PowerLogic® ION Enterprise® 5.6

Power Management Software

OPC Server Assistant
June 2007

Schneider Electric

Notices

This section describes the symbols used in this guide.

Danger

This alerts you to things that may cause serious injury to a person. Only qualified, properly trained personnel should perform these procedures.

Caution

This alerts you to things that may cause loss of data, damage to your computer or your devices.

Note

A note provides you with additional information that you might want to consider.

Documentation Conventions

This section describes the terms used to describe common methods or procedures used throughout this guide.

Clear	Place the mouse cursor over the check box option, then click the mouse button so that the check mark is removed from the check box.
Click	Place the mouse cursor over the specified option or button, then press and release the mouse button.
Double-click	Place the mouse cursor over the specified option or button, then press and release the mouse button twice.
Drag	Hold down the mouse button while moving the mouse cursor to the appropriate location, then release the button.
Enter	Type the information, then press the Enter or Return key.
Point	Position the mouse pointer over a submenu or menu command. For example, point to the File menu.
Press	Press the specified key or key combination on your keyboard, for example, press CTRL+ALT+DEL.
Select	Place the mouse pointer over the specified option or check box, then click the mouse button. A selected check box receives a check mark; a selected radio button is marked with a dot.
Type	Type the information. DO NOT press the Enter or Return key.

Contents

Introduction

OPC is a set of open standards for connectivity and interoperability of industrial automation and the enterprise system. OPC provides a bridge between Windows based applications and process control hardware, thereby eliminating the need for proprietary or custom interfaces and drivers for the various data types and sources residing in your corporate information network. Having information readily available in a universally-recognized format can cut costs, speed up development and increase operations efficiency. This is especially true when many diverse software applications, hardware, and operating systems exist in the corporate and operations networks.

OPC is supported through the implementation of ION Services, a .NET-based system that takes the traditional "register handle-based" ION data and transforms it into structured "measurement-based" data that complies with open standards such as OPC. ION Services facilitates the translation and organization of data in this new measurement classification system.

ION Enterprise supports OPC server and OPC client functionality. The OPC server translates ION data into OPC data, for exporting and viewing in other third-party OPC client systems. The OPC client on the other hand, takes OPC standardized measurements from third-party systems and translates them into a data format that ION Enterprise can use.

Scope

This document provides basic configuration and operation instructions for the OPC server component of ION Enterprise.

NOTE

The OPC client is available in all ION Enterprise installations. However, due to the number of different third-party OPC-compliant servers in the industry, as well as different methods and syntax for connecting to these servers and accessing their data, it is highly recommended that you contact Schneider Electric's Engineering Services group for assistance in configuring the OPC client.

Optional OPC Server License

ION Enterprise can be ordered with or without the optional OPC server license. You can also order the OPC server license separately, in case you don't need the OPC server support until a later date. If you purchased your OPC server license after you have installed ION Enterprise, enable the OPC server functionality simply by entering your new product key in Management Console (under Tools > License Manager).

OPC Server Type

The ION Enterprise OPC server complies with the "OPC Data Access Custom Interface Standard Version 2.05A". The class of data that the current release of OPC DA server is able to provide is Read-Only data (i.e. control functions are not currently supported).

OPC Server Support

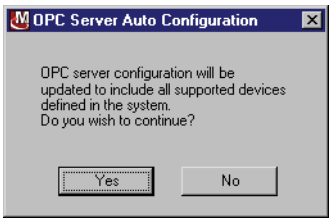
OPC server support for ION Enterprise comprises feature enhancements to existing software components. These enhancements allow you to easily translate data from ION devices (and compatible Modbus devices) into OPC-compliant measurement data formats, then makes this measurement data available to OPC clients through the OPC server.

Management Console has been enhanced with a command that lets you export default measurements from ION devices to the OPC server. In addition, Designer and Modbus Device Importer user interfaces have been enhanced with the OPC Server Assistant, which lets you view and select which OPC measurement data you want the OPC server to expose to OPC clients.

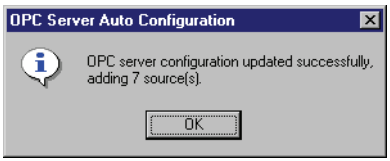
Creating/Updating Default OPC Mapping

ION Enterprise can create the default ION-to-OPC data mapping based on the ION devices contained in the ION_Network database. This default mapping translates the most commonly-used ION data to OPC data, and exports the data to the OPC server.

1. Launch Management Console.
2. Click Tools > System > Update OPC Server...
3. Click Yes to create/update the OPC server.



4. A summary of the configuration details is displayed. Click OK.



NOTE

If you add a new ION device to the ION_Network at a later date, you must repeat the above procedure in order to map the new source device's data to the OPC server.

OPC Server Assistant

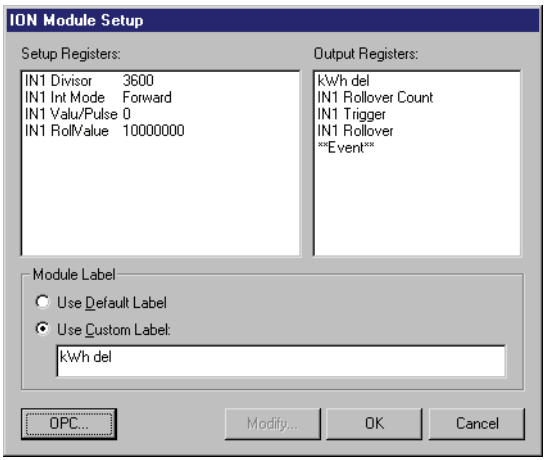
The OPC Server Assistant is a mechanism that lets you select which OPC measurements to expose to the OPC server. Custom labels are not mapped to OPC server by default, therefore they have to be manually exported to OPC server.

OPC Server Assistant is accessible through Designer and Modbus Device Importer (MDI) user interfaces.

Exporting OPC Measurements Through Designer

If you made customization changes to the ION device's default templates (e.g. custom labels), those measurements are not exposed to the OPC server by default. To manually export those measurements to OPC server:

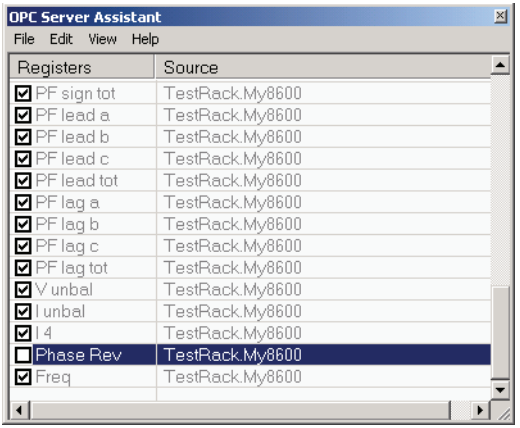
1. Launch Designer and open the ION device node.
2. Navigate to the ION module that contains the register that you want to expose to OPC server. Right-click to display the module setup dialog.



3. Click the OPC... button.
4. Select (check) the box beside each item you want to expose to the OPC server. Deselect (uncheck) the box beside each item you do not want to expose to the OPC server.

NOTE

Grayed-out items (such as "PF sign a" in the Power Meter module) cannot be selected or changed. Those registers cannot be removed using OPC Server Assistant.

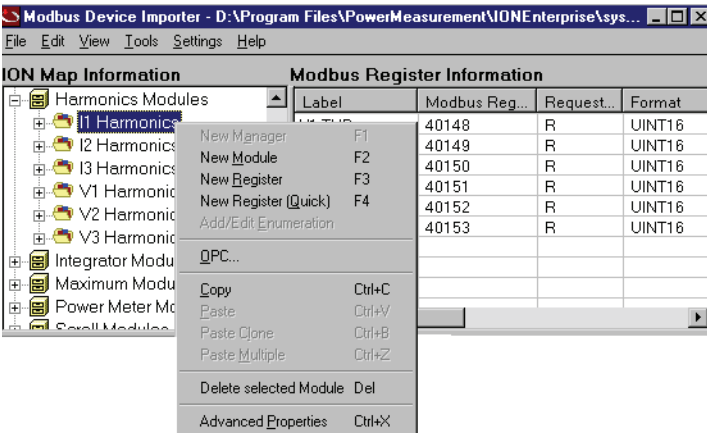


5. Click File > Export. Click Yes to save your changes.

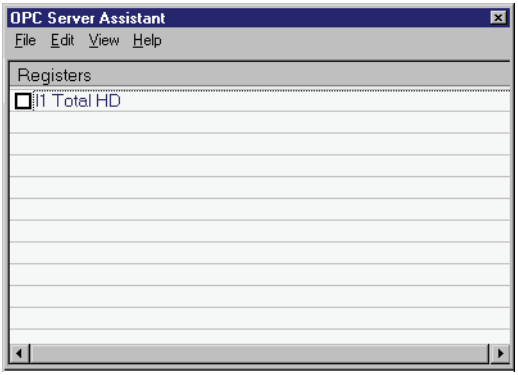
Exporting OPC Measurements Through MDI

For Modbus devices, you can use the MDI (Modbus Device Importer) to expose OPC measurements to the OPC server:

1. Launch MDI. Click File > Open, then navigate to the folder containing the ION map file for your Modbus device. Select it and click Open.
2. Navigate to the module containing the register you want to map. Right-click the module and select "OPC...".



3. Select (check) the box beside each item you want to expose to the OPC server. Deselect (uncheck) the box beside each item you do not want to expose to the OPC server.



4. Click File > Export. Click Yes to save your changes.

Description of Commands

This section describes the commands available in the OPC Server Assistant.

File > Export

This saves your configuration changes. Selected (checked) items are exposed to the OPC server, while deselected (unchecked) items are not.

File > Exit

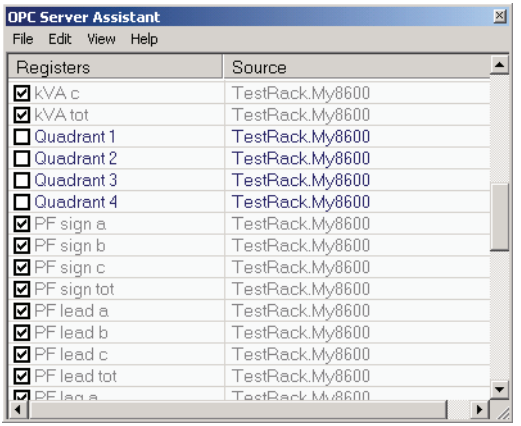
Closes the OPC Server Assistant

Edit > Reset values

Discards your changes and reverts to the last saved configuration (for the items that are exported to the OPC server).

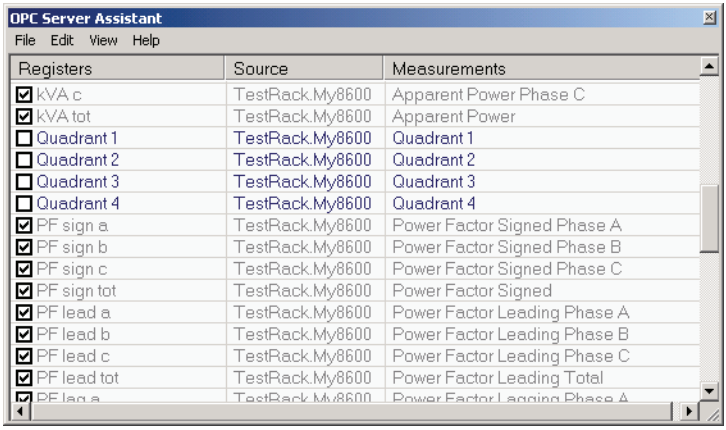
View > Setup Registers

Select this option to display setup registers, in addition to the output registers, for the module.



View > Measurements

Select this option to display the measurement names associated with the registers.



Viewing OPC Data

A third-party OPC client can connect to the ION Enterprise OPC server using a valid connection address, which consists of the network node or host machine name where the OPC server is running, and the OPC program ID (ION.OpcDaServer). For example:

```
opcda://WORKSTATION3/ION.OpcDaServer
```

NOTE

Syntax use varies across different OPC clients. Refer to your OPC client documentation for details.

PowerLogic ION Enterprise 5.6
OPC Server Assistant

For further assistance
please contact us at:

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Getting technical support:
Contact your local Schneider Electric sales representative for assistance or go to the www.powerlogic.com website.

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