

Stratego

An implementation of the popular board game Stratego programmed in C++, utilizing concepts like the observer design pattern and MVC model.

Both a graphical (on XQuartz - X11) and text (on stdout) representation of the game board is displayed after each turn.

Setup:

This is a two player (can easily be extended to more players if needed) game consists of a 8x8 board and 8 links each.

A link is either a Data or a Virus, and has a strength between 1 - 4 inclusive. Player 1's links are labelled from a - h, player 2's links are labelled from A - H.

Goal of the game:

To download 4 Datas or make your opponent download 4 Viruses.

A turn can consist of using an ability, or moving a link.

- A link can move horizontally and vertically, but not diagonally. It cannot move to on top of another link of the same player.
- If a link is moved on top of an opponent's link, their strengths are revealed and the winner downloads the link of the loser.
- If a link is moved on top of the opponent's server port, it gets downloaded by them.
- If a link is moved off the edge on the opposite side, it gets downloaded by the owner.

Abilities includes:

- Link Boost (L) : allows one link to move 2 spaces
- Firewall (F) : placed on a cell in the grid, opponents links are revealed when passing this cell and if it's a virus, then it gets downloaded by their owner
- Trade (T) : trade a link with the opponent
- Skip (S) : skip a turn without moving
- Battle (B) : instant battle regardless of the links location
- Download (D) : immediately downloads an opponent's link
- Scan (S): reveals the type and strength of any link
- Polarize (P) : changes the type of a specific link

Each player can choose 5 abilities at the start of the game, max 2 of each type and each ability can only be used once in the game.

Sample test would be:

move a down

move E up

ability 4 b

move f down

ability 3 E

move G up