Interface with InTouch via OPC

I. Introduction

The OPC Specification is a non-proprietary technical specification that defines a set of standard interfaces based upon Microsoft's OLE/COM technology. The application of the OPC standard interface makes possible interoperability between automation/control applications, field systems/devices and business/office applications.

Most of the SCADA/HMI packages provide an OPC Interface, making it possible to exchange data between different software packages, since they provide OPC Interface (Client and/or Server). InduSoft Web Studio provides both OPC Client and OPC Server modules compatible with OPC specification v1.0a and v2.0. It also allows you to exchange data between InduSoft and any other OPC compliant system running in the same station (using COM) or in a remote station (using DCOM), if you have a TCP/IP connection between the stations. InduSoft provides OPC Interface for each runtime version under Microsoft platform: Windows NT/2000 and Windows CE v3.00.

> ✎ **Tips:** Additional information about OPC can be found in the web site www.opcfoundation.com.

The aim of this technical note is to describe, step-by-step, how to set up an OPC Interface between InduSoft Web Studio (OPC Server) and InTouch (OPC Client).
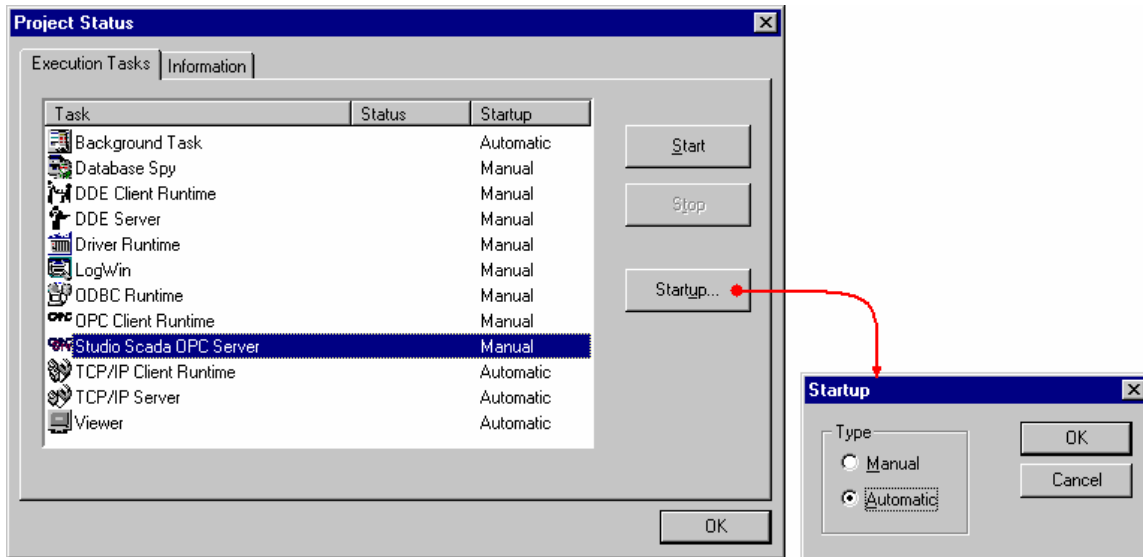
> ✎ **Note:** This document was written based on InduSoft Web Studio v4.4+SP2 and InTouch v7.1, both running under the Windows NT v4.0+SP6 operating system. Newer versions of any component should maintain compatibility, but the screen shots and the configuration interfaces are subject to change. Further information regarding the configuration of each component can be found in the manufacturer documentation.

II. Configuration

1. Install InduSoft Web Studio an InTouch FactorySuite in a Windows NT/2000 station.

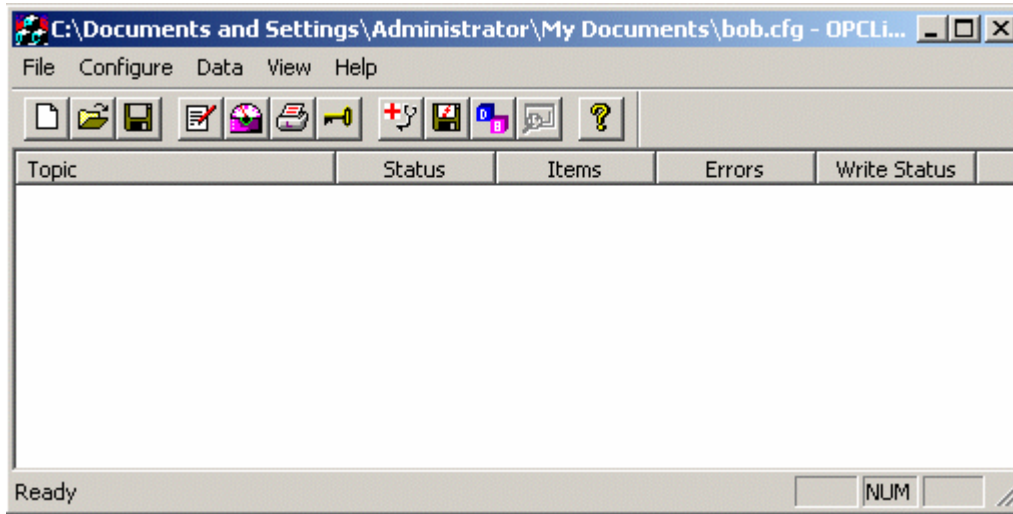   > ✍ **Note:** InTouch requires that the OPC Client module be installed separately, as an add-on module.

2. Open InduSoft Web Studio and create a new application (or open an existing one). From the **Project → Status** menu, select the **Studio Scada OPC Server** runtime task from the **Execution Tasks** tab, press the **Startup** button and set it as **Automatic**. Then, whenever the application is started, the OPC Server module is started automatically.
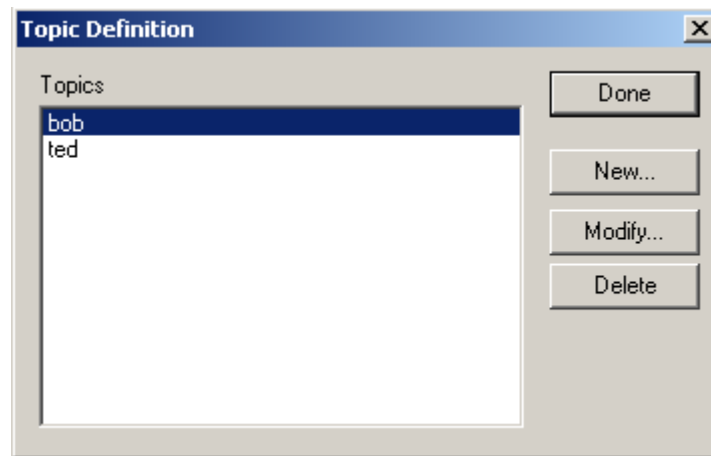

3. Press the **Run Application** button (🖥) from the InduSoft Web Studio **Execution Control** toolbar to start the OPC Server module.

> ✎ **Tips:** Notice that the OPC Server icon appear in the Windows tray bar (besides the system clock) `4:33 AM`

4. Start Wonderware's OPCLink.

5. Click on the **Configure Topics** button to open the *Topic Definition* window.

6. Click the **New** button to add a new topic and configure it as follows:
   - **Topic Name**: This must be a unique name by which this tag will be identified (for example: MyConnection).
   - **Node Name**: The name of the remote node the OPC Server is running on. This is left blank if the server is running on the same station.
   - **OPC Server Name**: This must be set to **Studio.Scada.OPC** to connect to InduSoft Web Studio OPC Server.
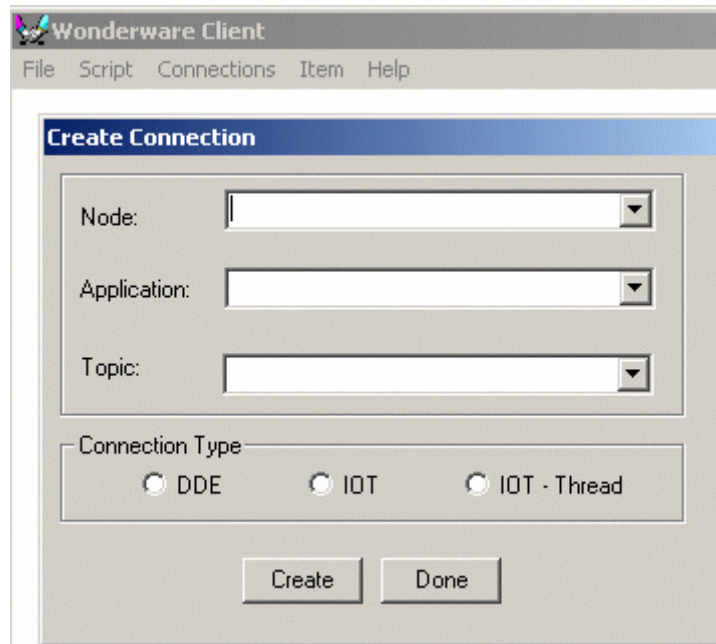   - **OPC Path**: This is left blank when using the InduSoft Web Studio OPC Server.
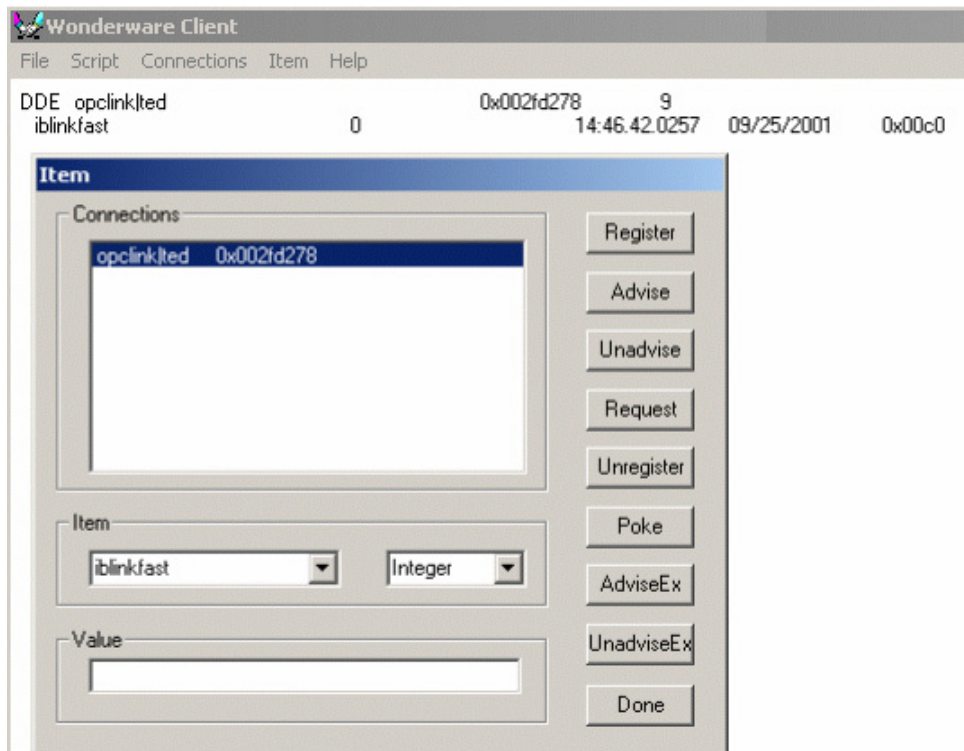
> ✍ **Note:** Do not be concerned that nothing will appear in the OPC path window. It must be kept blank.

7. Once you have defined your topic, you can test it using Wonderware's WWClient. Open WWClient and select **Create** from the **Connections** menu and configure it as follows:
   - **Node**: Only used if the OPC Server is running on another node on the Network.
   - **Application**: Must be set to OPCLink.
   - **Topic**: Will be the topic name you defined in OPCLink (for example: MyConnection).
   - **Connection Type**: Will be DDE.

Then press the **Create** button.

8. Select **Connect** from the **Connections** menu and then select the **Item** option.

You will need to select one of your connections and define the item it is connected to. In this example, the connection is linked to the **BlinkFast** tag in InduSoft's OPC Server. Please note that an "i" has to be placed in front of the tag name to define it as an integer ("R" for a real, "S" for a string and so on). You must also define the tag type in the second combo-box; in this case, it is set to Integer. Once this is done, click the **Register** and then the **Advise** button to view the data from the OPC server.

✎   **Note:** Once WWClient is able to exchange data with InduSoft OPC Server, the rest of InTouch will also be able to exchange data with InduSoft Web Studio.

III. Map of Revisions

Revision	Author	Date	Comments
0	Fabio Terezinho	September 28, 2001	Initial revision
A	Bryan Morgan	December 11, 2001	Removed unnecessary steps. The same Topic from InTouch OPC Link can be shared for several items.
B	Fabio Terezinho	October 3, 2003	Layout revision