SUPERCAT

a procedural non-player system for solo Arcs

version 0.6

This is a non-player system, or "bot", for playing the board game Arcs. It's intended for solitaire play, i.e. one human playing against one or more bots. Although it can also work as the 3rd or 4th opponent in a multiplayer game, using it in this way has not been tested thoroughly.

SUPERCAT is not an "automa" but is instead a simulation-style bot. Rather than streamline any mechanics, it attempts to interact with all of the rules of the original game using conditional procedures which mimic a human opponent. The bot deviates from the rules in a few important ways, but will follow every other rule in the game apart from these changes:

- the bot's hand of cards is abstracted to retain some uncertainty and "fog of war"
- there are optional difficulty modifiers to make the solo experience more challenging

These rules will always refer to the human player as the "player", and will refer to the non-player system exclusively as the "bot". The word "player" never refers to a bot.

There are two versions of this document; this is the base game version.

Arcs was designed by Cole Wehrle and published by Leder Games.
SUPERCAT is an unofficial fan project, and is not affiliated with Leder Games.

Components

You will need some way to track two values per bot, for instance dice of different colors rotated to show a different number faceup. These can be six sided dice (only in rare situations will the values exceed six) but could also be eight or ten sided dice (they are never rolled). These are referred to as "counters" in the rules that follow. You will separately need one six sided die which will be rolled for a random number.

Setup

Set up the game according to the Arcs rulebook, but make changes at the steps listed below. See "Difficulty Modifiers" section for more details on optional steps.

1.B. (optional) Give the initiative marker to a bot, and seat the player last in turn order.

2.N. (optional) Place an extra ship in each system with bot pieces.

2.O. (optional) Give each bot a random resource.

2.P. Deal 6 cards to each player, but do not deal cards to the bot(s). Place a counter on each bot's board showing a value of 6 faceup.

2.Q. Place all action cards not in player hands in a single face down stack next to the board.

Playing a chapter

The bot does not hold a hand of action cards. Instead, the bot's cards are abstracted by a counter and a facedown stack of all remaining action cards. This stack is shared by all bots, but each bot has its own counter, representing that bot's hand.

Each bot's counter starts the chapter at 6 and will be decremented when the bot plays a card. If the bot seizes initiative, the counter will be decremented a second time, to represent the bot playing an extra card facedown. If the bot receives a "bonus" card the counter will be incremented (for example, from the "Call to Action" Vox card). This way, the counter will always show the number of cards remaining in the bot's "virtual" hand. *(when the counter is on 1, decrement by removing the counter)*

If at any time the stack runs out, shuffle the discard pile before drawing cards for the bot. Continue until the player has no cards and each bot's hand counter is at zero, at which point the chapter ends.

Playing a bot turn

At the start of a bot's turn, check the hand counter. If it is showing 1 or greater, the bot has cards remaining and will play one. Draw 2 action cards from the facedown stack and decrement the counter. The procedures on the "Bot Turn" page will select one of the cards for the bot to play, and also determine whether the bot declares an ambition or seizes the initiative. At that point, discard the other card, and continue with the procedures to execute the bot's turn.

Bonus cards

When the bot receives a bonus action card, place the new card in the bot's play area and increment the bot's hand counter. On subsequent turns, prior to drawing 2 cards from the facedown stack, compare how many bonus cards the bot has to the hand counter's current value. If the counter is showing a value greater than the number of bonus cards, the bot will draw 2 cards from the facedown stack. If the counter is equal to the number of bonus cards, the bot will not draw 2 cards. Either way, decrement the hand counter.

Then the bot will then select a card to play from among all available cards: any bonus cards in the bot's play area plus any drawn cards. Evaluate all cards equally according to the procedures. After a card is selected, discard any drawn cards which were not selected. Do not discard bonus cards from the bot's play area until they have been selected and played.

Prelude

After the bot has selected a card, consult the guidelines for Prelude actions, and spend any resources or Guild cards for their effect now. After the bot completes the Prelude, go to the page for the selected card's suit, and execute the bot's actions using the procedures on that page.

Guild and Lore Cards

The bot will use **new actions** on Guild and lore cards, like **Manufacture (Build)**, at most once per chapter. When using "General Priorities" to select a card to play, there is a check to see if the bot can use any abilities on ready Guild cards. A Guild card is ready if it has not been used this chapter. If the bot selects a card due to this procedure, mark the Guild card as exhausted (rotate the card or place a marker on the card). At the end of the chapter, all cards become ready again (turn the card upright or remove the marker).

How to follow the procedures

Follow each bulleted instruction explicitly, executing statements if possible. When posed with a question, evaluate the situation and follow the nested steps. For more detailed explanation of interpreting nested procedures, see "Questions".

When directed to use "General Priorities", select a card from among the bot's options and Lead, Pivot, or Copy with the indicated suit. If the indicated suit is not available, proceed to the next question.

When multiple actions are available to the bot *(for example Leading with a low number card)*, first spend actions according to the highest priority, then if actions remaining, restart the procedures from the top of that suit's page.

The procedures use some special vocabulary that is specific to SUPERCAT. See the "Terminology" page for explanations of words like **contend**. When rounding any fractions, always round down, unless otherwise specified.

Aside from the changes to card play described above, and the additional advantages granted by difficulty modifiers, the bot will follow every rule in the game.

Decision making for the bot

When evaluating the bots options for its turn, there may be some ambiguity as to which action to take or how to execute a specific action. The player should only need to make limited decisions on behalf of the bot. The following rules attempt to resolve multiple options for the bot as much as possible.

Actions

When different actions can achieve the same goal, select the first eligible option. For example, in the procedure "Can bot Secure or Tax to **contend** declared ambition", the bot will prefer to Secure rather than Tax if both actions **contend** a declared ambition.

Goals

Similarly, if there are multiple goals, they are also listed in priority order. For example, in the procedure "Can bot Secure to **contend** an **undeclared ambition**, to take captives, or to grow lead in declared ambition", the bot will prefer to **contend** an **undeclared ambition** before growing a lead in a declared ambition.

Prefer

Some actions have extra guidance in the form of "preferences", indicated with the word "Prefer" and a list of priorities. Use these priorities to decide between multiple options. Narrow the possibilities to only those which meet the first priority, then the second priority, and so on, until only one option remains.

Principles

There are a set of four "Principles" which the bot will follow when taking certain actions. Use these to guide the specific actions the bot will take when Influencing, Moving, engaging in combat, and expanding the bot's territory.

Random

If the bot has multiple options and the procedures do not give explicit preferences, or those priorities fail to differentiate between the options, pick randomly.

Difficulty modifiers (Optional but recommended)

The procedures try to emulate competent play, but the bot doesn't plan multiple cards ahead and makes limited use of Guild and lore cards. For a more challenging game, start each game with the player last in turn order, and give the bot some additional advantages when it does not have more power than the player:

- **Efficient Logistics**: bot performs 1 extra action per card
- **Elite Pilots**: bot collects 1 extra die during Battle

Note: If the bot is tied with the player, it does not have more power, and will gain these advantages, including at the start of the game when all power markers are tied at zero.

Relative power should be evaluated per bot, so in a game with 2 bots, if one bot is ahead of the player, and the other is behind, apply these only to the losing bot. In a multiplayer game, check power between bots and players: grant the bot advantages when it is behind all players.

This setting should be considered "normal mode", because without these advantages you may find the bot unsatisfying, especially in games with only 1 bot.

For a harder game:

- Apply the above advantages even if the bot is ahead in power.
- The bot with the most power starts every chapter with initiative.

For extra challenge, mix and match any of the following modifiers:

- **Fleet Readiness**: during setup, place 1 extra ship in each system with bot pieces
- **Strategic Reserves**: during setup, give bot 1 extra random resource
- **Armored Hulls***: bot's fresh ships are Tough. they take 2 hits to damage (but damaged ships only take 1 hit to destroy)
- **Energy Shields***: all bot's ships are Tough
- **Carrier Tactics***: attacker must damage all ships before destroying any of them
- **Fortress Vaults***: treat bot's 1 key resource slots as having 2 keys for all purposes
- **Warp Blockades**: bot controls gates with a single fresh ship (regardless of number of fresh player ships). if more than one bot in play, bot with more fresh ships controls the gate

*apply only if player is the attacker

Bot turn (START HERE)

✦ If bot has no cards left *(check hand counter)* then bot will pass.

✦ Is bot's hand counter greater than number of bonus cards in the bot's play area?

- Draw 2 cards.

✦ Decrement hand counter.

✦ Does bot have initiative?

- Remove seize counter, if present.
- Is bot winning or tied for first place for a matching ambition?
  - Is there an ambition marker available?
    - Select matching card and declare, if bot is winning or ambition not yet declared.
- Use General Priorities to select card.

✦ Can bot surpass with any card?

- Yes:
  - Select card which surpasses. Prefer: higher number
- No:
  - If seize counter is on bot's board, increment it, else place seize counter, with a value of 1.
  - If hand counter is 2 or greater and initiative was not already seized this round, check for seize:
    - Roll 1d6, and subtract 1 for each **<u>undeclared ambition</u>** that bot is winning. Seize initiative if result is less than seize counter. Decrement hand counter to represent bot discarding an extra card.
  - Use General Priorities to select card.

✦ Once a card is selected, discard other drawn cards. Check for Prelude actions, then go to page for selected card's suit.

General Priorities

✦ Can bot Secure or Tax to **<u>contend</u>** declared ambition? → Administration/Aggression

✦ Can bot Secure an **<u>effective</u>** Vox card? → Aggression

✦ Can bot **<u>favorable combat</u>** to **<u>contend</u>** declared ambition? → **<u>Combat card</u>**

✦ Does bot have no starport?
  • Can bot build a starport?
    ○ Yes: → Construction
    ○ No: → Mobilization/Aggression

✦ Are any loyal buildings in a system controlled by a rival?
  • Can bot Move to change control? → Mobilization/Aggression
  • Can bot Build or Repair to change control? → Construction/Administration
  • Can bot **<u>favorable combat</u>** to change control? → **<u>Combat card</u>**

✦ Does bot have **<u>unbuilt cities</u>**?
  • Does bot have fewer **<u>claims</u>** than **<u>unbuilt cities</u>**?
    ○ Yes: Can bot move to get a new **<u>claim</u>**? → Mobilization/Aggression
    ○ No: Does bot have at least one **<u>claim</u>**? → Construction

✦ Can bot use an ability on a ready Guild or lore card? → Select suit matching ability, then exhaust card. Use ability, then go to page for card's suit if actions remaining.

✦ Can bot Tax or Secure to **<u>contend</u> <u>undeclared ambition</u>**, take captives, or grow a lead in a declared ambition?
→ Administration/Aggression

✦ Can bot Influence a card with more agents than rivals? → Mobilization/Administration

✦ Can bot Move or **<u>favorable combat</u>** to take control of rival city ?
→ Mobilization/Aggression

✦ Can bot Build or Repair ships? → Construction/Administration

Prelude

After a card has been selected, before following procedures for the card's suit, check to see if bot will spend resources and/or Guild cards for Prelude actions. Bot will use resources and Guild cards according to the following guidelines.

Restrictions

Bot will not spend resources or Guild cards matching a declared ambition, with one exception. Specifically:

- if Tycoon is declared do not spend Fuel or Material resources or Guild cards
- if Empath is declared do not spend Psionic resource or Guild cards
- if Seeker is declared do not spend Relic resources or Guild cards, UNLESS securing a Relic card

Resources

Material: spend to Build a starport if none on map, otherwise Build cities, then ships

Fuel and Weapon: spend for **Combat card**

Relic: Secure for captives, **contend** a declared ambition, or **effective** Vox card.

Psionic: Tax/Secure to **contend** a declared ambition, or spend for **Combat card**

See "Combat principles" for more details on Fuel, Weapon, and Psionic usage.

Guild cards

Bot will discard some Guild card for their Prelude ability at the first opportunity.

Bot will discard a Weapon Guild card for Prelude ability if it has 3 ships available. Place ships at starport with most fresh ships, otherwise with **task force**.

Bot will discard all Union cards to gain bonus action cards. Place action card in bot's play area, and increment bot's hand counter.

Administration - Tax | Repair | Influence

✦ Can bot Tax to **contend** a declared ambition? (1)

✦ Are any loyal buildings controlled by a rival?
  • Can bot Repair to change control? (13)

✦ Can bot use an ability on a ready Guild or lore card?

✦ Can bot Tax to **contend** an **undeclared ambition** or to take captives? (23,24)

✦ Can bot Influence an **uncontested card** which would **contend** a declared ambition, if Secured? (26)

✦ Can bot Influence a **contested card**? (27)

✦ Can bot Repair to take control of a rival building? (30)

✦ Can bot Repair any other ships or buildings? (38) Prefer:
  • ships in **task force**
  • other ships
  • starport, if only one on map
  • cities

✦ Can bot Tax to grow a lead in a declared ambition? (46)

✦ Can bot Influence any other cards? (47)

✦ Can bot Tax to gain resources? (48) Prefer:
  • **new resources**

Influence Principles

When influencing cards in the court, the bot will follow these guidelines.

If possible, influence **uncontested cards** with 2 agents. Otherwise, influence **uncontested cards** with 1 agent. *(in other words, if the bot has 2 actions and 2 available agents, and procedures direct the bot to influence an **uncontested card**, bot will spend 2 actions to place 2 agents)*

If possible, influence a **contested card** with one more agent than the most rival agents. Otherwise, check if the bot has enough agents: if the bot could influence with agents up to the most rival agents, and still have agents in its supply left over, then influence the card to match rival agents. Otherwise, do not influence the card.

Priorities

When choosing between options which are otherwise equal in priority, use the following priorities to select a card to influence.

- Weapon icon
- Union card, "Call to Action" (Vox card)
- **Effective** Vox card
- Captives
    - i.e. any card where bot could influence with more agents than rival
- Other Vox card
- Icon to grow a lead in a declared ambition
- "Loyal" card matching outraged resource (e.g "Loyal Engineers" if bot outraged Material)

If further tie breaking is necessary, prefer the card with more keys.

Aggression - Move | Battle | Secure

✦ Can bot Secure to **contend** a declared ambition? (2)

✦ Can bot Secure an **effective** Vox card? (3)

✦ Can bot **favorable combat** to **contend** a declared ambition? (8)

✦ Does bot have no starport and no **claims**?
- Can bot Move to get new **claims**? (10)

✦ Are any loyal buildings controlled by a rival?
- Can bot Move or **favorable combat** to change control? (14,15)

✦ Does bot have **unbuilt cities** and fewer **claims** than **unbuilt cities**?
- Can bot Move to get at least one new **claim**? (18) Prefer:
  - ○ **new resources**
  - ○ **unclaimed**
  - ○ two slot planets

✦ Can bot use an ability on a ready Guild or lore card?

✦ Can bot Secure to **contend** an **undeclared ambition**, to take captives, or to grow lead in declared ambition? (21,22,25)

✦ Can bot Move to take control of rival city? (32)

✦ Are there any ambition markers available?
- Can bot **favorable combat** to take trophies? (41)

✦ Can bot Secure to grow lead in an **undeclared ambition** or to take any other cards? (42,43)

✦ Can bot Move to change control of a rival-controlled gate? (44) Prefer:
- take control adjacent to rival starport
- take or neutralize control adjacent to loyal starport

✦ Are there any ships not controlling gates or **claims** or rival buildings?
- Can bot Move to unassigned ships to **task force** (use **partial move**)? (45)

Combat Principles

When asked if bot can **favorable combat** to achieve some result, first identify the goal, then refer to the corresponding section below. Goal will always be one of:

- Trophies for warlord
- Raid for resource(s) or card(s) to **contend** an ambition
- Control of a system

Bot will spend Weapon resources to enable combat and will spend Fuel and Psionic resources to maximize available actions during a combat.

A combat which risks outrages is only favorable if bot could ransack the court AND if outrage would not cause bot to stop **contending** a declared ambition. If bot is able to re-roll, first re-roll any intercepts, then re-roll blanks.

Trophies

A Battle for trophies is considered favorable if bot has at least 1:1 ratio of fresh ships.

If bot has multiple actions, first roll all skirmish dice until ratio of fresh ships is better than 1:1, or only 1 action left. Then roll assault dice up to 2x defending fresh ships, and the rest skirmish dice. Allocate hits prioritizing trophies.

Raid

A raid is considered favorable if bot can roll raid dice equal to 2x keys on the target AND bot has better than 1:1 ratio of fresh ships to defender OR has 1:1 ratio AND more than one Battle action available after moving to the target.

If favorable, the bot will first spend actions to roll dice like a trophies Battle, up to the last action available, when it will roll raid dice.

Control

A Battle for control is favorable is bot can roll at least 1 die per fresh defending ship. If favorable, bot will select dice like a trophies Battle. Bot will allocate hits to take control, then allocate hits to take trophies.

Construction - Build | Repair

✦ Does bot have no starport?

- Can bot Build a starport? (9) Prefer system with:
    - bot control
    - most loyal ships
    - neutral control
    - least rival ships

✦ Are any loyal buildings controlled by a rival?

- Can bot Build or Repair to change control? (12,13)

✦ Can bot Build cities? (17) Prefer:

- only Build **double city** if winning a declared ambition and uncovering power bonus

✦ Can bot use an ability on a ready Guild or lore card?

✦ Can bot Build or Repair to take control of a rival building? (29,30)

✦ Can bot Build to defend an undefended building? (35)

✦ Can bot Build any ships? (36) Prefer:

- ships in **task force**
- fresh ships

✦ Can bot Build any other starports? (37) Prefer system with:

- **task force**
- bot control

✦ Can bot Repair any other ships or buildings? (38) Prefer:

- ships in **task force**
- other ships
- starport, if only one on map
- cities

Expansion Principles

When getting new **claims** and building new cities the bot will follow these guidelines. Note that the bot will still use the guidance in the "Movement Principles" to move ships. This page aims to clarify **when** the bot will expand by getting new **claims** and building new cities, not explain **how** the bot will move. Use "Movement Principles" to determine how the moves are carried out.

Getting New **Claims**

A **claim** is an open building slot on a planet where the bot has one or more pieces, i.e. it is a building slot where the bot could legally build a city or starport. Count each slot separately: if the bot has a ship at a planet with two open slots, count the bot as having two **claims**.

*(Note that in previous versions of SUPERCAT, a **claim** was an open building slot **controlled** by the bot. This has since been relaxed to deprioritize expansion. If a bot has a ship or other building enabling it to build in an open slot, that counts as a **claim**, regardless of control of the system)*

The procedures evaluate the number of **claims** the bot has in relation to the number of **unbuilt cities** (cities on the bot's board which it could build, not any cities held by rivals as trophies). The bot will seek to gain new **claims** if it has fewer **claims** than **unbuilt cities**.

*(Note that this differs between the campaign game and the base game: in the campaign game the bot is satisfied with fewer **claims** than in the base game)*

Limit on Building New Cities

The procedures prioritize building new cities somewhat highly relative to other actions. However there is a limit to this which is building a second city on the same planet where the bot already has a city. The bot will only build one of these **double cities** if it is winning a declared ambition (not tied for first place) and placing the city would uncover a power bonus.

*Note that a **claim** counts for the purpose of the expansion priorities described above even if the bot would not build a city there due to this limit. For instance, if a bot has 4 **unbuilt cities**, and has a ship at a planet with 2 slots, it is considered to have 2 **claims** even though when it comes time to build a city, the bot would only build 1 city there.*

Mobilization - Move | Influence

✦ Does bot have no starport and no **claims**?

- Can bot Move to get new **claims**? (10)

✦ Are any loyal buildings controlled by a rival?

- Can bot Move to change control? (14)

✦ Does bot have **unbuilt cities** and fewer **claims** than **unbuilt cities**?

- Can bot Move to get at least one new **claim**? (18) Prefer:
    - **new resources**
    - **unclaimed**
    - two slot planets

✦ Can bot use an ability on a ready Guild or lore card?

✦ Can bot Influence an **uncontested card** which would **contend** a declared ambition, if Secured? (26)

✦ Can bot Influence a **contested card**? (27)

✦ Can bot Move to take control of rival city? (32)

✦ Can bot Move to change control of a rival-controlled gate? (44) Prefer:

- take control adjacent to rival starport
- take or neutralize control adjacent to loyal starport

✦ Are there any ships not controlling gates or **claims** or rival buildings?

- Can bot Move to unassigned ships to **task force** (use **partial move**)? (45)

✦ Can bot Influence any other cards? (47)

Movement Principles

When moving ships, the bot will follow these guidelines. Note that this page covers movement generally; for specific guidance on bot behavior around getting new **claims** and building cities, see the "Expansion Principles".

Each movement has an origin, a destination, and a goal. The procedures will define a specific goal, for example changing control of a system with loyal buildings. The goal will define one or more destinations. The specific destination and origin should be selected according to the priorities below.

In rare cases, the bot will not reach its destination on a single card. These are called partial moves and the bot will only make moves like this if explicitly instructed to. In these circumstances, evaluate destinations and goals independently each time the bot plays a card, as the priorities may change on a future movement.

Priorities:

Use **task force** for any moves, if possible. Otherwise, move as many ships as possible while following other priorities, including damaged ships.

When possible, retain control of the origin system. If it's not possible to reach the destination and achieve the goal while retaining control of the origin, check for other origins. If it's not possible to retain control of any origin, abandon control.

If multiple origins and destinations meet above criteria, use these priorities:
- shortest path (i.e. spend fewest action)
- if goal is not new **claims**, prefer destinations which result in new **claims**
- if goal is not control, prefer destinations which result in bot control of rival city.

Guild Cards

In all cases, follow the same guidelines as for spending resources for Prelude action. Do not discard a card for the ability if ambition matching a card's icon is declared. Othereise, use ability as described below.

Lattice Spies

Bot will use Prelude ability if seize roll passes.

Farseers

Bot will use Prelude ability at first opportunity. Discard Farseers (and no action cards) and gain one extra action card. If player controls Farseers and declares an ambition, look at a number of cards from the bottom of the action draw stack equal to the bot's hand counter, and swap one. Then shuffle the stack.

Silver Tongues

Bot will use Prelude ability if it causes bot to win a declared ambition.

Vox Cards

The bot will Secure a Vox card if it is **<u>effective</u>** or if Securing the card will take captives. In general, a Vox card is **<u>effective</u>** if its **When Secured** text can be fully carried out. The following clarifies specific Vox cards and gives instructions for how to perform the text for the bot.

Mass Uprising

> **<u>Effective</u>** if bot has 4 or more ships in its supply. Prefer cluster with **<u>task force</u>**.

Populist Demands

> **<u>Effective</u>** if bot is winning or tied for first in an **<u>undeclared ambition</u>**. Prefer ambition bot is winning. If only Securing for captives, do not choose an ambition.

Outrage Spreads

> **<u>Effective</u>** if outrage would cause a Rival to stop winning a declared ambition. Prefer resource which bot has fewest of

Song of Freedom

> **<u>Effective</u>** if the bot controls a rival city and it's possible to seize the initiative. If not possible to seize the initiative, secure only for captives.

Guild Struggle

> **<u>Effective</u>** if rivals have any Guild cards. Steal a Guild card to **<u>contend</u>** a declared ambition or **<u>contend</u>** an **<u>undeclared ambition</u>**. Otherwise use "Influence Principles".

Call to Action

> Always **<u>effective</u>**

Leaders and Lore

The bot performs better in "vanilla" games. To keep the procedures streamlined there is only limited support for Leaders and Lore. Here are several options for different styles of solo gaming.

If you don't mind intervening on behalf of the non-player system:

Draft L&L as normal, choosing the most interesting options for yourself and for each bot. When an opportunity arises, override the procedures to take advantage of L&L abilities. This option is good for experimenting with new combinations but requires some mental flexibility and is a less robust solo challenge.

If you prefer the non-player system makes as many decisions as possible:

Some of the Leaders and Lore abilities are "passive" in that they confer benefits which do not require much in the way of extra decision making. The bot will still make sub-optimal use of them since there are no special cases in the procedures to capitalize on the advantages.

First, randomly assign a Leader to each bot from this list:
- Rebel
- Quartermaster
- Corsair

Then randomly assign a Lore to each bot from this list:
- Seeker Torpedoes
- Railgun Arrays
- Repair Drones
- Signal Breaker
- Mirror Plating

Finally, draw two Leaders and two Lore, and choose one of each for the player.

Questions

Every question should have a yes or no answer. There are four types of questions. Use the following guide if you are confused how to follow the procedures.

Type 1: This type of question will be a single line like this:

Can bot take some action to achieve some goal?

If the bot is able to take the action, following all the rules of the game, to achieve the stated goal, then take the action. If the answer is "no", continue reading to the next section.

Type 2: This type of question will have one nested subsection that is not marked.

Question about the game state?
- *Action to take, or other question to evaluate, if answer to first question was "yes"*

If the answer is "yes", follow the nested procedures. If the answer is "no", then continue reading to the next section.

Type 3: This type of question will have two nested subsections, one marked "yes" and the other marked "no".

Question about the game state?
- *Yes:*
  - *Action to take, or other question to evaluate, if answer to first question was "yes"*
- *No:*
  - *Action to take, or other question to evaluate, if answer to first question was "no"*

If the answer is "yes", continue with subsection marked "yes", otherwise continue with the subsection marked "no".

Type 4: This type of question is only used on the General Priorities page.

Can bot take some action? → Card suit

In this case, if the answer is "yes" AND the bot has a card of the indicated suit available (either one of 2 cards draw, or the lead card to copy), then select that card. Proceed to the page for the selected suit.

Clarifications

The concept of **<u>contending</u>** ambitions is important. This is a special keyword: to **<u>contend</u>** an ambition means take any action which improves the bot's position for that ambition such that the bot takes first or second place, including ties.

There is a difference between **<u>contending</u>** an ambition and "winning or tied for first place", which is that **<u>contending</u>** also includes second place and ties for second place. The bot will only declare an **<u>undeclared ambition</u>** if it is winning or tied for first place; it will not declare an ambition if it is in second place.

Furthermore, the bot will only declare an ambition which has already been declared (double or triple declare to add second or third marker to the ambition box) if it is **winning** the ambition. It will not double or triple declare if it is tied for first place.

Terminology

claim

open building slot in a system with bot's loyal pieces

combat card

card played with Weapon, or an Aggression card (see "Combat Principles")

contend

take an action causing bot to improve its position with respect to an ambition AND bot will be either winning or tied for first or second place (see "Clarifications")

contested card

court card with bot agents and rival agents, and more rival agents than bot agents

double city

a second loyal city on planet that already has a loyal city

effective

a Vox card is effective if its **When Secured** text can be fully carried out (see "Vox Cards")

favorable combat

a series of Move and Battle actions that the bot considers likely to result in a specific goal (see "Combat Principles")

new resources

type of resource that bot does not have OR type of planet bot does not have a city on

partial move

a bot Move which does not reach a destination on a single card (see "Movement Principles")

ready/exhausted

a Guild card which has not been used this chapter is ready. after it has been used it is exhausted, and then becomes ready again at the start of the next chapter

task force

group of bot ships with the most fresh ships

unbuilt city

a loyal city on bot's board (not a destroyed city in a rival's trophy area)

unclaimed

system that is not controlled by a rival

uncontested card

court card with no agents

undeclared ambition

ambition that has not been declared yet AND there are markers available