

Description: This applications note describes how to data mine SAP information using the SAP Connector in BridgeWorX.

OS Requirement: Win XP/Server 2003/ Server 2008/Vista/Windows 7

General Requirement: BridgeWorX must be installed and you must have an SAP connection with BAPI functions.

Introduction

You can use the ICONICS SAP Connector in combination with BridgeWorX to create a variety of different solutions. BridgeWorX enables you to move data from SAP, Databases, OPC tags, and Web services. With BridgeWorX and the ICONICS SAP Connector you can do the following:

- Read SAP data and move it to OPC tags
- Read SAP data and move it to a database table
- Read OPC tags and write them into SAP
- Read Database records and write them into SAP
- And much more!

How to Use SAP Data in BridgeWorX

In this section we will create an example that will read SAP data and move it into OPC tags.

1. Start the BridgeWorX Configurator by going to Start → Programs → ICONICS BizViz → BridgeWorX → BridgeWorX Configurator.
2. Open the tree control on the left and open the Data Connectors item. Right-click on Database Connectors and select New Database Connector. Name this connector “SAP” and click on the Database Login button.
3. Select Generic OLEDB provider and click OK.
4. Select SAP Connector for SAP OLE DB Provider in the provider tab sheet and then click Next.
5. Enter the connection details to your SAP system in the Connection tab and test the connection with the Test connection button.
6. Select the Advanced tab and click “Add Function”.
7. Select a readable BAPI and click on OK twice to get back to the BridgeWorX Configurator.
8. Select ONLY Read as the Data Direction, then click on the Read from Database tab sheet.
9. The query in the example looks like this:

```
SELECT coentr_txt FROM
BAPI_COSTCENTER_GETLIST.COSTCENTER_LIST
WHERE (s$COSTCENTER = {{@Param3:str}})
```

NOTE: You cannot use aliases in the Query. An easy way to create the query is to use the Simple Query Wizard to define the query and then edit the query later manually. You can add parameters by clicking on the Insert Parameters button.

In the next step we will add 2 OPC tags to the Data Connector. One will be used to parameterize the SAP (BAPI) query, and the other will be the OPC tag to which we actually write.

1. Right-click on OPC Connectors in the tree control under Data Connectors and select New → Data Connector.
2. Select Read / Write as the Data Direction.
3. Select the Read from OPC tab and click on Tag Menu. Add the following Tag:
ICONICS.Simulator.1\SimulatePLC.OUTPUTS.WORD
4. Then select the Write to OPC tab and click Add. Select the following OPC tag and then click Apply:
ICONICS.Simulator.1\SimulatePLC.OUTPUTS.STRING
5. Now we are going to create a new BridgeWorX Transaction and corresponding Transaction Diagram.
6. Open the Configurations branch in the tree control and add a new transaction by right-clicking on a transaction folder and selecting New > Transaction.
7. Name the transaction “SAP Read” and create a new Transaction Diagram by clicking on the Create new diagram button. Name the diagram “SAP Read” as well.
8. Click the Run Diagram Editor button and the Transaction Diagram Designer will appear.
9. Drag and drop a Database to OPC block into the editor.
10. Double-click on the block and select the Database to OPC data mapping tab.
11. Select BAPI_Read as the Database connector to read data from. Bind this OPC tag as the parameter:
ICONICS.Simulator.1\SimulatePLC.OUTPUTS.WORD
12. And this one in the Data Mapping:
ICONICS.Simulator.1\SimulatePLC.OUTPUTS.STRING
13. Once your configuration looks like Figure 1, click on OK twice to close the dialog.
14. Close the Transaction Diagram.

The configuration is now ready to test. Check the Enabled checkbox in the Transaction configuration dialog and create a GraphWorX display where you can read a value from the WORD tag. After executing the transaction the String OPC tag will contain the SAP value.

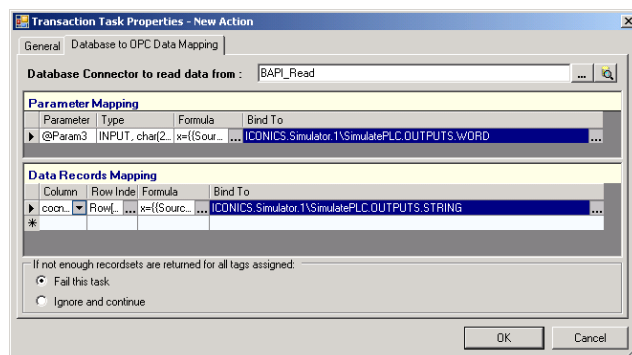


Figure 1 - Database to OPC Mapping