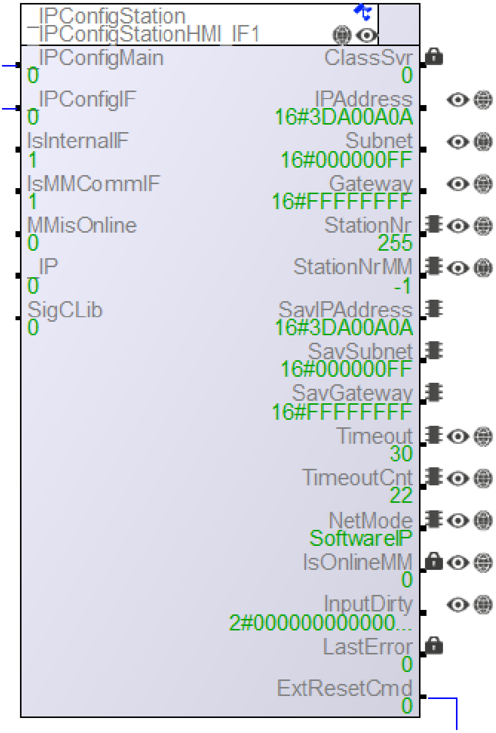
_IPConfigStation



_IPConfigStation
_IPConfigStationHMI_IF1

_IPConfigMain 0
_IPConfigIF 0
IsInternalIF 1
IsMMCommIF 1
MMisOnline 0
_IP 0
SigCLib 0

ClassSvr 0
IPAddress 16#3DA00A0A
Subnet 16#000000FF
Gateway 16#FFFFFFFF
StationNr 255
StationNrMM -1
SavIPAddress 16#3DA00A0A
SavSubnet 16#000000FF
SavGateway 16#FFFFFFFF
Timeout 30
TimeoutCnt 22
NetMode SoftwareIP
IsOnlineMM 0
InputDirty 2#000000000000...
LastError 0
ExtResetCmd 0

This class represents one interface of a station. It communicates with the main class via the according object channel and with the class for the real interface handling via the according command channel.

The class is used in the AddOn “IP-Configuration”.
It handles the station and interface specific functions and procedures - find more information in the programming manual of the AddOn.

Interfaces

Servers

ClassSvr	Class server
IPAddress	set IP address, can be changed
Subnet	set subnet mask, can be changed
Gateway	set gateway address, can be changed
StationNr	station number (LSE, determined from the ipc.ini)
StationNrMM	MultiMaster station number (0 to x) -1 = no MultiMaster station number The value can only be determined for external interfaces, which at the same time are MultiMaster interfaces.
SavIPAddress	saved and active IP address
SavSubnet	saved and active subnet mask
SavGateway	saved and active gateway address
Timeout	Pre-selection for timeout monitoring [s]. Internal minimum value is 10 seconds.
TimeoutCnt	current value of the timeout counter [s]
NetMode	current network mode of this station undef … not yet defined InitDeviceIP … Initialization running (query for the current OS settings) DeviceIP … interface works with settings from autoexec or OS SoftwareIP … interface works with manually entered settings
IsOnlineMM	current MultiMaster network status The status can only be determined for external interfaces, which at the same time are MultiMaster interfaces. 0 = the MultiMaster interface is not connected 1 = the MultiMaster interface is connected
InputDirty	Input dirty bit mask - shows which values was changed Bit 0: IP address Bit 1: Subnet Bit 2: Gateway
LastError	last occurred error (interesting for software development)
ExtResetCmd	If this server is written with 1, the NetMode is switched to “DeviceIP” (is needed for a reset via USB stick)

Clients

_IPConfigMain	Object channel to the main class
_IPConfigIF	Object channel to the interface class
IsInternalIF	Placing of the interface 0 = interface is an external device (e.g. of a MC station) 1 = interface is an internal device (e.g. a HMI device)
IsMMCommIF	Usage of the interface 0 = interface is used for a local network (e.g. house network) 1 = interface is used for MultiMaster communication (PLC)
MMisOnline	Return message “MultiMaster Is Online” This connection is used in case of an “external” and “not MultiMaster” interface (IsInternalIF = 0 und IsMMCommIF = 0). In this case the client must be connected to the server “IsOnlineMM” of the station object, which is responsible for the MultiMaster interface of this external PLC.
_IP	Object channel to the system interface _IP (created automatically)
SigClib	Object channel to the system interface SigCLib (created automatically)

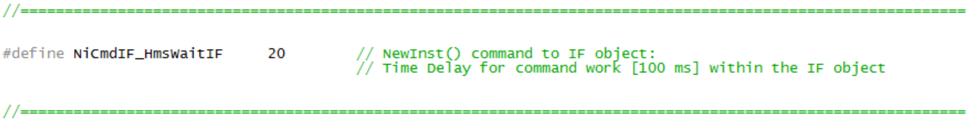
Global Methods

Init	Initialization of the class
Background	for cyclic tasks
GetSavedSettings	Returns the current station settings (IPs of the saved variables) IN: pIsInternalIF … pointer to the return value for "IsInternalIF" IN: pIsMMCommIF … pointer to the return value for " IsMMCommIF" IN: pIP … pointer to the return value for the IP address IN: pSubnet … pointer to the return value for the subnet address IN: pGateway … pointer to the return value for the gateway address IN: pStationNr … pointer to the return value for the station number IN: pStationNrMM … pointer to the return value for the MultiMaster station number IN: pNetMode … pointer to the return value for the NetMode OUT: retval …0 = OK / -1 = Error

GetIOSettings	Returns the current station settings (IPs of the I/O variables) IN: pIsInternalIF … pointer to the return value for "IsInternalIF" IN: pIsMMCommIF … pointer to the return value for " IsMMCommIF" IN: pIP … pointer to the return value for the IP address IN: pSubnet … pointer to the return value for the subnet address IN: pGateway … pointer to the return value for the gateway address IN: pStationNr … pointer to the return value for the station number IN: pStationNrMM … pointer to the return value for the MultiMaster station number IN: pNetMode … pointer to the return value for the NetMode OUT: retval …0 = OK / -1 = Error
SetStationNr	sets the server "StationNr” to the given input value IN: StationNumber … new station number
SetStationNrMM	sets the server "StationNrMM" (MultiMaster) to the given input value IN: StationNumberMM … new MultiMaster station number
CmdInitIF	starts the internal procedure to initialize the interface settings. IN: HmsDelay … time delay [100 ms] to start the procedure
CmdInitMM	starts the internal procedure to initialize the MultiMaster settings. IN: HmsDelay … time delay [100 ms] to start the procedure
CmdApplySettingsIF	starts the internal procedure to apply the IO settings of the interface IN: HmsDelay … time delay [100 ms] to start the procedure
CmdApplySettingsMM	starts the internal procedure to apply the IO settings of the MultiMaster IN: HmsDelay … time delay [100 ms] to start the procedure
CmdApplyOK	starts the internal procedure to write the OK command to the interface IN: HmsDelay … time delay [100 ms] to start the procedure
GetInitStatusIF	returns the current status of the internal procedure to initialize the interface settings OUT: retval … 0 = BUSY / 1 = OK, ready / -1 = NOT OK, error
GetInitStatusMM	returns the current status of the internal procedure to initialize the MultiMaster settings. OUT: retval … 0 = BUSY / 1 = OK, ready / -1 = NOT OK, error
GetApplyStatus	returns the current status of the internal procedure to apply the IO settings for the interface OUT: retval … 0 = BUSY / 1 = OK, ready / -1 = NOT OK, error

CmdRestoreSavedAddr	starts the internal procedure to reset the station to the saved addresses, this includes the setting of the addresses via ConfigIF
SaveIOSettings	Saves the current settings (IPs of the I/O variables) to the saved variables.
SetNetMode	sets the NetMode (see server with same name) IN: newNetMode … new NetMode

Defines



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//============================================================================================================

#define NiCmdIF_HmsWaitIF     20        // NewInst() command to IF object:
                                        // Time Delay for command work [100 ms] within the IF object

//============================================================================================================
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