



ProcessLogix Redundant OPC Server

Introduction

This document describes the basic ProcessLogix Redundant OPC Server functionality and the tasks necessary to run the ProcessLogix™ Redundant OPC Server, including:

- ProcessLogix Server Setup
- Client Setup
- ProcessLogix Redundant OPC Server Configuration

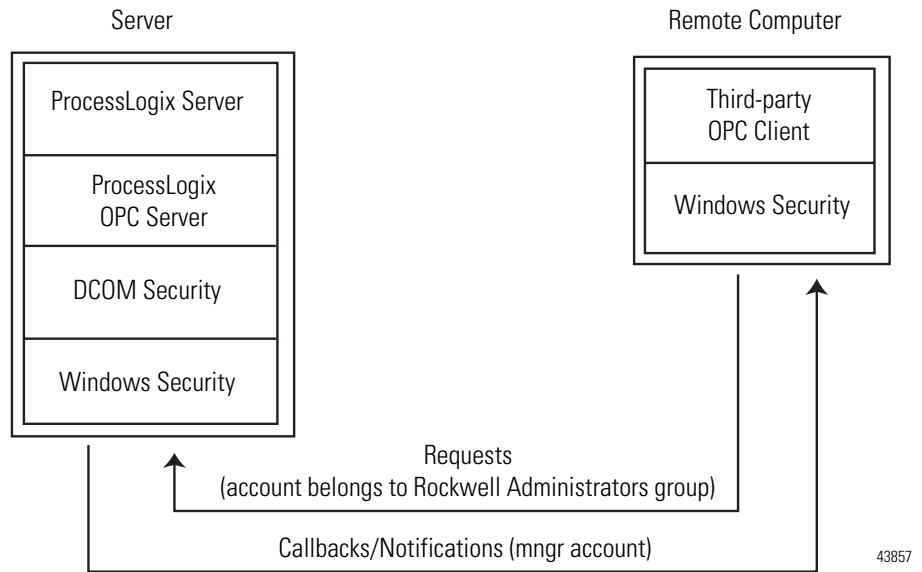
About the ProcessLogix Redundant OPC Server

The ProcessLogix Redundant OPC Server:

- is an OPC Server that can be installed on the same PC as any OPC Client.
- allows an OPC Client to communicate locally to the OPC Server, eliminating DCOM and Windows security configuration issues.
- is a ProcessLogix Network API application which acts as a client to the ProcessLogix Network Server component. The OPC Server reads and writes values in the ProcessLogix Server database via the Network.
- negotiates between redundant ProcessLogix Servers to determine the primary Server (ServerA or ServerB) and provide uninterrupted communications to an OPC client on Server failover.

The ProcessLogix Redundant OPC Server can be installed on any supported PLX Client operating system. Refer to the ProcessLogix Installation and Upgrade Guide for your ProcessLogix release.

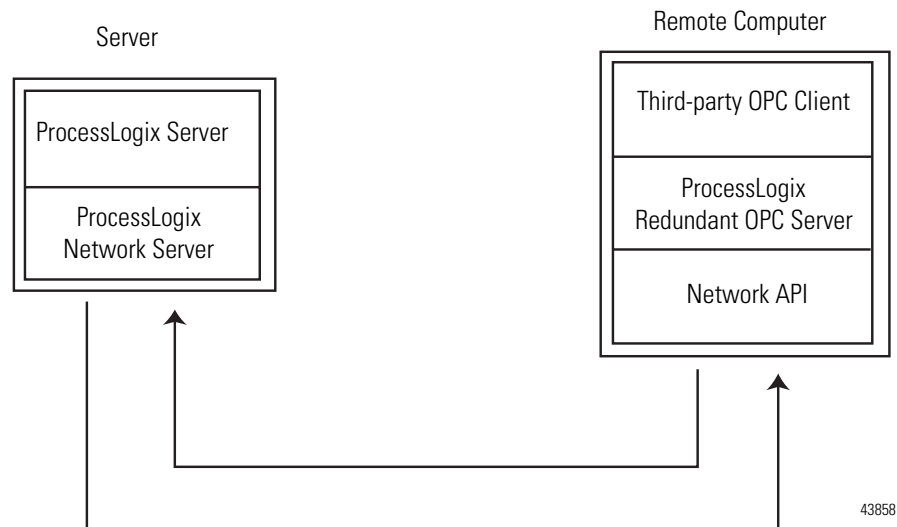
The following figure shows how the standard ProcessLogix OPC Server communicates with third-party OPC clients.



When the OPC client wants to communicate with the ProcessLogix OPC Server, it connects to the Server using an account on the Server that belongs to the Rockwell Automation Administrators group (this group has the DCOM security permissions required to access the OPC server).

Conversely, when the ProcessLogix OPC Server wants to communicate with the OPC client, it connects to the remote computer using the mngtr account on that computer.

The following figure shows how the ProcessLogix Redundant OPC Server communicates with the ProcessLogix Server and third-party OPC Clients.



The ProcessLogix Redundant OPC Server does not require any additional DCOM security or user accounts configured.

ProcessLogix Server Setup Network Server

Network Server is the software component that allows a Server's point parameter data to be read/written to across the network by another computer. Network server is installed when the ProcessLogix Server software is installed. The component starts automatically if licensed, and no special configuration is required.

License

If you have a redundant Server pair, you must complete the following procedure on both SERVERA and SERVERB.

1. Click **Start** ⇒ **Programs** ⇒ **ProcessLogix Server** ⇒ **Station**.
2. Click **Configure** ⇒ **Server License Details**.

3. Verify that all Open Data Access options are licensed. This includes the ODBC Driver, OPC Server, and Network Server.



If any or all of these options are not licensed, contact Rockwell Automation for information on purchasing additional license options.

System Sinewave

In order for the ProcessLogix Redundant OPC Server to function properly, the system sinewave must be activated. Before activating the system sinewave, the Servers should be synchronized. The system sinewave can be activated from either ServerA or ServerB.

1. Click **Start** ⇒ **Programs** ⇒ **ProcessLogix Server** ⇒ **Station**.
2. Click the **Oper** field in the lower right corner of the display.
3. Enter >mngr< in the Station Logon prompt and click OK.
4. Click **Configure** ⇒ **Application Development** ⇒ **System Sinewave**.
5. Enter >100< for the Maximum, >0< for the Minimum, and a non-zero value for the Period.

| Summary | Point Lists | System Sinewave |
|-----------------|----------------------------------|-----------------|
| Settings | | |
| Maximum | <input type="text" value="100"/> | |
| Minimum | <input type="text" value="0"/> | |
| Period | <input type="text" value="60"/> | seconds |

6. In Station, verify that the system sinewave value is active by using the call-up page function (F5) to open page 10. The current value should be changing.

Client Setup

Install Network API

1. Insert the appropriate ProcessLogix CD (see table) into the CD-Rom drive.

| Release | CD |
|---------|-----------------------------------|
| R3xx.x | ProcessLogix Software |
| R400.0 | ProcessLogix System Software CD 2 |
| R5xx.x | ProcessLogix Application CD |

2. Click **Start** ⇒ **Run**.
3. Enter >D (or your CD-ROM drive letter):\
Server-Client\netapi\SETUP.EXE< and click **OK**.
4. At the Welcome window, click **Next**.
5. At the Choose Network API Location window, click **Next**.
6. At the Select Program Folder window, click **Next**.
7. At the Setup Complete window, click **Finish**.

Configure the Client Hosts File

The client computer's Hosts file must identify each communication link to the ProcessLogix Servers. This file provides a mapping from host names to their internet addresses. For information on how to correctly configure the %systemroot%\system32\drivers\etc\Hosts file on your client computer, navigate in Knowledge Builder to **Server and Client Installation Guide** ⇒ **Preparing a Client Computer** ⇒ **Updating the Computer's Hosts File**.

Install ProcessLogix Redundant OPC Server Software

1. Insert the ProcessLogix Redundant OPC Server Software CD into the CD-Rom drive.
2. Click **Start** ⇒**Run**.
3. Enter >D (or your CD-ROM drive letter):\Setup.exe< and click **OK**.
4. At the Welcome window, click **Next**.
5. Click **Yes** to accept the license agreement.
6. At the Choose Destination Location window, click **Next**.
7. Click **Next** to accept ProcessLogix Redundant OPC Server as the default Program Folder.
8. At the ProcessLogix OPC Configuration window, enter the ProcessLogix Server name and click **OK**.

Enter only the base server name for a redundant Server system. For example, if your Servers are named PLX1A and PLX1B, enter PLX1 in the ProcessLogix Server name field.

9. Click **Yes** to confirm.
10. Click **OK**.
11. At the Setup Complete window, click **Finish**.

ProcessLogix Redundant OPC Server Configuration

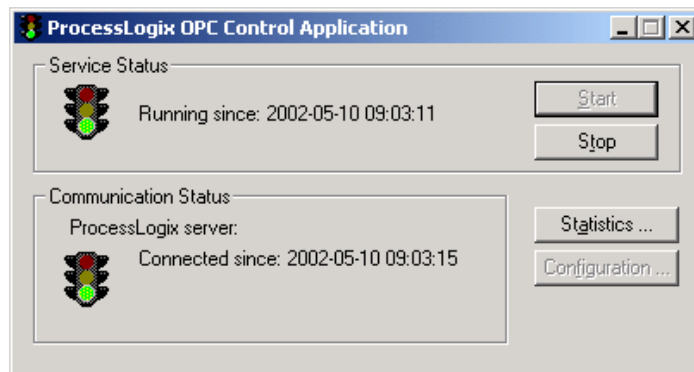
Use the following procedure to change or confirm the ProcessLogix Server name and start the ProcessLogix Redundant OPC Server.

1. Click **Start** ⇒**Programs** ⇒**Rockwell Software** ⇒**ProcessLogix Redundant OPC Server** ⇒**ProcessLogix Redundant OPC Configurator**.
2. Click **Configuration**.

3. Enter the ProcessLogix Server name and click **OK**.

Enter only the base server name for a redundant Server system. For example, if your servers are named PLX1A and PLX1B, enter PLX1 in the ProcessLogix Server name field.

4. Click **Yes** to confirm.
5. Click **OK**.
6. To start the Server, click **Start**.



The service status and communication status traffic lights turn green to confirm that you are running and connected.

Diagnostic Information

For diagnostic information, refer to the Windows Application Event Log. If more detailed information is required, logging can be enabled to create the C:\Program Files\Rockwell Automation\ProcessLogix Redundant OPC Server\plxopc.log file. Depending on your application, this log file can grow very large in a short time period. Logging should only be enabled when additional diagnostic information is required.

Enable Logging

1. Insert the ProcessLogix Redundant OPC Server Software CD into the CD-Rom drive.
2. Click **Start** ⇒ **Run**.
3. Enter >D (or your CD-ROM drive letter):\EnableLogging.reg< and click **OK**.
4. Click **Yes** to confirm.

5. Click **OK**.

Disable Logging

1. Insert the ProcessLogix Redundant OPC Server Software CD into the CD-Rom drive.
2. Click **Start ⇒Run**.
3. Enter >D (or your CD-ROM drive letter):\DisableLogging.reg< and click **OK**.
4. Click **Yes** to confirm.
5. Click **OK**.

ProcessLogix is a trademark of Rockwell Automation.

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