VISUAL COMPONENTS

Visual Components 4.10.2 release notes – 14.10.2025

Visual Components 4.10.2 update consists of improvements to many areas of the application, particularly in regard to stability and performance.

General improvements

- Application memory usage improved.
- Improvements to several OLP post-processors.
- Numerous bug fixes and general improvements.

Important to note:

- Users will have to re-enter their license keys and floating license server information in the launcher due to a licensing update.

Fixes and improvements for Visual Components Simulation products

ID#	Description
18950	Visibility not correct for cloned components in .vcax animation
21031	Hidden non-unique components are visible on .vcax animation
27549	First created PM assembly component not visible in VC Experience
31394	Hidden sub-layout shows in .vcax animation
31635	VC Experience, assembly steps are not shown
33659	Kuka.Sim Add-on not uninstalled when uninstalling silently
35904	Ruler not shown when translating a rotated component in local coordinate Z direction
35976	Non-time consuming loop detection blocks a seemingly valid loop in PM executor
36529	eCat database path resolving error
36811	Exception when creating variable pairs with double-byte numbers and single-byte numbers exceeding UInt64
37160	Closing auto-hidden docked panel makes another hidden panel in the same group visible
37401	Chinese Translation Issue: "Release" should be translate to "释放" other than "发布" on the action config area
36895	Guided Workflow: Workflow Uri does not update when opening a layout
37445	Fix Guided Workflow save related exception

36944	Fixed long .vcmx registration process
37744	Distribution property can't read back infinity values
37879	eCat: error occurs when adding a local source named "Layouts"
31220	Import CAD fails sometimes when using optimized feature tree setting
35598	Postprocess issues: Upload missing for Omron
39204	Update manipulator scale only when required
40731	Exception thrown when opening Via Solver settings via statement context menu in VC Professional

Memory usage improvements

38657	TriMesh objects created from primitive features are not deleted when layout is cleared
38606	Some Matrix instances created during simulation are not deleted when layout is cleared
38667	Executing linear motion statement creates LinearMotionDelta objects which are never deleted
38616	Fixed Paint add-on always creating .NET wrappers for all components' properties in layout.
39762	Fixed Eventhandler memory leak
38660	Memory leak: Custom properties in components are not deleted when layout is cleared

Fixes and improvements for Visual Components OLP products

Post Processors

ABB	Added download property for writing each subprogram as separate modules.
ABB	Upload support for inline ArcC
ABB	Support for wobjdata upload
ABB	Define base support
ABB	Fix for uploading comment lines containing semicolon
YASKAWA	WAIT commands as verbatim comment
YASKAWA	3DSHIFT option
YASKAWA	Pulse setter support for FS100

IGM	Manual RP support
IGM	Empty search variable allowed
IGM	Block index fix
IGM	OverrideBaseKeepName support for upload
IGM	Tool change block away from the beginning of the program if same tool in start block
OTC/Nachi	Spot welding support
FANUC	Point level Speed variable update, Force COORD property, Inline shift CIRCLAR fix
FANUC	Possibility to set tool offset PR for process path from point level WPS
CLOOS	Option for free points count between search paths
General	Implemented silent translation option.

OLP General Improvements and fixes

Fixed previously released assembly piece reappearing during smart grab/release.
Fixed issue with cloning weld that did not contain Start or End -point
Fix for gantry calculation with side mounted robot
Added gantry calculation for TTR gantry
Prevented crash during weld creation when Gantry/Positioner link min &gt
Added button to re-use release for next grab statement.
Added "Move Part Position" button for Grab statement.
Release statement's offset origin is no longer stored to path templates.
Improved assembly status activation while editing Grab/Release statements.
Path corner UI fixes.
Fixed crash issue when external joint had min limit greater than max.
Fixed grab move bug when non-zero wire roll.
Fixed search swap pick wireroll.
Improved Path Statement to Process Path -tool to support different source paths.
Autosearch wireroll fixes.
Mirror clone fixes.

Improved surface picking for Autosearch.
Fixes to Import CSV tool.
Fixes to Autosearch when selected welds are within Group statement.
Added circular out search variant 4.
Fixes to max point distance when start offset/corners/flares.
Fixed issue with Clone failing in case Start or End type point was missing.
Fixed duplicate point issue for corners.
Fixes to Wire Offsets and Distance Offsets.
Weld importing updates.
Modified Yaskawa Pulse Setter to support 7-axis robots

OLP tool improvements

Zigzag tool	fixed feature trimming related errors.
Zigzag tool	fixed opening and closing related errors.
Zigzag tool	added gap height option.
Torch cloud	Option for include PTP/LIN points and via motions
TorchCloud	Option for Via points and standard PTP/LIN motions

Visual Components 4.10.1 release notes – 03.03.2025

This update has improved our products' usability, stability, and performance. Below
is an overview of the updates for Visual Components 4.10.

General improvements

- KUKA.Sim add-on for Visual Components Premium and Visual Components Premium OLP is now available.
- Updated version of robot ActionScript
- Guided workflows can now include images
- Guided workflow panel now has a vertical scroll bar

Bug fixes for Visual Components Simulation products

ID#	Description
34068	Focus mode: dynamic component opacity doesn't change

34257	Geometries under switch feature are not properly rebuilt when the switch value changes
33402	VC starts without GUI or 3D world when application has no write access to Windows Documents folder (*see more info in Known Issues –section*)
33358	DWG file export fails if any components are in sub-layouts
34284	Exception when connecting component with more than one Processor interface to Path
35978	Performance issue when showing document host content
35040	Node excluded from collision detector node list is still sometimes checked for collisions
31554	Assembly Editor 3D toolbar initial location is incorrect

Bug fixes for Visual Components OLP products

Description
ABB: Fix for uploading comment lines containing semicolon
IGM: OverrideBaseKeepName support for upload
CLOOS: Option for free points count between search paths
CLOOS axis setup option for track/gantry
XML Pattern import regression fix
Fix for reversing imported welds
OTC: Support for separate gantry joint mechanisms
Process path min/max StickOut and BisectorOffset limits expanded to -1000/1000 mm.
Fix for DXF import
Added slope angle parameter for paths
APT import support for RAPID GOTO
Path check handles disabled statements correctly
Calibration workflow panel closing fix

Other improvements

Dependencies
- Updated Visual C++ 2015-2022 dependency to version v.14.42.34433.0

- Premium and Premium OLP: Removed dependency to Visual C++ 2010 x64
- Premium and Premium OLP: Removed dependency to Visual C++ 2010 x32

Library updates
- Fixed vulnerability by updating Xerces-C from v.3.2.4 to 3.2.5

Configuration file
- Configuration file: Binding to System.Diagnostics.DiagnosticsSource was added to visualcomponents.engine.exe.config file

Known issues

- Fix for bug 30222: Component moving to its parent's sub-layout after saving and loading was reverted to mitigate other issues the fix caused; thus, the original issue is re-introduced. The issue impacts a special case where components in different sub-layouts have an interface connection.
- Bug 33402: The software will now start properly and throw a more descriptive error message when the application has no write access to Documents folder. A common cause for this error is that Windows Defender Controlled Folder Access feature has been enabled but Visual Components application has not been whitelisted to access users Documents folders. Documents folder access is required for files such as users models, Python commands and some application configuration related files. Access to the system Public Documents folder is required for eCatalog components and layouts.

Visual Components 4.10 release notes – 18.11.2024

The latest release of Visual Components 4.10 introduces new features and key improvements that enhance usability, stability, and overall performance. Here's a summary of what's new in this version.

Known issues

- KUKA.Sim Add-on is not yet available
- When a PC that includes the latest Windows updates goes to sleep, Visual Components application might not properly recover when machine is woken-up. Closing of application is recommended before entering sleep or hibernate.

Features

CADENAS 3dfindit library add-on
The CADENAS 3dfindit library add-on allows users to access CADENAS CAD library and import models directly to Visual Components. The CADENAS 3dfindit library add-on is available on the Modeling tab on VC Premium, Professional, and the corresponding OLP products.

Guided workflow
Guided workflows enable defining and viewing step-by-step user instructions directly in Visual Components' user interface. Instructions can be saved to components using a behavior and optionally automatically opened when importing the component. Similar to the existing note

functionality, users can also find the workflow from 3DWorld. Additionally, default workflows are loaded directly to the application from a server.

Point cloud improvements
Performance Improvements
- Point Cloud file loading has been improved and loading times have been reduced.
- Performance when navigating large point clouds has been greatly improved. Users can now have multiple large point clouds open at the same time.

Level of Detail
Users can toggle LOD for point cloud files from backstage. With the LOD setting active, the application changes the number and size of points rendered depending on the distance between the camera and the model. This improves performance when zoomed out and improves the fidelity of the model when close by.

E57 (v. 1.0) Import
User can import .E57 (v. 1.0) file type point clouds.

Omron Connectivity plugin
The Omron Connectivity plugin allows users to connect to a real or virtual Omron robot controller. The plugin is available in Premium and Premium OLP. It supports version 4 of Omron ACE software and API. Supported data types are Digital Input/Output, Joint, and Position.

- Note the following limitations: Omron TM robots are not supported, event-based update mode only works from simulation to server direction, and joint values cannot be written to a real controller.

Focus mode
Focus mode is a new tool in the 3D Toolbar that allows users to highlight the selected layout or component by making everything else except the selection opaque or hidden. The tool also allows for configuring the opacity of unfocused components and their behavior with dynamic components.

CAD import / export updates
Siemens PLM Software NX Reader 24.06 (2024 Jun.)
Navisworks 2025
Creo 11.0
Inventor 2025
CATIA V5 2024
3DXML 2024

General improvements
- Statistics are no longer collected during the warm-up period
- Reliability of saving on network drives is improved
- Network license server now works with more than 30 simultaneous users. Server does not need updates, but all clients must be VC 4.10 or newer.

- Improved SVG file support for UI icons. The icon content alignment (view box) is now respected and most of the common SVG visual features are supported. ○ Note: SVG files with invalid syntax or values may not work anymore.
    - .NET API: ICustomizationService.GetIconPath(...) is now obsolete and all VC's WPF Styles accept icon file names.
    - Behavior of SvgImage.PrimaryFill has slightly changed: Previously "Transparent" brush / color meant that the DefaultFill would be used instead. Now only null value falls back to the DefaultFill, thus allowing deliberate use of transparent color.

API improvements

- ExecutorContainer.Source property was modified to have return type object instead of IStatementExecutor. This change was made to ensure that the API remains generic enough to incorporate different executor types (including those that don't implement the current IStatementExecutor). From now on please use safe type casting at the caller side, instead of relying on the Source getter to return IStatementExecutor.
- Support for auto-sizing columns (TreeViewColumn with Type set to "Auto" or "Range") in TreeViewEx has been extended with dynamic resizing capability. Previously the width of such columns was calculated only once during the column initialization, based on the size of its initial content. Now it's possible for such a column to be resized dynamically based on the content currently visible in the TreeViewEx (i.e. during vertical scrolling, expanding/collapsing nodes, search/filtering, content updates in TreeNodeViewEx/TreeViewCell, resizing the TreeViewEx itself).
- Improved control over geometry rendering layers. Added IGeometryLayer and IGeometryLayerService. Extended vcLayer with Selectable, Snappable and CollisionDetectable properties.

Bug fixes for Visual Components Simulation products

ID#	Description
11370	Statistics should not be gathered during the warm-up period
25785	Many SVG icons are rendered misaligned because the SVG viewBox is not used.
26446	Adding PM requirement statements when selection focus is not in process editor throws an exception
27061	Saving a layout to network drive fails when parent folder of save location has no write permissions
27827	Selecting a robot that contains a legacy RSL executor throws an exception
28708	Unhandled exception when assembly is moved away from container before stopping
29568	Network license server stops if more than 30 clients connect simultaneously
29912	Investigate and fix ASCII point cloud reader bugs related to color formats

30222	Component moving to its parent's sub-layout after saving and loading
30305	3DPDF does not record sub-layouts correctly
30878	IUXConfiguration.RegisterSite does not respect index parameter
31030	If python command does not have any state, its error is not shown to the end-user
31043	CSV export of statistics containing the duplicate chart names causes an exception
31044	"Expand Selected Subtrees" is slower than "Expand All" in connectivity pair variables dialog
31188	Line change spacing is not enough in the TextFeature
31192	Cylindrify/Blockify Radius Scale allows only integers as input
31198	createLight and deleteLight crashes VC
31210	List<Ref<Behavior>> property value resolving and remapping fails when copying
31211	List<Ref<Node>> property value resolving fails
31291	Robot python statement throws "Requires Robotics API license" error
31370	Simulation Settings Issues: Odd calculation errors when changing time values
31397	<Ref<Behaviour> not remapped in a clone group
31427	Access Violation from invalid component script
31440	Pointsets are rendered twice
31496	SimNode's can't be attached to RobotWorldNode
31530	Accessing list of sub-layouts causes a crash
31693	Chinese characters in process node component name break PM Record/Execute Routine Place locations
31874	"Open in Explorer" function in the eCat does not work for folders
32023	Exception occurs when exporting CSV from Statistics
32025	Simulation settings time conversion does not work as expected
32144	Connectivity - Server Capabilities don't update after successful connection
32275	Kinematic related properties have wrong tool tip message when simulation is running
32384	Licensing fails if hostname is all numeric
31631	Gripper signal connection issue in IO wizard

31586	Orientation bug in vcHelpers.Robot2
32024	Clearing a layout with copied physics rope throws an exception
32465	Organizing panels on top of each other vertically prevents app from loading properly

Other improvements for Visual Components Simulation products

ID#	Description
29442	Implement a toggle/switch style for ToggleButton
30097	Improve UX when choosing layout visualization color's alpha
30212	Utilize metadata in sub-layouts
30221	Add localization to eCat collection with name "Layouts"
32134	Ffmpeg library update to 7.0.2
32419	Prevent replacing a script within its own event handler
30182	Extend GeometryLayer system
33044	ABB, STAUBLI, FANUC, UR Post processors are now included in Premium

Bug fixes for Visual Components OLP products

ID#	Description
31072	Fixed Zigzag error when clearing and closing
31745	Mitigated ExecutePythonCommandMethod errors
31971	Fixed CornerJson causing unintentional path rebuild
30198	Fixed Assembly Status Designer removes material from component
32751	Fixed slow icon update for OLP statements
32720	Prevent robots from being selected in the Assembly Status Designer
33413	Fixed Via solver problem with manual via paths
13615	Fix for individual corner modification when option selected first time
30912	Zigzag path extend throws error is substroke has only 1 point
33493	Fixed camera exception at software startup

32409	Handle error when adding point to search while picking
13688	Corner wire angle unit fix
13482	Omron: fix to scara config
33100	ABB fixed postprocessor traceback error
33097	Fixed postprocessors creating Manufacturer property with invalid value in VC Prem

Bug fixes for Visual Components OLP products

ID#	Description
30568	Implemented circular transitions to zigzag
30909	Solver progress cancel button
31020	Automatic detector activation improvements for Statement selection
12906	Support for modifying individual corners
30166	External axis solver parameters from Advanced to External joint extender
31934	Solver settings tools list changes
32270	Show corner properties always when any of corner related point is active
32182	Solver settings "Save Preset" directly saves to property
32965	Add Omron post-processor
29625	Assembly status designer improvements
13499	OMRON: download option to write PTP in joint values
13554	OMRON: base and tool transformations to all sequences and note for user to add break before signal statement
33164	Robot manufacturer name retrieval changes