Release Notes for CODESYS - 3.5.21.40

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IMPORTANT

Please read this and referred documents carefully before starting the update!

CODESYS version 3.5.21.40 contains:
- CODESYS 3.5.21.40 package file for the CODESYS IDE 3.5.21.40
- CODESYS runtime: 3.5.21.40
- OS files as listed below

This version has been tested and is approved for the following operational systems:

Platform	Device	OS Version
egscore	Opus B3	1.5.0
egscore	Opus B4	1.5.0
egscore	Opus B6	1.5.0
egsfusion	Opus A6 G2	1.1.0
egsfusion	Opus A8	1.1.0
egspro	Opus A6 G2	2.5.0
egspro	Opus A8	2.5.0
opusa3	Opus A3	2.2.6
opusa6	Opus A6	2.2.6
opus-b2	Opus B2	1.0.0
xd2	Opus C	1.1.0

Using this software for combinations other than those set out above may cause problems and damages for which we cannot accept any liability. The use of the software for any purpose other than those approved by us is at a sole responsibility of your company and should therefore be adequately trialled in advance by means of suitable tests and other checks.

Install the aforementioned CODESYS IDE and then install the listed *.package file. The help for the Topcon part of CODESYS will be included in the CODESYS Help under AddOns -> TargetDataStorage. By default, the Online HTML help will be shown. To see our help, please go to Tools -> Options -> Help, and deselect "Use web help, if available". Alternatively, the .chm help file is included separately in the folder \manuals\software. It might be that this file cannot be read from network drives. If you see no content, please copy the file to a local hard drive.

Please read the release note documents for the OS to see the changes. Release notes and documentation for the OS versions can be found in \manuals\software\OS.

3.5.21.40

Category	Subcategory	Short description	Description
Change	Runtime	NativeControls	Mediaplayer handels files in list, faster switch to previous loaded files
Feature	Library	EEPROM	Add new property HasConflict
Feature	Runtime	NativeControls	Add new Lamp element
FIX	Library	LED	Add new fb for egsfusion LED interface
FIX	Runtime	PDFReader	Fix load of invalid files with Qt6

Known Issues

Category	Subcategory	Short description	Description
Issue	J1939	Address Claiming	J1939 version 4.1.0.0 will not work with active loopback
Issue	Runtime	egsfusion	Limited to one camera object
Issue	Runtime	egsfusion	Mediaplayer and Ethernet camera not working
Issue	Runtime	Memory Leak	Each gstreamer pipeline looses about 7MB RAM on each reset
Issue	Runtime	Wake up from sleep	To avoid the memory loss the process restarts instead of the application
Issue	Runtime	Rendering objects outside the visible area	CODESYS renders all visible objects, even outside the visible area
Issue	Runtime	Native Control crash	Missing event without multitouch handling
Issue	Runtime	Memory Leak	Frame handling in overlay visualization
Issue	Runtime	Memory Leak	Hide/Show native controls with gstreamer pipeline

3.5.21.10

Category	Subcategory	Short description	Description
Change	Library	Screenshot	Use Qt to create screenshots if possible
Change	Library	NativeControls	Remove overlay versions of native controls, one object for all devices
Change	Library	NetworkManager	Replace old network configuration with network manager/network device
Change	Runtime	Config	Reconfigure all task priorites
Feature	Runtime	egsfusion	Support egsfusion devices
Feature	Runtime	64 bit	Support 64 bit devices
Feature	Runtime	EthernetCamera	Add custom pipeline to Ethernet camera element
FIX	Library	Threads	Set thread priorities to the expected lower priorities

3.5.19.53

Category	Subcategory	Short description	Description
Feature	Library	HMD	Add support for HMD API version 10, MultiLEDColor

3.5.19.52

Category	Subcategory	Short description	Description
Change	Runtime	NativeControls	Change to the internal data structure of the media player. Not compatible with old binaries
Feature	Runtime	NativeControls	Add PDFReader for all i.MX6ULL devices
Feature	Runtime	NativeControls	PDFReader, add DPI property. DPI changes the render quality, zoom the ouput size
FIX	DeviceDescription	Sensors	Update sensor names for all i.MX6ULL devices
FIX	Library	StoreInfoToUSB	Add more content, adept to new file locations
FIX	Runtime	NativeControls	Fix handling of quick page changes

3.5.19.51

Category	Subcategory	Short description	Description
Feature	DeviceDescription	User Management	Disable forced user management setting
Feature	DeviceDescription	File access	Add new config values to configure file access from the IEC application
Feature	DeviceDescription	Systemcall	Add new config values to configure binary access from the IEC application
Feature	Runtime	Add support for EGSPRO 2.4.x	Optional support for EGSPRO 2.4

3.5.19.50

Category	Subcategory	Short description	Description
Feature	Runtime	Device support	Add support for i.MX6ULL devices
FIX	Runtime	Cursor visible on i.MX35 devices	Cursor invisible again

3.5.17.30

Category	Subcategory	Short description	Description
Change	DeviceDescription	VideoObject	VideoObject is now limited to one instance per hardware
Change	Library	Combine Libraries	TargetDataStorage contains now the External and DataTypes Library
Feature	Library	HMD Interface	Add MaxBootmode and MaxConsoleMode to IHMD
Feature	Library	VideoObject	Add valid property to check if hardware is available
Feature	Library	PMD Interface	EGSCORE, split additional settings into seperate devices
Feature	Library	NativeControl Properties	QML, add new properties, Opacity, Cutting, ForceAspectRatio, FlipH, FlipV and Rotation
Feature	Library	NativeControl MediaPlayer	Add new properties, AutoPause and AutoResume
Feature	Library	NativeControl VideoObject	Add new properties, Open and Visible
Feature	OnlineHelp	Update FAQ Section	Update the whole FAQ section
Feature	Runtime	QML NativeControls	Rewrite all native control elements
FIX	Runtime	Weston config file	Fix replacement of the weston.ini on every startup

3.5.16.53

Category	Subcategory	Short description	Description
Feature	Runtime	Device support	Add support for more EGSPRO devices

3.5.16.52

Category	Subcategory	Short description	Description
Feature	DeviceDescription	Inputs	Add property to catch input events in exclusive mode
Feature	DeviceDescription	CANL2Config	Add valid property to check device support
Feature	DeviceDescription	OTG	Add OTG support for egspro and egscore devices
FIX	DeviceDescription	SVG support	Add workaround for CODESYS xml parser bug to enable SVG support
FIX	Runtime	NativeControls and property handling	Add workaround to solve problems with native controls in combination with active property handling option

3.5.16.51

Category	Subcategory	Short description	Description
FIX	Library	CANConfig	Fix set of baudrate values higher than 250 on startup
FIX	Runtime	Screenshot	Fix screenshot function with weston on devices without frame buffer
FIX	Runtime	Error Images	Show errors like version mismatch or license missing with weston

3.5.16.50

Category	Subcategory	Short description	Description
Change	Library	Speaker2	Redesign speaker2 element
FIX	Library	TTC Daemon	Fix TTC progress callback value

3.5.16.24

Category	Subcategory	Short description	Description
Feature	Runtime	Video	EGSCORE, add analog video native control
Feature	Runtime	EthernetCamera	EGSCORE, add Ethernet camera native control

3.5.16.23

Category	Subcategory	Short description	Description
FIX	Library	Backup	Remove old RETAIN folder from backup
FIX	Runtime	Video	Fix position in portrait mode

3.5.16.22

Category	Subcategory	Short description	Description
Feature	Library	PowerManagement	Support EGSCORE features

3.5.16.21

Category	Subcategory	Short description	Description
Change	DeviceDescription	Sensor name	Change board_12v_bat to supply_vcc
FIX	Library	Mediaplayer	Detect wrong file format

3.5.16.20

Category	Subcategory	Short description	Description
Change	Library	Remove WEBBrowser	Remove WEBBrowser native control, switch to WEB Browser special control
FIX	Library	NativeControls	Reset of invisible native controls could switch visible state

3.5.15.43

Category	Subcategory	Short description	Description
Change	Library	VideoObject	Combine/rename VideoObject function blocks
Feature	Library	EEPROM	Add detection for conflicts
Feature	Library	EthernetCamera	Add support for RTSP
FIX	Library	NativeControls	Fix bug with permanent visible objects

3.5.15.42

Category	Subcategory	Short description	Description
FIX	Library	Rebuild	Rebuild because of missing objects in compiled libraries

3.5.15.41

Category	Subcategory	Short description	Description
Change	OnlineHelp	Add Known Issues	Add section Known Issues to the help file

3.5.15.40

Category	Subcategory	Short description	Description
Change	Library	NativeControls	Rework event handling for native controls
Change	Library	VideoObject	Combine/rename VideoObject function blocks
Change	Library	Touch	Remove usage of pointercal for capacitive touch devices
Feature	Library	TTC Daemon	Add function block to control the TTC download daemon
FIX	Runtime	Fonts	Fix link creation

3.5.14.8

Category	Subcategory	Short description	Description
FIX	Library	UnitProperty	Remove linebreak from unit properties

3.5.14.7

Category	Subcategory	Short description	Description
FIX	Library	CANL2Config	Fix lost messages with activated receiver combined with receiver elements
FIX	Runtime	MediaPlayer	Add support for MediaPlayer, EthernetCamera and VideoObject in a Project, not at the same time

3.5.14.5

Category	Subcategory	Short description	Description
Feature	DeviceDescription	USB	Add USB ethernet or block device change event

3.5.14.4

Category	Subcategory	Short description	Description
Feature	DeviceDescription	Config	Add RestartAfterSleep config entry
Feature	DeviceDescription	Config	Add SysWindow config entries

3.5.14.3

Category	Subcategory	Short description	Description
Feature	DeviceDescription	Config	Add UseWeston config entry

3.5.14.2

Category	Subcategory	Short description	Description
Change	Runtime	Config	Change default Bitmap buffer size from 500 to 50
FIX	Runtime	RETAIN Variables	Fix endless loop if no backup data is available
FIX	Runtime	BitsPerPixel	Move command order to set framebuffer settings before weston startup
FIX	Runtime	VideoObject	Start video after property change only if object is visible

3.5.14.1

Category	Subcategory	Short description	Description
FIX	Runtime	Communication	Increase timeout for project transfer

3.5.14.0

Category	Subcategory	Short description	Description
FIX	Runtime	CAN	Fix block of main task if CAN is active and not connected
FIX	Runtime	NativeControls	Check for empty references
FIX	Runtime	VideoObject	Reduce startup delay
FIX	Runtime	RETAIN Variables	Fix backup and restore function

3.5.13.12

Category	Subcategory	Short description	Description
FIX	Runtime	Hotkeys	Fix focus on startup

3.5.13.11

Category	Subcategory	Short description	Description
FIX	Runtime	NativeControls	Fix sync lost in GLVideoObject

3.5.13.10

Category	Subcategory	Short description	Description
Feature	Runtime	NativeControls	Add CODESYS Webbrowser support
Feature	Runtime	WebVisualization	Add CODESYS WebVisualization support

3.5.12.0

Category	Subcategory	Short description	Description
Change	Library	Keypad	Change Stop to End
Change	Runtime	AudioPlayer	Add new object AudioPlayer
Change	Runtime	MediaPlayer	Remove property audio only
Feature	Library	NativeControls	Detect invalid files
Feature	Library	GLVideoObject	Add change channel
Feature	Library	StoreInfoToUSB	Add auto unmount property
Feature	Library	CANL2	Add propert enable receiver to receive messages without childs
Feature	Runtime	Font path	Add font path in start scripts
Feature	Runtime	MediaPlayer	Change video sink, enables multiple streams
Feature	Runtime	EthernetCamera	Add properties StreamFormat, StreamState and LostCounter
Feature	Runtime	EthernetCamera	Handle connection lost and resume
Feature	Runtime	EthernetCamera	Add MotionJPEG support
Feature	Runtime	MediaPlayer	Enable resize during runtime
FIX	Library	Speaker Simulation	Fix main module in device description files
FIX	Library	GLVideoObject	Fix flip and rotation settings
FIX	Library	CANL2	Change receiver x29Bit property to read/write
FIX	Runtime	GLVideoObject	Fix catch of touch events
FIX	Runtime	Screenshot	Fix alpha channel for EGSPRO devices
FIX	Runtime	CAN	Enable restart after bus off
FIX	Runtime	PowerManagement	Fix crash on sleep event

3.5.11.0

Category	Subcategory	Short description	Description
Change	Library	String functions	Replace string functions of Standard library with StringUtils
Change	Library	VideoObject	Add valid property for EGSPRO devices
Feature	Library	Speaker Simulation	Add beeper simulation for IMX6 devices
Feature	Library	CANL2 configuration	Add CAN layer 2 configuration function blocks
Feature	Library	ISO Images	Add preview of ISO image library
Feature	Library	Video crop settings	Add crop settings to video object for iMX35 devices
Feature	Library	Gesture Handler	Add function block to handle touch gestures for multi touch devices
Feature	Library	Audio Settings	Add function block to handle operating system sound settings
Feature	Runtime	Ethernet Camera	Add support for Ethernet cameras for IMX6 devices
FIX	Library	CreateBackup	Add data folder to backup file for iMX35 devices

3.5.9.82

Category	Subcategory	Short description	Description
FIX	Runtime	Power Management	Disable CAN before sleep mode

3.5.9.81

Category	Subcategory	Short description	Description
FIX	Library	Touch calibration	Fix restart of CODESYS after touch calibration
FIX	Runtime	Update daemon	Fix start/stop of update daemon

3.5.9.80

Category	Subcategory	Short description	Description
Change	Runtime	CAN	Update to new runtime to get CAN fix

3.5.9.21

Category	Subcategory	Short description	Description
Change	Runtime	Audio mixer	Change from pulse audio to alsa. Reduce delay and response time
Feature	DeviceDescription	Add priority option	Application can set the process priority for media player and play audio file
Feature	Library	GLVideo Object	A new video object to show analog video. Is is now possible to show 2 video streams at the same time
Feature	Library	Bluetooth	Add basic Bluetooth functionality

3.5.9.20

Category	Subcategory	Short description	Description
Change	Runtime	CAN queue length	Change transmit queue from 10 to 1000 messages
Change	Runtime	Set default display resolution	Change from width/width to width/height, better for dialogs, rotation during runtime will not work
Feature	MediaPlayer	Add audio only mode	Add property to start media player in audio only mode
Feature	VideoObject	Add camera control output	Add property to set the state of the camera control output
FIX	DeviceDescription	Serial device path	Fix default serial device path
FIX	Library	USB mount path	Remove 'space' at the end of the mount path for devices without partition number

3.5.8.7

Category	Subcategory	Short description	Description
FIX	DeviceDescription	Serial device name	Fix default name for serial device config entry

3.5.8.6

Category	Subcategory	Short description	Description
Feature	DeviceDescription	Add feedback properties to digital outputs	Add loopback and failure property to digital outputs
FIX	DeviceDescription	Add system event configuration	Fix device description to show all system events again
FIX	Library	CreateBackup	Fix function and add AutoUnmount property

3.5.8.5

Category	Subcategory	Short description	Description
Feature	DeviceDescription	Add RunCounter to backgound functions	Native Controls and system functions have now a new property that counts the number of runs
FIX	Runtime	WEBBrowser	Fix busy, done, error state of the WEBBrowser component

3.5.8.4

Category	Subcategory	Short description	Description
Change	Runtime	Process creation	Replace system with posix_spawn, increase performance, no delay
Feature	DeviceDescription	Add OTG gadgets	Add access to OTG gadgets
Feature	DeviceDescription	Add config module SysCom	Add config entry for serial device name
Feature	DeviceDescription	Add AutoUnmount option	Add option to configure auto unmount of the USB stick after the backup process
FIX	Runtime	CreateBackup function	Fix crash of backup funcion

3.5.8.3

Category	Subcategory	Short description	Description
Change	Library	PlayAudioFile	Replace aplay with gst-launch
Change	Library	Native Control	Add message queue to all native control objects
Change	Runtime	Process creation	Replace fork with posix_spawn, increase performance, no delay
Feature	Runtime	Update mediaplayer	Enable multiple instances of media player, increase performance
FIX	DeviceDescription	Placeholder versions	Fix placeholder library versions

3.5.8.2

Category	Subcategory	Short description	Description
Change	Runtime	Change portrait orientation	Change rotation direction from counter clockwise to clockwise
Feature	DeviceDescription	Remove unsupported devices	Remove unsupported devices for every variant
Feature	Runtime	VideoObject	Support new ARM video driver
Fix	Runtime	Touch coordinates	Fix touch coordinates after dynamic display rotation
FIX	Runtime	Remove cyclic ethernet connection error	Remove no free receive port message for devices without ethernet

3.5.8.1

Category	Subcategory	Short description	Description
Feature	Online Help	Add IMX6 devices	Add description of all IMX6 devices

3.5.8.0

Category	Subcategory	Short description	Description
Change	DeviceDescription	Remove RTCBackupVCC	Remove no longer supported sensor
Change	DeviceDescription	Remove SpeakerImpedance	Remove no longer supported sensor
Change	DeviceDescription	Remove unsupported power management devices	Remove unsupported IOs from power management low power configuration
Change	Library	PlayAudioFile	Remove set of volume on every trigger
Feature	DeviceDescription	Add display resolution config values	Add TargetVisu config values for x and y resolution
Feature	DeviceDescription	Add touch support config value	Add TargetVisu config value for touch support
Feature	DeviceDescription	Transparency color	Add config value for transparency color for native control objects
Feature	DeviceDescription	Add sensor PrimInVCC	Add new sensor for voltage after load dump
Feature	DeviceDescription	Add power management devices	Add keypad, touch and rs232 to power management low power configuration
Feature	Online Help	Add Native Controls chapter	Add Native Controls chapter to FAQ
Feature	Runtime	Multimedia Player	Add MediaPlayer object
Feature	Runtime	Add license files	Add open source license files to CoDeSysControl/licenses folder
FIX	Online Help	Remove class links	Huge index results in out of memory message

3.5.5.13

Category	Subcategory	Short description	Description
Change	DeviceDescription	Digital Output 3	Change Pin to Layout of C2 Hardware
Change	DeviceDescription	Touch Screen Path	Switch device path from ts0 to touchscreen0
Change	Library	EEPROM size	Add size property to EEPROM main driver
Change	Library	CreateBackup function	Add new mode to backup bootlogo
Feature	OnlineHelp	Add EEPROM to FAQ	Add new section EEPROM to FAQ
Feature	Runtime	Boot logo download	Add download path for boot logo to configuration file
Feature	Runtime	Video and display rotation	Add video rotation for all diplay rotations
Feature	Runtime	PDF Reader	Add PDFReader object
Feature	Runtime	WEB Browser	Add WEBBrowser object
FIX	Library	CreateBackup function	Fix file and md5 creation

3.5.5.12

Category	Subcategory	Short description	Description
Change	Runtime	Font path	Font files are now located under /opt/share/fonts
Feature	OnlineHelp	Add FAQ	Add new section FAQ to OnlineHelp
FIX	DeviceDescription	CreateBackup function	Creates backup files with md5 checksum

3.5.5.11

Category	Subcategory	Short description	Description
Change	DeviceDescription	I/O driver limits	Change i/o driver limits from 10 bit to 12 bit
Change	Runtime	Remove DEBUG output	Remove debug output from video object
Change	Runtime	X11 background	Set X11 background to white to avoid multiple display flicker on startup
Feature	Library	HMD KeypadColor	Add KeypadColor property to function block for HMD
Feature	Runtime	Display rotation	Add feature to set display rotation without restart
FIX	Library	Audio playback	Change path to binary too new location
FIX	Runtime	X11 crash	Fix crash of X11 on restart or breakpoint
FIX	Runtime	Path for RETAIN files	Set same RETAIN path on every place
FIX	Runtime	Milky Video	Set global alpha on framebuffer to avoid milky video image
FIX	Runtime	Video image z order	Fix alpha settings to enable video behind CODESYS objects
FIX	Runtime	Video fullscreen	Fix problem with video fullscreen
FIX	Runtime	PNG support	New runtime supports the new PNG library

3.5.5.10

Category	Subcategory	Short description	Description
Change	DeviceDescription	Encoder backlight	Add led channel encoder backlight
Change	Library	Busy, Done, Error behavior	Change behavior to CAA style guide
Change	Runtime	X11 Qt5	Switch from Qt4 embedded to X11 Qt5
Feature	DeviceDescription	Frequency input	Add analog channel frequency input
Feature	Library	Add stop function to audio playback	Add method to stop audio playback
FIX	DeviceDescription	Device image	Fix wrong reference to device image

3.5.5.9

Category	Subcategory	Short description	Description
FIX	DeviceDescription	Hotkeys	Change names back to canonical names

3.5.5.8

Category	Subcategory	Short description	Description
Change	DeviceDescription	System events	Remove old content from device description
Change	OnlineHelp	Cleanup internal data	Remove internal content from online help
Feature	Library	Add function block for extended analog inputs	Add driver to access analog inputs extended functionality
Feature	Library	Add function block for multitouch events	Add driver to access multitouch slots
Feature	OnlineHelp	Add content to the description of the device	Add description to all components of the device specific part
FIX	DeviceDescription	Hotkeys	Change key codes in hotkey description
FIX	Library	Touch calibration	Change touch calibration file path
FIX	NativeControls	NTSC video	Change NTSC video initialization
FIX	Runtime	Dropbear startup	Change dropbear startup script location

Examples

Differences

EGSPRO_2.4

Cons:
- No support for overlay visualization.
- Supports only a single native control object at the same time.

Pros:
- Supports z-order of native controls in legacy visualization
- Not affected from known issues except J1939.

EGSPRO_3.0

Cons:
- Memory leak with gstreamer pipelines.
- Performance issues.
- No support for z-order of native controls in legacy visualization.

Pros:
- Supports animations.
- Supports all native controls objects at the same time.
- Supports z-order of native controls in overlay visualization.

Reset gstreamer pipeline

Requirement

Gstreamer is used for VideoObject, MediaPlayer and EthernetCamera.
Only projects that use these objects are affected.

Description

The pipeline reads the source and uses a QML sink to show the stream.
It is not possible in the current version to free the pipeline unless the whole process terminates.
The CODESYS process only starts the runtime and would not paint anything on the screen.
If the runtime was able to start without any problems it loads the application.
If the application contains any visualization it also starts and Qt application in the same process.
If the application uses NativeControl elements with gstreamer it creates and starts the pipeline.
On a new download, power management state change to sleep or with "reset warm" from the IDE the application stops.
On this event even the Qt application stops but the main process keeps running.
The application tries to stop the gstreamer pipelines but it is not possible to clean up completely in this version and about 7MB of memory are lost.
After the reset the application starts again. This is a new application without any knowledge of the previous one.
So it will create everything new.

Workaround

Powermanagement will restart the whole process on wakeup from sleep.
This will prevent any memory loss in normal field operation mode.
The loss is only present for new downloads or resets from the IDE.

Wake up from sleep

Requirement

Wake up from sleep behaviour changed
Only projects with a sleep timeout > 0 are affected.

Description

Without ignition the power management switches several states.
- On -> Low power
- Low power -> sleep
- Sleep -> Off
For each transition the power management uses a defined timeout.
If a timeout is set to 0 it jumps directly to the next state.
If ignition returns the device will switch back to On.
During sleep the CAN and all other IO/s are not active and the application would be in an undefined state.
The normal operation would be a reset warm to jump back to the start page and initialize the CAN like on a restart.
To avoid the memory loss with the gstreamer pipelines this behaviour was changed to a restart of the CODESYS process.
There is no additional change in the behaviour of the device.

Workaround

There is no workaround.
The result is a slower wake up from sleep
It is still faster than a restart but slower than just reset warm

Render visible objects

Requirement

It is possible to place objects outside the visible area.
With activated overlay visualization these objects have an impact on the performance.
Only projects that use overlay mode and objects outside the visible area are affected.
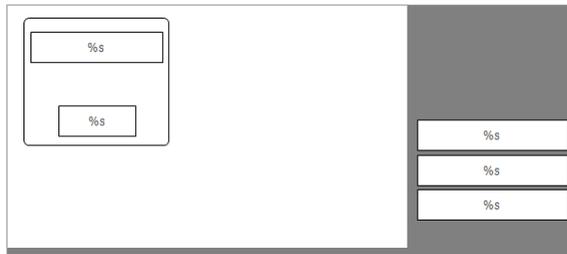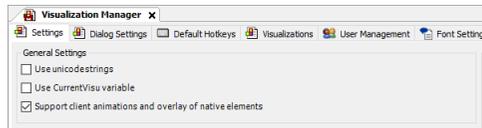
Description

Overlay mode works different than the old target visualization.
In QML all objects are handled within a scene graph.
Even if it looks like 2D everything is handled in 3D.
2D is just one special case in 3D.
The view port decides if an object is visible or not and not the coordinates.
Objects outside the visible area would be visible if the view was rotated.
In CODESYS that is not possible but the current version is not optimized for that case.

Workaround

Case 1:

For objects that are only visible in a remote visualization.

Hide objects outside the visible area depending on the used visualization client type.

https://content.helpme-codesys.com/en/libs/VisuElemBase/4.3.0.0/Public-Parts/Enumerations/Visu_ClientType.html#visu-clienttype

State variables	
Invisible	VisuElems.CurrentClientType = VisuElems.Visu_ClientType.TargetVisualization
Deactivate inputs	
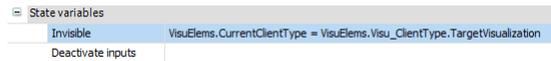
Case 2:

For objects with variable position.

- Hide objects outside the visible area
- Use frames to group theses objects and hide/show the frame

Missing Events

Requirement

NativeControls are controlled by events from the runtime system.
Missing events can lead to severe problems.
The events handling is faulty in case of the overlay visualization without activated multitouch handling
Only projects that use overlay visulazation without multitouch handling and Native Controls are affected.
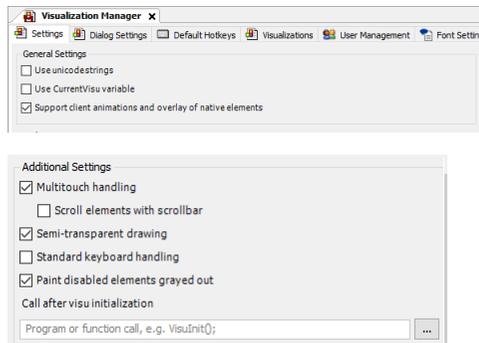
Description

Native Controls are used to show addional objects not available in the CODESYS basic visualization.
VideoObject, PDFReader, MediaPlayer and EthernetCamera are the current available objects.
The basic object for all objects is a gstreamer pipeline together with a sink in QML.
The system creates objects on first show, handles the visibility and destroys the objects.
The behaviour had changed with overlay visualization.
On every page change it destroys the object and recreate it if necessarry.
This would destroy all settings or progress in the object.
There is a backup mechanism implemented to prevent this and change the default behaviour of CODESYS.
Without multitouch handling activated the destroy event is missing but the system destroys the object anyway.
On the next show the backup mechanism tries to show the already destroyed object and the visualization crashes.

Workaround

There is no workaround.
If overlay visualization is required activate multitouch handling.

Frame handling

Requirement

Frames can be used to group objects and create visualization pages with parameters.
With activated overlay visualization these objects leak memory on every page change.
Only projects that use overlay mode and frames are affected.
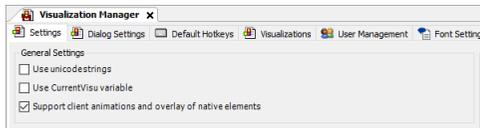
Description

Frames are a basic element in CODESYS.
All native controls are provided in a frame.
Visualization pages with inputs or outputs can only be used within a frame.
It is not possible to avoid frames.

Workaround

There is no workaround.
Avoid overlay visualization in the current version.

Memory Leak Native Controls

Requirement

Each native control with a gstreame pipeline leaks some memory.
Native controls with gstreamer are VideoObject, MediaPlayer, EthernetCamera.
Only projects that use these objects are affected.

Description

Native Controls adds additional objects to the CODESYS visualization
Native controls with gstreamer pipeline use a connection between gstreamer QML to show the data stream.
This plugin losses some memory on every page change.
This is independant of the used visualization mode.
Both classic and overlay visualization are affected.

Workaround

There is no workaround.
The loss is less 1kB per page change.
Outside a test scenario it should last long enough for a working day.
Restart of the device or wakeup from sleep frees the memory.

SAE J1939 error with version 4.1.0.0

Requirement

The problem appears if J1939 package version 4.1.0.0 is (or was) installed on the computer.
The problem affects projects that use the J1939 protocol where SocketCAN loopback is active (The default setting for SocketCAN loopback is active).
Uninstalling the version 4.1.0.0 does not solve the problem because the library is still kept in the CODESYS repository.

Description

With J1939 library version 4.1.0.0 CODESYS solved a bug that a device can send/receive on the J1939 bus even if the address claim failed.
With the SocketCAN loopback active, the device reads its own address claim.
With version 4.1.0.0 as described above this leads to the device not being allowed to send/receive on the J1939 bus.

Workaround_Downgrade_In_Application

Install J1939 version 4.0.0.0 with the CODESYS Installer.
Choose change(Ändern) and select the search(Durchsuchen) tab.
Select 'CODESYS SAE J1939', choose the version 4.0.0.0 and press install(Installieren).
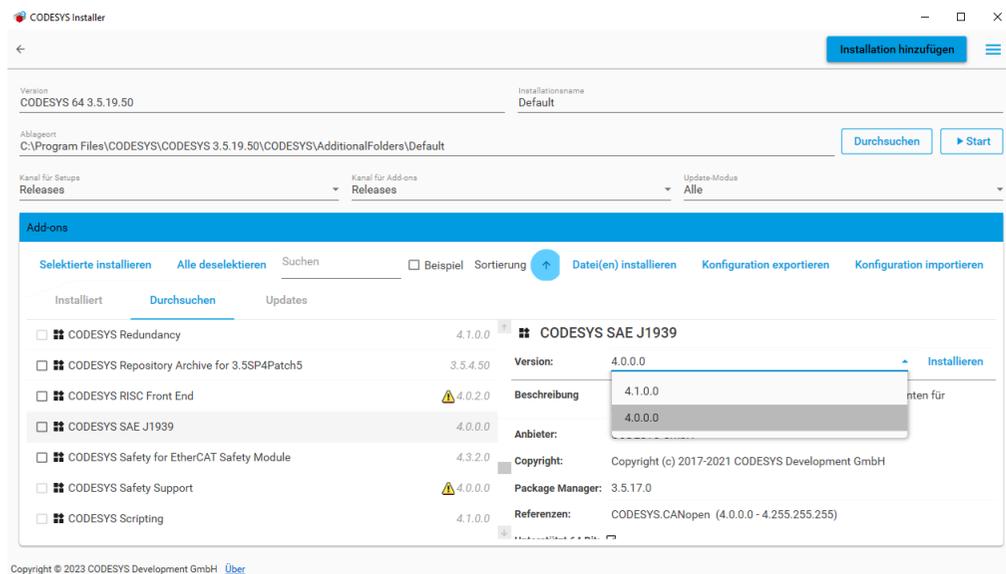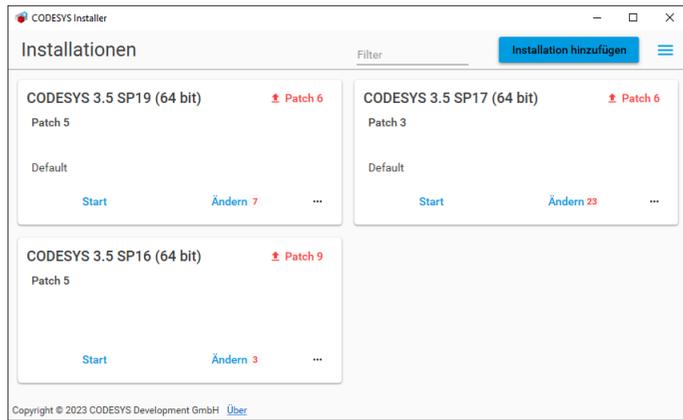
Open the application with J1939 devices.

Update the version of the J1939 manager and choose version 3.5.17.0.
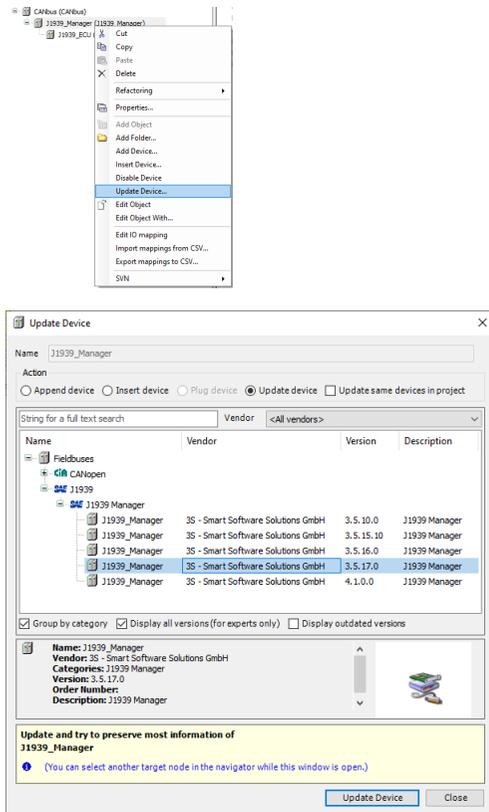
This should also select the J1939 library version 3.5.17.0.
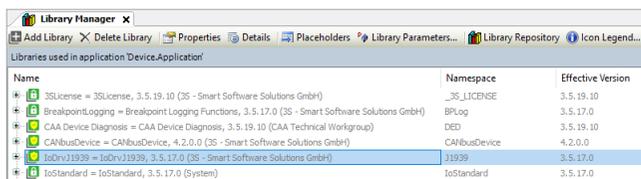
In this combination, the old behaviour, which ignores the address claim error, is compiled into the application.

Workaround_Uninstall_Plugin

Uninstall the library IoDrvJ1939 version 4.1.0.0 in the library repository
Intern->CANBus->IoDrvJ1939->4.1.0.0
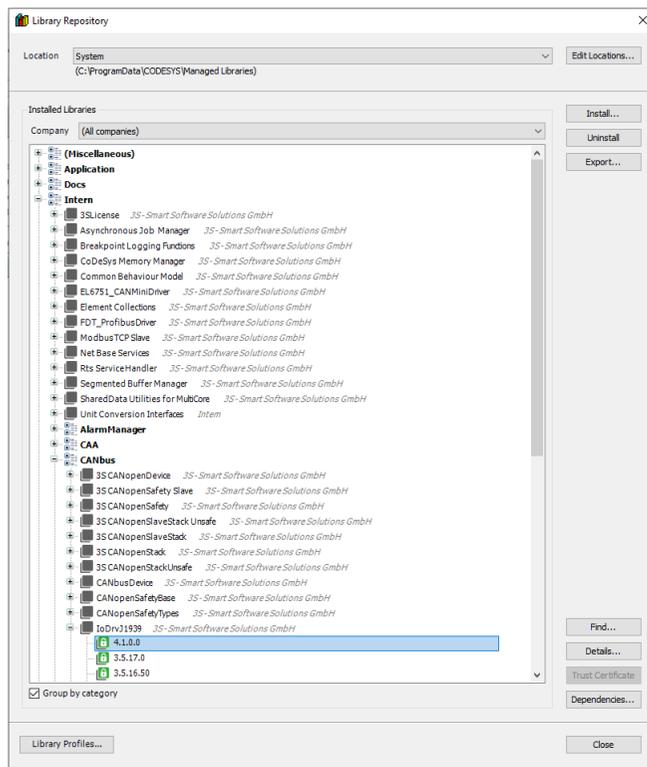
Uninstall the device J1939_Manager version 4.1.0.0 in the device repository
Fieldbuses->J1939->J1939 Manager->J1939_Manager, 4.1.0.0
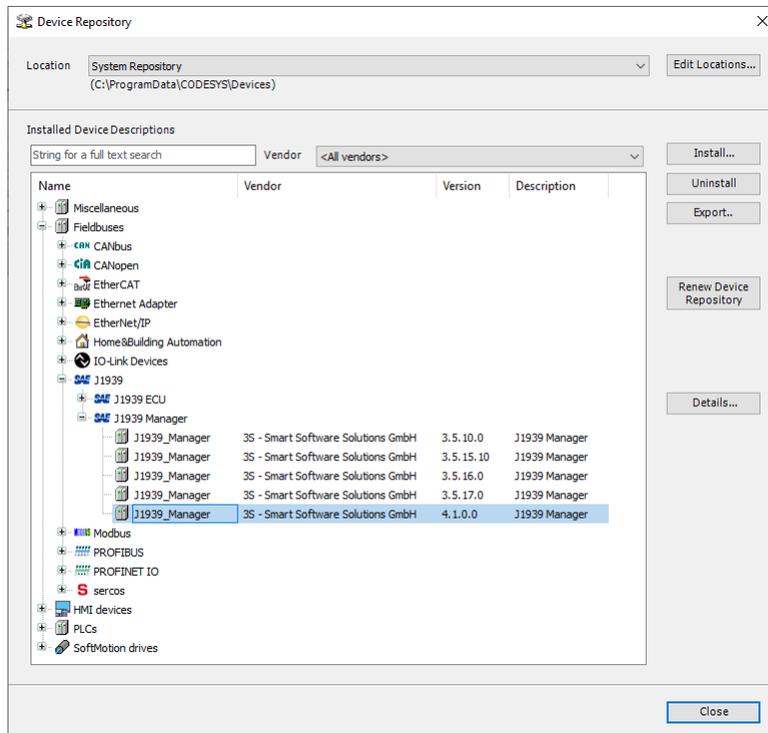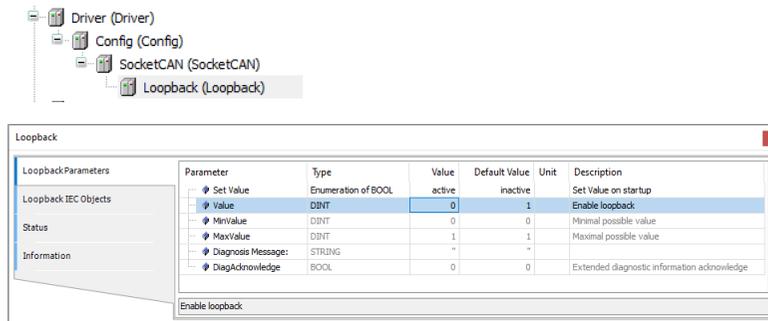
Workaround_Disable_Loopback

Disable loopback in the SocketCAN options.
This will also disable the possibility to read any send message from CODESYS with another application.
Drivers->SocketCAN->Loopback
Set "Set Value" to "Active" and "Value" to "0".
This will require a reboot of the device.