

Communication > Tools

Simple Plant visualization with OCX Data Control in VBA for Excel

### Task:

Process data exchange between SIMATIC S7 stations is a core element in the field of automation technology. OPC provides standardized interfaces for this which enable connecting Windows applications to programmable logic controllers (PLCs). The main requirement in this application is visualizing the process variables delivered via OPC, using a simple and cost-effective user interface in Microsoft Excel.

### Solution:

The application on hand shows a very simple process for generating individual visualization user interfaces with Microsoft Excel and VBA. In this application, a simple production plant is simulated with a SIMATIC S7 controller. The required process information is exchanged between the Excel application, via the OCX Data Control, and the SIMATIC NET OPC server and the S7-CPU via the MPI interface.

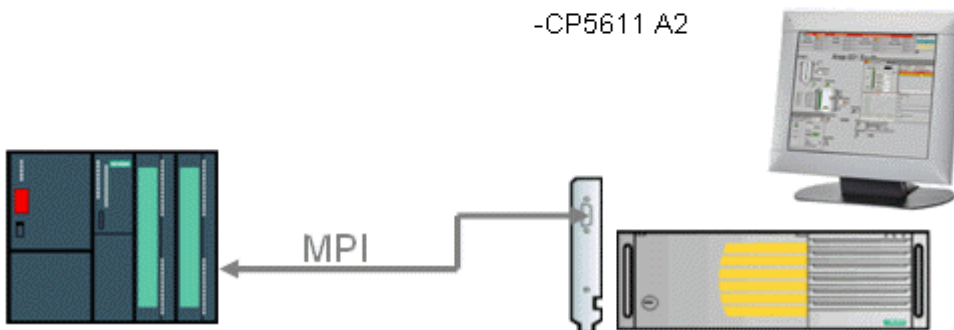
Hardware configuration

### S7-300 Station

- PS307 5A
- CPU 313-C

### PG/PC

- Windows XP Professional
- Office 2003
- STEP7 V5.4
- SIMATIC NET PC Software 2005 V 6.3
- CP5611 A2



Various tables of an Excel application illustrate how




- a simple operator user interface for controlling the plant,
- a minimal recipe management,
- the display of temporal processes

are realized. In VBA Code you learn how

- S7 process data with SIMATIC NET ActiveX Controls (without programming skills) and Excel Standard Controls (with individual programming) are linked and displayed

- larger data volumes are written to the S7-CPU or read from it
- the most important S7 variable types are converted and displayed in VBA

### Downloads

Download contents	Download
<b>Documentation (German)</b> Einfache Anlagenvisualisierung mit dem OCX Data Control unter VBA for Excel	
<b>Documentation (English)</b> Simple Plant visualization with OCX Data Control in VBA for Excel	
<b>Code</b> STEP7 project and Excel spreadsheet (VBA program)	

### History

Issue	Changes
09/2006	First edition

### Filter criteria:

Hardware platform: SIMATIC S7 300/400  
 Software: STEP 7, OPC  
 Entry contents: Programming example

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