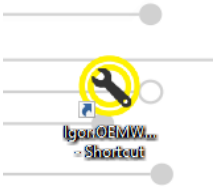
Programming the PowerHUBB will require the current equipment at your site. No additional equipment needed.

- PC to host .exe file to perform programming
- Router (DHCP server) to assist in the managing of the IP address
- Power Source Equipment (PoE switch)
- Cat5e/6 cables between PC, Router, PoE switch and one to the luminaire to be programmed. (Length based on work area)
- **Keep all configuration files in a .zip folder in a safe place to ensure a clean version in case somebody accidently changes the files.**
- W, R, G, B refer to the terminals on the nodes being used to energize the LED boards
- For tunable white selection W and R are always tied together and G and B are always tied together.

Step 1.
Load .exe file on the PC

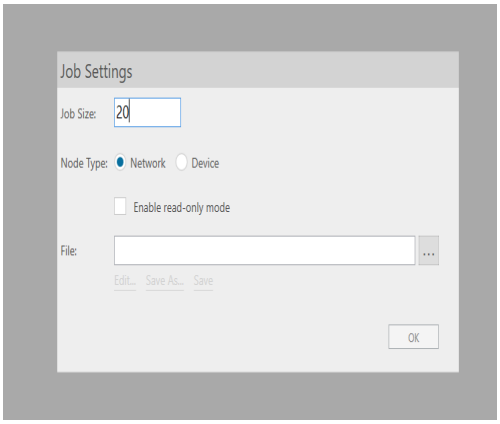
- Run .exe file
- File will place local files in appropriate location on the PC

Step 2.
Click on Desktop Icon to open the application



Step 3.
Job Settings
Once Open there are several fields

- **Job size** = This is used to perform the count down when programming to ensure accurate nodes and fixture counts match. Field must be numerical
- **Node Type**= Master or Satellite (Must be selected)
  - Network = Master Node (PM version)
  - Device = Satellite Node (PS version)
- *Node programming steps are the same whether a Master or Satellite is selected*
- **Enabled read-only mode =** (DO NOT Select)
- **File Field** = Click the ellipsis on the far right of the field to access the configuration files needed to program the values.



Step 4.
Chose the Configuration file for the node capabilities by selecting the ellipsis for the **File:** section:

_1-CH_Ind-1W.json (Used with all node types, 1P, 1PC, 4PC)

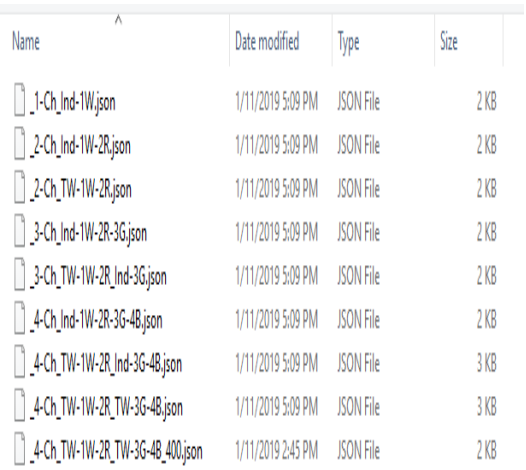
- Single channel, output using the (W) terminals

_2-CH_Ind-1W-2R.json (Used only with the 4PC nodes)

- Dual channels, Individual output using the (W) and (R) terminals

_2-CH_TW-1W-2R.json (Used only with the 4PC nodes)

- Dual channels, Tunable White output using the (W) and (R) terminals
- W = daylight color range
- R = warm color range



_3-CH_Ind-1W-2R-3G.json (Used only with the 4PC nodes)
- Triple outputs Individual output using the (W), (R) and (G) terminals

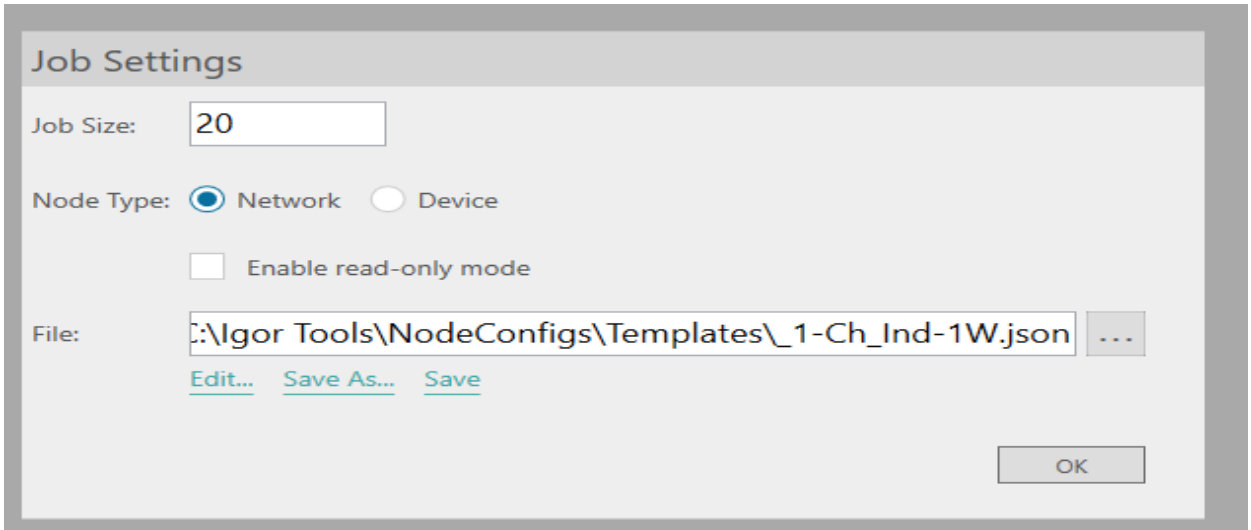
_3-CH_TW-1W-2R_Ind-3G.json (Used only with the 4PC nodes)
- Triple outputs, Tunable White and Individual output using the (W), (R) and (G) terminals
- W = daylight color range
- R = warm color range
- G = Individual control

_4-CH_Ind-1W-2R-3G-4B.json (Used only with the 4PC nodes)
- Quad output, Individual outputs using the (W), (R) and (G) terminals)

_4-CH_TW-1W-2R_Ind-3G-4B.json (Used only with the 4PC nodes)
- Quad outputs, Tunable White and Individual output using the (W), (R), (G) and (B) terminals
- W = daylight color range
- R = warm color range
- G = Individual control
- B= Individual control

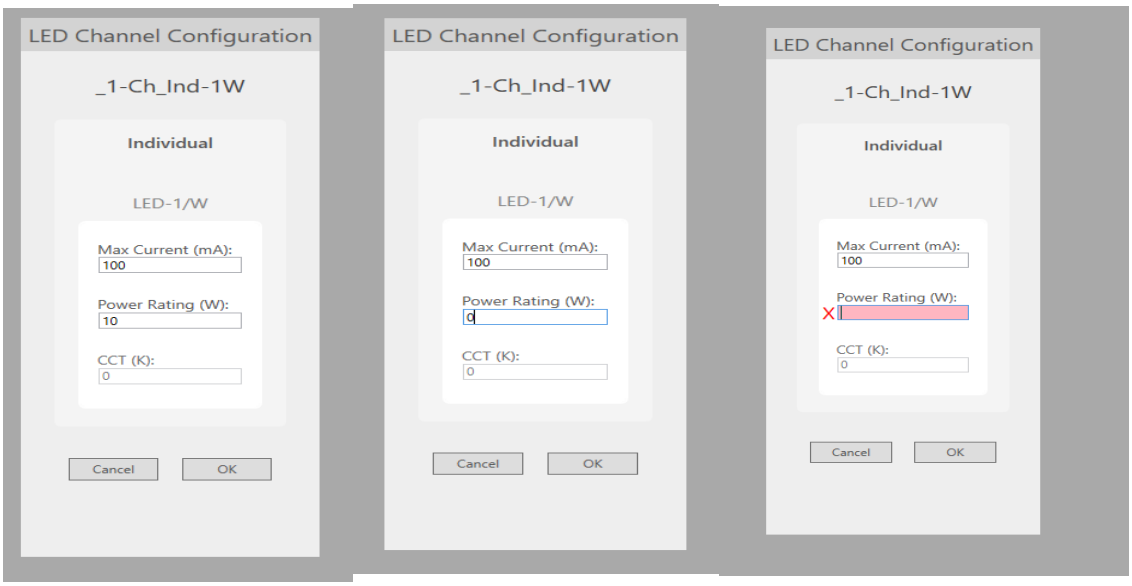
_4-CH_TW-1W-2R_TW-3G-4B.json (Used only with the 4PC nodes)
- Quad outputs, Tunable White and Individual output using the (W), (R), (G) and (B) terminals
- W = daylight color range
- R = warm color range
- G = daylight color range
- B= warm color range

Step 5.
Job Settings
Once the overall Configuration is selected you will be prompted back to the Job Settings pop-up.
Select the Edit… option under the **File:** viewer



Step 6.
Channel Configuration
A pop-up will appear showing the ability to enter the mA values needed per requirements of the Fixture. These fields are defined by the channel they are programmed to be entered on the top of their pop-up. These are dynamic fields based on the type of configuration selected in the previous step.

- Enter a mA value based on the information provided by the VC or the BOM provided.
- Typically, it will be necessary to zero out the Power Rating (typically is not known)
    - Cannot be left empty, an error message will appear if not set to at least zero.
    - If the wattage is known, please fill in.
- Single channel shown on image below, however if Multiple channel options are selected the mA input fields will be dynamic to that configuration selected
- If tunable white is selected, the CCT (K) will need to be filled in based on channel designation must have numerical value. Zero if not Tunable White



Step 7.
Programming
Once the OK button is selected on the Channel Configuration the Configuration will be loaded to the nodes selected. The next pop-up after the Channel Configurations have been defined will be where the actual programming will occur. Three Columns will appear:

- Left Column = **Queued Configuration (*image 1)***
    - This column is a visual representation of what was defined in the previous step
    - Indicates channel(s) and program type, Individual or Tunable White associations
    - mA value
    - Power Rating (Wattage)
    - CCT(K) if applicable will have value or zero for not tunable white
- Center Column = **Discovered Configuration (*image 2)***
    - This column is used to indicate the process is taking place
    - Firmware version of the node will be shown after programming has occurred along with any programming that may have been previously on the node being programmed
        - The image shows a node being reprogrammed as a guide
- Right Column = **New Configuration (*image 3)***
    - This column is a confirmation column to indicate that the configuration file was loaded and confirmed.

Select the Play arrow at the bottom of the pop-up to commence the programming process.
Nodes need to be connected to the PSE after the Play arrow is pressed. (***Image 1)***
no harm will occur to the node if connected prior to play arrow being pressed. No action will occur

Single Channels

Image 1

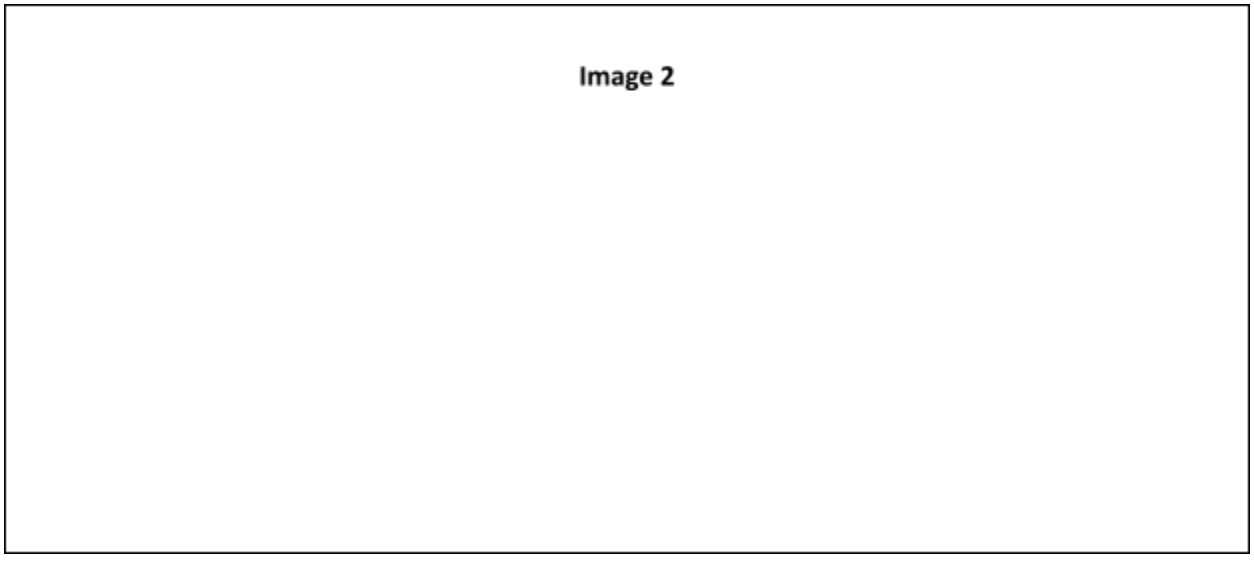
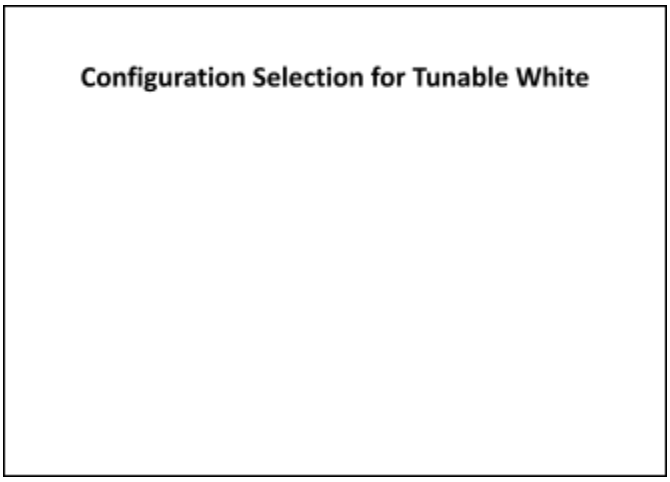


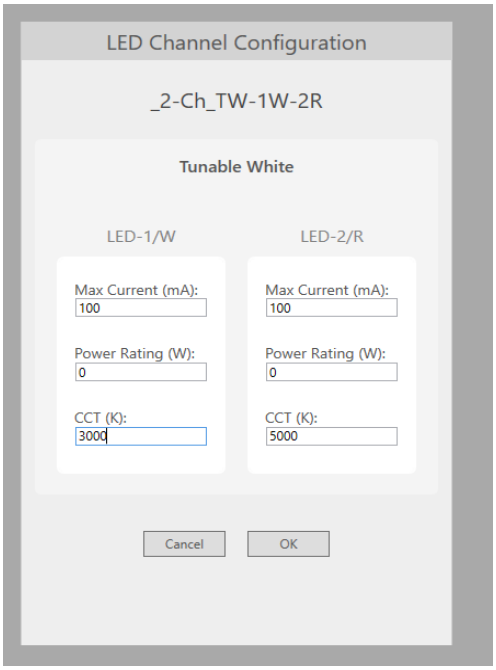
Image 2


Image 3

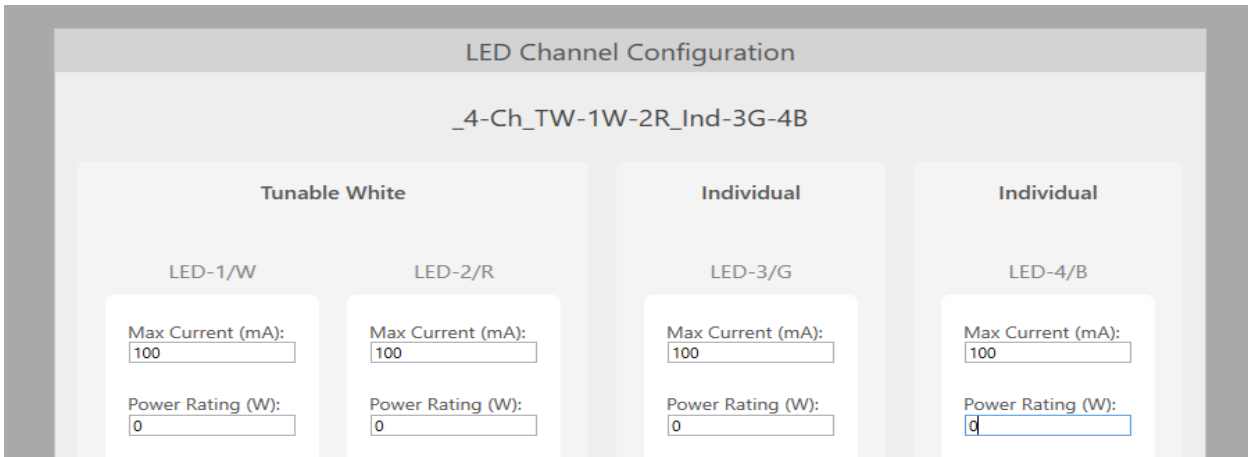
Tunable White



LED Channel Configuration for Tunable White



Three columns for programming nodes for tunable White
LED Channel Configurations using Tunable White and Individual program values



Tunable White and individual programming Column One

_4-Ch_TW-1W-2R_Ind-3G-4B

Tunable White

LED-1/W
Max Current (mA): 100
Power Rating(W): 0
CCT(K): 3000

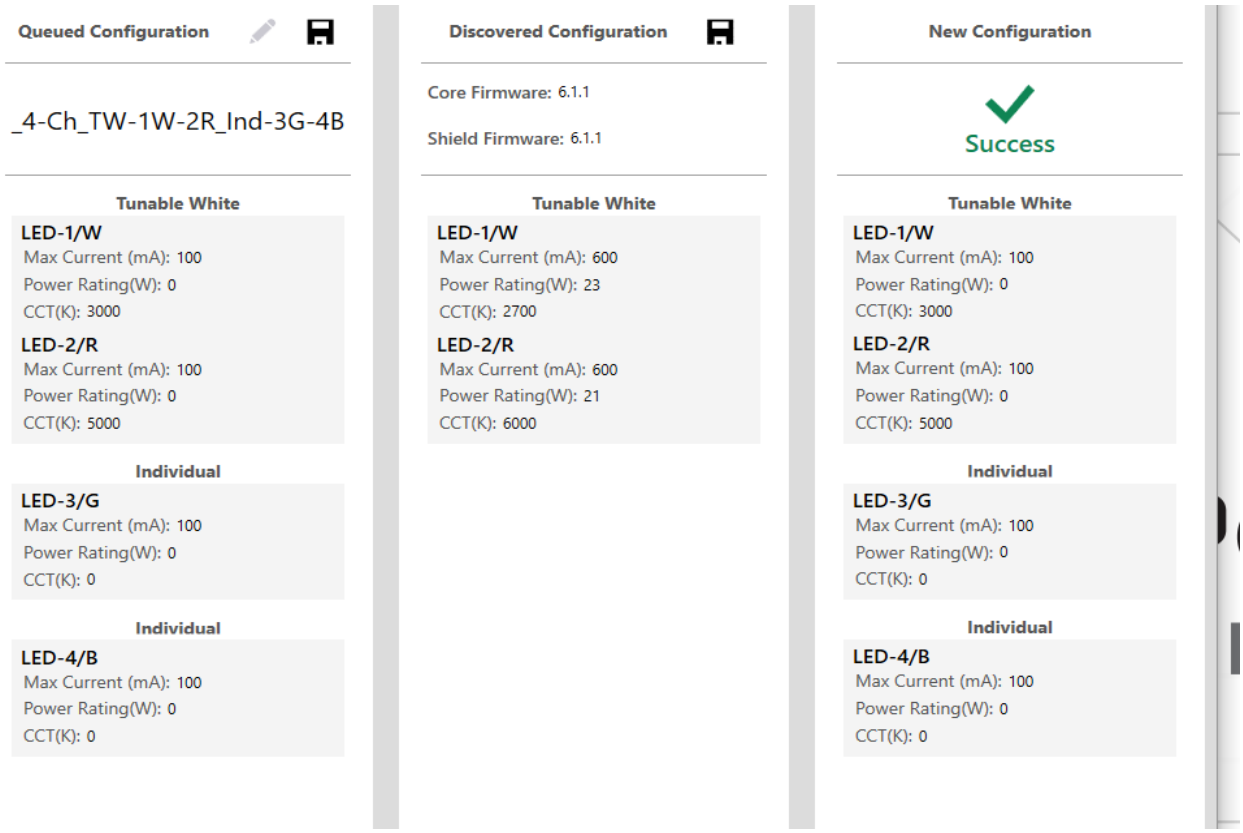
LED-2/R
Max Current (mA): 100
Power Rating(W): 0
CCT(K): 5000

Individual

LED-3/G
Max Current (mA): 100
Power Rating(W): 0
CCT(K): 0

Individual

LED-4/B
Max Current (mA): 100
Power Rating(W): 0
CCT(K): 0



Confirmation of Tunable White and Individual Channels

When Programming Values are completed, the select Complete option and return to the Job Settings menu