **Cost**: 35 **Power**: 10
Allows ships weapons to target the weakest area of the shields.

Defensive Computer
Min Tech: 3 **Bays:** 1 **Cost**: 30 **Power**: 10
Allows ships to prematurely detonate torpedoes based on the detection tech of the ship and the missile.
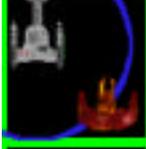
Proximity Detector
Activate
Min Tech: 2 **Bays:** 1 **Cost**: 15 **Power**: 10
Increases the chance of detecting cloaked ships, holograms, mine fields and shards.

Computer Virus
Fire
Min Tech: 5 **Bays:** 1 **Cost**: 55 **Power**: 20
Sends an computer virus to enemy ship computers that deactivates systems.
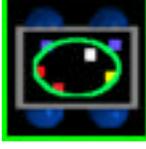
Enhanced Detect
Min Tech: 4 **Bays:** 2 **Cost**: 15 **Power**: 5
Advanced technologies allow ship detection to work at a range one higher then the ships detection level.

Hardened Systems
Min Tech: 5 **Bays:** 1 **Cost**: 10 **Power**: 1
The only defense against computer viruses.

Power systems
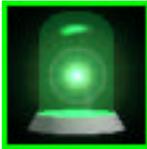
Power Plant
Min Tech: 1 **Bays:** 4 **Cost**: 10 **Power**: **+200**
Standard fusion power system employed by most starships.

Self Destruct
Min Tech: 2 **Bays:** 1 **Cost**: 15 **Power**: 5
By linking the power plant to a trigger a ship can be exploded to cause massive damage in a large area.

Reduced Power Plant
Min Tech: 3 **Bays:** 2 **Cost**: 25 **Power**: **+170**
A smaller power plant that produces less energy.

Mini Power Plant
Min Tech: 4 **Bays:** 2 **Cost**: 35 **Power**: **+230**
A smaller power plant that produces the same amount of energy as a standard power plant.

Multi-stage Plant
Min Tech: 4 **Bays:** 4 **Cost**: 25 **Power**: **+300**
The same size as a normal power plant, advanced multi-stage techniques allow this system to produce greater power.
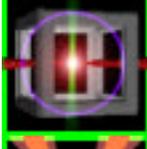
Singularity Plant
Min Tech: 5 **Bays:** 3 **Cost**: 40 **Power**: **+450**
Using different principles then a fusion power plant, a singularity plant produces vast amounts of power.
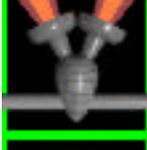
Energy Transfer **Fire**
Min Tech: 4 **Bays:** 2 **Cost**: 23 **Power**: 5
Allows a ship to drain power from an enemy ship and add it to their own, briefly increasing overall performance.

Terraform Pod
Min Tech: 3 **Bays:** 4 **Cost**: 24 **Power**: 5
Enormously expensive and large terraforming pods allow a ship to instantly terraform one hex on a planet.
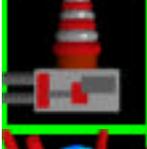
Singularity Generator **Fire**
Min Tech: 6 **Bays:** 3 **Cost**: 60 **Power**: 25
A terrifying weapon, the singularity generator produces a small black hole that is hurled at enemy ships.
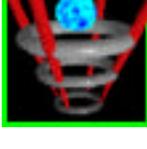
Bombardment Device
Min Tech: 2 **Bays:** 2 **Cost**: 20 **Power**: 10
Enhances the ability of a ship to orbitally bombard a planet.

Cargo Bay
**Min Tech**: 1   **Bays:** --   **Cost**: 1   **Power**: 1
Used to store troops and colonist(freezer tubes are shown here), cargo
bays are cheap and useful.

Terrain types

The twelve terrain types have different meanings for different races. In general, a race will have a number of terrains that they can live on along with a few favorite types. A planet will generally be covered by three or four specific types of terrrains. If you cannot live on any of the terrains of a planet, it will be uninhabitable for you race until such time as you develop terraforming pods for your ships. With a terraforming pod, you can terraform a hex on the planet before colonizing. Unfortunately, the terraforming pod will convert the surround hexes to craters (which no race can live on). See the race guide for race to find out which terrains they can live and build on.
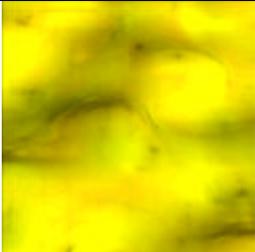
Canyons	Craters	Desert
Ferrous ocean	Forest	Ice plain
Iron desert	Lichen fields	Mountains
Ocean	Plains	Plasma ocean
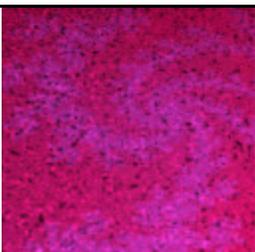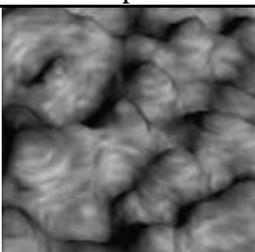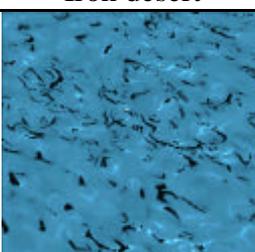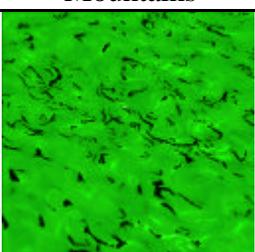
Materials

Material abundance is used to determine the relative cost of advancing technology, building ships and developing the planets surface. The formula for determining the cost multiplier for a planet is:

Cost = MAX (0.75, 0.75 + (75 - amount) * 0.02)

In english, the cost decreases the more abundant the material from x2.25 if you have none to 0.75 if you have an abundance of 75. After 75, more material does not decrease the cost multiplier.

Plutonium (Pu)

Plutonium is used in the creation of plasma fission torpedoes and is the basis of every race's weapons program. The PF torpedo is the primary weapon of most species.

Weapons technology

Mercury (Hg)

Mercury is used as a defense system because of it's reflectivity and liquid state at room temperature. Large tanks of mercury are stored throughout a ship and fired at the direction of oncoming attacks.

Shield technology.

Silver (Ag)

Silver coils are used to generate strong magnetic fields that shape the plasma exhaust from ship energy system. It is also a vital component the leap drive, which allows interplanetary travel.

Movement technology

Krypton (Kr)

Interplanetary detection devices use a grid of frozen kypton in order to register neutrino collisions. Neutrinos travel at FTL speeds from stars and the "shadow" can be interpretted by specialized computers.

Detection technology
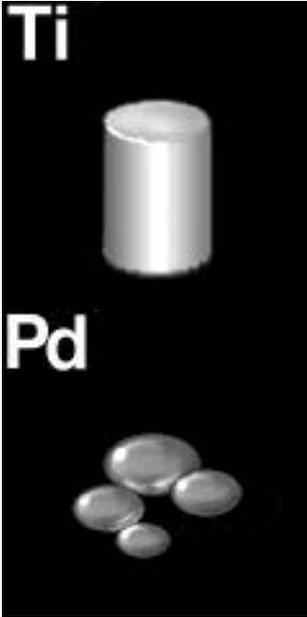
Titanium (Ti)

Titanium hulls have been used by all space faring races since combat in space became the norm. These hulls offer the advantage of not only being strong, but flexible to stress and vibration.

Building ships

Palladium (Pd)

Palladium-deuterium cold fusion cells are a common method for creating nearly limitless power. Unfortunately, the Palladium is also converted to Rhodium in the reaction, making the cells useless after extended use.

Planetary development

The Races

Starbound II uses a plug-in system for races. At the time of this writing there are currently six races available to play: Human, Ceptri, Tonos, Jacko, DNuri and YXaWk. The Human and Ceptri races should be included with any download of the game, the other four races can be gotten from our web site: **www.catfish-software.com**. As more races are designed, there will be more avaiable for download and play. Since Starbound II only loads the races resources when it need then, you can throw every race you find into the race folder without needing to worry about the game needing more memory (not that this is much of a problem any more!). If you have an artistic bent you might be interested in trying to create a new race yourself. Starbound II has a built in race editor that allows you to copy a race, add new images and characteristics and add it to the game. There is a separate manual for creating new races using the race editor tool, much like the sperate manual for writing new AI's. Please go to our web site in order to grab a copy. If you do make a new race for the game, please let us know about it! We'd love to put it in our web site for other people to use.

Each race has a separate mini-manual that describes their individual characteristics, ships, troops and structures. These manuals are easily downloaded from our web page, right next to the race file.

If you download a new race, you'll need to place it in the folder named "Races" in the Starbound II folder in order to use it.

If you want the fully multi-media experience that is Starbound II, you can also download the movies files that come with each race. This file is very large and is usually broken up into several pieces. Download each piece, use Stuffit Expander to expand the files, and place the new folder in the folder titled "Movies" Starbound II will search the movie folder for a list of all of the races that have movies and play the movies instead of the cut scenes if they are present (and you've set the preferences to play the movies if they are available).

Conclusions

We've put a lot of effort into Starbound II to allow total control over the development of space empires. Much of the improvement now will come from adding new AI's and races to the game. If enough people register I will also add networking, but in the near term I plan on working on the AI modules for the game and adding new races. In order to improve single-person play.

Please feel free to send me any suggestions you might have about improving the game. I can't promise I will implement the ideas, but I will read your e-mail and respond.

Joshua Grass