



CPE656TL-81 Created by Corey 05 Nov 2015 00:31

Fix SRS and Test Plan According to Feedback From Dr. Kulick

11/4/15

Mentioned overall that things are more vague. He wants a better figures to illustrate the main vision for the system. Found terms confusing.

Remove term as Library for the "Train Navigation Library".

Consider "Train Navigation Engine" or "Train Navigation Computer". I think the name, however, that would make the most sense for Dr. Kulick, is the "Train Navigation Service".

Give Details more details about the Motion Detection Unit internals.

Update SRS to include details about Optical Sensor.

Harder to read requirements in formatting.

Would like the description longer.

Another suggestion should be to display the description as an entire row then have the next row to be divided into columns that include additional details for that requirement like (priority).

Another example would be to display the table with 2 columns and we have N rows that give information about each requirement.

Ex.

Description Blah

Priority High

Last Modified 11/4/15

Description

.
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.

Replace "discrepancy" instead of "discontinuity".

Clarify requirements involving tampering. (Clarify that it is detecting tags out-of-order)

Wants requirements fully enumerated.

Test Plan:

Give clarification about how video will estimate position (markers visible on video with known position).

Be sure to mention plan for synthetic data for testing.

Remove discussion on timing from the rotation testing.

Concerned about exemptions with testing. Wants to know the scope. He wants things that are not heavily exercised by the community he wants for us to be include them in testing.

(Include table describing what is exempted)

TODO:

Review should and shalls.

Add use of IMUs in Motion Detection Unit and using RFID Tags as Train Markers as Design Constraints.

Add to assumptions: "Train track markers are already placed on Position Train Control Test Bed.
At least one track marker is on each section of track."

Priority: **Normal**

Type: **Task**

State: **Fixed**

Assignee: **Stephen**

Subsystem: **No Subsystem**

Fix versions: **Unscheduled**

Affected versions: **Unknown**

Fixed in build: **Next Build**

Estimation: **?**

Updated by Corey 13 Nov 2015 03:52



Comments (12)

[History](#)

Stephen — 08 Nov 2015, 18:07

SRS:

All tasks should be completed. I reworked the table holding the requirements to what I think is clearer, but let me know if you have any thoughts on how it is presented.

Test Plan:

Resolved all issues except Dr. Kulick's request to add a table of testing exemptions to the specific exclusions section, as I was not sure what all we would want to go in there.

In the requirements trace matrix I think we should make sure each and every requirement is explicitly listed, I put all of the sub requirements in for the one listing as a series but if there are lower tier requirements that should be listed and are not let me know which ones and under which test case they should be.

Stephen — 08 Nov 2015, 18:33

Updated SRS here

Corey — 08 Nov 2015, 18:54

Your changes look great! I especially like how you reformatted the requirements. I'm fine with listing sub requirements. It was just easier for a fix cut of the matrix.

Corey — 08 Nov 2015, 19:05

As far as exclusions, most are the references included in the Team Operation Document. All that I can think of are as follows:

Arduino Development Environment,

JUnit,

Java Development Environment

Eclipse
Eclemma,
Octave
Android Development Environment,
Standard Arduino Libraries
Standard GNU C Libraries

Feel free to add any that I missed.

Maybe the Arduino Test tool in our tools list, but that's lesser known. We might need to just make a sample program where we can manually verify coverage to prove it works.

Stephen — 09 Nov 2015, 02:26

Updated to include table of listed exclusions, but I couldn't really get it to look good in an actual table so I have them in a two column list right now.

Corey — 09 Nov 2015, 15:51

The formatting for that looks fine.

Corey — 09 Nov 2015, 16:33

Here is the version that will be included in this week's release.

Corey — 09 Nov 2015, 16:41

Updated versioning. This is the version that will be in this week's release.

Stephen — 10 Nov 2015, 01:09

Looking at the version for this week's release, I noticed that you used Train Navigation Service instead of the Train Navigation Engine that I had initially used. Is this the convention we want to use going forward.

I'm also glad you saw the diagrams and got those changed. I was going to make note that they still needed to be changed but I forgot to add that to my comment.

Corey — 13 Nov 2015, 03:41

No problem. Yeah. I think 'Train Navigation Service' makes it clearer that it is an active object and will calculate the position of the train.

Corey — 13 Nov 2015, 03:51

I see that the following changes still remain:

[Test Plan]

Give clarification about how video will estimate position. We need to give more details about video.
(This one will be discarded since it is in a subsequent issue)

Be sure to mention in plan our intent to use synthetic data for testing:

I think we now already mention this in Arguments for Test. We basically need to be more descriptive of it.
Mention that this 'Simulated Data' Is Synthetically Generated to Exercise Different sections of Code in Test.

[SRS]

Review should and shall statements in the SRS.

Corey — 13 Nov 2015, 03:51

Closing out this issue and moving remaining work into CPE656TL-94.