

PC DVD

paradox
INTERACTIVE

SWARD OF THE STARS

COMPLETE COLLECTION

EVERYONE 10+
E
10+
CONTENT RATED BY
ESRB

PC
DVD-ROM
SOFTWARE

100/100
gameshark
argos naval yard

8/10
worth playing
a murder of crows

9/10
ace gamez
born of blood

89/100
pc gamer
sword of the stars



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FOREWORD

Thank you for picking up the Sword of the Stars series!

What you hold in your hands is the combination of one game and three expansions. Over the past four years, these were rolled out on a regular basis, so as players became familiar with their current version of the game, we would provide them with more weapons, technologies, and ships to play with. We also listen to and incorporated a number of player requests. And even inbetween expansions, we would release the occasional update, which would add a small feature or randomized menace to harass players. Overall, the effect was of a living, growing universe.

For you, if you are entirely new to the series, we have no doubt that this will seem daunting – do not panic. While there is a lot of things you can do and accomplish in this game, the game is deliberately designed for accessibility. Advanced features in the game, such as diplomacy and trade, bring considerable advantages to a player comfortable enough to use them, but those who are not familiar with them yet will not be punished... provided you do not over extend yourself in your early games.

Initially, play in a smaller galaxy, against one or two AI opponents – you can even set them to be a little dumb. Play around with the interface and controls, become familiar with combat, even experiment with more advanced features – later on, you can take on more and more challenges in the game.

Because this complete collection is made up of the original game and three expansions, this manual is a conglomeration of four different manuals. We have tried to supply you with all the game's particulars for reference, while still providing some differentiation between everything to be found in the game and the basics you need to jump right in – to that end, the first thirty pages focus on the core controls and user interface. Beyond that, we get into every nut and bolt in the game. And even then, there is still more in the game left for you to discover, such as ship sections unlocked by certain technologies, many of which you will not find your first game through.

At any time you find you have questions that cannot be answered by this manual or through experimentation, we invite you to visit our messageboards at;

www.kerberos-productions.com/forum

Besides an active and helpful community of players, we here at Kerberos try and make ourselves available as much as possible.

As well, that same community of players have created and maintained the infinitely useful Sword of the Stars Wiki at;

sots.rorschach.net

With so much to discover in the game and six different races for you to master, we hope you enjoy Sword of the Stars for years to come and perhaps one day see you online in a multiplayer game.

Best regards,

Kerberos Productions

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Customer Support

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Minimum System Requirements:

- Microsoft Windows 2000/XP
- 1 GHz Pentium®/compatible CPU
- 512 MB RAM system memory
- 128 MB DirectX8 class video card
- 4x CD-ROM/DVD-ROM drive
- 56-Kpbs modem
- Windows compatible mouse.

Recommended System Requirements:

- Windows 2000/XP/Vista
- 1.5Ghz Intel Pentium or equivalent
- 1GB RAM (2GB recommended for Windows Vista)
- 3.5GB in free hard-drive space
- DirectX 9 compliant video card with 128MB RAM
- DirectX 8.1 compatible soundcard
- Windows compatible mouse.



Early in the 22nd century, humanity escaped from Einstein's cage. The giant, ring-shaped engines of the Node drive gave us the power to leap to the nearest star at many times the speed of light. After centuries of dreaming, we were finally free to leave the cradle of our home world.

It took us years to build the Earth's first Colony ship. The Nova Maria was a symbol for all mankind. Soon it was loaded with humanity's best and brightest. They prepared to depart, ready to inherit a galaxy which we had long ago decided was devoid of intelligent life.

The universe was all out there for our taking...

Someone should have told that to the Hivers.

They came in silence. No statement of intention. No declaration of war. Without even a demand for our surrender.

They hit us without warning; within seconds, our dreams of peaceful expansion were so many burning meteors falling to earth.

We barely survived the first Hiver incursion. Years later we would find that we had faced only a small nesting fleet -- we had yet to see the full power of the Swarm.

But the Hive was not the only threat.

When we ventured forth, we soon encountered the ruthless legions of the Tarka... and eventually, the phantom fleets of the enigmatic Liir.

And so we learned how to build bigger, stronger ships. More powerful weapons. Humanity had to explore, expand and even conquer, just to hold our own in a universe where weakness was extinction. In order to survive, we learned to wield...

The Sword of the Stars.



We are the Chosen Ones, born of the Divine. We are shaped in the image of the Great Masters, born to serve them in the infinite depths. We are warriors, wise men, fathers, and masters. And this is the time of our Ordeal...The Great Silence...when we will prove ourselves worthy to join the immortal Gods and hear their voices once again.

It took years to rise from the world of our spawning. It took decades to reap the wisdom of our first Quarry. But our wiles are unlimited and our thirst for knowledge strong. We have lain quietly in the shadows for a century or more. Skulking among the darkened hulls of dead ships. Raiding the periphery, for slaves and secrets. We tear apart flesh and steel, mind and memory chip...seeking the spark of truth. Seeking the Gods of our birth.

And always we hunger for more.

The time has come; we can wait no longer for the Great Masters to return. Our numbers increase daily; our children hunger, our females lust for war. This galaxy is unworthy of its Gods, overrun by ignorant, arrogant slaves. Mindless insects... pompous lizards... chattering apes... blaspheming rebels. It is time to teach them all their place in the Great Scheme: they will learn to serve their betters...or die.

As it was commanded, so it shall be done. We will sweep all enemies from our path. In the darkness of this galaxy, we will forge an empire of light. We will be worthy. We will find the Gods, wherever they are hidings. We will end their silence and become their Claws once again.

Born of fire. Born of steel. Born of science.

Born of blood.



Look to the skies, Children of the Dust and heed My words.

I am First among Travelers, Lord of the Night Sky and Leader of the clans. I am the Voice of the Star Born.

While you crawled, We flew. While you dreamed of wings, we knew the stars.

We came down to share with your ancestors, but we return to find death. Our females slaughtered, our worlds picked over like carrion.

You have laid us a banquet of sorrow. You have risen from your dark depths, your twisting tunnels, your dung-reeking cities, your pitiful nests of stone, and your fields of blood, to lay claim to the very stars.

Blindly you wander, violating the tombs of My Fathers and turning loose your pestilence upon My wives and daughters. And I say enough!

Read war is coming. The Travelers will yield no longer to any who crawl in land or sea.

Find some other place to build your foul nests and fight your petty battles! These stars are sacred... and they are Mine!

So look to the skies, Children of the Dust, and see My coming. I am the Dragon with a thousand wings.

My people are no longer in hiding. And now We darken your skies...

...Like a Murder of Crows!



When the call to arms goes out to humanity, it is the Argos Naval Shipyard that answers! War still rages across the Sword of the Stars universe and new ships, new technologies and new weapon systems are needed if mankind is to survive the rising threats in the galaxy. But the Liir, Hiver, Morrigi, Tarka and Zuul are not resting either and they too work to have more in their arsenals than ever before.

From heavy drones to slicing plasma weapons to the dreaded long-range rail cannons, armouries are bursting at the seams. Shipyards are working non-stop to provide the newest in strafing, pursuit and blazer sections and scientists from a dozen disciplines create propaganda ships to bring worlds down without a shot, while for some races, the secrets of a distant past are revealed and put to work for their modern masters. Even the mighty Asteroid Monitors have become another station to be built to defend your worlds.

The wars continue but the Argos Naval Yard will ensure your fleets have more power and more options than ever.

THE SIX RACES

Sword of the Stars allows players to control one of six highly distinct races. Each has advantages and disadvantages in their research of technology, colonization of planets, and most importantly, the method by which they travel between the stars. All aspects of the various species are detailed within, but here is a basic introduction to each race.

If you have not played Sword of the Stars before, please take note of the Player Challenge for each - because of their different species advantages, and particularly because of their unique interstellar drives, some races are less accessible to a beginner player. Learning the basics of the game while playing with a more direct drive-system - such as the Tarkan warp drive - is recommended. You can experiment with the more advanced drives and their advantages later.

Human

Player Challenge - Advanced

Humans are an air-breathing, land-based species of sentient mammals, evolved from a primate line, which can be traced to a tiny tree-dwelling shrew. They are highly adaptable and thrive in a wide variety of environments, but seem most comfortable within a limited range of temperature, gravity and atmospheric density, which mimic the conditions on their home world.

Drive Technology: Node Drive - the Node Drive allows Human ships to jump along certain unchanging Node lines between planets. Not every planet has a node line to every other planet however, so Humans view their movement through the galaxy much like travel along the rail lines of Old Earth. While these lines do create limitations in Human movement, traveling the Node Lines is very fast, and in an emergency, Humans can undertake slower-than-light jumps between systems that don't have Node Line connections.

Notes: The Human race has only just taken to the stars and their talent for broad innovation across all technologies went with them. While they have no strong advantages in their ship designs or technologies, they also have not strong disadvantages either.

Hiver

Player Challenge - Expert

Human spacers call this species "Hivers" (or even more informally, "Bugs") because of their resemblance to the countless insect species found on Earth. Size notwithstanding, Hivers do have many features in common with terrestrial insects, especially when it comes to social organization and physical appearance. Nonetheless, they are a fully sentient space-faring race.

Drive Technology: Teleport Gates - by their nature, Hivers are deliberate and methodical in their approach to most everything, but quick to react to threats. It's not surprising then that they never developed a FTL drive technology, preferring to move slowly between star systems, but once they arrive, they use Gate Ships to deploy powerful Teleport Gates, which allow them to instantly move ships from gate to gate. As their web of gates increases in size, so increases the number of ships they can move in a single turn - it is not, however, an unlimited number, so careful choices must be made. Also, once deployed, gateships cannot be moved and must be carefully guarded.

Notes: Besides their powerful ability to instantly reinforce any gateship location, Hivers also have a very fast population growth speed, which means more planetary output,

faster. As well, their ships, although slower than the other races, are designed to take the most damage.

Tarkas

Player Challenge - Beginner

The Tarkas are a reptilian species, sharing many outward physical characteristics with terrestrial lizards. Although their internal structures and highly evolved brains are very different from anything seen in the reptile species of Earth, their appearance has nonetheless earned them a variety of derogatory nicknames among human spacers, who commonly refer to them as "Lizards" or "Crocs".

Not much is known about the origins of the Tarka, but scientists have speculated that their species must have evolved in a dense arboreal environment, because they have retained many features we still associate with tree dwelling species. They can live in a variety of gravities and temperature zones, but they seem to prefer warmer worlds for their large colonies.

Their culture is very ancient and has been remarkably stable in the long term, allowing for hundreds of thousands of years of recorded history and over five hundred years as a space-faring race.

Drive Technology: Warp Drives - The Tarkas have developed the very reliable Warp Drive, which allows them to travel star to star at very good speeds. The Tarks, and to a lesser degree The Liir, are the best races for new players to start with, as their Drive technologies are the ones most people are familiar with.

Notes: The Tarkas not only have a talent for war, but a taste for it. As such, their ships are designed for aggressive, head-on attacks and the construction of Cruiser class ships is cheaper than it is for other races.

The Liir

Player Challenge - Beginner

The Liir are an air-breathing aquatic species, and bear a strong resemblance to the extinct cetaceans of Old Earth. They are the result of a long-term process of environmental change: an ice age lasting millions of years initially allowed for the development of mammalian species on the isolated tropical islands and huge ice shields of their home world, but eventually an extended warming period resulted in a planet with less than 10% of its surface above water. The vast majority of land-dwelling species returned to the sea – including the early ancestors of the Liir.

The Liir have not been a star-faring species for long. Up until 150 years ago, the Liir were a peaceful race with limited technology. Various agrarian and nomadic cultures operated within the rich waters of their home world, and war was virtually unknown to them. Although they had not developed far in the sciences of architecture or ballistics, some Liir societies were extremely advanced in bioengineering, aquatic horticulture, volcanic engineering and metallurgy.

The Liir were conquered and enslaved by another star-faring race, whom they learned to call the Suul-ka. The Suul-ka established several lucrative industries on Muur, the Liirian home world, and force-marched the Liirians through the Industrial Revolution by employing them as slaves in mines, factories and manufacturing facilities.

After several decades of abuse, realizing that the greed and rapacity of the Suul-ka would destroy the aquatic environment of their home world completely, the Liir rebelled

against their alien masters. The war was remarkably bloody in its early stages, but finally ended when the Liir unleashed a bio-weapon tailored to Suul-ka physiology on Muur. It is impossible at this point to say what agent the Liir may have used, or what vectors it followed. We only know that the resulting disease was so virulent and lethal that it appears to have quickly spread beyond the colony and completely eradicated the Suul-ka, at least from that sector of space.

The current state of Liirian technology is a result of their successful rebellion. The former slaves of the Suul-ka quickly absorbed the abandoned technology of their masters, and have adapted the old drives, guns and orbital elevators to their own use. Driven by natural curiosity and the desire to preempt any further assaults from the stars, the Liir have now begun exploring space.

Drive Technology: Stutter Warp - Never looking to take to the stars, a discovery in simple teleportation was later applied to starships when the need for interstellar travel was required. Unlike the Hivers, who developed a means of teleporting ships over vast distances, The Liir learned to teleport mass very short, almost imperceptible distances incredibly fast. The result is movement without the limitations of inertia. Practically, Liir transit is similar to Tark transit in that both are good, average speeds with full freedom of destination, but unlike the Tarks, once in combat, The Liir continue to use their drives in-system. Their proximity to a gravity well does limit their speed a great deal, but their movement is still very fast and fluid compared to the other races.

Notes: Originally a peaceful race, The Liir focused on sciences that would improve their world. Once they were forced to take up arms and go into space, their inexperience showed in their weaker ship designs. However they also brought with them their impressive ability to research technologies, particularly the Biotechnologies.

The Zuul

Player Challenge - Advanced

The Zuul are a race of space-faring marsupials. Human spacers have dubbed this species “the Rippers” for a number of reasons, not least the savagery of their attacks on SolForce colonies. Zuul have been present in this region of space for a number of years, and have been known to make guerrilla attacks on the colonies of all other sentient races. Because those attacks seldom left any survivors to tell the tale, little was known about the raiders: their physiology, technology, and motives remained a mystery for many years.

Drive Technology: Node Tunneling - The only technology unique to the Zuul is their FTL drive, which is based on an unknown branch of gravokinetic theory. The so-called “rip drive” uses a focused energy event to create a miniature black hole. This artificial singularity creates a tiny tear in the fabric of space-time, penetrating to the subspace or “Nodespace” layer. What begins as a small puncture immediately opens into a larger “rip”, a new gravometric stress fracture, which quickly forms a channel between the closest massive stellar body and that of a neighboring star system.

Any given Ripper-ship can detect and travel along these space-time tunnels, once they are opened. The “rip-lanes” eventually form a network not unlike the naturally occurring Node lines followed by human vessels. Unlike Node lines, however, a rip-lane is not a stable connection through Nodespace. These lanes have a tendency to collapse over time.

Notes: The Zuul’s jury-rigged designs often leave the resulting ships relatively vulnerable under attack, but they compensate with powerful maneuvering drives (achieved because of their - as one Earth scientist put it - “reckless abandon and fanatical

commitment of their lives to whatever goals they set.” As well, the Zuul favor heavier weapons and benefit from their “pencil” to more advanced tractor beam “pens” - physical grappling lines.

The Morrighi

Player Challenge - Advanced

Of the sentient species still living in this sector of the galaxy, the Morrighi are one of the most ancient, and have the longest recorded history of interstellar travel. Initially known only by the unique configuration of their low orbital attack drones, the Morrighi were named “Crows” by the first Human spacers to encounter them. These crafts have an aerodynamic avian shape and swooping attack pattern, which brought to mind the predatory scavengers of old Earth. In recent years, more intensive investigation by SolForce Intelligence has revealed that the nickname “Crow” was curiously apt in many respects. The Morrighi have many traits in common with the legendary Raven or Crow of old Earth, and any study of their history and behaviour inevitably recalls a panoply of Terran legends of the divine Trickster bird, which could easily assume a variety of different forms, lead its befuddled enemies into fatal ambush, hoodwink more powerful foes out of valuable treasure, and which served inevitably as an avatar of the gods and goddesses of war.

The word “Morrighi” roughly translates as “Travelers” in the proto-Creole known as the Trade Language. At this juncture it is impossible to say how long the Morrighi have been capable of traversing long interstellar distances, but biological and archaeological evidence unearthed on Za’xharis, Kao’Kona, Wiira, and Mars suggest that the Morrighi have been “Travelers” for several millennia. Skeletal remains recovered on Wiira have revealed that some members of the Morrighi species have spent their entire developmental lives in space, from late infancy to adulthood, for at least six thousand years. Artifacts recovered from the sites excavated on Za’xharis and Mars suggest that the Morrighi were monitoring and visiting the home worlds of the Human and Hiver races for at least four thousand years before either species went through an Industrial Revolution. The dramatic site unearthed on Kao’Kona indicates that the Morrighi may have attempted to establish residence on the Tarka home world for nesting purposes in the past.

Drive Technology: Central to this techno-culture is a highly unique faster-than-light engine called the Void Cutter. A Void Cutter engine, once engaged, uses gravimetric focusing to warp space-time around the ship to the point where it quickly accelerates to speeds in excess of the speed of light. In so doing, the engine appears to create a ripple of disturbance—a “bow wave” of space-time distortion, which flows around the body of the ship and trails behind it in a wake. This bow wave has several principles which Morrighi shipwrights and pilots have learned to take advantage of over the centuries, the most salient of which is that other ships employing a similar engine can enter into the slipstream of the foremost vessel, conjoin their own “bow wave” to that of the leader, and achieve faster-than-light speed without wasting the majority of their energy to create the initial disruption. All ships following the lead vessel in a Morrighi flight pattern can devote the majority of their energy to forward thrust, rather than using it to crack the void.

The more Morrighi vessels joined to a single flight, the faster the fleet as a whole will move, as the engines of all engines but one, will be applied to thrust, while only the lead ship—the Void Cutter—will be devoting the majority of its energy to disrupting the fabric of space-time. Morrighi travel is slowest alone, and fastest when in large numbers.

SWORD OF THE STARS OVERVIEW

Sword of the Stars is a hybrid game, combining elements familiar to anyone who has played either turn-based and real-time strategy games. Here is a brief overview of how the game plays. Greater detail on all areas of the game will follow later in this manual, but it will be helpful to have the structure of gameplay in mind before proceeding any further.

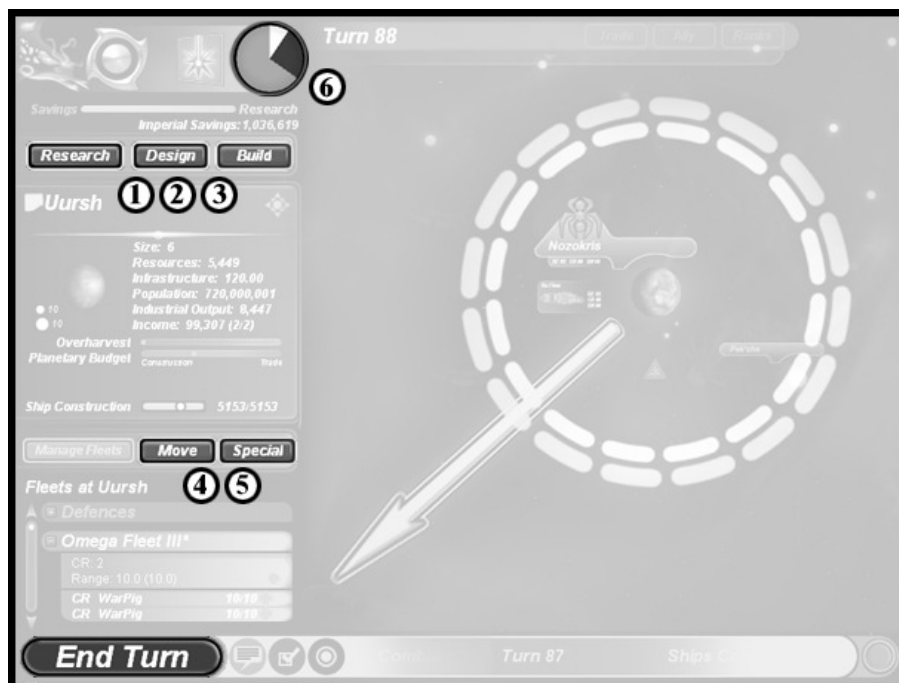
By design, Sword of the Stars is intended to be as simple and intuitive as possible for a 4X (explore, expand, exploit, and exterminate) title. Once you learn a few basic controls, players should feel free to jump right into the game.

The Basics

Strategy - empire management

In Sword of the Stars most everything takes place during the Strategy Turn - all aspects of your empire - in those parts of the galaxy you control - can be controlled here, from building and moving ships, designing new ships, researching technologies, to colonizing and maintaining your planets. When you've done everything you'd like to do for the turn, you click to end the turn. Once all opponents have ended their turn, their orders are carried out and the movement of their ships compared. If no ships and planets encounter one another, then the turn is over and a new strategy round begins. However, if opponents don't encounter one another, then the game moves into real-time combat.

- 1) Research
- 2) Designing ships
- 3) Building ships
- 4) Moving ships
- 5) Colonizing and other things you can do at a planet
- 6) Empire Overview (aka keeping an eye on things)



We'll go into these things in greater detail later – for now you just need to have a sense of how the game unfolds.

When you've done everything you'd like to do for the turn, you click the End Turn button. The game will then wait for anyone who hasn't completed their turn. Once all players have done so, their orders are carried out and compared. If there are no encounters, then the turn is over and a new strategy round begins.

However, if opponents do encounter one another, then the game moves into real-time combat.

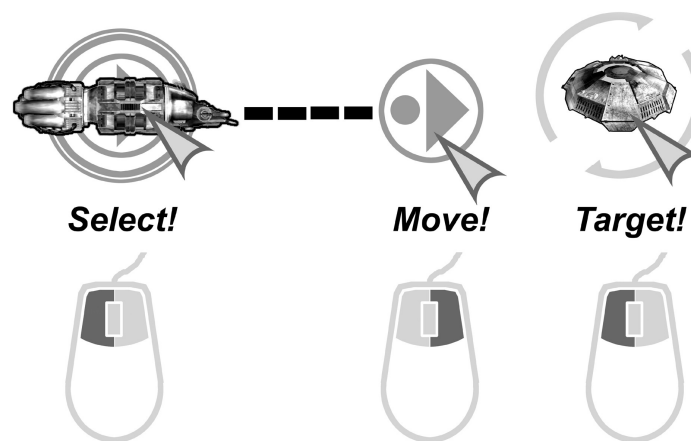
Strategy rounds have no time limit, but one can be set – this is handy in multiplayer games when there is a need to keep the game moving along at a regular speed. This round timer can be set during set-up, restarting, or even mid-game, as required.

Combat - real-time conflict resolution

If two or more opponents encounter one another, then they are informed. It is possible that some players may have more than one encounter in different parts of the galaxy. In these cases, a player can allow the game AI to fight on their behalf – for example, if the encounter is just a couple of ships bumping into one another – while they concentrate on more crucial engagements.

All players are taken into their combat rounds to fight their opponents. If a player has to wait for combat to start (for example, their opponent is in the middle of another fight), they remain on the Strategy screen, where they can ponder their next move and even design new ships – they cannot issue any new commands however, until the new Strategy round begins

While there is a great deal of depth to the tactics of combat, at its most basic level, it handles like an RTS – left-click to select a ship (or bandbox to select multiple ships), right-click to tell a ship where to move to, and left-click to select an enemy target.



Later in this manual, there are more detail on how to target certain parts of a ship specifically, how to use advanced weapons, etc. But those three controls are all you need to get into a fight. In particular, you should read up on the camera controls, as they will help you change your view of the battlefield, look closely at damage to your ships, and target very specific areas of an enemy ship.

Once all combat has been resolved, all players are returned to the Strategy screen and a new turn begins.

Repeat until galactic domination is achieved.

Combat rounds are four minutes by default, but this can be altered to up to ten minutes if the player wishes.

Game Cameras

Both the Strategy and Combat rounds involve moving a 3D view in some way. In Combat it is around whatever you are focused on – a ship, an asteroid, an enemy attacker. In Strategy, it is around the Galaxy Map and the Research Tech Tree.

3D Galaxy Map Camera

Dominating the main Strategy screen is the Galaxy Map, which is a fully 3D map of stars. Moving around this map is important to *Sword of the Stars* – almost all other information on the screen reflects what you're looking at on the map, so once you know how to control the map, controlling the rest of the game is a snap.

Camera Focus – Double left clicking or clicking the middle mouse button on a planet or star will lock the camera to that object.

Map Rotate – By clicking and holding the right mouse button, then moving the mouse around, the map will rotate; left, right, up, and down.

Zoom – The mouse wheel will zoom the map camera in and out on the object to which the camera is locked. As you zoom in and out, you will notice there are certain levels of detail to the icons associated with stars, planets, and fleets. A lot of this information is duplicated to the left on the side bar, but it can be handy to see it on the map. If you don't have a mouse wheel, clicking and holding both the left and right mouse button, then moving the mouse forwards and back will accomplish the same thing.

Handy Hotkeys!

<i>HOME:</i>	Quick focus on your home system.
<i>TAB / SHIFT+TAB:</i>	Cycle forward/backward through your colonies
<i>I / SHIFT + I:</i>	Cycle forward / backward through your idle fleets
<i>V:</i>	Cycles the camera through pre-set distances.

Combat Camera

Controlling the camera in combat is very important – a good commander knows when to zoom out for a wide view of battle and when to zoom in close to the action. In a combat level, the camera can be rotated around your focus object (one of your own ships, as a default) by holding the right mouse button and moving the mouse up, down, left, or right.

Camera Focus – Click your middle-mouse button on any object in the combat level – your ship, an enemy ship, asteroids, etc. – and the camera will focus on that object. If you don't have a middle mouse button, you can hold your mouse over the object, and hit the F key.

Zoom – The mouse wheel will zoom the map camera in and out on the object to which the camera is locked. This is very handy when you want to get close to see how much a ship has been damaged, or to carefully target your weapons. If you don't have a mouse wheel, clicking and holding both the left and right mouse button, then moving the mouse forwards and back will accomplish the same thing.

Camera Rotate – By clicking and holding the right mouse button, then moving the mouse around, the camera will rotate around whatever is your focus; left, right, up, and down.

The Combat turn has a sensors screen, a wire-frame representation of the entire combat area – the camera controls remain the same as they do in combat.

Handy Hotkeys!

<i>O - 9 :</i>	Recall selection group (pressing twice focuses on lead ship in the group)
<i>E / SHIFT+E :</i>	Cycle forward / backward through enemy ships
<i>F :</i>	Focus on object under mouse (same as middle click)
<i>HOME :</i>	Focuses on and selects new reinforcements in combat
<i>TAB / SHIFT+TAB :</i>	Cycle forward / backward through your individual ships
<i>V :</i>	Cycles the camera through pre-set distances.

Tech Tree Camera

The Research screen is a 3D representation of the tech tree. The view of the tech tree can be changed using mouse controls similar to the 3D star map.

Technology Focus - Double click the left mouse button on any visible technology icon will zoom the camera in close on the icon, revealing more information about the technology. Double left-clicking again will zoom the camera back out to its default position.

Zoom - The mouse wheel will zoom the map camera in and out on the object to which the camera is locked. This isn't used as much, given the snap-focus described above, but it can be handy if you want to move back a little bit, to see surrounding technologies better, but don't want to move all the way out to the default distance.

Camera Rotate - By clicking and holding the right mouse button, then moving the mouse around, the tech tree will rotate around in front of the camera; left, right, up, and down.

Research and Technology

The Tech Tree in *Sword of the Stars* is not typical to games where the player researches new technologies - not only is the tech tree large, but the tree is dynamic; it will be different for each player in each new game.

Key technologies will always be available - players will always be able to research up to the Dreadnought class of ship, for example. However, certain offensive, defensive, and infrastructure technologies may not become available in any particular game. Or at best, they will become available, not by researching straight to them, but by researching related technologies in other areas.

On very rare occasions, players may stumble upon new technologies in the wreckage after a battle, but this requires that a Repair and Salvage Cruiser be stationed in that system, except for the Zuul, who are natural scavengers - they will pick up potential new technologies in general. These technologies will then appear as Special Research Projects.

Other Controls

There are several other interfaces in combat. One of the most useful allows you to switch between battle and sensor view. Sensor view gives you a clean overview of the battle, and is very useful for sorting out where everything is during a battle. In the full game, you will be able to research better command abilities which will allow you to control fleets from the sensor pane as you would from the battle plane itself.

Once you research Battle Computers, you can build ships with the Squadron CnC mission section. This will allow you to field more ships if a CnC ship is in the battle, as well as give you a reinforcement list. Fleets will reinforce themselves on their own before CnC, but with the CnC you can select the order they come out in.

EXAMPLE WALKTHROUGH

The following are to give you a sense of the flow of Sword of the Stars – they are by no means examples of everything can possibly do in a single turn, but will help provide you with a sense of the minimum of what you should be trying at the beginning of a game.

Strategic Turn Walkthrough

"System update". Welcome to your section of the galaxy. As you'll quickly see, SOTS is a highly graphic game; you'll be able to get loads of information simply by looking at the space around you. Right now, there isn't much to see. A five-pointed star highlights your homeworld, and any additional colonies will be highlighted with your player color as well. If you're human, you'll notice blue node lines extending from your colonies; these are your only routes of transportation for now.

The camera is fairly simple. Holding down the right mouse button will allow you to rotate the camera around the object of focus, while using the mouse wheel or holding down both left and right buttons and dragging will zoom in and out.

The first thing you'll want to do is design Extended Range ships. These ships are incredibly useful for their price, being able to fight almost as well as any armor destroyers. Also, if you're playing human, the extra range will let you explore node lines that would otherwise be too long for your other ships. While you're in the design menu, you'll want to upgrade the basic ship designs you already have, especially if the game starts with extra techs.

Queue up some ships on your homeworld/colonies. Remember, queuing a ship costs money, so early on, you should only queue up what can be completed by next turn or two. This will keep you in the green, and hurt a lot less if you lose a colony.

Sliders, Buttons and Windows

There are several sliders you'll utilize during strategic turns. The largest is the savings/research slider. This determines where your profit goes. As you might expect, putting money into research speeds it up, dramatically. Note, however, that the total cash flow in the savings/research slider is dependent upon any construction projects you have going on elsewhere. For example, building lots of ships and colonizing high-hazard planets will take up a large portion of your income, and you'll notice diminishing returns on research speed and profits.

You can redirect these construction funds back into your savings on planetary sliders. There are five of these: overharvest, construction/trade, terraforming, infrastructure, and ship construction. You'll notice that each planet has a resource value, which will stay constant throughout the game barring meteor collisions or overharvesting. In the latter case, you will notice your planet's resources slowly draining. For this reason, using over harvest is not recommended until you have a good deal of experience with the game.

The remaining four bars are all connected to each other. The construction and trade slider will determine where your colony is putting its construction points, while the others will determine where that construction money is going. Construction points put towards trade generate cash, while construction points put towards construction are used for building. If you have all your construction points in construction, and there are points left over, the excess points generate savings. If you move any of the other three sliders to their maximum, you'll notice that the construction and trade slider moves towards construction. Infrastructure and terraforming will only appear on planets that have recently been colonized, or been damaged in fighting. Once the hazard rating reaches zero, terraforming will disappear, and with infrastructure at 100%, that slider will go as well.

Finally, the ship construction slider allocates cash to your shipyards. The higher it is, the more money goes into building, and the faster ships will be completed. However, that means less cash in pocket next turn.

Tactical Turn Walkthrough

Eventually, you'll end a turn and a window will popup with details for a tactical encounter. The window will show a list of your and your enemy's fleet, and give you the option of fighting the battle or letting the AI play through or auto-resolve. This can be toggled by clicking on the icon that looks like a pair of crossed guns. While auto-resolve can be handy, it is often better to fight manually, as it gives you greater control over the outcome of the battle, and allows you to move your fleet with human creativity.

Once you confirm combat, the tactical session will load. After a brief animation of the combatants entering the combat area, you will be given command of one of your ships. As is conventional in RTS games, you can select multiple ships by band-boxing them while holding down the left mouse button. You can assign combat groups by selecting ships and using CTRL + a number. These combat groups will not be carried over into the next combat. Finally, you can switch between all ships under your command by using tab. *Note that until integrated sensors are researched, you MUST have a ship selected to see anything in sensor view.

The camera controls are identical to the strategic turn controls. Note that you can use the middle mouse button to focus on any object in the combat area.

If you are entering combat with an opponent for the first time, your weapons will be set to hold-fire, as noted by the little red circle on the upper left hand side. Click it to allow your ships to fire automatically whenever they are in range and a turret has a firing solution.

To give your ships a move order, simply right-click anywhere on the plane of combat. Remember though, that SOTS uses Newtonian physics, so ships have realistic momentum. If you fire your engines on full towards a target, they'll have to turn around and face thrusters in reverse to stop.

Ships will automatically fire on any target within range, however, you can specify targets by left clicking on them. A red circle will appear around the enemy ship. Your ships will fire as close to where you click on the target (polygon specific) as possible. Because of this, it is recommended you focus on the ship you want disabled to be able to target the systems you want to destroy first. You can even shoot off individual turrets, though you might not notice this until you research weapons with greater accuracy.

Targeting the right places on ships becomes very important, especially since different sections are more or less difficult to destroy. The tactical importance of this is obvious: destroy an enemy's engines to leave it stranded, destroy a tanker section and the enemy fleet won't have access to that fuel, take out an armor section and those weapons will be destroyed with it.

You also have access to several fleet-wide command behavior buttons. In some cases it can be more effective to order all movements manually rather than rely on the AI protocols, as it keeps your fleet together and under your control. However, in larger combats, AI captain behavior can also be important.

Almost all the information in battle is graphical. You will not find any health bars on your ships or the enemies. Ship sections will show signs of damage, allowing you to see which of your ships is about to blow, or which enemy targets are the easiest pickings.

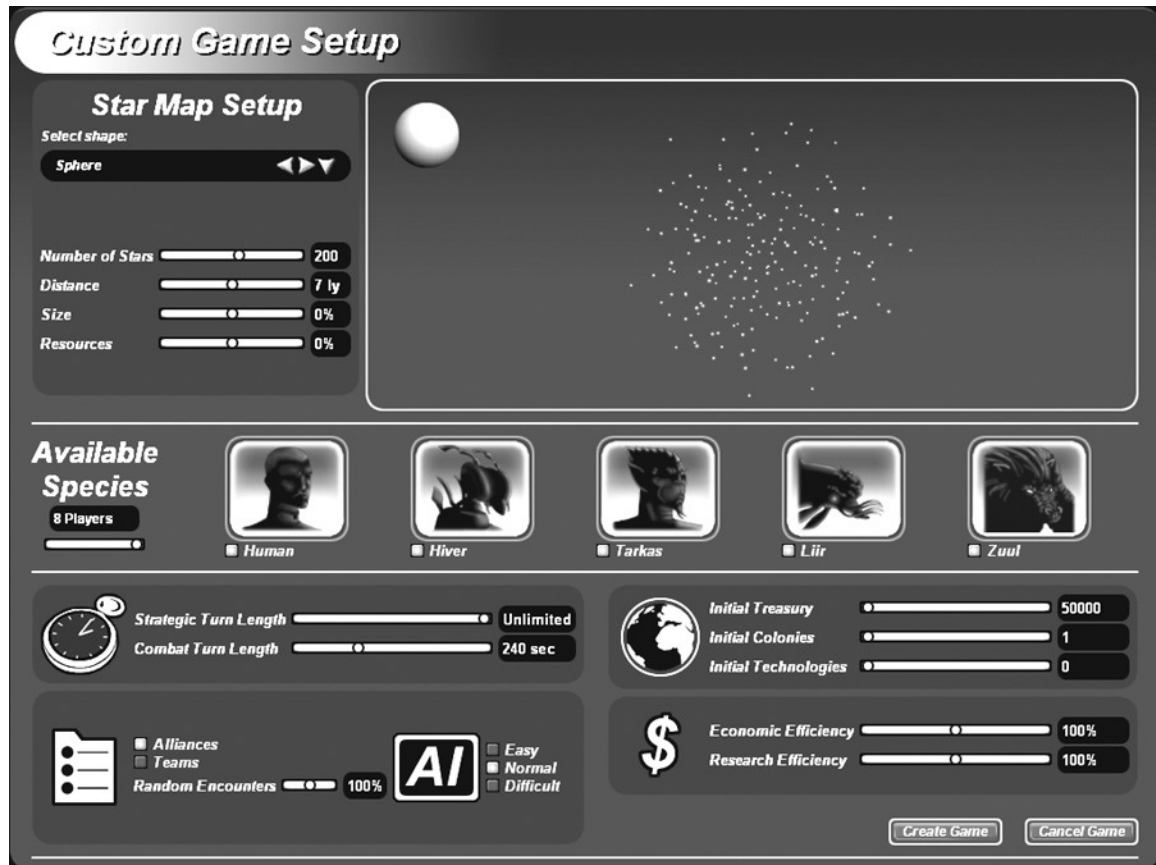
SETTING-UP A GAME

Single-Player = Multi-Player = Single-Player

Sword of the Stars is an open-ended game, where the key goal is galactic domination. The only distinction between a single-player game and a multiplayer game is if you're playing against humans or AI players, and if you are broadcasting the game online so others can join you.

Seeing as Sword of the Stars allows for players to leave and later re-join a game in progress, even that simple distinction become less clear - you may start a game alone, but online, and human players will join you later taking over AI positions. Later, if they leave, the AI will take over again, and you're back to playing a singleplayer game. The game will accommodate whatever suits the players best!

When looking to play a game, players can either start a singleplayer game, where they fight against AI opponents, host a multiplayer game which other players can join them, or look for someone else's multiplayer game to join. Multiplayer games can be set up for play over a local area network or over the Internet, in which case other players can find the game through Gamespy or Xfire.



There are two types of games that a player can enjoy, either alone or with other players. The first is a custom game, wherein the game host can select the size and shape of the galaxy, set the number of open positions for other players, or AI opponents, and other conditions of the game, such as strategy turn time limits, combat time limits, number of starting colonies, the average size distribution of planets, the average distance between planets, and the research / economic efficiency of the races. If the host likes, certain

species can be excluded, limiting the playable race options for other players. As well, AI levels can be set, and games password protected.

The player setting up the game also has the option of allowing and setting teams.

The second game type is a scenario game, which has certain special map conditions locked and special goals and victory conditions. In some, the players must work together against a particular menace. In others they are competing against one another to complete a set of goals. The conditions of the Scenarios are detailed in the game-setup screen.

Once a game is started (and auto-saved), many options become available. Players can stop playing at any time, and restart the game again later. Or they can re-start the game as a multiplayer game, allowing other players to join across a LAN or the Internet.

Player Profiles

When starting a game for the first time, either singleplayer or multiplayer, you will be prompted to create a player profile - a player profile will keep track of variety of things particular to each player. Game settings (video-sound preferences, game set-up favorites, etc.), server settings, key settings, and in-game settings (such as star brightness). There are certain badge rewards for playing Sword of the Stars that depend on how many games you have won - this information is also particular to your player profile.

Additional profiles can be created and selected from the Main Menu, if more than one person uses the same computer.

JOINING OR LEAVING A GAME

There is very little distinction between a singleplayer game and a multiplayer game in Sword of the Stars, as the game is very flexible in terms of starting, saving, restarting, and joining a game. A singleplayer game is when one player sets up a game where they play against AI opponents.

Joining a Game

Sword of the Stars incorporates Gamespy and Xfire, to help players find friends and active online games. Users who have Gamespy Arcade installed can use it to find buddies online, chat, and meet up for a games - some of the same functionality is used in the Sword of the Stars game lobby. As well, Xfire users can use that system to find other players online and even in-game, both text and voice-over-IP!

For more information, please visit these websites;

www.gamespyarcade.com

www.xfire.com

Alternately, players can select Join Multiplayer Game from the main menu - this will take them to the Game Lobby, powered by Gamespy. Players can click on games to see the game Set-up - if they'd like to play, they can click to join. However, new players can only join at the start of a new turn, so if there is combat taking place, the new player will have to wait. A countdown timer in the top left will let them know if they have time to go

use the bathroom or get a drink, or better yet, they can use the chat lobby to communicate with players already in the game!

Leaving a Game

Players can leave mid-game and rejoin at a later time if they so choose. Players can password protect their slot to keep others from joining in that slot. When a player chooses to leave a game in progress, they can do so by selecting the Options button in the lower right of the Strategy Screen, and quitting to the main menu.

Also in the Options menu is Set AI Policy – By setting the policy, a player can tell the AI how they'd like it to handle their empire while they are away.

Players can leave their positions mid-game and allow the AI to take over for them. These AI players can be set to follow certain styles of play:

AI Policy - Maintain

The AI will continue to research new technology, but will not attempt to alter your empire.

AI Policy - Defend

The AI will defend existing colony worlds, but will not attempt to explore or colonize new planets, nor will it attack other players.

AI Policy - Expand

The AI will attempt to expand your empire and defeat your enemies. If the player chooses, they can leave the slot open for other human players to join – yes, it is possible to join mid-game! If a player starts a game and a couple of people join, additional slots can be maintained by the AI and a human player can join in on those slots at a later time.

When a player is ready to re-join the action, they simply find the game in the game listings (or manually enter the IP), click join, and then wait for the next strategy turn to begin. At that point, they will re-enter the game.

Player Slots

In the Game Lobby, each player (either AI or human) occupies a slot – they can move between slots by dragging and dropping one slot onto another. For example, when a player joins a game that they have not participated in previously, they have no set slot position, so the game will automatically move them into the first available slot. It may be that they'd prefer to play a different slot, or the proper owner of the current slot will join shortly, and they should move. With some simple shuffling, the host can put everyone in their proper position.

Players can see what slot they are in by the yellow outline around their position. To move, left click the current position then drag-and-drop onto another position.



Locking Slots

When a player is occupying a slot position in the game lobby, they may wish to lock that slot in order to control who can play their position. That way, players who are uncomfortable with just anyone taking over for them can ensure that only AI players, or players they give permission to can play that position. A player's slot will have a Lock icon in the top right corner - clicking this icon will prompt the player for a password with which to lock the slot.

Beaming a Game

If the host of a game needs to leave mid-game, but the rest of the group agrees to keep playing, the game will be saved and then automatically transferred to all other players during shutdown. One member of the remaining group can then load the saved game for the others to join. Should the original player who started the game re-join later, the updated game will be beamed back to them.

THE STANDALONE SERVER

Included with the Collected Edition of the game is a stand-alone server for *Sword of the Stars*, allowing players to set up a game that will run even when they're not there. This allows for epic games that don't require a captain player to be available at all times.

To host a game using the dedicated server, run the Dedicated Server Launchpad application. You will be presented with a menu of game setup options. Once these options are configured, click Launch and the server will begin. Players can then run *SotS* normally, and join the server game, or leave it for others to join!

CUSTOM MAPS

Sword of the Stars now allows players to create and play their own star maps! Players can plot out their own galaxy in .csv format (allowing them to be opened in a spreadsheet program, if the player prefers), save it into the new Maps folder in the game's root directory, then load it up in-game!

Here are the basics of creating a custom own star map - there is an example map already in the Maps folder for reference. In a map file, three things can be specified: Systems, Nodelines and Colonies.

System

Format: system, x, y, z, name, size, resources, suitability

Parameters: x,y,z - Position of the system

name - (optional) name of the system

size - (optional) Must be between 1 and 10

resources - (optional) Must be greater than or equal to 0

Each system is a star and the position of each star must be set as an X, Y, Z coordinate. In addition to position, there are three options that can be specified by the player-designer; System Name, Planet Size and Planet Resources. If left out, these four values will be randomly set by the game.

This is often the best option, but it may be that players wish to include a particular planet, in a particular place, with particular values.

At a minimum, a system will therefore look like this in the map file;

```
system 13 16.1 1.4
```

It can also look like this;

```
system 13 16.1 1.4 Balki 1 5000
```

In game, this would appear as a size one planet, named Balki, with 5000 resources.

Nodeline

Format: nodeline, systemA, systemB

Parameters:

systemA - Name or index of an endpoint of the nodeline

systemB - Name or index of an endpoint of the nodeline

In general, the distances between systems is simply a matter of tanker support to most of the SotS races - however, those races that rely on Nodelines to travel can find themselves in a pinch if a particular galaxy shape leaves them stranded in a particular sector. In a custom map, Nodelines will be randomly generated between systems, but being random it is possible for these situations to occur, and a Human player finds himself trapped (or trapped until he can maximize the engines) - the end result is a cranky Human player. To avoid these situations, players can set Nodeline "hardpoints" - Nodelines that will always appear between two systems.

Creating one of these Nodeline hardpoints is easy enough - a player simply designates the two systems to be linked together.

```
nodeline Big S2 Big S3
```

NOTE: What if you want a system to have a randomly selected system name, but you also want to hook a Nodeline to that system? You haven't given the system a name, and without a name, you can't specify that a Nodeline connect to it every game. In this case, give the system a name, but put an underscore in front of it - the game will use this name to connect the Nodelines, but will ignore the name in-game, and still give it a random name. So it will look like this:

```
nodeline _Big S1 Big S2
```

Colony

Format: colony, colony_group_name, system_name

Parameters:

colony_group_name - Specifies which group the colony belongs to.

system_name - specifies which system to add to the group.

When starting a game, SotS will randomly place starting colony worlds - however, players can "suggest" some potential colonies. SotS will take this into account when setting up the game. Not specifically useful, but a colorful twist.

colony player0 Transit 1

A few things to keep in mind;

You can add as many stars to your custom map as you like, but we recommend a minimum of 15 and a maximum of 350.

- Other players do not have to have a copy of a custom map in order to join a multiplayer game. They will receive it when they join.
- Players can be set close together, but things can be messy if too close. The game will not warn when things are too close, so players should load up and check their work before playing. Similarly, the game will add node paths as directed, even if this means going through a system - this is something else a player should check for before releasing.

When loading a map, if something is missing or incorrect, a warning will be recorded in the session log. It's not a bad idea for a map creator to load a custom map and check the log to see if anything needs tweaking - however, the game will gracefully do its best to run the map regardless, so it's not critical to check. Just tidy.

MAINTAINING YOUR EMPIRE

Imperial Economy

An Empire is a collection of colonies, all of which have resources and population, which can be applied to producing income. So maintaining the Empire is accomplished through managing your colonies.



Budget Overview

This pie chart represents how the empire's budget is being utilized at any given time. Clicking on this chart will take players to their Empire Overview, which has detailed information about the budget. As players become more familiar with the game, the quick look at the chart will be very useful. The colors represent the following aspects of your budget;

Green - The portion of income going into savings this turn.

Light Blue - Planetary development, meaning money spent on terraforming and building infrastructure on colony worlds.

Blue - Fleet Maintenance. The cost, per round, required to keep your fleets flying.

Gold - Money spent on research.

Brown - Money invested to help an ally with their research. More information on the Budget Overview screen later

White - Special Projects cost

Red - Interest payments when savings fall into debt

Savings/Research Slider

Any money not earmarked for use elsewhere (fleet upkeep, planetary development, etc.) can

either be saved for later use or pumped into research. This split can be set using this slider. When you have started a research project, you will see that project's icon, rotating at the top of the screen, between your player avatars and the Budget Overview chart/button.

Imperial Savings

This denotes the amount of money your empire has managed to save up to this point.

Research / Design / Build

These three buttons, like the Budget Overview button, access separate sub-screens. They all require a more detailed look later in this manual, but for now just remember that they can be accessed through these buttons.

Planetary Economy



Planetary Information

When a planet or star is selected, important details about that system appear here. If the selected star is unexplored, the information will be limited to the name, but when a planet owned by a player is selected, there is a great deal of information.

There is a yellow note icon next to the planet's name - you can click this to add your own notes to the planet. Planets with notes will have a note icon next to them in the Star Map, for hand reference.

Other planetary information in this panel includes:

Planet Name

All planets have a name. Some are general names, but some are specific to one of the four races in the game. When a player encounters these alien names, they are moving closer to another player's empire.

Civilian and Defence Managers

These icons, when clicked, will open up windows in which you can arrange the placement of your ships and stations around the planet, in case of attack.

As an extension to the Civilian Manager, to the right of those icons are icons representing each of the races living on your planet. Hovering the mouse over these icons will display their population numbers and morale.

Planet Size

All planets range in size from 1 - 10. Planets of every size can be colonized, provided the climate isn't too hazardous, but size will limit a planet's population, output, and ability to maintain orbital defenses.

Resources

This is the amount of renewable materials available to produce ships. The more resources a planet has, in conjunction with Infrastructure and population, the greater its industrial output. Overharvesting will decrease this value, but having mining ships drop off ore from other planets will increase resources.

Infrastructure

This is the level of industrialization on a planet, and helps determine the planet's potential industrial output. The number is a percentage, so when it reads 100, the planet has a fully developed infrastructure. There are exceptions to the basic Infrastructure of a planet however - see Embedded Infrastructure below.

Population

Population is limited to the size of the planet. A size 10 planet can have a maximum population of one billion people. The size of population also affects a planet's industrial output. Population distinguishes between Imperial and Civilian. More on this below.

Industrial Output

Based on population, resources, and infrastructure, this value dictates how fast a planet can produce ships.

Income

Operating colonies through population and trade produce an income, which is then added to the Imperial Savings. The numbers in brackets besides the income show the number of available trade routes to and from the planet, and how many of them are operating. If the trade sector the planet is in becomes unsecured (such as an enemy colonizing a nearby world) or the player has moved the Construction slider completely into building ships, trade routes will shut down.

The numbers to the right of Income, in parentheses, represents the amount of income being generated and retained from trade, versus commitment to construction, and the maximum amount the planet can generate, provided it has enough trade ships. This balance is set by the player using the Planetary Budget slider, as well as the Ship Construction slider (if you have ordered a ship to be built), More below.

Planet View

To the left is a picture of the selected planet. How habitable a planet is, as well as how big it is compared to other planets, can easily be seen here. The more perfect the planet is for a player's race, the better it will appear. On the other end of the spectrum, a planet that is completely uninhabitable will appear as a lifeless ball of rock.

It's possible for a player to encounter a planet, but not survive the turn, and so information on the planet isn't marked on the Strategy Map (though they do get a visual idea of suitability in the combat turn - smart players should take note.) In these cases, the planet is marked black with a red X, until the player can properly explore the system. Until a planet is encountered, the system is marked with a star.

Besides the economic information listed above, there are a couple more details about a planet that can be seen here;

Climate Hazard

Underneath the planet name is a bar with a marker. This bar denotes the suitability of the planet's climate for colonization. Any climate hazard between +/- 550 can be colonized (except for the Zuul who are more resistant to harsh environments and can colonize worlds with a climate hazard between +/- 625) - the greater the hazard, the longer it will take to terraform and build up population and infrastructure, which means more cost, but it can be done. Anything outside these hazard areas is just too costly to colonize. However, certain technologies can increase this area to +/- 700. And in some cases, a previously unusable planet to one player will become a viable prospect after another player (from a race with different climate tolerances) has worked on the planet for a while. Even weapons can alter the climate, both for better and for worse.

Abandon

To the right of the planet name is a star - this button will order the colony abandoned, after prompting the player to be sure it is what they meant to do. There are cases where a player may wish to abandon a planet. It's unusual, but not impossible. For example, a player may wish to abandon a planet in order to allow an ally to come in and colonize it. Whatever the strategy behind such a move, this is how a player abandons a planet.

Satellites and Stations

If you build defense platforms or encounter a planet with defense platforms, how many there are and of what size class will appear to the bottom left of the Planet View. How many satellites a planet can maintain depends on the size of the planet; planets of sizes 1-3 can only build an orbital ring of ten destroyer platforms, sizes 4-7 can build ten destroyer and ten cruiser platforms, and sizes 8-10 can build a full compliment of ten destroyer, ten cruiser, and ten dreadnought platforms. Similarly, when you have

constructed a Station at a planet, the station and the kind of station it is, will appear here.

Notepad

Each planet and star has a notepad, on which a player can leave notes for future reference. This is handy for reminders if the game is saved and put aside for a while. It's also handy for making notes about surrounding stars that opponents may use to launch an attack.

Notes can also be attached to fleets and trade sectors - see appropriate sections for more information.

Overharvest

Left alone, a planet's resources will always be available and stable, but overharvesting can provide a short-term boost in production, at the cost of causing irreparable damage to the planet's resources. By moving this slider, how many resources will be lost next turn will appear in red next to Resources. The Zuul, because of their nature, naturally overharvest at a rate of ten points of resources per turn - they can up that amount as well, but just in general, with the overharvest slider turned all the way down, they have this small overharvest bonus and resulting damage.

How much of a bonus you get from overharvesting (and conversely, how much damage you do to your planet's permanent resources, depends on the size of a planet's population. Meaning, when you first colonize a planet, even full overharvesting won't get you much of a bonus. Only later, when the planet has a much larger population, can you utilize overharvesting to its maximum capabilities. This of it like this; One hundred people can't strip mine a world - One hundred million can.

The one exception are the Zuul, who have little regard for the maintenance of a world's environment, and who on their best days still overharvest the planet to some, constant degree. This gives them a constant bonus on their worlds, but it is limited by how long the planet remains viable. Their drive to acquire new worlds becomes understandable.

Planetary Budget

When a planet is not producing ships, improving its own infrastructure, or terraforming, the planet's entire income will go into savings, research, and such. This option allows the player to control how much should go into Construction and how much should go into Trade.

The income allocated to Construction can be further split between Terraforming, Infrastructure, and Ship Construction. Sliders for these areas of construction will appear below Planetary Budget when colonization or ship-building is ordered.

Notes on Infrastructure and Slavery

Embedded Infrastructure

It has been decades since the human race first took to the stars and began colonizing new worlds. In such time, the ability to grow and refine a planet's infrastructure has been improved and refined - these refinements are now reflected in-game.

The Homeworld and Colony Population Increases - Once the origin of an empire, a player's homeworld is now a beacon of potential to all other colony worlds. Homeworlds now start with double what was their maximum in Sword of the Stars - as a size 10 world, homeworlds now start with a population of 2 billion and 200% infrastructure.

While not as efficient at filling out their world, fully developed colonies will be able to exceed the previous population and infrastructure maximum by 20% - so, a size 1 world can develop up to 120 million people. A size 7 world could have up to 840 million people.

These additional souls will add to the overall infrastructure (this will be reflected in the planet's stats) and hence production ability and income of their colony.

Infrastructure In a Time of Conflict

Conflict will always upset the balance of things at a colony. These disruptions aren't something that can be shaken off lightly by a population. The biggest impact an attacker can make on a colony world is to upset the Embedded Infrastructure. When a planet is attacked, any damage caused to its population and infrastructure cannot be repaired beyond 100% for 20 turns. The only exception to this is the homeworld. Homeworlds can never replace their full 100% bonus once it has been lost, however no matter how tragic their misfortune, they can always replace back up to the 20% bonus all fully developed planets enjoy and they can start repairing that bonus immediately after combat.

However, there are other ways to boost your infrastructure...

Slavery

As brutal as the conflict between the original four species has been, The Zuul have proven they are even more brutal. Reported first encounters with The Zuul said that they would descend to a planet's surface and abduct some unfortunate part of the population, but no one knew what their intentions were. Now we know that it is to supplement the development of their colonies.

The Zuul can build and deploy raiding ships that can capture population from an enemy planet. Once successfully out of combat, the surviving raiding ships can return to a nearby colony and drop-off their captives. These news slaves add to the population of the colony, and thus add to its ability to produce - however, unlike normal population, these slaves can be pushed to provide a bigger boost in production, but at a cost - much the same way you can overharvest a planet's resources, trading temporary benefits at the cost of long-term resources.

Control of a slave population at a planet can be accessed by selecting the planet in the Star Map, and from the planet's Information window, click the Slavery button. Once open, the Slavery window will allow players to adjust how hard their slave population is working - the harder they work, the better the short term gain in production, however there are drawbacks. In general, the harsh conditions of a Zuul colony world are damaging to slaves, resulting in their dwindling numbers, but pushing them harder will increase the speed of that dwindling.

Imperial and Civilian Populations

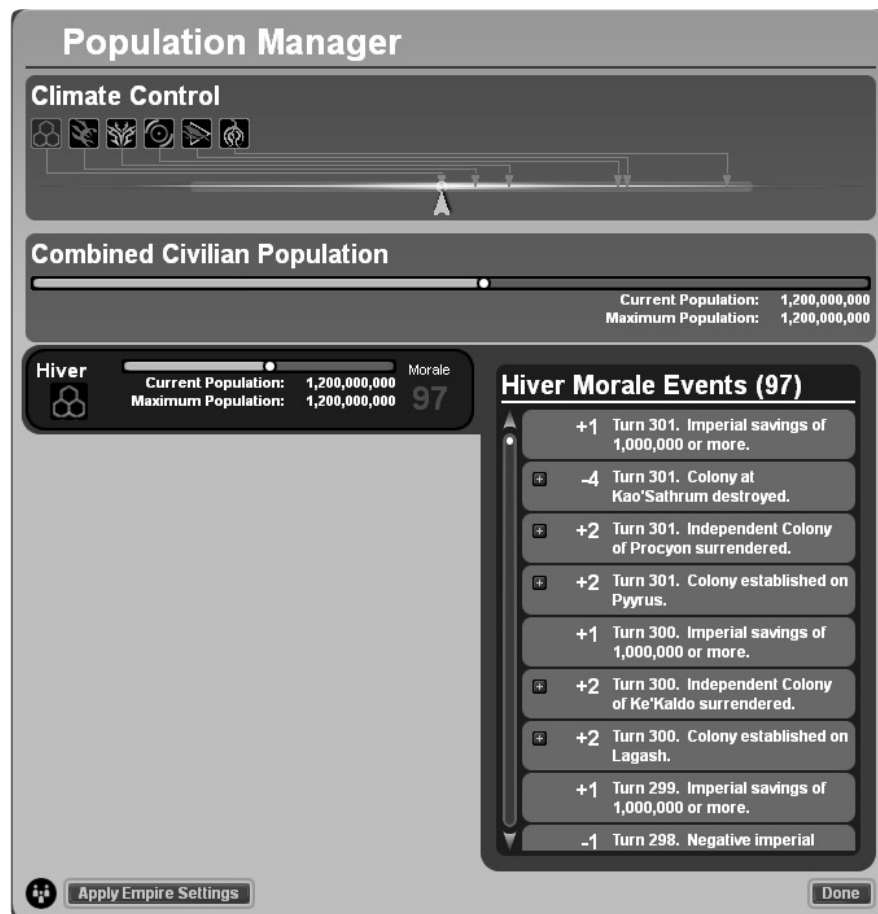
When SolForce first took to the stars, everything was done in the name of Earth and SolForce. Over time, as the empire grew and new colonies became more stable and self-sufficient and mankind entered into the trade era of expansion, the population of worlds became less empire-centric, and new, civilian populations began to take shape. Initially comprised of civilian Humans, civilians from other worlds began to appear. Simply put, the Imperial Population of a planet is largely responsible for the Production and Research output of a planet, while the Civilian population generates income and support for Trade Routes. As in the previous *Sword of the Stars* games, the root, or Imperial Population, work for the empire out of duty. Civilian populations however, are a mixed collection of interests and agendas, requiring careful manipulation using the Population Manager.

In combat, with the right technologies, you can distinguish between the Imperial population and civilian population, each of which will have a bio-counter in the top left corner (unlike the previous games, which had a single counter for population.)

Population Manager

Every occupied world has a new button of a little man on its system info card. Clicking this button will bring up the Population Manager, which will give you control of your civilian population. In the manager you can see the current population, maximum population size, and morale of all races living on your world. You can also see the climate hazard preferences of all the races you have encountered, which in turn will allow you to adjust the climate of your world to better accommodate other species – click on a race icon to highlight that species' preferred climate. Adjusting the climate away from the perfect balance for your race will reduce their potential population maximum. It's not great for morale either. To adjust the climate of your world, move the white arrowhead along the Climate slider.

Maximum civilian population is typically set to match the maximum of imperial population, however that civilian max can be increased or decreased using the slider. Decreasing the slider makes more room for civilian population from other races. Increasing it also makes more room for new civilians, but past the comfortable, natural limit, the population begins to permanently use up planetary resources. These can be replaced by mined resources from other worlds. Boy, it sure is hard keeping a population happy.



Homeworld

A player's homeworld is a beacon of potential to all other colony worlds. Homeworlds start with double the potential maximum of other colony worlds - meaning, as a size 10 world, homeworlds now start with a population of 2 billion and 200% infrastructure.

While not as efficient at filling out their world, fully developed colonies will be able to exceed the previous population and infrastructure maximum by 20% - so, a size 1 world can develop up to 120 million people. A size 7 world could have up to 840 million people. These additional souls will add to the overall infrastructure (this will

Morale and Rebellion

In the early days of expansion, every citizen worked for Earth and by extension, SolForce. But as the years passed and civilian populations grew, morale became more and more important. Morale on worlds can be positively and negatively affected by technology, combat, any number of things, and it is important to monitor these changes in the Population Manager, and react accordingly. When population polls drop to 25%, things can turn critical for a world, and rebellion may take place, turning the planet independent.

Loss of morale can be reduced by the presence of police and propaganda ships, the starting of new colonies, and even improved with the more money there is in the Empire's bank account. Morale can also be improved by giving the civilian population more freedom, namely by increasing the population limits on a world. However this will slowly erode the resources of a planet. It would be better to avoid negatively impacting morale in the first place, such as when Imperial savings run into the negative. Plus and minuses to morale are reported in the Population Manager - it is important to check on them from time to time, as you might not know there is a problem until the protesters are storming parliament.

A world that falls into revolt will be in chaos for a few turns - if you cannot regain control quickly, they will go independent. You can monitor all race morale on a planet in the planet's Population Manager or see the morale of your primary civilian population (your race) in the Colony Overview list.

The per-race morale and the overall morale of a planet can be seen, for quick reference, in the Planetary info card in the left side-bar.



Independent Worlds

Some worlds have developed or removed imperial influence, and have gone independent. Some may go independent during a game if morale on a world drops too low for too long. In either case, independent worlds are protected by simple defense satellites. Clearing out those satellites and landing representatives of the Empire (through colony ships) will bring the planet and its civilian population under your control.

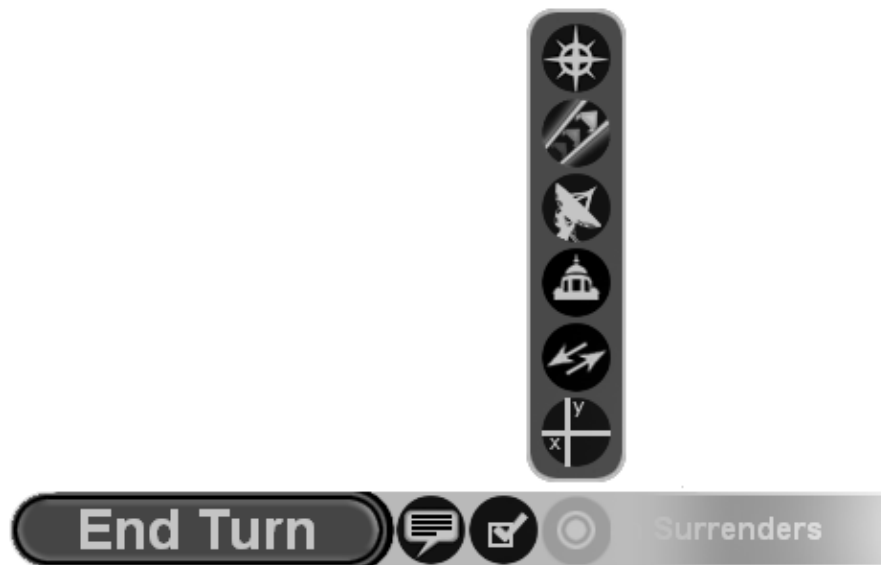
Diplomacy and Intel

Besides the Side Bar, there are a few other elements on the Strategy screen that are important.

News Ticker - along the bottom is a news ticker. At the start of each turn, all-important events are listed here. The left mouse button can be used to click and scroll the ticker back and forth. Left clicking on a news item will pop up a news window in the top right of the screen. By double clicking the news ticker or the event window at the top right, the camera will refocus on the planetary system where the event took place.

News Window - When a news item in the News Ticker is clicked, more information about that event will appear here, such as ships lost in combat or worlds colonized. This News Window has arrows, left and right, at the bottom of the pop-up window, so a player can cycle around a given turn's events without having to return to the News Ticker. The pop-up can be closed by clicking the X button at the top right.

An info button on post-combat news items can be clicked to open up a Tactical Action Report window, which will provide a lot more info on the battle - damaged taken, damage caused, weapons used, etc.



Chat - Comm System

Between the End Turn button and the News Ticker are three buttons; Chat-Comm System, Objectives, Info Toggles

In Born of Blood, the chat system was expanded to help players exchange information and threats with one another, and more importantly, with the AI. This system can be accessed by opening the Chat window, clicking on the Compose tab, and clicking on various icons to build a message.

Language plays a role in the Comm System, just as it does in Chat and Diplomacy - if you can't speak their language, then you can't understand them. Initially, all Comm message can be Broadcast to everyone, but if they don't speak the lingo, it will be gibberish. As you encounter other players and learn their language, you can Chat with them, create

Diplomatic alliances, and send specific Comm messages to individual players or your allies.

Within the Chat system, Tell can be used to talk out of game to a particular player, all players, or even players waiting in the game lobby. Because sometimes you just have to tell the other players you have to go to the bathroom, without researching a bunch of languages first.

All Comm messages appear in the Chat window (as well as popping up, momentarily in at the bottom of the Star Map screen. They are also logged accordingly in outgoing and incoming tabs in the Chat / Comm window. Players can dismiss these messages whenever they choose, or hold onto them for future reference.

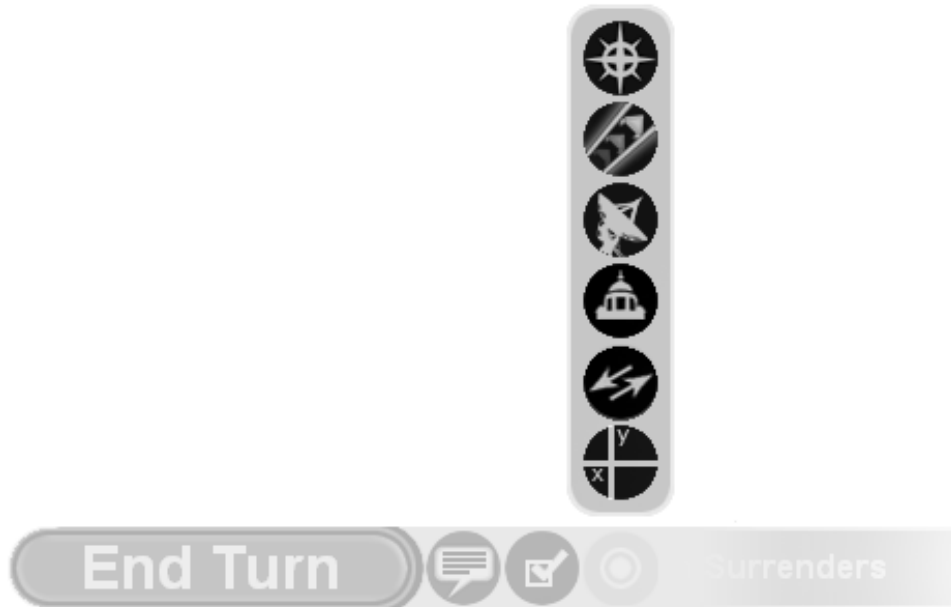
Some messages can carry a time limit (handy when trying to coordinate an attack on a particular planet.) These messages will be removed from the Incoming / Outgoing folders automatically. Messages that reference a particular planet are clickable, both in the Incoming / Outgoing folders and in Chat, and will take players to the Planet in Question.

Finally, players can send one another Sticky Notes - this can be done either by selecting who you want to send it to and then selecting the planet with the message you want to send, or you can start at the planet, and take the message into the Comm system, where you then pick the person to send it to. These Sticky Notes are then attached to the same planet in the receiving player's Star Map, which they can read and dismiss as they would their own Sticky Notes.



Objectives

Only important in scenario games - this window will keep track of special goals you have completed as well as guide you to the next goal you need to achieve.



Stars Toggle

This button will turn the stars in the 3D map “on” and “off”, removing the bright stars from the screen for players who want to see less of the map as a whole and more of their empire in specific.

Move Lines Toggle

Similar to the Stars button, this button will turn the move lines, which indicate fleets in transit and where they are transiting to, “on” and “off”. There are times during a game where multiple players will be sending multiple fleets off in many directions, and the masses of move lines can be distracting, so the ability to turn them off temporarily can be useful.

Sensor Network

Displays a 3D approximation of the area within the galaxy that you are able to actively monitor through Deep Scan ships, Sensor Stations, and planets. Anything outside the grey areas, you have little idea what is going on.

Political Map

This displays a 3D approximation of your empire’s sphere of influence, as well as the known empires of enemies. Allied empires, where you can see all their planets, will display in full, so long as you remain allies. When you cease to be allies, you will still see their full empire, as of the last turn you were friends - any new planets they acquire or lose/abandon afterwards will not be reflected in the map.

Three additional layers of information can be abstracted visually.



Alliances - The sphere of influence of a player and their allies are shown merged.



Military - The player’s fleets and any known enemy fleets are displayed on a planet-by-planet basis, allowing a player to see where their empire’s defenses are weakest and strongest.



Recent Combat - A simple over of the galaxy and the most recent conflicts therein.

At the bottom of the Political Map are buttons for each opponent empire encountered - clicking these buttons will cause there are of influence in the map to slowly blink, highlighting them from the rest. Rebel AI empires will automatically blink all the time, so you can always keep them separate from their root empire.

Trade View

This displays all your active trade sectors in the galaxy. Active trade sectors you have set up will be displayed in green. Sectors that you have lost or have become inactive, will be red.

Galactic Axes

This displays a simple X,Y,Z marker for the galaxy, for those who have a tough time orienting in 3D space, or are too accustomed to regular, flat-mapped 4X games.



End Turn

See this button? Only press it if you've finished everything you want to do before having to, possibly, fight. If you do press it, there will be a three second countdown - this is the greatest feature in the game, as it will save you from all the pain and anguish of committing to a turn and then remembering something you wanted to do. You're welcome.

In MP games where a round timer has been set, your turn will be ended for you, if time runs out, so keep an eye on the clock. An audio warning and countdown will remind you. Another will sound when you are the only person left who has not finished their turn.

Exit / Save / Options Button

At the bottom Right of the Strategy Screen is a round button. Clicking this button will bring up a pop-up menu of three options; Exit the game, Save Game, and Options. On various Strategy sub-screens, such as Ship Design, Ship Build, etc., this button will return you to the main Strategy screen and the 3D Map. *Timer* - at the right-most end of the News Ticker, a countdown timer may appear, if the Game Host has set a time limit

Turn 301			
NAME	STATUS	ROUNDS	TIME REMAINING
Player (You)	Playing	n/a	n/a
■ Captain P...	AI	n/a	n/a
■ Vagabond Princess	AI	n/a	n/a
■ Pen Law	Eliminated	n/a	n/a
The Drowned	AI	n/a	n/a
The Servants	Eliminated	n/a	n/a
Opodei the Golden	Eliminated	n/a	n/a
The Unsinging	AI	n/a	n/a

Game Info / Trade / Ally / Rank

At the top of the 3D Map is an information bar. On its left is the turn number. Below it is a tab that will open and close, revealing a list of all the players, both human and AI, in the game, as well as what they are doing - this is handy for seeing who is currently in combat and how much longer it will be until they are done, as this area will list the number of fights they have pending and how much time is left in their current combat (this is a maximum amount of time, as combat can end earlier than the time limit.)

“Playing” means the player is still involved in making his strategic decisions and hasn’t ended his turn. “Done” means the player has committed to his decisions and is waiting

for the next turn to start. “Query” means the player has received a combat query about which fights he wishes to personally oversee. “Waiting” means the player has committed to the fights he wishes to control, but is waiting for an opponent, either because that player is being queried or is currently fighting. “Fighting” means the player is in a combat turn.

Moving the mouse pointer over player names will reveal the profile names of any players who have taken over someone else’s position, or a position initially started as AI. Clicking on a player’s name will mute their system marker colors.

To the right are four buttons;

NAME	STATUS	ROUNDS	TIME REMAINING
Player (You)	Playing	n/a	n/a
■ Captain P...	AI	n/a	n/a
■ Vagabond Princess	AI	n/a	n/a
■ Ten Law	Eliminated	n/a	n/a
The Drowned	AI	n/a	n/a
The Servants	Eliminated	n/a	n/a
Ogodei the Golden	Eliminated	n/a	n/a
The Unsinging	AI	n/a	n/a

Diplomacy

This opens the Diplomacy Screen, which keeps track of the other players in the game, your relationship with them (War, Alliance, Non-Aggression), and details about their planetary preferences, empire size, and more. Other players will only appear here after they are first encountered.

Once a player has been encountered and they are visible in the Diplomacy screen, you can use a series of buttons at the bottom of their Diplomacy listing to send them money and research boosts - both allies and enemies - you never know, sometimes it helps to pass around some bribe money. As well, allied worlds will refuel any friendly ships in the area.

Forming an alliance (or breaking one) is accomplished using the drop down menu near the bottom of their listing - by default all players are at War, but you can invite players to an Alliance or a Non-Aggression Pact (where players agree not to work together so much as not fight.)

In addition to sending them money and research, you can send players a message (so you don’t have to leave the Diplomacy screen to Chat), view their known Diplomatic arrangements with other players, and access the Intel Analysis screen.

The Diplomacy Screen, which can be accessed from the Star Map or using the “Y” hotkey, is a basic overview of your interaction with other players in the game. As you encounter these new races and factions, a card will appear for them in the Diplomacy Screen. Over time, this card will keep track of certain information, including their homeworld, the number of their known colonies, savings, ships, satellites, largest ship size, and most powerful powerplant. Some of these come from observation while interacting - others come from allying with them. They are not complete pictures of their empire, nor are they always up-to-date, but they are handy.

At the bottom of a player’s diplomacy card are buttons to send them money, resources, or to access the Chat / Comm system - either to send them a message, or to offer an alliance or NAP. Your current status with them - War, NAP, Alliance - is always displayed.

A fourth button on the card will access the Intel Analysis Screen, after a player has researched Data Correlation.



Intel Analysis

This opens the Intel Analysis Screen, which initially keeps tracks of your empire's favorite ship designs and what technologies you have. However, through research this screen will in time keep track of the other players the same way, giving you useful notes on how best to deal with them.

This screen provides a player with more information about their empire and the empire of their opponents and allies. This screen will display an opponent's 20 most recently observed ship designs, recognizable weapons, ship technologies, and empire technologies. Not all weapons and technologies are recognizable. If a player has that same weapon or technology, or can see it as an upcoming item in the Tech Tree, then it is known, and the appropriate icon displayed. However, any technology the player does not have or is not yet available to them on the Tech Tree, will display a Tech Family icon - you may know something is an energy weapon, but not what kind of energy weapon. Still, a clever and observant player can use even a Tech Family icon as a reminder for what they've seen with their own eyes.

This screen is only available once Data Correlation has been researched.

Rank

Pressing the Rank button will give players a quick look at their standings in various areas of the game, including: Colonies, Technologies researched, Income, Ships, Population, and Output. These are rough indications of a player's progress in a game, not in-depth intelligence on other player empires - in some cases it will be possible for players to be tied (for example, in numbers of colonies, or technologies researched), in which case their standing is rounded down. Two players can be tied for first place in the standings, but both will see themselves as being in second place. The idea behind these Rankings is that players can see where they are seriously falling behind, which will help them decide where to focus their empire's resources.

If anyone is playing as the Hiver, a gate symbol will appear here, as well as a number denoting how much traffic the gate web can handle in a single turn.

Empire Civilian Settings

This window will allow you to set your preferred settings for the alien races living on your planets – this overarching setting will alter any system specific settings you make at a particular planet, so bear this in mind. Once empire-wise settings are adjusted, you can then adjust individual planets as you like – these settings will remain until you adjust empire-wise settings again. However, empire-wise settings aren't something you should play with too much, and usually only at the beginning of a game.

Notes on Alien Languages and Diplomacy

Translate Language (Level One) – Allows you to translate basic military communications from Humans, which in turn allows you to form Cease Fire agreements. The Zuul speak what is succinctly called “Zuul”, Humans speak English, Hivers speak Ri-kap Ken, the Tarkas speak Urdu Kai, Morrighi have a simple mash of language called “Trade Creole”, and the Liir have their simple, non-telepathic Fleet-Song. As before, this technology will also allow you to understand another race in the Comm Panel.

By researching the basic language of another language, the Morrighi are able to establish trade routes with that race, excepting the Zuul, who do not deal in trade. Learning to speak Morrighi Trade Creole makes it that much easier when studying other Xeno-Culture technologies.

Translate Language (Level Two) – Allows a deeper understanding of this race's common language.

Now able to communicate directly with all aspects of an alien society, you can now form NAP/Alliance agreements, as well as establish trade routes with them, just as the Morrighi were able to with a basic understanding of a language. Better understanding of a language also means a better chance of understanding technology salvaged from the field of battle.

Learning the Female Dialect of the Morrighi continues to aid in your research of Xeno-Culture techs.

Translate Language (Level Three) – Allows an even deeper understanding of this race's highest bureaucratic and scientific language, giving you access to the deepest levels of a race's culture and government. With this level of language you can create Science Missions to teach aspects of your technology to other empires. As well, you can try and demand a planetary surrender in the face of overwhelming power. Again, better language skills mean an improved chance of discovering a new technology to research from the wreckage of combat ships.

Provided your scientists can crack the Ancient Morrighi Dialect, you will gain another bonus to your research into the Xeno-Culture techs.

Science Missions

Once you have learned the fine details of an alien language, your race is now capable of offering technologies to other races. Not all technologies mind you – depending on the disparities in the level of technology, or the differences between your technology tree and theirs, it is difficult, if not impossible, to explain the scientific principles behind them, regardless of linguistics.

However, there is always something to offer, perhaps as an important deal between two allies, or just as a friendly gesture to a wary opponent. Initiating a Science Mission is very much like initiating the giving of money or research points in the previous games – simply open the diplomacy screen, and click the Science Mission button on another player's card. Unlike giving money or research points, this will open up an acceptance window, similar to when you offer a ceasefire, NAP, or alliance to another player. They will decide if they wish to accept, at which point, a selection of special research projects is offered. Inter-species teaching is tricky, and the selection may be extremely helpful, or basically just a nice gesture, but regardless, it's the thought that counts, right?

Spies

With complex diplomatic relations comes espionage. Spy craft can now play an important role in the galaxy by procuring information from one player and providing it to another. Sounds great, but procuring isn't exactly easy.

To spy in the game, you must have researched Spy Beams, as spies are recruited from the ranks of communications intelligence officers. You must also have Repair and Salvage ships, as they are the only ships capable of carrying a spy ship - simple vessels disguised to look like asteroids, with limited maneuvering capabilities - to another system. Though they look like asteroids, spyships are in fact packed with advanced, passive comm gear.

These ships and their pilots are dropped in-system and left to snoop. Once they have uncovered information, they will signal back for pick-up.

To build a spyship, you must first build a Repair and Salvage ship. Once built, you can select Build Spy in the Special Orders menu (just as you would select Start Mining or Colonize) in the Star Map strategy screen. You will then be presented with a list of Repair and Salvage ships. You can select as many as you like to be outfitted as spyship carriers.

The next turn, they are now carrying a spyship - this will be noted on fleet lists.

The Repair and Salvage ships can then be driven to allied or NAP worlds, enemy worlds, or uninhabited worlds that have asteroid belts - spyships rely on asteroid belts as cover. In any system where there is no threat of combat, you can select Deploy Spy, and the next turn, they will be deployed and snooping. Similarly, you can pick them up again later the same way. Deploying and retrieving them under threat of combat is a different matter though.

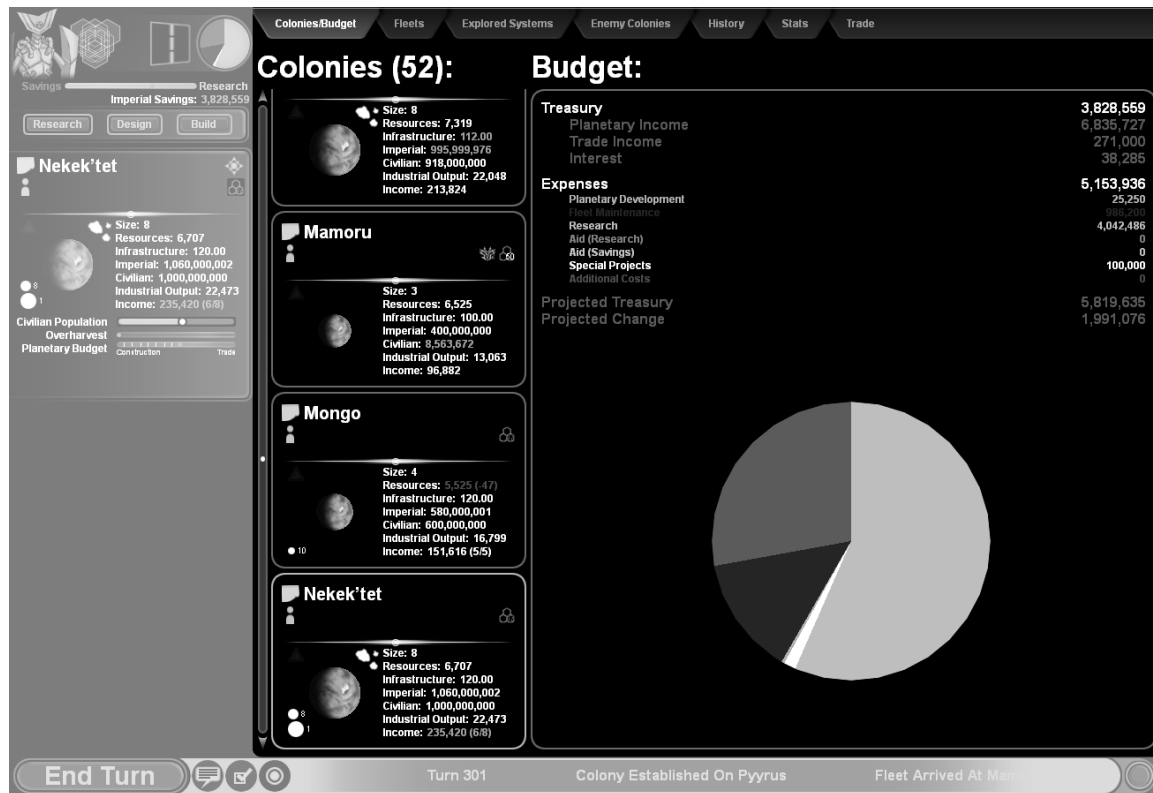
In an enemy system, the Repair and Salvage ship needs to move to nearby asteroid cover - once close enough, select the spyship slung under its carrier ship. The spyship will appear in the weapons panel with a single icon for deploying it - retrieving the ship works the exact same way. Once in combat, the Repair and Salvage ship needs to get in close, you select the spyship (which will appear in your fielded ship list) and click the icon in the weapons panel. Once retrieved, you may want to make a run for it. If both ships survive combat, return to a planet of your empire, and the information will be processed.

The information you can retrieve from a system, friendly or otherwise, varies. The longer the spy remains in system, the more information types it can retrieve, but the longer it stays, the more likely it will be discovered and destroyed.

Even in a friendly system, spies are frowned upon - and by frowned upon, it means they are killed, and your friendly relations get a bit colder. Spyships can discover the defense layout of the planet they are at, the trade routes in the sector, the last five turns of news events for the player being spied upon, and if they can remain undetected long enough, they can see the other player's tech tree to that point. The spy will message home each time information is discovered, at which point you can decide if you want to go retrieve them. As well, the turn before a spy is discovered, they will essentially break-cover and yell for pick-up, at which point you have one turn to go get them before they are dealt with by extreme prejudice.

Successfully retrieved and returned to a home planet, the information is processed. Defense layouts and trade routes are observed by clicking on the appropriate planet and clicking the Defense Manager button or the Trade Routes button you would normally use for your own empire. News events and the Tech Tree are accessed through the player's card in the Diplomacy screen.

Empire Overview Graph



At the top left of the Strategy screen, below the player's avatar and icon badge, is the Budget Micro-view pie chart. This small chart gives players a quick, at-a-glance look at their empire. Clicking on it will open up the Empire Overview screen - the main side bar is retained for comparison and reference, but a wealth of new information is now available to players. Along the top are five tabs that will access different parts of the Overview: these are Colonies/Budget, Fleets, Explored Systems, Enemy Colonies, History, Stats and Trade. By default the screen will open to the Colonies/Budget tab.

Budget

The budget pie chart can be viewed with a legend, showing exact values for each portion. To the left is a list of all the player's colonies and their details. This provides an excellent way to compare planets and their progress, output, number of defense platforms, etc.

Colonies

Double clicking on any of the planet details will sort the list using that information - right-clicking on colony listings will bring up a list of sorting options. Double clicking the planet will close the Overview screen and return the player to the star map, now focusing on the planet selected.

The planet Note system can be accessed here as well, using the familiar note tab to the top left of all planets. The *Fleet* tab lists every ship the player has in the game and what fleet it belongs to. Besides providing a quick look at the status of the ships - their damage, their Special orders, their level of fuel - fleets can be double-clicked, which will close the Overview screen and return the player to the starmap, focusing on the position of that fleet. Players that use this list should probably rename their fleets and ship designs whenever possible (more on renaming fleets and ships below): while the default names are quick and easy, they are not the best way to distinguish two important fleets from one another.

Once the proper level of technology has been researched and the player can set the positioning of ships in a fleet, these layouts can be viewed to the right of the list.

Explored Systems

Similar to a player's list of colonies, but the list is of all visited systems that have not been colonized. This list is important when a player is looking for good planets to mine, or would like to find a planet that was not habitable earlier, but through research can now be colonized.

Enemy Colonies

Like *Explored Systems* and the player's colony list, lists all hostile colonies for quick access. Finally, *Event History* is a running list of the in-game events over the previous 50 turns. Like the events that can be viewed in the main Strategy screen, these events will contain details on the event and can be double-clicked to take the player to the planet at which the event occurred.

History

Provides a record of the last 50 turns of the game. If you wish to revisit a recent event message (as seen in the event ticker at the bottom of the screen, and the event window at the top right of the screen), you can find it here, but only up to 50 turns.

Stats

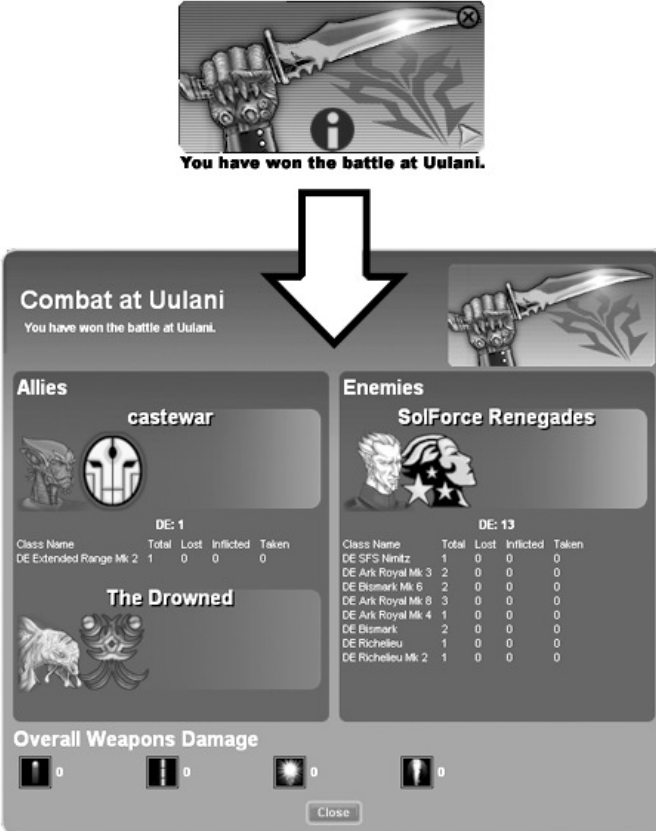
The game keeps track of a wide variety of stats, including; Population growth, Trade Income generated, Imperial Savings, number of Colonies, number of Techs, number of Battles, number of Ships active, number of Ships Lost, and number of Ships killed. Buttons for the other Empires are at the bottom - if you are allied with any of them, you have the option of observing their stats as well, starting at the turn in which you ally with them. The end of an alliance means, obviously, the end of your ability to see this information.

Trade

A list of active trade sectors, their vitals stats (number of trade ships, active routes, etc.) and a list of all the planets in that sector. Each planet listed has its Planetary Budget slider next to it, as you would see it in the Star Map sidebar, so you can manual adjust all planets in a Trade Sector, in direct comparison to one another. This is a particularly advance function.

After Combat Reports

After a round of combat, the event would be entered into a player's Empire Overview Event record, as well as appearing in the news ticker and in the event pop-ups on the Star Map. The information about the battle used to cover who won, and how many ships and population were lost. Now these same events have an info button, which will display far more information about the battle, particularly about damage taken and given out, according to ship class (size and name.) Also, each player's favored weapon and engine technology is catalogued.



The screenshot shows a combat report window titled "Combat at Uulani" with the message "You have won the battle at Uulani." The window is divided into several sections:

- Allies:** "castewar" with a DE: 1 summary. A table shows 1 DE Extended Range Mk 2 ship with 0 lost, 0 inflicted, and 0 taken.
- Enemies:** "SolForce Renegades" with a DE: 13 summary. A table lists various ship classes and their counts, all with 0 lost, 0 inflicted, and 0 taken.
- The Drowned:** A section with a ship icon.
- Overall Weapons Damage:** Four icons representing different weapon types, each with a "0" value.
- Close:** A button at the bottom center.

This is a ship-to-ship report, detailing how much damage is taken and given ship to ship. It will not keep track of damage dished out to a planet, but it will keep track the impact to Population and Infrastructure. Damaged caused by planet missiles is also not detailed - the importance of this report is how well ships perform against one another.

EMPIRE TRADE COMMERCE

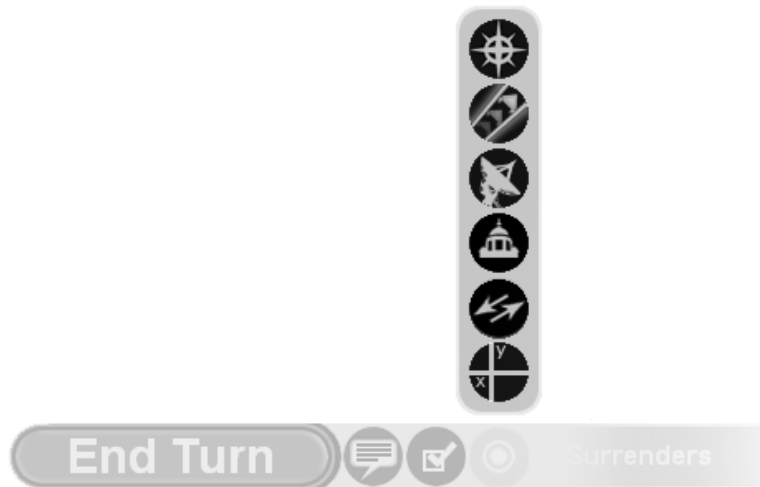
In the Tech Tree, there is a research project, FTL Commerce, that gives the player's empire the logistical ability to oversee and maintain inter-colony trade routes. These trade routes, when operating, add to an Empire's per-turn income, and hence helps increase the Imperial Savings.

There are three key ingredients to setting up trade routes - a secure trade sector, operating freighters, and colonies investing some of their production to trade versus construction.

Securing a Trade Sector

In the task bar at the bottom of the Strategy Screen, turn on the Trade View - this will highlight how the empire is divided up into sectors. Moving the pointer over a sector will highlight it. Clicking on a planet will highlight it and any other planets in that sector.

To secure them, they must first be explored - not all planets will be habitable, but they still have to be explored. Should an enemy player colonize the planet, the sector will not be secure, so you will either have to kick them out or become friends. A secure sector is green and one that isn't secure will be in red - a locked and unlocked icon in the center of the sector also shows the status of the area.



Freighters

Once FTL Commerce is researched, Freighter class Destroyers will become available in the Design and Build screens. Colonies can build these freighters and when completed, they will automatically appear in the middle of the trade sector (where the lock icon is.) Once there, these freighters are ready to begin work.

Planets and Trade

As mentioned in the game overview, each colony has a slider that can be moved between Construction and Trade. Next to that planet's per turn Income are numbers in brackets, which represent the number of trade routes to that planet, and how many are operating. As the slider is moved more towards Construction and less is put into Trade, the number of operating routes will drop. Moving it towards Trade and they will come back in to operation again.

The route lines between planets will also display whether they are in operation or not. As the player develops better engines and nearby trade sectors, Freighters will begin trading between planets in neighboring sectors.

The more put into Trade, the better the returns, but the less ships that can be built – it is up to the player how to balance between the two, according to the situation.

Commerce Raiding

Trade routes are good, but upsetting someone else's routes is fun. If a player has researched Commerce Raiding (available after FTL Commerce), they can build ships and designate them as Raiders by sending them to the center of a secure sector – this cannot be done in the default Star Map view. The Trade View has to be toggled on. Once there, they are on the lookout for enemy Freighters. The traveling of the Freighters and of the Raiders is abstracted and the chance of Raiders encountering Freighters is random chance.

Should Raiders encounter Freighters, there is combat. It is important to note that Hivers cannot raid, as their engines are hopelessly outclassed by the other races, and static point-to-point teleportation is useless for raiding roaming fleets. This doesn't affect their ability to protect their ships however.

Raiders roam a sector undetected until they engage in combat or by chance sensors pick them up. In these cases players can send a patrol to deal with the raiders, but it is always better to have an escort traveling with the Freighters. Raiders operate without any markings, so in a game with multiple factions of the same race, who to blame is never immediately obvious.

Protecting Your Freighters

Being poorly-armed ships, designed for hauling lots of cargo rather than war, any Freighter encounter with even a single Raider is likely to end well. To that end, players can build Escort fleets. Just like building a Raider fleet, players design and build their ships and send them to the middle of the sector they wish to protect (remember to turn on the Trade View to do this.) However, whereas Raiders hunt in packs, Escorts must cover all trade routes in the sector – should an encounter happen, the full Raider fleet will appear, but only the Escorts for that route will appear. The number of Escort ships in combat is equal to the number of ships designated for escort duty divided by the number of trade lines operating in the sector.

So if four raiders encounter some freighters, and that sector has four Escort ships, the four Raiders will fight one Escort plus the Freighters on that route. Take this into account when deciding how many ships you need to protect a sector.

Starmap Icons and Overlay

The rest of this manual describes the controls and functions of the game, but a lot of that same information can be found in the markers on the 3D starmap for easy reference. When zoomed away from a planet, the most a player will see is a selection ring, a fleet marker to denote that they have ships there, enemy fleet markers, and in some cases, an exclamation mark to show that they have made a note on that planet. A player's home-world will have a star overlay, to mark it as unique from all the other colonies they may have, which will be marked with a simple tab. Enemy planets the player discovers will be similarly marked in their opponent's color. If those planets have defense platforms – or in the case of Hivers, a gate – then special markers will appear.

When zoomed in on a planet, much more information becomes available.



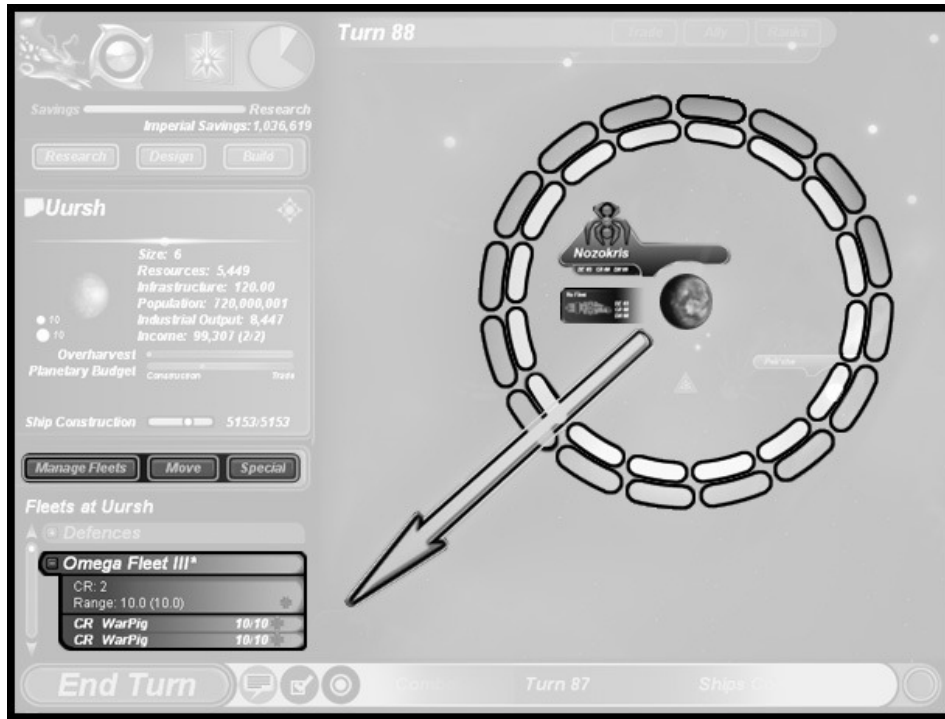
System name - the name of the planet at a given system can be seen at the top of the planet.
Player markings - when a player gains control of a planet, the name at the top will take on that player's color, as well as display their player badge.

System Notes - when a player creates a note for a planet, they will see the note tab, stuck to the planet or system name. Clicking this tab will bring up the note for reading, altering, or deleting.

Ships in System - right under the planet's name is a number count of how many Dreadnoughts, Cruisers, and Destroyers the player has in this system. This count doesn't include defense satellites, which are noted elsewhere. The fleet composition of these ships can be seen using fleet tabs.

Fleet Tabs - to the left of a player's planet are tabs for each fleet they have in system. Each tab shows the number of each size class of ship in that fleet. Clicking a fleet tab will cycle between different tabs, if there is more than one fleet in system. When another player is in system, their ships will appear in fleet tabs to the right of the planet.

Defense Platform Rings - when players build defense satellites, a ring will appear around the planet, one for each of the three size classes. The number of satellites in each ring (to a maximum of ten) will appear at the bottom of the ring.



Rebel AI

When a player suffers an AI rebellion during research, any planets and fleets they lose to the AI will flash, to better distinguish them from their root empire. Incoming fleets and their move lines that blink are Rebel AI.

FLEET MANAGEMENT

The rest of the sidebar is devoted to a player's fleets - organizing them, moving them, decommissioning them, and ordering ships with special functions into action. When you select a planet with ships in orbit, or when you select fleets in transit between star systems, a list of fleets will appear.

These lists can be expanded to reveal all the ships in a fleet, or collapsed for easier reading. At the top of a fleet listing is some basic information about the fleet composition (how many Destroyers, Cruisers, and Dreadnoughts) as well as the maximum range of the fleet dependant on the ship with the worst range (either by design or fuel), and average condition of the fleet.

When fleets are given a move order, the destination of the fleet and how many turns it will take to get there is displayed.

When a fleet list is expanded, each ship will have its fuel / range numbers listed, as well as the ship's condition; green means the ship is in good shape, orange means it has taken some notable damage and should be looked at, and red means the ship has taken serious damage, including the loss of an engine or ship section with a special function. If a fleet is unable to jump to another planet or begin a special function (such as colonize), and the fleet / ship condition is marked as red, players will know why.

Above the fleet list are three buttons:

Manage Fleets

When ships are in the same star system, players can organize them. They can move ships from one fleet to another, they can rename fleets, even create custom formations for when the fleet jumps into battle. All this is handled on a sub-screen, which will be covered in greater detail later.

Move

When a fleet of ships is selected, players can click Move. A movement line will appear between the starting position of the fleet and a target planet. The line will be green up to the maximum range of the fleet - beyond that it will be red. Most races can bring tankers and refuel mid-trip in order to complete the jump.

The distance between stars is displayed, which is important information when deciding whether or not it's time to research better engine technology.

Once a destination point is selected, by left-clicking the target planet, orange Move Lines will appear, indicating that there is a fleet headed to this location.

Notes on Human Ships

The exceptions to refueling in the middle of interstellar travel are human fleets. These fleets typically travel from planetary node to planetary node point. Refueling cannot take place in the middle of travel in Nodespace. Any point beyond the range of a ship or fleet can be set as a destination, but the ship will have to travel there at slower-than-light speeds and transit will take many, many turns. Players will be asked to confirm when they are attempting travel at sub-light speeds.

Since human fleets have limited Node Line options, but can move very fast across them, movement between distant stars typically means a lot of short jumps to systems along the way, which can be time better spent elsewhere. As such, Human players can set a waypoint path by selecting their starting position, clicking Move, then moving to the system they are trying to reach - the move line will offer the shortest series of Node Lines to get there. This doesn't mean the path is clear of danger or that your ship will have enough fuel to get there - Move line will still display red beyond the point where fuel runs out - but it can be useful in certain circumstances.

Notes on Hiver Ships

The Hiver race never developed super-luminal drive engines for their ships, so all travel is at very slow speeds. However, once a gate ship arrives at a planet and is deployed, Hiver ships can be

teleported into the system in a single turn. For more information on deploying gate ships, see below in the Special Functions section.

Once a gate ship is deployed, ships can be transported to any other gate, anywhere in the galaxy. There is a limit to the number of ships that can use the gate system in a single turn, but this limit increases with every gate added to the network—and by using certain technologies. The maximum number of ships that can move at once can be found at the top of the Strategy screen, next to the turn number.

Hiver's start with basic gate technology, but research improvements, like Gate Amplification will improve the combined efficiency of the gate network, as well as allow players to build Cruiser sized gate ship (which are not only bigger and tougher, but allow for more ships to simultaneously use the network than a Destroyer class gate.

High-end gate research can sometimes lead to Farcasters, which allow players to “blind-teleport” a fleet - players simply select their fleet, click Move, select their destination system that does not have a gate in place, and await the end of the turn. Farcasters are imperfect, so while it is possible that the jump will put the fleet exactly where it wants to go, it is more likely that the fleet will appear in deep space nearby and have to sub-light to their target - however, even in such cases, it is far faster than sub-light traveling the entire trip.

Notes on Zuul Ships

The newcomers also utilize a Node Drive to travel between stars. They cannot use the naturally occurring node lines, and must instead tunnel their own lines system-to-system. This gives them the free movement of the Liir or the Tarks combined with the speed of Human node travel. - an excellent counterbalance to their weaker, cobbled together ship hulls. However, their system is imperfect.

Zuul node lines take some time to tunnel and once “dug” these node tunnels will only exist on their own for a limited period of time, before the universe attempts to heal the rift and the tunnel collapses in on itself. These lines can be maintained by traveling Node Bore ships occasionally. Lines that are about to collapse will begin to blink on the Galaxy Map.

As well, the universe can only suffer a certain number of unnatural node rifts at once, so a Zuul player, even a well-organized one, cannot spider-web the galaxy with their tunnels.

Notes on Morigi Ships

A Void Cutter engine, once engaged, uses gravimetric focusing to warp space-time around the ship to the point where it quickly accelerates to speeds in excess of the speed of light. In so doing, the engine appears to create a ripple of disturbance—a “bow wave” of space-time distortion, which flows around the body of the ship and trails behind it in a wake. This bow wave has several principles which Morigi shipwrights and pilots have learned to take advantage of over the centuries, the most salient of which is that other ships employing a similar engine can enter into the slipstream of the foremost vessel, conjoin their own “bow wave” to that of the leader, and achieve faster-than-light speed without wasting the majority of their energy to create the initial disruption. All ships following the lead vessel in a Morigi flight pattern can devote the majority of their energy to forward thrust, rather than using it to crack the void.

The more Morigi vessels joined to a single flight, the faster the fleet as a whole will move, as the engines of all engines but one, will be applied to thrust, while only the lead ship—the Void Cutter—will be devoting the majority of its energy to disrupting the fabric of space-time. Morigi travel is slowest alone, and fastest when in large numbers.

Fleet Interception

Destination points don't have to be planets; they can also be ships in mid-jump or newly spotted raiders. Perhaps the player's ship has run out of fuel and he needs to send a tanker. Perhaps it is an enemy fleet, and the player hopes to intercept them before they reach their target planet. In both cases, fleets can be set as destinations, just like setting a planet or star as a destination. Human ships can intercept incoming fleets the same way, but as the target ships aren't in Nodspace, they have to travel at sub-light speeds (see above.) Conversely, Human ships traveling in Nodspace cannot be intercepted, even by other Human players.

Special Functions

Some ships have special functions that are used during combat. Some are used during the Strategy turn, but are automatic (such as jamming, or deep scan). Some, however, are important enough that they are initiated by the player during the Strategy turn. These are:

Colonize

If you have a Colonizer Destroyer or Biome Colonizer Cruiser at a potentially habitable world, you can initiate colonization. The start of the next turn, the colony will be founded and the task of improving and growing the colony begins.

Refuel

Tankers and Refinery ships can refuel other ships in the same location, even themselves. Once refueling is initiated, two lists are presented in the refueling window; the list on the left lists all ships in the area capable of refueling ships and how much fuel they are carrying. The list on the right lists all ships in the area needing fuel, and how much they'll need. The overall supply and demand of fuel is shown as two bars at the top, but the lists provide more detailed information.

An auto-refuel button will take all the fuel from the list on the left and apply it to as many ships as possible in the list to the right. This is quick and handy in most cases, but when more fuel is needed than is available, players can manually measure out fuel.

On each ship's fuel bar, dark green denotes their remaining fuel and red denotes how much fuel capacity is currently empty. By left-clicking anywhere on the red part of the bar, fuel up to that point will be added to that ship. How much range a ship has with or without fuel added is shown to the side of the fuel bar. Until the player exits this screen, the refueling hasn't been committed. Once they leave, their refueling orders are committed, even though the player hasn't ended the turn.

Caution: Tankers, Refineries, and Extended Range ships.

Seeing as their main function is to carry extra fuel, these ships are as explosive as you might expect. Players who have tankers, refineries, and extended range ships present in combat should take this into account and take proper precautions!

Auto-Refuel

This setting will tell all Tanker and Refinery ships in a fleet to automatically refuel ships in the fleet until they run dry - this is handy when traveling long distances requiring one or more refuelings. Tankers and Refineries are taken into account by the move system, so if the move line shows any red, then you don't have enough Tankers along to complete the trip.

Refine

Whereas Tankers have to restock on fuel at colony worlds, Refinery Cruisers can use the resources of an uninhabited world to create fuel. This will order refining to begin and the player will be alerted when the Refinery is full and can't refine any more.

Repair

Planets and Repair and Salvage vessels can repair damaged ships. Planets have the ability to repair a certain amount of damage (this amount varies based on population size) whereas Repair and Salvage Cruisers can repair a smaller amount, but they can do it between battles, far away from a friendly colony port.

Similar to refueling, the Repair Window that appears will allow players to pick and choose how much to repair certain ships. A Repair All button on the window will attempt to equally repair all damaged ships present, but in dire emergency (say it's critical that a gate be completely repaired, even to the detriment of the other ships) the player can decide what repairs to affect.

Like Refueling, once the Repair window is closed, the repairs are committed, even though the turn has not been ended. Unlike refueling, repair ships don't need to replenish their ability to repair - each round a Repair ship is capable of a certain amount of repair. The next turn, they will be capable of the same level of repair again.

While planets are considered to have a ready supply of fuel for ships, and will automatically refuel all friendly ships, a planet's ability to repair is dependant on the level of its development. Even a small planet, once fully developed, is capable of incredible levels of repair, but colonies in their

early stages or planets that have suffered damage during an attack will see their ability to repair reduced. Using a planet to repair is the same as using a ship to repair, so the Repair special function will be seen in the Special list at all colony worlds.

Mine

Similar to Refinery ships, Mining Cruisers can mine resources from uninhabited worlds. These resources can then be transported back to a colony world, where they are added to that planet's resource base.

Mining ships will alert the player when they are full and cannot carry any more resources.

Dump Ore

As above, this will tell Mining ships to dump their resources to the planet.

Deploy Gate

Particular to Hivers, this will initiate the deployment of a Gate ship. A window will open allow players to choose which gate ship (if there is more than one in a system) to deploy.

Drop-off Prisoners

Zuul ships that can capture population from other worlds, like Mining ships, must eventually return their prisoners to a colony.

Stop

Prior to clicking End Turn, this will bring up a window off all ships that have been given an order and allow the player to cancel some or all of them.

If a player has any ships with these special functions at a given location, these special functions will appear in a drop-down menu when you click the Special button. Special functions that aren't available will not appear.

When a special function is selected, a list of all ships capable of that function will appear, and the player can set one, all, or just some of those ships to begin their action. This list will denote what fleet each ship is in, for the player's reference.

Scuttle

In addition to these special features, players will also be presented with the option to scuttle ships (or even whole fleets.) Once a special function is ordered, a Stop option will appear, allowing players to change their minds. In the list of fleets, all ships that have been given an order to begin a special function will have an icon marker denoting this. Once the player hits End Turn, these orders are committed and the results will appear next turn. Scuttling ships at a colony, some of their materials are retrieved, but it is not a lot – scuttling ships is not an easy decision to make.

Flag as Guard

This is an organizational tool for separating ships left to guard a planet from those passing through, those just created, or those just arriving at the planet.

Flag as Raider

This designates certain ships to act as privateers of the empire, attacking trading ships in that particular trade sector, even allies, but not the player's. These raiding encounters occur randomly from time to time, and are not initiated by the player.

Build Spy

When you have Repair and Salvage ships (to act as transporters) and Sub-Space Spy Beam technology, you have the option of creating a spy and spy ship. At one of your imperial worlds where you have a Repair and Salvage ship, select this option, and next turn, the ship will carry a spy and ship. Your Repair and Salvage ship will be designated as carrying a spy, so as to distinguish it from regular Repair and Salvage ships.

Place Colony / Asteroid Trap

When you have either the Morigi Colony Trickster and the Morigi Asteroid Trickster ships in a system (once you have researched and built them) you can lay traps for your enemies. You select the trap you'd like to lay from this menu – Colony traps can only be placed at uninhabited worlds (remember, what looks like a terrible planet to you might be a great planet to someone else) and

Asteroid traps can only be placed in uninhabited worlds with an asteroid belt. In both cases, no other ships, allies or enemies, can be in the system when placing a trap.

Research

At the top left is a drop-down list of each technology researched and the turn at which the research was complete.

When research is underway, the top of the screen will show the technology being researched, how much of the research is complete, and how many turns, approximately, remain until the research is successful. The number of turns is approximate, as several factors can affect the outcome. In general, it is possible for research to go over budget - it is also possible for the research to have a breakthrough and finish sooner.

To the right of the screen is the Micro Budget chart and the Imperial Budget slider from the Main screen. Players can increase or decrease the amount of money going into research, which will increase or decrease the amount of time it will take for the research to finish.

Below the active research progress bar is a drop-down menu, labeled Boost Research, which will allow you to dump a one-time amount of extra funding into research. This can be handy, but the wilder the investment, the greater the chances it will cause a lab accident, which can at best set back progress a few turns and at worst set research back to square one and destroy life and property on a colony world.

At the bottom Left of the screen is the Start Research button. When a technology has been selected, clicking this will begin research. The button will change to End Research - research can be ended at any point during a strategy turn. If the research task is partly complete and it is important to change the focus of research to another technology, all the progress on the original technology is not lost, but rather slowly decreases. It is possible to research a technology quickly, then pick up the previous research technology with some progress remaining.

The bar at the bottom contains a button to access chat, the name of a selected technology, and the button to exit back to the Strategy screen. There is also an info button to bring up all technology names, even when zoomed out.

Dangerous Research

As mentioned above, research when boosted can potentially result in disaster, ranging from planetary to empire-wide. However, some research areas are inherently dangerous even when not being boosted. These are Plagues and Artificial Intelligence.

When researching these areas there is a chance that the research will go awry - in the case of Plague research, it will infect the planet or even a portion of the empire. This is why it is sometimes prudent to research plague cures, just to be safe. Not only are they handy against other players with Bio-Weapons, but they can also protect your own empire from mishaps.

When AI based technologies go awry and the machines rise up and take over, players will lose a portion of their colonies and any ships with an AI based section. These rebel AI worlds will begin producing more ships to attack with, adding a new opponent to the galaxy (though not one that can be played by a human - it is always computer controlled. To combat these runaway AI, players should hope to research AI Slaves as fast as possible, thus bringing the rebel AI back under control.

Special Research

There is another drop-down menu, opposite Boost Research, for Special Research. Special Research is a research opportunity that doesn't normally appear in most games - they are always a surprise. A number of things may produce one of these unique research opportunities.



Should a player encounter an automatic defense system at a planet - otherwise known as Asteroid Monitors - and provided the system facility isn't destroyed in the encounter, research scientists can attempt to hack the system computer, and bring the monitor under the player's control. This research can be found under Special Projects on the Research Screen after the first encounter is complete - Monitor hacking is done concurrently with any other research underway, so expect some slow-down in any active research projects until the scientists are through being, to quote, "in their base, hacking their 'puters."

Another way to gain a Special Research opportunity is by having a Repair and Salvage Cruiser at a battle - in the wake of combat, assuming you won, or at the very least dominated the battle (in the event of combat turn ending with both sides still fighting) there's a chance that the Repair and Salvage Cruiser will collect something useful from the wreckage, a technology you may not have access to in your research tree. The Cruiser does not have to be involved in the combat; it just has to be in-system. The Zuul are an exception - they do not require a Repair and Salvage ship to have a chance at finding a new research opportunity. They are natural-born reverse-engineers and constantly looking through wreckage.

These research tasks can be selected here, rather than from the Tech Tree. How much of your total research investment is put towards these special projects depends on the overall output of your empire - the larger your empire, the more it can invest in these side-projects!

Zuul Reverse Engineering

The Zuul are exceedingly cunning when it comes to reverse engineering the technology of other races, as evidence by their ships. As such, The Zuul are more likely to stumble upon post-combat research opportunities than the other races, and without the need to have a Repair And Salvage vessel present in-system. These new technologies to research can be access in the Research screen, under Special Projects.

Fleets in Strategy

On the Strategy Map is the player's first method of controlling their fleets - by selecting a planet, all ships in system and the fleets they are organized into will be displayed on the left. Players can expand and collapse the list, hold the mouse over a ship for more information (such as what section is damaged or what orders have been given to it.)

Fleets can be selected and given various orders. Individual ships can be selected (or more than one, across different fleets, by using the CTRL key) and then put into a new fleet group by right-clicking a selected ship and choosing Add To New Fleet. But this is the extent of a player's access in the Strategy Map. For greater organizational control, the player needs to use the Fleet Manager Screen.

Fleet Manager

Fleet Manager is accessible at the very start of the game, but its functionality is initially limited to moving ships between fleets, or collecting ships into a new fleet. As a player improves Command and Control technology, by researching Battle Computers, the features of the fleet manager will increase.

Splitting and Merging Fleets

When a planet is building a number of ships, they are all added automatically to the same fleet. However, when it comes time to use those ships, players may wish to separate them into different fleets - perhaps in order to send them off in different directions.

To do this, open Fleet Manager - along the left is a list of all the ships in all the fleets at the selected planet. Just as in the Main Strategy Screen, the lists can be collapsed and expanded, and will show the fuel, range, health of each ship, and any icons denoting a special function order it may be carrying out. Holding the mouse over a ship will show more information.

Just as in the Strategy Map, players can select multiple ships and either drag them to an empty part of the ships list, or right-click them and choose Add To New Fleet, and those ships will form a new fleet group. Dragging and dropping ships between fleets, or even dragging one fleet into another is an easy way to merge a rag-tag armada into an organized fighting force.

Custom Formations

When the player has researched Command and Control abilities, and has built some CnC ships, it is possible to create a custom formation for ships. Multiple fleets in the same system may have their own CnC ship, in which case the formations can be set for each ship. To do this, players select the CnC ship they would like to work with by selecting the circular button to the right of the fleet name. The CnC ship in that fleet will appear in the middle of the Fleet Manager grid. Players can drag and drop that ship around the grid as well as drag and drop ships onto the grid from the fleet lists - however, any ship dragged onto the grid will be added to that CnC ship's fleet.

Selecting the ships on the grid will highlight them in the lists, and conversely, selecting ships from the lists will cause any that are on the grid to be highlighted. CnC ships have a maximum command point value of ships they can control - each ship added to a formation will be deducted from the total - a running total can be seen at the top right of the Fleet Manager Screen. Any ships not in the formation are listed below that, as reinforcements. Selecting then dragging ships will move their position in the line-up - ships at the top will enter battle first, so it is always wise to put your non-combat ships to the bottom such as colonizers, repairs ships, and gates. Players can also right-click the reinforcement list, and choose a quick sort option - Design, Class, or Health. With luck, they'll never get called and remain safe from harm until combat is over.

All this information, as well as reinforcements for the fleet (which can also be organized - ships at the top of the list will reinforce first) appears to the right of the grid. Just as in the main Strategy screen, any ships that refuel or repair can have their special functions accessed from the Fleet Manager screen, saving players from having to go back to the Strategy Screen.

Formation Squads

Within a formation players can put their ships into one of five squads - this is very handy for quick selection of ships of a similar function, or ships organized for a specific task by the player. By clicking a squad number at the top, and then right-clicking a ship, that ship will then join that

squad. The squad number will be viable on the ship icon. Once the formation is fielded, players can hit F1-F5 to quick select an entire squad.

Note on fielding fleets

The more ships one combatant has at a battle, compared to another, the more command points worth of ships they can field in combat. A player is awarded two additional command points for every five ships they outnumber their opponent. Also, be aware that a fleet formation cannot be changed while the fleet is in transit to a new destination.

Defense Manager

Having a CnC ship or station in-system now allows players even greater control of their fleets, by allowing them to choose the placement of ships, ship groups, and satellites. The Defense Manager is simple to use, as it is very similar to the fleet manager – only instead of moving ships into a formation, the Defense Manager allows you to move fleets and satellites around a planet's near-orbit and surrounding area. The Defense Manager will also detail other important structures and positions in the game, like the system entry point from nearby worlds – if you spot an enemy fleet in transit, you can now meet them at the door, so to speak. Even handier, occupied worlds will reflect the color of their controlling player.

PLANETARY STATIONS

Long after coming to terms with the loss of the Nova Maria and the orbital platform that built it, SolForce eventually took steps to begin building large, orbital stations again. Other races have begun similar projects, including the Morrighi who, by all reports, have begun building a special, habitat station. Apparently their millennia as a space-faring race have made them completely comfortable with the idea of a living entirely off-world.

There are certain logistic limitations to building stations around a world – orbital mechanics make it unadvisable to build more than four stations, and bureaucratic logistics limit the building of a particular type of station around a world to just one. Each station requires a planet to have a quarter billion imperial and civilian citizens to support it.

There is one exception to the one-type-per-planet rule for Morrighi habitat stations, which appear in multiples. It is suggested their simple function, compared to complex functions such as building or CnC, account for this. While impressive, habitat stations are dependant on a nearby world, whereas other station designs can operate around uninhabited worlds.

Stations built around an uninhabited world are limited to one, and are much more expensive to maintain than stations around an inhabited one. Stations can be protected by their own ring of light defense satellites, but only around inhabited worlds – uninhabited worlds do not, obviously, have the technicians on the surface building their complex systems.

Station Functions

Construction/Repair Station - A C/R station is a welcome addition to the production facilities of a planet, helping to decrease ship construction costs, improve response times to repair requests, and increase the amount of reserouces recovered post-battle.

Science Station – A great many avenues of research require, or are at least improved upon, by zero-G environments. Science stations provide a bonus to an empire's research output and allows players the ability to offer other players special Science Missions.

Sensor Station - A sensor station conveys its powerful scanning data to a system as if it were a deep scan vessel. The station's dedicated array, combined with Tunneling Sensor systems, increase the chances of detecting a cloaked enemy fleet on the Galaxy Map.

Trade Station - A Trade station is far easier for tradeships to deal with compared to orbit-to-surface transports. They help increase all trade route income to a planet. These stations also allow players to create two additional trade routes to allied or NAP agreed worlds in range. Trade

stations in an uninhabited world act like a planet with two trade routes, and are added to that trade sector's total. Increased alien traffic provides a wealth of information to Xenotech scientists, which helps to reduce the cost of researching Xenotech.

The increased alien traffic provide a wealth of information to Xenotech scientists, helping to reduce the cost of researching Xenotech.

Command Station - A Command Station simply functions as a system-locked CnC ship and is able to command somewhat more ships in battle than a Strikeforce CnC ship, but not as much as an Armada CnC ship. As well, these stations can help with the logistics of military orbital industry, increasing the industrial output of a planet's Imperial population.

Habitat Station - A Morrighi station provides a home for an extra 100 million civilian and 100 million Imperial citizens. As mentioned, this is the only station that allows multiple builds of the same type, at a single planet.

Station Sats - Just like the planet their orbit, stations need protection. Each station can maintain a defensive ring of 5 small sats. Stations are outfitted with their sats by building as you normally would for a planet. These light satellites will appear around the planet first, if there is space in its defense orbit, then subsequent sats will appear around stations. Once built however, they can be moved wherever you like using the Defense Manager.



Building Stations

Stations are built and designed just like any other ship – you can even outfit some with weapons. Simply open the Build or Design screens, and underneath the Dreadnought tab on the left is a tab for Stations. Clicking that will give you access to your available station designs or allow you to create and save new designs.

These designs can then be accessed by Construction Cruisers, using them to build a particular station.

To do this, move your Construction ship to the system in which you want to build – in the special functions list, where you would select "Repair" for a Repair and Salvage ship, you will have the option of "Build". Selecting "Build" will bring up a mini-version

of the Build Manager, which you already know how to use – pick your design, confirm build, and away it goes. Once completed, a station icon will appear on the system card, just as satellites would.

END TURN

The most important button in the game. After a player has managed his empire to his satisfaction and is ready to commit to those decisions, he hits End Turn. The Strategy screen will remain up until all players have selected to end their turn and the combat round begins. Players can continue to view their empire, though they can no longer make any changes - the only place where they can continue to make changes is in the Ship Design screen.



THE COMBAT TURN - GOING TO WAR

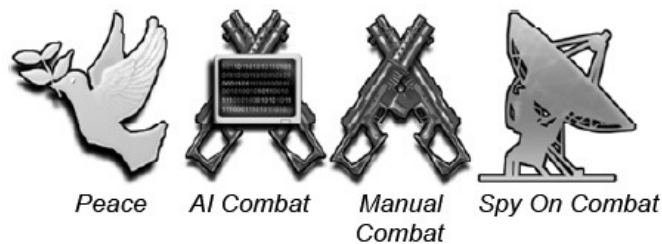
Combat Query

The bridge between the Strategy screen and Combat is the Combat Query. When two or more opponents encounter one another, all combat opportunities will be presented to the player in the Combat Query window. Players can decide which combats they'd like to control directly and which ones they'll leave the AI to handle.

To the right of each encounter is an icon that can be clicked. A pair of rifles means the player will control the combat, and a computer screen means the AI will handle the fight. Players then click done, the game compares their decisions, and starts handing players over to combat.

When a player has researched Spy-beams or FTL Broadband, a third icon of a satellite dish may appear next to a combat - this indicates that while the player has no ships in another system, he is able, if he wishes, to spy on other people's combats. These viewing opportunities can be skipped, if the player wishes. It's possible some players may have to wait for their combat, if an opponent is engaged in another fight - players waiting for combat can bring down the list of players from the Game Info bar on the main Strategy screen and see who is fighting and who isn't.

Finally players can set the encounter at Peace. This is the same as auto-resolving a battle, except in the case of a mutual desire for peace; a temporary non-aggression pact is put in place for that single encounter.



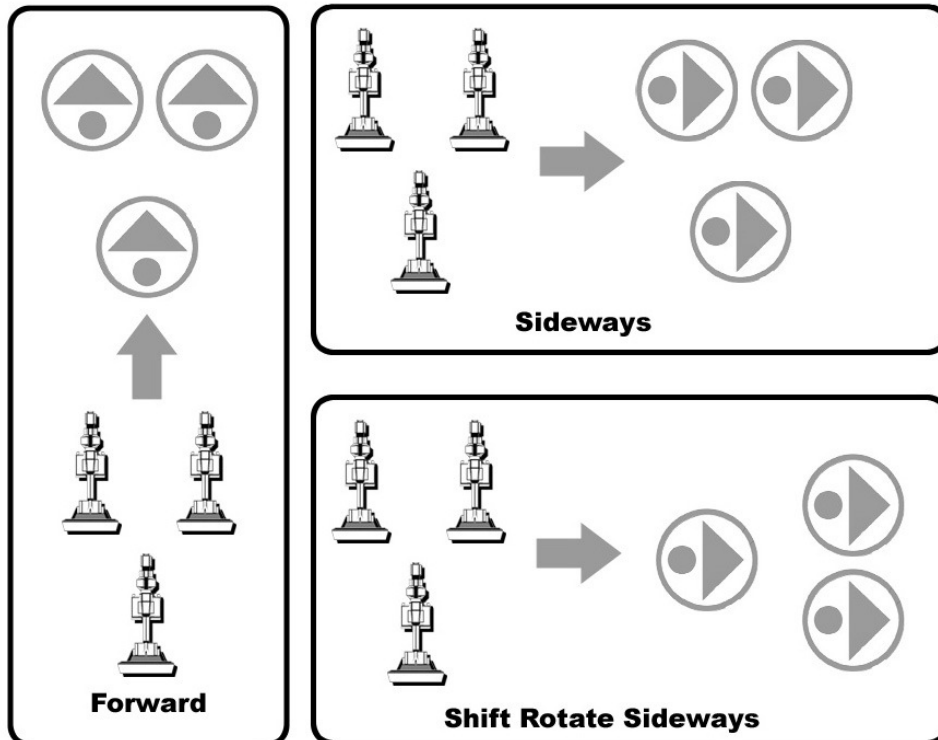
The Combat Query has a time limit, so that a single-player in a multi-player game can't hold up the entire game indefinitely. Once the countdown is ended, the default settings for each combat are applied.

Controlling Combat - Advanced Controls

Once a player knows how to move and fire with his ships, he has the basics to get into the action. But there are a few things that will give even greater control over battles.

Ship Movement

When ships arrive in combat, moving them is as simple as selecting one or more ships and right-clicking a position in space to order them there. As best as they can, they will maintain their formation (either designed by the player in advance, in the field, or randomly as they entered combat) unless the move order is a double-right-click, which will send them moving at their best speed - this will leave slower ships behind, but it is important in some instances to move fast, regardless of formation.



Targeting Control

Where players click, on a target, will be exactly the spot where their weapons attempt to fire. Accuracy differs between weapons, so the guns may not hit that exact point, but they will attempt to fire where commanded. This is handy if the player wishes to disable a ship's engine, destroy the special function of a command of mission section, or destroy a specific weapon turret before they worry about anything else. The ability to change camera focus to an enemy ship (see above) is particularly handy for this purpose. Certain weapons are fired manually - read about the weapons panel for more information.

Special Targeting

There are times when a player may need to target something special, something that cannot be selected manually or automatically, such as the probable location of a cloaked ship or a friendly ship [yes, it can happen.] To dumbfire, hold ALT while targeting an area in space.

Combat User Interface - Fleet Commands

Overlaid on the screen during combat is the Heads-up Display, which provides players with additional control and information. At the top left of the screen is the name of the area, usually taken from any nearby planet - beside it is a box that provides a graph of the planet's population. The emptier the box, the less people on the world. Below this are Fleet buttons.

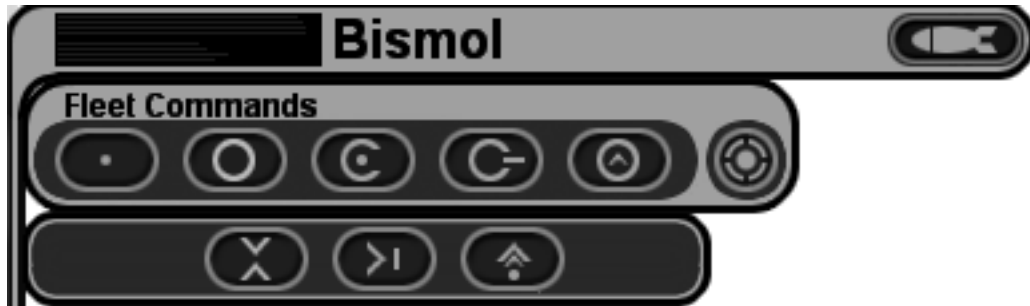
Mousing-over any of the combat HUD elements will brighten them for easier reading.



Retreat

When ships enter the system, if they can survive long enough to prepare their interstellar engines, they can retreat from the system. A timer over the button will countdown until the engines are ready - once the timer reaches zero, players can press the retreat button and their fleets will retreat. Human ships will move towards the nearest node point and will jump when they reach it - to jump from a particular node point, players have to move their ships to that node point in the combat level. Other ships will retreat to the nearest friendly planetary system or back to the system from which they entered.

There are other commands you can give your fleet, both your reserves and ships that are actively fighting. The buttons can be found at the top left, where they affect your entire fleet, particularly those ships not in the battle area, and underneath the Weapons Panel on the right, where they affect only ships actively fighting that are selected - the Break Off button only applies to ship in combat, as explained below.



Population and Planet Name

Depending on your level of diplomatic sophistication, you can use this area to see the population level of the planet (at least) or the population levels as either Imperial (those active in the struggle against you and other empires) or Civilian (people just trying to live their lives.)

Planetary Bombardment

The bomb icon next to the Population and Planet Name is there to order your fleets to regard the planet as a target or not. It is quite possible you may wish to spare the population, environment, and infrastructure of a planet while devastating the planet's defenses - particularly handy if you wish to demand the surrender of a planet and incorporate the population into yours, saving you the time and expense of developing the planet. This is provided you have the proper Xeno technology researched.

Note on Fleet versus Ships

In combat, many of the commands you can give a ship, or selection of ships, you can also give to your entire fleet at once. The following command buttons are duplicate to the right of the screen in combat, where selected ships and their weapons interface appears - the only exception is Break Off, which is specific to individual and groups of ships, not fleets. Retreat serves the same function for a Fleet.

Retreat From Battle

This sets all ships to a neutral disposition. They will respond to your move commands and stop once they reach that position. This is the default setting in combat.

Normal

This sets all ships to a neutral disposition. They will respond to your move commands and stop once they reach that position. This is the default setting in combat.

Break Off

This button will have all ships return to the point where they entered the system.

Stand Off

This sets all ships to a defensive stance, where they will automatically attempt to stay at maximum range from their targets to fight.

Close to Attack

This sets all ships to an offensive stance. They will aggressively engage their targets and nearby ships.

Pursue

This sets all ships to an aggressive stance that will see them follow a ship off the normal flat combat plain. This is especially useful when an enemy ship loses its engine and drifts away.

Hold Fire

All ships on the battlefield will hold their fire until the button is turned off. Underneath the fleet buttons are a fleet list of all available reinforcements - the list can be expanded or collapsed if the player wishes and in either case it will go transparent, allowing for more view of the combat.

Face Heading

This is the standard setting that has always existed, where your ships will move to their waypoint, and the heading of that waypoint (denoted by the arrow inside the waypoint marker.)

Face Target

When a ship isn't moving, it will rotate to face its target. This is the new default setting in combat.

Turn Broadside

When a ship isn't moving, it will rotate perpendicular to its target.

Combat User Interface - Reinforcements

Underneath Fleet Commands, if you have more ships than you can field concurrently, is a list of ships in reserve, waiting their turn for battle. Ships at the top of the list will be the first to come in to replace fallen ships. Players with CnC ships in the system can pick the next ship by clicking on any ship in the list - that ship will then become the top-most reinforcement. At the bottom of the screen are the buttons to activate the chat button, as well as the combat timer - combat rounds always have a time limit before combat closes, and players return to the Strategy screen to plan the next round.

Combat User Interface - Weapons Panel

At the top right of the screen is the Weapons Panel - it will be familiar to players, as it is the same panel that appears in the Ship Design screen. However, this interface has some extra functions. When a player selects a ship, its weapons panel will appear, outlining all available weapon banks - a red outline means the weapons in that the bank don't have an available shot and a green outline means they do. The number in the bottom left of the weapon icon denotes how many turrets are in that bank. If all the turrets are destroyed, the icon will change. There is a recharge time to all weapons, which can be seen by the target/no-target outline disappearing and slowly coming back as the weapon recharges.

Using Special Weapons

Certain weapons, assault shuttles, bio-missiles, siege drivers, missiles with area affect payloads,, Complex Ordinance Loadout packages, and detonating torpedoes, are fired manually - after selecting a target (planets and areas of space, mostly), click the weapon's icon on the weapon panel to fire. Mines use a similar system, using the weapon icon to begin and stop mine dropping. As well, Zuul Wraith Abductors can be ordered to descend to a planet's surface using a button in the Weapons Panel.

Underneath the weapons panel is a list of all selected ship types. As different ship types have different weapons, they can't all be displayed on the weapons panel at once. To see the weapons panel of a particular ship type, players just have to click that type from the list. This is very important when organizing and controlling certain weapon banks.

To the left of the weapons panel are three buttons, for setting up to three different weapon groups for a ship (or group of ships.) By default, all weapon banks on a ship are in the first group, but by selecting the second or third group, and then right-clicking on a weapon icon, that bank will be assigned to that group. Now players can give their ships up to three targets (in addition to any automatic shots a ship may take.) Inset in each group button is a cease-fire button, just like the cease-fire button for the whole fleet described above. This cease-fire order will only affect the weapons assigned to that group. There is also a Fire On My Target button that works as follows.

Targets of Opportunity

In combat, the player selects enemy targets - a skilled player can even use the three weapon groupings to select three targets for a ship. But there are always times when a weapon doesn't have a shot at it's given target, but it can see another - in these cases the weapon will take the shot.

While in a firefight free-for-all this is very handy, there are times where it is a hindrance - like hiding missile ships in the sensor shadow of an asteroid, and you don't want the weapons to destroy your cover. Or you dive towards a planet or gate, and you want all your weapons fully

charged when you reach your target goal. In these cases, the Fire On My Target button, beneath each weapons groups, when pressed, will tell the weapons in that group to fire only on the target – they will not take any opportunity shots.

Surprise Attacks and Reinforcements

When an enemy approaches and is spotted on sensors during the Strategy round prior to combat, defending fleets at a planet will appear just outside any orbital defense platforms, roughly in front of the attackers – they were seen coming, so it is easy to know where they will arrive. However, this is not always the case.

As players improve their drive technologies, or develop cloaking technology, it is possible for enemy fleets to arrive without warning. In those cases, whether the defending fleet is near the attackers or on the far side of the planet is blind-luck. In those cases, you will wish you had developed better sensors, or faster in-system thrusters.

Similarly, as ships in the first wave of the defenders are destroyed, their replacements (if there are any) will appear a short distance from the original starting position of the defenders. This abstracts the idea that they are the scrambled response, and are arriving unorganized as quickly as they can.

Ship Damage - Where's the Health Bar?

Combat in *Sword of the Stars* is short and detailed – being able to see what's going on under chaotic circumstances is not only an advantage, it is often crucial. Therefore, the health of a ship is displayed not as another distracting overlay, but through visually logical damage: Weapons scoring, burning plasma fires, and destroyed sections.

When a section has taken a small amount of serious damage, small plasma fires will be visible – when it has taken a lot of serious damage, bigger plasma fires will be visible, and the section is close to being destroyed.

When a section is destroyed, it will be reduced to wreckage, and all weapon icons in the weapons panel will be listed as inoperable. Destroyer and Cruiser class ships can survive the loss of one section, but the loss of a second section will be critical and the ship will be destroyed. At the Dreadnought size class, given their size and Heavy Platform construction, all three sections will remain operational until critical damage is reached and the ship is destroyed. This is one of many reasons why Dreadnoughts are terrifying opponents.

Sensors Screen

At the bottom Left of the combat view, or by hitting the space bar, the Sensors view can be opened, showing a stripped down, wire frame view of combat. Initially this screen is handy for spotting enemy ships and missiles within sensor range, but too far away to be seen with the naked eye.

Later, through research, this screen can be upgraded – for example, all ships, rather than just the one selected, will contribute their sensor information to the screen. And later still, player will have the ability to direct combat, moving ships and targeting enemies, from within the Sensor view.

Due to interference, there is one instance of combat where you cannot use sensors, and that is during Nodspace combat. Under those circumstances, be prepared to fight using visual range only.

Time Compression

If you are playing a single player game or are fighting combat in multiplayer without a Human opponent, ally, or observer, then you can use CTRL-Page Up and CTRL-Page Down to speed up and slow down time.

Surprise Encounters

Meteors, Derelicts, and Other Dangers

While it would be nice to carry out galactic conquest with only the enemy to worry about, the galaxy is a dangerous place. Meteor Showers often threaten young and old colony worlds - while larger worlds can weather these storms, they can take terrible damage. Smaller worlds or young colonies can be wiped out if players aren't careful, so players should be prepared to destroy all incoming rocks. While meteor showers are a difficult challenge, successfully warding off a storm will provide that besieged planet with a resource bonus.

While exploring planets, players may encounter alien derelicts - these long forgotten hulks are outfitted with automatic defense systems that are still fighting wars that ended long ago. While a nasty surprise for lone scout ships, they must be dealt with before colonization of the nearby planet can begin - dealt with properly, players will enjoy a boost in their research the following turn, thanks to being able to examine the alien technology.

There are other hazards players may encounter while exploring. Worse still, there are rumors of hazards that are exploring the galaxy for themselves. Players will have to be careful to protect themselves - they may even be forced to form alliances with their opponents, a temporary peace so the war may go on!

While the galaxy remains a dangerous place, there is data on some of the more familiar hazards, which may or may not help in avoiding them, or destroying them.

Derelicts

Exploration fleets have encountered countless hulks at various worlds. Devoid of crew, they are still active enough to broadcast a burst transmission, and strongly defend itself. As dangerous as they are, they can only take so much damage - scientists have requested that if at all possible, strip the hulks of their weapons, so they may study them, and thus provide a research bonus for the empire.

Asteroid Monitors

Highly dangerous, they are difficult to disarm or destroy, but there exists a flaw in their automated systems that allow scientists to hack in and take control - it takes time and Special Research, but having one of these monsters guarding a planet is an excellent bonus.

Swarmers

Persistent and plentiful, these silicoid-based, insect-like creatures have destroyed many unsuspecting exploration fleets. However, common wisdom is to locate their hive, which they are never far from and cannot survive without.

Silicoid Queen

All Swarmer hives have to have come from somewhere and in this case, that somewhere is a Silicoid Queen. The survival instinct of the Silicoids is for a queen to establish a hive then move on to another solar system to set up another, and another, and another. If you see a Silicoid Queen in your territory, drastic steps will have to be taken to remove the Queen and any hives she may have set up. Two things to remember are that a queen is just as big an annoyance to your opponents as it is to you, so don't be too quick to eradicate Queens who are merely near your territory. The second thing to remember is that a Queen can return to protect her hives if she senses they are in trouble.

Spectres

What they are or how their biology works is a mystery. Indeed, for the early days of Human Node travel, they were little more than sensor ghosts - hence their name. But one thing is certain - any ship entering Node Space, Zuul or Human, runs a risk of attracting their attention and triggering them to attack. When this does happen, energy-based weapons are a crew's only hope to fend them off.

Colony and Gravity Traps

Advance recon wings of the returning Morrighi fleets were given two standing orders – observe and report on non-Morrighi activity in the galaxy and harass those forces as best as possible. This final order has resulted in two aggressive tactics. The first is to set a drone wing to lie in wait at an uninhabited planet. When an enemy fleet arrives and attempts to land a colony ship, the drones are activated. Their single weapon, a modified gravity beam, is used to pull ships into the planet's gravity well, where physics will take over to finish the job. The second is to set up a localized gravity emitter in asteroid heavy systems – the emitter crudely pulls in and flings around the asteroids. Ships that cannot maneuver or shoot fast enough will find themselves quickly ruined.

Meteors

Planets may occasionally find themselves threatened by a storm of incoming rock – this is perhaps the most important reason young colonies need at least a token amount of defender ships in-system, so as to destroy the rocks. Asteroids and their trajectory can be seen clearly in the Sensors screen – target only those headed directly at the planet to keep things simple. Successfully fending off a storm will result in a bonus for the planet. Unsuccessfully fending them off will mean some meteors will strike the surface and cause death and damage. However, as some cold comfort, the planet now has a small boost in resources.

Slavers

If you are ever attacked by these raiders, pay close attention to those ships carrying assault disks – these ship will attempt to land and abduct some of your population.

Von Neumann Colony

What name these things have given themselves is unknown, but they have been given the designations of Von Neumann, after the scientist that first postulated self-replicating machines. This is exactly what they vessels will attempt to do – absorb ship or planetary resources in order to replicate. Their attacks are random and limited however – once they have taken what they want, they will immediately leave as quickly as they came. Specialists are concerned by what they need the resources for.

Major Hazards

These... events, let's say. May or may not exist, but they are suspected. And should they occur, you may be best advised to claim a temporary truce with your enemies and face the threat together, lest is leave nothing behind for any empire to claim as their own.

Combat in Node Space

Node Tracking

Over the decades, Node travel has continued to elude the other races, though they have often seen how effective it can be. However, with research, scientists feel it will be possible to observe and note these Node Lines - natural and artificial - with careful observation. SolForce and Zuul have begun looking along similar lines, so as to be able to track one another's similar, but unique node lines.

Nodespace encounters

Until now, humans have enjoyed the untouchable nature of Node travel – without Node drives, the Liir, Tarkas, and Hivers have been unable to intercept incoming SolForce fleets. Not any longer...

While still out of reach of most races, the Zuul have forced the creation of a new chapter in SolForce's manual on military navigation – “Combat Attacks and Counter-Attacks in Mid-Node Transit.”

It is important to note that during Nodespace combat, Sensors are ineffective and everything must be conducted according to regular visual range.

COMBAT DIPLOMACY

First Contact!

Diplomacy in *Sword of the Stars* can sometimes be as simple as who shoots first. To avoid any misunderstandings when you first meet an opponent, all ships will be set to Hold Fire. This is particularly important if any of your ships is armed with missile weapons, which have a great deal of range. Once the combat round has begun, you can turn the weapons fire back on, as outlined above, by selecting your ships and clicking the hold fire button.

After your first encounter with another race, you will find you have the option of researching their language in the Tech Tree - this is a requirement if you want to communicate with them via the Chat-Comm System, send or receive money and research with them, or set up an alliance, so remember - shooting first asking questions later doesn't always work.

Say wha...?

A certain amount of the Diplomacy in *Sword of the Stars* relies on you understanding the other guy. Until you encounter another race, and then research their language, you will not be able to understand their Chat-Comm messages, you will not be able to give them money and research support (which is handy, when trying to make an ally), and you will not be able to invite them into an alliance. Not to mention that they can talk about you and you won't understand.

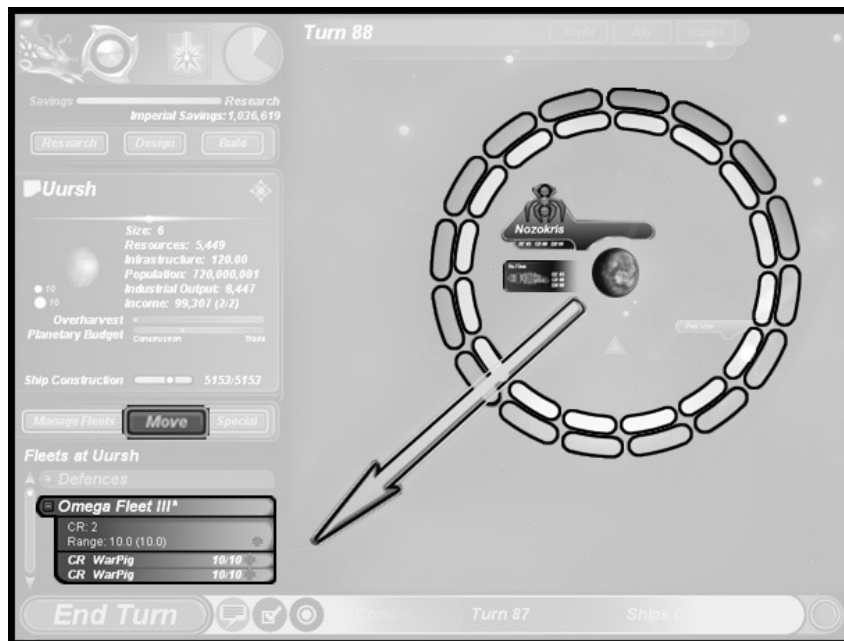
Players of the same type of race can automatically understand one another.

FIVE METHODS OF INTER-STELLAR MOVEMENT

One of the things that makes *Sword of the Stars* so unique is how each race has a distinct way to travel between the stars - this means that while the basics of controlling movement is the same for each race, certain methods require special considerations to set-up or maintain through-out an entire turn.

Basic Movement

By selecting a planet with ships, and clicking the Move button, an arrow will appear that you can point to nearby systems - The arrow will be green to the range limit of the ships and red beyond that point. If the entire arrow is green, you can click the system, and the move order is initiated. Until the End Turn button is clicked, you can change the destination. Once a destination is chosen, the fleet of ships, detailed on the left side of the screen, will display the destination and how long it will take to reach that destination in turns. *All distances - light years - in *Sword of the Stars* are measured in Turns!*



Calculating Distance Between Stars

Using your mouse, left click and hold one planet, then drag your pointer to another star - the distance between stars will be shown, allowing you to see if ship can make the trip given their level of engine technology and fuel.

Multiple Waypoint Movement Orders

When you have a selected you wish to move, you can hold SHIFT and then select the first planet (or other stop, such as ships stopped between planets) - this is the first leg of your trip; you can now select additional waypoints. Pressing SHIFT again when you have selected your final destination. Normal rules of engines, range, and fuel still apply. This type of order is particularly handy for races that use Node Technology, and you would like to override the game's suggested route.

Advanced Movement by Race

Tark

Of the five races, Human, Hiver, Tarkas, Liir, and Zuul, the most "average" method of travel is the Tarkan warp-drive. Tark ships are limited only by their range, and that can be extended by adding tanker fuel carriers to a fleet.

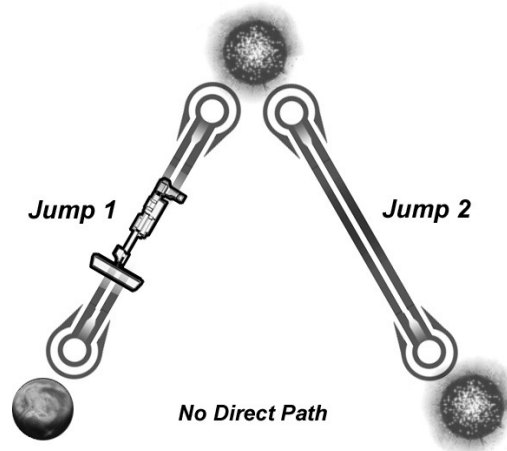
Liir

Similar are Liir ships and their Stutterwarp Drive - however, gravity wells affect the efficiency of the drives, so these ships are at their fastest halfway to their destination. Moving away from and towards a system reduce their speed.

Human

The Human Node drive provides very fast travel between systems, even early game, but only along node lines. And those node lines are naturally occurring and random. Meaning, ships may have to move to two planets in order to ultimately reach one right next door. Human ships don't have to travel along node lines, but sub-light travel off of node lines is very very slow.

Node drives are limited by range as well, but unlike the Tarks or the Liir, Human ships cannot extend their point-to-point range by bringing their tanker - if their ship can only jump 6 light years and a system is 7 light years away, having a tanker along will not help them reach it. However, that tanker will refuel that ship, allowing it to travel on to the next system down the node lines, or turn around and return home.



Notes on Auto-pathing

For any race that uses Node lines, traveling from one planet to another is rarely a straight line, especially the further away that destination is. The move function makes this easier by helping pick an optimal path, by taking looking for the shortest route with the most potential for refueling, meaning colonies or systems with tankers or refineries present. As with all movement, if the fleets fuel options don't meet the distance to the destination, the move line will show the difference in red.

There will be times however, particularly with the Zuul, who can ignore existing lines to create new ones, when you would like to direct your ships without the help of the auto-pathing. To do this, being your move, move the mouse over your destination, and hit Shift - as long as the Shift key is pressed, the auto-pathing will not display. Then Click the destination as you normally would.

Zuul

Like all the races in SotS, the Zuul have their own, unique way to travel between stars - Node Tunneling. Presumably, after reverse-engineering SolForce drive technology, the Zuul developed their own equivalent node drive - however, rather than relying on static, stable, naturally occurring node drives, the Zuul create their own by sending special Node Bore ships ahead of their fleets. Once a node line has been created, the fleet can employ their node drive variants to travel quickly between planets.

However, there is a drawback to these artificial node lines - for Humans, they can travel fast, often faster than the other races, but they are limited to traveling paths as they naturally occur. The Zuul have the advantage of traveling between any two stars the engines of their Node Bore ships can reach, and travel quickly, but their node lines are unstable, and without upkeep, will collapse.

To create a new node line, simply take a Node Borer ship and send it to any star within its fuel range – it can be accompanied by other ships. It will take a few turns to reach its destination, but once there, the line is complete and ships can travel it with out a Node Bore escort.

The node line will become unstable with use, but can be maintained by sending node bore ships back down the node line from time to time. You will know a line is near collapse when its color changes. If it begins to flash red, collapse is imminent. Any fleet caught in a collapse will be lost, unless they are accompanied by a Node Bore ship.

The number of lines that can be torn into the universe is not limitless – linking gravity wells via Node lines is a tricky business. As the technology for Node Tunneling improves, progressing from Rip to Rend, and finally to Radiant, the number of Node lines emanating from a planet will increase as well.

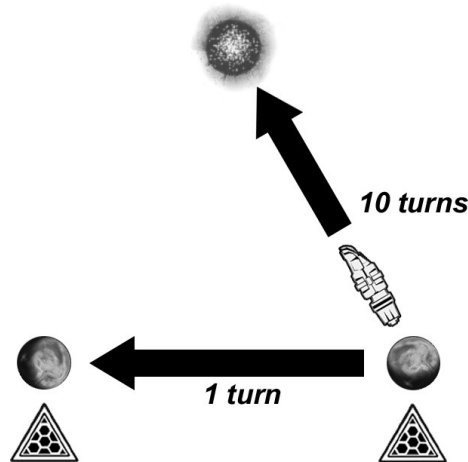
Rip = 3 lines
Rend = 4 lines
Radiant = 5 lines

Notes on Node Interception

It used to be that the Human fleets had a powerful advantage to their use of Node Line travel – they could not be intercepted and could only be dealt with upon leaving Nodespace and arriving in a system. Now that has all changed – they are no longer alone in Nodespace. As with non-Node Drive ships, players can intercept another Zuul or Human player by selecting a fleet, and moving it down a node line to the enemy fleet they wish to intercept. As well, two enemy fleets that happen to cross paths on a node line will automatically encounter one another. This does not happen with friendly fleets.

Hivers

The Hivers have a very powerful travel system that requires patience to set up, but once in place gives them a very unique advantage. Hivers have no FTL drives – they must explore each new system by flying at slow, sub-light speeds. However, by setting up a teleport gate, Hivers can then move ships between systems with teleport gates in a single turn. Again, there are limitations – only so many ships can travel the network at once. The larger the network, the more ships that can be moved in a single turn, so it pays to set up gates, even at worlds you cannot colonize. This allows Hivers to distribute their ships throughout their empire, and in a single turn, they can jump to a planet under attack. It takes time to build such a network, but patience will be paid off.



As with the Tarkas and Liir, Hiver ships can extend their range by bringing tankers for mid-flight refueling, however given how expensive a gate ship is, plus it's light offensive capabilities – not to mention the trip is not one to be repeated lightly – Hiver players should send escorts as well, to protect the gate until it is fully functional after two turns.

SHIPS - DESIGNING AND BUILDING

In *Sword of the Stars*, players can design their own ships. As there are over 400 ship sections over five races, the potential number of designs is quite high. Each game starts with certain basic ship sections and a few basic designs, to save you time, but in very short order you will begin altering those designs and creating brand new ones as research opens up new ship sections.

Size Classes

Ships in the game come in three size classes; Destroyers, Cruisers, and Dreadnoughts. Players start in the Destroyer “era” of ships, and technology will allow them to move into the Cruiser and Dreadnought eras later in the game.

Each ship, of any size class, has three sections: Command, Mission, and Engine. The order of these sections in any design is always Command, Mission, and Engine, but beyond that, players can mix and match as they please, swapping Deep Scan Command modules in and taking AI Command sections out, or replacing Fission engines with better Fusion engines.

Special Classes

In addition to Destroyers, Cruisers, and Dreadnoughts, you can also design Riders (drone ships and assault shuttles) and Stations. More on them below.

Single Section Ships

There are a few exceptions to the three-sections-equal-ship design;

Defense Platforms

These structures orbit colony worlds, protecting them from attack. A colony can build up to a limit of 10 per size class and the size of the world dictates which size classes it can build. Size 1 - 3 planets can only build up to 10 Destroyer platforms. Size 4 - 6 can build up to 10 Destroyer and Cruiser platforms. Size 7 - 10 can build a full compliment of 10 Destroyer, Cruiser, and Dreadnought platforms.

Freighters and Freighter Q Ships

In order to take advantage of a secured trade sector, a player must build freighters to run the trade routes. Lightly armed and vulnerable, players should also be sure to provide them with escort protection. Q ships also act as trade ships, but have traded cargo space for some additional weapons.

Node Missiles

Available to the Humans only, Node Missiles are high explosive missiles outfitted with a Node Drive, allowing them to travel between systems. Once at their destination, they can be targeted, drop their Node Ring, and accelerate in for impact.

Wraith Abductors

Available only to the Zuul, Abductors are a larger, destroyer class assault shuttle. Unlike other assault shuttles, which require a support ship to carry them between systems, Abductors have their own drive system, and can move between systems on their own.

Node Borers

Available only to the Zuul, Node Bore ships create the artificial node lines between systems. Available in three size classes with the right research, each size has improved efficiency over the previous.

Asteroid and Colony Tricksters

Available only to the Morrighi. These ships allow players to place traps at uninhabited worlds for unsuspecting visitors. Worlds must be uninhabited, there must be no other players in system, and Asteroid tricksters require that the planet system have an asteroid belt, for obvious reasons.

Riders and Drones

These are special, small, single hull ships that you choose the weapons for - once designed, these ships then become "weapon" options for their carrier ships. Meaning, if you build two different types of Drones, each with a different weapon, these two Drone types can be placed in the Drone weapons bank of those ships outfitted with Drone clamps.

Stations

These are massive structures, each heavily armed and each with a special functions. You can design their weapons loadout and then build them in a system using a Construction ship. These stations and their functions are outlined in more detail elsewhere in this manual.

Construction Ships

These ships are the only ships capable of carrying and integrating the materials and sections required to build a station. Once built, they can travel to other systems, even uninhabited ones, and then build a station there. Ordering a station build is done via the Orders menu in the Star Map sidebar.

Propaganda and Terrorizer Ships

In any war there is always a battle for the hearts and minds of the civilian populations. These ships act upon the morale of worlds, either by raising it in a friendly system or reducing it in an enemy system. Remember; Propaganda ships that travel to an enemy world should probably have back-up. They are not well received.

Terrorizers are Zuul-only ships. Their function is the same as a Propaganda ship, but the Zuul only operate via fear and anger, regardless of whether they are in a friendly or enemy system.

Police Cutters

Like Propaganda ships, Police Cutters act to help maintain the morale of a planet - in particular, it acts to minimize the morale effects of events that would normally impact it negatively (such as the empire losing a colony world.)

Devourer

With this Dreadnought the Zuul reveal the true depths of their consumptive nature. The Devourer can scavenge wreckage after any battle and use those parts to build Zuul ships in deep space.

Gravboats

These giant, Morrigi-only ships are designed for one simple purpose, and that is to add to the gravitic effects the Morrigi capitalize with their Flock drives. As part of a Morrigi fleet in Strategic movement, they speed the fleet up. In-system, during tactical combat, their effects extend to nearby enemies, slowing their ships down. A handy ship in the Anti-matter engine era, but vulnerable.

Ship Design

The Ship Design screen is where players can plan new ships or alter existing designs. At the top left is a list of all current ship designs. As new size classes open up, the list will be broken up into three areas - clicking on the size class title will close the current list of ships and open up the new list of designs.

Selecting a design will bring up all that ship's details to the screen. The name of the design will appear at the top, followed by information about its armor, cost, weight, range, speed, and number of weapons.

Similar to the weapons panel (see below), weapon icons will be displayed beside the list of weapon turrets, and clicking on each turret will highlight the turrets with that particular weapon type. In the middle of the screen is the ship, as it would appear in combat. Below that are the names of each of the three sections--Command, Mission, and Engine.

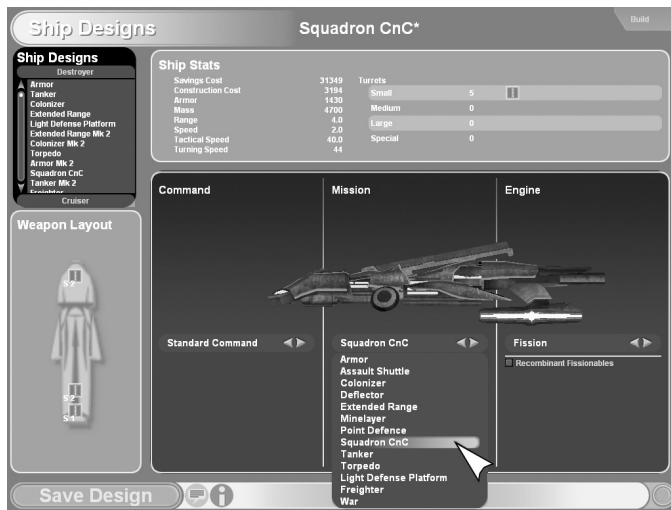
Arrows to the side of the name allow players to cycle between their available sections (each change in the section will be reflected in the ship above), or players can left-click the name and a drop-down menu of all sections will appear. Underneath the section name, any optional technologies the player can add to that section will appear as a selection of check boxes.

Clicking one of these boxes will add the technology to the section - appropriate changes to the Ship Stats will appear above the ship and an icon for that technology will appear above that section for easy visual reference. An information icon next to the name of each section will call up greater detail about that section, including its base armor and its special functions. To the left of the ship displayed and under the designs list, is the Weapons Layout panel.

On this panel is a top-down view of the design, showing the banks in each section. Each icon shows what weapons are in that bank and the number of those weapons appears in the bottom left of the icon. Clicking on an icon will bring up a display of available weapons and their names - selecting one from the list will place it into that weapons bank. Right clicking a selection will place that weapon into all banks of the same size in the entire ship design. When a bank is selected, the position of each turret in that bank will be highlighted on the ship displayed. By left-clicking, holding, and moving the mouse up or down, the player can rotate the design for inspection. Being able to see where a weapon will be placed can be handy in deciding which weapon that should be.

Once the player is happy with the design, he can click Save Design in the bottom left of the screen. The player will be prompted to name the design if so desired, otherwise it will be given a default name. If the name for that design already exists, the game will automatically add a version designation to the design name. When a design is selected from the list, but no changes are made, the Save Design button will read Remove Design, allowing players to get rid of old designs they no longer use.

Designing Ships - The Short Version



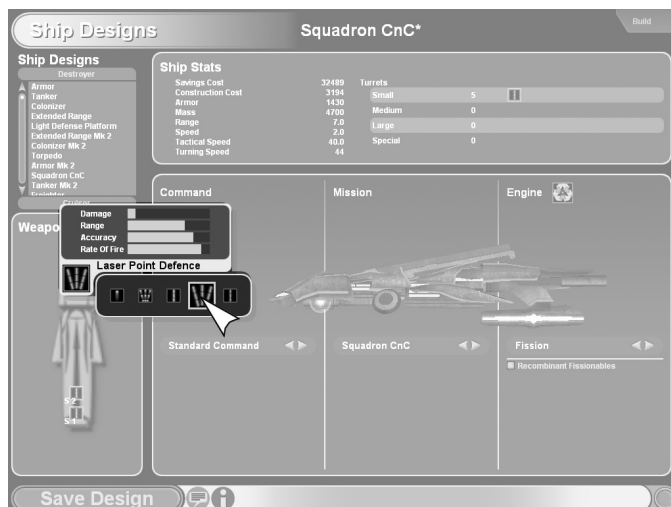
Step One:
From the Strategy Screen, click Design. This opens the Design Screen. Choose a size class, then choose the three ship sections you wish to combine.

You can also choose an existing design from the Design list and modify them.



Step Two:
If research has made any section upgrades available - such as armor technology, or engine refinements - choose the ones you want here.

These will increase production costs per ship built - these changes can be seen at above the ship picture.



Step Three:
Clicking weapon banks on the Weapons Panel will bring up all available weapons that can be fitted into that bank's turrets. Moving the mouse over the weapon options will display relative weapon strengths and weaknesses.

When you have a ship designed the way you like, click Save Design - you will have the option of naming the design, or you can keep the default design name.

You now have a ship design you can order built in the Build Screen. include;

Note on Drones

Drones, which you can design like other ships – choosing their weapons and placing them in banks – are also used as weapons themselves. Once a Drone design is saved, They become weapon bank options on Drone carrying ships.

Ship Build

The Ship Build screen is very similar to the Ship Design screen. The top left has a list of available designs, organized by Ship Size Class. Selecting a design from this list will bring up a display of the ship in the middle of the screen along with all its Ship Stats. The major differences are at the bottom, where basic financial details pertinent to building of ships are shown: how much money is available to spend on building ships, and the basic production levels of the planets building.

The empire's treasury at the bottom is very important – as players queue ships to be built, their cost is deducted from the treasury. If the player runs into debt while building, the treasury will display in red. The economic sliders of the planet building the ships, which are duplicates of the controls you'd see on the main Strategy Screen, can be used to direct more or less of that planet's output towards construction. This is handy if the planet is undergoing infrastructure build-up or terraforming, but the player needs to build some ships as well. The more output devoted to building, the less turns it will take to build (the number of turns it will take to build a ship can be seen on its listing in the queue.) Adjusting the sliders will allow the player to find the right balance between getting ships produced and working to improve the planet's habitability, population, and overall ability to contribute to the empire. Once a player ends the turn, ship production takes place.

Should you return to the build queue at a given planet, the remaining un-built ships will still be in the list, but the build time in turns will have changed. The ship at the top of the list will also display just how much of it is complete, which is handy, as ships can be removed from the list at any time. Ships that have not begun to be built can be canceled; the invested cost will be returned to the treasury.

Ships in the middle of production, although they can be removed from the list in order to start the next or a new ship's production, will result in a loss of the investment, so canceling such a build order should be carefully considered first.

Note On Ship Section Information

At the bottom of each screen is an information button, next to the Chat button. Pressing this button will toggle information overlays for each section, outlining their basic function and other helpful information.

Note On Fleet Maintenance

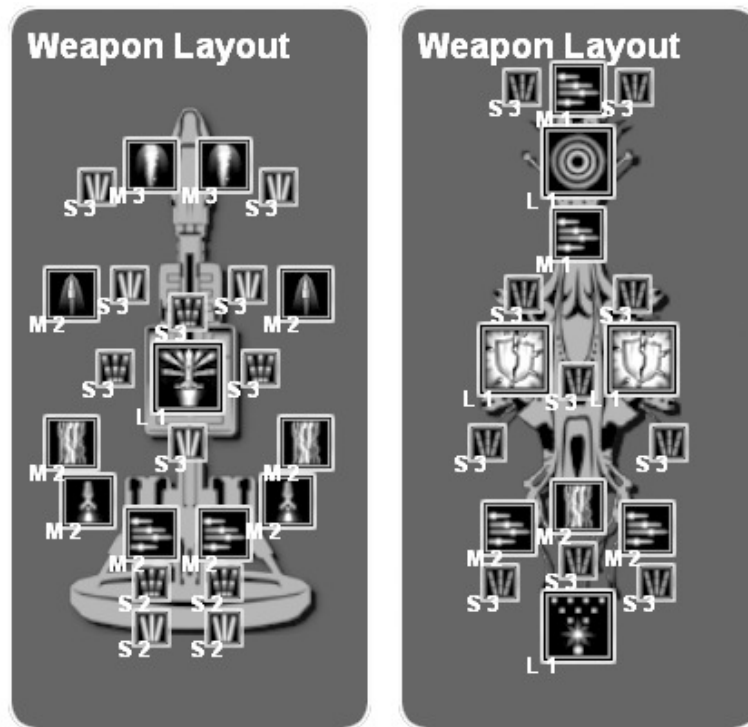
When designing a ship or building a ship from a list of designs, each ship's maintenance cost is displayed. Bear this in mind as it is the cost required each turn to keep that ship up and running. Some ships are incredibly costly to maintain, usually in proportion to their size and function. Too many ships and not enough income will hobble your Empire.

The total maintenance costs of all your fleets over your entire Empire can be viewed via the Empire Budget screen (click the pie-chart at the top left of the screen to open.)

WEAPONS, TURRETS AND BANKS

Besides the mix-and-match ship-sections, players can further customize their ship designs by adding certain technologies - such as Reflective Armor or Engine Improvements - and picking which weapons to outfit their ships.

Each section has a unique array of weapon banks, made up of groups of four different sizes of weapon turrets: Heavy, Medium, Light, and Point Defense. The weapons in these banks are determined the player's preference and are limited only by size - Some weapons can only be mounted in heavy turrets and cannot be mounted into a bank of light turrets, but light weapons can be mounted into heavy turrets.



Special Weapons

There are some special exceptions to ship sections and weapons. Mines for example can only be deployed by a Minelayer section, which has other weapon banks, but only mines can be fitted in the Mines bank. Other ship sections are designed specifically for a certain type of weapons, such as the Destroyer Spinal Mount mission section or Cruiser Projector mission sections - in these cases the weapon dominates the section, and is often the only weapon type that can be mounted into the design.

Typically using a ship's weapon is a simple matter of targeting the enemy, getting within range, and the weapons will fire. However, some weapons or special weapons systems require targeting and then a manual fire. You do this by clicking their weapon icon on the Weapons Panel. These include;

Mines

Click to begin dropping mines. Click again to stop dropping mines.

Detonating Torpedoes, Corrosive Missiles, and COLs

Unlike other weapons systems, which will fire automatically on any enemy target in range, Detonating Torpedoes and Corrosive Missiles can affect heavy area damage, potentially damaging more than one ship, not just a single target. Players can target an enemy ship or even an area of space (where a wing of ships is about to move into, for example.) and fire, but they can also target empty space. Click the weapon icon on the Weapons Panel and it will turn green on

the inside - moving the mouse around, a targeting reticule will be visible. Clicking anywhere on the battle map will give the weapons their target and they will fire.

Similarly, Complex Ordinance Loadouts, are targeted the same way, allowing the player to drop the Ordinance package in a particular location where it will be the most use.

Assault and Prisoner Shuttle

Click to launch Shuttles towards the targeted planet. Eventually these weapons will return and re-dock. Prisoner shuttles that successfully return will have prisoner cargo that needs to be dropped off at a player's colony. Any shuttles that do not make it back to re-dock can be replaced at an enemy system between combat rounds by a Repair and Salvage Cruiser.

Drones

Click to launch Drones towards your targets.

Atmospheric Entry

The Wraith Abductors aren't launched from a support ship, and so they must be ordered to descend to the surface and attack - this is done by clicking the Atmospheric Entry system icon in the Weapons Panel.

Siege Driver

It takes a lot of time to reload a raw asteroid, so you don't want to shoot it at just anything. Select a target (something big and slow, like a dreadnought or a planet) and click the Siege Driver icon to fire.

Boarding Pods

Target an enemy ship, and click the Boarding Pods icon on the weapons panel to launch pods for attack. Pods that are destroyed in the attempt or the return can be replaced by a Repair and Salvage Cruiser.

Grappling Lines

Target an enemy ship and click the icon to fire.

Bio-Missiles

Much like launching Assault Shuttles, only these riders aren't coming back. The missile payload can be replaced in an enemy system by a Repair and Salvage Cruiser.

Node Cannon

The Zuul have taken their damaging philosophy of interstellar travel and taken it one step further by creating the Node Cannon. By accessing their Rip drives and focusing them without preparation, the Zuul can create a temporary and highly unstable Node point, literally ripping any ship caught nearby out of combat space. SolForce engineers however are convinced that human ships, being equipped with similar drive technology, maybe be able to survive the attack, though it is unlikely they can remain in-system. They remain baffled about replicating the Node Cannon for human use however.

Node Missile

After arriving in the right system, Node Missiles have limited mobility. Once a target is selected, click the weapon icon to launch.

Upgrading Weapons

Some research technologies will result in bigger and better weapon systems - Green Lasers can be substituted into the design of a ship, instead of Red Lasers, but they are not retrofitted into already built ships with Red Lasers.

Some technologies will result in improvements to a weapons system and will be automatically upgraded across your fleets - for example, improved warheads and micro-engine advances will automatically be applied to all ships with Missile systems. Neutronium rounds are automatically used in all Mass Driver weapons. But for the most part, it is up to the player how powerful a weapon system they want to put into their ship designs - Hiver Colonizers don't often have to fight, so forcing a player to pay for the best laser system available to them is needlessly expensive.

CREDITS

This Game is entirely a work of fiction. The names, characters, and incidents portrayed in it are the work of the developers imaginations. Any resemblance to actual persons, living or dead, events, or localities is entirely coincidental.

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Since 1999, Paradox Interactive has been a leading global developer and publisher of PC-based strategy games. World-renowned for its strategy catalog, the company holds a particularly strong presence in the United States and Europe.

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HOTKEYS

Tactical	
KEY	FUNCTION
0 - 9	Recall selection group (pressing twice focuses on lead ship in the group)
CTRL+0 - 9	Assign selection group
C	Toggle cloaking or intangibility for selected ships
CTRL+C	Toggle follow / free camera control
DELETE	Clear targets for selected ships
CTRL+DELETE	Toggles fleet hold fire
E/SHIFT+E	Cycle forward / backward through enemy ships
ESCAPE	Clear ship selection
F	Focus on object under mouse (same as middle click)
SHIFT	Rotate formation heading.
CTRL+F1	Sets Retreat stance for fleet
CTRL+F2	Sets Break-off stance for fleet
CTRL+F3	Sets Normal stance for fleet
CTRL+F4	Sets Stand-off stance for fleet
CTRL+F5	Sets Close To Attack stance for fleet
H	Toggle HUD visibility
HOME	Focuses on and selects new reinforcements in combat
O	Toggles a tactical overlay that reveals the positions of your distant ships. Default can be set in your profile.ini; DefaultShowTacticalOverlay=True/False
W	Toggle weapon panel and selection list
PAUSE	Pause / Un-pause game in singleplayer
R	Toggle reserves list
S	Issue all stop order to selected ships
SPACE	Open and close Sensors screen
SHIFT+SPACE	Step ahead one frame when paused
TAB/SHIFT+TAB	Cycle forward / backward through your individual ships
CTRL+PAGEUP	Increase time compression
CTRL+PAGEUP	Decrease time compression
G	Release all grappling lines for selected ships

Strategic	
KEY	FUNCTION
CTRL+A	Toggle Auto-Refuel
B	Open Build screen
CTRL+C	Open Colonize window
D	Open Design screen
CTRL+D	Open Dump Ore window
DELETE	Removes selected ship design (in ship design screen)
E	Open Empire overview

ESCAPE	Back out of screen/mode
F	Open Fleet Manager screen
F6	Open Save Game window
CTRL+G	Open Deploy Gate window
HOME	Focus on your Home system
K	Toggles Rankings window
M	Toggle Fleet Move
CTRL+M	Open Mining window
N	Brings up notepad if a system is selected
O	Toggles Objectives
P	Toggle Player list
CTRL+P	Set AI Policy
CTRL+Q	Quit
R	Open Research screen
T	Toggles Trade window
S	Open Slaves window
CTRL+SHIFT+P	Drop off prisoner slaves at colony
CTRL+T	Ends turn
SHIFT	Override Human waypoint pathing and direct a straight path
CTRL+S	Open Cancel Operations window
Y	Toggles Alliance window
-	Toggle Star Visibility
=	Toggle Fleet Line Visibility
CTRL+SHIFT+A	Toggle Auto-Repair
CTRL+R	Open Refueling window
CTRL+N	Toggle Enemy Node Paths
CTRL+SHIFT+G	Set Selected Fleet as Primary in fleet list
CTRL+SHIFT+R	Open Repair window
CTRL+SHIFT+S	Open Ship Scuttle window
TAB / SHIFT+TAB	Cycle forward/backward through your colonies
SHIFT + LEFT MOUSE	Add ship designs to queue, 5 at a time
U	Open / Close turn news event windows
I / SHIFT + I	Cycle forward / backward through your idle fleets
CTRL+ALT+LEFT MOUSE	Add waypoints to a fleet's movement path.
X	Open / Close Planetary Population Manager
SHIFT+X	Open / Close Empire Population Manager
CTRL+ =	Toggle Galactic Axes

GENERAL	
KEY	FUNCTION
ENTER	Opens chat window and immediately allows players to type their message. Does not close Chat Window again
F8	Toggle chat window open and closed
CTRL+O	Open the Options Menu
~	Summon tool-tip
SHIFT+PRINT SCREEN (Tactical Only)	Take a screenshot, with HUD
PRINT SCREEN	Take a screenshot, in both the Strategy screens and combat, which will be saved to the Screenshot directory in the game folder
V	Cycle through pre-set camera distances.
CTRL+C (Tactical Only)	Unlocks camera for free movement (using mouse and arrow keys to maneuver - CTRL+ C will snap back to focus object again.)
HOME / END (during CTRL+C - Tactical Only)	Tilt the camera from side-to-side for more dramatic perspectives in your screen shots
DELETE (during CTRL+C - (Tactical Only)	Snaps the camera back if you have been tilting it

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