

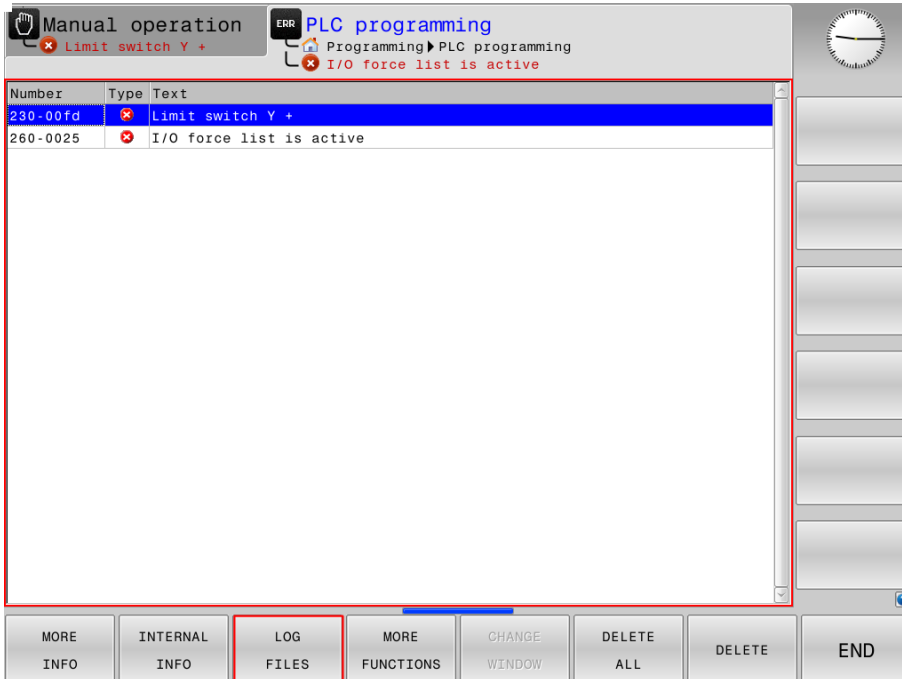
*A2 OPERATION PROCEDURE*

*HEIDENHAIN\_LOG&SERVICE FILES.DOCX*

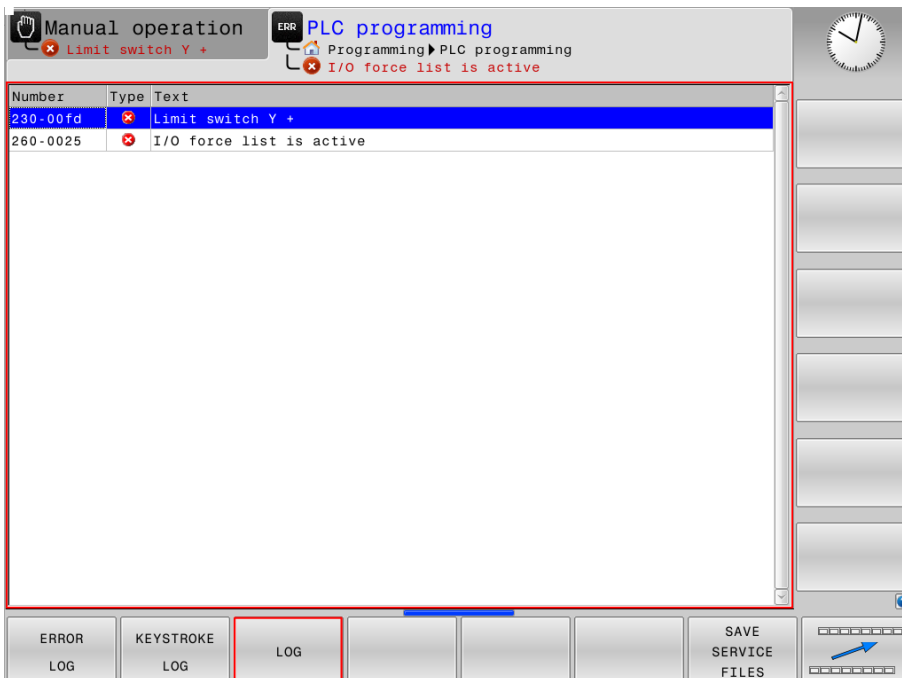
LOG FILES check .....	3
Servicefiles create .....	8
servicefiles analysis.....	11

## LOG FILES Check

Press panel ERR(  ) button, press LOG FILES soft key



Press LOG soft key



## LOG FILES content check

Manual operation  
 × Limit switch Y +

ERR PLC programming  
 Programming PLC programming  
 × I/O force list is active

Type	Description	Source	Time
1	Scroll: up(120)	Config/edit...	11:54:27 2019 10 21
2	Left button down at (109,338)	Config/edit...	11:54:29 2019 10 21
3	Left button up at (109,338)	Config/edit...	11:54:29 2019 10 21
4	Left button down at (109,338)	Config/edit...	11:54:30 2019 10 21
5	Left button up at (109,338)	Config/edit...	11:54:30 2019 10 21
6	Left button down at (60,338)	Config/edit...	11:54:30 2019 10 21
7	Left button up at (60,338)	Config/edit...	11:54:30 2019 10 21
8	Left button down at (835,730)	SkManager/s...	11:54:32 2019 10 21
9	Left button up at (835,730)	SkManager/s...	11:54:32 2019 10 21
10	Left button down at (344,442)	Config/edit...	11:54:36 2019 10 21
11	Left button up at (344,442)	Config/edit...	11:54:36 2019 10 21
12	Scroll: down(-120)	Config/edit...	11:54:36 2019 10 21
13	Scroll: down(-120)	Config/edit...	11:54:36 2019 10 21
14	Scroll: down(-120)	Config/edit...	11:54:36 2019 10 21
15	Scroll: down(-120)	Config/edit...	11:54:36 2019 10 21
16	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
17	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
18	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
19	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
20	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
21	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21

BEGIN END FIND FILTER OFF ON FILTER SETTINGS

Press FIND soft key to research keyword

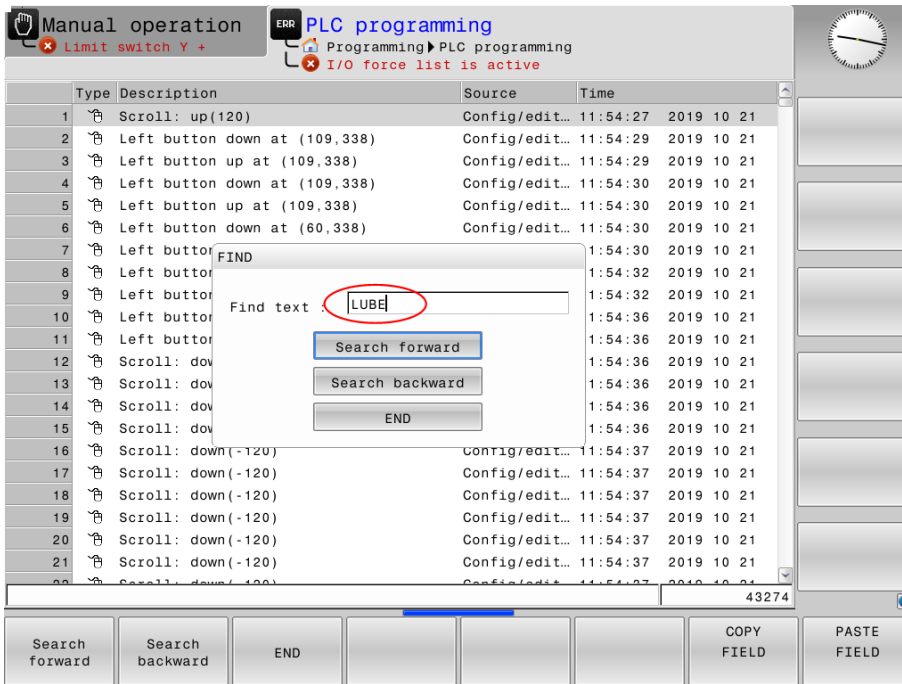
Manual operation  
 × Limit switch Y +

ERR PLC programming  
 Programming PLC programming  
 × I/O force list is active

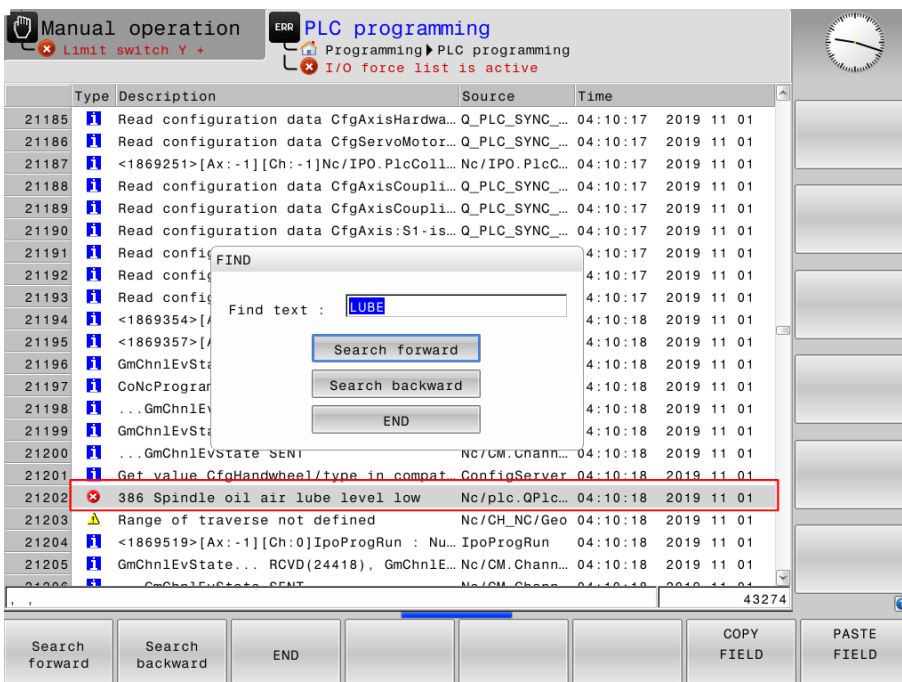
Type	Description	Source	Time
1	Scroll: up(120)	Config/edit...	11:54:27 2019 10 21
2	Left button down at (109,338)	Config/edit...	11:54:29 2019 10 21
3	Left button up at (109,338)	Config/edit...	11:54:29 2019 10 21
4	Left button down at (109,338)	Config/edit...	11:54:30 2019 10 21
5	Left button up at (109,338)	Config/edit...	11:54:30 2019 10 21
6	Left button down at (60,338)	Config/edit...	11:54:30 2019 10 21
7	Left button up at (60,338)	Config/edit...	11:54:30 2019 10 21
8	Left button down at (835,730)	SkManager/s...	11:54:32 2019 10 21
9	Left button up at (835,730)	SkManager/s...	11:54:32 2019 10 21
10	Left button down at (344,442)	Config/edit...	11:54:36 2019 10 21
11	Left button up at (344,442)	Config/edit...	11:54:36 2019 10 21
12	Scroll: down(-120)	Config/edit...	11:54:36 2019 10 21
13	Scroll: down(-120)	Config/edit...	11:54:36 2019 10 21
14	Scroll: down(-120)	Config/edit...	11:54:36 2019 10 21
15	Scroll: down(-120)	Config/edit...	11:54:36 2019 10 21
16	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
17	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
18	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
19	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
20	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21
21	Scroll: down(-120)	Config/edit...	11:54:37 2019 10 21

BEGIN END FIND FILTER OFF ON FILTER SETTINGS

Example: Research as key word "LUBE"



You can find the LUBE related message



FILTER SETTINGS of filtering function

Press FILTER SETTING soft key

Manual operation | **ERR** PLC programming  
 Limit switch Y + | Programming | PLC programming  
 I/O force list is active

Type	Description	Source	Time
21185	Read configuration data CfgAxisHardwa... Q_PLC_SYNC...	04:10:17	2019 11 01
21186	Read configuration data CfgServoMotor... Q_PLC_SYNC...	04:10:17	2019 11 01
21187	<1869251>[Ax:-1][Ch:-1]Nc/IPO.PlcColl... Nc/IPO.PlcC...	04:10:17	2019 11 01
21188	Read configuration data CfgAxisCoupli... Q_PLC_SYNC...	04:10:17	2019 11 01
21189	Read configuration data CfgAxisCoupli... Q_PLC_SYNC...	04:10:17	2019 11 01
21190	Read configuration data CfgAxis:S1-is... Q_PLC_SYNC...	04:10:17	2019 11 01
21191	Read configuration data CfgAxisHardwa... Q_PLC_SYNC...	04:10:17	2019 11 01
21192	Read configuration data CfgServoMotor... Q_PLC_SYNC...	04:10:17	2019 11 01
21193	Read configuration data CfgAxisCoupli... Q_PLC_SYNC...	04:10:17	2019 11 01
21194	<1869354>[Ax:-1][Ch:-1]Nc/IPO.PlcColl... Nc/IPO.PlcC...	04:10:18	2019 11 01
21195	<1869357>[Ax:-1][Ch:0]IpoProgRun : Nu... IpoProgRun	04:10:18	2019 11 01
21196	GmChnlEvState... RCVD(24398), GmChnlE... Nc/CM.Chann...	04:10:18	2019 11 01
21197	CoNcProgram: StartProg() interpreteMo... Nc/CH_NC/Geo...	04:10:18	2019 11 01
21198	...GmChnlEvState SENT	Nc/CM.Chann...	04:10:18 2019 11 01
21199	GmChnlEvState... RCVD(24399), GmChnlE... Nc/CM.Chann...	04:10:18	2019 11 01
21200	...GmChnlEvState SENT	Nc/CM.Chann...	04:10:18 2019 11 01
21201	Get value CfgHandwheel/type in compat... ConfigServer	04:10:18	2019 11 01
21202	<b>386 Spindle oil air lube level low</b>	<b>Nc/plc.OPlc...</b>	<b>04:10:18 2019 11 01</b>
21203	Range of traverse not defined	Nc/CH_NC/Geo	04:10:18 2019 11 01
21204	<1869519>[Ax:-1][Ch:0]IpoProgRun : Nu... IpoProgRun	04:10:18	2019 11 01
21205	GmChnlEvState... RCVD(24418), GmChnlE... Nc/CM.Chann...	04:10:18	2019 11 01

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BEGIN | END | FIND | FILTER OFF | **FILTER SETTINGS** | UPDATE

## FILTER SETTING selected and filter message type

Manual operation | **ERR** PLC programming  
 Limit switch Y + | Programming | PLC programming  
 I/O force list is active

Type	Description	Source	Time
21185	Read configuration data CfgAxisHardwa... Q_PLC_SYNC...	04:10:17	2019 11 01
21186	Read configuration data CfgServoMotor... Q_PLC_SYNC...	04:10:17	2019 11 01
21187	<1869251>[Ax:-1][Ch:-1]Nc/IPO.PlcColl... Nc/IPO.PlcC...	04:10:17	2019 11 01
21188	Read configuration data CfgAxisCoupli... Q_PLC_SYNC...	04:10:17	2019 11 01
21189	Read configuration data CfgAxisCoupli... Q_PLC_SYNC...	04:10:17	2019 11 01
21190	Read configuration data CfgAxis:S1-is... Q_PLC_SYNC...	04:10:17	2019 11 01
21191	Read configuration data CfgAxisHardwa... Q_PLC_SYNC...	04:10:17	2019 11 01
21192	Read configuration data CfgServoMotor... Q_PLC_SYNC...	04:10:17	2019 11 01
21193	Read configuration data CfgAxisCoupli... Q_PLC_SYNC...	04:10:17	2019 11 01
21194	<1869354>[Ax:-1][Ch:-1]Nc/IPO.PlcColl... Nc/IPO.PlcC...	04:10:18	2019 11 01
21195	<1869357>[Ax:-1][Ch:0]IpoProgRun : Nu... IpoProgRun	04:10:18	2019 11 01
21196	GmChnlEvState... RCVD(24398), GmChnlE... Nc/CM.Chann...	04:10:18	2019 11 01
21197	CoNcProgram: StartProg() interpreteMo... Nc/CH_NC/Geo...	04:10:18	2019 11 01
21198	...GmChnlEvState SENT	Nc/CM.Chann...	04:10:18 2019 11 01
21199	GmChnlEvState... RCVD(24399), GmChnlE... Nc/CM.Chann...	04:10:18	2019 11 01
21200	...GmChnlEvState SENT	Nc/CM.Chann...	04:10:18 2019 11 01
21201	Get value CfgHandwheel/type in compat... ConfigServer	04:10:18	2019 11 01
21202	<b>386 Spindle oil air lube level low</b>	<b>Nc/plc.OPlc...</b>	<b>04:10:18 2019 11 01</b>
21203	Range of traverse not defined	Nc/CH_NC/Geo	04:10:18 2019 11 01
21204	<1869519>[Ax:-1][Ch:0]IpoProgRun : Nu... IpoProgRun	04:10:18	2019 11 01
21205	GmChnlEvState... RCVD(24418), GmChnlE... Nc/CM.Chann...	04:10:18	2019 11 01

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INFO | WARNING | ERROR | SYSTEM ERRORS | **FURTHER FILTER FUNCTIONS** | UPDATE

## Example: Filtering ERROR message content

Manual operation ERR PLC programming  
x Limit switch Y + x I/O force list is active

Type	Description	Source	Time
21185	Read configuration data CfgAxisHardwa... Q_PLC_SYNC...	04:10:17	2019 11 01
21186	Read configuration data CfgServoMotor... Q_PLC_SYNC...	04:10:17	2019 11 01
21187	<1869251>[Ax:-1][Ch:-1]Nc/IPO.PlcColl... Nc/IPO.PlcC...	04:10:17	2019 11 01
21188	Read configuration data CfgAxisCoupli... Q_PLC_SYNC...	04:10:17	2019 11 01
21189	Read configuration data CfgAxisCoupli... Q_PLC_SYNC...	04:10:17	2019 11 01
21190	Read configuration data CfgAxis:S1-is... Q_PLC_SYNC...	04:10:17	2019 11 01
21191	Read configuration data CfgAxisHardwa... Q_PLC_SYNC...	04:10:17	2019 11 01
21192	Read configuration data CfgServoMotor... Q_PLC_SYNC...	04:10:17	2019 11 01
21193	Read configuration data CfgAxisCoupli... Q_PLC_SYNC...	04:10:17	2019 11 01
21194	<1869354>[Ax:-1][Ch:-1]Nc/IPO.PlcColl... Nc/IPO.PlcC...	04:10:18	2019 11 01
21195	<1869357>[Ax:-1][Ch:0]IpoProgRun : Nu... IpoProgRun	04:10:18	2019 11 01
21196	GmChnlEvState... RCVD(24398), GmChnlE... Nc/GM.Chann...	04:10:18	2019 11 01
21197	CoNcProgram: StartProg() interpreteMo... Nc/CH_NC/Ge...	04:10:18	2019 11 01
21198	...GmChnlEvState SENT	Nc/GM.Chann...	04:10:18 2019 11 01
21199	GmChnlEvState... RCVD(24399), GmChnlE... Nc/GM.Chann...	04:10:18	2019 11 01
21200	...GmChnlEvState SENT	Nc/GM.Chann...	04:10:18 2019 11 01
21201	Get value CfgHandwheel/type in compat... ConfigServer	04:10:18	2019 11 01
21202	<span style="color: red;">x</span> 386 Spindle oil air lube level low	Nc/plc.QPlc...	04:10:18 2019 11 01
21203	Range of traverse not defined	Nc/CH_NC/Geo	04:10:18 2019 11 01
21204	<1869519>[Ax:-1][Ch:0]IpoProgRun : Nu... IpoProgRun	04:10:18	2019 11 01
21205	GmChnlEvState... RCVD(24418), GmChnlE... Nc/GM.Chann...	04:10:18	2019 11 01

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INFO WARNING **ERROR** SYSTEM ERRORS FURTHER FILTER FUNCTIONS UPDATE

Press UPDATE for filtering the message type

Manual operation ERR PLC programming  
x Limit switch Y + x I/O force list is active

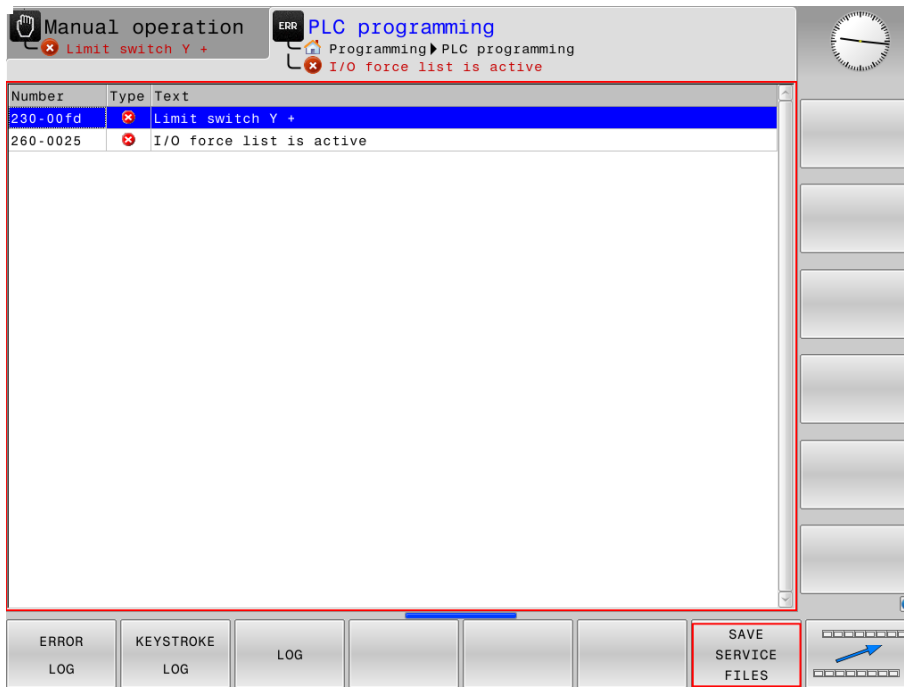
Type	Description	Source	Time
61	<span style="color: red;">x</span> 378 Auto roof unlocked fault	Nc/plc.QPlc...	08:21:33 2019 11 04
62	<span style="color: red;">x</span> 421 SAFETY GUARD IS OPEN	Nc/plc.QPlc...	08:21:33 2019 11 04
63	<span style="color: red;">x</span> 386 Spindle oil air lube level low	Nc/plc.QPlc...	08:21:34 2019 11 04
64	<span style="color: red;">x</span> Deviation in the switch-on position o...	Nc/IPO.QKan...	08:21:34 2019 11 04
65	<span style="color: red;">x</span> 335 SPINDLE OIL(WATER) CHILLER ALARM	Nc/plc.QPlc...	08:21:38 2019 11 04
66	//***** SYSTEM START Date: 05.11...		02:07:05 2019 11 05
67	//***** PRODUCT: TNC640 3405...		
68	//***** KERNEL: NC-Kernel 59...		
69	//***** SYSTEM START Date: 05.11...		02:11:56 2019 11 05
70	//***** PRODUCT: TNC640 3405...		
71	//***** KERNEL: NC-Kernel 59...		
72	<span style="color: red;">x</span> Lubrication oil level low	Nc/plc.QPlc...	02:12:53 2019 11 05
73	<span style="color: red;">x</span> 335 SPINDLE OIL(WATER) CHILLER ALARM	Nc/plc.QPlc...	02:12:53 2019 11 05
74	<span style="color: red;">x</span> 339 3 phases lost	Nc/plc.QPlc...	02:12:54 2019 11 05
75	<span style="color: red;">x</span> 347 Roof guard is open	Nc/plc.QPlc...	02:12:54 2019 11 05
76	<span style="color: red;">x</span> 357 Roof guard locked fault	Nc/plc.QPlc...	02:12:54 2019 11 05
77	<span style="color: red;">x</span> 360 Spindle ATC sensor fault	Nc/plc.QPlc...	02:12:54 2019 11 05
78	<span style="color: red;">x</span> 364 Spindle clamped timeout	Nc/plc.QPlc...	02:12:54 2019 11 05
79	<span style="color: red;">x</span> 377 Auto roof locked fault	Nc/plc.QPlc...	02:12:54 2019 11 05
80	<span style="color: red;">x</span> 378 Auto roof unlocked fault	Nc/plc.QPlc...	02:12:54 2019 11 05
81	<span style="color: red;">x</span> 421 SAFETY GUARD IS OPEN	Nc/plc.QPlc...	02:12:54 2019 11 05

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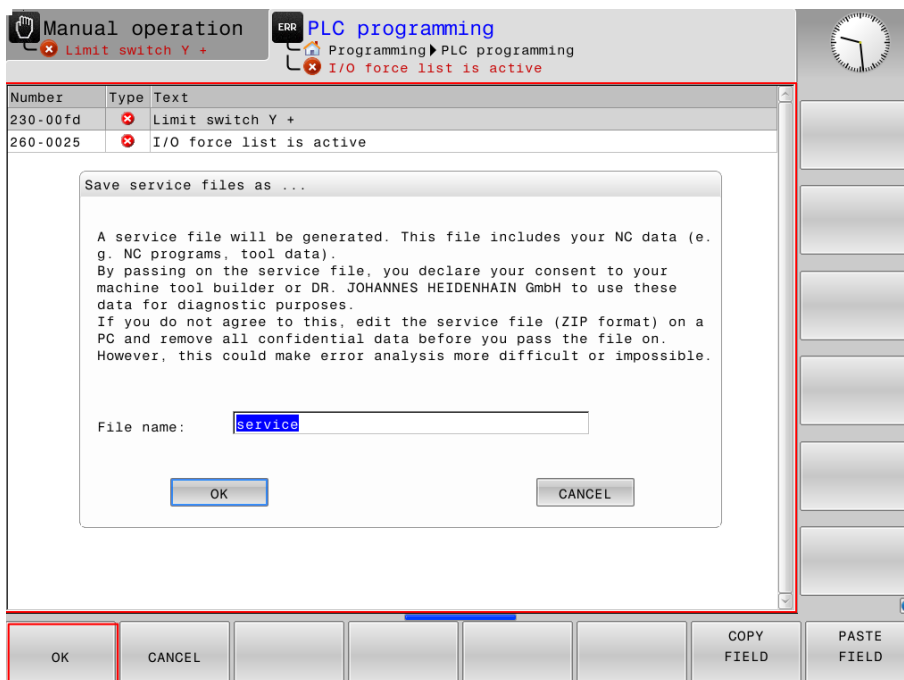
INFO WARNING **ERROR** SYSTEM ERRORS FURTHER FILTER FUNCTIONS UPDATE

## Service files create

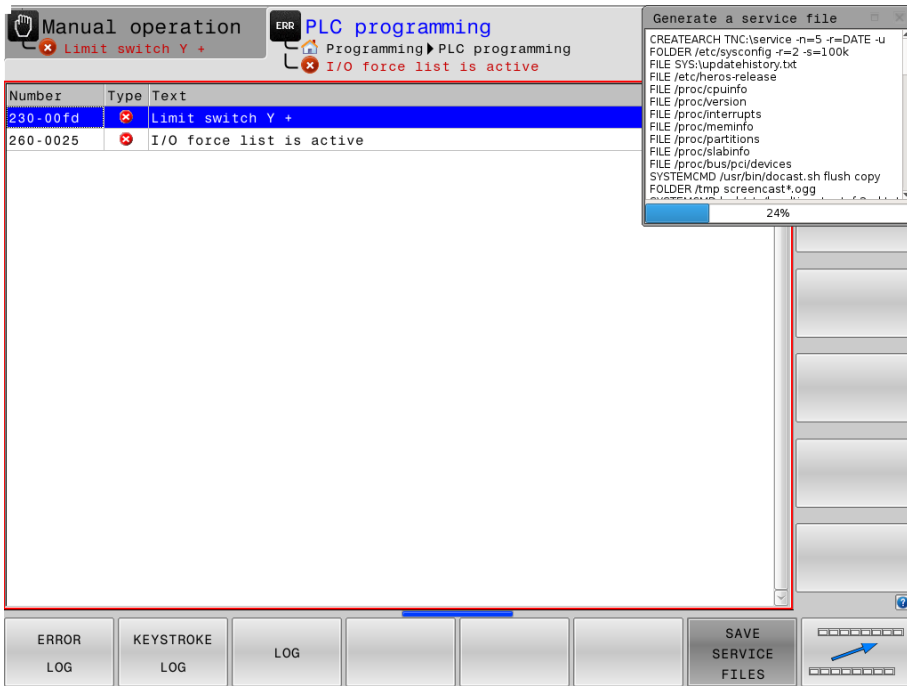
Enter LOG FILES screen and press SAVE SERVICE FILES soft key



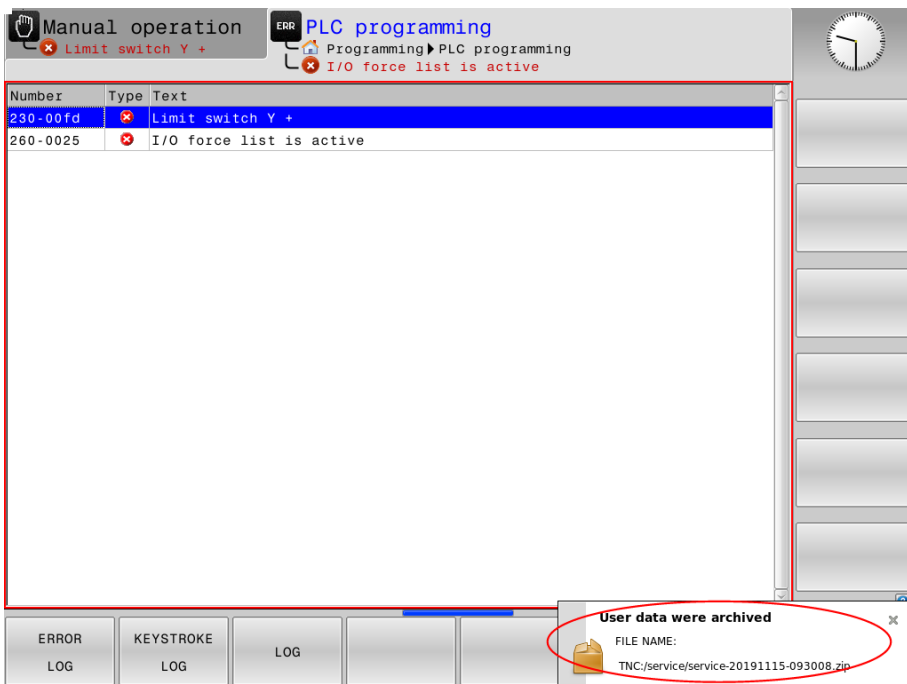
Dialogue of File name enter file name or using presetting file name and press OK soft key.







File save to machine TNC:/service/



File can download from TNC:\service\path

Manual operation ✖ Limit switch Y +

PGM MCT **PLC programming**  
✖ I/O force list is active

TNC:\service\  
 service-20191115-093008.zip

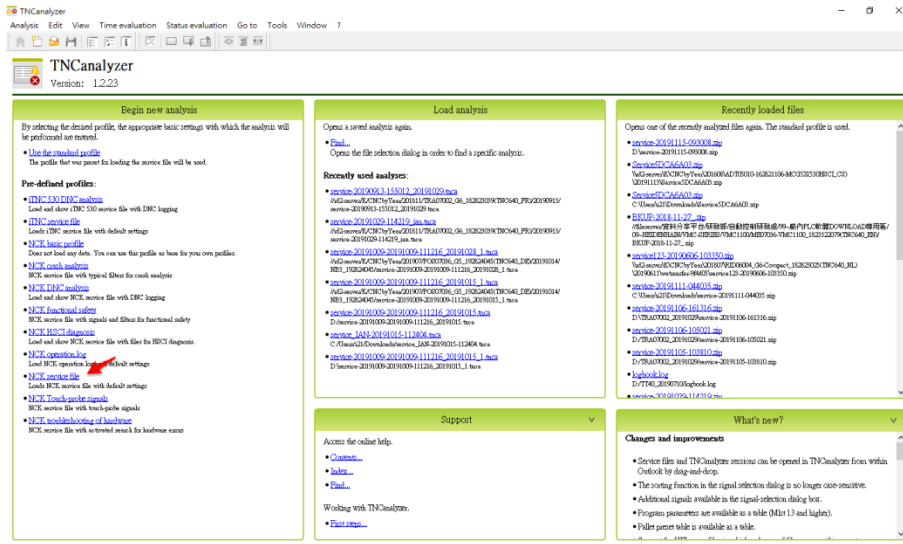
File name	Bytes	Status	Date	Time
service_20191115-0930...	29779K		15-11-2019	09:30:29
ncCrash-20191113-1001...	39804K		13-11-2019	10:02:05
service-20191015-0432...	17316K		13-11-2019	09:33:55
service456-20190116-1...	29034K		11-11-2019	09:48:20
service123-20190523-1...	32375K		11-11-2019	09:47:58
service123-20190123-1...	24006K		11-11-2019	09:47:35
service123-20190116-1...	29027K		11-11-2019	09:47:16
service111-20190523-1...	32382K		11-11-2019	09:46:53
service.zip	29040K		11-11-2019	09:46:28
service-20190523-1026...	32370K		11-11-2019	09:46:06
service-20191111-0438...	9940K		11-11-2019	04:38:37
ncCrash-20191108-0956...	9894K		08-11-2019	09:56:25
ncCrash-20191025-0734...	9775K		25-10-2019	12:08:54
ncCrash-20191025-0527...	9816K		25-10-2019	12:08:48
ncCrash-20191021-0911...	8946K		25-10-2019	12:08:42
service-20191017-0956...	8707K		25-10-2019	12:08:37
service_20191017-2019...	8688K		25-10-2019	12:08:32
..			15-11-2019	09:30:08

17 file(s) 17.48 GB vacant

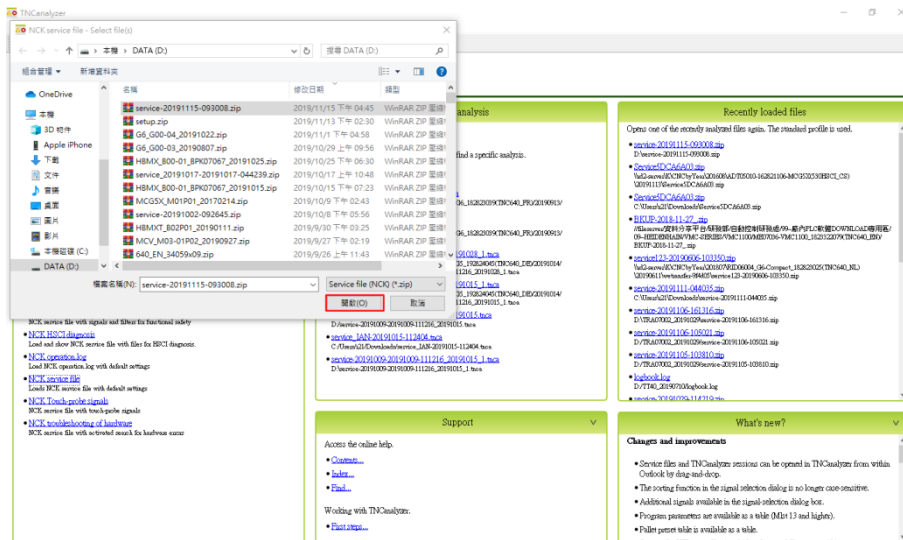
PAGE PAGE SELECT COPY SELECT WINDOW LAST FILES END

# Service files analysis

Use TNC analyzer software to activated the file service-20191115-093008.zip  
 Activated TNC analyzer software, select NCK service file.



## Select file and press activated



Open service file and use related function proceed file analysis.

TNCAnalyzer - (service-20191115-093008.zip)

Analysis Edit View Time evaluation Status evaluation Go to Tools Window ?

www-20191115-093008.zip

90746/90746 Manual Operation 70.0

Index	Timestamp	Category	Content
72000	01.11.2019 - 04:10:17.452	OEMERROR	#TRIGGERED 347 Roof guard is open #ID PLC00347
72001	01.11.2019 - 04:10:17.454	NCRERR	#TRIGGERED NCRSTOP
72002	01.11.2019 - 04:10:17.466	SYSTEM	#SELFTTEST started
72003	01.11.2019 - 04:10:17.475	OEMERROR	#TRIGGERED 357 Roof guard locked fault #ID PLC00357
72004	01.11.2019 - 04:10:17.495	OEMERROR	#TRIGGERED 360 Spindle ATC sensor fault #ID PLC00360
72005	01.11.2019 - 04:10:17.515	OEMERROR	#TRIGGERED 363 Chip conveyor timer error #ID PLC00363
72006	01.11.2019 - 04:10:17.536	OEMERROR	#TRIGGERED 364 Spindle clamped timeout #ID PLC00364
72007	01.11.2019 - 04:10:17.543	SYSTEM	#SELFTTEST skipped
72008	01.11.2019 - 04:10:17.557	OEMERROR	#TRIGGERED 377 Auto roof locked fault #ID PLC00377
72009	01.11.2019 - 04:10:17.582	OEMERROR	#TRIGGERED 378 Auto roof unlocked fault #ID PLC00378
72010	01.11.2019 - 04:10:17.599	OEMERROR	#TRIGGERED 421 SAFETY GUARD IS OPEN #ID PLC00421
72011	01.11.2019 - 04:10:17.662	DCM	#DCMSTATE ACTIVE_BUT_NOREP
72012	01.11.2019 - 04:10:17.694	NCRERR	#TRIGGERED DCM inactive: Axis has not yet been homed #ID 292-0016
72013	01.11.2019 - 04:10:17.958	OEMERROR	#CLEARED 363 Chip conveyor timer error #ID PLC00363
72014	01.11.2019 - 04:10:18.157	TOOL	#NUMBER 0 #NAME #TYPE MILL #DIMENSION L=0.000000 R=0.000000 DR=0.000000 DR2=0.000000
72015	01.11.2019 - 04:10:18.544	OEMERROR	#TRIGGERED 386 Spindle oil air tube level low #ID PLC00386
72016	01.11.2019 - 04:10:18.596	NCRERR	#TRIGGERED Range of traverse not defined #ID 160-011f
72017	01.11.2019 - 04:10:18.739	NCRERR	#TRIGGERED Deviation in the switch-on position of axis X too large #ID 230-01ad
72018	01.11.2019 - 04:10:18.740	POSITION	#X 9.999990 #Y -591.303382 #Z 691.311002 #A 0.000000 #C 39.955324 #I1ag1 0.000000 #I1ag2 0.000000 #V 409.940332 #S1 0.000000
72019	01.11.2019 - 04:10:18.740	POSITION	#CLPV 0.000000 #CLPV 0.000000 #CLPZ 0.000000
72020	01.11.2019 - 04:10:18.815	CRMODE	#MACHINE Traverse reference points
72021	01.11.2019 - 04:10:19.485	CONFRG	#Source PO #Object CfgEndatInfo/39001015 inserted #File PLC:\config\axlist.cfg #Dataset Base
72022	01.11.2019 - 04:10:19.540	CONFRG	#Source PO #Param CfgEndatInfo/39001015/EndatMultTurnCr #Set 0 #Dataset Base
72023	01.11.2019 - 04:10:19.561	CONFRG	#Source PO #Object CfgEndatInfo/39001016 inserted #File PLC:\config\axlist.cfg #Dataset Base
72024	01.11.2019 - 04:10:19.586	CONFRG	#Source PO #Param CfgEndatInfo/39001016/EndatMultTurnCr #Set 0 #Dataset Base
72025	01.11.2019 - 04:10:19.611	CONFRG	#Source PO #Object CfgEndatInfo/39001017 inserted #File PLC:\config\axlist.cfg #Dataset Base
72026	01.11.2019 - 04:10:19.640	CONFRG	#Source PO #Param CfgEndatInfo/39001017/EndatMultTurnCr #Set 0 #Dataset Base
72027	01.11.2019 - 04:10:20.044	PYTHON	#START /mnt/plc/python/pyMasks.py #JOBNAME PV_Masks
72028	01.11.2019 - 04:10:21.382	USER	#ACTION ENDAT_YES_ID #CAUSE MOUSE
72029	01.11.2019 - 04:10:21.494	DCM	#DCMSTATE ACTIVE
72030	01.11.2019 - 04:10:21.542	REMOTE	#CONNECT localhost #IP 127.0.0.1 #ACCESSMODE < > #ID RPC3
72031	01.11.2019 - 04:10:21.698	NCRERR	#CLEARED DCM inactive: Axis has not yet been homed #ID 292-0016

TNC640, NC-SW: 340595 09 Hotfix1, NCK NC-Kernel 597110 13 Hotfix1, SIK Serial No. (S/N) PCsimulation Start: 25.09.2019 - 05:36:00.950 End: 15.11.2019 - 09:29:59.032 Duration: 51, 03:53:58.082