

Methode Brain Dump

Wednesday, March 14, 2012
8:26 AM

Maintain 60% Margin

Connecters

1. For the CCM 2560LUKE

DB9

- Pin #2 is RX
- Pin #3 is TX
- Pin #5 is ground

1^2 C connection

Used to talk to the 1RU RFID readers
That connector is an RJ 45 connector. When it's configured with the key down, then the left most pin is pin 1, and the left most pin is pin 8.

- Pin 1 is +5V
- Pin 2 is ground
- Pin 5 is Data
- Pin 6 is Clock
- Pin 7 is ground
- Pin 8 is +5V

They're also used to talk to slave devices (Slave CCMs) There will be a protocol where the Master CCM tells the slaves What the state of w/e asset they need and then the slaves respond, Master outputs that

Battery

Four pin connector, when down, leftmost is 1 and rightmost is 4.

- Pin 1 is +5V
- Pin 2 is TX
- Pin 3 is RV
- Pin 4 is ground

Humidity

NOTE: WE NEED TO DISCUSS ANALOG API

Airflow

4 Pin connector, same as Battery

- Pin 1 +5V
- Pin 2 is DATA
- Pin 4 is ground

It is pure analog, which is true for all environmental sensor. They all function by measuring the voltage in a wire and converting them. Each one of them has a different conversion factor.

Tem Sensors

8 Pin just like the 1^2

- Pin 1 +5V
- Pin 3 is Temp sensor 1
- Pin 4 is Temp sensor 2
- Pin 5 is Temp sensor 3
- Pin 8 is the ground

There are three temperature sensor per string, so there are three temperature values.

There will be two of these pins, one for each set of temp sensor in front and back. The left port is for the front, and the right port is for the back.

Locks !!!!! (Anything that isn't a lock that gets connected with get destroyed)!!!!!!

6 Pin connector in the same configuration as the others (Pin 1 on the left, 6 on Right)

- Pin 1 +12V
- Pin 3 is the white command wire
- Pin 4 is the brown status wire
- Pin 6 is the ground which is black.

Communication Protocol

If you want to open the lock,

Keypad

2x6 connector, Top row is 1 - 6, bottom row is 7 through 12

- Pin 1 is +12V
- Pin 6 is ground
- Pin 2

The keypad cable maps one to one to the keypad connector

Arduino

It operates on 5.5 to 23.5V it has been tested @ 2.5A the CCM must operate at 12V, therefore the Arduino must operate at +12V, it is advised that we pick out a regulated computer power supply to work with this thing.

Caveats on the CCM

No digital device on the CCM is hot-swappable. It must be powered off before any device is plugged in or unplugged. This is crucial. Otherwise, things will get damaged.

Programing the CCM is in two phases

First Phase

Program the Configurator, once the configurator has been installed (it's firmware). Then by USB(only) can the initial IP address and trunk configuration be programmed. Once the initial IP has been set, then go to stage two

Second Phase

Install CCM firmware. Once the CCM software is burned, it's ready to go.

!!!!!! It is crucial that nothing is connected to anything while programing this thing otherwise death !!!!!

Programing the Arduino

Requires the Arduino IDE, all projects will be on that. While it's possible to make it work on things like eclipse, it's a pain in the ass.

It's an ATMEGA 2560 (this is important)

2. Current Support Framework

a. We provide support to a Liberty Mutual

They have:

- 3 Site Licenses
- Running version 1.418

We are responsible for back ups now.

Tim and Larry sometimes have a tendency to give things away for free, this is a problem for trying to maintain a large margin, because free things don't make money.

They presently require remote access w/ a windows machine and a unique user account per person
They also require an RSA dongle which they provide

Communication points @LibMu

Michael Gindreau: michael.gindreau@libertymutual.com
He's our primary point of contact for that account, it is advised that whoever takes over this account send an email for an introduction
Kenneth Dillon: kenneth.dillon@libertymutual.com
He has a GitHub account with us, and he's a part of the Liberty Mutual Team. Currently the only member on said team.

Additional Players

Penny Stetson: Larry has contact
Old project head, if you can't get into contact with the above two,

We manage their account/issue through email or by making a new issue in the issue tracker of the ALSIM repository. Their contact for support is Nate's emails

LIBERTY MUTUAL NEEDS TO BE ADVISED OF THE NEW ADDRESS WHICH IS
rfid_support@methode.com

Any correspondence from them must be answered within one business day. Anything sent out before noon must be acknowledged by close of business, if it's in the afternoon, then first thing in the morning.

They have certain windows for solving problems, and it's crucial to solve those problems or else lose lots of money

Entitlements:

1. One database consolidation (For free)
2. One major Software upgrade (free)
3. Under support through April 2014 for free software upgrades, as well support.
 - a) Bug fixes
 - b) General software updates
 - c) General Support (That is 24/7, phone, email, text msg support)
4. They are not entitled for enhancement request in a world where it takes more than three days to implement.
 - a) If it takes longer, then we can consider it for the program as a whole
 - b) If it's specific to them, we charge.

One of the things that is currently a hold up for LibMu is Asset Daemon. We re-wrote it, so we need to test it. Once it's been tested, all of the green-lights on our side have been fulfilled.

Database Migration tool

Written for all the major tables
It resides in their repository (our repository w/ their name on it)

All of the join tables have not been written
(All the many to many relations, we are waiting on answer from Ken Dillon as far as what to do with the user table.)

3. E-Systems

We have an agreement with E-System known as a VAR

They sell our software, and we provide them mechanisms for customization. We don't actually customize anything, we just build the tools that help customize things.

Sometimes it's technical, which means that someone codes up a change.

Sometimes the solutions are non-technical, and so we create a document that tells them what they need to do to change things.

We also provide level 3 support.

Level 1: How do they do X?
Level 2: They might have found a bug, how do they fix it
Level 3: They found a confirmed bug, and so we fix them

Enhancements, but not customizations that apply to the entire software suite is also provided.

We can do enhancements, but management must approve all enhancements
We do not do customizations, we provide facilities so that they can do all customizations.

People of Note

Hall Harvey: E-systems president
Bill Wentz: Their general manager and Larry equivalent
Vince Parker: Their equivalent to Nate, Rex has his phone number and email address
Kun: New intern, he's working on customizing the front.

Current outstanding tickets: we will occasionally be prompted to provide marketing information, we don't actually create it, we just take the current materials and provide them.

Basically contact Jessica, and tell her to do it.

E-Systems is currently in a holding pattern and waiting for the completion of the CCM, it's their job to provide sales.