



Applications

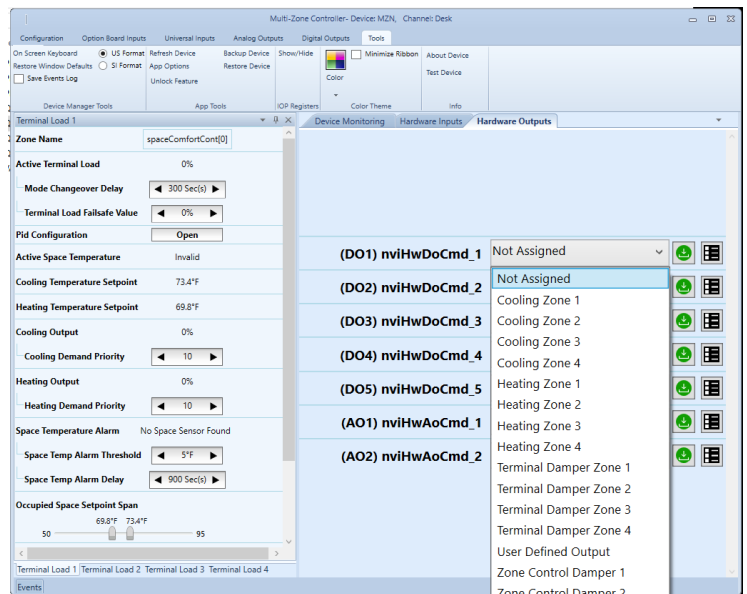
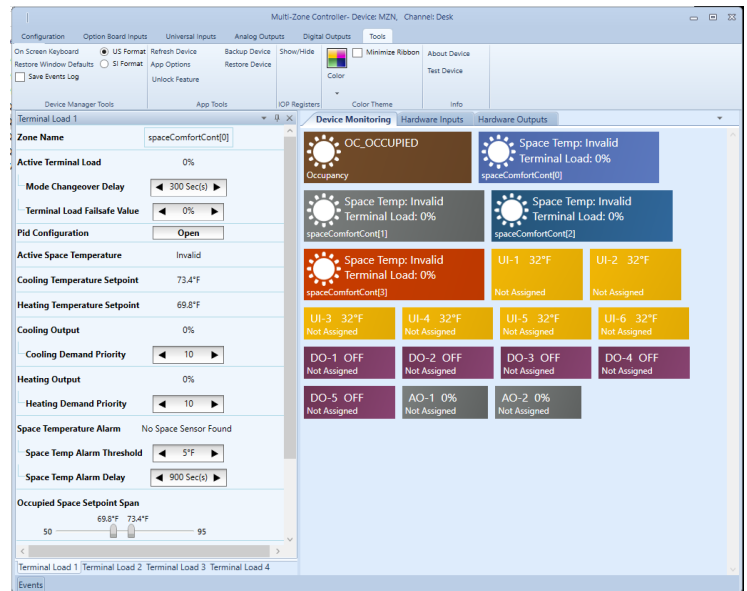
Application is compatible with Q1 Hardware. A slave application compatible with the Air Handling Unit application. Can control up to 4 independent zone's with volume damper control, dual duct control damper, and a single heating and cooling stage. Attaches easily to the Air Handler application using the supplied zone management tool.

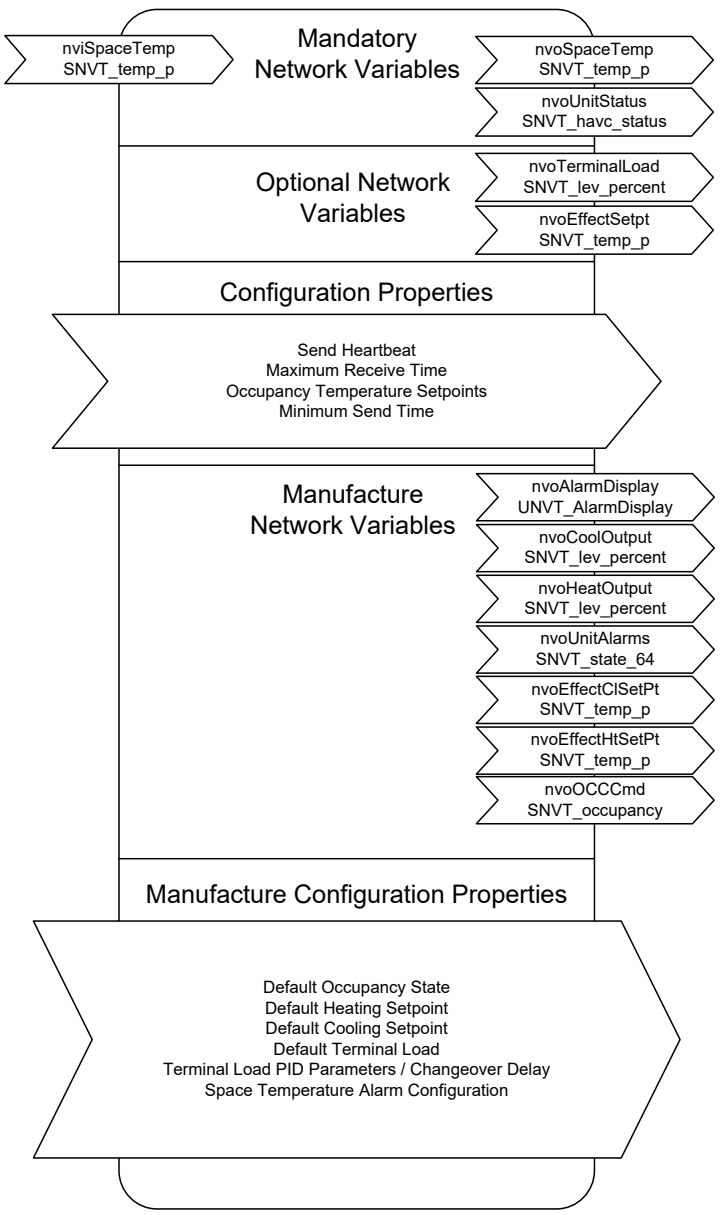
Software

Software features include:

- Up to 4 independent zones with a single controller
- Full PID control of the space temperature loads
- Capacity for addition per zone heating equipment control, both analog or digital outputs
- Capacity for addition per zone cooling equipment control, both analog or digital outputs
- "Smart" volume damper resets for pressure control, eliminating the need for "bypass" or "dump" dampers in VVT applications.
- Built in per zone Heating and Cooling priority levels
- Built in dual duct temperature damper control
- Separate zone temperature set points for Occupied, Standby, and Unoccupied modes
- Loss of communications fail-safe values
- Built in Alarming
 - High Space Temperature Alarm
 - Low Space Temperature Alarm
 - Sensor Alarms
- Changeable network variable types.
- Slave mode for any unused I/O, which can be bound to another controller.

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



MZN Profile	Network Profile
<p>All variables with SNVT_xxx have Changeable Types feature.</p>	 <p>The diagram illustrates the network profile structure, organized into five main sections:</p> <ul style="list-style-type: none"> Mandatory Network Variables: Includes <code>nvoSpaceTemp</code> (SNVT_temp_p) and <code>nvoUnitStatus</code> (SNVT_havc_status). Optional Network Variables: Includes <code>nvoTerminalLoad</code> (SNVT_lev_percent) and <code>nvoEffectSetpt</code> (SNVT_temp_p). Configuration Properties: Includes Send Heartbeat, Maximum Receive Time, Occupancy Temperature Setpoints, and Minimum Send Time. Manufacture Network Variables: Includes <code>nvoAlarmDisplay</code> (UNVT_AlarmDisplay), <code>nvoCoolOutput</code> (SNVT_lev_percent), <code>nvoHeatOutput</code> (SNVT_lev_percent), <code>nvoUnitAlarms</code> (SNVT_state_64), <code>nvoEffectCISetPt</code> (SNVT_temp_p), <code>nvoEffectHTSetPt</code> (SNVT_temp_p), and <code>nvoOCCCmd</code> (SNVT_occupancy). Manufacture Configuration Properties: Includes Default Occupancy State, Default Heating Setpoint, Default Cooling Setpoint, Default Terminal Load, Terminal Load PID Parameters / Changeover Delay, and Space Temperature Alarm Configuration.



Open Loop Sensor Profile

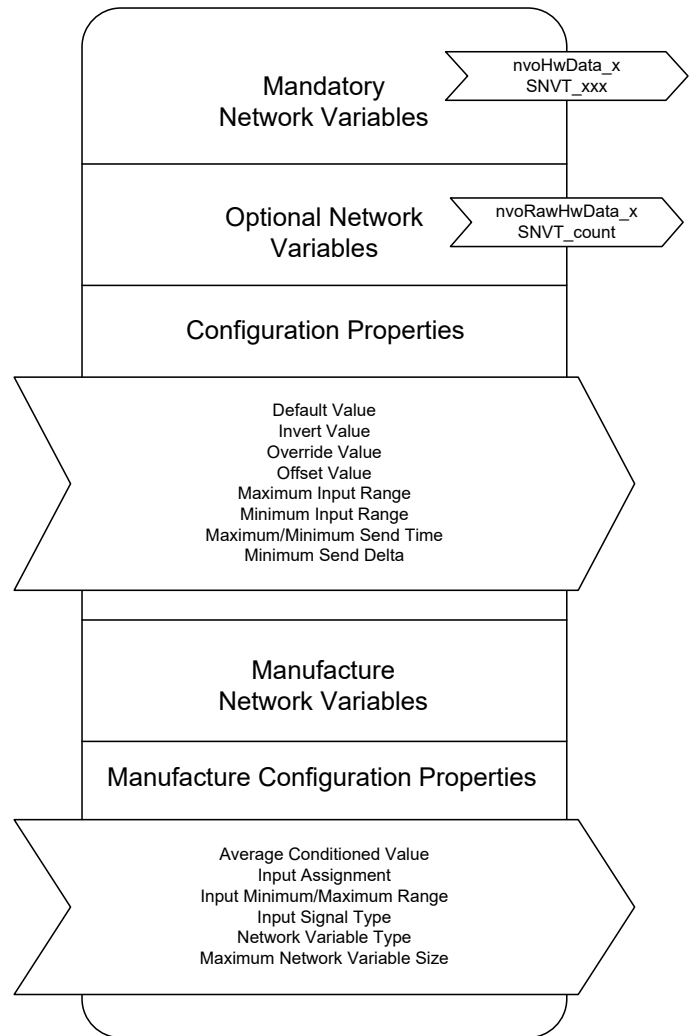
Open Loop Sensor profile is used by all physical inputs. Inputs can be used as slave I/O or as part of the main application.

All variables with SNVT_xxx have Changeable Types feature.

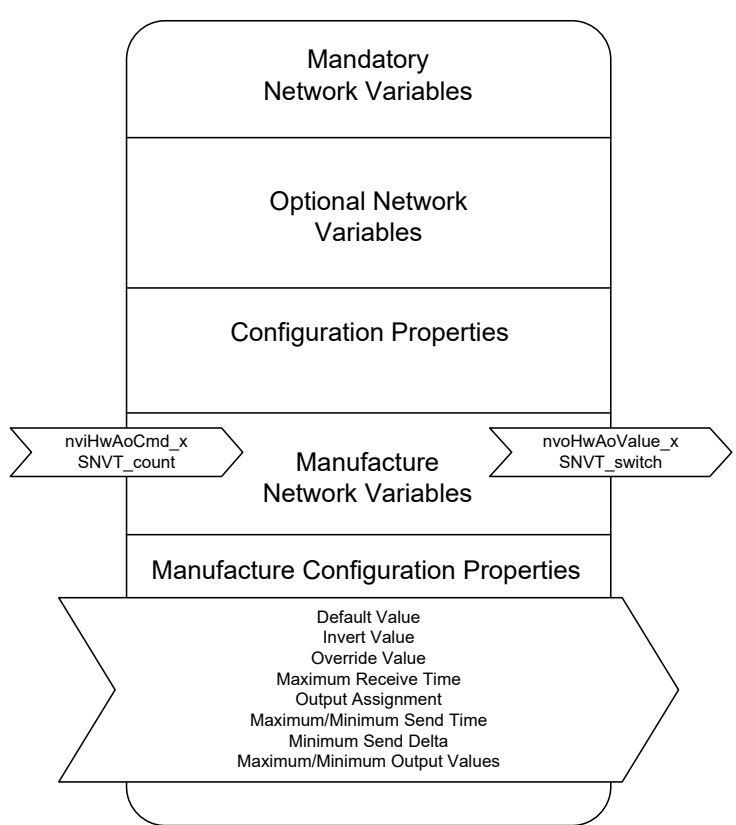
Network Profile

Open Loop Sensor functional block information.

(Physical inputs)





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>  <p>The diagram illustrates the functional block structure for Analog Outputs. It is organized into several layers:</p> <ul style="list-style-type: none"> Mandatory Network Variables: The top layer of the block. Optional Network Variables: The second layer. Configuration Properties: The third layer. Manufacture Network Variables: A layer below configuration properties, flanked by two variables: <code>nviHwAoCmd_x SNVT_count</code> on the left and <code>nvoHwAoValue_x SNVT_switch</code> on the right. Manufacture Configuration Properties: A layer below the manufacture network variables, containing a list of properties: <ul style="list-style-type: none"> Default Value Invert Value Override Value Maximum Receive Time Output Assignment Maximum/Minimum Send Time Minimum Send Delta Maximum/Minimum Output Values

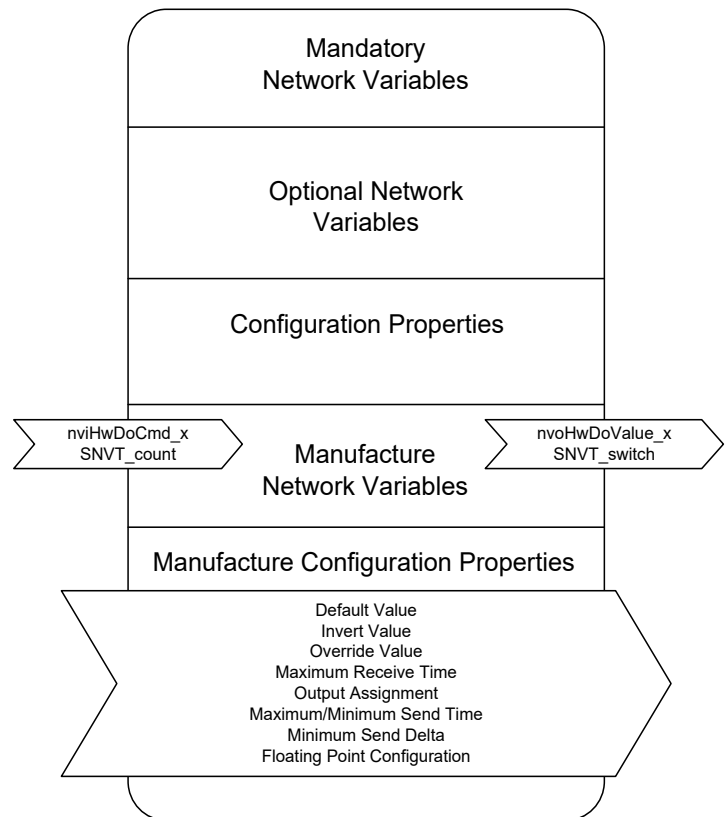
Open Loop Sensor Profile

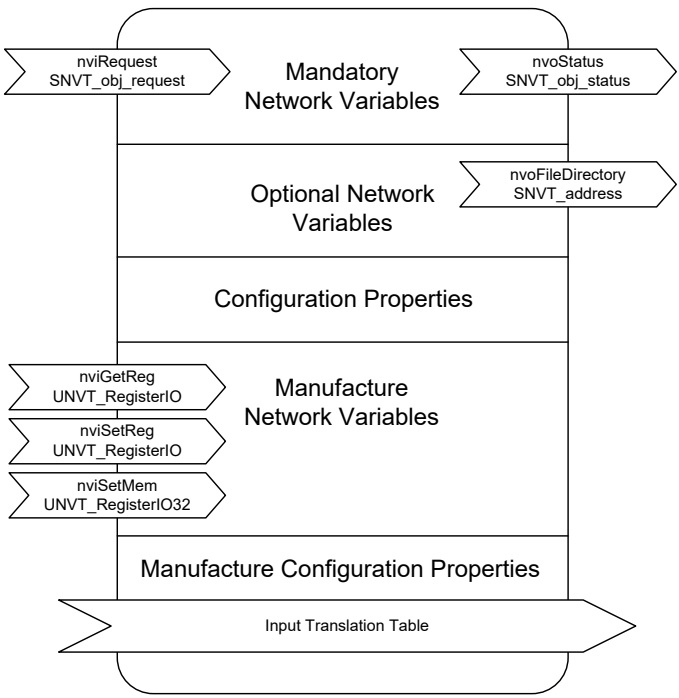
Digital Output profile is used by all digital outputs. Outputs can be used as slave I/O or as part of the main application.

All variables with SNVT_xxx have Changeable Types feature.

Network Profile

Digital Outputs functional block information.



Node Object Profile	Network Profile
<p>Node Object profile includes hardware specific network variables. The variables are for internal and use by the plug-in only.</p>	<p>Node Object functional block information.</p>  <pre> graph TD subgraph Mandatory_Network_Variables [Mandatory Network Variables] direction LR M1[nviRequest SNVT_obj_request] --> M2[nvoStatus SNVT_obj_status] end subgraph Optional_Network_Variables [Optional Network Variables] direction LR O1[nvoFileDirectory SNVT_address] end subgraph Configuration_Properties [Configuration Properties] end subgraph Manufacture_Network_Variables [Manufacture Network Variables] direction LR M3[nviGetReg UNVT_RegisterIO] M4[nviSetReg UNVT_RegisterIO] M5[nviSetMem UNVT_RegisterIO32] end subgraph Manufacture_Configuration_Properties [Manufacture Configuration Properties] end subgraph Input_Translation_Table [Input Translation Table] end M2 --- O1 O1 --- Configuration_Properties Configuration_Properties --- Manufacture_Network_Variables Manufacture_Network_Variables --- Manufacture_Configuration_Properties Manufacture_Configuration_Properties --- Input_Translation_Table </pre>