The software is a Discord bot created in the J programming language. It communicates with Discord servers via a Python proxy server and responds to various user input commands, specifically only the /ping command as of now.

J is a powerful programming language for data analysis and mathematical operations, however, it is not the most suitable language for creating Discord bots due to its lack of support for HTTPS and the need to manually handle socket events. In hindsight, a language with built-in support for HTTPS and event-driven programming such as Python may have been a better choice for this project.

To use the bot, first install \underline{J} and \underline{Python} on your system.

Then, clone the bot's repository https://git.nomxz.net/astrocord/log.html using the following command:

```
git clone git://git.nomxz.net/astrocord.git
```

Install the required Python packages using the following command:

```
pip install -r requirements.txt
```

Edit the config.ijs file and add your Discord bot token, channel ID, guild ID, and application ID. You can obtain this information by creating a new application on the <u>Discord developer portal</u>, filling in the necessary information, and going to the bot section to obtain the token. To get your server ID, right-click on the server icon on the left-hand sidebar on Discord, click on "Copy ID," and paste it into your Discord or on a text editor. To get a channel ID, right-click on the channel and click on "Copy ID". Make sure you invite the bot to your server using the following URL. Please make sure to change the client ID 123456789012345678 to the one found in the in the Discord developer portal under OAuth2:

```
https://discord.com/api/oauth2/authorize?
client_id=123456789012345678&permissions=0&scope=bot%20applications.commands
```

After configuring the config.ijs file, start the J script using the following command:

```
jconsole astrocord.ijs
```

The bot will now be running and will respond to various commands that can be executed using the / slash in the Discord chat. You can also join my testing server here if this is too complex, hopefully it's online.