



### Applications

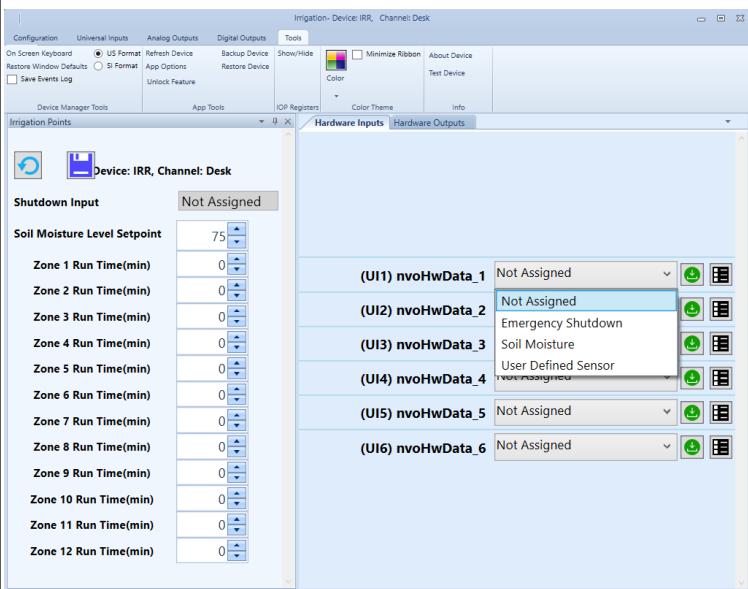
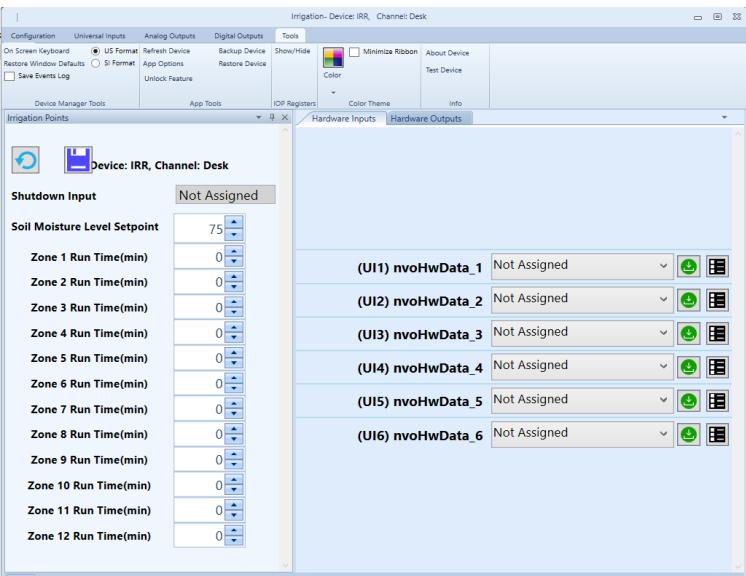
Application is compatible with Q1 Hardware. Can control up to 12 irrigation zones per controller with the ability to attach multiple zone controllers for additional irrigation coverage. Built in soil moisture handling, individual irrigation zone run times and emergency shutdown features.

### Software

Software features include:

- Up to 12 independent irrigation zones per controller
- Soil moisture level input using of the shelf sensors
- External or network emergency shutdown capability
- Changeable network variable types.
- Slave mode for any unused I/O, which can be bound to another controller.
- Independent irrigation timers per zone.
- Universal inputs capable of external sensors / switches to halt watering.
- Chained watering to assure that irrigation happens one zone at the time among all controllers (if desired).

LNS Plug-in provides graphical user interface for configuration and monitoring. Plug-in simplifies hardware I/O customization, communication parameters, control sequences. Plug-in can be executed from-within network management tool such as LonMaker for Windows or similar.



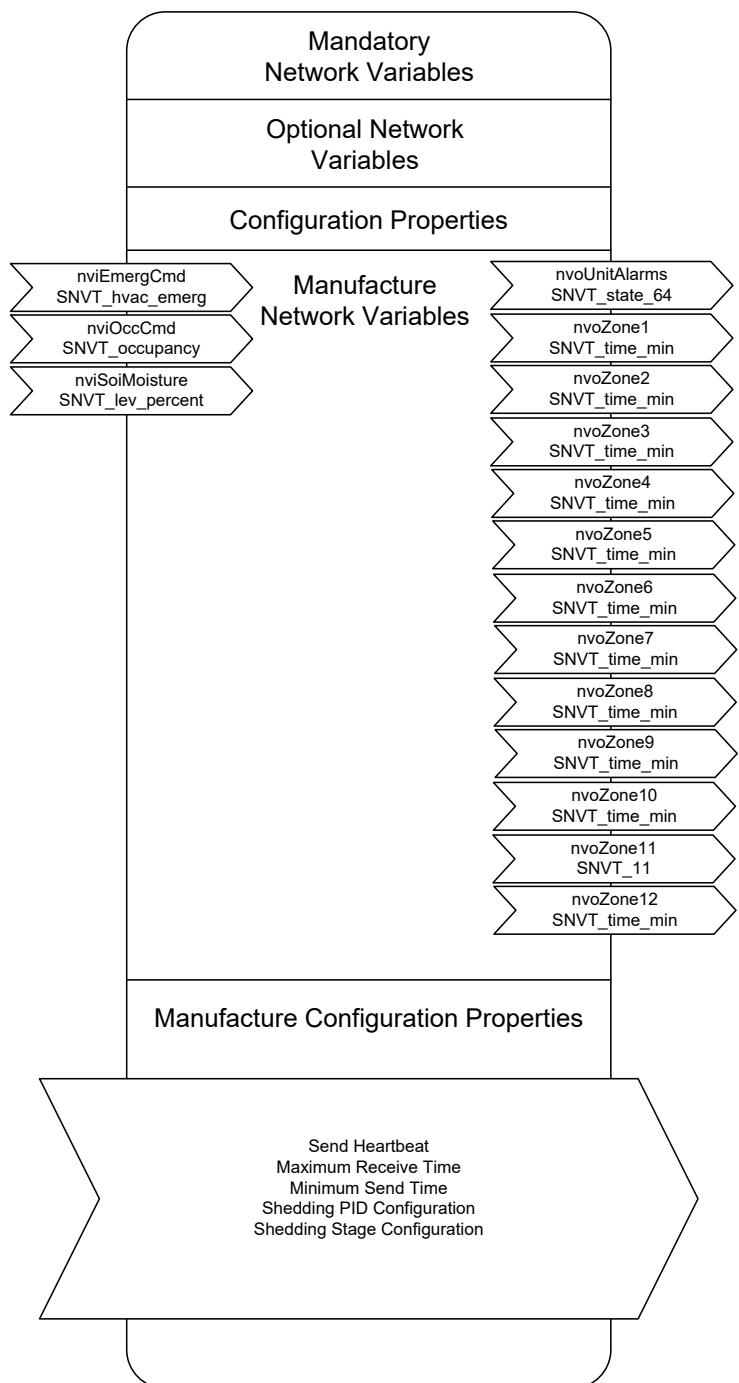


## IRR Profile

All variables with SNVT\_xxx have Changeable Types feature.

## Network Profile

HPU 8051 functional block information.





Open Loop Sensor Profile	Network Profile
<p>Open Loop Sensor profile is used by all physical inputs. Inputs can be used as slave I/O or as part of the main application.</p> <p>All variables with SNVT_xxx have Changeable Types feature.</p>	<p>Open Loop Sensor functional block information. (Physical inputs)</p> <pre> graph TD     subgraph NP [Network Profile]         direction TB         MNV[Mandatory Network Variables] --&gt; DV[Default Value Invert Value Override Value Offset Value Maximum Input Range Minimum Input Range Maximum/Minimum Send Time Minimum Send Delta]         ONV[Optional Network Variables] --&gt; DV         CP[Configuration Properties] --&gt; DV         MNV --- DV         ONV --- DV         CP --- DV         MNV --- MNV         ONV --- ONV         CP --- CP         MNV --- MNV         ONV --- ONV         CP --- CP     end </pre> <ul style="list-style-type: none"> <li>Mandatory Network Variables</li> <li>Optional Network Variables</li> <li>Configuration Properties</li> <li>Manufacture Network Variables</li> <li>Manufacture Configuration Properties</li> </ul> <ul style="list-style-type: none"> <li>nvoHwData_x SNVT_xxx</li> <li>nvoRawHwData_x SNVT_count</li> </ul>



Open Loop Actuator Profile	Network Profile
<p>Analog Output profile is used by all analog outputs. Outputs can be used as slave I/O or as part of the main application.</p> <p>All variables with SNVT_xxx have Changeable Types feature</p>	<p>Analog Outputs functional block information.</p>



Open Loop Sensor Profile	Network Profile
<p>Digital Output profile is used by all digital outputs. Outputs can be used as slave I/O or as part of the main application.</p> <p>All variables with SNVT_xxx have Changeable Types feature.</p>	<p>Digital Outputs functional block information.</p> <pre> graph TD     MNV[Mandatory Network Variables] --- ONV[Optional Network Variables]     ONV --- CP[Configuration Properties]     CP --- MNV     MNV --- MNV     MNV --- MCPP[Manufacture Configuration Properties]     MCPP --- DVO[Default Value Invert Value Override Value Maximum Receive Time Output Assignment Maximum/Minimum Send Time Minimum Send Delta Floating Point Configuration]     DVO --- MNV     </pre>



Node Object Profile	Network Profile
<p>Node Object profile includes hardware specific network variables. The variables are for internal and use by the plugin only.</p>	<p>Node Object functional block information.</p> <pre> graph TD     subgraph Stack [ ]         direction TB         M1[Mandatory Network Variables]         M2[Optional Network Variables]         M3[Configuration Properties]         M4[Manufacture Network Variables]     end     In[nviRequest SNVT_obj_request] --&gt; M1     Out1[nvoStatus SNVT_obj_status] --&gt; M2     Out2[nvoFileDirectory SNVT_address] --&gt; M3     IT[Input Translation Table] --&gt; M4 </pre>