Carson Roscoe September 25th, 2015

Design Work

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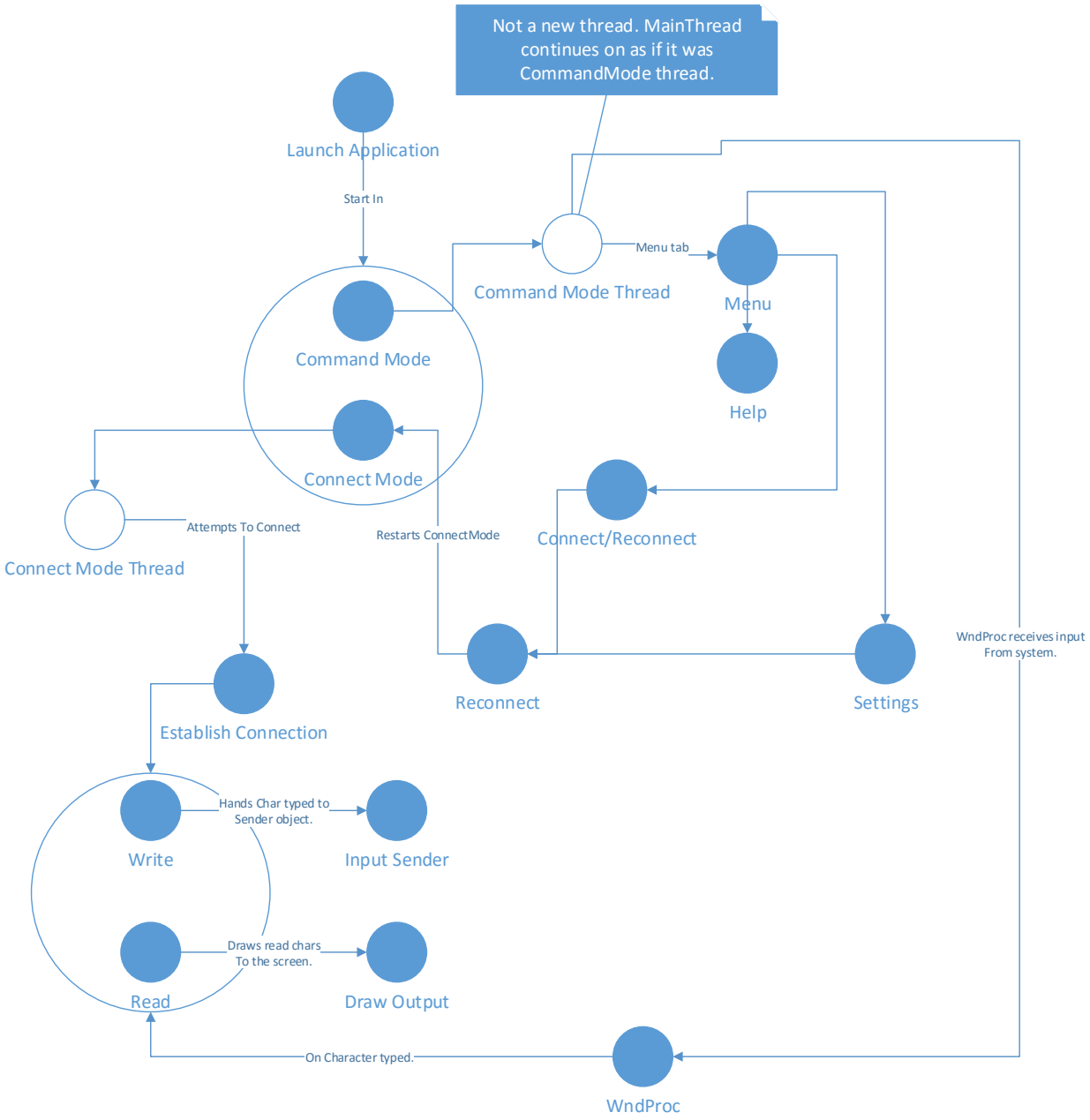
State Diagram



Pseudocode

STATES EXPLENATION (SIMPLIFIED)

Main:

Starts a CommandMode thread and a ConnectMode thread. These two processes will live in parallel. Technically, the CommandMode thread is the starting thread and won't vear off, but from now on the main thread will be referred to as CommandMode, and the one that branches off from it will be referred to as ConnectMode.

CommandMode:

Creates the menu

Menu:

Holds the menu items for Settings, Help and Exit (exit application).

Settings:

Allows the user to change settings such as bitrate, parity bits etc. Upon changing any of these settings, the ConnectMode thread is killed/disconnected and is restarted with the new applied settings.

Help:

Creates a popup for the user explaining how to use the program.

Exit:

Exits the program.

ConnectModeThread:

Attempts to establish a connection.

EstablishConnection:

Attempts to establish a connection,
Once successful, starts a loop of InputListener and OutputReceiver.

InputListener:

Listens for keyboard input. Once keyboard input is found, passes it to the InputSender on its own thread.

OutputReceiver:

Listens for output from the user on the other end of the cable. Once it detects it, it takes that character and passes it onto the DrawOutput on its own thread.

InputSender:

Takes in an ascii character and handles sending it to the other user via the null-modem cable.

DrawOutput:

Takes in an ascii character and handles drawing it to the screen.