YASKAWA

FSU-Protocolmaker offline

Documentation Software for Functional Safety Controller

Target group

This software is designed to be used by trained members of staff who are responsible for quality assurance, operation and system documentation for the functional safety controller of YASKAWA robot systems. The program is to be used to document the system status prior to first use, delivery and changes to safety-related data. This data can be used, for example, as proof/documentation of the relevant status of the FSU settings at the point of creation.

KEY BENEFITS

- Creation of a complete FSU protocol file containing all data relating to safety
- Standardised format for recording safety-related data
- Ease of reading the data
- Documentation of responsible personnel
- Huge time savings thanks to the automated creation of FSU protocol files based on an FSU data backup

Controlled by DX200

Controlled by YRC1000

DX200 FSU Protocol

YASKAWA

Important features:

Documentation of system data

- System settings
- Signal settings
- CRC checksum
- Absolute data

Password protection

- Documentation of safety password
- Documentation of FSU authorised staff

Tool documentation

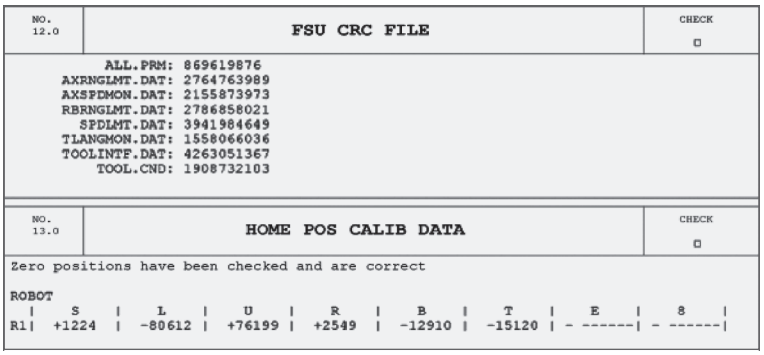
- Tool data
- Tool interfere

Documentation of FSU settings

- Term data of FSU including validity and signal settings
- Visualisation of limitations

System requirements (min.):

Windows 7 or 10 (32 or 64 bit), USB 2.0



NO. 12.0 — FSU CRC FILE — CHECK

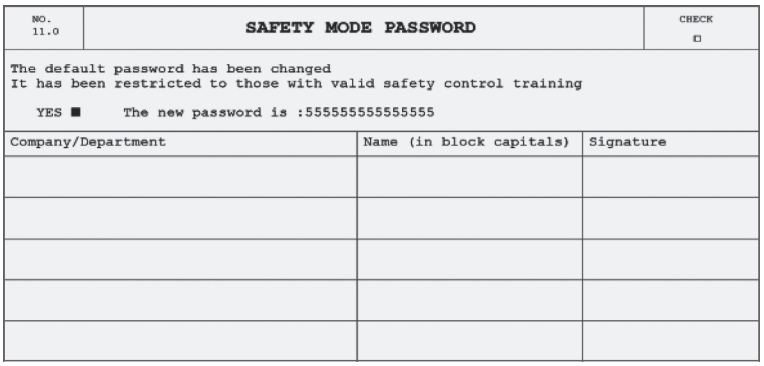
```
ALL.PRM: 869619876
AXRNGLMT.DAT: 2764763989
AXSPDMON.DAT: 2155873973
RBRNGLMT.DAT: 2786858021
SPDLMT.DAT: 3941984649
TLANGMON.DAT: 1558066036
TOOLINTF.DAT: 4263051367
TOOL.CND: 1908732103
```

NO. 13.0 — HOME POS CALIB DATA — CHECK

Zero positions have been checked and are correct

ROBOT

	S	L	U	R	B	T	E	S
R1	+1224	-80612	+76199	+2549	-12910	-15120	- ------	- ------

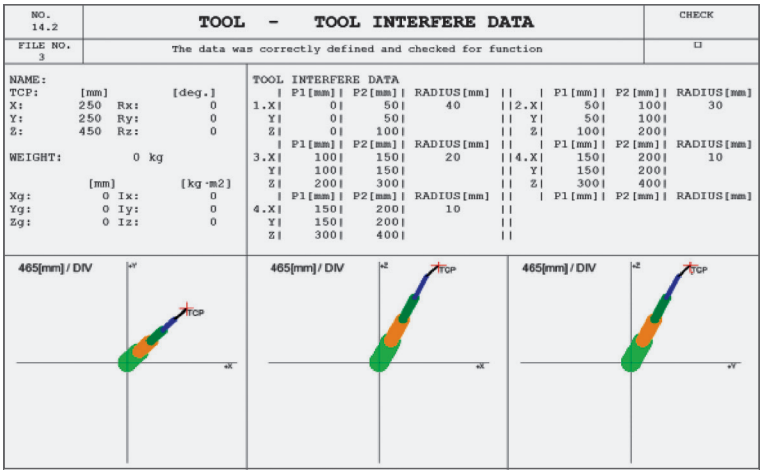


NO. 11.0 — SAFETY MODE PASSWORD — CHECK

The default password has been changed
It has been restricted to those with valid safety control training

YES ■ The new password is :555555555555555

Company/Department	Name (in block capitals)	Signature



NO. 14.2 — TOOL - TOOL INTERFERE DATA — CHECK

FILE NO. 3 — The data was correctly defined and checked for function

NAME:

TCP:	[mm]		[deg.]
X:	250	Rx:	0
Y:	250	Ry:	0
Z:	450	Rz:	0

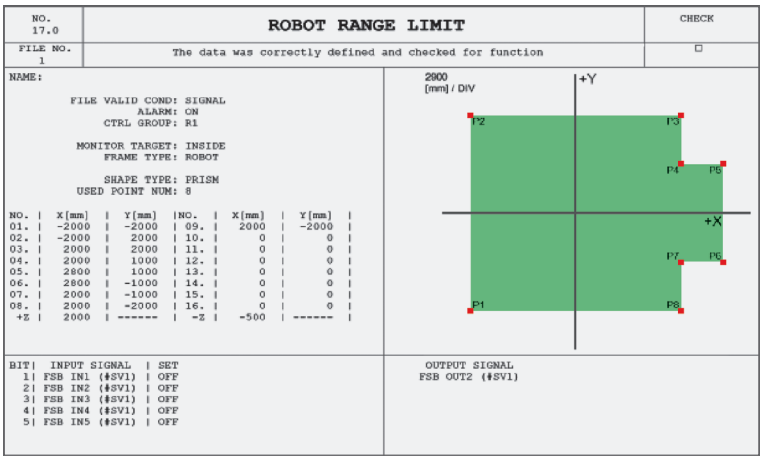
WEIGHT: 0 kg

	[mm]		[kg·m2]
Xg:	0	Ix:	0
Yg:	0	Iy:	0
Zg:	0	Iz:	0

TOOL INTERFERE DATA

	P1[mm]	P2[mm]	RADIUS[mm]
1.X	0	50	40
Y	0	50	
Z	0	100	
3.X	100	150	20
Y	100	150	
Z	200	300	
4.X	150	200	10
Y	150	200	
Z	300	400	

	P1[mm]	P2[mm]	RADIUS[mm]
2.X	50	100	30
Y	50	100	
Z	100	200	
4.X	150	200	10
Y	150	200	
Z	300	400	



NO. 17.0 — ROBOT RANGE LIMIT — CHECK

FILE NO. 1 — The data was correctly defined and checked for function

NAME:

```
FILE VALID COND: SIGNAL
ALARM: ON
CTRL GROUP: R1

MONITOR TARGET: INSIDE
FRAME TYPE: ROBOT

SHAPE TYPE: PRISM
USED POINT NUM: 8
```

NO.	X[mm]	Y[mm]	NO.	X[mm]	Y[mm]
01.	-2000	-2000	09.	2000	-2000
02.	-2000	2000	10.	0	0
03.	2000	2000	11.	0	0
04.	2000	1000	12.	0	0
05.	2800	1000	13.	0	0
06.	2800	-1000	14.	0	0
07.	2000	-1000	15.	0	0
08.	2000	-2000	16.	0	0
+Z	2000	------	-Z	-500	------

BIT	INPUT SIGNAL	SET
1	FSB IN1 (#SV1)	OFF
2	FSB IN2 (#SV1)	OFF
3	FSB IN3 (#SV1)	OFF
4	FSB IN4 (#SV1)	OFF
5	FSB IN5 (#SV1)	OFF

OUTPUT SIGNAL
FSB OUT2 (#SV1)

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