Programming Notes 1-21-2021

Residential C# System Programming:

**Rooms: Subsystem Logic Needed**

* TV Controls
  + Sleep Timer
  + Local audio?
  + Distro Audio?
* Sources
  + ATVs
  + DTVs
  + Blu-ray
  + AVR
  + Cameras
  + KScapes
  + MMSs
  + Sonos
  + XM Radio
  + Other Music Sources
  + Local
    - TV Inputs?
    - HDMI Switcher?
  + Distributed
    - DM
    - NVX
    - SWAMP
    - Amplifiers
* House Music Settings
  + Audio Adjust
* Climate
  + Set Points
    - Heat
    - Cool
    - Off
    - Auto
  + Run Program
  + Away Mode
  + Scheduling
* Lighting
  + Individual load control.
  + Scene Controls: High, Low, Off
    - Run
    - Save
    - Revert
  + Global Scenes
    - All On
    - All Off
    - All High
    - All Low
    - Exterior
    - Pathway
    - Goodnight – all lights but bedrooms.
    - Goodnight all – all lights and shades down.
    - Home
    - Entertain
    - Away
  + Scheduler
    - Exterior on/off
    - Landscape on/off
    - Fire & Heater on/off
    - Courtyard on/off
* Shades
  + Individual Controls
  + Group Controls
  + Global
    - All Common
    - All Bedrooms
    - All Rooms
    - All Guest Common
* Fires & Heaters
  + Individual Room Fire controls
  + Heater Controls
    - Percentage presets.
    - Ramp up and down
    - Slider bar

**Entire Home Subsystem Logic Needed**

* Pool
  + Pool lights
  + Spa Lights
  + Fountain Lights
  + Water Features
  + Pool Mode
  + Spa Mode
  + Enable/Disable Pool Heat
  + Enable/Disable Spa Heat
  + Heat Setpoints up/down
* Doors & Gates
  + Doors
    - Momentary
    - Hold
    - Motorized Slider Controls
      * Open, Stop, Close, unlock, and reset.
    - AE have video feed.
  + Gates
    - AE have video feed.
* Cameras
  + Individual Camera Selection
  + Full Screen
  + CCTV Control for Clearing messages
  + Multiview
  + Quad view
* Alarm
  + Police Panic
  + Fire Panic
  + Medical Panic
  + Arm Away
  + Arm Stay
  + Disarm
  + View Open Zones
  + Enter key code.
* House Menu
  + House Functions
    - Home
    - Away
    - Entertain
    - All A/V off
  + Equipment resets.
    - Group selections
    - Individual power cycles
    - Need to be forced powered on upon system start up.
  + Panel Backgrounds
    - Client can choose background splash image.
  + Panel Setup (Only available on wired touch panels)
    - Brings up panel configuration menu.

**Lighting**

* **Lighting Load Terminations**
  + Wireless
    - EX KPs
    - Info Needed:
      * IPID of GWEXER
      * RFID of KP
  + Wired
    - Cresnet Modules
    - Info Needed:
      * Cresnet ID of Modules
      * Cresnet ID of KPs
* Start by creating a Module Class
  + Initialize the module (Clx2Dimu8) in template.
  + Need to be able to turn on each

Lighting Notes 1-28-2021

* Create a program that reads D3 RSD files created to create a D3 rooms, lighting loads, and keypads available.
* ~~Program basic D3 program, 1 RSD with all the KPS and loads, build, and save to tmp directory~~
* Create a class that reads the RSD
  + Build rooms from RSD:
    - Build KPs
    - Build Loads
* Register to EISC and use sig changes to trigger and controls lights.
  + Need to really think about this one. Needs to be modular and dynamic.
* Once above is programmed start planning how you want bring over the room names, keypads button settings, scenes
* Create Class that hold data read from RSD file. Stores:
  + IPID
  + Zones
    - Sorted list with Loads object
      * Current Light Level
      * Light Type: Fan, Non-Dim, Dim, Ceiling Fan
      * Stores the RSD Signal Name
    - Sorted List with Keypads Object
      * Last button pressed.
      * Stores the RSD Signal name.