

# **Network Variables**

This example demonstrates how to share variables within a network. It consists of two applications. One is sending the variables and the other one receives them.

# **Product description**

This example shows how variables can be exchanged between different systems within a network. One device is sending a variables and the other one receives them. To run the example, the applications need to run on different systems, due to the fact that a port can only be used once on each system.

# **More information**

GVL\_Send: Is a global variable list, which also includes the network settings in the global variables properties (see screenshot). Port 1202 and the broadcast address can remain default. With this setting everyone can receive the variables. Within a project it is possible that the devices communicate either directly or via a file. If the sender and receiver are located in two separate projects it is only possible to communicate via a file.

This example uses a file for communication. Right click the GVL\_Send and set in the "Link to File" property the file that should be used.

NVL: Is a global network variable list. The sender application or the imported file is set here.

Main\_Receive: To check the result the values of the network variables are assigned to local variables. Additionally some diagnostic information is retrieved.

In order to work correctly the sender application must be started before the receive app. In this way the file which will be imported by the receiver can be created first.

If several senders on one system are used, different ports have to be defined for correct communication.

Screenshot	s
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Properties - GVL_Send [Sender: PLC Logic: App_Send]							
Common Link To File	Build	Acces	s control	Network p	properties		
Network type:				- (	Settir	ıgs	
Task:	Task			•			
List identifier:	1						
🔽 Pack variab	☑ Pack variables						
✓ Transmit ch	✓ Transmit checksum						
Acknowledgement							
✓ Cyclictransmission Interval: T#50ms							
Transmit or	n change	Min	iimum gap	: T#20ms			
Transmit or	Transmit on event Variable:						
OK Cancel Apply							
Network settings for GVL_Send							
Parameter Val	ue		Default	/alue			ок
Port 120	_		1202				ancel
Broadcast Adr. 255	.255.255.	255	255.255.2	255.255			

### **General information**

#### Manufacturer:

3S-Smart Software Solutions GmbH Memminger Strasse 151 87439 Kempten Germany

### Support:

#### https://support.codesys.com

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Network Variables Item number: 000014 Sales:

CODESYS Store https://store.codesys.com

### Included in delivery:

- CODESYS software and / or license key with billing information
- For training courses and events: Booking confirmation

### System requirements and restrictions

Programming System	CODESYS Development System Version 3.5.0.0 or higher					
Runtime System	CODESYS Control Version 3.5.0.0					
Supported Platforms/ Devices	All					
Additional Requirements	-					
Restrictions	-					

Note: Not all CODESYS features are available in all territories. For more information on geographic restrictions, please contact sales@codesys.com.

Note: Technical specifications are subject to change. Errors and omissions excepted. The content of the current online version of this document applies.