**CTCOffice User Manuel**

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**The CTCOffice is the user interface to the train system. Its responsibility is to help a user dispatch new trains, send requests to trains, and display the state of the entire system.**

**Logging In**

**Start the CTCOffice program and the first thing that happens is that a login dialog appears. The User must enter a predefined username and password. This username and password can be found in the file “username\_passwords.txt”. A new username and password is of the form <USERNAME>|<PASSWORD>**

**Loading a Track**

**After a user is logged in for the first time, the track needs to be loaded. To do this, a file chooser is opened after login. The user must select to appropriate track files to load. To do this, CTRL + click on both the red.csv and green.csv files and click open. This will load the track and the CTCOffice User Interface will be displayed**

**Using the Program**

**The CTCOffice is an interactive program. The user must actively dispatch trains and send requests using the User Interface.**

**To add a new train, select Dispatch Train. A dialog box should pop up with text fields. Put in the starting Authority and Speed for the new Train that will be dispatched. The last field in the Dispatcher Dialog is the train ID that will be assigned to your new train. So any time you want to reference this train again, it will have this ID.**

**After adding a train, the train will independently move on the track. The user can now select that train ID from the drop train drop down box and show all its stats. The user can now begin sending requests to this train. After selecting the train from the drop down box, click on Send Request and a new dialog box will appear. The user can now fill out the text fields to send a speed and authority change to the selected Train.**

**The CTCOffice can also show the state of the track segments in the track model. This is down by selecting the corresponding block number in the track drop down box. After selecting the train, the info for that track segment is displayed.**

**The User is able to close a track segment for maintenance. To do this, select the track segment from the drop down box and click the Close/Open Segment button. This will close the segment and cause any trains to reroute or stop.**

**On the bottom left corner of the CTCOffice the user can see the status of each module in the program. This will display errors that may occur during operation.**

**Exiting the Program**

**To exit the program, the user can select file->Sign Out. This will log the user out but keep the system running. To shutdown the program completely, the user must select the X button in the top right corner.**