Syslog Documentation

Table of Contents

Description of CEF Format

The CEF format consists of Prefix, Header and Extension.

Prefix

Prefix consists of date and time (05.12.2024 13:35:07.801).

Header

Header contains:

- CEF:[number] – a version number identifies the version of the CEF format
- Device Vendor – information about the device
- Device Product – information about the device
- Device Version – information about the device
- Event Type – a unique ID that identifies the event that is reported
- Event Name – a description of the reported event type
- Severity – indicates the importance of the event
  - 10 – Emergency
  - 9 – Alert
  - 8 – Critical
  - 7 – Error
  - 6 – Warning
  - 5 – Notice
  - 4 – Info
  - 3 – Debug
  - 2 – Trace
  - 1 – Verbose

Individual items from the header are separated by "|".

Extension

The extension of the CEF format can be, for example, event type, event name, event status, etc. They are all listed below in the documentation.

Individual items from the extension are separated by a space.

Example of CEF log

```
[05.12.2024 13:35:07.836] 3007|CHANNEL_CMD|4|action=init name=bacnet_server vendorName="Domat Control System" vendorId=3
84 memoryPoolSize=65536 facility=unspec
[05.12.2024 13:35:07.836] 3005|DRIVER_CMD|3|action=load name=communication_drivers facility=execthread
[05.12.2024 13:35:07.836] 3007|CHANNEL_CMD|3|action=load name=communication_channels facility=execthread
[05.12.2024 13:35:07.836] 3005|DRIVER_CMD|3|action=load name=communication_server_drivers facility=execthread
[05.12.2024 13:35:07.836] 3007|CHANNEL_CMD|3|action=load name=communication_server_channels facility=execthread
[05.12.2024 13:35:07.836] 2022|INIT_MEM_ALLOC|3|action=init name=memory_allocator status=Ok facility=execthread
```

Events for Settings

1000: SetupNetworkConfiguration

Event 1

- **Description:** Network configuration changed
- **Extensions:**
    - **action:** setup
    - **name:** network_configuration
    - **status:** $status

Event 2

- **Description:** Get and apply all network interfaces configuration
- **Extensions:**
    - **action:** assign_interfaces
    - **ifaceCount:** $interfaceCount
    - **status:** $status

1001: SetupNtpServer

Event 1

- **Description:** NTP server configuration change applied
- **Extensions:**
    - **action:** setup
    - **name:** ntp_server
    - **status:** $status

Event 2

- **Description:** Apply new NTP configuration status
- **Extensions:**
    - **enabled:** 0/1
    - **host:** $host

- o **status:** $status

1002: SetupFastCGIServer

Event 1

- **Description:** Apply new FastCGI server configuration status

- **Extensions:**

    - o **action:** setup

    - o **name:** fcgi_server

    - o **status:** $status

1003: GenericConfiguration

Event 1

- **Description:** Apply new configuration status

- **Extensions:**

    - o **action:** setup

    - o **name:** generic_configuration

    - o **status:** $status

1004: CommitNetworkConfiguration

Event 1

- **Description:** Apply new network configuration status

- **Extensions:**

    - o **action:** commit

    - o **name:** network_configuration

    - o **status:** $status

1005: SetInterface

Event 1

- **Description:** Set new network configuration

- **Extensions:**

- o **action:** set

- o **iface:** $ifaceName

- o **mode:** $ifaceMode

- o **address:** $ifaceAddress

- o **netmask**: $ifaceNetmask

- o **gateway:** $faceGateway

- o **nameserver:** $ifaceDnsServer

- o **status:** $status

Event 2

- **Description:** Set new bridged network configuration

- **Extensions:**

- o **action:** set

- o **iface:** $ifaceName

- o **parent**: $ifaceParent

- o **mode:** $bridgeMode

- o **status:** $status

1006: SetupSyslog

Event 1

- **Description:** Apply new SysLog configuration status

- **Extensions:**

- o **action:** setup

- o **name:** syslog_logger

- o **status:** $status

1007: SetSystemClock

Event 1

- **Description:** Set system clock by timespan

- **Extensions:**
  - **action:** set
  - **source:** $source
  - **status:** $status
  - **utc:** 0/1
  - **time:** $timespan

Event 2

- **Description:** Set system clock by datetime struct
- **Extensions:**
  - **action:** set
  - **source:** $source
  - **status:** $status
  - **utc:** 0/1
  - **time:** $datetime(yyyy-MM-ddTHH:mm:ssZ)

Events for Process

2000: RuntimeState

Event 1

- **Description**: Restart runtime event
- **Extensions**:
  - **action**: restart
  - **name**: ColdRestart/WarmRestart
  - **status**: $status

Event 2

- **Description**: Stop runtime status
- **Extensions**:

- o **action**: stop
- o **name**: runtime
- o **status**: $status

Event 3

- **Description**: Start application command received
- **Extensions**:
  - o **action**: received
  - o **command**: start_plc_application

Event 4

- **Description**: Ignore cold start flag
- **Extensions**:
  - o **action**: ignored
  - o **name**: cold_start_flag

Event 5

- **Description**: Starting as warm start command
- **Extensions**:
  - o **action**: starting_as_warm_start
  - o **clearRetainVars**: 0/1
  - o **clearFlashVars**: 0/1
  - o **clearManualModes**: 0/1

Event 6

- **Description**: Starting as cold start command
- **Extensions**:
  - o **action**: starting_as_cold_start

Event 7

- **Description**: Accept new image command

- **Extensions**:
    - o **action**: received
    - o **command**: accept_new_image
    - o **onlineChanges**: 0/1
    - o **migrateRetainVar**: 0/1
    - o **forceClearRetain**: 0/1

Event 8

- **Description**: Set active partition command
- **Extensions**:
    - o **action**: received
    - o **command**: SetActivePartition
    - o **partition**: $partition
    - o **result**: $sscpError

Event 9

- **Description**: Receive system command
- **Extensions**:
    - o **action**: received
    - o **command**: $command

Event 10

- **Description**: Clear variables for cold restart command
- **Extensions**:
    - o **action**: clear
    - o **name**: variables
    - o **reason**: cold_restart

2001: SystemInfo

Event 1

- **Description**: Running application information
- **Extensions**:
  - **name**: $platformName
  - **rtVersion**: $rtVersion
  - **systemVersion**: $osVersion
  - **serialNumber**: $serialNumber

Event 2

- **Description**: Licence information
- **Extensions**:
  - **name**: license
  - **status**: $status
  - **licenseNumber**: $licenseNumber

Event 3

- **Description**: Invalid licence information
- **Extensions**:
  - **action**: run
  - **name**: demo_mode
  - **minutesRuntime**: $minutesToRun

Event 4

- **Description**: Invalid licence information
- **Extensions**:
  - **status**: image_load_not_possible
  - **reason**: missing_license

Event 5

- **Description**: Runtime run mode
- **Extensions**:

- o **action**: start
- o **name**: PLC
- o **mode**: $runningMode
- o **status**: $status

Event 6

- **Description**: Configuration tool application information
- **Extensions**:
  - o **action**: run
  - o **name**: configtool
  - o **platform**: $runningPlatform

2002: InitializeNetwork

Event 1

- **Description**: Initialize WSA network class
- **Extensions**:
  - o **action**: init
  - o **name**: network
  - o **status**: $status
  - o **errno**: $errorCode
  - o **version**: $WsaVersion

2003: InitializeControlPort

Event 1

- **Description**: Watchdog pipe listening configuration
- **Extensions**:
  - o **action**: init
  - o **name**: control_port
  - o **status**: $status

- o **address**: $listenAddress

- o **port**: $listenPort

2004: ConfigToolCommand

Event 1

- **Description**: Load system configuration status

- **Extensions**:

  - o **action**: load

  - o **name**: system_configuration

  - o **status**: $status

  - o **default**: 0/1

Event 2

- **Description**: Work system configuration load status

- **Extensions**:

  - o **action**: load

  - o **name**: work_system_configuration

  - o **status**: $status

Event 3

- **Description**: Start defined servers status

- **Extensions**:

  - o **action**: start

  - o **name**: required_servers

  - o **status**: $status

Event 4

- **Description**: Stop defined servers status

- **Extensions**:

  - o **action**: stop

- o **name**: required_servers
- o **status**: $status

Event 5

- **Description**: Run watchdog command event

- **Extensions**:

  - o **action**: request

  - o **command**: $command

Event 6

- **Description**: Watchdog command failed

- **Extensions**:

  - o **action**: request

  - o **command**: $command

  - o **sent**: $bytesSend

  - o **errno**: $errorCode

Event 7

- **Description**: Abort watchdog command

- **Extensions**:

  - o **action**: abort

  - o **command**: $command

  - o **reason**: $reason

Event 8

- **Description**: Reset idle/death runtime

- **Extensions**:

  - o **action**: runtime_reset

  - o **reason**: watchdog_timer

  - o **resetPeriod_s**: $resetPeriod

-     o **idlePeriod_s**: $idlePeriod

-     o **resetCounter**: $counter

Event 9

- **Description**: RT Stop request

- **Extensions**:

  - o **action**: request_for_stop

Event 10

- **Description**: Save boot project request

- **Extensions**:

  - o **action**: request_to_save

  - o **name**: boot_project

  - o **areaNumber**: $areaNumber

Event 11

- **Description**: Delete boot project request

- **Extensions**:

  - o **action**: request_to_delete

  - o **name**: boot_project

  - o **areaNumber**: $areaNumber

Event 12

- **Description**: Save system configuration request

- **Extensions**:

  - o **action**: request_to_save

  - o **name**: system_configuration

  - o **size**: $configurationSize

Event 13

- **Description**: Save system configuration status

- **Extensions**:
  - o **action**: save
  - o **name**: system_configuration
  - o **size**: $configurationSize
  - o **factoryReset**: 0/1
  - o **status**: $status

Event 14

- **Description**: Reload configuration status
- **Extensions**:
  - o **action**: send
  - o **name**: configuration_reload
  - o **status**: $status

Event 15

- **Description**: Save new RT request
- **Extensions**:
  - o **action**: save
  - o **name**: new_runtime
  - o **size**: $rtSize
  - o **rtVersion**: $rtVersion
  - o **fwVersion**: $fwVersion

Event 16

- **Description**: Reload configuration request
- **Extensions**:
  - o **action**: request_to_reload
  - o **name**: configuration

Event 17

- **Description**: Load default configuration request

- **Extensions**:

  - **action**: forced_load

  - **name**: default_configuration

Event 18

- **Description**: Default configuration not found

- **Extensions**:

  - **action**: use

  - **name**: builtin_configuration

  - **reason**: no_valid_found

2005: ApplicationStart

Event 1

- **Description**: Start application thread

- **Extensions**:

  - **action**: start

  - **name**: process_evaluation_engine

Event 2

- **Description**: Start application process

- **Extensions**:

  - **action**: start

  - **name**: process_evaluation_engine

  - **pid**: $processId

Event 3

- **Description**: Start configuration tools thread

- **Extensions**:

  - **action**: start

- o **name**: configuration_tool_engine

Event 4

- **Description**: Start configuration tools process

- **Extensions**:

  - o **action**: start

  - o **name**: configuration_tool_engine

  - o **pid**: $processId

2006: ApplicationStop

Event 1

- **Description**: Stop application

- **Extensions**:

  - o **action**: stopped

  - o **name**: one_process_engine

Event 2

- **Description**: Stop configuration tools

- **Extensions**:

  - o **action**: stopped

  - o **name**: configuration_tool_engine

2007: ProcessCheck

Event 1

- **Description**: Create lock file

- **Extensions**:

  - o **name**: runtime_lock_file

  - o **pid**: $processId

Event 2

- **Description**: Delete lock file

- **Extensions**:

  - **action**: delete

  - **name**: lock_file

  - **reason**: runtime_crashed

2008: OpenFile

Event 1

- **Description**: Open file

- **Extensions**:

  - **flag**: $fileFlags

  - **path**: $filePath

  - **status**: $status

Event 2

- **Description**: Execute file

- **Extensions**:

  - **path**: $filePath

  - **action**: execute

  - **status**: $status

Event 3

- **Description**: Save boot project request

- **Extensions**:

  - **action**: save

  - **name**: boot_project

  - **areaNumber**: $areaNumber

  - **status**: $status

Event 4

- **Description**: Delete boot project request

- **Extensions**:
  - **action**: delete
  - **name**: boot_project
  - **areaNumber**: $areaNumber
  - **status**: $status

Event 5

- **Description**: Check HW info file
- **Extensions**:
  - **action**: check
  - **name**: hw_info
  - **key**: $key

Event 6

- **Description**: Compare HW info file
- **Extensions**:
  - **action**: compare
  - **name**: hw_info
  - **xmlValue**: $requiredValue
  - **sysValue**: $readValue

Event 7

- **Description**: Validate HW info file
- **Extensions**:
  - **action**: validate
  - **name**: hw_info
  - **fileName**: $filePath
  - **status**: $status

Event 8

- **Description**: Partial licence status

- **Extensions**:

  - **name**: partial_licence

  - **status**: $status

Event 9

- **Description**: Licence status

- **Extensions**:

  - **name**: licence

  - **status**: $status

2009: DirectoryControl

Event 1

- **Description**: Create folder status

- **Extensions**:

  - **action**: create

  - **name**: directory

  - **path**: $folderPath

  - **status**: $status

2010: InitializeLogger

Event 1

- **Description**: Logger initialization information

- **Extensions**:

  - **maxFileSize_kB**: $fileSize

  - **maxFileCount**: $filesCount

2011: InitializeHmiGpio

Event 1

- **Description**: Initialization HMI system status

- **Extensions**:
  - **action**: init
  - **name**: hmi/gpio_subsystem
  - **status**: $status

Event 2

- **Description**: Mapping HMI error
- **Extensions**:
  - **action**: failed_to_mmap
  - **name**: gpio_peripheral
  - **errno**: $systemErrno

Event 3

- **Description**: Mapping PWM error
- **Extensions**:
  - **action**: failed_to_mmap
  - **name**: pwm_peripheral
  - **errno**: $systemErrno

Event 4

- **Description**: Mapping clock error
- **Extensions**:
  - **action**: failed_to_mmap
  - **name**: clock_manager
  - **errno**: $systemErrno

2012: InitializeRuntime

Event 1

- **Description**: RT initialization status
- **Extensions**:

- o **status**: $status

2013: ReceivedSignal

Event 1

- **Description**: Received Signal

- **Extensions**:

  - o **action**: received

  - o **name**: SIGABRT/SIGKILL/name

Event 2

- **Description**: Received SIGBUS

- **Extensions**:

  - o **action**: received

  - o **name**: SIGBUS

  - o **si_code**: $siCode

  - o **si_addr**: $si_addr

Event 3

- **Description**: Received SIGSEGV

- **Extensions**:

  - o **action**: received

  - o **name**: SIGSEGV

  - o **si_code**: $siCode

  - o **si_addr**: $si_addr

  - o **stack**: $stack

Event 4

- **Description**: Received SIGTERM

- **Extensions**:

  - o **action**: received

- o **name**: $signal

- o **pid**: $processId

- o **code**: $signalCode

Event 5

- **Description**: Error info

- **Extensions**:

  - o **action**: received

  - o **nip**: $nip

  - o **msr**: $msr

  - o **ctr**: $ctr

  - o **link**: $link

2014: LoadSSCPRouter

Event 1

- **Description**: Load SSCP router action

- **Extensions**:

  - o **action**: loaded

  - o **name**: sscp_router

2015: SSCPRouterTCP

Event 1

- **Description**: Enabling SSCP router

- **Extensions**:

  - o **enabled**

  - o **loaded**

  - o **name**: tcp_server

2016: SSCPRouterSerial

Event 1

- **Description**: SSCP serial router configuration status

- **Extensions**:

    - **action**: get

    - **name**: serial_port

    - **status**: $status

    - **port**: $port

    - **parameters**: $parameters

Event 2

- **Description**: Unsupported server type

- **Extensions**:

    - **name**: unsupported_server

    - **serverType**: $serverType

    - **port**: $port

2019: ServiceControl

Event 1

- **Description**: Start service

- **Extensions**:

    - **action**: start

    - **name**: servers

    - **slaveAddress**: $slaveAddress

    - **maxDataSize_B**: $maxDataSize

Event 2

- **Description**: Start TCP service

- **Extensions**:

    - **action**: start

    - **name**: $name

o **port**: $port

o **connectionLimit**: $connectionLimit

Event 3

- **Description**: Start serial service

- **Extensions**:

    o **action**: start

    o **name**: serial_server

    o **status**: $status

    o **port**: $port

    o **cfg**: $configuration

Event 4

- **Description**: Start configuration service

- **Extensions**:

    o **action**: start

    o **name**: config_service

    o **port**: $port

Event 5

- **Description**: Start/Stop LCD service

- **Extensions**:

    o **action**: start/stop

    o **name**: hmi+lcd_system

Event 6

- **Description**: Start/Stop HMI system

- **Extensions**:

    o **action**: start/stop

    o **name**: hmi_system

Event 7

- **Description**: Stop service clients

- **Extensions**:

  - **action**: stop

  - **name**: service_clients

2020: AllocateMemory

Event 1

- **Description**: Memory allocation status

- **Extensions**:

  - **action**: allocate

  - **name**: BE_conversion_buffer

  - **size_B**: $size

  - **status**: $status

Event 2

- **Description**: Memory allocation free

- **Extensions**:

  - **action**: freed

  - **name**: BE_conversion_buffer

2021: SaveVariables

Event 1

- **Description**: Save variables to flash status

- **Extensions**:

  - **action**: save

  - **name**: online_changes

  - **status**: $status

Event 2

- **Description**: Set FLASH parameters

- **Extensions**:

  - **action**: set

  - **name**: flash_parameters

  - **enabled**: 0/1

  - **periodicEnabled**: 0/1

  - **period_min**: $minutes

  - **triggerUid**: $variableGuid

Event 3

- **Description**: Set RETAIN parameters

- **Extensions**:

  - **action**: set

  - **name**: retain_parameters

  - **enabled**: 0/1

  - **period_ms**: $timespan

  - **cycles**: $cyclesCount

Event 4

- **Description**: Save variable to storage

- **Extensions**:

  - **action**: save

  - **name**: comUid

  - **fileName**: $filePath

  - **commUid**: $commUid

  - **retainSize**: $size

Event 5

- **Description**: Save variable to persistent storage status

- **Extensions**:
  - **action**: save
  - **name**: variable
  - **status**: $status
  - **fileName**: $filePath
  - **vmUid**: $vmUid
  - **commUid**: $commUid

Event 6

- **Description**: Save data to drivers persistent data
- **Extensions**:
  - **action**: save
  - **name**: driver_data

Event 7

- **Description**: RETAIN storage state
- **Extensions**:
  - **action**: save
  - **name**: retain_variables
  - **state**: $state
  - **retainSize**: $usedSpace
  - **maxRetainSize**: $size

Event 8

- **Description**: Save FLASH data status
- **Extensions**:
  - **action**: save
  - **name**: flash_variables
  - **status**: $status

2022: InitializeMemoryAllocator

Event 1

- **Description**: Initialize memory status

- **Extensions**:

    - **action**: init

    - **name**: memory_allocator

    - **status**: $status

2023: BasicInitialization

Event 1

- **Description**: Initialization status

- **Extensions**:

    - **name**: basic_initialization

    - **status**: $status

2024: InitializeNVRAM

Event 1

- **Description**: NVRAM initialization status

- **Extensions**:

    - **action**: init

    - **name**: NVRAM

    - **status**: $status

    - **bitFlags**: $flags

    - **activeExsImage**: $activeImage

    - **activeRetainArea**: $activeArea

    - **errno**: $systemError

2025: ThreadInfo

Event 1

- **Description**: Start thread information

- **Extensions**:

    o **action**: start

    o **thread**: $threadName

    o **id**: $threadID

Event 2

- **Description**: Scheduling parameters information

- **Extensions**:

    o **name**: scheduling_params

    o **min**: $minSupportedPriority

    o **max**: $maxSupportedPriority

    o **base**: $basePriority

    o **RTmin**: $minApplicationPriority

    o **RTmax**: $maxApplicationPriority

Event 3

- **Description**: Read scheduling parameters information

- **Extensions**:

    o **action**: get

    o **name**: scheduling_params

    o **status**: $status

    o **thread**: $threadName

    o **id**: $threadId

    o **policy**: $threadPolicy

    o **priority**: $threadPriority

Event 4

- **Description**: Set/Get deadline parameters status

- **Extensions**:
    - o **action**: set/get
    - o **name**: deadline_params
    - o **status**: $status

Event 5

- **Description**: Thread stop information
- **Extensions**:
    - o **action**: stop
    - o **thread**: $threadName

Event 6

- **Description**: Set thread status
- **Extensions**:
    - o **action**: set
    - o **name**: $parameter
    - o **thread**: $threadName
    - o **status**: $status

Event 7

- **Description**: Thread priority out of range error
- **Extensions**:
    - o **priority**: $priority
    - o **thread**: $threadName
    - o **status**: $status

Event 8

- **Description**: Create thread status
- **Extensions**:
    - o **action**: create

- o **thread**: $threadName

- o **errorCode**: $errorCode

Event 9

- **Description**: Thread stop request

- **Extensions**:

  - o **action**: set

  - o **name**: stop_signal

  - o **thread**: $threadName

Event 10

- **Description**: Wait for thread end/timeout

- **Extensions**:

  - o **action**: wait_for_thread_end/wait_for_thread_timeout

  - o **thread**: $threadName

Event 11

- **Description**: Thread ends

- **Extensions**:

  - o **action**: ended

  - o **thread**: $threadName

2026: Watchdog

Event 1

- **Description**: Initialize watchdog status

- **Extensions**:

  - o **action**: init

  - o **status**: $status

Event 2

- **Description**: Register watchdog information

- **Extensions**:
  - o **action**: register
  - o **thread**: $threadName
  - o **threadId**: $threadId
  - o **period_ms**: $checkPeriod

Event 3

- **Description**: Watchdog expired information

- **Extensions**:
  - o **action**: expired
  - o **thread**: $threadName
  - o **threadId**: $threadId

2027: MemoryProcess

Event 1

- **Description**: Large data allocation

- **Extensions**:
  - o **action**: allocated_data
  - o **status**: $status
  - o **largeDataSize**: $size
  - o **dataId**: $dataId

Event 2

- **Description**: Allocate memory

- **Extensions**:
  - o **action**: allocated_data
  - o **index**: $index
  - o **size_B**: $size

Event 3

- **Description**: Write data to allocator status

- **Extensions**:

  - **action**: write_segment

  - **status**: $status

  - **offset**: $dataOffset

  - **length**: $dataLength

2028: ImageLoad

Event 1

- **Description**: Maximum image size information

- **Extensions**:

  - **maxImageSize_kB**: $maxImageSize

Event 2

- **Description**: Boot project count information

- **Extensions**:

  - **action**: register

  - **name**: boot_project

  - **count**: $projectsCount

Event 3

- **Description**: Load project status

- **Extensions**:

  - **action**: load

  - **name**: image

  - **status**: $status

  - **area**: $imageArea

Event 4

- **Description**: Loaded image information

- **Extensions**:
  - o **name**: image_info
  - o **imageVersion**: $imageVersion
  - o **imageUniqueId**: $imageGuid
  - o **ideVersion**: $ideVersion

Event 5

- **Description**: Image section information
- **Extensions**:
  - o **action**: load
  - o **name**: section
  - o **marker**: $sectionMarker
  - o **info**: $information
  - o **heapTaken_kB**: $sectionMemorySize

Event 6

- **Description**: Load section error
- **Extensions**:
  - o **action**: load
  - o **section**: $section
  - o **status**: $status
  - o **reason**: $reason

Event 7

- **Description**: Image symbols count information
- **Extensions**:
  - o **name**: symbol
  - o **count**: $symbolsCount

Event 8

- **Description**: Vm timing information

- **Extensions**:

  - **name**: vm_timing

  - **instructionCount**: $instructionsCount

  - **maxRuntime_ms**: $maxRtTime

  - **sleepAfterMaxRuntime_ms**: $sleepTimespan

Event 9

- **Description**: Project GUI changed information

- **Extensions**:

  - **action**: changed

  - **name**: project_GUID

  - **result**: $reason

Event 10

- **Description**: Load image status

- **Extensions**:

  - **action**: load

  - **name**: $type

  - **status**: $status

Event 11

- **Description**: Load metadata section status

- **Extensions**:

  - **action**: load

  - **name**: meta_section

  - **status**: $status

  - **reason**: $reason

Event 12

- **Description**: Eth to Serial converter enabling information

- **Extensions**:

    - **action**: enabled_port

    - **name**: ethernet_serial_converter

    - **comPort**: $comPort

Event 13

- **Description**: Eth to Serial converter use information

- **Extensions**:

    - **action**: using_ports

    - **name**: ethernet_serial_converter

    - **tcpPorts**: $tcpPortRange

Event 14

- **Description**: Create environment data section information

- **Extensions**:

    - **action**: create

    - **name**: environment_data

    - **status**: $status

2029: InitializeSystem

Event 1

- **Description**: Initialize system status

- **Extensions**:

    - **action**: init

    - **name**: system

    - **status**: $status

2030: LoadHistory

Event 1

- **Description**: Initialize history status

- **Extensions**:

  - **action**: use

  - **name**: SD_storage

  - **status**: $status

  - **size_kB**: $size

  - **segmentCount**: $segments

  - **path**: $path

Event 2

- **Description**: History storage not available information

- **Extensions**:

  - **action**: use

  - **name**: SD_storage

  - **status**: $status

  - **path**: $path

  - **size_kB**: $size

Event 3

- **Description**: Internal history storage information

- **Extensions**:

  - **action**: use

  - **name**: builtin_storage

  - **status**: $status

  - **size_kB**: $size

Event 4

- **Description**: History data position information

- **Extensions**:

- o **name**: history_positions

- o **start**: $position

- o **write**: $writePosition

- o **seqRead**: $sequenceposition

- o **recordsCount**: $recordCount

Event 5

- **Description**: Invalid history data information

- **Extensions**:

  - o **status**: $status

  - o **reason**: $reason

Event 6

- **Description**: Load history status

- **Extensions**:

  - o **action**: load

  - o **name**: history

  - o **status**: $status

2031: LoadSystemFiles

Event 1

- **Description**: Load system files status

- **Extensions**:

  - o **action**: load

  - o **name**: system_files

  - o **stage**: $stage

  - o **status**: $status

2032: NVRAMState

Event 1

- **Description**: Invalid NVRAM information

- **Extensions**:

  - **action**: using_RAM

  - **reason**: $reason

  - **path**: $path

Event 2

- **Description**: Initialize NVRAM error information

- **Extensions**:

  - **action**: resetting_counters

  - **reason**: $reason

Event 3

- **Description**: Alternative NVRAM usage information

- **Extensions**:

  - **action**: using_alternatives

  - **reason**: $reason

  - **path**: $path

  - **eepromSize**: $eepromSize

Event 4

- **Description**: NVRAM usage information

- **Extensions**:

  - **action**: using_NVRAM

  - **path**: $path

Event 5

- **Description**: Retain section error information

- **Extensions**:

  - **name**: retain_area

- o **status**: $status

- o **fileId**: $fileId

- o **crc**: $crc

- o **varsLength**: $varsLength

2033: RegisterFunctions

Event 1

- **Description**: Register function status

- **Extensions**:

  - o **action**: register

  - o **name**: $type

  - o **status**: $status

2034: FunctionStatus

Event 1

- **Description**: Function status information

- **Extensions**:

  - o **function**: $functionGuid

  - o **status**: $status

  - o **id**: $id

Event 2

- **Description**: Function statistics information

- **Extensions**:

  - o **function**: $functionGuid

  - o **action**: $action

  - o **count**: $count

  - o **id**: $id

2035: DebuggingState

Event 1

- **Description**: Debug information breakpoint

- **Extensions**:

  o **action**: breakpoint_reached

  o **threadID**: $threadId

  o **execUID**: $execUid

  o **offset**: $offset

Event 2

- **Description**: Debug information continue

- **Extensions**:

  o **action**: continue

  o **result**: $result

  o **nextUID**: $nextuid

  o **nextOffset**: $nextOffset

Event 3

- **Description**: Debug information command

- **Extensions**:

  o **action**: execute

  o **command**: $commandId

  o **nextUID**: $nextuid

  o **nextOffset**: $nextOffset

2036: CommonError

Event 1

- **Description**: Lock file error information

- **Extensions**:

- **action**: acquire_lock_file
- **lockFileName**: $fileName
- **result**: $result

Event 2

- **Description**: Daemon error information
- **Extensions**:
  - **name**: daemon_error
  - **status**: $status

Event 3

- **Description**: Open SC manager error information
- **Extensions**:
  - **name**: openscmanager
  - **action**: failed
  - **status**: $status

Event 4

- **Description**: Create service error information
- **Extensions**:
  - **action**: failed_to_create
  - **service**: $serviceName
  - **status**: $status

Event 5

- **Description**: Change service properties error information
- **Extensions**:
  - **action**: change_parameters
  - **service**: $serviceName

Event 6

- **Description**: Install service error information

- **Extensions**:

  - **action**: install

  - **service**: $serviceName

Event 7

- **Description**: Open service error information

- **Extensions**:

  - **name**: openservice

  - **action**: failed

  - **status**: $status

Event 8

- **Description**: Delete service error information

- **Extensions**:

  - **action**: delete

  - **service**: $serviceName

  - **status**: $status

  - **error**: $systemError

2037: LoadPortMap

Event 1

- **Description**: Load port map status

- **Extensions**:

  - **action**: load

  - **name**: serial_port_map

  - **fileName**: $fileName

  - **status**: $status

Event 2

- **Description**: Load port map information

- **Extensions**:

  - **action**: load

  - **name**: serial_port_map

  - **portName**: $portName

  - **rangeLoad**: $portMapLowRange

  - **rangeHeight**: $portMapHighRange

2038: LoadVariables

Event 1

- **Description**: Load variables status

- **Extensions**:

  - **action**: load

  - **name**: $type

  - **source**: $filePath

  - **size_B**: $dataSize

  - **status**: $status

Event 2

- **Description**: Allocate variable space status

- **Extensions**:

  - **action**: allocate

  - **name**: mapped_variables

  - **status**: $status

Event 3

- **Description**: Get user mapped variable status

- **Extensions**:

  - **action**: get

- o **name**: user_mapped_variable
- o **UID**: $variableUID
- o **status**: $status

Event 4

- **Description**: Mapping variable status
- **Extensions**:
  - o **action**: variable_mapping
  - o **status**: $status

Event 5

- **Description**: Load variable from storage status
- **Extensions**:
  - o **action**: $action
  - o **name**: commUid
  - o **fileName**: $fileName
  - o **commUid**: $commUid
  - o **retainSize**: $size
  - o **flags**: $flags

Event 6

- **Description**: Online changes status
- **Extensions**:
  - o **action**: load
  - o **name**: online_changes
  - o **status**: $status

2039: LoadTasks

Event 1

- **Description**: Init task information

- **Extensions**:
    - **action**: found
    - **name**: init/finish_task
    - **execTask**: $taskUid
    - **mainExecTask**: $mainExecTaskUid

Event 2

- **Description**: Load task status
- **Extensions**:
    - **action**: load
    - **name**: task
    - **taskType**: $taskType
    - **status**: $status

Event 3

- **Description**: Max task exceeded information
- **Extensions**:
    - **action**: exceeded_maximal_number
    - **name**: $name
    - **maxTasks**: $maxTasksCount

Event 4

- **Description**: Load tasks information
- **Extensions**:
    - **action**: load
    - **name**: $name
    - **index**: $index
    - **status**: $status

2040: StartTask

Event 1

- **Description**: Start task information
- **Extensions**:
    - **action**: run
    - **name**: transformation_program
    - **uid**: $uid

Event 2

- **Description**: Start exceptional task information
- **Extensions**:
    - **action**: start
    - **name**: exception_task
    - **evaluatorState**: $state

Event 3

- **Description**: Exception information
- **Extensions**:
    - **action**: raised
    - **name**: $type
    - **code**: $errorCode
    - **desc**: $description
    - **execUID**: $execUID
    - **programCounter**: $programCounter

2041: InitializeAlarmChannel

Event 1

- **Description**: Initialize alarm channel status
- **Extensions**:

- o **action**: initialize

- o **name**: alarm_channel

- o **channelName**: $channelName

- o **status**: $status

Event 2

- **Description**: Invalid alarm channel state information

- **Extensions**:

  - o **name**: alarm_engine

  - o **state**: $state

Event 3

- **Description**: Initialize command status

- **Extensions**:

  - o **action**: initialize_command

  - o **command**: $command

  - o **status**: $status

2042: LoadAlarmChannels

Event 1

- **Description**: Alarm channel load information

- **Extensions**:

  - o **action**: $action

  - o **name**: $type

  - o **status**: $status

2043: AlarmProcess

Event 1

- **Description**: Send SMS status

- **Extensions**:

- o **action**: send

- o **name**: sms

- o **status**: $status

- o **recipient**: $recipient

Event 2

- **Description**: Delete SMS status

- **Extensions**:

    - o **action**: delete

    - o **name**: sms

    - o **status**: $status

    - o **slot**: $slot

Event 3

- **Description**: Received SMS status

- **Extensions**:

    - o **action**: receive

    - o **name**: sms

    - o **status**: $status

    - o **sender**: $sender

    - o **message**: $message

Event 4

- **Description**: Alarmpoint state information

- **Extensions**:

    - o **name**: alarm

    - o **alarmName**: $alarmName

    - o **uid**: $alarmVariableUid

    - o **offset**: $offset

- o **state**: $state

Event 5

- **Description**: Alarmpoint action information

- **Extensions**:

  - o **action**: $action

  - o **name**: alarmpoint

  - o **variableUid**: $variableUid

  - o **offset**: $offset

  - o **status**: $status

2044: HmiEngine

Event 1

- **Description**: Switch detection information

- **Extensions**:

  - o **action**: detected

  - o **name**: switch_change

  - o **lastState**: $lastState

  - o **newState**: $newState

Event 2

- **Description**: Alarm statistic information

- **Extensions**:

  - o **name**: alarm_statistics

  - o **totalCount**: $totalAlarms

  - o **activeCount**: $activeAlarmsCount

  - o **memoryCount**: $memoryAlarmsCount

2045: InitializeStopwatch

Event 1

- **Description**: Initialize stopwatch information

- **Extensions**:

  - **source**: $source

  - **frequency_kHz**: $frequency

2046: ProgramOutput

Event 1

- **Description**: ST code general log message

- **Extensions**:

  - **message**: $message

2047: GenericEvent

Event 1

- **Description**: Generic log message from application

- **Extensions**:

  - **message**: $message

2048: FileControl

Event 1

- **Description**: Create file status

- **Extensions**:

  - **action**: create

  - **name**: file

  - **path**: $filePath

  - **status**: $status

  - **errno**: $systemErrno

Events for Communication

3000: ReadData

Event 1

- **Description**: Wait for data information
- **Extensions**:
  - **action**: wait
  - **name**: input_read
  - **timeout_ms**: $timeout

Event 2

- **Description**: First data read information
- **Extensions**:
  - **action**: read
  - **name**: first_cycle
  - **threadName**: $threadName

Event 3

- **Description**: Channel timeout information
- **Extensions**:
  - **action**: timeout
  - **channel**: $channelId

Event 4

- **Description**: Telnet data read information
- **Extensions**:
  - **name**: telnet
  - **command**: $command
  - **option**: $option

Event 5

- **Description**: MBus communication error information

- **Extensions**:

  - **name**: mbus

  - **status**: $status

Event 6

- **Description**: BACNet communication timeout information

- **Extensions**:

  - **action**: timeout

  - **name**: bacnet_server

Event 7

- **Description**: TCP client timeout information

- **Extensions**:

  - **action**: timeout

  - **name**: tcp_client

  - **connection**: $connection

Event 8

- **Description**: Read data timeout information

- **Extensions**:

  - **action**: timeout

  - **contextId**: $contextId

Event 9

- **Description**: IEC60780-5-104 timeout information

- **Extensions**:

  - **action**: timeout

  - **contextId**: $contextId

  - **type**: $type

Event 10

- **Description**: IEC60780-5-104 wait confirmation information

- **Extensions**:

  - **action**: waiting_for_confirm

  - **contextId**: $contextId

3001: WriteData

Event 1

- **Description**: Output writable mark information

- **Extensions**:

  - **action**: mark

  - **name**: outputs_as_written

Event 2

- **Description**: Enable write information

- **Extensions**:

  - **action**: enable

  - **name**: outputs_writing

Event 3

- **Description**: Set value status

- **Extensions**:

  - **action**: set

  - **name**: variable

  - **status**: $status

  - **valueText**: $value

  - **uid**: $variableUid

  - **offset**: $variableOffset

  - **length**: $variableLength

Event 4

- **Description**: Set TPG value status

- **Extensions**:

  - **action**: save

  - **name**: $type

  - **status**: $status

  - **variableUid**: $variableUid

  - **offset**: $variableOffset

  - **excSize**: $execSize

Event 5

- **Description**: Client write error information

- **Extensions**:

  - **action**: write

  - **contextId**: $contextId

  - **status**: $status

3002: ReceiveData

Event 1

- **Description**: Parse frame information

- **Extensions**:

  - **action**: parse

  - **name**: frame

  - **contextId**: $contextId

  - **status**: $status

  - **telegramLen**: $telegramLength

  - **telegramNumber**: $telegramNumber

Event 2

- **Description**: Parse response frame information

- **Extensions**:

    o **action**: $action

    o **name**: $type

    o **ciField**: $ciField

    o **status**: $status

Event 3

- **Description**: Receive data information

- **Extensions**:

    o **action**: received

    o **length**: $length

    o **from**: $from

3003: SendData

Event 1 Send data information

- **Description**: Send data information

- **Extensions**:

    o **action**: sent

    o **length**: $length

    o **to**: $to

3004: InitializeDriver

Event 1

- **Description**: ModBus driver initialization information

- **Extensions**:

    o **action**: initialize

    o **name**: modbus

    o **status**: $status

- **initActivation**: $itemActivation

- **device**: $deviceAddress

- **element**: $element

- **value**: $value

Event 2

- **Description**: OneWire driver initialization information

- **Extensions**:

  - **action**: initialize

  - **name**: 1-wire_bus

  - **status**: $status

Event 3

- **Description**: (Un)Register I2C device information

- **Extensions**:

  - **action**: $action

  - **name**: I2C_device

  - **address**: $deviceAddress

  - **busNumber**: $busNumber

Event 4

- **Description**: Unsupported extension information

- **Extensions**:

  - **name**: platform_IO

  - **status**: $status

  - **extension**: $extension

Event 5

- **Description**: Not enough space information

- **Extensions**:

- o **name**: platform_IO
- o **status**: $status
- o **block**: $block

Event 6

- **Description**: Kbus terminal error information
- **Extensions**:
  - o **name**: kbus
  - o **status**: $status
  - o **terminal**: $terminal

Event 7

- **Description**: Kbus validation method information
- **Extensions**:
  - o **name**: kbus
  - o **method**: $method

Event 8

- **Description**: Kbus compare definition information
- **Extensions**:
  - o **name**: kbus
  - o **terminal**: $terminal
  - o **desc**: $description
  - o **expected**: $expectedDesc

Event 9

- **Description**: Kbus initialization failed information
- **Extensions**:
  - o **action**: $action
  - o **name**: kbus

- o **status**: $status

Event 10

- **Description**: Kbus (un)register serial link information

- **Extensions**:

  - o **action**: $action

  - o **name**: kbus

  - o **terminal**: $terminal

  - o **number**: $busnumber

  - o **port**: $portnumber

Event 11

- **Description**: Kbus initialize serial information

- **Extensions**:

  - o **action**: init

  - o **name**: kbus

  - o **port**: $portnumber

  - o **status**: $status

Event 12

- **Description**: Use kbus BSP old version initialization information

- **Extensions**:

  - o **action**: init

  - o **name**: kbus

  - o **status**: old_bsp

Event 13

- **Description**: Kbus operation state information

- **Extensions**:

  - o **action**: operation

- o **name**: kbus

- o **enable**: 0/1

- o **only_digital**: 0/1

3005: DriverCommand

Event 1

- **Description**: Load communication driver information

- **Extensions**:

  - o **action**: load

  - o **name**: $type

Event 2

- **Description**: Stop driver status

- **Extensions**:

  - o **action**: stop

  - o **name**: driver

  - o **status**: $status

Event 3

- **Description**: Load driver specific data status

- **Extensions**:

  - o **action**: load

  - o **name**: driver_specific_data

  - o **marker**: $marker

  - o **status**: $status

Event 4

- **Description**: Wrong image hook information

- **Extensions**:

  - o **action**: wrong_image_hook

Event 5

- **Description**: ModBus driver command information

- **Extensions**:

    - **action**: send

    - **command**: $command

    - **registers**: $registersRange

    - **status**: $status

Event 6

- **Description**: OneWire search status

- **Extensions**:

    - **action**: $action

    - **name**: 1-wire_bus

    - **status**: $status

    - **masterId**: $masterId

Event 7

- **Description**: OneWire new slave information

- **Extensions**:

    - **action**: new_slave

    - **name**: 1-wire_bus

    - **slave**: $slaveAddress

    - **family**: $family

    - **id**: $id

    - **crc**: $crc

Event 8

- **Description**: IEC60780-5-104 correction information

- **Extensions**:

- **action**: set_correction

- **type**: $type

- **correctionMs**: $correctionMs

Event 9

- **Description**: Kbus write terminal register information

- **Extensions**:

  - **action**: write_register

  - **name**: kbus

  - **position**: $position

  - **channel**: $channel

  - **register**: $register

  - **value**: $value

  - **result**: $result

3006: DeviceDetection

Event 1

- **Description**: Start detection device by primary address information

- **Extensions**:

  - **action**: start_via_primary_address

  - **name**: mbus_detection

  - **start**: $startAddress

  - **stop**: $stopAddress

Event 2

- **Description**: End detection device by primary address information

- **Extensions**:

  - **action**: detection_via_primary_ended

  - **name**: mbus_detection

- o **status**: $status

Event 3

- **Description**: Cancel detection device by primary address information

- **Extensions**:

  - o **action**: cancelled

  - o **name**: mbus_detection

Event 4

- **Description**: Found device information

- **Extensions**:

  - o **action**: detecting_address

  - o **name**: mbus_detection

  - o **address**: $address

Event 5

- **Description**: Start detection device by secondary address information

- **Extensions**:

  - o **action**: start_via_secondary_address

  - o **name**: mbus_detection

Event 6

- **Description**: End detection device by secondary address information

- **Extensions**:

  - o **action**: detection_via_secondary_ended

  - o **name**: mbus_detection

  - o **foundMeters**: $devicesCount

Event 7

- **Description**: Device detection progress information

- **Extensions**:

- o **action**: $action
- o **name**: mbus_detection
- o **value**: $value
- o **depth**: $depth
- o **address**: $address

Event 8

- **Description**: Device duplicate address information
- **Extensions**:
  - o **action**: cannot_continue
  - o **name**: mbus_detection
  - o **registers**: $reason

Event 9

- **Description**: Kbus terminals detection information
- **Extensions**:
  - o **action**: init
  - o **name**: kbus
  - o **device_id**: $deviceId
  - o **status**: $status

3007: ChannelCommand

Event 1

- **Description**: Load communication channel information
- **Extensions**:
  - o **action**: load
  - o **name**: $type

Event 2

- **Description**: BACNet server information

- **Extensions**:
  - o **action**: init
  - o **name**: bacnet_server
  - o **vendorName**: $vendorName
  - o **vendorId**: $vendorId
  - o **memoryPoolSize**: $usedMemory

Event 3

- **Description**: Open I2C channel information
- **Extensions**:
  - o **action**: open
  - o **name**: I2C_channel
  - o **busNumber**: $busNumber
  - o **baudRate**: $baudRate
  - o **addressingMode**: $mode
  - o **status**: $status

Event 4

- **Description**: Serial port information
- **Extensions**:
  - o **action**: load
  - o **name**: serial_port_parameters
  - o **comPort**: $comport
  - o **parameters**: $parameters
  - o **status**: $status

Event 5

- **Description**: Serial channel information
- **Extensions**:

- o **action**: load
- o **name**: serial_port_parameters
- o **channelName**: $channelName

Event 6

- **Description**: Serial port status

- **Extensions**:
  - o **action**: $action
  - o **name**: $type
  - o **comPort**: $comport
  - o **status**: $status

Event 7

- **Description**: Open serial port channel status

- **Extensions**:
  - o **action**: open
  - o **name**: serial_port
  - o **channelName**: $channelName
  - o **portNumber**: $portNumber
  - o **status**: $status

Event 8

- **Description**: Command information

- **Extensions**:
  - o **action**: $source
  - o **name**: 1-wire_netlink
  - o **command**: $command
  - o **commandLen**: $length

Event 9

- **Description**: Common command information

- **Extensions**:

  o **command**: $command

  o **name**: 1-wire_netlink

3008: ChannelStatus

Event 1

- **Description**: Lan server information

- **Extensions**:

  o **action**: listen

  o **name**: $type

  o **listenAddress**: $address

  o **maxClients**: $maxConnectedClients

Event 2

- **Description**: UDP server multiple group join information

- **Extensions**:

  o **action**: join_multicast_group

  o **name**: udp_server

Event 3

- **Description**: Start ETH serial converter information

- **Extensions**:

  o **action**: start

  o **name**: ethernet_serial_converter

Event 4

- **Description**: Channel status

- **Extensions**:

  o **action**: read

- o **channel**: $channel

- o **status**: $status

Event 5

- **Description**: No socket and action information

- **Extensions**:

  - o **status**: $status

  - o **threadId**: $threadId

Event 6

- **Description**: Remove endpoint status

- **Extensions**:

  - o **action**: remove

  - o **name**: endpoint

  - o **status**: $status

Event 7

- **Description**: GSM channel information

- **Extensions**:

  - o **name**: gsm_channel

  - o **parameters**: $parameters

Event 8

- **Description**: (Un)Assign TCP client context information

- **Extensions**:

  - o **action**: $action

  - o **name**: client_context

  - o **channel**: $channel

  - o **index**: $index

Event 9

- **Description**: Assign UDP client context information

- **Extensions**:

  - **action**: assign

  - **name**: client_context

  - **status**: $status

Event 10

- **Description**: Full buffer information

- **Extensions**:

  - **name**: full_buffer

  - **index**: $index

  - **client**: $client

  - **offset**: $offset

  - **bufferSize**: $bufferSize

3009: AlarmCommunication

Event 1

- **Description**: -

- **Extensions**: None

3010: Connection

Event 1

- **Description**: Connection information

- **Extensions**:

  - **name**: connection_url

  - **index**: $index

Event 2

- **Description**: Connection closed information

- **Extensions**:

- **action**: connection_closed

- **name**: tcp_udp_client

- **status**: $status

- **this**: $currentObject

Event 3

- **Description**: Connection closed by server information

- **Extensions**:

    - **action**: connection_closed

    - **tmp**: $data

    - **erno**: $systemError

Event 4

- **Description**: Connection closed by client information

- **Extensions**:

    - **action**: connection_closed

    - **name**: tcp_client

    - **address**: $clientAddress

Event 5

- **Description**: Connection closed request done information

- **Extensions**:

    - **action**: connection_closed

    - **name**: tcp_client

    - **channelId**: $channelId

    - **endpointState**: $currentState

Event 6

- **Description**: Connection closed caused by invalid data information

- **Extensions**:

- o **action**: connection_closed
- o **contextId**: $contentId
- o **reason**: $reason

Event 7

- **Description**: Connection closed caused by inactivity information

- **Extensions**:

  - o **action**: connection_closed
  - o **name**: tcp_client
  - o **connection**: $connectionId
  - o **reason**: inactivity

Event 8

- **Description**: IEC60780-5-104 invalid command information

- **Extensions**:

  - o **action**: connection_closed
  - o **contextId**: $contentId
  - o **reason**: $reason
  - o **commandLen**: $command

Event 9

- **Description**: IEC60780-5-104 invalid reason/cause information

- **Extensions**:

  - o **action**: connection_closed
  - o **name**: $property
  - o **contextId**: $contentId
  - o **reason**: $reason
  - o **cause**: $messageCause
  - o **reason**: $messageReason

Event 10

- **Description**: Close session information

- **Extensions**:

    o **action**: session_closed

    o **name**: serial_server

Event 11

- **Description**: New connection information

- **Extensions**:

    o **name**: new_connection

    o **contextId**: $contextId

    o **address**: $address

    o **port**: $portNumber

Event 12

- **Description**: TCP client state information

- **Extensions**:

    o **name**: tcp_client

    o **channelId**: $channelId

    o **state**: $state

Event 13

- **Description**: Connection blocked information

- **Extensions**:

    o **action**: client_blocked

Event 14

- **Description**: Disconnect information

- **Extensions**:

    o **action**: client_disconnected

- o **name**: $address
- o **status**: $status

Event 15

- **Description**: Graceful disconnect information
- **Extensions**:
  - o **action**: graceful_disconnect
  - o **name**: tcp_udp_client
  - o **this**: $currentObject

Event 16

- **Description**: Connection terminated information
- **Extensions**:
  - o **action**: server_connection_terminated
  - o **address**: $address

Event 17

- **Description**: Connection state information
- **Extensions**:
  - o **name**: endpoint_state
  - o **state**: $state
  - o **status**: $status

Event 18

- **Description**: Connection failed information
- **Extensions**:
  - o **action**: $type
  - o **name**: tcp_udp_client
  - o **state**: $state
  - o **this**: $currentObject

3011: UserLogin

Event 1

- **Description**: Login/Logout client information

- **Extensions**:

  - **action**: $action

  - **user**: $userName

  - **contextId**: $contextId

  - **status**: $status

Event 2

- **Description**: Check user access information

- **Extensions**:

  - **action**: check_access

  - **userName**: $userName

  - **status**: $status

Event 3

- **Description**: User login to HMI (LCD menu)

- **Extensions**:

  - **action**: unlock

  - **name**: hmi_section

  - **section**: $section

  - **status**: $status

3012: InitializeTls

Event 1

- **Description**: Initialize CA certs information

- **Extensions**:

  - **action**: load

- o **name**: $type
- o **count**: $count

Event 2

- **Description**: Initialize TLS information

- **Extensions**:

  - o **action**: init

  - o **name**: MBED_TLS

  - o **version**: $version

Event 3

- **Description**: Initialize TLS parser buffer information

- **Extensions**:

  - o **action**: load

  - o **description**: $description

  - o **returnCode**: $returnCode

Event 4

- **Description**: Initialize TLS parser information

- **Extensions**:

  - o **action**: load

  - o **description**: $description

  - o **size**: $size

  - o **bufferSize**: $bufferSize

Event 5

- **Description**: Initialize TLS defaults information

- **Extensions**:

  - o **action**: init

  - o **name**: $description

- o **returnCode**: $result

Event 6

- **Description**: Setup SSL information

- **Extensions**:

  - o **action**: setup

  - o **name**: ssl_config

  - o **returnCode**: $result

Event 7

- **Description**: Handshake information

- **Extensions**:

  - o **action**: handshake

  - o **host**: $hostname

  - o **error**: $errorCode

Event 8

- **Description**: Heap information

- **Extensions**:

  - o **name**: $type

  - o **heapCurrent**: $currentHeap

  - o **heapCurrentBlockNo**: $currentBlock

  - o **heapMax**: $maximumHeap

  - o **heapMaxBlockNo**: $maximumBlocks

3013: SslStateMachine

Event 1

- **Description**: Close information

- **Extensions**:

  - o **action**: close

o **name**: state_machine

Event 2

- **Description**: Read/Write/Pending data information

- **Extensions**:

  o **action**: $action

  o **name**: $type

  o **length**: $dataLength

Event 3

- **Description**: SSL Accept information

- **Extensions**:

  o **name**: ssl_accept

  o **status**: $status

  o **error**: $errorCode

Event 4

- **Description**: SSL read information

- **Extensions**:

  o **name**: ssl_read

  o **length**: $length

Event 5

- **Description**: SSL read error information

- **Extensions**:

  o **name**: ssl_read

  o **status**: $status

3014: ProxyClient

Event 1

- **Description**: Set alive information

- **Extensions**:
    - o **action**: set_alive
    - o **proxyId**: $proxyId
    - o **channelId**: $channelId
    - o **availableChannels**: $availableChannels

Event 2

- **Description**: Send disconnect information

- **Extensions**:
    - o **action**: send_disconnect
    - o **channelId**: $channelId

Event 3

- **Description**: Send set alive information

- **Extensions**:
    - o **action**: send_set-alive

Event 4

- **Description**: Receive respond information

- **Extensions**:
    - o **action**: received_response
    - o **newResponse**: 0/1
    - o **dataLength**: $dataLength
    - o **responseCode**: $responseCode
    - o **content**: $content

Event 5

- **Description**: Receive respond status

- **Extensions**:
    - o **action**: received_error

- o **errno**: $errorCode

- o **channelId**: $channelId

Event 6

- **Description**: New connection information

- **Extensions**:

  - o **action**: new_connection

  - o **channelId**: $channelId

Event 7

- **Description**: Remove client information

- **Extensions**:

  - o **action**: remove_client

  - o **channelId**: $channelId

  - o **reason**: $reason

Event 8

- **Description**: Start service information

- **Extensions**:

  - o **action**: start_service

  - o **period_s**: $communicationPeriod

  - o **proxyId**: $proxyId

  - o **maxDataSize_B**: $maxDataSize

  - o **connectionLimit**: $connectionLimit

Event 9

- **Description**: Register URL information

- **Extensions**:

  - o **action**: register_url

  - o **url**: $url

Event 10

- **Description**: Invalid URL information

- **Extensions**:

  - **action**: found

  - **name**: invalid_url

  - **url**: $url

3015: DBClient

Event 1

- **Description**: Receive response information

- **Extensions**:

  - **action**: received_response

  - **responseCode**: $responseCode

  - **name**: $type

  - **status**: $status

Event 2

- **Description**: Start service information

- **Extensions**:

  - **action**: start_service

  - **period_min**: $sendPeriod

Event 3

- **Description**: Register URL information

- **Extensions**:

  - **action**: register_url

  - **url**: $url

Event 4

- **Description**: Invalid URL information

- **Extensions**:
  - o **action**: found
  - o **name**: invalid_url
  - o **url**: $url

3016: SSCPClient

Event 1

- **Description**: Register group information
- **Extensions**:
  - o **action**: register_group
  - o **maxVarsCount**: $maxVariablesCount
  - o **varsCount**: $variablesCount
  - o **bufferSize**: $bufferSize
  - o **status**: $status

Event 2

- **Description**: Invalid variable error information
- **Extensions**:
  - o **status**: invalid_variable
  - o **index**: $index

Event 3

- **Description**: Common SSCP error information
- **Extensions**:
  - o **name**: sscp_error
  - o **error**: $error

3017: Requests

Event 1

- **Description**: Reset Net server information

- **Extensions**:
  - **action**: reset
  - **name**: net_server
  - **driverState**: $state
  - **resetReason**: $reason

Event 2

- **Description**: Net server new image update state information
- **Extensions**:
  - **action**: $action
  - **name**: net_server
  - **netSrvState**: $netSrvState
  - **newDrvState**: $newDrvState
  - **newDrvState2**: $newDrvState2

Event 3

- **Description**: Net server upload image information
- **Extensions**:
  - **action**: upload_image_init
  - **name**: net_server
  - **status**: $status

Event 4

- **Description**: Net server change state information
- **Extensions**:
  - **action**: send_OEM_init
  - **name**: net_server

Event 5

- **Description**: Net server serial port map status

- **Extensions**:
  - **action**: send_serial_port_map_value
  - **name**: net_server
  - **status**: $status
  - **reason**: $reason

Event 6

- **Description**: Disconnect information

- **Extensions**:
  - **action**: disconnect
  - **name**: tcp_udp_client
  - **this**: $currentObject

Event 7

- **Description**: Last error information

- **Extensions**:
  - **action**: get
  - **name**: last_error
  - **status**: $status

3018: UserCommand

Event 1

- **Description**: User command information

- **Extensions**:
  - **function**: $functionName
  - **status**: $status
  - **contextId**: $contextId

Event 2

- **Description**: Send/Receive data information

- **Extensions**:
  - **function**: $functionName
  - **dataId**: $dataId
  - **size**: $size
  - **status**: $status
  - **contextId**: $contextId

Event 3

- **Description**: System command information
- **Extensions**:
  - **function**: $functionName
  - **command**: $command
  - **status**: $status
  - **contextId**: $contextId

Event 4

- **Description**: Port monitor command information
- **Extensions**:
  - **function**: $functionName
  - **command**: $command
  - **pmCommand**: $pmCommand
  - **channelId**: $channelId
  - **status**: $status
  - **contextId**: $contextId

Event 5

- **Description**: Format file system command information
- **Extensions**:
  - **function**: $functionName

- **command**: $command
- **fsId**: $fsId
- **status**: $status
- **contextId**: $contextId

Event 6

- **Description**: Format folder command information
- **Extensions**:
    - **function**: $functionName
    - **command**: $command
    - **dirId**: $dirId
    - **status**: $status
    - **contextId**: $contextId

3019: DriverStatus

Event 1

- **Description**: Drive stopped information
- **Extensions**:
    - **action**: driver_stopped
    - **name**: tcp_client
    - **channelId**: $channelId

Description of Audit Log

An audit log, also known as an audit trail, is a record that documents a sequence of activities or events in a system. It is used to track and monitor actions taken by users, processes, or systems, providing a detailed history of changes and operations.

Audit log settings are based on PCI Security Standards.

We can view the audit log in a Syslog manager, or we can find the log file directly in the PLC under the path *"/var/log/audit/audit.log"*.

Types of Events Logged

- **Login Attempts**: Successful and failed login attempts.

- **File Access**: Creation, modification, and deletion of files.

- **System Changes**: Configuration changes.

- **Network Activity**: Connections, data transfers, and communication between systems.

Changes in versions

12/2024 – First documentation version.
01/2025 – Severity description update.