

Selection of GSD- and Firmware Files for IS1 Remote I/O-Systems

Overview:

During the last 10 years the IS1 system as well as the PROFIBUS standard was extended by different new features. To support the different functionalities and to guarantee compatibility for existing installations IS1 supports different Firmware and GSD Files to optimize system integration.

Major extensions:

- Two different parameter sets are available for the IS1 Remote I/O-System. The extended parameter set is recommended for new projects.
- The optional use of DPV1 Diagnosis telegrams with Status Information was invented April 2008. To use this option, the PROFIBUS Master (PLC/DCS) must support this option too !
- PROFIBUS Slave Redundancy according PNO Specification is supported by IS1 since begin of 2010.

1. Recommendation for new Projects:

IS1 Parameter Set	PROFIBUS diagnosis according	IS1 Documentation	GSD File	Application
Extended (from IOM Firmware 2.xx)	DPV0	Document above + Operating Instruction 'Extended Parameter Set for IS1 Remote I/O-System'	from GSD V2.25	Standard solution for new projects
	DPV1 (diagnosis with status)	Operating Instruction 'Description of PROFIBUS DPV1 Interface for IS1 field stations'	from GSD V3.03	New projects with DPV1 compatible DP Masters and for use with PROFIsafe e.g. S7-400H, S7-300F, S7-400F ...

2. Overview all available functions

This overview shows all available combinations of different functions, GSD Files, Firmware Revisions and other docs. which support compatibility and maintenance of the IS1 system.

IS1 Parameter Set	PROFIBUS diagnosis according	IS1 Documentation	GSD files		Application ↓	
			CPM Redundancy			
			STAHL spec.	PNO spec.		
Standard	DPV0	Operating Instruction 'Description of PROFIBUS DP Interface for IS1 field stations'	GSD V1.xx (File: STA_049A.gse) Firmware: all revisions	from GSD V1.25	Product maintenance (Use of IOM V1.xx) Not for new projects !	
Extended <small>(from IOM Firmware 2.xx)</small>		Document above + Operating Instruction 'Extended Parameter Set for IS1 Remote I/O-System'	GSD V2.xx (File: STA2049A.gse) Firmware from V0x-30	from GSD V2.25		for DP masters not supporting PNO slave redundancy
	DPV1 <small>(diagnosis with status)</small>	Operating Instruction 'Description of PROFIBUS DPV1 Interface for IS1 field stations'	GSD V3.00 to V3.02 (File: STA3049A.gse) Firmware from V0x-40 to V0x-41	-	for masters supporting PNO slave redundancy	New projects with DPV1 compatible DP Masters and for use with PROFIsafe e.g. S7-400H S7-300F, S7-400F ...
			GSD from V3.03 *1) (File: STA3049A.gse) with structured parametrisation Firmware from V0x-42	from GSD V3.03		



Hint !

Single CPMs used without CPM Redundancy are supported by all GSD and Firmware Revisions.

IS1 CPM Firmware Revisions:		
V01-xx	-	DPV0 Standard Revision (without acyclic C2 channel)
V02-xx	V03-xx	DPV1 Version (with acyclic C2 channel, HART, DTM Support, I&M, ...)
V09-xx	-	DPV1 Version (as above, but offset backup Addr. = 0)
Product maintenance Not for new projects !	Standard solution for new projects	← Application

3. System requirements for use of the Extended Parameter Set of the IS1 Remote I/O System:

Hardware requirements:

- CPM 9440/12-01-11 (24V Z1 Stahl) as of Revision F
- CPM 9440/15-01-11 (24V Z2 Stahl) as of Revision F
- CPM 9440/22-01-11 (24V Z1 PNO) all Revisions
- CPM 9440/22-01-21 (230V Z1 PNO) all Revisions

Software requirements:

- IOM Firmware as of Revision 2.00
- GSD as of Revision V2.00
- CPM Firmware:

without I.S.Wizard	with I.S.Wizard V3.x.x and Service Bus	PROFIBUS features
as of Revision V01-30	as of Revision V01-32	DP V0
as of Revision V02-30	as of Revision V02-32	DP V0 + DP V1

IMPORTANT

If using older hardware or firmware versions, GSD files with Version V1.xx (less than V2.00) with Standard Parameter Set must be used with PROFIBUS DP.

4. System requirements for use of DPV1 conform Diagnosis telegrams with Status Information

Software requirements:

- IOM Firmware from Revision 2.00
- GSD from Revision V3.00
- CPM Firmware from Revision V0x-40
- **PROFIBUS class 1 master (PLC/DCS) must support DPV1 diagnosis telegrams !**

5. System requirements for use of PNO Slave Redundancy

Software requirements for DP Masters supporting PNO Slave Redundancy

- CPM Firmware DPV1 Version V03-xx
- IOM Firmware ab Version 2.00
- PROFIBUS GSD Datei ab Version V3.03

Software requirements for DP Masters not supporting PNO Slave Redundancy

- CPM Firmware PROFIBUS Versionen V03-xx
- IOM Firmware alle Versionen (1.xx und 2.xx)
- PROFIBUS GSD Dateien ab Versionen V1.25, V2.25, V3.03



Support address

R. Stahl Schaltgeräte GmbH
Instrumentation Competence Centre
e-Mail: support.instrumentation@stahl.de
Support information: <http://www.stahl.de>
Service Hotline IS1: +49 ((0)7942) 943-4123
Fax : +49 ((0)7942) 943-40 4123