

Cosmic Fleets Players Manual

Rules and CFViewer guide

Version 3.1 · November 10, 2026

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1. Introduction

Cosmic Fleets is a multi-player, turn-based game of interstellar exploration, colonization and conquest. Game turns are completed offline by players and submitted to the game moderator for processing. Turns are run on a schedule set for each game (typically daily); the due date of every turn is shown in the viewer and on the Cosmic Fleets web site.

1.1 The Viewer Application

Cosmic Fleets is played with CFViewer, a Windows client application for viewing turns and entering orders. The viewer allows players to see details about their position in the game and to enter and submit orders for the upcoming turn. Once they have completed the new turn, the viewer sends it to the game moderator through the Cosmic Fleets turn mailbox, and it retrieves new turns as they become available (see Getting Your Turns Online).

The viewer is very mouse-driven... you can click and drag left/right and up/down to rotate your view of the galaxy. If you have a mouse-wheel, rolling it in and out will zoom the display closer or further away. Without the mouse-wheel, you will need to use the −/+ keys on the keyboard to achieve the same effect. Clicking on a system or a ship will select it. Ships are drawn slightly offset (down and to the right) of systems to simplify selecting them when they are at a system (as opposed to open space). If multiple ships are present in the same sector, the viewer will present a small list of the ships so you can select one. If you wish to not select any, you can hit Escape and the list will go away. As you increase the zoom level more information will become visible. At very "far" zooms, you will see Empire Names and system icons, ships, warning icons and scanner bubbles. As you zoom in, system names, movement lines and warning messages will be displayed. Even tighter zooming will reveal animated transfers of commodities between systems.

After selecting a ship or system, you will be presented with details on the item selected.

Holding down the Control key when clicking on a system will center the viewer on that system.

The configuration form has several options to show/hide various elements in the viewer.

When you start the viewer, it will automatically prompt you for a turn to load. Turns are automatically saved when you exit the viewer.

Turns are in the format `CFgggDssssPppa.CFT` where "ggg" is the game number, "ssss" is the StarDate, "pp" is the player number, and "a" is "A" or "B". So, a sample turn would look like `CF008D4738P01A.CFT`. This would be Player 1's A turn file for StarDate 4738 in game 8. A turn file with an "A" at the end is the data going to the player from the game moderator. A file with a "B" at the end is the file that contains orders for your next turn (i.e. from the player to the game moderator). It is this "B" file that gets sent back each turn for processing. Note that when you get new turns, you will get both "A" and "B" files. The "B" file you get may contain orders that are carry-overs from the prior turn.

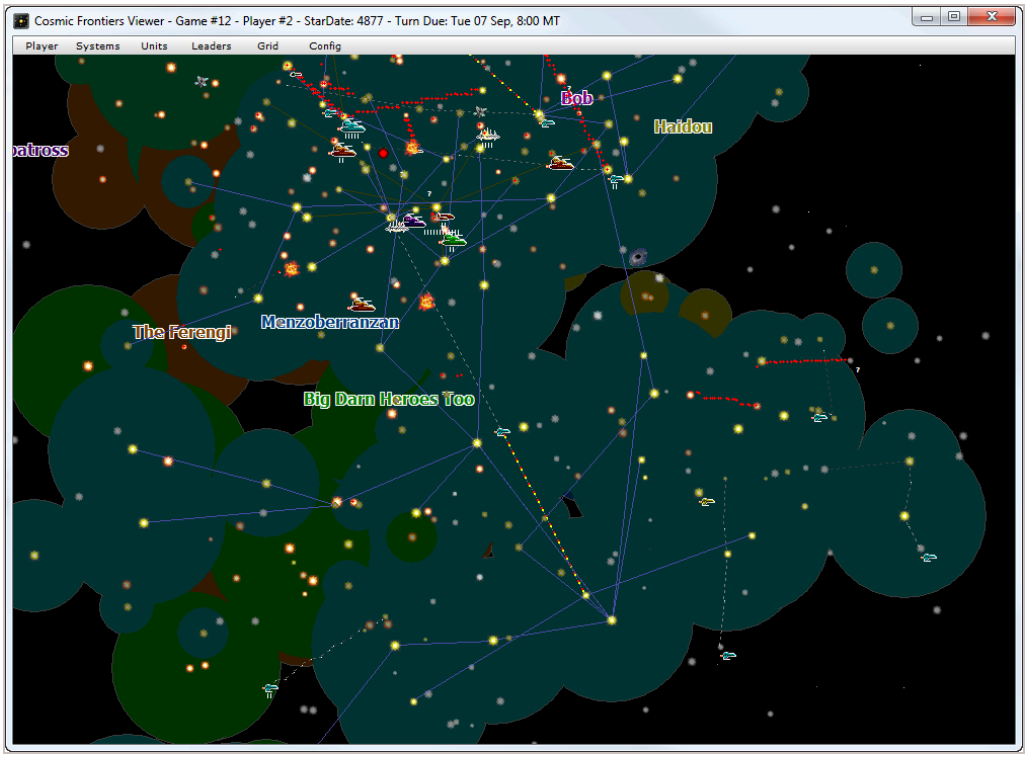


Figure 1: *The Viewer*

1.2 Getting Your Turns Online

Turns travel between you and the game moderator through the Cosmic Fleets turn mailbox on the internet. Everything is done from the viewer's **Online** menu.

- **Your access code.** When you join a game, the game moderator sends you an access code. In the viewer, choose **Online > Access code...**, paste the code in and click OK. You only do this once: the same code works for every Cosmic Fleets game you play. Keep it private; it is the key to your turns.
- **Getting a new turn. Online > My games...** lists your games and where each turn stands. Select a game and click **Download & open**; the viewer fetches both your "A" and "B" files.
- **Sending your orders.** When your orders are done, choose **Online > Send orders now**. You can change your orders and send them again as often as you like until the turn is run; the newest copy replaces the older one.
- **Orders closed.** When the game moderator starts processing a turn, orders for that turn are closed and the viewer will tell you so. The next turn opens for orders as soon as it is posted.

You don't need to be connected to the internet to work on your turn, only to download a new turn and to send your orders. The status of each game (the current StarDate, the due date, and which players have sent orders) is shown on the Cosmic Fleets web site, **cf.wcorigins.com**, where you can also download the viewer and this manual.

1.3 The Configuration Window

The configuration window will present you with a variety of customization options for the Viewer. Check or un-check the boxes to change the playing area display options. Empire name fonts can be changed with the list boxes on the right.

Configuration settings are automatically saved so the Viewer will open the same way each time.

1.4 Your First Turn

Here are some tips on doing your first turn.

In your initial view, you will see a collection of solar systems that you can see… the system in the middle is your capital.

You can freely rotate the view of the galaxy by clicking and dragging. You can zoom in and out on your view by using a scroll wheel on your mouse, or if you don't have one, the + and – keys on the keyboard. If you zoom all the way out to the maximum distance, you will notice that there is a cube of small stars surrounding the playing area. This is simply the background starfield to add a little more character to the viewer as you scroll around. I thought it looked cool looking at it from far away, so I left it. These are not stars you can navigate to.

Clicking on a system or a ship will present you with details on the item you selected, and will show a series of buttons allowing you to input orders for that item.

Your capital starts with a stockpile of various commodities… you will also note you have some commodities listed by Production… this is what you make each turn, while the Stockpile is what you currently have on hand. Keep in mind that things you build will have a cost in credits and metals which is drawn from your stockpiles… if you try to spend more than you have, you will get a note back to that effect on the next turn.

You will see that there is a graphic showing a ship at your capital (ships on systems are shown slightly down and to the right so as to not obscure the clickable area of the system). If you have several ships together in the same space (as is the case here), clicking on the ship graphic will present a list of ships to select from. Please feel free to name each of your ships… you can do that by clicking on the "Name Ship" button after selecting the appropriate ship. You will notice that some of your ships have some leaders on board. These are specialists that provide additional capabilities to the units or systems that they are assigned to. You can move them around to other ships or systems if you wish (see the section on Leaders).

Your starting ships are already fueled and loaded with cargo, so you can move them right away. To colonize a system, simply select the ship (don't forget to name him!) and then click on the Move Unit button. Once you do that you will be asked for a destination and speed. Click into the viewer on the system you want to go to select the destination. You can modify the speed you will travel at if you wish, although generally you will want to go full speed. Experience has shown that there are few advantages to going slower (at least as far as game mechanics are concerned). After you click on the destination, you will see an animated line showing your path to the destination. If you are satisfied with that order, click on the OK button (green check mark) to confirm the order. If you want to cancel an order, you can click on the red X or just hit Escape. If your intention is to colonize the system you are travelling to, you would follow this move order with an "Unload Colonist" order… (assuming you have colonists on board of course). Most players move and unload a colonist in the same turn while some take a more cautious approach and wait an extra turn to see if the system is worth colonizing. Waiting this extra turn to colonize can be costly though, and slow down your progress in the game if you do it all the time.

The gray systems around your home system are neutral systems. Ideally, you would like to colonize these to increase the size of your empire. Ships are color-coded according to your empire colors. Ships also change size according to zoom level.

A typical game-start configuration includes 2 Scouts, 1 Transport, and 2 Runabouts. Both Scouts are equally stocked. You also have a Transport that can also be used for colonization of systems (although careful, he has no scanner and won't be able to explore on his own). You also have 2 Runabouts, but they cannot carry colonists or soldiers and also don't have scanners. Their use will be more obvious in the next turn or two for shuffling around commodities for example. They also serve as useful reconnaissance units… you can fly them around to the systems you plan on eventually landing on… flying over a system will provide you with some details as to its value.

Once you give orders to your ships and to your systems, you are done inputting orders for that turn… choose **Online > Send orders now** to send them to the game moderator. You don't need to be connected to the internet to do your turn, but you do to get new turns and send completed orders.

1.5 Some Short-cut Keys

F1 Allows you to toggle on/off your local neighborhood. In later stages of the game, it cleans up the display a bit by removing systems and units that are far away from the selected item.

F2 Toggles through the display of various statistics on each system. A label displays at the bottom right of the screen to show you what the numbers represent up in the viewer. You can configure what items are shown in the configuration tab (the items starting with "Cycle").

F3 Move to the Previous Ship

F4 Move to the Next Ship

F5 Move to the Previous System

F6 Move to the Next System

F7 Move to the Previous Turn (if there is one)

F8 Move to the Next Turn (if you are viewing something other than the current turn)

F9 Create a note for the selected ship, system, or leader.

F12 Allows you to go straight to a specific X/Y/Z coordinate, system, or unit.

2. The Playing Area

The game is played on a 3-dimensional playing area measured in sectors. Players are free to explore and colonize in any direction without limits. The universe is a big place after all.

Star systems are scattered about throughout the galaxy. Each star system has a pre-determined amount of resources which are available to the owner of that system. There are some special kinds of systems scattered about such as Black holes, Novae, etc.

2.1 The Center of the Galaxy

Note that different games may have their systems organized differently. For example, some games are distributed like a galaxy… more systems towards the core of the galaxy and less as you get further from the core.

The Center of the Galaxy is represented in the viewer as a small red dot. There are two reasons for knowing where this is:

1. The other players are most likely to be found in this direction. We'd hate for you to go off in the wrong direction and never meet another player.
2. Systems tend to be richer in resources the closer they are to the center of the Galaxy.

3. Game Flow

Cosmic Fleets is a turn-based game. This means that players submit turns periodically (on a schedule set for each game, typically daily) and when each player's turn is in, the submitted orders are all processed, the game advances to the next turn, and results are sent back to each player.

Each turn of the game represents 100 hours of game time. Each order takes a certain amount of time to execute depending on the order.

Game time is reported as a StarDate. StarDates are in the format DDDD.HH where “D” represents an elapsed “day” and “H” represents an hour. Turns are always produced at the end of a 100 hour day, so each turn will have a StarDate showing “.00” as the hours portion. A typical StarDate would look like this: 4437.00. Individual actions within a turn occur on a particular hour of the day of that turn.

A turn of Cosmic Fleets looks something like this:

1. A master “clock” counting from hour 1 to hour 100 is started… for each hour that elapses, the following things occur:
    a. Ships move towards their specified destination (and explore new territory as they move if they have a scanner)
    b. Facilities and Modules are built
    c. Leaders are trained
    d. Combat occurs (see Ship Combat)
    e. Commodities are loaded, unloaded, and transferred to other systems and units
2. At the end of each turn (after hour 100), there are several maintenance tasks that are performed:
    a. Injured leaders have a chance of being healed
    b. New leaders may appear on any controlled system
    c. Damaged units or facilities have a chance of being repaired
    d. Player relations are updated
    e. Production for each occupied system is calculated
    f. Victory points are accumulated
    g. Leaders may learn information tidbits
3. The StarDate is advanced one day, new turns are generated and posted to the turn mailbox, where each player downloads theirs with the viewer.

3.1 The Game Start

At the beginning of the game, each player will control one star system in the galaxy. In addition, he will also start off the game with 2 Runabout ships, 2 Scout ships, a Transport, a Starbase, and some credits and resources enabling him/her to create more. The home system will have some starting facilities to assist early colonization/development of the nearby star systems. Some games might have variations on this initial set of ships and facilities.

Starting player positions will be clustered together, but each player will have exposure to open space if he wishes to avoid interaction with other players.

4. Resources & Commodities

4.1 Resources

Resources are a representation of the raw, untapped capabilities of the system. A system with high resource numbers would be more valuable than one with low numbers. Each of these resource values will be listed in the information panel of the viewer when you select a system. Values can range anywhere from 0 to around 40. You

can't pick up, move, or adjust resources, rather resources are used to drive the creation of commodities. There are four kinds of resources.

Population	This is a representation of the number of inhabitants on the system. Population converts into Credits and is enhanced by the construction of Commerce Center facilities.
Tilium Ore	Converts into Fuel, and is enhanced by the construction of Tilium Refinery facilities.
Iron Ore	Converts into Metals, and is enhanced by the construction of Metalworks facilities.
Agriculture	Converts into Food, and is enhanced by the construction of Farm facilities.

4.2 Commodities

There are seven basic commodities in Cosmic Fleets:

Credits	This is the "currency" of the game. Most everything you try to build will have an associated cost in Credits.
Colonists	Colonists are used to capture and control systems. At least 1 colonist is required for a system to be in "control" and therefore produce commodities.
Soldiers	Soldiers, like Colonists, are used to capture and defend systems. However, they cannot control a system, so a system that only has soldiers on it will not produce commodities. They are more expensive to produce, but have significant advantages in ground combat.
Food	Food is a required element in the construction of ships, colonists, and soldiers. It is assumed that once constructed, those ships, colonists, and soldiers are fully supplied with food for the remainder of the game, so you don't need to worry about supplying them going forward.
Fuel	Fuel is necessary for ships to move.
Metals	Metals are required for building most ships, modules and facilities.
Probes	Probes can be fired by ships to explore regions of space.

The location of commodities is important for game purposes. For example, a quantity of fuel on a system will only be available to ships that happen to be at that system. Metals needed for construction of a ship, facility, or module must likewise be available on the system as well for such a build order to work.

There is a key exception to the above rule… Credits. Whenever there is a need to spend credits, local stockpiles of credits are used first, but if these are exhausted, credits on the home system (only) are also available to draw from. For example, if you want to build a Scout on a system (not your home system in this example), and you have enough metals, but are just a little short of credits on that system, any additional credits you need for the Scout will be drawn from the home system. Remember, this only works for Credits and only from the home system.

Credits are not shared "universally"… You have 3 systems, A, B, and C. A is your capital. If you try to build something on B and there are not enough credits on B to complete the construction, it will check on your capital (A) and see if there is enough there to make up the balance. It will not also check C however… Credits will only draw from the system you are trying to build the thing on, or your capital. That's it. Other commodities have to be physically present to use them. Only credits behave differently.

4.3 Artifacts

Artifacts are objects left over from an advanced civilization long gone (sounds very mysterious and stereotypical doesn't it?). They are randomly distributed throughout the galaxy and are more common towards the center of the galaxy than further out. Artifacts start out initially hidden. Only an archeologist can find them and each turn, an archeologist may learn about the existence of an artifact somewhere in the galaxy. Once he does, he can travel there and look for it. At the end of each turn where an archeologist shares the same location as a hidden artifact (he can be on the system or on a ship), there is a chance (based on his archeology skill) that the artifact is revealed. It might take multiple turns to reveal it.

Artifacts will have some positive influence on the friendly system they are on and close neighbor systems. An undiscovered artifact does nothing. Once discovered, it can be left alone or transported to another system. Only a transport can carry an artifact. When unloading an artifact, if there are other artifacts present on the system, there is some risk that the artifacts will react badly with each other. The risk increases the more artifacts that are present. Note that this possibility of a bad reaction only occurs once when an artifact is unloaded. Once it gets on the system, it is fine.

Archeologists can provide tidbits on the location of discovered and undiscovered artifacts. Spies can provide tidbits on the location of only discovered artifacts.

5. Empires

Each player controls an empire. As mentioned before, your empire starts with 1 system, your home or capital system, and a handful of ships. Additionally, your home system is pre-supplied with a quantity of credits and metals, extra fuel and food. Information about your empire is available on the Player form.

5.1 Orders for Players/Empires

You can issue the following orders at the Player/Empire level of the game:



Name Empire. Assign a name to (or rename) your empire.



Create Manifesto. Allows you to edit your Empire's Manifesto. This is just a simple description of your empire and what makes them tick. Currently these are just for your own edification, but at some point I will have a way for other players to see them (like the first time another empire meets you).



Send Message. Allows you to contact another player. There is also an option to send a note to all players at once. Messages are sent with your orders and delivered when the turn is processed.



Propose Treaty. Offer an alliance to another player.



Break Treaty. Self explanatory.



Move Capital. Allows you to select a new capital. Just click on the system that you wish to move your capital to.

5.2 Treaties

Every player in the game has a diplomatic relationship with every other player. Initially, players start out in a "neutral" state with all other players (unless it is a Team game). Relationships will tend to drift slowly in a positive direction each turn. After several turns, you may be eligible to propose a treaty with a player (the relationship will

say “Treaty Allowed”). When this condition occurs, you may propose a treaty with the other player. When the other player gets his turn, he will see the treaty proposal, and can either Accept it (in which case the treaty goes into effect), “Reject” it, in which case nothing happens, or provide “No Response”, which also does nothing. The other player will see the response you provided. Relationships between players stop at these points at which treaties are allowed. Think of them like an elevator in a building where you can only go one flight at a time and the other player has to approve of you going higher.

You can view the status of your relationships with other players (that you have seen) on the Players | Relations tab.

Some game details about the varying states of diplomatic relationships with players:

- If you are at **War** with someone, there is a production penalty that occurs for both of you on systems that are close to each other (i.e. border systems).
- If you raise your relationship with someone to a **Non-Aggression treaty**, then your ships won’t shoot at each other regardless of their posture.
- If you further raise your relationship to a **Trade Agreement**, then each of your border systems will gain a production bonus.
- The next level up is a **Mutual Defense Pact**… currently no special rules here, but there will be some coming.
- The next level up is a **Full Alliance**. At this point each of your border systems will gain a greater production bonus than the **Trade Agreement**. I am also considering having empires in this state share each other’s sensor data, but that isn’t in there yet.
- If you shoot at another player’s ship, you automatically go to a **Hostile** state with that player.
- If you take a system owned by another player, you automatically go to a **War** state with that player.
- Diplomats can be sent to other players’ systems to improve relations. If diplomats of different empires end the turn on the same system, they will have a diplomatic meeting and may improve relations between their respective empires. More skilled diplomats will have greater chances of improving relations.
- If you have a **Trade Agreement** (or better) with another player, you can do transfer orders to their systems.
- If you have a **Full Alliance** with another player, your leaders will function for his empire as well as your own.
- If you are **Hostile** or at **War** with another player, a defensive posture will still allow you to shoot on the first round of combat.

6. Systems

Each system in the game represents a single solar system with an indeterminate number of habitable planets in orbit. Systems have four basic types of resources… Population, Tilium Ore, Iron Ore and Agriculture. Population drives the production of credits. Credits are a representation of the financial value of the system. Think of it like tax revenue from the people living in the system. Iron Ore can be mined and turned into metals. Metals are used in constructing other things in the game (like Ships and Facilities for example). Tilium can be tapped and converted into Fuel. Fuel is necessary for ships to get around. Agriculture is used to produce food which is required for the construction of Colonists, Soldiers, and ship crews. The base values of Population, Tilium, Iron Ore, and Agriculture cannot be changed by the player (but there could be external influences like disasters that might change them).

In order to start the full-scale production of Metals on a system, you need to create a Metalworks. You should only do this if the system produces a reasonable amount of iron. Once you build a Metalworks, the system will produce metals equal to the Iron rating on the system. The Tilium Refinery operates the same way but with Tilium Ore and Fuel respectively. Commerce Centers work the same way, but with Population and Credits respectively. And Farms work the same way, but with Agriculture and Food respectively.

Note that a system that has no Commerce Center will still generate some credits per turn (50% of the system's population rating). The same holds true for Metals (but 25% of its Iron rating), Fuel (again 25% of its Tilium rating), and Food (also 25% of its Agriculture rating). This represents that your colonists have the ability to create some basic commodities on their own. The creation of the Commerce Center, Metalworks, Tilium Refinery, and Farm facilities are what really kick a system's production of the associated commodities into gear.

In the viewer, systems are color-coded… Gray systems are neutral or un-owned, and red systems are owned by another player. Yellow systems are ones you own, and their brightness is a helpful visual indication of their respective value in your empire.

You must have at least 1 colonist or soldier on a system to own it. If you remove the last colonist/soldier from a system, it will revert to un-owned. As mentioned earlier, you must have at least 1 colonist on a system for it to produce commodities… Soldiers don't count for this purpose.

Systems will stockpile things that they produce until you spend them or transport them somewhere else. Many players prefer to transport credits, metals, and fuel produced on outlying systems to inner systems for use in producing larger ships, more facilities, etc.

Players can build facilities on systems to augment the system's resource production or to provide other special abilities at that system.

6.1 Orders for Systems



Name System. Allows you to provide a name for the system.



Build Facility. Allows you to build a facility on the system. Select the type of facility to build from the drop-down list. Note that the cost (in credits, metals, and/or time) will be noted for each selection.



Salvage Facility. Allows you to disassemble a facility on a system. Select the type of facility to salvage from the drop-down list. You will get back half of the original commodity cost of the facility.



***Build Ship.** Allows you to build a ship on the system. Ships can only be built if there is a Shipyard facility present on the system. Select the type of ship to build from the drop-down list.



Train Colonists. Allows you to train a number of colonists on the system. Per turn, you can train up to two colonists per Colonist School present on the system. You can mark that the order is to automatically recur each turn if you wish. Note that there is a cost in Credits and Food to train a colonist.



Train Soldiers. Allows you to train a number of soldiers on the system. Per turn, you can train up to two soldiers per Soldier School present on the system. You can mark that the order is to automatically recur each turn if you wish. Note that there is a cost in Credits, Metals, and Food to train a soldier.



Transfer Via Hub. If you own a Transport Hub on the system, this order allows you to ship resources from this system to another system. Select the type and quantity of commodities to transfer, and the target system, in the right-hand panel. Range of this transfer is limited by the size of the Transport Hub. The display will indicate if it can't reach the destination system.



Invest in Technology. Allows you to commit a specified amount of Credits towards higher technology. (Currently not implemented.)



Trade Commodities. Allows you to trade one commodity for another on an open market. You must have at least a transport hub present on the system to do such a trade. The amount that you can trade will be limited by the number of transport hubs and commerce centers present on the system.

Make a Note. Lets you leave yourself a note for later turns. Notes appear with orders on the order tab and in the Information panel when the system is selected.

***Wait.** Allows you to insert a pause or wait order for a system allowing you to control a specific hour when an order is to be executed.

The Build Ship order and Wait order (marked with an asterisk) are considered “synchronous” orders, in that they will run in a first-in-first-out sequence. If you build more than one ship in a turn, the first one will have to be completed before the second order starts. Other orders listed above are “asynchronous” meaning that they will run in parallel with any other orders.

Many System orders have a cost in terms of Credits, Metals or hours required to complete… the orders panel will indicate this as appropriate.

6.2 Data Grid

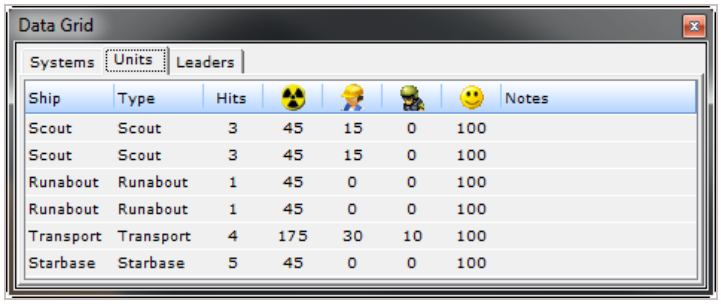


***Figure 2:** Data Grid*

The data grid view allows you to see at-a-glance information on several units, systems, or leaders at once. You can click the column headers to sort the grid by each column. Double-clicking a row will center the main viewer on that selected item.

6.3 Notes

Notes are a helpful item to assist you in remembering things between turns. Since there may be a lot happening in your empire, you can write yourself a note (on systems, ships or leaders) to remind you what that system needs. For example, perhaps you want to build a Shipyard on a system, but you lack the metals to build it now. You can dispatch a transport to deliver the metals, which could take several turns to arrive. A note saying “Build Shipyard with arriving metals” would help you remember. Notes can be deleted on the orders panel by highlighting them and pressing the Del key.

6.4 Facilities

Facilities are improvements that you can make to systems. You can build as many of a particular facility on a system as you like. However, most facilities beyond the first few have diminishing benefits to the system.

Building Facilities requires that you spend all associated costs (credits, metals, etc) up front. If you don’t have enough of a commodity to build a facility, that particular order will fail.

Facilities can be damaged or destroyed. In the system form, facilities will be listed with 2 numbers separated by a slash. The first is the number of functioning (non-damaged) facilities of that type present on the system, and the second number is the total number of facilities of that type on the system. For example, if you had a system listed

with Scanners (1/2) that would mean that there are 2 Scanner facilities present on the system, but only 1 of them is functioning (1 is damaged). Damaged facilities repair on their own. The existence of an Engineer will speed up this process.

The types of Facilities are as follows:

Farm Each Farm on a system will produce Food. The amount is determined by the Agriculture resource rating of the system. The first farm produces the same amount of Food as the Agriculture rating of the system (i.e. 1 to 1). Each additional farm will convert more Agriculture, but not at the same rate. The second farm will produce 1 Food for every 2 Agriculture. The third one will produce 1 Food for every 3 Agriculture, and so on. Food is required for the construction of colonists, soldiers, and ships.

Commerce Center A commerce center produces Credits based on the Population of a system. The amounts work similarly to how farms work.

Tilium Refinery Each Refinery on a system will produce fuel. The amount is determined by the Tilium Ore resource rating of the system. The amounts work similarly to how farms work.

Metalworks Each Metalworks will produce metals based on the Iron Ore resource rating of the system. The amounts work similarly to how farms work.

Ground Base Ground Bases improve the defensive capabilities of soldiers on a system and help them resist invasions by other players. Ground Bases do not protect colonists.

Shipyard Shipyards are necessary to construct and repair ships as well as to add new modules to existing ships. Multiple shipyards in a system will proportionately increase the speed of these activities. Construction and repair orders will take longer (sometimes much longer) or may not happen at all if an armed enemy vessel is present at the system.

Colonist School Colonist schools allow you to build colonists using the “Train Colonist” order. Each Colonist School on a system will allow you to build up to 2 colonists per turn.

Soldier School Soldier schools allow you to build soldiers using the “Train Soldier” order. Each Soldier School on a system will allow you to build up to 2 soldiers per turn.

University Universities are necessary for leaders to purchase additional training. In addition, universities automatically contribute toward an empire’s technology research. Each university increases the chance of a new leader being generated on that system each turn.

Transport Hub A transport hub allows the system to ship any commodities, including colonists or soldiers, to other systems. This represents hidden “shipping” infrastructure in the game… no ships of the player are actually involved in the transport. The amount of time necessary to complete such a transport is related to the distance shipped. The general rule of thumb is that every sector of distance will take 2 hours, so the furthest a shipment can travel in 1 turn (100 hours) is 50 sectors. If there is a receiving transport hub on the destination system, the transfer is completely safe. However, if there is no receiving transport hub on the destination system, there is a variable amount of “loss” that occurs during transport (i.e. you may send 10 credits but perhaps only 8 of them actually arrive). This rule does not apply to colonists or soldiers shipped on a transport hub. There is (currently) no limit to the amount of commodities a transport hub can ship in a single turn (distance is the only real limiting factor). Additional Transport Hubs increase the range of the transport orders that can be ordered. The results tab of the sending and receiving systems will show “in-transit” shipments should they not complete in a single turn.

Scanner A system scanner is the same as a ship scanner. It allows the system to be able to see other systems or ships in its detection range. Scanners on systems produce 1 probe a turn. See Scanners for more details.

6.5 Transfer Orders

Commodities can be sent from one system to another via Transport Hubs. It is a handy way of moving commodities around your empire without having to carry them with your ships. Simply click the Transfer via Hub button, and the Information panel will look like this:

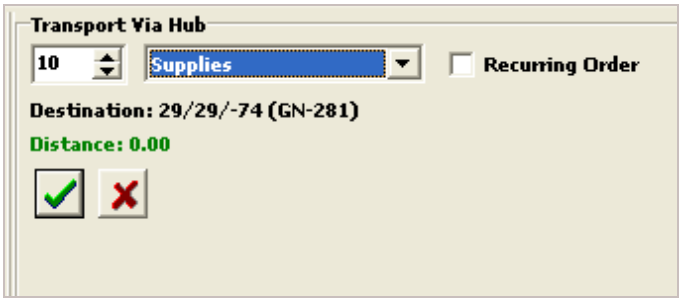


Figure 3: *Transfer Via Hub order panel*

Enter the quantity in the first box, and the commodity in the list box. If you want to send ALL available stock of an item, enter 999 in the quantity. To make an order repeat every turn, check the Recurring Order checkbox. Finally, select the destination for the transfer by clicking on the target system. The distance indicator will show if the destination is within the hub's range or not.

A transport hub's range is defined as a number of sectors equal to the number of transport hubs times 20 plus an additional 20. So, the first transport hub can transfer commodities 40 sectors, adding a second takes it to 60, a third to 80 and so on.

Transfers are not instantaneous. In general, a shipment of goods will travel about 2 sectors every turn (100 hrs). If a transfer order is in progress, you will see a "% complete" message in the results section of both systems involved.

When using 999 for the quantity, the amount actually sent is calculated about 10 hours into the turn, so any early construction projects will consume the commodity first before the "transfer all" order kicks in.

The existence of an armed enemy ship at either the source or destination of a transfer (a blockade) will prevent transfers from taking place or shipments from arriving and will generally bounce the shipment back to its origin.

Transfers follow this general sequence…

- At the beginning of the turn, the order is received. At that time…
  - You have to own the source system (the one doing the sending)
  - You have to have the transport hub present and it has to have the range to reach the destination
  - You can't have an enemy ship present on the source system
  - If any of these conditions are not met, the order fails.
- The system determines how long the order will take… 2 hours per sector.
- When the order completes (i.e. those hours calculated earlier have elapsed), the following happens…
  - You have to own the destination system
  - You can't have an enemy ship present on the destination system
  - If either of these two conditions is not met, the order fails.

- If the order hasn't failed, then the commodities are removed from the source and deposited on the destination.
  - The amount shipped would be restricted by what is available at this moment in time.

6.6 Load/Unload Orders

To load or unload commodities to/from ships, click the appropriate button. The Information panel will display this:

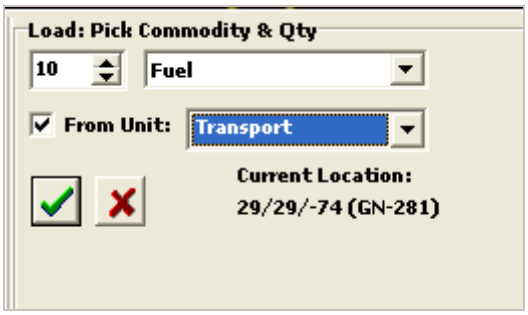


Figure 4: *Load Commodity options*

Enter the quantity and the commodity, and click OK.

If the order is to Load/Unload from another ship, check the "From Unit" checkbox and select the ship (multiple ships may be present in a single sector), and click OK. If the "From Unit" checkbox is not checked, then the Load/Unload will take place with whichever system the ship is orbiting, as indicated by the Current Location. If the ship is not over a system, then the order simply fails (commodities are NOT dumped into space).

You can initiate transfers of commodities between ships from either ship involved. The loading ship can "take" an item from another ship, or the unloading ship can "give" the item to the receiving ship.

A load and unload order takes 6 hours to complete. However, if an armed enemy ship is present when you are trying to perform a load or unload, the order will take 4 times as long.

7. Ships

Ships serve several purposes in the game. Primarily they provide the ability of your empire to explore and colonize new systems. They also can carry, in varying amounts, commodities from one system to another. Finally, they provide for offense/defense in conflicts with other players.

There are (currently) 6 basic types of ships in the game:



Runabout – The runabout is a small, fast ship that is useful for exploring and transporting small quantities of resources. They may not carry colonists or soldiers. They may not be modified by adding additional ship modules to them. They have the benefit of consuming fuel at 1/3rd the rate other ships do. They start with 1 hull point, 1 Cargo space, and 10 Engines.



Scout – This is your basic entry-level type of ship. It is useful for exploration and colonization of new systems. Scouts are unique in that they are the only ship type that starts with a scanner (giving it the ability to see things at a distance). Scouts are very lightly armed. They start with 3 hull points, 2 Cargo spaces, 5 Engines, 1 Armor, 1 Cannon, and 1 Scanner.



Transport – The transport is a relatively slow-moving ship but with large amounts of cargo space. They are not (at least not initially) armed. They start with 4 hull points, 3 Engines, and 10 Cargo. The extra cargo on a transport will prove valuable for transporting colonists and soldiers around (since they take extra spaces).



Frigate – The frigate is a basic combat vessel. More armed and defended than a scout, but a little slower. Frigates start with 10 hull points, 3 Cargo, 4 Engines, 4 Armor, and 4 Cannons.



Cruiser – The largest ship you can get in the game (currently). They are armed with additional offensive and defensive capabilities. Cruisers start with 20 hull points, 4 Cargo Modules, 4 Engines, and 4 each of Armor, Shields, Cannons and Missiles.



Starbase – This is essentially a platform that you can use to help defend systems. It has 5 hull points, 1 engine, and 1 cargo hold, but it has 20 free spaces to add other modules to. If a Starbase is present when an enemy ship tries to invade with soldiers or colonists, the Starbase gets special shots against the invading forces with any missiles or cannons it has. A fully armed Starbase can be devastating to invading troops. Starbases however are a little on the fragile side. Generally it is a good idea to have other ships around to provide additional defense for it. Because the Starbase has 1 engine, it technically can be loaded up with a little fuel and moved from system to system.

Ships can only be constructed at systems with Shipyards and each type of ship takes a certain amount of Credits, Metals and Food to produce. Ships can also be modified by adding additional components (modules) to them after they are built. The starting configuration for all ships includes a number of pre-existing modules, but you can add to them later if you wish. For example, you can add a scanner to a transport to give him better ability to explore and colonize systems. The viewer will show how many free module spaces each ship has. Each additional module you add to the ship will consume one of these free spaces.

Ships require fuel to be able to move. When they are out of fuel, they are stopped in space. When you give orders to ships to move, you give them a destination and speed. The destination must be either a system or another ship. If it is a system, the ship will travel there at the requested speed. If another ship is selected as the destination, your ship will continually adjust its movement path based on movement of the destination ship. This allows you to “intercept” another ship if desired, and can be useful to track down a ship of another player, or to rendezvous with one of your own ships (perhaps to refuel?).

7.1 Orders for Ships



Name Ship – Assign a name to (or rename) a ship.



***Move Ship** – Allows your ship to travel from one sector to another. 1 Fuel is expended for every 3 sectors they travel. Moving a ship involves selecting its destination (by clicking on the screen) and selecting any speed up to your maximum speed. See Movement Orders for more details.



***Jump Ship** – Allows your ship to travel to a distant sector without travelling through intervening sectors. Jumping is essentially instantaneous, but consumes 1 fuel per sector travelled. Jumping a ship involves selecting its destination by clicking on the screen. See Jump Orders for more details.



***Add Module to Ship** – If there is a Shipyard present in the sector, this order will allow you to add additional modules (Cargo, Engines, weapons, etc) to the ship. Select the module to build from the drop-down box. See Modules for more details.



***Load Commodity** – Allows a ship to load commodities from another ship or from a system. Select the type and amount of the commodity to load. Note that Credits occupy no space in a cargo hold. Note also that each colonist or soldier occupies 10 spaces in a cargo hold.



***Unload Commodity** – Allows a ship to unload commodities to another ship or to a system. Select the type and amount of the commodity to unload.



Change Posture – Allows you to specify whether the unit will behave in an Offensive, Defensive, or Evasive manner. Select the desired posture from the drop-down list provided. (See Posture.)



***Detailed Scan Probe** – If the ship has probes onboard, it will fire a probe to provide a distant scan of a nearby region of space provided it also has a functioning Scanner module. The probe can be fired up to twice the ship's scanning range (in sectors). Note if the ship is not currently within this distance of where you are firing the probe, the order will wait until you are within range to launch. Use the arrow buttons in the panel to control where the probe will be fired to. A small marker with cross-hairs will be displayed to show the planned destination of the probe. The large circle around these cross-hairs specifies the range that will be probed. If you try to probe too far away, the circle will change color to indicate that it's out of range. Once you click on the OK button, the order will be confirmed and the probe destination will change to a small oscillating circle. There is also a "Fuel" setting for a probe. If you provide no fuel, the probe explores the appropriate region and then goes away. If you give it fuel (which is taken from the firing ship), then the probe stays around in its target location for a number of turns equal to the amount of fuel you loaded it with. This will allow you to park a more "active" probe in a specific region. You can refuel such probes when their fuel runs low.
A probe simply explores space and reveals things in its range. It won't tell you any specifics on the systems it sees though. To see the specifics, you have to fly over it.



Self Destruct Unit – Alas, all good things must come to an end. This order destroys the ship. If you are in the same sector as an enemy ship, you can damage it by this action. The damage inflicted is relative to the size and condition of the ship.



Make a Note – Write a note for this ship.



***Wait.** Allows you to insert a pause or wait order for a unit allowing you to control a specific hour when an order is to be executed.

Orders with an asterisk by their name are considered "synchronous" orders, in that they will run in a first-in-first-out sequence. So, for example, you could add a module to your ship, load 50 fuel, load 5 colonists, and then move to a nearby system. Each of these orders in turn would have to complete before the subsequent one starts. Other orders listed above are "asynchronous" meaning that they will run in parallel with any other orders.

Ship orders have a number of hours required to complete… the viewer will indicate this as appropriate.

7.2 Modules

Modules are improvements that you can make to Ships. You can build as many of a particular module on a ship as you like, with the exception of Runabouts, which cannot be modified.

Building modules requires that you spend all associated costs (credits, metals, etc) up front. If you don't have enough of a commodity to build a module, that particular order will fail.

Modules can be damaged or destroyed. In the viewer application, modules will be listed with 2 numbers separated by a slash. The first is the number of functioning (non-damaged) modules of that type present on the ship, and the second number is the total number of modules of that type. For example, if you had a scout listed with Engines (4/5) that would mean that there are 5 engine modules present on the ship, but only 4 of them are functioning (1 is damaged).

The types of Modules are as follows:

Cargo Each cargo module is 50 "spaces" in size. Metals, Fuel, Food, Artifacts, and Probes all occupy 1 cargo space each. Credits do not occupy any space. Colonists and Soldiers occupy

	10 cargo spaces each. You can mix-and-match as many resources as you want in any particular cargo module.
Engines	Engines define the speed of ships. The basic rule is that 1 engine will propel a ship 1 sector every 20 hours of game time. So, a ship travelling at speed 1 will be able to travel 5 sectors in a turn. A ship travelling at speed 5 will be able to travel 25 sectors in a turn, etc.
Armor	Armor is a basic defense for ships. Weapons have to penetrate armor before interior things (like other modules or the ship's hull) can be damaged/destroyed.
Shields	Shields are a specific defense against missiles. A Shield has the ability to completely deflect a missile.
Cannons	Cannons are a basic offensive weapon for ships. Each cannon has the ability to cause 1 point of damage.
Missiles	Missiles are a specialized type of weapon for ships. A missile causes twice as much damage as cannons when they hit.
Scanners	Scanners are used to detect things in the vicinity of the ship. See Scanners for more info.
Repair	Repair modules allow a ship to have some repair ability for itself or other ships that end the turn with it.

7.3 Posture

Each ship has a posture that it can change at will. Postures can be Offensive, Defensive, or Evasive. An Offensive posture causes the ship to "shoot first and ask questions later". This setting ensures that combat will occur when entering a sector with a ship of another non-allied player. Defensive posture instructs a ship to not fire unless fired upon. A ship in Defensive posture that is shot at will upgrade to Offensive posture on the next combat phase.

For example, Ship A is Defensive, Ship B is Offensive. The owners of these ships are currently in a Neutral relation with each other. Ship A moves into the same sector as Ship B on hour 23 of a turn. When hour 25 occurs, Ship B (because it is Offensive) takes a shot at Ship A. Ship A does not return fire on this combat phase. However, if the ships share the same sector on hour 50 in this example, Ship A is now ready to shoot back and defend himself. Because of this arrangement, typically a ship set to Offensive gets a first shot in before Defensive ships can respond. It also means that you have a reputation as a hostile jerk… shooting at another player will negatively affect relations with the player which may take some time to repair.

Evasive posture is similar to Defensive. The difference is that the ship is purposely trying to not get hit at the expense of shooting back. It will be somewhat harder to hit when in this posture, but consequently, any shots the ship takes in return will be less likely to hit.

Note that if you have an alliance with a player, by definition your ships won't shoot at each other, regardless of posture. Conversely, if you are "Hostile", or "At War" with another player, posture is largely ignored, and ships will shoot each other on sight.

7.4 Movement Orders

There are two ways to issue move orders to ships: Moves and Jumps. However, with minor exceptions, issuing the orders is the same process.

After selecting the ship to move, click the desired move button (move or jump). The order panel displays the destination and distance (with Fuel and time requirements). Initially, the destination will be blank. Click on any system or ship (your cursor will appear as crosshairs) to set the destination. If you want your ship to travel slower

than its maximum speed, you can change it on the slider. Click the OK (checkmark) button to issue the order, or Cancel (X) to cancel.

If you select another ship as the destination (an intercept order), there is the possibility that the destination ship will move before your ship arrives. In that case, the game will automatically generate subsequent move orders to ensure that your ship will (should) ultimately arrive at the target ship. If the initial order was a jump, the follow-up move orders are standard moves.

You can chain together move and jump orders as needed. The distance, fuel, and time calculations are on the entire trip… not just that individual leg.

7.5 Jump Orders

Jumping a ship offers a great advantage by moving a ship great distances instantaneously. However, it carries with it considerable cost and some risk. The fuel consumption for a jump is triple that of a standard move.

Any jump of 30 sectors or less is considered completely safe. Jumps longer than 30 sectors carry the risk of a miscalculation resulting in jumping somewhere other than the intended target. The longer the jump, the greater the risk. Very long jumps can end disastrously! A Navigator (Leader type) on board a ship significantly reduces the risk of Jump errors.

7.6 Ship Combat

Combat occurs only 4 times a turn… on hours 25, 50, 75, and 100. When these hours come up, the system will check to see if there are hostile ships of more than 1 player in the same sector and with postures that would cause them to shoot at each other.

Ships shoot in a more-or-less random sequence. This is referred to as their “initiative”. Initiative determines the sequence that ships fire during a single combat phase. During each combat phase (i.e. every 25 hours) initiative is determined for each weapon a ship is firing (instead of for each ship). That means the shots will tend to be intermingled with shots from other ships. Ships that have an Offensive posture will *tend* to shoot before ships with Defensive postures which in turn will *tend* to shoot before ships with Evasive postures. Ships that have leaders with the Leadership or Space Combat skills will tend to shoot earlier in a combat phase.

When firing, if there are multiple ships of the same player to choose from, targets will be selected in order of their “Class”. Frigates and Cruisers are of one class and are selected first, Scouts and Runabouts are a different class and are selected second, Transports are a class of their own, being selected third, and Starbases are also a class of their own, and are selected last. For example, a Cruiser is in combat with a Frigate and Transport of the same player. The cruiser will not shoot at the Transport unless the Frigate leaves or is destroyed. This rule on target classes establishes a way of screening more sensitive ships to keep them out of harm’s way.

Once targets are selected and the firing order is determined, ships start shooting.

Missiles are resolved first. Each missile has a base 100% chance of hitting, but can be modified by leaders on both sides with Space Combat and Leadership skills. It can also be affected by the posture of the ship firing and defending. If a missile hits, any shields on the defending ship have a 50% chance of deflecting the missile. If it is not deflected, the shield is either damaged or destroyed (50/50). Basically it “absorbs” the hit. If there are no shields on the defending ship, then Armor is evaluated in the same manner. However, Missiles count double against Armor, so each missile that gets past shields now counts as 2 points of damage each.

Cannons operate in much the same way. Shields are no defense against cannons… only Armor.

If there are no Shields or Armor present when a shot hits a ship, then there is a 50% chance that the ship's hull is hit (ships have a limited amount of hull points and are destroyed when they are gone). If the hull is not hit, then a random module on the ship is either damaged or destroyed (50/50). When ship modules are damaged in this manner, there is a chance for leaders present on the target ship to be injured or killed.

During ship combat, once a ship has selected a target to shoot at, it will stay locked on that target for the duration of the combat phase. It will re-evaluate targets on subsequent combat phases or when its current target is destroyed.

In the summarized combat results, a "miss" can mean either: 1) the shot missed entirely; or 2) the shot was deflected by armor or shields.

7.7 Ship Repair

Ships can be repaired by a shipyard facility at a system, or by a repair module installed on a ship. Each shipyard has 4 repair "points" and ship-mounted repair modules have 1. At the end of a turn, these points will be automatically expended on any damaged ships present with the shipyard/repair module. A skilled Engineer will increase the number of repair points generated by a shipyard. If there are multiple damaged ships available for repair, the first one will be fully repaired before moving on to additional ships.

7.8 System Colonization / Invasion

Systems are captured and made part of your empire through colonization or invasion. To colonize a neutral system, simply move to the system and unload colonists or soldiers.

A typical order to capture a neutral system will be to unload 1 colonist. Some neutral systems may have a small number of soldiers present. Having additional colonists on the system is not necessary to control it.

Invading another player's system operates in much the same way, although it is more likely that there will be colonists, soldiers, and perhaps even ground bases present to make things more difficult.

A suggestion... Some players have a more "cautious" approach to capturing neutral systems... they fly up to a system and end the turn there and then they decide whether to take the system on the following turn. Generally I find it more practical to just go ahead and try to take the system, and if you discover at the end of that turn that it wasn't worth capturing, then just re-load your colonist and move on to another system.

Soldiers are roughly three times as good in ground combat as colonists. A ground base present improves the chances of survival of soldiers and increases the amount of damage done by defending forces. Leaders with Ground Combat skill will improve the results for the side they are on. Colonists do not benefit from Generals or Ground Bases.

Ground combat continues until there are only forces of one player remaining. If he is the defending player then the invasion is repulsed. If he is the invading player, the system is now under his control. Note that facilities present on a system during an invasion may be damaged or destroyed during an invasion, particularly if soldiers are used by the invading force.

Leaders present on a system that has been captured by another player may escape to a nearby system, may be captured, or might just stay where they are.

7.9 Bombardment

Ships with Missiles may bombard an enemy system that they end a combat phase over. The requirements for bombardment are: 1) The players must be hostile or at war; 2) The ship must be in Offensive mode; and 3) The ship must have missiles. If these conditions are met, bombardment is automatic.

If there is a ground base, it is targeted first... Each missile fired has a 5% chance of destroying or damaging it.

When there is no ground base, defending soldiers are then targeted… Each missile fired has a 20% chance of destroying a soldier. Colonists are immune to Bombardment.

8. Leaders

Leaders are special individuals in your empire that can provide various benefits depending on their specialty. Each player starts with a few leaders on his scouts. Leaders can be transferred as needed between systems and ships using the “Report To” order.

Leaders can have one or more skills associated with them. Skills can also be added to a leader by training him at a system with a University facility. Any leader can possess any skill… and specific skills can be in varying degrees. For example, a Captain can go to school and learn Business if desired. However, trying to learn a skill that you don’t already know can be a hit and miss exercise… Captain Kirk might just not get how to be a good businessman…

A leader’s skills and the associated bonus levels will be listed in the viewer when you select a leader. Skilled leaders can be very handy!

You can’t directly create Leaders… they appear randomly at any system in your empire. You can influence this randomness by creating Universities. They increase the odds of a leader being generated. In general it is better to create a university on a couple of systems, rather than a few universities on a single system.

8.1 Leader Types

Leader Types are as follows:

Captain	A Captain starts out with Leadership, Diplomacy, and Space Combat skills. A prized leader indeed!
Navigator	A Navigator starts out with the Navigation skill.
Engineer	An Engineer starts out with the Engineering skill.
Doctor	A Doctor starts out with the Medicine skill.
Spy	A Spy starts out with the Espionage skill.
Scientist	A Scientist starts out with the Science skill.
Merchant	A Merchant starts out with the Business skill.
Diplomat	A Diplomat starts out with the Diplomacy skill.
Archeologist	An Archeologist starts out with the Archeology skill.
Farmer	A Farmer starts out with the Farming skill.
General	A General starts out with the Ground Combat skill.

8.2 Leader Skills

Leader Skills are as follows:

Leadership	The leadership skill serves as a type of modifier to the skills of other leaders in the same sector. For example, a leader with the Leadership skill will make an Engineer trying to repair a ship a little bit better.
Navigation	A leader with this skill can reduce the possibility of bad effects possible during travel (particularly Jumping). He can also use the “Find Pirate Base” mission.

Engineering	A leader with this skill can repair damaged ships and facilities. A leader with this skill will also improve the rate at which a Metalworks facility produces metals on a system.
Medicine	A leader with this skill can heal injuries suffered by other leaders. He can also use the “Cure Space Plague” mission.
Science	A leader with this skill can improve the effective range of scanners on ships or systems. A leader with this skill will also improve the rate at which a Tilium Refinery facility produces fuel on a system. He can also use the “Destroy Killer Robot” mission.
Business	A leader with this skill will improve the amount of credits produced at a system.
Diplomacy	A leader with this skill will improve the chances of successful treaties with another player. In addition, this skill will increase the effective control over a system.
Entertainment	A leader with this skill improves morale of systems and units.
Space Combat	A leader with this skill has faster reaction time during ship-to-ship combat. In addition, ships with leaders with this skill are better shots and are harder to hit in combat.
Ground Combat	A leader with this skill improves the combat capabilities of friendly soldiers either when invading a system, or when defending a system.
Archeology	A leader with this skill has the ability to find artifacts.
Farming	A leader with this skill improves the amount of food produced at a system.

8.3 Orders for Leaders



Name Leader – Name (or rename) a leader.



***Report To Unit/System** – Allows you to transfer a leader to another unit or system. The leader is assumed to have a shuttle that will take him to his destination, so he will get there on his own (you don’t need to carry him in a ship). A leader being transferred does not provide his skill bonuses during transport. Click in the viewer on the system or unit you wish to transfer him to. The amount of travel time will be dependent on the distance travelled (1 hour per 2 sectors travelled).



***Train a Leader** – Allows you to add new skills or enhance existing skills of a leader. This order can only be done in a system with a University, and will require a full turn to complete. Select the type of skill to train for using the drop-down list provided. Training in a skill that a leader doesn’t already have is a hit and miss prospect. When the training is complete, the leader will get his skill level increased by an additional 10%. If you do it again the next turn, it will go up another 10% and so on.



***Assign a Mission** – Send the leader on a mission. See Leader Missions below.



Make a Note – Write a note for this leader.



***Wait.** Allows you to insert a pause or wait order for a leader allowing you to control a specific hour when an order is to be executed.

Orders with an asterisk by their name are considered “synchronous” orders, in that they will run in a first-in-first-out sequence. So, for example, you could have your leader report to a system, and then start training. The Report To order would have to complete before the subsequent one starts. Other orders listed above are “asynchronous” meaning that they will run in parallel with any other orders.

Leader orders have a number of hours required to complete… the viewer will indicate this as appropriate.

8.4 Leader Missions

Missions are special actions you can assign to certain leaders. A mission generally has a cost in credits and will take a specific amount of time… often more than one turn to complete. Missions also will indicate the specific skill that will be used to measure the success or failure of the mission. You can't send a leader off on a mission if he doesn't have the skill associated with that mission.

Mission Types currently implemented in the game:

Improve Relations — This can be performed by a leader with the Diplomacy skill. You select a system belonging to the player you want to improve relations with. If the mission is successful, the tension level will improve between the players. Note that you may still have to propose a treaty with another player (when you are permitted to).

Find Pirate Base — This can be performed by a leader with the Navigation skill. You select a system to center your search on. If the mission is successful, the closest pirate base to that system will be revealed.

Cure Space Plague — This can be performed by a leader with the Medicine skill. If the Space Plague is visible, you select it as the target. If the mission is successful, the Space Plague will be destroyed.

Destroy Killer Robot — This can be performed by a leader with the Science skill. If the Killer Robot is visible, you select it as the target. If the mission is successful, the Killer Robot will be destroyed.

Sabotage Ship — This can be performed by a leader with the Espionage skill. You select a ship to be the target of your sabotage mission. If the mission is successful, the ship will take damage… sometimes lots of damage depending on the skill of the saboteur.

Sabotage Facilities — This can be performed by a leader with the Espionage skill. You select a system to perform the sabotage mission upon. If the mission is successful, Facilities on the system will take damage or be destroyed… sometimes lots of damage depending on the skill of the saboteur.

More missions will be added as the game is further developed.

9. Scanners

Scanners can be on ships or systems. Scanners permit a ship or system to see far beyond where it is currently located. A ship without a scanner can only see a couple of sectors distance (represents visual sight range). Multiple Scanner modules (on a ship) or Scanner facilities (on a system) increase the range of the scanner, according to the following guidelines:

One Scanner can see 20 sectors, two can see 30 sectors, three can see 35 sectors and four can see 40 sectors. Additional scanners beyond four will gain no range benefit. Scanners produce different results depending on whether the object being scanned is very close (more details) or at the extreme limit of its range (less details).

Scanners on systems will also produce a probe each turn for each scanner facility present. Probes must be loaded onto ships to be used.

Scanners also will collect mid-turn sensor data on ships travelling through their area of detection. You will see these as small red dots in the viewer.

10. Some Quick Tips

- Ships can perform multiple actions in a turn. For example, you may load a colonist, move to a nearby system, and unload the colonist all in the same turn. Don't be too afraid of blind landings early on in the game.
- Use your probes early on. When shot into areas you can't see, they will reveal additional systems and help you plan your colonization attempts.
- Make sure you name your empire… Nobody will be too impressed by your empire if it is called "Empire #5". You can also name your systems, ships, and leaders. Maybe have a theme?
- Make sure you don't accidentally take everyone off a system… it will revert back to neutral (unowned).
- Some players opt to build a scanner on the starting transport before it leaves.
- Don't be bashful spending your initial credits and metals… but don't spend it all. You will want to have some metals and credits available to build facilities on systems you capture.
- If you want to build a facility on a system (a transport hub for example), you can either carry the metals there or you can send them there with a transport hub on your capital (assuming you have created one).
- Don't forget that credits on your capital (only) are accessible on any system. As a result, there isn't really a reason to carry credits to outlying systems.
- Don't forget that some ships don't have scanners… if you want your ships to be able to see more than just a few sectors, you may want to add a scanner module before they head out.
- Jumps are pretty useful in the first few turns… you have lots of fuel around, and it may allow you to capture a couple of systems in the same turn. Your transport is good at this because it starts with lots of fuel… Jump, unload, jump, unload. As long as you don't mind wasting fuel…
- Some players like carrying metals along with them… they will unload it with any colonists landing on a neutral system. If you take it, you are all set to start building something the following turn.
- There are pirates out there… you may start seeing them around turns 4 or 5. Their ships tend to be better than yours. Might be a good thing to have a pirate-hunter (i.e. maybe a scout with a couple extra cannons and armor?) at the ready in case one shows up.
- You should be able to capture 2, 3, or more systems on your first turn. Each scout has the ability to get to a nearby system and capture it, as does the transport.
- Most Neutral systems have no defending soldiers. As a result, it is generally a pretty good bet that if you land a colonist on a neutral system, you will take it. It is generally a good idea to move and unload in the same turn (rather than just move there to "check things out" and unload the next turn).
- When a neutral system has defending soldiers it can be as many as about 8 or 9. But again, not very common (maybe 1 in 10 have defending soldiers).
- You can of course move, unload, move, and unload again all in the same turn. Just string orders together. For example:

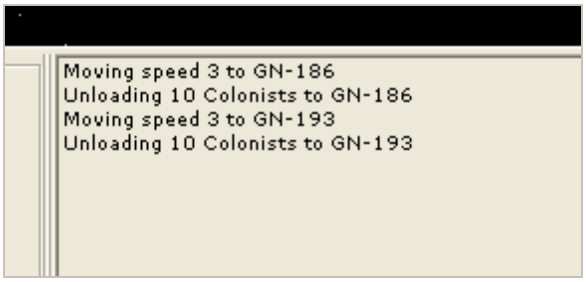


Figure 5: *A chain of orders for one ship*

Now, granted the orders you issue might span across multiple turns, but the computer will keep track of that.

11. Notes and Random Thoughts

These are some notes I have accumulated from players but haven't moved into the rules yet…

Victory Point Chart

The viewer also has a Victory Point chart on the Players form. Victory Points are calculated based on the following criteria, and consolidated into a single total that is tracked from turn to turn:

- Empire production (i.e. amount of Credits/Metals/Fuel produced in the current turn. Fuel counts half as much as Credits/Metals)
- Empire reserves (i.e. amount of Credits/Metals/Fuel currently stockpiled anywhere in your empire)
- Resource Potential (the amount of Population/Iron/Tilium Ore potential on all systems you own)
- Amount of Colonists and Soldiers (Soldiers count twice as much)
- Skill levels of leaders
- Systems you were the first one to find. This means you were the first to fly over it… not just see it from a distance.
- Fleet Size
- Amount of Facilities currently on systems in your empire.

Pirates & Killer Robots

- I plan on documenting these in the manual.

Game End Conditions

- Not currently described well in the docs.

"Trading Systems"

- Comment about trading systems… within a turn – no relation change if no fighting. After a turn, the system becomes neutral.

Misc. Recent Changes

- If a system or unit is the target of a leader mission and that system or unit has a friendly leader (spy) with espionage skill, that spy will reduce the chances of the hostile spy's mission success.
- As you know, if you have a leader with espionage skill on a runabout, the runabout can be concealed during portions of the turn. If a runabout with such a leader is in the same sector as an enemy leader with espionage skill, the chance of concealment is reduced.
- Pirates now will take more commodities on a raid as the game gets further along.

Suggestions from Other Players

- **Training up Leaders** – Leaders make the difference between an empire at the bottom of the rank and at the top. They really can sway the game significantly. Everything is relevant to time in game. Obviously you can't have a leader trained to 100 right away. But they learn at a specific rate and you can't go back and get those turns back. To put it another way: the captain that starts training on turn one will be ready to take down hostile ships early on.
- **Captains** – Space Combat is critical when it comes to battle. I had a few captains, ok it was like 5, in the 200+ range of space combat who would face off against 2 or 3 equally matched cruisers and come out with the win

every time. The other cruisers didn't hit them and my cruisers rarely missed their opponents. Leadership has helped some but is really secondary in my opinion; I never train it up past about 50.

- **Espionage** – It's really nice to have 2–4 runabouts with spies on them. They can snoop around fairly well and they make excellent bridges. A runabout hidden halfway between one of your systems and an opponent's system is a great way to jump in massive troops quickly for the quick attack. The other somewhat useful thing is to sabotage a ship… I did this successfully once when a larger empire was picking at me with a cruiser. I sabotaged it and turned the numbers to my advantage. In this case I had two cruisers; they then had 3, plus one that seemed to wander off. :-)
- **Business** – I train up my business leaders straight away on my home system and then on my large population systems, concentrating multiple business people on high population systems. If you get 3 high level business folks on a large population system you can really earn some coins in a round.
- **Ground Combat** – I like to have a general or two with 100+ ground combat on my key systems. Then I start training them for business, engineering, science, whatever the biggest commodity is on that system. Let the general earn his keep!
- **Medicine** – Have at least 2 doctors someplace with reasonable medical skill. If you see space plague it's in your best interest to send a doc to cure it! It will attack your system(s) and cause irreparable damage to the population. Bad news there. I like to have a doc with good skill on 2 of my main attacking cruisers with high level captains (later in game). That way if the captain gets hurt in battle they can get healed up and the ship is still captained.
- **Soldiers!** – Soldiers are at face value worth about 3 colonists. But you add ground bases and a general and a soldier holding a system is worth perhaps 2 attacking soldiers. I try to put as many soldier schools as I can on a system.
- **Building up systems to fend for themselves** – A shipyard on a system that has moderate income and metal is a good place to rest a weary ship and crew for repairs and R&R. If a system generates enough metal to make a cruiser every 3rd turn… I put 2 shipyards on it by practice.
- **What did not work well for me!** – Last game I was in the lead and had a lot of systems with LOTS of soldiers. What I did not do was spend enough time focused on ships. So I got clobbered by an opponent with superior ship power. So while soldiers and systems are good we can't lose focus of the need for ship power. :-(So I'm guessing I'm saying we have to build in an even manner.