

CNC: Function Reference related to library handle, node

Function Name	Brief description
cnc_rdnodenum	Read the number of node
cnc_rdnodeinfo	Read the information of node
cnc_setdefnode	Set the default node number
cnc_allclibhndl	Allocate library handle
cnc_allclibhndl2	Allocate the library handle(for multi-connection)
cnc_allclibhndl3	Get the library handle(for Ethernet)
cnc_freelibhndl	Free library handle
cnc_settimeout	Set timeout interval
cnc_getlibopt	Get a library option
cnc_setlibopt	Set a library option

CNC: Function related to controlled axis/spindle

Function Name	Brief description
cnc_actf	Read actual axis feedrate(F)
cnc_absolute	Read absolute axis position
cnc_absolute2	Read absolute axis position 2
cnc_machine	Read machine axis position
cnc_relative	Read relative axis position
cnc_relative2	Read relative axis position 2
cnc_distance	Read distance to go
cnc_rdposition	Read position information
cnc_rdxaxisdata	Read various data relating servo axis or spindle axis
cnc_skip	Read skip position
cnc_srvdelay	Read servo delay value
cnc_accdecdly	Read acceleration/deceleration delay value
cnc_rddynamic	Read all dynamic data
cnc_rddynamic2	Read all dynamic data (2)
cnc_acts	Read actual spindle speed(S)
cnc_acts2	Read actual spindle speed(S) (2)
cnc_rdspcss	Read constant surface speed data
cnc_rdspeed	Read speed information
cnc_wrrelpos	Set origin/preset relative axis position
cnc_prstwkcd	Preset work coordinate
cnc_rdmovrlap	Read manual overlapped motion value
cnc_canmovrlap	Cancel manual overlapped motion value
cnc_rdhndintrpt	Read manual overlapped motion information
cnc_rdspload	Read load information of serial spindle
cnc_rdspmaxrpm	Read maximum r.p.m. ratio of serial spindle

cnc_rdspgear	Read gear ratio of serial spindle
cnc_rdsvmeter	Read servo load meter
cnc_rdspmeter	Read spindle load meter
cnc_rd3dtooltip	Read tool tip coordinates for 3-dimensional handle feed
cnc_rd3dpulse	Read handle interrupt pulse amount for 3-dimensional handle feed
cnc_rd3dmovrlap	Read handle interrupt move amount for 3-dimensional handle feed
cnc_rd3dofschg	Read the modification of tool length compensation amount in tool axis dir. for 3-dimensional handle feed
cnc_clr3dplsmov	Clear handle interrupt pulse and move amount for 3-dimensional handle feed
cnc_rdaxisname	Read axis name
cnc_exaxisname	Read the name of controlled axis and spindle name
cnc_exaxisname2	Read the name of controlled axis and spindle name(2)
cnc_rdspdlname	Read spindle name
cnc_rd5axmandt	Read the data for the manual feed for 5-axis machining
cnc_rd5axovrlap	Read the machine axis movement for the manual feed for 5-axis machining
cnc_clr5axpls	Clear the pulse amount for manual feed for 5-axis machining

CNC: Function related to CNC program

Function Name	Brief description
cnc_dwnstart	Start downloading NC program
cnc_download	Download NC program
cnc_cdownload	Download NC program(conditional)
cnc_dwnend	End of downloading NC program
cnc_dwnstart3	Start downloading NC program (3)
cnc_download3	Download NC program (3)
cnc_dwnend3	End of downloading NC program (3)
cnc_dwnstart4	Start downloading NC program (4)
cnc_download4	Download NC program (4)
cnc_dwnend4	End of downloading NC program (4)
cnc_vrfstart	Start verification of NC program
cnc_verify	Verify NC program
cnc_cverify	Verify NC program(conditional)
cnc_vrfend	End of verification
cnc_vrfstart4	Start verification of NC program(4)
cnc_verify4	Verify NC program(4)
cnc_vrfend4	End of verification(4)
cnc_buff	Read buffer status for downloading/verification NC program
cnc_dncstart	Start downloading DNC program
cnc_dnc	Download DNC program
cnc_cdnc	Download DNC program(conditional)
cnc_dncend	End of downloading DNC program
cnc_dncstart2	Start downloading DNC program (2)
cnc_dnc2	Download DNC program (2)
cnc_dncend2	End of downloading DNC program (2)
cnc_rddncdgnDt	Read the diagnosis data of downloading DNC program
cnc_upstart	Start uploading NC program

<u>cnc_upload</u>	Upload NC program
<u>cnc_cupload</u>	Upload NC program(conditional)
<u>cnc_upend</u>	End of uploading NC program
<u>cnc_upstart3</u>	Start uploading NC program (3)
<u>cnc_upload3</u>	Upload NC program (3)
<u>cnc_upend3</u>	End of uploading NC program (3)
<u>cnc_upstart4</u>	Start uploading NC program (4)
<u>cnc_upload4</u>	Upload NC program (4)
<u>cnc_upend4</u>	End of uploading NC program (4)
<u>cnc_search</u>	Search specified program
<u>cnc_delall</u>	Delete all programs
<u>cnc_delete</u>	Delete specified program
<u>cnc_delrange</u>	Delete specified program(area specified)
<u>cnc_rdprogrdir</u>	Read program directory
<u>cnc_rdprogrdir2</u>	Read program directory (2)
<u>cnc_rdprogrdir3</u>	Read program directory (3)
<u>cnc_rdprogrdir4</u>	Read program directory (4)
<u>cnc_rdprogrinfo</u>	Read program information
<u>cnc_rdprgnum</u>	Read program number under execution
<u>cnc_exeprgname</u>	Read program name under execution
<u>cnc_exeprgname2</u>	Read program name under execution (2)
<u>cnc_rdseqnum</u>	Read sequence number under execution
<u>cnc_seqsrch</u>	Search specified sequence number
<u>cnc_seqsrch2</u>	Search specified sequence number(2)
<u>cnc_rewind</u>	Rewind cursor of NC program
<u>cnc_rdblkcount</u>	Read block counter
<u>cnc_rdexecprog</u>	Read program under execution
<u>cnc_wrmdiprog</u>	Write program for MDI operation
<u>cnc_rdmnipntr</u>	Read execution pointer for MDI operation
<u>cnc_wrmdipntr</u>	Write execution pointer for MDI operation
<u>cnc_rdmniprstat</u>	Get MDI program information
<u>cnc_rdproctime</u>	Read processing time stamp data
<u>cnc_rdpgrdirtime</u>	Read directory for processing time stamp data
<u>cnc_copyprog</u>	Copy program
<u>cnc_mergeprog</u>	Merge program
<u>cnc_renameprog</u>	Change program number
<u>cnc_condense</u>	Condense program
<u>cnc_rdproglne</u>	Read NC program by line basis
<u>cnc_rdproglne2</u>	Read NC program by line basis(2)
<u>cnc_wrproglne</u>	Write NC program by line basis
<u>cnc_delproglne</u>	Delete NC program by line basis
<u>cnc_searchword</u>	Search string in NC program
<u>cnc_searchresult</u>	Get result of string search in NC program
<u>cnc_setpglock</u>	Set the protection of running/editing of NC program
<u>cnc_resetpglock</u>	Reset the protection of running/editing of NC program
<u>cnc_rdpgllockstat</u>	Get the status of running/editing of NC program
<u>cnc_rdactpt</u>	Get execution pointer

cnc_wractpt	Set execution pointer
cnc_rdexectpt	Read execution pointer
cnc_rdpdf_drive	Read information of Program memory drive
cnc_rdpdf_inf	Read information Program memory file
cnc_rdpdf_curdir	Read information of current folder
cnc_wrpdf_curdir	Set current folder
cnc_rdpdf_subdir	Read information of subfolder
cnc_rdpdf_alldir	Read file information
cnc_rdpdf_subdirn	Read number of subfolders or files
cnc_pdf_add	Create folder or file
cnc_pdf_del	Delete folder or file
cnc_pdf_delall	Delete all programs
cnc_pdf_rename	Rename folder or file
cnc_pdf_copy	Copy file
cnc_pdf_move	Move file
cnc_pdf_cond	Rearrange the contents of the program
cnc_wrpdf_attr	Change attribute of folder or file
cnc_pdf_rdmain	Read main program
cnc_pdf_slctmain	Select main program
cnc_rdpdf_line	Read NC program by line basis(For arbitrary file name)
cnc_wrpdf_line	Write NC program by line basis(For arbitrary file name)
cnc_pdf_delline	Delete NC program by line basis(For arbitrary file name)
cnc_pdf_searchword	Search string in NC program(For arbitrary file name)
cnc_pdf_searchresult	Get result of string search in NC program(For arbitrary file name)
cnc_setpdf_pglock	Set the protection of running/editing of NC program
cnc_resetpdf_pglock	Reset the protection of running/editing of NC program
cnc_rdpdf_pglockstat	Get the status of running/editing of NC program
cnc_pdf_rdactpt	Get execution pointer(For arbitrary file name)
cnc_pdf_wractpt	Set execution pointer(For arbitrary file name)
cnc_saveprog_start	Starts of the manual saving for the high speed program management
cnc_saveprog_end	Get execution result of the manual saving for the high speed program management

CNC: Function related to CNC file data

Function Name	Brief description
cnc_rdtofs	Read tool offset value
cnc_wrtofs	Write tool offset value
cnc_rdtofsr	Read tool offset value(area specified)
cnc_wrtofsr	Write tool offset value(area specified)
cnc_rdtofsinfo	Read tool offset information
cnc_rdtofsinfo2	Read tool offset information (2)
cnc_tofs_rnge	Read the effective setting range of tool offset value
cnc_rdzofs	Read work zero offset value
cnc_wrzofs	Write work zero offset value
cnc_rdzofsr	Read work zero offset value(area specified)
cnc_wrzofsr	Write work zero offset value(area specified)

cnc_rdzofsinfo	Read work zero offset information
cnc_zofs_rnge	Read the effective setting range of work zero offset value
cnc_rdparam	Read parameter
cnc_wrparam	Write parameter
cnc_rdparam3	Read parameter(3)
cnc_rdparar	Read parameter(area specified)
cnc_wrparas	Write parameter(area specified)
cnc_rdparam_ext	Read random number parameters
cnc_rdhspmrinfo	Get information for high-speed read of parameter
cnc_rdhsparam	High-speed read of parameter
cnc_rdparainfo	Read parameter information
cnc_rdparainfo3	Read parameter information (3)
cnc_rdparanum	Read minimum, maximum, total number of parameter
cnc_rdset	Read setting data
cnc_wrset	Write setting data
cnc_rdtype	Read setting data(area specified)
cnc_wrssets	Write setting data(area specified)
cnc_rdtypeinfo	Read setting data information
cnc_rdtypeum	Read minimum, maximum, total number of setting data
cnc_rdpitchr	Read pitch error compensation data(area specified)
cnc_wrpitchr	Write pitch error compensation data(area specified)
cnc_rdpitchinfo	Read pitch error compensation data information
cnc_rdvole	Read 3-dimensional error compensation data
cnc_wrvole	Write 3-dimensional error compensation data
cnc_rdvolecomp	Read 3-dimensional error compensation value at current position
cnc_rdrotdvle	Read the 3-dimensional rotary error compensation data
cnc_wrrrotdvle	Write the 3-dimensional rotary error compensation data
cnc_rdmacro	Read custom macro variable
cnc_wrmacro	Write custom macro variable
cnc_rdmacro	Read custom macro variables(area specified)
cnc_wrmacro	Write custom macro variables(area specified)
cnc_rdmacro2	Read custom macro variables(double precision)
cnc_rdmacro3	Read custom macro variables and name(area specified)
cnc_wrmacro2	Write custom macro variables(double precision)
cnc_rdmacroinfo	Read custom macro variable information
cnc_getmactype	Get type of custom macro variable
cnc_setmactype	Set type of custom macro variable
cnc_rdpmacro	Read P code macro variable
cnc_wrpmacro	Write P code macro variable
cnc_rdpmacro	Read P code macro variables(area specified)
cnc_rdpmacro2	Read P code macro variables(double precision)
cnc_wrpmacro	Write P code macro variables(area specified)
cnc_wrpmacro2	Write P code macro variables(double precision)
cnc_rdpmacroinfo	Read P code macro variable information
cnc_rdpmacroinfo2	Read P code macro variable information(2)
cnc_getpmdactype	Get type of P code macro variable
cnc_setpmdactype	Set type of P code macro variable

cnc_rdmgrpdata	Read M code group data
cnc_wrmgrpdata	Write M code group data
cnc_rdexecmcode	Read M code group data(executing,executed M code)
cnc_rdrstrmcode	Read M code group data(for program restart)
cnc_rdhpcset	Read setting data for High-speed and high-precision machining
cnc_wrhpcset	Write setting data for HPCC
cnc_hpccatset	Set setting data for HPCC automatically
cnc_rdhpcctupr	Read tuning data(parameter input) for HPCC
cnc_wrhpcctupr	Write tuning data(parameter input) for HPCC
cnc_rdhpcctuac	Read tuning data(acc./dec. input) for HPCC
cnc_wrhpcctuac	Write tuning data(acc./dec. input) for HPCC
cnc_hpccattune	Tune up tuning data for HPCC automatically
cnc_hpccactfine	Read fine level for HPCC
cnc_hpccselfine	Select fine level for HPCC
cnc_rdactfixofs	Read active fixture offset
cnc_rdfixofs	Read fixture offset value(area specified)
cnc_wrfixofs	Write fixture offset value(area specified)
cnc_rdintchk	Read interference check data(area specified)
cnc_wrintchk	Write interference check data(area specified)
cnc_r dintinfo	Read interference check data information
cnc_rdwkcdshft	Read work coordinate shift value
cnc_wrwkcdshft	Write work coordinate shift value
cnc_rdwkcdfsms	Read work coordinate shift measured value
cnc_wrwkcdfsms	Write work coordinate shift measured value
cnc_wksft_rnge	Read the effective setting range of work coordinate shift value
cnc_rdbtofsr	Read tool offset value for B axis(area specified)
cnc_wrbtofsr	Write tool offset value for B axis(area specified)
cnc_rdbtofsinfo	Read tool offset information for B axis
cnc_rdbaxis	Read command data for B axis

CNC: Function related to tool life management data

Function Name	Brief description
cnc_rdgrpid	Read tool life management data(tool group number)
cnc_rdgrpid2	Read tool life management data(tool group number) 2
cnc_rdngrp	Read tool life management data(number of tool groups)
cnc_rdntool	Read tool life management data(number of tools)
cnc_rdlife	Read tool life management data(tool life)
cnc_rdcoun	Read tool life management data(tool life counter)
cnc_rd1length	Read tool life management data(tool length number-1)
cnc_rd2length	Read tool life management data(tool length number-2)
cnc_rd1radius	Read tool life management data(cutter compensation num.-1)
cnc_rd2radius	Read tool life management data(cutter compensation num.-2)
cnc_t1info	Read tool life management data(tool information-1)
cnc_t2info	Read tool life management data(tool information-2)
cnc_toolnum	Read tool life management data(tool number)
cnc_rdttoolng	Read tool life management data(tool number, tool life, tool life counter)(area specified)

cnc rdtoolgrp	Read tool life management data(all data within group)
cnc wrcountnr	Write tool life management data(tool life counter)(area specified)
cnc rdusegrpid	Read tool life management data(used tool group number)
cnc rdmaxgrp	Read tool life management data(max. number of tool groups)
cnc rdmaxtool	Read tool life management data(max. number of tool within group)
cnc rdusetlno	Read tool life management data(used tool number within group)
cnc rd1tlifedata	Read tool life management data(tool data1)
cnc rd1tlifedat2	Read tool life management data(tool data1) 2
cnc rd2tlifedata	Read tool life management data(tool data2)
cnc wr1tlifedata	Write tool life management data(tool data1)
cnc wr1tlifedat2	Write tool life management data(tool data1) 2
cnc wr2tlifedata	Write tool life management data(tool data2)
cnc rdgrpinfo	Read tool life management data(tool group information)
cnc rdgrpinfo2	Read tool life management data(tool group information 2)
cnc rdgrpinfo3	Read tool life management data(tool group information 3)
cnc rdgrpinfo4	Read tool life management data(tool group information 4)
cnc wrgrpinfo	Write tool life management data(tool group information)
cnc wrgrpinfo2	Write tool life management data(tool group information 2)
cnc wrgrpinfo3	Write tool life management data(tool group information 3)
cnc deltlifegrp	Delete tool life management data(tool group)
cnc instlifedt	Insert tool life management data(tool data)
cnc deltlifedt	Delete tool life management data(tool data)
cnc clrcntinfo	Clear tool life management data(tool life counter, tool information)(area specified)
cnc rdtlinfo	Read tool life management data(maximum number of tool groups, maximum number of tool within group, maximum number of life count)
cnc rdtlusegrp	Read tool life management data(next/current/last used tool group number)
cnc rdtlgrp	Read tool life management data(tool group information) (area specified)
cnc rdtltool	Read tool life management data(tool data) (area specified)
cnc rdexchgtrp	Read tool life management data(Exchange necessary tool group number)

CNC: Function related to tool management data

Function Name	Brief description
cnc regtool	New registration of Tool management data
cnc regtool f2	New registration of Tool management data (2)
cnc deltool	Delete Tool management data
cnc rdtool	Read Tool management data
cnc rdtool f2	Read Tool management data (2)
cnc wrtool	Write Tool management data
cnc wrtool f2	Write Tool management data (2)
cnc wrtool2	Write individual data of Tool management data
cnc regmagazine	New registration of Magazine management data
cnc delmagazine	Delete Magazine management data
cnc rdmagazine	Read Magazine management data
cnc wrmagazine	Write individual data of Magazine management data
cnc wrtoolgeom tlm	Write tool geometry data
cnc rdtoolgeom tlm	Read tool geometry data
cnc btlfpotsrh	Search empty pot for oversize tool

cnc_rdmag_property	Read the magazine property data
cnc_wrmag_property	Write the magazine property data
cnc_delmag_property	Delete the magazine property data
cnc_rdpot_property	Read the pot property data
cnc_wrpot_property	Write the pot property data
cnc_delpot_property	Delete the pot property data
cnc_tool_move	Move of tool management data
cnc_reg_toolstrage	Registration and release of Tool storage position

CNC: Function related to tool geometry size data

Function Name	Brief description
cnc_rdtlgeomsize_ext	Read the tool geometry size data
cnc_wrtlgeomsize_ext	Write the tool geometry size data

CNC: Function related to history data

Function Name	Brief description
cnc_stopophis	Stop logging operation history data
cnc_startophis	Restart logging operation history data
cnc_rdophisno	Read number of operation history data
cnc_rdophistry	Read operation history data
cnc_rdophistry2	Read operation history data (2)
cnc_rdophistry4	Read operation history data (4)
cnc_clearophis	Clear operation history data
cnc_rdhissgnl	Read signals related operation history
cnc_wrhissgnl	Write signals related operation history
cnc_rdhissgnl2	Read signals related operation history(2)
cnc_wrhissgnl2	Write signals related operation history(2)
cnc_rdhissgnl3	Read signals related operation history(3)
cnc_wrhissgnl3	Write signals related operation history(3)
cnc_wrkeyhistry	Record of key stroke
cnc_rdalmhisno	Read number of alarm history data
cnc_rdalmhistry	Read alarm history data
cnc_rdalmhistry2	Read alarm history data (2)
cnc_rdalmhistry5	Read alarm history data (5)
cnc_stopomhis	Stop logging external operator's message history data
cnc_startomhis	Restart logging external operator's message history data
cnc_rdomhisinfo	Read external operator's message history data information
cnc_rdomhisno	Read number of external operator's message history data
cnc_rdomhistry	Read external operator's message history data
cnc_rdomhistry2	Read external operator's message history data (2)
cnc_clearomhis	Clear external operator's message history data

CNC: Function related to servo/spindle

Function Name	Brief description
cnc_rdloopgain	Read loop gain for servo adjustment

cnc_rdcurent	Read real current for servo adjustment
cnc_rdsrvspeed	Read real speed for servo adjustment
cnc_rdnspdl	Read number of spindle
cnc_rdopmode	Read operation mode for spindle setting
cnc_rdposerrs	Read position deflection S for spindle adjustment
cnc_rdposerrs2	Read position deflection S1,S2 for spindle adjustment(synchronous control mode)
cnc_rdposerrz	Read position deflection Z of tapping axis for spindle adjustment(rigid tapping mode)
cnc_rdsynerrsy	Read synchronous error for spindle adjustment(synchronous control mode)
cnc_rdsynerrrg	Read synchronous error for spindle adjustment(rigid tapping mode)
cnc_rdspdlalm	Read spindle alarm for spindle monitor
cnc_rdctrldi	Read control input signal for spindle monitor
cnc_rdctrldo	Read control output signal for spindle monitor
cnc_rdservoid2	Read servo id info(2)
cnc_rdspindleid2	Read spindle id info(2)
cnc_rdfromservoid2	Read from servo id info(2)
cnc_rdfromspindleid2	Read from spindle id info(2)
cnc_wrfromservoid2	Write from servo id info(2)
cnc_wrfromspindleid2	Write from spindle id info(2)
cnc_loadtorq	Read abnormal load torq data

CNC: Function related to waveform diagnosis

Function Name	Brief description
cnc_rdwaveprm	Read waveform diagnosis parameter
cnc_rdwaveprm2	Read waveform diagnosis parameter (2)
cnc_wrwaveprm	Write waveform diagnosis parameter
cnc_wrwaveprm2	Write waveform diagnosis parameter (2)
cnc_wavestart	Start sampling waveform diagnosis data
cnc_wavestop	Stop sampling waveform diagnosis data
cnc_wavestat	Read sampling status of waveform diagnosis data
cnc_rdwavedata	Read waveform diagnosis data

CNC: Function related to PUNCH PRESS

Function Name	Brief description
cnc_rdtlctldata	Read tool control data
cnc_wrtlctldata	Write tool control data
cnc_rdttoolinfo	Read tool information data
cnc_rdttooldata	Read tool data
cnc_wrttooldata	Write tool data
cnc_rdmultitldt	Read multiple tool data
cnc_wrmultitldt	Write multiple tool data
cnc_rdsafetyzone	Read safety zone data
cnc_wrsafetyzone	Write safety zone data
cnc_rdttoolzone	Read tool zone data
cnc_wrttoolzone	Write tool zone data
cnc_rdacttlzone	Read actual tool zone data

cnc_rdsetzone	Read number of automatic setting zone
cnc_wrsetzone	Write number of automatic setting zone
cnc_rd1punchtl_ex	Get tool data(Registration number specification)
cnc_rd2punchtl_ex	Get tool data(Tool number specification)
cnc_wrpunchtl_ex	Get tool data(Registration number specification)

CNC: Function related to LASER

Function Name	Brief description
cnc_rdpscdproc	Read cutting condition file(cutting data)
cnc_wrpscdproc	Write cutting condition file(cutting data)
cnc_rdpscdpirc	Read cutting condition file(piercing data)
cnc_wrpscdpirc	Write cutting condition file(piercing data)
cnc_rdpscdedge	Read cutting condition file(edge cutting data)
cnc_wrpscdedge	Write cutting condition file(edge cutting data)
cnc_rdpscdslop	Read cutting condition file(slope control data)
cnc_wrpscdslop	Write cutting condition file(slope control data)
cnc_rdlpwrnty	Read duty data for power control
cnc_wrlpwrnty	Write duty data for power control
cnc_rdlpwrdat	Read laser power data
cnc_rdlpwrcpst	Read power compensation coefficient
cnc_wrlpwrcpst	Write power compensation coefficient
cnc_rdlagslt	Read assist gas selection
cnc_wrlagslt	Write assist gas selection
cnc_rdlagst	Read assist gas flow
cnc_wrlagst	Write assist gas flow
cnc_rdledgprc	Read laser power for contouring
cnc_wrledgprc	Write laser power for contouring
cnc_rdlprcprc	Read laser power for piercing
cnc_wrlprcprc	Write laser power for piercing
cnc_rdlcmddat	Read command data of laser
cnc_rdlDSPlc	Read command data of reference displace
cnc_wrlDSPlc	Write command data of reference displace
cnc_rdlerrz	Read error of Z-axis tracing
cnc_rdlactnum	Read active cutting number/piercing number/slope number
cnc_rdlcmmt	Read comment data
cnc_rdlpwrslt	Read laser power selection
cnc_wrlpwrslt	Write laser power selection
cnc_rdlpwrctrl	Read laser power control
cnc_wrlpwrctrl	Write laser power control
cnc_rdpwofsthis	Read the history data of power compensation coefficient
cnc_rdmngtime	Read the management time
cnc_wrmngtime	Write the management time
cnc_rddischarge	Read data related to electrical discharge at power compensation ends
cnc_rddischrgalm	Read alarm history data related to electrical discharge
cnc_rdlppfbd	
cnc_wrlppfbd	

cnc_rdpdcdedge2	Read cutting condition file(edge cutting data)
cnc_wrpdcdedge2	Write cutting condition file(edge cutting data)
cnc_rdlpscdpwrctl	Read cutting condition file(power control data)
cnc_wrlpscdpwrctl	Write cutting condition file(power control data)
cnc_rlddsplc2	Read command data of reference displace
cnc_wrldsplc2	Write command data of reference displace

CNC: Function related to WIRE CUT

Function Name	Brief description
cnc_setvrtclpos	Set wire vertical position
cnc_rdmsptype	Read the measured point type data
cnc_wrmsptype	Write the measured point type data

CNC: Function Reference related to data server,DNC1,DNC2,OSI-Ethernet

Function Name	Brief description
cnc_dtsvftpget	Transfer file from host to DATA SERVER
cnc_dtsvftpput	Transfer file from DATA SERVER to host
cnc_dtsvftpstat	Read status of file transfer between host and DATA SERVER
cnc_dtsvrdpgdir	Read directory in DATA SERVER
cnc_dtsvdelete	Delete file in DATA SERVER
cnc_dtsvdownload	Download from DATA SERVER to CNC
cnc_dtsvupload	Upload from CNC to DATA SERVER
cnc_dtsvcnclupdn	Cancel upload/download between DATA SERVER and CNC
cnc_dtsvupdnstat	Read upload/download status between DATA SERVER and CNC
cnc_dtsvgetdncpg	Get DNC operation file name in DATA SERVER
cnc_dtsvsetdncpg	Set DNC operation file name in DATA SERVER
cnc_dtsvrdset	Read setting data for DATA SERVER
cnc_dtsvwrset	Write setting data for DATA SERVER
cnc_dtsvchkdsk	Check hard disk on DATA SERVER
cnc_dtsvhdfmt	Format hard disk on DATA SERVER
cnc_dtsvsavcram	Save I/F buffer for DATA SERVER
cnc_dtsvrdrdram	Read I/F buffer for DATA SERVER
cnc_dtsvmntinfo	Read maintenance information for DATA SERVER
cnc_dtsvgetmode	Get mode of DATA SERVER
cnc_dtsvsetmode	Set mode of DATA SERVER
cnc_dtsvrderrmsg	Read error message for DATA SERVER
cnc_dtsvwrfil	Transfer file from personal computer to DATA SERVER
cnc_dtsvrdfil	Transfer file from DATA SERVER to personal computer
cnc_rddncfname	Read DNC file name for DNC1, DNC2, OSI-Ethernet
cnc_wrdncfname	Write DNC file name for DNC1, DNC2 ,OSI-Ethernet
cnc_rdcomparam	Read communication parameter for DNC1, DNC2 , OSI-Ethernet
cnc_wrcomparam	Write communication parameter for DNC1, DNC2, OSI-Ethernet
cnc_rdcmlgmsg	Read logging message for DNC2
cnc_rdcmlpmsg	Read operator's message for DNC1,DNC2
cnc_rdcvmmsg	Read receipt message for OSI-Ethernet

<u>cnc_rdsndmsg</u>	Read sending message for OSI-Ethernet
<u>cnc_sendmessage</u>	Send message for OSI-Ethernet
<u>cnc_clrmsgbuff</u>	Clear message buffer for OSI-Ethernet
<u>cnc_rdrvcstat</u>	Read receipt status of message for OSI-Ethernet
<u>etb_rdparam</u>	Get Ethernet board parameter
<u>etb_wrparam</u>	Set Ethernet board parameter
<u>etb_rdermsg</u>	Get error message of Ethernet board
<u>ds_rdmode</u>	Get DATA SERVER mode
<u>ds_wrmode</u>	Set DATA SERVER mode
<u>ds_rdhddinfo</u>	Get hard disk information of DATA SERVER
<u>ds_rdhddir</u>	Get hard disk file list of DATA SERVER
<u>ds_delhddfile</u>	Delete hard disk file of DATA SERVER
<u>ds_copyhddfile</u>	Copy hard disk file of DATA SERVER
<u>ds_renhddfile</u>	Change of hard disk file name of DATA SERVER
<u>ds_puthddfile</u>	PUT of hard disk file of DATA SERVER
<u>ds_mputhddfile</u>	MPUT of hard disk file of DATA SERVER
<u>ds_rdhostinfo</u>	Get host login directory information of DATA SERVER
<u>ds_rdhostdir</u>	Get host file list of DATA SERVER
<u>ds_rdhostdir2</u>	Get host file list of DATA SERVER (2)
<u>ds_delhostfile</u>	Delete host file of DATA SERVER
<u>ds_gethostfile</u>	GET of host file of DATA SERVER
<u>ds_mgethostfile</u>	MGET of host file of DATA SERVER
<u>ds_rdresult</u>	Get execution result of function of DATA SERVER
<u>ds_cancel</u>	Stop function for DATA SERVER
<u>ds_rdnfile</u>	Input of NC file in DATA SERVER
<u>ds_rdnfile2</u>	Input of NC file in DATA SERVER (2)
<u>ds_wrncfile</u>	Output of NC file in DATA SERVER
<u>ds_rdfile</u>	Input of NC file in DATA SERVER (DATA SERVER -> PC)
<u>ds_wrfile</u>	Output of NC file in DATA SERVER (PC -> DATA SERVER)
<u>ds_rddnchddfile</u>	Get hard disk file name of DATA SERVER for DNC operation
<u>ds_wrdnchddfile</u>	Set hard disk file name of DATA SERVER for DNC operation
<u>ds_rddnchostfile</u>	Get host file name of DATA SERVER for DNC operation
<u>ds_wrdnchostfile</u>	Set host file name of DATA SERVER for DNC operation
<u>ds_rdhostno</u>	Get connected host of DATA SERVER
<u>ds_wrhostno</u>	Set connects host of DATA SERVER
<u>ds_rdmntinfo</u>	Get maintenance information of DATA SERVER
<u>ds_checkhdd</u>	Check of hard disk of DATA SERVER
<u>ds_formathdd</u>	Format of hard disk of DATA SERVER
<u>ds_makehdddir</u>	Make hard disk directory of DATA SERVER
<u>ds_delhddir</u>	Delete hard disk directory of DATA SERVER
<u>ds_chghddir</u>	Change of current directory of hard disk of DATA SERVER
<u>ds_lputhddfile</u>	LIST-PUT of hard disk file of DATA SERVER
<u>ds_ldehddfile</u>	LIST-DELETE of hard disk file of DATA SERVER
<u>ds_lgethostfile</u>	LIST-GET of host file of DATA SERVER
<u>ds_rdm198hdddir</u>	Get directory of DATA SERVER for M198 operation
<u>ds_wrm198hdddir</u>	Set directory of DATA SERVER for M198 operation
<u>ds_rdm198host</u>	Get connected host of DATA SERVER for M198 operation

ds_wrm198host	Set connects host of DATA SERVER for M198 operation
ds_searchword	Search string in NC program in DATA SERVER
ds_searchresult	Get result of string search in NC program in DATA SERVER
ds_dwnstart	Start downloading to DATA SERVER
ds_download	Download to DATA SERVER
ds_dwnend	End of downloading to DATA SERVER
eth_rdparam	Get the parameter of Ethernet
eth_wrparam	Set the parameter of Ethernet
eth_rddsmode	Get the mode of DATA SERVER
eth_wrdsmode	Set the mode of DATA SERVER
eth_rddsstate	Get the maintenance information on DATA SERVER
eth_rdhst	Get the connection host number of Ethernet
eth_wrhost	Set the connection host number of Ethernet
eth_rddsm198dir	Get the folder for M198 operation of DATA SERVER
eth_wrdsm198dir	Set the folder for M198 operation of DATA SERVER
eth_rddsm198host	Get the host for M198 operation of DATA SERVER
eth_wrdsm198host	Set the host for M198 operation of DATA SERVER
eth_rddsformat	Get the format form of the ATA card of DATA SERVER
eth_dsformat	Format of the ATA card of DATA SERVER
eth_dschkdisk	Check disk of the ATA card of DATA SERVER
cnc_rddsdncfile	Get file for DNC operation
cnc_wrdsdncfile	Set file for DNC operation
cnc_rddsdevinfo	Get memory device information on DATA SERVER
cnc_rddsdir	Get current folder
cnc_rddsfile	Get file list information
cnc_dsmkdir	Make folder
cnc_dsrmkdir	Delete folder
cnc_dsremove	Delete file
cnc_dschdir	Change current foledr
cnc_dsrename	Change folder name or file name
cnc_dscopyfile	Copy file of DATA SERVER
cnc_dsget_req	Start GET of DATA SERVER
cnc_dsput_req	Start PUT of DATA SERVER
cnc_dsmget_req	Start MGET of DATA SERVER
cnc_dsmput_req	Start MPUT of DATA SERVER
cnc_dslistget_req	Start List-GET of DATA SERVER
cnc_dslistput_req	Start List-PUT of DATA SERVER
cnc_dslistdel_req	Start List-DEL of DATA SERVER function
cnc_dsftpstat	Read file transfer result of DATA SERVER
cnc_dsftpcancel	Stop file transfer of DATA SERVER

CNC: Function Reference related to servo learning data

Function Name	Brief description
cnc_svdstartrd	Start of reading servo learning data
cnc_svdtrddata	Reading of the data from I/F buffer for the servo learning data
cnc_svdtenrd	End of reading servo learning data

cnc_svdstartwr	Start of writing servo learning data
cnc_svdtwrdata	Writing of the data to I/F buffer for the servo learning data
cnc_svdtdendwr	End of writing servo learning data
cnc_svdstopexec	Stop of reading/writing of the servo learning data

CNC: Function related to Unsolicited messaging function

Function Name	Brief description
cnc_wrunsolicprm	Set the unsolicited messaging parameters
cnc_wrunsolicprm2	Set the unsolicited messaging parameters (2)
cnc_rdunsolicprm	Get the unsolicited messaging parameters
cnc_rdunsolicprm2	Get the unsolicited messaging parameters (2)
cnc_unsolicstart	Initiate the unsolicited messaging session
cnc_unsolicstop	Terminate the unsolicited messaging session
cnc_rdunsolicmsg	Read the unsolicited messaging data
cnc_rdunsolicmsg2	Read the unsolicited messaging data (2)

PMC: Function related to PMC

Function Name	Brief description
pmc_rdmsg	Read message from PMC to MMC
pmc_wrmsg	Write message from MMC to PMC
pmc_crmsg	Read message from PMC to MMC (conditional)
pmc_cwrmsg	Write message from MMC to PMC (conditional)
pmc_rdpmcrng	Read PMC data(area specified)
pmc_wrpmcrng	Write PMC data(area specified)
pmc_rdkpm	Read data from extended backup memory
pmc_wrkpm	Write data to extended backup memory
pmc_rdkpm2	Read data from extended backup memory(2)
pmc_wrkpm2	Write data to extended backup memory(2)
pmc_kpmsiz	Read maximum size of extended backup memory
pmc_rdpmcinfo	Read PMC data information
pmc_rdcntldata	Read control data of PMC data table
pmc_wrcntldata	Write control data of PMC data table
pmc_rdcntlgrp	Read the sum total group of control data
pmc_wrcntlgrp	Write the sum total group of control data
pmc_set timer type	Set the PMC timer accuracy
pmc_get timer type	Get the PMC timer accuracy
pmc_getdtailerr	Get detail error for PMC
pmc_rdalmmsg	Read PMC alarm messages
pmc_rdpmcitle	Read PMC title data
pmc_rdprmstart	Start uploading PMC parameter
pmc_rdpmcparam	Upload PMC parameter
pmc_rdprmend	End of uploading PMC parameter
pmc_wrpmstart	Start downloading PMC parameter
pmc_wrpmcparam	Download PMC parameter
pmc_wrpmend	End of downloading PMC parameter
pmc_select_pmc_unit	Select the PMC

pmc_get_current_pmc_unit	Get the current PMC unit type
pmc_get_number_of_pmc	Read the number of existing PMC paths
pmc_get_pmc_unit_types	Read the PMC system information

PMC: Function Reference related to PROFIBUS-DP

Function Name	Brief description
pmc_prfrdconfig	Read series/version of PROFIBUS software
pmc_prfrdbusprm	Read bus parameter of master function
pmc_prfwrbusprm	Write bus parameter of master function
pmc_prfrdslvprm	Read slave parameter of master function
pmc_prfwrslvprm	Write slave parameter of master function
pmc_prfrdallcadr	Read address allocation of master function
pmc_prfwrrallcadr	Set address allocation of master function
pmc_prfrdslvaddr	Read address allocation of slave function
pmc_prfwrslvaddr	Set address allocation of slave function
pmc_prfrdslvstat	Read state of slave function
pmc_prfrdslvid	Reads slave index data of master function
pmc_prfwrslvvid	Writes slave index data of master function
pmc_prfrdslvprm2	Reads slave parameter of master function(2)
pmc_prfwrslvprm2	Writes slave parameter of master function(2)
pmc_prfrddido	Reads DI/DO address data of master function
pmc_prfwrdido	Writes DI/DO address data of master function
pmc_prfrdindiadr	Reads indication address for communication mode of master function
pmc_prfwrrindiadr	Writes indication address for communication mode of master function
pmc_prfrdopmode	Reads operation mode of master function
pmc_prfwropmode	Writes operation mode of master function
pbm_rd_param	Reading of the parameters of the PROFIBUS master function
pbm_wr_param	Setting the parameters of the PROFIBUS master function
pbm_ini_prm	Initialization of the specified parameters of the PROFIBUS master function
pbm_rd_allslvtbl	Reading of all slave table
pbm_exe_subfunc	Execution of sub-function
pbm_rd_subprm	Reading of the setting assistant parameters
pbm_rd_errcode	Reading of an error code
pbm_chg_mode	Change of the operation mode
pbm_rd_cominfo	Reading of the communicating information
pbm_rd_nodetable	Reading of status of connected slave
pbm_rd_nodeinfo	Reading of the information of slave station
pbm_rd_slot	Reading of the number of slot on master function
pbm_rd_slotinfo	Reading of the slot information on master function
pbs_rd_param	Reading of the parameters of the PROFIBUS slave function
pbs_wr_param	Setting of the parameters of the PROFIBUS slave function
pbs_ini_prm	Initialization of the parameters of the PROFIBUS slave function
pbs_rd_cominfo	Reading of the communication state of the PROFIBUS slave function
pbs_rd_param2	Reading of the parameters of the PROFIBUS slave function(2)
pbs_wr_param2	Setting of the parameters of the PROFIBUS slave function(2)
pbs_rd_cominfo2	Reading of the communication state of the PROFIBUS slave function(2)

CNC: Function related to others

Function Name	Brief description
cnc_sysinfo	Read CNC system information
cnc_sysinfo_ex	Read CNC system information(2)
cnc_statinfo	Read CNC status information
cnc_statinfo2	Read CNC status information(2)
cnc_alarm	Read alarm status
cnc_alarm2	Read alarm status (2)
cnc_rdalminfo	Read alarm information
cnc_rdalmmmsg	Read alarm message
cnc_rdalmmmsg2	Read alarm message (2)
cnc_modal	Read modal data
cnc_rdgcode	Read G modal code
cnc_rdcommand	Read commanded data
cnc_diagnoss	Read diagnosis data
cnc_diagnosr	Read diagnosis data(area specified)
cnc_rddiag_ext	Read random number diagnosis data
cnc_rddiaginfo	Read diagnosis data information
cnc_rddiagnum	Read minimum, maximum, total number of diagnosis data
cnc_adcny	Read A/D conversion data
cnc_rdopmsg	Read operator's message
cnc_rdopmsg2	Read operator's message (2)
cnc_rdopmsg3	Read operator's message (3)
cnc_setpath	Set path number(for multi-path)
cnc_getpath	Get path number(for multi-path)
cnc_sysconfig	Read CNC configuration information
cnc_rdprstrinfo	Read program restart information
cnc_rstrseqsrch	Search sequence number for program restart
cnc_rstrseqsrch2	Search sequence number for program restart (2)
cnc_rdopnlsnrl	Read output signal image of software operator's panel
cnc_wropnlsnrl	Write output signal of software operator's panel
cnc_rdopnlgnrll	Read general signal image of software operator's panel
cnc_wropnlgnrll	Write general signal image of software operator's panel
cnc_rdopnlgname	Read general signal name of software operator's panel
cnc_wropnlgname	Write general signal name of software operator's panel
cnc_getdtailerr	Get detail error for CNC
cnc_getfigure	Read maximum valid figures, number of decimal places
cnc_rdbstrinfo	Read block restart information
cnc_rdmenuswitch	Read menu switch signal
cnc_wrmenuswitch	Write menu switch signal
cnc_rdradofs	Read internal position compensation data(cutter compensation/tool nose radius compensation)
cnc_rdlenofs	Read internal position compensation data(tool length compensation)
cnc_rdfixcycle	Read internal position compensation data(canned cycle)(canned cycle)
cnc_rdcdrotate	Read internal position compensation data(coordinate rotation)
cnc_rd3dcdrnv	Read internal position compensation data(3-D coordinate conversion)

<u>cnc_rdmirimage</u>	Read internal position compensation data(programmable mirror image)
<u>cnc_rdsclning</u>	Read internal position compensation data(scaling)
<u>cnc_rd3dtofs</u>	Read internal position compensation data(3-D tool compensation)
<u>cnc_rdposofs</u>	Read internal position compensation data(tool position compensation)
<u>cnc_rdsyssoft</u>	Read series/version of CNC system software
<u>cnc_rdsyssoft2</u>	Read series/version of CNC system software (2)
<u>cnc_rdsyssoft3</u>	Read series/version of CNC system software (3)
<u>cnc_rdsyshard</u>	Read of CNC hardware configuration
<u>cnc_rdmldlconfig</u>	Read module configuration of CNC system
<u>cnc_rdmldlconfig2</u>	Read module configuration of CNC system (2)
<u>cnc_gettimer</u>	Get calendar timer of CNC
<u>cnc_settimer</u>	Set calendar timer of CNC
<u>cnc_rdtimer</u>	Get timer data of CNC
<u>cnc_wrtimer</u>	Set timer data of CNC
<u>cnc_reset</u>	CNC reset
<u>cnc_reset2</u>	CNC reset (2)
<u>cnc_clralm</u>	Clear CNC alarm
<u>cnc_getfrominfo</u>	Read F-ROM information on CNC
<u>cnc_fromgetstart</u>	Start of reading F-ROM data from CNC
<u>cnc_fromget</u>	Read F-ROM data from CNC
<u>cnc_fromgetend</u>	End of reading F-ROM data from CNC
<u>cnc_fromputstart</u>	Start of writing F-ROM data to CNC
<u>cnc_fromput</u>	Write F-ROM data to CNC
<u>cnc_fromputend</u>	End of writing F-ROM data to CNC
<u>cnc_fromremove</u>	Delete F-ROM data on CNC
<u>cnc_getsraminfo</u>	Read S-RAM information on CNC
<u>cnc_sramgetstart</u>	Start of reading S-RAM data from CNC
<u>cnc_sramget</u>	Read S-RAM data from CNC
<u>cnc_sramgetend</u>	End of reading S-RAM data from CNC
<u>cnc_getlockstat</u>	Get state of NC data protection
<u>cnc_chgprotbit</u>	Set state of NC data protection
<u>cnc_rdcexesram</u>	Read SRAM variable area for C language executor
<u>cnc_wrcexesram</u>	Write SRAM variable area for C language executor
<u>cnc_cexesramsiz</u>	Read maximum size of SRAM variable area for C language executor
<u>cnc_rdettherinfo</u>	Read Ethernet board information
<u>cnc_rdcoordnum</u>	Read additional workpiece coordinate systems number
<u>cnc_rdrepeatal</u>	Read the repeat counter
<u>cnc_rdrepeatal_ext</u>	Read the repeat counter(2)
<u>cnc_rdpn_mcnitem</u>	Read machine specific maintenance item for periodic maintenance
<u>cnc_wrpm_mcnitem</u>	Write machine specific maintenance item for periodic maintenance
<u>cnc_rdpn_cncitem</u>	Read cnc maintenance item for periodic maintenance
<u>cnc_rdpn_item</u>	Read maintenance item status for periodic maintenance
<u>cnc_wrpm_item</u>	Write maintenance item status for periodic maintenance
<u>cnc_getlanguage</u>	Get CNC display language
<u>cnc_rdcncid</u>	Read the CNC ID number