Connecting to SLC

Connect to a Device

1. Go to the **Configure** section of the Gateway webpage.

2. Scroll down and select **OPC-UA > Devices**.

3. On the **Devices** page, find the blue arrow and click on **Create new Device**.

4. On the **Add Device Step 1: Choose Type** page, select **Allen-Bradley SLC**, and click **Next**.
   Note that these PLCs do not have a native Ethernet connection, therefore another device like a Net ENI or an ENBT must be used for the connection.

5. On the **New Device** page, leave all the default values and type in the following fields:
   Name: **SLC**
   Hostname: type the **IP address** for the PLC, for example 10.20.4.56

6. Click **Create New Device**.
   The **Devices** page is displayed showing the **SLC** device is added to Ignition. The **Status** will show as Disconnected and then Connected.

7. To see all the tags, go to **OPC Connections > Quick Client** in the **Configure** section, on the **OPC Quick Client** page expand the **SLC**folder which contains all the folders with the individual tags.

Connecting to SLC

[Watch the Video](#)

Device Connection Settings

The **General** settings are common to all Allen Bradley devices, and the **Connectivity** settings are device dependent.

General

Name	The user-defined name for this Device. The name chosen will show up in **OPC Item Paths** and under **OPC-UA Server > Devices** of the **Configure** page of the Gateway. The Device Name must be alphanumeric.
Description	The user-defined description for the device. This is only used as a note to differentiate between devices.
Enable Device	Only devices that are enabled appear in **Connections > Devices** of the **Status** page of the Gateway and thus have their tags available for use.

Connectivity

Hostname	The Hostname value is the IP Address of the SLC processor. The protocol that the SLC processor supports is automatically detected. It will use either CSP protocol on port 2222 (0x8AE) or EthernetIP protocol on port 44818 (0xAF12).
Communication Timeout	After sending a request to the SLC processor, the Communication Timeout setting is the amount of time in milliseconds to wait for a response before treating it as a failure.
Browse Cache Timeout	When the data table layout is read from the SLC processor, the Browse Cache Timeout value is the amount of time in milliseconds to cache the results.
Connection Path	The Connection Path value is used to define the route of the SLC processor to connect to. Currently routing through the ControlLogix Ethernet Communication Interface Module (1756-ENET) to the ControlLogix Data Highway Plus-Remote I/O Communication Interface Module (1756-DHRIO) and on to a SLC processor of the DH+ network is supported.

Advanced

Browse Cache Enabled	This feature is new in Ignition version **7.9.13** Click here to check out the other new features Determines if browse results for the device should be cached. Default is enabled.
Disabled Processor Browse	If true, browsing the device is disabled.
Zero TNS Connection	If true, use a Transparent Network Substrate (request key) of zero for connection requests.

More Information On Connection Path

The Connection Path format contains 4 numbers separated by commas. The first number is always 1 and tells the 1756-ENET module to route through the backplane. The second number is the slot number of the 1756-DHRIO module of the DH+ network the SLC processor is connected to. The third number is the channel of the 1756-DHRIO module that the SLC processor is connected to. Use 2 for channel A and 3 for channel B. The final and fourth number is the DH+ node number. This number is in octal and is the same as configured in the SLC processor. See the ControlLogix Ethernet Communication interface Module User Manual for more information.

Connection Path Format: 1,<1756-DHRIO slot number>,<1756-DHRIO channel>,<DH+ node number>

The valid range for the 1756-DHRIO slot number is between 0 and 16 but depends on the chassis size. The 1756-DHRIO channel is either 2 for channel A or 3 for channel B. The DH+ node number range is from 00 to 77 octal.

Supported SLC Connection Methods

SLC505 direct
SLC505, SLC504, SLC503 connected through 1761-NET-ENI
SLC504 connected through 1756-DHRIO
SLC505, SLC504, SLC503 connected through Spectrum Controls WebPort 500

Related Topics ...

- Allen-Bradley Connection Paths