Quick Start

Creating a Virtual Environment

Installing packages to a virtual environment allows us to ensure we all use the same version of a package. A virtual environment is an isolated python environment, so if you have an old project with an old version of pygame it won't interfere with this project.

MacOS:

```
# create a virtual environment in ./venv
$ python3 -m venv venv
# enter the venv
$ source ./venv/bin/activate
# installs the correct versions of all required packages
$ pip3 install -r requirements.txt
```

Windows:

```
# create a virtual environment in ./venv
PS> python3 -m venv venv
# enter the venv
PS> .\venv\Scripts\Activate.ps1
# installs the correct versions of all required packages
PS> pip3 install -r requirements.txt
```

To exit, run `deactivate` (same command on all platforms)

Build Instructions

> [!NOTE] Must be in a virtual environment to use the `pyinstaller` command. See Creating a Virtual Environment for info

```
$ pyinstaller main.spec --noconfirm
```

Using the above command will build an executable for your platform and place it in the `./dist` folder.

Game State

Internally switching between game states (e.g., main menu, instruction screen, game) is handled by a state machine. This closely matches the internal flow of the original Pascal code.

```
stateDiagram-v2
    state "Difficulty Menu" as DifficultyMenu
    state "Color Mode Menu" as ColorModeMenu
```

```
    state "Computer Speed Menu" as SpeedMenu
    state "Shareware Info" as Shareware
    state "Main Menu" as MainMenu
    state "Exit Screen" as SignOff

    [*] --> ColorModeMenu
    ColorModeMenu --> SpeedMenu   : press C or M
    SpeedMenu --> DifficultyMenu : press S or F
    DifficultyMenu --> Shareware : press N or E or A or !
    Shareware --> MainMenu : any key

    MainMenu --> Game : press B
    MainMenu --> Instructions : press I
    MainMenu --> Marketing : press M
    MainMenu --> Story : press S
    MainMenu --> OriginalKroz : press O

    OriginalKroz --> MainMenu : any key

    Marketing --> MainMenu : any key

    Story --> MainMenu : any key

    Instructions --> MainMenu : any key

    Game --> SignOff : press Q

state Instructions {
    Screen1 --> Screen2 : any key
    Screen2 --> [*] : any key
}
```