Low-Comotovation Rail System Defect Report

Document Control

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| Team | The Little Engine that Code |
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Change History

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| --- | --- | --- | --- |
| Doc. Version | Author | Date | Description / Change |
| 1 | Demetri Khoury | 4/20/17 | Document Creation |
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Distribution List

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| Demetri Khoury | Train Model |
| Max Reno | Track Controller |
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1. **Defect Reports**

Defect reports were tracked as issues on the github repository provided in the link below. The following list of issues are the remaining unresolved defects in the software.

**Repository**

[**https://github.com/michaelghaben/ece1186**](https://github.com/michaelghaben/ece1186)

**Issues**

To view the GitHub issues, visit: <https://github.com/michaelghaben/ece1186/issues>

1. If the train is decelerating, and the selected train is switched, the previous train will stop changing speeds. This should be looked into, and perhaps making switching trains unavailable while the current one is changing speeds.

Recreated by:

1. Set speed of train to smaller speed.
2. Click 'Set Speed'
3. Switch to new train.
4. Hit 'Switch'
5. Go back to the previous train.
6. When selecting a train from a TCDispatchedTrainsFrame, a NullPointerException is thrown. As ar as I can tell it doesn't break anything so the severity is low. However, this should still be looked into.

Replicated by:

1. Opening View : DispatchedTrains.
2. Selecting at least 1 train.
3. Clicking the 'Open Selected' button

The line of code Java shows as the culprit is else if (this.isPowerFailure() == false){this.vitalsButton.setForeground(new Color(0,0,0));}

1. The method refreshUI is not called from anywhere, so the window does not refresh itself when a train has been fixed. Therefore, it will continue to show the old states of the failures until the user closes the window and reopens it.

Replicated by:

1. Open the Test Console by clicking the Testing radio button. Keep open.
2. Cause a utility to fail.
3. Open up the Vitals (TCFailure) window.
4. Click Request Fix button.
5. Break a utility.

Effect: Radio button doesn't get updated in Vitals window.

What should happen: The correct radio button is selected.

1. When the dropdown choices are for redline/section H, the blocks appear in dropdown out of numerical order. Start with 32 and goes to 40-something then shows 24 through 31. Not major so can be fixed later.
2. When initially opening the track GUI, if the user hits the "update" button, this results in errors occurring because it attempts to look up an invalid block. The solution is not to do this, and select a valid block before hitting update. It is a low severity issue.
3. crossings are not being reported from dummy track

crossings activation not reported from wayside

easy fix - to be implemented asap

1. For unknown reasons, the train manager is failing when being initialized on green line. From the green line tests, it appears that the track model is behaving properly. From the launcher, it appears to be initializing incorrectly, and is throwing a null when using the green line.
2. When using the track GUI it is possible to force a nullptr exception when changing line selections.
3. Train positions not properly updating in train manager panel when running more than one train
4. Having trouble splitting up "Jurisdictions" of multiple WS's per line, may just focus on making it work with 1 at this point.
5. When utilizing an external linkage file, it may not be read into the track at runtime. This issue is not reflected when running unit tests, which is an unfortunate issue as I cannot test for this.
6. When the train is stopped, some times its speed oscillates between 0.0 and 0.8 MPH. I think could be due to the comparison of values in the TCSpeedController.

This is a minor bug. It prevents the doors from being able to be opened, since the doors cannot be open if moving.

1. If this button is clicked before a train is dispatched in the Launcher, then closed, and then a train is dispatched, a NullPointerException will be thrown in the TrainHandler class on line 80.
2. schedule throw null pointers in CTC
3. allowing trains to enter the green line in fixed block mode is commented out due to integration errors when adding the green line.

To resolve this issue, the code in the pollYard() method of the trainHandler should be uncommented to allow for polling on the green yard block to spawn a new train on the green line in Fixed block mode

1. The train controller doesn't always update the train that it is controlling in the combo box, but is still controlling the correct train.

This isn't a huge bug, but mostly just a UI glitch.

1. The train doesn't stop at Station Square when making the loop back around the track.

This is most likely due to the distance from the beacon to the station not being fully accurate.

1. on the Train model the Brake status for both the service brake and emergency brake are always OFF.

this occurs due to the fact that the service brake buttons in the Train controller are being lightly tapped.

This caused the status to switch from ON to OFF very quickly. The brakes will still engage and the train will slow down but the status will never depict this change.

1. When overshooting a station the train.update() method throws a null pointer exception causing the program to crash

22. Clicking the 'On' button will set the temperature to the default temp instead of resending the temp that was previously in the text field.

Recreated by:

1. Setting the temperature in the text box and clicking 'Set'
2. Clicking 'ON'
3. The text box value will change to the default temp.

What it should do: If there is a value thats not the default temp, clicking 'ON' will set the temp to that value.