Codesys PLC Handler Service

Information on how to set up a TagProvider connection with Codesys PLC Handler.

Reference **Modules** **UNS** **UI** **Services** Codesys

The Codesys PLC Handler Service enables dynamic data handling for flexible device addition and modification without extensive reconfiguration, ideal for IoT and monitoring applications. Configuration involves navigating to Unified Namespaces / TagProvider Connections and selecting the Codesys PLC Handler Communication Driver. Connection parameters include specifying the system interface, read-only access mode, user-defined name, description, protocol options, and connection settings such as PLC address, port, protocol, and gateway settings.

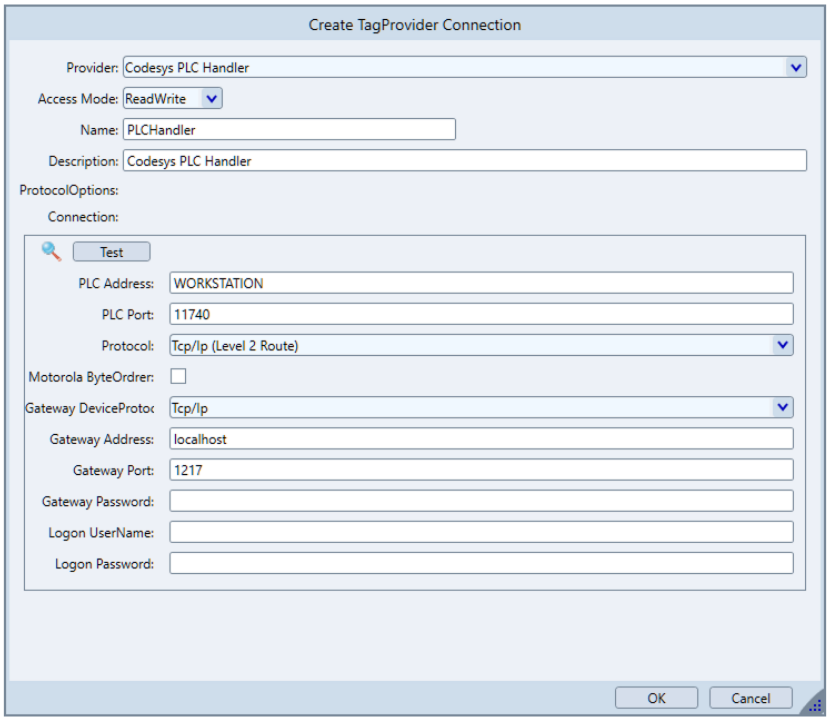
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Info

The PLC Handler protocol (and therefore it's use as a TagProvider) uses the PLC Handler API provided by CoDeSys. This protocol and its API require the CoDeSys tags to be exposed inside the PLC using the **SymbolConfiguration** method instead of the **SymbolSet** method. The latter will not work with this specific instance of CoDeSys communication because **SymbolSet** exposure is only available via OPC UA. To communicate with a CoDeSys device using **SymbolSet**, use our OPC UA protocol.

Configuration

To set up a new TagProvider connection navigate to **Unified Namespace/TagProvider Connections** and press the add button to open the New TagProvider Connection dialog. You can also create your TagProvider Connection directly from the AssetTree. To do this, navigate to **Unified Namespace/Assets Tree** and press  to open the New TagProvider Connection dialog. In the configuration dialog, select the **Codesys PLC Handler** on the Provider field and insert the required connection parameters. After that, press the Ok button to finish the provider configuration. Creating the connection adds no folder to the Asset Tree. To use its data with Asset(), open **Unified Namespace / Assets Tree**, select a folder (create one first if needed) and click **Insert data from TagProvider** on the toolbar: the folder linked to the TagProvider is created inside the selected folder. A linked folder cannot sit at the root of the Asset Tree.



Connections Parameters

Field	Description
Provider	Specifies the system the TagProvider will interface with. In this case, it interfaces with the Codesys PLC Handler Communication Driver.
Access Mode	Determines permissions for interacting with tags. **Read** allows data reading. For this TagProvider option only read is allowed. So, it is Read-Only.
Name	User-defined name for the TagProvider instance. Identifies the specific configuration in the system.
Description	Explains the TagProvider's purpose or the systems it interfaces with. Provides context for its usage.
ProtocolOptions	Defines specific communication settings for the connection to the device. True or False.
Connection	Defines a string for the Codesys PLC connection settings, including PLC address, port, protocol, and gateway settings.

The Test buttons verifies the connection settings to ensure successful communication with the specified device.

Field	Description
PLC Address	Specifies the address of the PLC to establish a connection.
PLC Port	Sets the port number used for communication with the PLC.
Protocol	Defines the communication protocol used for the connection. Options include Tcp/Ip (Level 2 Route), Tcp/Ip (Level 2), Tcp/Ip (Level 4), and Serial (RS232).
Motorola ByteOrder	Configures the byte order for Motorola devices.
Gateway DeviceProto	Specifies the protocol for the gateway device. Options include Tcp/Ip, SharedMemory, and NamedSharedMemory.
Gateway Address	Specifies the address of the gateway device to establish a connection.
Gateway Port	Sets the port number used for communication with the gateway device.
Gateway Password	Specifies the password for authentication with the gateway device.
Logon UserName	Specifies the username for authentication with the PLC or gateway device.
Logon Password	Specifies the password for authentication with the PLC or gateway device.
Test	Verifies the connection settings to ensure successful communication with the specified device.

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