12/2/15

Questions

Revise the communication diagram:
- The communication diagram in the SRS and SDD is confusing.
- Clarify better what the existing system is.
- Show the USB to Loconet converter.
- We will have a separate computer for train monitoring, not sharing the computer with JMRI.
- Reflect both computers. (i.e. JMRI is being handled completely independently of TrainTrax)
- Update diagrams to show the current draw units. Each of the boards that detect current draw send LOCONET messages by themselves.

Update the existing system diagram:
- In the existing system diagram, remove references of the RFID tag as a track marker.
- Update diagrams to show the current draw units. Each of the boards that detect current draw send LOCONET messages by themselves.
- Each computer will have a separate USB to Loconet bridge.
- Include the JMRI computer as a stand-alone computer.

Radio:
Replace Wifi with Xbee Radio Signal

Replace terminology of Motherboard in the SDD with 'Arduino Board'.
Mentioned that the connection from the MDU to the PC is unclear.

Improve the Sequence Diagrams for the Navigation Service:
- Add an explanation of how messages from the Motion Detection Unit get accumulated by the Navigation Service. Especially make this clear in the sequence diagram.
- Make clearer that the calculation for position happens in the monitor. (The correction correlation: 'ComputeCorrectedPosition')
- Show the separation of time between RFID tag lookup and saving the calculated position data.
- Fix the return arrows for synchronous calls (in the wrong direction)

New Feature:
It is more valuable than history to know where the train is headed in the future. We need to at least know the trajectory from the current position of the train to the next switch that was available. Plus, it can give an indicator on whether th e next switch is configured correctly as expected.
A good test for that is using a figure 8 shape since the switch that allows a train to enter the figure must be thrown again for the train to exit.

As far as showing the history, showing it graphically has more value. Didn't see really any value with displaying it on the table. It was suggested that we have a line showing the path or

dots/markers that show the last N updates of the train.

Requirements:
In general look good, but will review all of them in detail over the Christmas break.

TODO:
Send out an email from each team member individually stating to Dr. Kulick how they felt about the distribution of work. (one person did more than others, divided equally, etc.)