STARS IN SHADOW

MANUAL

EPILEPSY WARNING

Please read this caution before you or your child play a videogame:
Certain people are susceptible to epileptic seizures or lose conscious-
ness after exposure to flashing lights or light patterns in our daily en-
vironment. Such people may have a seizure while watching particular
televised images or when they play some videogames. This phenom-
enon may appear even if the subject has no history of previous dif-
ficulties. If you or a member of your family has ever had symptoms
related to epilepsy (seizures or loss of awareness) when exposed to
flashing lights, please consult your doctor prior to use. We advise that
parents supervise the use of videogames by their children. If you or
your child experiences any of the following symptoms while playing a
videogame: dizziness, blurred vision, eye or muscle twitches, loss of
awareness, disorientation, any involuntary movement or convulsion,
IMMEDIATELY discontinue use and consult your doctor.

Standard Precautions When Playing Videogames:
• Do not stand or sit too close to the screen. Position yourself as far
  away from the screen as the length of cable allows.
• Play video games on a small screen (preferably).
• Avoid playing if you are tired.
• Make sure that the room in which you are playing is well lit.
• Rest for a period of 10 to 15 minutes for every hour you play a
  videogame.

GENERAL TROUBLESHOOTING

If you're experiencing any problems with the game (distorted graph-
ics, crashes on start-up, or errors during play) please make sure your
video drivers up-to-date. If you have a laptop with an integrated Intel
video adapter, the latest drivers can usually be found using Intel's au-
tomated driver update utility:

http://www.intel.com/content/www/us/en/support/detect.html

Note that while Intel's update utility will work for many laptops, sever-
al laptop manufactures require that you download and install drivers
from their own support site. In the case of laptops built before 2010,
there's a chance that these manufacturer drivers may not have been
maintained for many years, and if that's the case for your machine,
running Stars in Shadow may be impossible.

If you have an older AMD/ATI Radeon card, the latest drivers can be
found here:

http://support.amd.com/en-us/kb-articles/Pages/ATI-Radeon-5000-
Series-Drivers.aspx

http://support.amd.com/en-us/kb-articles/Pages/AMD-Radeon-
6000-Series-Drivers.aspx

More recent AMD or NVIDIA cards are likely to run the game without
trouble, even if they have relatively old drivers. However, some NVIDIA
laptops also include Intel graphics adapters, and these machines may
default to running the game using the slower, less stable Intel driv-
ers. On such machines, the game's performance can be considerably
improved by opening the NVIDIA control panel, and adding 'sis64.exe'
and 'sis.exe' to the list of programs to run with graphics acceleration.

If a graphics driver update does not help resolve your issue, you are en-
couraged to E-mail the developers directly at ashdar.games@gmail.com.
If possible, please include a brief description of the problem you're
facing, and a zip file containing all items in the Stars in Shadow/logs
directory. This '/logs' directory can be accessed from the Steam Li-
brary by opening the game's Properties -> LOCAL FILES page, and
then selecting the "Browse local files" option.

TABLE OF CONTENTS

INTRODUCTION

Welcome to Stars in Shadow! In this turn-based 4X space strategy game, you complete with alien factions to explore and settle nearby star systems, develop colonies, build fleets to defend against rivals, negotiate with them and conquer them, when necessary. The game is won by unifying the galaxy, either through diplomacy or by force.

SETTING

Since the end of the Great War, the galaxy has been quiet. For three thousand years primitive species have had time to grow, to learn, and to look to the stars. There they will find the smoldering embers of that long-ago war, alien civilizations and ancient technology. These discoveries could bring destruction, or they might provide the means to survive the greater challenges ahead.

Stars in Shadow puts you in command of one of seven distinct space-faring civilizations. Explore the galaxy, rediscover and colonize distant worlds, and build an interstellar empire. Invest wisely in your military -- for this is a dangerous galaxy. Another great war is inevitable, and your people will need strength to earn their place among the stars.

BUILDING YOUR EMPIRE

As you explore the galaxy, a range of different planet types awaits your discovery. Some will be ripe for colonization; others may contain valuable mineral resources. The most prized worlds are those that hold secrets from the past -- artifacts from civilizations that vanished long ago. Research advanced technologies to enable your people to survive on dangerous worlds, or to terraform alien environments to suit your needs.

Once you have established a growing collection of colony worlds, you will need to balance the competing priorities of research, growth, and ship building. You will also need to decide the fate of those alien species that come under your control. Every race in Stars in Shadow has its own abilities and environmental preferences, and by encouraging a multi-species empire you can take advantage of the aptitudes of each. Convincing the members of such a diverse empire to get along may prove challenging, however.

GALACTIC POLITICS

Of the playable alien species, three are "young races", reaching out into the galaxy for the first time. The remaining three are "old races", survivors of a terrible war fought in the distant past, they still hold to their ancient grudges. Which race you choose will affect how your empire is perceived; what trades or alliances may be offered, and whether or not your neighbors are inclined to trust you.

The young races include the friendly Phidi, the reclusive Orthin, and the fierce Yoral. The old races are the proud Ashdar, the nomadic Humans, and the ruthless Gremak.

SYSTEM REQUIREMENTS

MINIMUM:

- **OS:** Windows XP, Vista, 7, 8, 10
- **Processor:** Intel Core 2.6 GHz or equivalent
- **Memory:** 4 GB RAM
- **Graphics:** ATI Radeon HD 4000 Series or better
- **Storage:** 3 GB available space
- **Additional Notes:** Stars in Shadow requires the OpenGL framebuffer extension. This extension is present on almost all graphics drivers released after 2010, but laptops made before 2010 with vendor-locked graphics drivers may not be able to run the game.

RECOMMENDED:

- **OS:** Windows 7,8,10
- **Processor:** Intel Core Duo 3.0 GHz or equivalent
- **Memory:** 8 GB RAM
- **Graphics:** NVIDIA Geforce 400 Series or better, 1 GB RAM
- **Storage:** 3 GB available space

STARTING A NEW GAME

Once you've installed the game via Steam, launch the program from your Steam library (or double-click on the game shortcut. The Main Menu will show you a list of recent updates to the game. To start playing, click on the New Game button.

FACTION SELECTION

The Faction Selection screen presents a list of the seven available factions. Click on a faction to see an overview of its its special gameplay elements, advantages and disadvantages, and a brief description of the faction's story. The playable factions are:

- **Ashdar Colonials:** Adventurous space dinosaurs adept in shipbuilding and carrier warfare
- **Ashdar Imperials:** Traditionalist space dinosaurs with control of the ancient capital and its stargate technologies
- **Gremak Empire:** Ruthless amphibious slavers with early access to military technologies
- **Orthin Conference**: Reclusive deep-water bug-scientists with access to superior beam and shield technologies
- **Yoral Khaganate:** Tough furry survivalists with resistance to difficult climates and superior small ship hulls
- **Phidi Combine:** Friendly aquatic traders with diplomatic and income bonuses and access to mercenaries

With a faction selected, click on the Map Setting button to select that faction for play, or click "X" or press the Escape key to return to the Main Menu.

MAP SETTINGS

DIFFICULTY

Choose between Easy, Normal, Hard and Brutal.

- **Easy difficulty:** The AI factions receive no resource bonuses, while the player may be given some special advantages, such and improved starting technology. Random encounters and minor races are adjusted to be less dangerous.

- **Normal difficulty:** The AI factions receive some modest starting resource bonuses.

- **Hard difficulty:** The AI factions receive significant bonuses, including improved starting positions and accelerated ship building and research rates.

- **Brutal difficulty:** The AI faction receive even more gameplay bonuses.

MAP SIZE

You can select between three preset map sizes: Small (30 stars, 3 factions), Normal (50 stars, 5 factions), and Huge (85 stars, 7 factions), you can can manually enter a number of star systems, and the size of the map will scale automatically according to the Star Density selection in Advanced Map Settings.

ADVANCED FACTION SETTINGS

The game will automatically assign a default number of factions based on the selected map size, but you can also manually add or remove factions or change the race of any faction (including your own).

ADVANCED MAP SETTINGS

Advanced map settings include:

- **Star Density:** change the size of the map and average distance between stars.
- **Native Races:** set the frequency of planets with native populations.
- **Habitable Planets:** set the frequency of hospitable planet types in the galaxy.
- **Pirate Raids:** control the frequency of pirate activity.
- **Enable Undo/Redo:** allows or disallows the use of the Undo/Redo feature for this playthrough.

Click on the Start Game button to begin galaxy generation, or click on Reset Defaults to return to the default settings, or click "X" or press Escape to return to the Faction Selection screen.

MAIN STRATEGIC MAP

The Strategic Map is your main area of play, from which you will view stars and direct fleet movements.

STARFIELD

The main play field contains icons representing star systems (each of which can contain 0-4 planets) and fleets of ships. Left-clicking a star or fleet icon will select that item and bring up details of the selected item in the Bottom Information Pane. The view can be panned by pressing the arrow keyboard keys, left-clicking and dragging on an empty area of the map, or edge-scrolling with the mouse cursor. Zoom levels in and out will be added.

TOP STATUS BAR

The top bar includes displays and rollover tooltips for resource totals and per turn income for Currency, Production, Food, Metal, Research, and Influence. There are also displays/clickable elements for the Trade Pool, Fleet Report, Undo/Redo, Ship Designer, Game Menu, Stardate, and Next Turn. Clicking "Next Turn" or spacebar will end the current turn.

BOTTOM INFORMATION PANE

The lower pane displays context-sensitive information about the currently selected fleet or star system, or a Basic Report of the currently selected Notification. When displaying a notification report, the left and right arrows on either side of the notification title can be used to scroll through all available reports, and the included buttons can be used to zoom in to the subject of the report, jump to the appropriate screen, or dismiss the notification.

LEFT REPORT PANE

On the left side of the screen is space for a persistent report that can stay open during play. Clicking on the Production (wrench) icon in the Status Bar will display and dismiss the Planetary Report, which shows a summary of all your colony planets, their current population, yields, production target and progress; left-clicking on a planet will select it, and clicking on the Move Orders rollover (ship icon) will allow population move orders to be issued.

Clicking on the Fleet (red ships) icon in the Status Bar will display and dismiss the Fleet Report, which shows a summary of all of your fleets, their locations and/or destinations and ETA, and the number of ships in each fleet. Left-clicking on a fleet with select it.

RIGHT NOTIFICATIONS LIST

Along the right side of the screen is arranged a vertical list of circular icons for each pending notification the player has (if any). Left-clicking a notification icon will select that notification, which may result in a Basic Report displayed in the bottom pane and/or a more detailed report in the Encounter Dialog. In some cases (such as Research Complete or Production Complete notifications), left-clicking on an already selected notification will take the player to the appropriate screen or zoom the strategic map on the item in question. Right-clicking on a notification item will dismiss it.

ENCOUNTER DIALOG

This dialog in the center of the screen is used for a detailed notification report, or a planetary/system encounter. This dialog will also probably be used for the tutorial system. The player will be presented with a graphic and relevant information, along with a set of choices (if applicable). The dialog can be Dismissed (which will close the dialog and dismiss the associated notification), or Closed (in which case the dialog will be closed but the notification will remain in the list).

UNDO \ REDO BUTTONS

In addition to using the Load\Save features, players also have the option of "rolling back time", by using the undo\redo buttons in the top bar. The entire game history can be traversed using these buttons. Performing a new action after undoing some number of past actions causes the undone game states to be discarded.

RESOURCES

COLONISTS

Each unit of population corresponds to 1 million individuals. Colonists are aggregated in groups according to race; each group shares a morale state. Colonists can be moved in full units of 1 million only. Colonists of different races have different production values and different environmental preferences; adding or removing colonists of a certain race may increase or lower the maximum population cap of a planet (for example, adding colonists of an aquatic race may increase the population cap of an Island world).

CURRENCY (COIN)

Currency is produced by each colonist, Market improvement, and active Trade Route, and is consumed for maintenance of ships, orbital stations and planetary improvements. Excess currency is accumulated in the empire's treasury and may be spend on rushing a production item, or may be purchase items or traded to other factions.

PRODUCTION (WRENCH)

Production is generated by each colonist and Factory improvement. It is automatically spent each turn towards the completion of the selected item (such as ship or improvement). Production is specific to each planet, and can only be used on that planet's production target. Ships or improvements that are partially constructed retain their construction state; switching from one project, to another, and then back again will not cause any production process to be lost.

FOOD (CORN)

Each planet has a base Food output which is increased by Farm improvements. Some colonist types also generate food. Each colonist unit automatically consumes 1 Food each turn; if insufficient food is available, colonists will be lost through starvation. Food cannot be stockpiled from one turn to the next, but it can be pooled if there are available transports in the Trade Pool (1 cargo slot can transfer 1 food unit).

METAL (INGOTS)

Metal is generated by Mine improvements, and is a requirement for many buildable items such as ships. Mine output will be greater on rich planets and less on poor ones. Metal can be stockpiled and in automatically pooled without the need for transports.

RESEARCH (BEAKERS)

Research is generated by each colonist and Lab improvement. It is automatically spent each turn towards the completion of the currently selected technology. Research cannot be stockpiled; if there is no currently selected research target, the Science Advisor will select one.

INFLUENCE (HANDSHAKE)

Influence is a diplomatic resource used to secure diplomatic agreements and favorable deals. It is generated by Embassies and as a by-product of interaction with other factions.

COLONIES AND OUTPOSTS

Colonies are your centers of population and production. Colonies can be founded on any habitable planet by constructing a Colony Base (within the same star system) or Colony Ship, which can then be transported to the desired planet (if it is within current range). Colonies extend the range of your fleets. Colonies support a population of colonists which will grow to a maximum size (depending on the planet's habitability for that race). Colonists provide resource yields and are needed to build and staff most planetary improvements. Colonists can also be used as ground troops.

Outposts are a type of orbital station which can be used to extend the range of your fleets and your sensor and command range, but they do not support colonists and therefore do not generated any resources.

GAME MENU

The Game Menu accessible from the Main Strategic Map during play (by clicking the gear icon in the Top Status Bar or pressing the ESC key) includes selections to open the Ship Designer and to return to the Main Menu.

NEW GAME

Starting a new game moves you into the select faction screen.

SAVE GAME / LOAD GAME

Loading: When loading a game, players select from a chronological list of save games, presented on the left-hand side of the screen. Players may choose to either load or delete selected games.

Saving: By default, the game will save to a standard name. The player may edit this name, which will typically create a new save file. In the event that saving a game to the currently entered name will overwrite a prior save, the player will see a warning under the save game name.

OPTIONS

- **Sound Levels:** you can choose volume levels separately for Music, Sound effects, and Ambient background effects.
- **Autosave:** if enabled, the current game will be automatically saved either every turn or every 10 turns. Games are saved under the name "autosave_1".
- **Show Tactical Grid:** show the background tile grid during tactical battles.
- **Fast Tactical Animations:** display all combat animations at double speed.
- **Expanded Tactical Zooms:** increase the maximum and minimum zoom levels allowed during tactical combat.

- **Color Planets By Habitability:** color code the planets shown in the galaxy map to indicate habitability rating rather than empire owner-ship. The colors codes indicate:
  - **White:** currently inhabited
  - **Gray:** not currently habitable by your faction
  - **Green:** habitable by your faction with a potential max population of 8 or more
  - **Orange:** habitable by your faction with a potential max population of less than 8
- **Fullscreen Mode:** click to toggle between windowed and fullscreen modes.
- **Edge Panning:** allow map panning when the cursor is close to the edge of the screen.
- **Locked Edge Panning:** allow map edge panning when Lock Cursor is enabled.
- **Lock Cursor (Fullscreen Only):** prevent the mouse pointer from leaving the game window (only affects fullscreen mode).
- **Disable Arrow Panning:** prevent the arrow or WASD keys from panning the map.
- **Lock Transports Carrying Food:** prevents transports that are currently being used to carry food from being used to transport colonists.
- **Assign New Transports to Trade:** sends newly-built transports directly to the Trade Pool.
- **Suppress Notifications for Queued Production Items:** planets that have items in the queue or are set to Automated production will no longer generate notifications when items are completed.
- **Show Range Circles:** always display the base range of your ships on the galaxy map.
- **Invert Map Pan Direction:** reverses the panning direction created by and click-and-drag action on the strategic and tactical maps.

FLEET MANAGEMENT

Ships move in groups as a fleet between star systems. All ships in the same system will automatically join the same fleet. Ships can be assigned to a new fleet at any time by selecting them and giving new orders to the fleet.

When a fleet is selected, either by left-clicking on a fleet icon on the map, or by left-clicking on a line in the Fleet Report, a list of ships in the fleet will appear in the bottom pane. Fleet commands (such as Move) apply to all ships in the fleet if no individual ships are selected, or to only those ships that are selected. Each individual ship in the fleet can be selected and deselected by left-clicking on the desired ship icon in the fleet pane. A right-click inverts the current selection. Each ship will also have one or more on-hover icons which respond to left-clicks:

- **Ship Information (? icon):** brings up the Ship Status overlay, which includes a list of components on the ship, it's attributes and current damage, a button for embarkation/disembarkation of passengers, and a Scuttle option.

- **Colonize Planet (flag icon):** for ships that can colonize, brings the current star system into the bottom pane, where any empty planets currently habitable to your faction will display a "Colonize" tab. Clicking on this tab will create a new colony on the planet, consuming the colony ship.

- **Embark/Disembark Colonists (up/down arrow):** load or unload population from a planet in the current system.

- **Start Trading (ship icon):** ships with a Cargo Pod use this function to join the Trade Pool (see below). The ship is removed from the strategic map and added to the pool. A transport cannot be added to the pool if it is currently carrying embarked colonists; they must first be disembarked.

FLEET MOVEMENT

A selected fleet can be given movement orders by left-clicking on the Move Fleet (ship icon) button, and left- or right-clicking on a destination star, or by right-clicking directly on a destination star. While the Move Fleet command is active, the map will display the current range of the fleet (which is the shortest range of all ships in the fleet). Range is a distance from any of your colonies or outposts, determined by your faction's current technologies. Once a movement order has been issued, the fleet will show an animated dotted line toward its destination and the number of turns until arrival. Once a fleet has left a system (after the Next Turn button has been clicked), it cannot be given further orders unless it is within Command Range of one of your faction's colonies or outposts, or until it reaches its destination.

TRADE POOL

Ships with cargo capacity can be assigned to the Trade Pool, from which they will be used to automatically transport food to needed colonies, respond to population movement orders, or generate trade income if there are no other current tasks. Once assigned to the pool, a transport vessel takes 3 turns to become available. Once active any cargo space not being used to move food or population will generate coin at a rate of 1 per cargo space. If used to move population, a transport will temporarily leave the pool for the number of turns that it takes to complete the move, and then it will spend an additional 3 turns before it becomes available again. A transport can be removed from the pool at any time, and will arrive at a designated system in 3 turns.

SYSTEM DISPLAY

When a star system is selected (by left-clicking on a star or on a notification zoom button), the star and any planets will be displayed in the bottom information pane. Each planet will have a display above it showing the current maximum number of population it can support along with any current population, and one or more mouse-over buttons. A planet which is home to one of your colonies will have a display tab below it which shows its current production target and progress. Any orbital stations are displayed to the right of the planet; a left-click brings up the ship status screen for that station. Mouse-over options include:

- **View Planet (? icon):** bring up Planet Information or Planet Management screen.

- **Move Colonists (ship icon):** if you have available transports in the Trade Pool, click this button to bring up the Embark Population dialog to select population and a destination for movement.

PLANET MANAGEMENT

To enter the Planet Management screen, click on any planet in the System Display, in the Planetary Report, or click on the magnifying glass icon in any notification report concerning a planet.

PLANET DISPLAY

On the left side of the Planet Management screen is a graphical display of the current planet and its name (which can be edited). The left and right arrows in this pane will cycle through all of the colonies in your empire.

PLANET STATUS PANE
Planet Yields and Improvement Slots

The topmost field of the Planet Status Pane (on the right side of the screen) display the colony's resource yields: Production, Coins, Metal, Food, Research, and Influence. It also displays the colony's available slots from improvements and the improvements currently occupying them. The number of slots varies with the size and habitability of the planet. Available improvements include Factory, Lab, Farm, Mine, Market and Planetary Defense Base.

A left-click on any resource yield or improvement slot will display available information in the center multifunction status pane. This status allows the player to view a breakdown of resource consumption and output, or to Scrap an improvement.

Population Display

In the second field from the top of the Planet Status Pane are displayed Colonists and Ground Units on this planet, grouped by type. Population size, growth rate, and morale state are displayed for each colonist group. Click on any colonist group to see more information about that colonist type's resource yields and growth rate in the center multifunction status pane. On-hover buttons allow Embark commands to be given for that population group.

Production Target and Queue

At the lower field in the Planet Status Pane is displayed the current production target for the planet and its production queue (if any). Displayed is the name and graphic for the current production target, build progress and turns left, and buyout cost. The production target can be changed by left-clicking on the target graphic and selecting an alternative from the resulting list.

Choose Production Display

Clicking on a Production Complete notification or clicking on the production target graphic on the Planet Status pane will open the Choose Production dialog. At the top right are filter tabs to display build options from among Projects, Ships, or All. Each build option displays resource cost and unit information. Designable unit will also display an Edit Design mouse-over icon which will bring up the Ship Designer for that unit if clicked.

Refit, New Design

Brings up the Ship Designer to refit an existing unit in that system, or to create a new design.

Colonize Planet

Establishes a colony on a habitable planet in the same system, if there is one.

Specialized Activities

- **City Planning:** The city planning activity significantly increases your planet's population growth rate. (The bonus varies depending on population density and environmental factors, but will typically be around a 50% growth rate improvement). However, City Planning also doubles the planet's food consumption. If there's insufficient food, city planning is automatically canceled. No wrenches are accumulated during city planning.

- **Research:** The research activity doubles your planet's beaker production rate. No wrenches are accumulated during Research.

- **Trade:** The trade activity doubles your planet's coin production rate. No wrenches are accumulated during Trade.

- **Mining:** Unlocked with the xxxx technology, increases the planet's metal production by one-third. No wrenches are accumulated during Mining.

- **Synthesize Food:** Unlocked with the xxxx technology, convert wrenches into food.

- Repeat Build: when selected, causes the current project in the queue to be repeated indefinitely.

Auto Production

Choosing the "Automate" activity places the colony under control of adjutant, who will choose production targets autonomously until interrupted by the player. Planets under automation will display their production targets with an asterisk (*) next to the name of the target.

SHIP DESIGNER

The Edit Design screen lists all available ship and station blueprints, allowing each to be edited or to create a new design. Clicking an option brings up the Ship Designer for that hull type.

The Ship Designer displays the available component slots or "hardpoints" for that hull type, current stats and information for the blueprint, and a list of available components and weapons on the right. Hardpoints are color-coded according to the type of components that it will accept. The maximum number and type of components is limited by hull type, and by available power.

TACTICAL COMBAT

When fleets of opposing factions are in the same star system, a combat icon (flashing yellow explosions) appears. Left-clicking this icon to attack a planet or fleet will result in a tactical combat engagement. If the player is the attacker, he can choose which ships in his fleet will participate in the battle. If the player is the defender, he may have the option to retreat. In either case, the player has the option to either Automate the battle (gear icon) or to manually resolve the engagement in the tactical combat module.

TACTICAL WINDOW

The main Tactical Window is zoomable (via mouse wheel) and pannable (left-drag, arrow keys, or edge scrolling) display shows the combat environment, including any ships, stations, or planet involved in the current battle. Any unit can be left-click selected, which will display the unit and its information in the bottom information pane. At the bottom left, the currently selected unit is displayed along with actions and a list of available weapons. At bottom center and right are displayed the current target and a minimap view of the battlefield. A left-click on either of the ship graphics will bring up the Ship Status display for that vessel.

Orders can be issued to friendly units by selecting a unit and either clicking a command from the lower pane, or right-clicking directly on a move or attack target in the main window. Multiple friendly vessels can be selected by shift-left-clicking or by shift-left-dragging a bandbox. Ships can be given commands individually or as a group. Once all available friendly units have moved, click "End Turn" to begin the opponent's turn.

Combat continues until one side no longer has any active units (either being destroyed, captured, or retreated). A combat summary screen is then displayed listing units killed, captured or destroyed, and the player may click Continue to return to the Strategic Map, or Retry to replay the engagement.

GROUND COMBAT/BOMBARDMENT

A successful attack against an enemy planet gives you the option of bombarding and/or invading that planet.

Bombardment is a reliable way to destroy planets -- and it also has a good chance of reducing a world's defensive capabilities. Each orbiting ship contributes some number of bombing points, based on the power of its mounted weapons. Hitting the bombard button spends one of the orbiting fleet's bombing points, which will destroy one of the defender's ground assets, selected at random*.

Ground assets include:
• Units of population
• Improvements
• Defending tank battalions

* The odds of destroying an improvement are doubled, relative to the other 2 asset types. Thus, if there are 2 units of population, and 1 improvement, there are equal chances that 1 "bombard" action will destroy either of them.

Defender technologies may grant some or all of their assets a "saving throw", which is a percent chance to avoid destruction when hit by bombardment.

INVASION

If the attacker has any assets in orbit that may be used to launch a ground invasion, the bombardment pane will include an "Invade" button, which may be used to trigger a ground combat event. The pane will also show a summary of the odds of the invasion succeeding, along with the the expected attacker and defender casualties.

After clicking the Invade button, the ground combat event is immediately resolved. If successful, the attacking player gains control of the planet. However, regardless of whether or not the invasion succeeds, the bombardment pane is replaced with a ground combat results pane, and no further bombardment of the planet is possible until the following turn.

On the defender's side, the units committed to ground combat include all armor units on the planet, plus any militia battalions that can be recruited from the planet's population. On the attacker's side, the combat includes all units in orbit that are willing to fight for the attacking empire. This includes any orbiting tank battalions, and any orbiting population having sufficiently high morale.

Each ground combat unit has a single "strength" value which determines their effectiveness. Researching new technologies will improve this value, and any such bonuses are automatically applied to all applicable units as soon as the research is unlocked. In the case of armored units, "tank battalions" may be upgraded to "hovertanks" and finally "battlemechs" by researching appropriate technologies -- when this occurs, all units in the empire are instantly and automatically upgraded.

RESEARCH

The Research screen is accessible by clicking on the beaker icon on top bar of the main map or in a notification report pane. It llists your faction's current Science Advisor and associated benefits, the current research target and progress, a list of technologies, and an info pane on the right. Left-clicking on a technology in the list will select it and display its entry in the info pane, which includes hyperlinks to other technologies and data on unlocked units, components and abilities. Research targets can be set by left-clicking on the radio button to the right of the desired technology in the list, or by clicking the "Set Re-

search" button at the lower left. It is possible to queue technologies by navigating to the desired technology in the info pane and clicking the Set Research button; any prerequisite techs will be queued ahead of the selected technology. The Set Research button text will change to "Queue Research" in this case.

DIPLOMACY

The Diplomacy screen is accessible by clicking on the Influence (handshake) icon on the top bar of the main map, or the Converse (smiley face) icon on a planet in the System Display or in a notification report pane. This screen will initially show your own leader and faction statistics, and a list of contacted alien factions in the pane on the right. Click on any faction to view its statistics or details.

DIPLOMATIC SUMMARY PANE

The bottom pane contains empire/diplomatic information about the selected faction: name, leader, characteristics, current diplomatic status and Reputation with the player, that faction's race's Racial Attitude with the player. If you have established an Embassy with that faction you will also see a list of statistics including total population, number of controlled stars and planets, fleet size, current income and metal stockpile.

On the left is displayed the faction's current capital world; a click will display its planet information screen. On the right are buttons to Exit the diplomacy screen, or Contact to begin a conversation with the currently selected faction.

FACTION/DETAILS PANE

The tabbed list on the right displays the currently contacted factions at their current diplomatic state with you. Clicking on the Details tab will switch to a list of your current Agreements and Issues with that faction, and a list of that faction's relations with other factions. You can click on each Agreement or Issue (where applicable) to initiate a discussion with the faction leader on that subject.

DISCUSSION MODE

Clicking on the Contact button, or the Discuss icon in a notification report, or on an acitve Agreement or Issue in the Details tab will begin a conversation with that faction's leader. This will change the main display into discussion mode, in which you can use the dialogue options to discuss or propose agreements, or propose trades. Diplomatic and trade agreements usually require sufficient Influence, the amount of which varies according to your current Reputation with that faction.

You can end a discussion by saying goodbye at the top dialogue menu, by clicking the Disconnect button at the bottom right, or by licking Exit or the "X" at the top right to leave the diplomacy screen altogether.

TRADE PROPOSAL

Choosing the dialogue option to begin trading will display the Trade Proposal menu, which will show your faction's tradeable assets in a list on the right, and your discussion partner's tradeable assets in a list on the left, and a trade table in the center. Clicking on any item from either list will add that item to the current proposal; amounts can be edited once on the table. Click the Propose button to conclude the deal. If the Propose button is grayed out, then the proposal is currently unacceptable to the other party; click the scales button in the lower center of the trade table to see if the other party has a counter-offer. Click the "Never mind..." button to return to the discussion mode.

FACTION REPUTATION

This is the traditional like/dislike meter. Each faction (major and minor) has a number that represents its attitude toward each other faction, most notably the player. Let's say the number goes from 0 (hate) to 100 (love) but can go negative or higher. This number increases and decreases according to player actions. Certain states are enabled at certain thresholds, but are not necessarily automatic; for example, Alliance could be enabled at 100 but is not automatic. Reputation will color how events are perceived by a faction; friendly factions will be likely to overlook transgressions, while unfriendly factions will be easily offended. Diplomatic actions will cost more Influence the lower the reputation.

RACIAL ATTITUDE

This is the reputation of a faction with each race. It is separate but related to faction reputation. This starts at a default value (Ashdar and Gremak dislike each other), but floats according to game actions: declaring war against a faction of a certain race, bombarding populations of a certain race, etc. Having a high or low reputation with a certain race can color diplomatic interactions, and it can cause morale problems with colonists of the same race living in systems you control.

AGREEMENTS

These are beneficial international agreements (like treaties or trade agreements) that you usually have to spend Influence to establish. If the other faction asks for the agreement, it will be free to the player (the AI factions will not track or us Influence). Possible agreements include:

- **Embassies:** establishing embassies between your two factions has a number of benefits. Embassies prevent contact from being lost when ships move out of sensor range, and are a prerequisite for most other agreements. Embassies give visibility to the other faction's capital, and allow you to see that faction's statistics in the Diplomatic Summary Pane. Finally, each active embassy generates Influence each turn.

- **Trade Charter:** signing a Trade Charter will make new lucrative foreign Trade Routes available to the transports in your Trade Pool. The charter will also generate Influence each turn.

- **Research Agreement:** provides bonus Science each turn to both parties, as well as Influence.

- **Open Ports Agreement:** allows each party to use the other's colonies as refueling ports, increasing ship range. This agreement also gives each party knowledge of all the other's colonized systems, if they have not already been discovered.

- **Alliance:** in addition to open ports, both parties share sensor information and can conduct joint military operations. Allies also share victory conditions, and can achieve a joint Allied Victory by eliminating all non-allied factions. Your Allies will also vote for you in the Galactic Council (unless they have more votes than you do).

WINNING THE GAME

A game of Stars in Shadow can be won either by eliminating all non-allied factions, or by receiving two-thirds of the votes for Supreme Chancellor in the Galactic Council.

GALACTIC COUNCIL

Once any single faction has establish contact with all the other factions on the map, that faction's leader will have the option to call a Galactic Council for the purpose of electing a Supreme Chancellor. If the leader chooses not to call the council, the next faction that is able to establish contact with all other factions will be given the same option.

When the Council is assembled, you will be given an option to vote for Chancellor. Votes are apportioned based on population, and two-thirds of the vote is required to win. Being elected Chancellor ends the game in a Galactic Council victory; if there is no winner, the council will re-convene periodically until a Chancellor is eventually chosen.

Other factions will normally vote for themselves, but they may vote for another faction if it is friendly enough, and will usually vote for an Ally if that faction has more votes than itself. Once the first Council has been called, you can check on the status of the vote totals and what each faction's voting plans are by selecting the Galactic Council item in the Faction List in the Diplomacy screen.

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