



## Create and use OPC-UA variables

## FAQ No. 010

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## Introduction

This document describes the steps to create variables in COMBIVIS studio 6 and communicate via OPC UA to COMBIVIS studio HMI or UaExpert.

## OPC UA server

### Device Settings for OPC UA on Windows devices

If licensed the OPC UA Server will start automatically.

#### Hint:

It's mandatory to choose a network location for a communication with OPC UA. Our suggestion is to select the "work network".

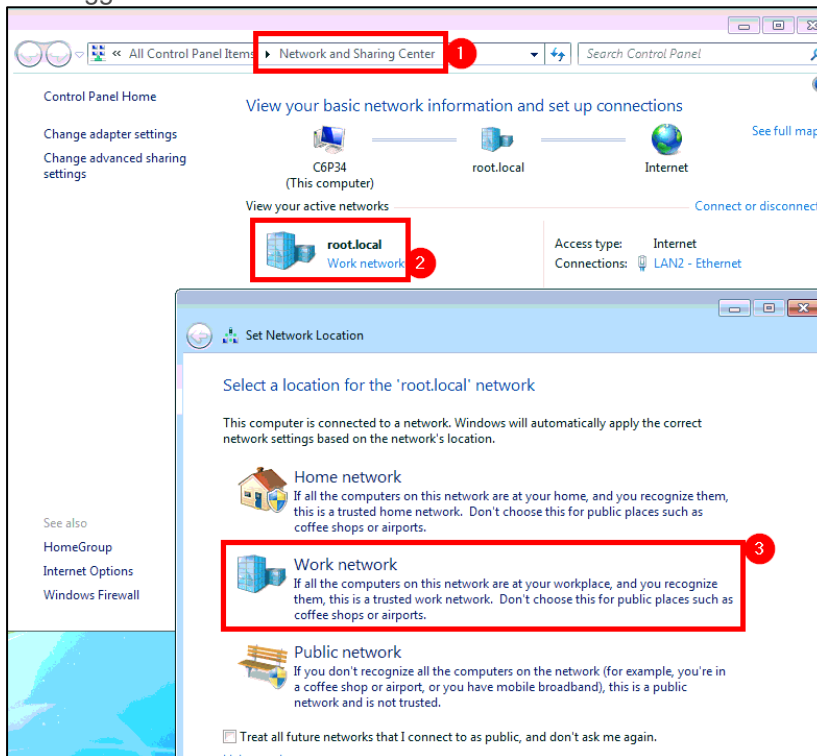


Figure 1 [Set Network Location]

## Device Settings for OPC UA on Linux devices

If licensed the OPC UA Server will start automatically.

### Diagnostic and Configuration

On E22 Linux devices the service shell allows additional options:

Login as user "service"  
Choose "Package menu"

*Please, select operation from list below:*

- 1) Show/change ip address
- 2) Change hostname
- 6) Package menu
- 7) Show version information
- 8) Change password
- 
- s) Shutdown
- r) Reboot
- 
- q) Exit

Choose "keb-opc-ua-server"

*Please, select a package:*

- 1) keb-opc-ua-server
- 
- q) Back to main menu

Choose one of the options:

*Please, select operation from list below:*

- 1) Disable
- 2) Stop
- 3) Show logs
- 
- l) Show license list
- t) Show license texts
- 
- q) Back to main menu

## Variable Configuration in COMBIVIS studio 6

**Hint:** An OPC UA server license is necessary on the target device

Add in COMBIVIS studio 6 the symbol configuration and enable the checkbox “Support OPC UA Features”

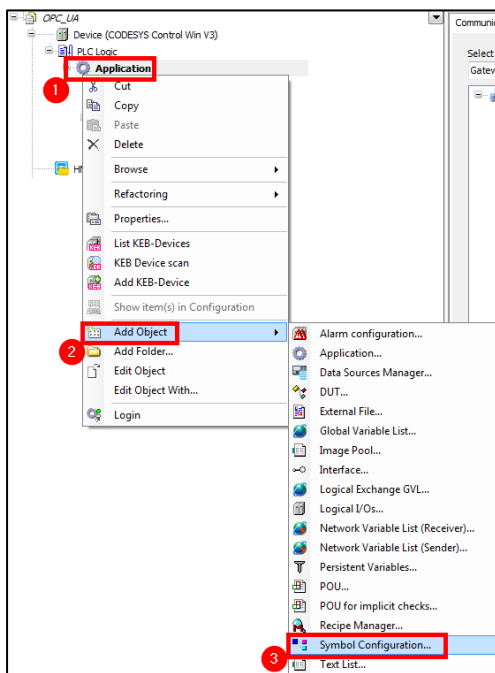


Figure 2 [Add Symbol configuration]

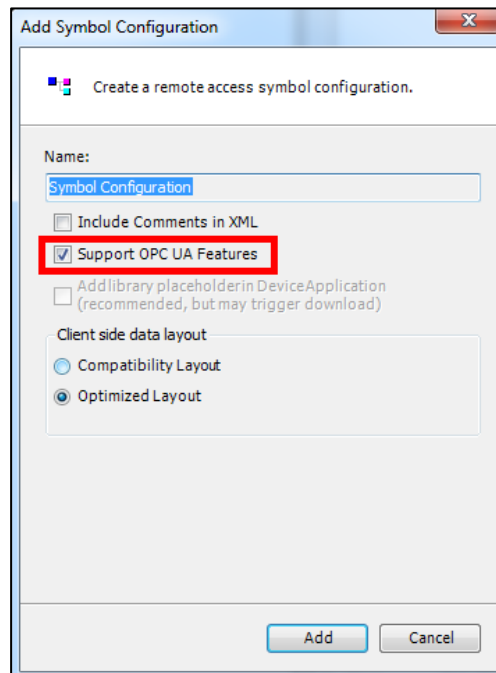


Figure 3 [Settings Symbol configuration]

Choose in the symbol configuration the variables which you want to use via OPC-UA. Download and start the COMBIVIS studio 6 application on your PLC.

Add the created variables in the KEB visualization COMBIVIS studio HMI or in UaExpert. (Follow the next chapters)

## OPC UA client

You can use the different programs to receive the variables from the OPC UA Server. Following are the steps to use COMBIVIS studio HMI and UaExpert.

### COMBIVIS studio HMI

Add a new OPC UA Tag with a right click to your project.

If you click "Add Endpoint" a new window is open.

Enter there following code:

`opc.tcp://"IP-Address of the PLC":Port`

E.g.: `opc.tcp://172.17.131.3:4840`

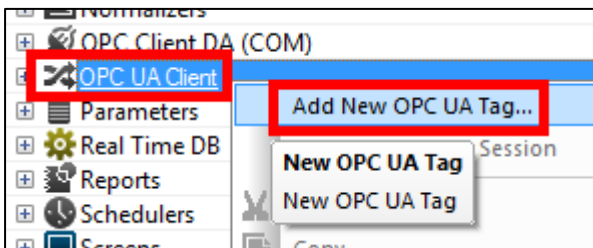


Figure 4 [Add OPC UA Tag]

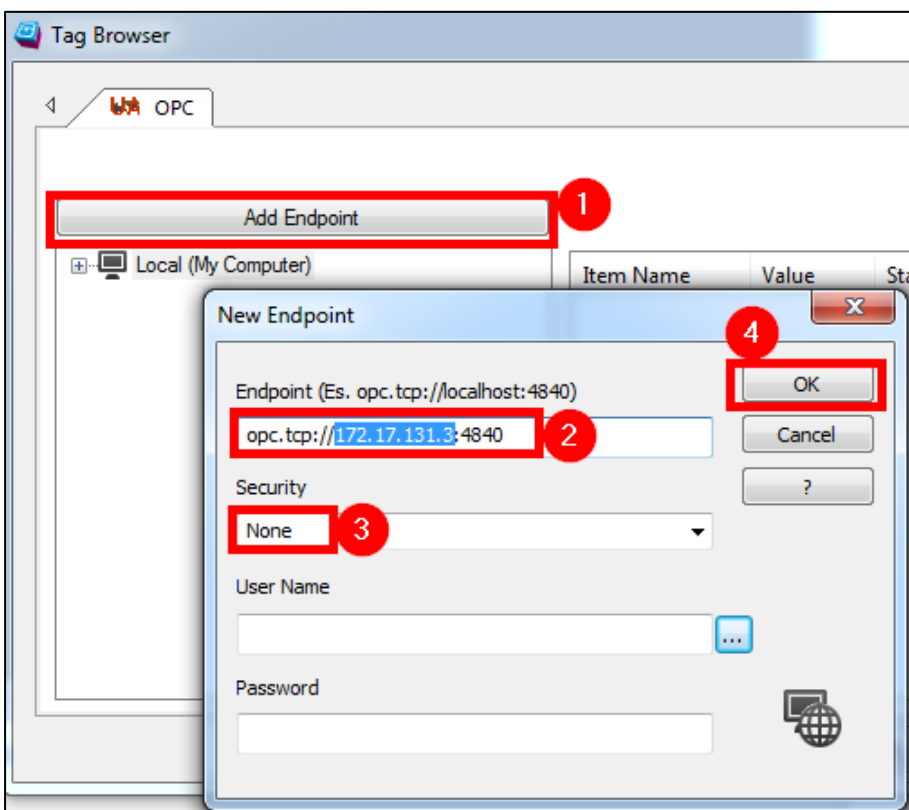


Figure 5 [Add Endpoint]

# FAQ COMBIVIS studio HMI



You can open the new added session and choose the variables which you want to use in your COMBIVIS studio HMI visualization.

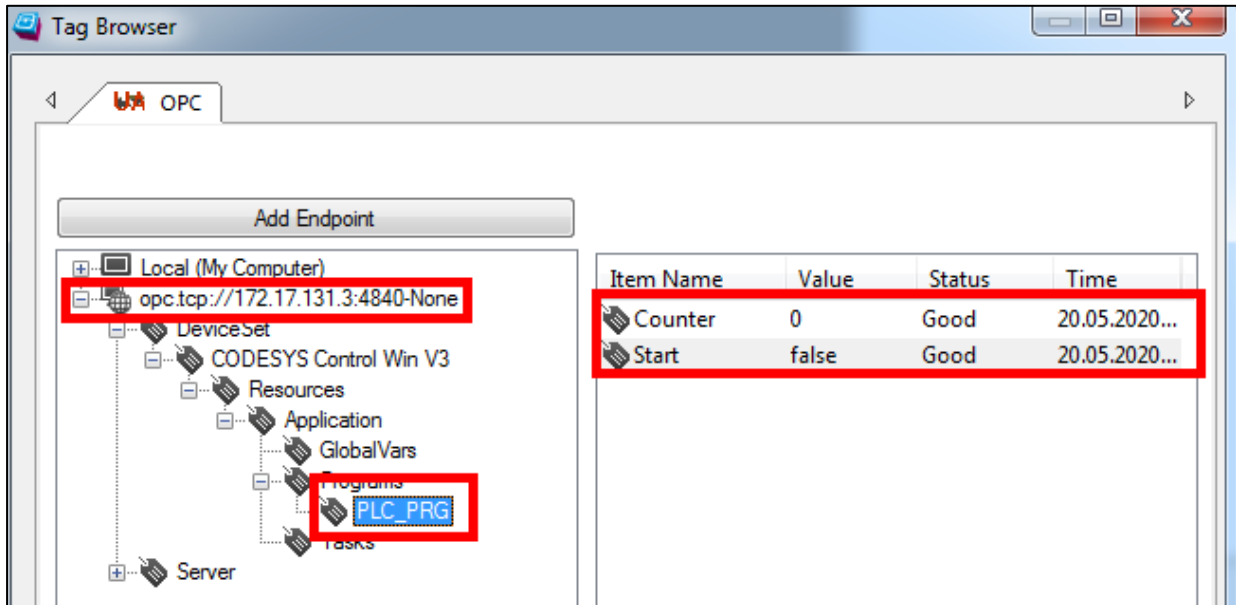


Figure 6 [Add Variable]

The OPC UA variables are implemented in COMBIVIS studio HMI and you can use it in the program like internal variables.

## UaExpert

Add a new Server like the following picture. Enter there the IP Address of the PLC like following example:

`opc.tcp://IP-Address of the PLC`

E.g.: `opc.tcp://172.17.131.3`

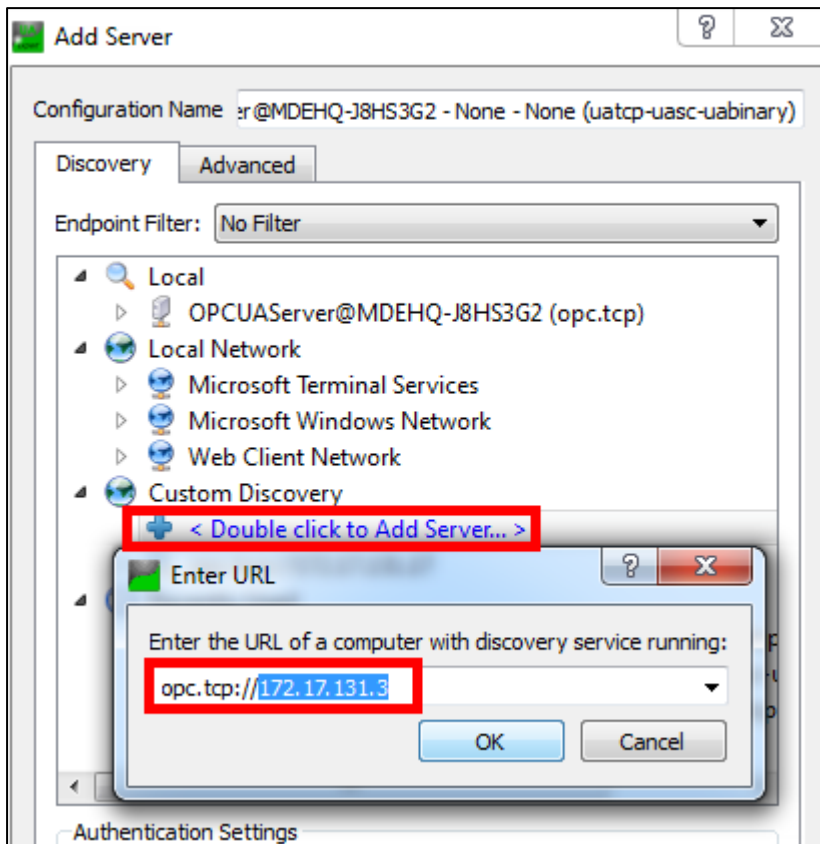


Figure 7 [Add Variable UaExpert]

After connecting with the server you have access to the variables. You can link the variables via drag and drop in the Data Access View.

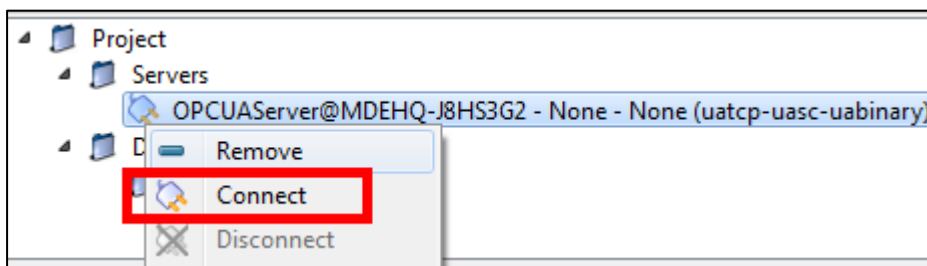


Figure 8 [Connect OPC UA Server]

# FAQ COMBIVIS studio HMI

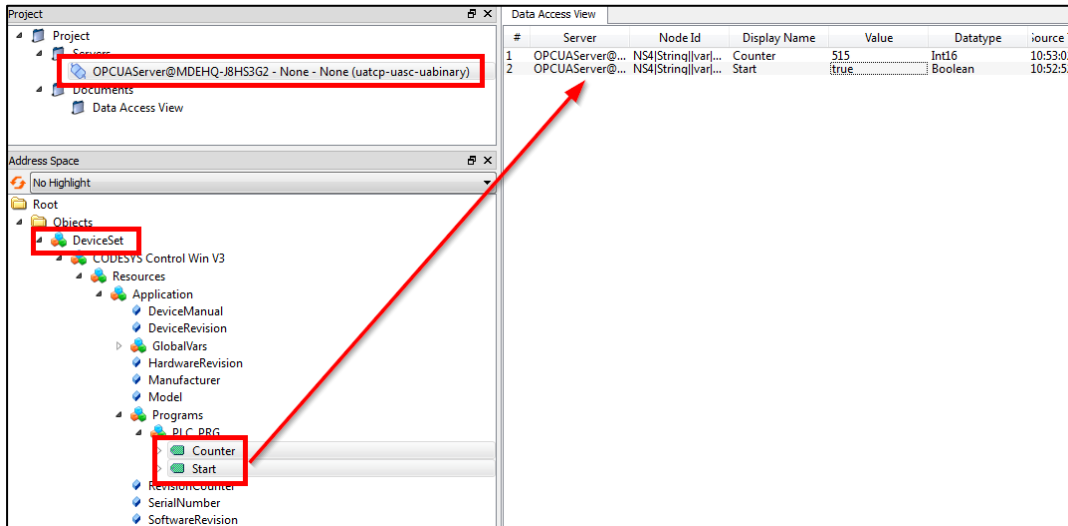


Figure 9 [Display Variable]

## Hint:

If you have not a connection via UaExpert to the PLC check the properties of the server connection.

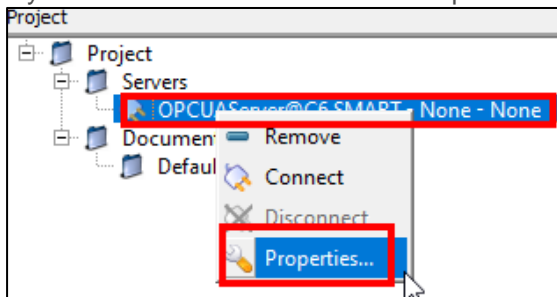


Figure 10 [Properties OPC UA Server] 1

Replace the name with the IP address and confirm it.

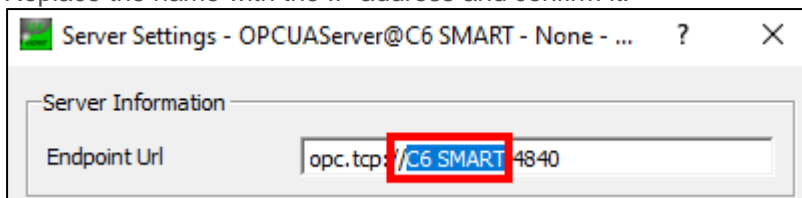


Figure 11 [Old properties]

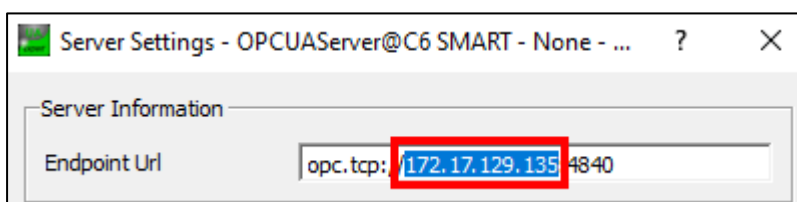


Figure 12 [New properties]



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### **KEB Automation KG**

Südstraße 38 • D-32683 Barntrup, Germany  
Phone: +49 5263 401-0 • Fax: +49 5263 401-116  
www.keb.de • Email: info@keb.de