



**Revision List**  
**What's New netJACK**  
**Communication Solutions DVD**  
**2014-08-1**

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# 1 Introduction

## 1.1 About this Document

This manual describes major changes regarding the new release of the Communication Solution DVD of netJACK products for

- hardware,
- firmware,
- driver and toolkit,
- tools and
- documentation.

See chapter *What's New netJACK – Communication Solutions DVD 2013-12-1* from page 4 for the latest Communication Solutions DVD.

## 1.2 List of Revisions

Rev	Date	Name	Chapter	Revision
2	2013-12-19	HH	2	Communication Solutions DVD 2013-12-1
3	2014-08-01	HH	3	Communication Solutions DVD 2014-08-1

Table 1: List of Revisions

## 2 What's New netJACK – Communication Solutions DVD 2013-12-1

This chapter describes the major changes from Communication Solution DVD 2012-06-1 to Communication Solution DVD 2013-12-1.

### 2.1 Hardware

New netJACK communication modules are available:

- NJ 51D-RE,
- NJ 10D-CCS,
- NJ 10D-COS,
- NJ 10D-DNS,
- NJ 10D-DPS,
- NJ 100DN-CO,
- NJ 100DN-DN and
- NJ 100DN-RE.

## 2.2 Firmware

The following list compares the firmware versions on the Communication Solutions DVD (netJACK)

Protocol	File name	Version on Communication Solutions DVD 2012-06-1	Version on Communication Solutions DVD 2013-12-1
CANopen Master	J0204000.nxf	V2.9.4.0	V2.11.3.0
CANopen Slave	J0205000.nxf J0505000.nxf	V3.2.5.0	V3.6.3.0
CC-Link Slave	J0509000.nxf	-	V2.9.2.0
DeviceNet Master	J0206000.nxf	V2.3.6.0	V2.3.17.0
DeviceNet Slave	J0207000.nxf J0507000.nxf	V2.3.9.0	V2.3.23.0
EtherCAT Master	J020E000.nxf	V3.0.7.0	V3.0.9.0
EtherCAT Slave	J030F000.nxf J020F000.nxf	V2.5.28.0	V2.5.34.0
	J030F000.nxf J020F000.nxf J060F000.nxf Located in the folder Firmware\NETJACK\ECS V4.X	-	V4.2.12.0
EtherNet/IP Scanner	J020G000.nxf	V2.4.9.3	V2.6.7.1
EtherNet/IP Adapter	J030H000.nxf	V2.6.5.0	V2.7.13.0
	J020H000.nxf		
	J060H000.nxf		
Open Modbus/TCP	J030L000.nxf	V2.5.4.1	V2.5.11.0
	J020L000.nxf		
	J060L000.nxf		
POWERLINK Controlled Node	J030K000.nxf	V2.1.32.0	V2.1.39.0
	J020K000.nxf		
PROFIBUS DP Master	J0201000.nxf	V2.5.2.3	V2.6.13.0
PROFIBUS DP Slave	J0202000.nxf	V2.4.5.7	V2.7.2.0
	J0502000.nxf		
PROFINET IO Controller	J020C000.nxf	V2.6.5.0	V2.6.10.0
PROFINET IO Device (V3)	J030D000.nxf J020D000.nxf	V3.4.36.1	V3.4.44.0
	J030D000.nxf J020D000.nxf J060D000.nxf Located in the folder Firmware\NETJACK\PNS V3.5.X	-	V3.5.26.0
Sercos Master	J020I000.nxf	V2.0.19.0	V2.1.5.0
Sercos Slave	J030J000.nxf	-	V3.1.20.0
	J020J000.nxf		V3.1.19.0
	J060J000.nxf		V3.1.19.0
VARAN Client (Slave)	J030T000.nxf J020T000.nxf	V1.0.7.1	V1.0.7.1

Table 2: Firmware Versions on Communication Solutions DVD for netJACK

The Changelog for each Firmware is on the DVD in the directory:

DVD:\Firmware\Changelog

## 2.2.1 DeviceNet Master

### **New: Network Scan**

The DeviceNet Master firmware supports the network scan feature. This feature was implemented since DeviceNet Master Firmware version 2.3.11.0.

SYCON.net version 1.360.x.x or higher is required to use the network scan feature. If in the device a firmware version 2.3.10.0 or earlier is used then a firmware update must be done.

## 2.2.2 EtherCAT Slave

The new EtherCAT Slave version 4.2 is introduced. EtherCAT Slave version 2.5 is still available.

## 2.2.3 EtherNet/IP Scanner

### **New: Quick connect**

Firmware version 2.5.1.0 and higher: Quick connect is supported.

### **New: Integrated switch function**

Firmware version 2.6. and higher: Firmware has integrated switch function.

### **New: Objects**

Firmware version 2.6. and higher: DLR and QoS objects was added.

## 2.2.4 EtherNet/IP Adapter/ Slave

### **New: Quick connect**

Firmware version 2.7. and higher: Quick connect is supported.

## 2.2.5 PROFINET IO Device

The new PROFINET IO Device version 3.5 is introduced. PROFINET IO Device version 3.4 is still available.

## 2.2.6 Sercos Master

**New: integrated TCP/IP stack**

**New: Hot plug is supported**

**New: cross communication is supported**

Cross communication is supported. The Sercos Master has to be configured by the host application program by packets to use this function.

## 2.3 Configuration Software and Tools

### 2.3.1 SYCON.net

SYCON.net was updated from V1.350.120628.8307 to V1.360.131205.11452.

Windows® 8 is supported.

#### 2.3.1.1 DeviceNet Master DTM

The DeviceNet network scan feature was added. To use this feature firmware version 2.3.11.0 or higher is required.

## 2.4 Programming Examples

Programming examples were added for

- EtherCAT Master
- EtherCAT Slave (V4): CoE Communication
- POWERLINK Controlled Node
- PROFINET IO Controller: Acyclic services
- PROFINET IO Controller: Configure the Controller via API

## 2.5 Documentation

### 2.5.1 User Manuals netJACK

User Manual „netJACK Communication Module“ updated to revision 4:

New netJACK communication modules added.

The software installation is described in an own manual now:

comX and netJACK - Software Installation UM 01 EN.pdf

### 2.5.2 Operating Instruction Manuals for SYCON.net

Protocol	Revision on Communication Solution DVD 2012-06-1	Revision on Communication Solution DVD 2013-12-1
SYCON.net - Frame Application	10	11 (updated)
netDevice and netProject - FDT Container	10	11 (updated)
AS-Interface Master DTM	4	5 (updated)
AS-Interface Generic Device DTM	4	5 (updated)
CANopen Master DTM	12	14 (updated)
CANopen Generic Slave DTM	4	6 (updated)
CANopen Slave DTM	4	6 (updated)
DeviceNet Master DTM	10	12 (updated)
DeviceNet Generic Slave DTM	6	8 (updated)
DeviceNet Slave DTM	6	8 (updated)
EtherCAT Master DTM	5	7 (updated)
EtherCAT Generic Slave DTM	3	5 (updated)
EtherCAT Slave DTM	1	2 (updated)
EtherNet/IP Scanner DTM	6	7 (updated)
EtherNet/IP Generic Adapter DTM	7	8 (updated)
EtherNet/IP Generic Adapter DTM (EDS based)	2	3 (updated)
EtherNet/IP Adapter DTM	8	9 (updated)
PROFIBUS DP Master DTM	19	21 (updated)
PROFIBUS DP Slave DTM	7	9 (updated)
PROFIBUS DP Generic Slave DTM	12	14 (updated)
PROFIBUS MPI	1	2 (updated)
PROFINET IO Controller DTM	11	13 (updated)
PROFINET IO Generic Device DTM	6	8 (updated)
PROFINET IO Device DTM	8	10 (updated)
Sercos Master DTM	5	7 (updated)
Sercos Generic Slave DTM	4	6 (updated)
Sercos Slave DTM	1	2 (updated)
netSlave DTM	16	17 (updated)

Table 3: List of SYCON.net Manuals



### 2.5.3 Protocol API

The following Protocol API Manuals were updated:

Protocol	Revision on Communication Solutions DVD 2012-06-1	Revision on Communication Solutions DVD 2013-12-1
AS-Interface Master (2 Channel)	4	4
CANopen Master	12	14 (updated)
CANopen Slave (V3)	2	5 (updated)
CC-Link Slave	7	8 (updated)
CompoNet Slave	2	2
DeviceNet Master	7	10 (updated)
DeviceNet Slave	10	13 (updated)
EtherCAT Master (V3)	4	5 (updated)
EtherCAT Slave (V2)	17	21 (updated)
EtherCAT Slave (V4)	-	3 (new)
EtherNet/IP Scanner	11	12 (updated)
EtherNet/IP Adapter	11	12 (updated)
Open Modbus/TCP	6	8 (updated)
POWERLINK Controlled Node	9	12 (updated)
PROFIBUS DP Master	15	18 (updated)
PROFIBUS DP Slave	12	15 (updated)
PROFIBUS MPI Device	4	4
PROFINET IO Controller	15	17 (updated)
PROFINET IO Device (V3.4)	10	13 (updated)
PROFINET IO Device (V3.5)	-	7 (new)
Sercos Master	8	11 (updated)
Sercos Slave (V3)	7	12 (updated)
VARAN Client (Slave)	2	2

Table 4: List of Protocol API Manuals

Protocol API for lower Layer Access (Packet Interface)	Revision on Communication Solutions DVD 2012-06-1	Revision on Communication Solutions DVD 2012-12-1
CAN Data Link Usable with CANopen Master and CANopen Slave Firmware	2	3 (updated)
TCP IP Usable with EtherNet/IP Scanner/Master, EtherNet/IP Adapter/Slave, Open Modbus/TCP, PROFINET IO Controller and PROFINET IO Device	12	12

Table 5: List of Protocol API Manuals – Lower Layer Access

## 3 What's New netJACK – Communication Solutions DVD 2014-08-1 (Current)

This chapter describes the major changes from Communication Solution DVD 2013-12-1 to Communication Solution DVD 2014-08-1.

### 3.1 Firmware

The following list compares the firmware versions on the Communication Solutions DVD (netJACK)

Protocol	File name	Version on Communication Solutions DVD 2013-12-1	Version on Communication Solutions DVD 2014-08-1
CANopen Master	J0204000.nxf	V2.11.3.0	V2.11.3.0
CANopen Slave	J0205000.nxf J0505000.nxf	V3.6.3.0	V3.6.4.0 (updated)
CC-Link Slave	J0509000.nxf	V2.9.2.0	V2.11.2.0 (updated)
DeviceNet Master	J0206000.nxf	V2.3.17.0	V2.3.17.0
DeviceNet Slave	J0207000.nxf J0507000.nxf	V2.3.23.0	V2.3.23.0
EtherCAT Master	J020E000.nxf	V3.0.9.0	V3.0.9.0
EtherCAT Slave	J030F000.nxf J020F000.nxf	V2.5.34.0	V2.5.34.0
	J030F000.nxf	V4.2.12.0	V4.2.12.0
	J020F000.nxf	V4.2.12.0	V4.2.12.0
	J060F000.nxf Located in the folder Firmware\NETJACK\ECS V4.X	V4.2.12.0	V4.2.12.2 (updated)
EtherNet/IP Scanner	J020G000.nxf	V2.6.7.1	V2.6.7.1
EtherNet/IP Adapter	J030H000.nxf	V2.7.13.0	V2.7.13.0
	J020H000.nxf	V2.7.13.0	V2.7.13.0
	J060H000.nxf	V2.7.13.0	V2.7.20.0 (updated)
Open Modbus/TCP	J030L000.nxf	V2.5.11.0	V2.5.11.0
	J020L000.nxf		
	J060L000.nxf		
POWERLINK Controlled Node	J030K000.nxf J020K000.nxf	V2.1.39.0	V2.1.39.0
PROFIBUS DP Master	J0201000.nxf	V2.6.13.0	V2.6.13.0
PROFIBUS DP Slave	J0202000.nxf	V2.7.2.0	V2.7.2.0
	J0502000.nxf	V2.7.2.0	V2.7.7.0 (updated)
PROFINET IO Controller	J020C000.nxf	V2.6.10.0	V2.6.10.0
PROFINET IO Device (V3)	J030D000.nxf J020D000.nxf	V3.4.44.0	V3.4.44.0
	J030D000.nxf	V3.5.26.0	V3.5.43.0 (updated)
	J020D000.nxf		
	J060D000.nxf Located in the folder Firmware\NETJACK\PNS V3.5.X		

Protocol	File name	Version on Communication Solutions DVD 2013-12-1	Version on Communication Solutions DVD 2014-08-1
Sercos Master	J020I000.nxf	V2.1.5.0	V2.1.5.0
Sercos Slave	J030J000.nxf	V3.1.20.0	V3.1.20.0
	J020J000.nxf	V3.1.19.0	V3.1.19.0
	J060J000.nxf	V3.1.19.0	V3.1.19.1 (updated)
VARAN Client (Slave)	J030T000.nxf	V1.0.7.1	V1.0.7.1
	J020T000.nxf		

Table 6: Firmware Versions on Communication Solutions DVD for netJACK

The Changelog for each Firmware is on the DVD in the directory:

DVD:\Firmware\Changelog

## 3.2 Documentation

### 3.2.1 Protocol API

The following Protocol API Manuals were updated:

Protocol	Revision on Communication Solutions DVD 2013-12-1	Revision on Communication Solutions DVD 2014-08-1
PROFINET IO Device (V3.5)	7	8 (updated)

Table 7: List of Protocol API Manuals

### 3.2.2 Toolkit

The document “Getting Started Guide: Serial Dual-Port Memory Interface with netX” was updated to revision 3.

## 4 Appendix

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