Connecting SIMATIC WinCC to SIMATIC B.Data

B.Data – Energy reduction in few steps

Configuration example • August 2013
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1 Task

Objective

The objective of this documentation is to connect operational data points from an existing WinCC project to B.Data. The "Wizard for data acquisition" contained in B.Data is used for the configuration of the required acquisition structures.

Principle of data acquisition

The data source can either be located on another PC in the network, or on the same PC as B.Data. The following figure schematically shows the data acquisition from one PC via the network:

Figure 1-1

1. PC with installed WinCC on which the values of consumer are acquired.
2. Data transmission via the network. B.Data then only reads the consumer values.
3. Acquisition of consumer values on the B.Data acquisition server.
## 2 Configuration and Settings

### Software components

This instruction was generated with the following software components.

**Table 2-1**

<table>
<thead>
<tr>
<th>Component</th>
<th>No.</th>
<th>Order number</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.Data V5.3 SP1</td>
<td>1</td>
<td>6AV6372-1DF15-3AX0</td>
<td>Basic system, trial (for test purposes only)</td>
</tr>
<tr>
<td>WinCC V7.0 SP3</td>
<td>1</td>
<td>6AV6381-2BM07-0AX0</td>
<td>All-in-one package with Power Tags (RC 128). Alternatively, WinCC Professional V11 SP2 can also be used.</td>
</tr>
</tbody>
</table>
**Configuring the data points**

Table 2-2

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
</tr>
</thead>
</table>
| 1.   | • Open the WinCC project from which the tags are to be transferred to B.Data.  
• In B.Data, you add a PC to the “Master Data” tab via the “Hardware” button.  
• Add the login data for the PC with the WinCC project.  
• If B.Data and WinCC are installed on the computer, select the following data as the connection definitions:  
  – Computer name: LOCALHOST  
  – Address: 127.0.0.1 (Loopback address for the local access)  
  – Options “Active” and “Acquisition” |
| 2.   | • Open the context menu of the PC created in step 1 and select the “Add acquisition structure …” entry from the context menu. |
3. • Select “WinCC-driver” as the driver type and “ACTIVE” as the status.
   • Assign any connection name. In this example: “WinCC_Connection”.
Step 4. Create a new acquisition component via the "New" button.
### 2 Configuration and Settings

<table>
<thead>
<tr>
<th>Step</th>
<th>Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.</td>
<td>Specify the cycle time for the measured values to be imported. In the example: “15 min”</td>
</tr>
</tbody>
</table>

**Note:**
Configure the archive cycles in WinCC so the archived process tags are already available as required in B.Data. Specify the start time for the archive cycles. With the start time you ensure, that a value is generated every full hour.

Further information on this topic is available in the Help on Simatic B.Data at the following link: [https://www.automation.siemens.com/mdm/TopicId=41026169355=en](https://www.automation.siemens.com/mdm/TopicId=41026169355=en)

![Wizard for creating a new acquisition structure](image)

- **Name:**
- **Description:**
- **Cycle Time:** 15 min
- **Insert sample datapoint**

**Available tags in chosen archive:**

- **Name:**

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6. **Open the WinCC Archive Name Explorer via the “Browse” button.**
   Select WinCC compressed archive “Compressed_Energy_Data” and select all of the contained tags.

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**Wizard for creating a new acquisition structure**

**Enter WinCC io-buffer information:**
- **Name:** Compressed_Energy_Data
- **Description:**
- **Cycle Time:** 15 min

**Available tags in chosen archive:**
- PAC3.Voltage_PH_N_L3
- PAC3.Voltage_PH_N_L2
- PAC3.Voltage_PH_N_L1
- PAC3.Current_I_L3
- PAC3.Current_I_L2
- PAC3.Current_I_L1

**Buttons:**
- **Select All**
- **Deselect All**
- **Refresh**
- **OK**
- **Cancel**
## 2 Configuration and Settings

<table>
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<tr>
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</tr>
</thead>
</table>
| 7.   | • After acknowledgement with the “OK” button, the newly created IO Buffer is now displayed in the window of the configured acquisition component.  
• Use the “Finish” button to close the dialog box. |

![Wizard for creating a new acquisition structure](image)
### Step 8

The created IO buffer displays WinCC compressed archive “Compressed_Energy_Data” and its archive tags. Each of the WinCC tags selected in step 6 now represents a data point in B.Data. As soon as you start the B.Data Kernel and the respective acquisition component, the measured values are cyclically fetched from WinCC and imported in B.Data.

![Diagram of Data Acquisition with CompressedEnergyData folder and various tags]

### Step 9

- In the project tree of the Plant explorer, you select the desired data point whose values you wish to evaluate in Quick Chart.
- Click on the "Quick Chart" tab in the display area.
- In "Query Type" you select the desired time range you wish to evaluate in Quick Chart.
## 3 Related Literature

### Internet links

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