



Cognex Vision System

Setup Guide

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Revision: 1.3

ETHERNET 
POWERLINK

COGNEX
vision 

1 B&R hardware and software

1.1 Hardware requirements

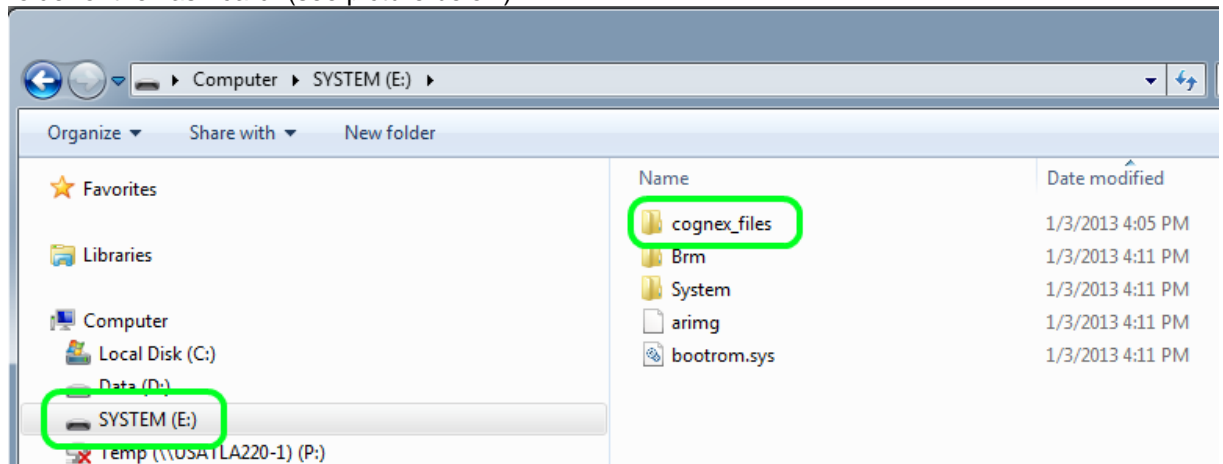
- PP500 15" + Powerlink interface **or** X20CPU with at least 64MB RAM
- Compact flash card 64MB or bigger
- Cognex Camera is7200 with Powerlink interface
- Power supply, cables
- Optional: PP500 Stand

1.2 Software requirements

- Automation Studio 3.0.90 for project
- In-Sight Explorer 4.7.2

1.3 Installation B&R PLC and camera commissioning

- Open the project file "Cognex_Vxxx" with Automation Studio
- Activate the correct configuration (X20CPU or PP500)
- Go to "Tools->Create Compact Flash" and create the flash card.
- After the flash card is created copy the folder "cognex_files" into the root folder of the flash card. (see picture below)



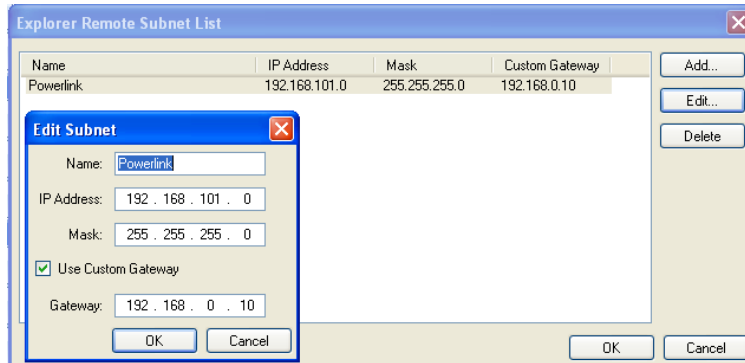
- Insert the flash card into the PLC and power it on.
- Connect the camera to the standard Ethernet port of your PLC (NOT the Powerlink port)
- The camera will receive an IP address from the PLC. This can take up to 2 minutes. Go to the page "Setup" and hit "Find camera". The small button will become green when the camera is detected.
- Go to page commissioning and hit "Connect Native Mode"
- Hit the button "Transfer configuration to camera". Wait for the transfer to finish.
- Hit the button "Transfer job 1 from PLC to camera ID1 configuration to camera". Wait for the transfer to finish.
- Hit the button "Transfer job 2 from PLC to camera ID1 configuration to camera". Wait for the transfer to finish.
- Power the camera off and connect it to the Powerlink port.
- Turn the camera back on.
- Switch to the page "Main". The camera should connect after approx. 1 minute.

1.4 Installation Cognex Camera with Insight

This step is only necessary if commissioning from step 1.3 does not work. This could be the case if the camera is not the exact type used in this project (is7200).

- Open In-Sight software
- Connect to Cognex camera according to this document from Cognex “InSight POWERLINK Application Note.pdf”.

The following settings in In-Sight were used in this demo.

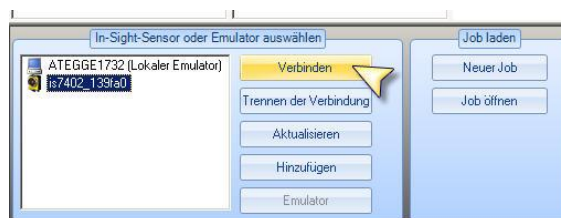


The Gateway IP is the address of the B&R PLC. The IP Address for the local Windows network card is 192.168.0.30 subnet mask 255.255.255.0

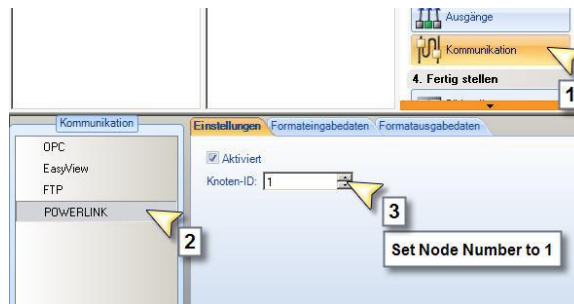
- Add Sensor



- Connect



- Setup POWERLINK



- Connect camera to POWERLINK network
- Set camera to offline
- File->Open Job-> "1_PowerlinkVXX.job" from the PC
- File->Save Job as->In-Sight Sensors->is72000_XXXX
- File->Open Job-> "2_PowerlinkVXX.job" from the PC
- File->Save Job as->In-Sight Sensors->is72000_XXXX
- Set camera online

