VISUAL COMPONENTS

Visual Components 4.9.2 release notes – 09.10.2024

In this update, we have improved the usability, stability, and performance of our products. Below, you will find an overview of the updates for Visual Components 4.9.

KUKA.Sim Add-on
A new version of KUKA.Sim add-on is now included.

More robust installation
Installer now works in environments with any PowerShell execution policy.

Visual Components Simulation bug fixes

ID #	Description
30087	Additional fixes to Quick Access Toolbar
32465	Organizing panels on top of each other vertically prevents app from loading properly
32548	ConnectivityPlugin not loaded if Non-Connectivity Plugin references it
27061	Saving a layout to network drive fails but saving a component succeeds

Visual Components Simulation improvements and optimizations

ID #	Description
32382	Installer: Substitute Powershell scripts to avoid permission issues in installation
32603	Extend Direct3DToolBar via .NET API

Visual Components OLP improvements and bug fixes

Description
Fixes for L-table workpiece positioner calculation
Fixes for workpiece positioner calculation when importing from xml
Fixed search variable usage when Auto-Search inside Group Statement
APT import improvements
QIF import updates for fragments, parallel surfaces, and curve segments
Sync statement fixes
Fixes for positioner as master robot controller case
Fixed TCP calibration not always showing RMS value
KUKA: brush data handling
FANUC: line count handling fix
Yaskawa: twin program searches
UR: bin input fixes and welding parameter downloads

Visual Components 4.9.1 release notes – 29.08.2024

VISUAL
COMPONENTS

In this update we have made improvements to the usability, stability, and performance of our products. Below you will find an overview of the updates for both our simulation and robot offline programming (OLP) products.

Notes:
- Visual Components Installer fails to install the product if the PowerShell execution policy of the PC is set to Restricted or AllSigned.
- KUKA.Sim AddOn for Visual Components Premium or Visual Components Premium OLP is not yet included in this release. It will be delivered at a later date.
- 4.7 and older legacy eCatalog sources are disabled by default to improve eCatalog performance. If you have layouts using 4.7 or older eCatalog components and layouts are saved without including components, you need to manually enable old legacy sources to have access to those old components. Legacy sources can be enabled by clicking the + sign next to collections and going to the "Edit source" settings.

Visual Components Simulation bug fixes

ID #	Description
30806	Linear pattern tool missing in Visual Components Essentials 4.9
30087	Error with Quick Access toolbar
29583	Python Dialog Name does not show up when language is other than English
30864	Texture Mapping tool in Professional 4.9. causes exception
30621	Exceptions occur after creating new statistics dashboard via .NET API
30649	Extracting link from multiple geometries is not possible
30700	Python add-on Chinese localizations shows wrong characters
28983	Dragging and dropping variables to invalid targets in "Create Variable Pairs" causes exceptions
31832	Multi selected geometries do not extract to new component
30613	Component and OnRender event remain alive after the component is deleted
30425	Saved layout fails to load because of NaN values in feature position matrix
27582	Pattern tool causes exceptions
30574	Resetting Warm Up Time from simulation settings menu causes exception
30570	Robotics license error on first run of a layout
31821	Some installer scripts were not signed
31239	Installation fails with select Powershell execution policies. RemoteSigned now works.

Visual Components OLP bug fixes

Description
Via Solver uses accuracy values from robot settings
Auto-update path handlers to non-robots
Added export/import support for Grab & Release statements
Prevented mouse wheel changing value in value box when it is read-only
Shift AUX: allowed individual joint shifts. Update robot position after shift.
Added localized WPP non-unique points warning
Avoid unintentional search rebuild. #61283
Lock grill not allowed for only 1 WPP joint
Fixed split path bug for reversed path
Fixed OLP panel behavior when changing contexts
Fixed error when deleting Release statement
Fixed Group statement null error
Fixed handling of integer values in templates
Fixed speed setting applying for Zigzag path
Fixed localizations for calibration panels
Fixed missing path statement icons
Fixes to LSQ calibration when sequences have equal point counts
6/9 calibration matrix form changed to more intuitive one
6/9 calibration shows error if any matrix value is NaN.
Added CSV import RLS Points -tool

Visual Components 4.9 release notes – 16.05.2024

We've added new features and made improvements to the usability, stability, and performance of our products in this release. Below you will find an overview of the updates for both our simulation and robot offline programming (OLP) products.

Notes:
- Visual Components Installer fails to install the product if the PowerShell execution policy of the PC is set to Restricted or AllSigned.
- KUKA.Sim AddOn for Visual Components Premium or Visual Components Premium OLP is not yet included in this release. It will be delivered at a later date.
- 4.7 and older legacy eCatalog sources are disabled by default to improve eCatalog performance. If you have layouts using 4.7 or older eCatalog components and layouts are saved without including components, you need to manually enable old legacy sources to have access to those old components. Legacy sources can be enabled by clicking the + sign next to collections and going to the "Edit source" settings.

Visual Components Simulation release notes

New features

A short overview of what is new:
- Sub-layouts
- Yaskawa Connector
- Kawasaki Connector
- Other improvements

Sub-layouts
- Break down larger layouts into manageable sections ("sub-layouts") for streamlined design organization and collaboration.
  - Address challenges of large layout modifications.
  - Utilize hierarchical nesting to organize factory modules.
  - Sub-layout navigation and editing.
  - Hide sections of the layout to retain confidentiality.

Yaskawa Connector
- Connectivity add-on in Visual Components Premium that connects to Yaskawa MotoSim and Yaskawa robots. o MotoSim is an offline robot programming software from Yaskawa that allows robot programming on a PC without shutting down production.
  - MotoSim connects to the complete range of Yaskawa robots.
    - **Note**:
      - Separate coupling for MotoSim is needed.
      - When you create a new project in MotoSim, the MotoSim project needs to be first saved and relaunched before a connection from Visual Components can be made. If you do not do this, no variables will be visible to Visual Components.
- Post-processors for Yaskawa robots included in Premium and all OLP product variants.

Kawasaki Connector
- Connectivity add-on in Visual Components Premium that connects to Kawasaki K-Roset and Kawasaki
- robots.
  - o K-Roset is an offline robot programming software from Kawasaki that allows robot programming on a PC without shutting down production.
  - o K-Roset connects to the complete range of Kawasaki robots.
- Post-processor for Kawasaki robots included in Premium and all OLP product variants.

eCatalog improvements
- Performance improvements for smart collection browsing.
- Search results are now sorted based on relevance based on component name.
- Remote sources (for example legacy eCatalogs) now support showing folder structure in the
- eCatalog collections.
- 4.7 and older legacy eCatalog sources are disabled by default to speed up eCatalog. If you have layouts using 4.7 or older eCatalog components and layouts are saved without including components you need to manually enable old legacy sources to have access to those old components. Legacy sources can be enabled by clicking the + sign next to collections and going to the "Edit source" settings.

VISUAL COMPONENTS

Hoops update (2024.2)
Updated formats:
- JT - Up to v10.9
- Parasolid - Up to v36.1
- Revit - 2015 to 2024
- Solid Edge - 1 to 20, ST1 to ST10, 2019 to 2024
- SolidWorks - from 97 up to 2024
- Rhino from 4 to 8
- Siemens PLM Software UG11 to UG18, UG NX, NX5 to NX12, NX1847 to NX2312

New product installer
- Supports environments where the previous installer was problematic such as machines containing certain Chinese characters in the username.
- Allows selecting features to be installed (currently KUKA.Sim Add-On, Doosan connectivity plugin)

Other changes
- Drag & drop behavior and property names into Python editor for faster Python
- programming
- Improved performance when switching to the modeling tab for the first time when a component is selected.
- Improved performance when switching component or feature selection in modeling tab
- Improved performance when reading and rendering point clouds
- CAD import: Improved settings for configuring accurate tessellation. It's now possible to enable or disable grid-aligned tessellation and configure the maximum stitch length.

Visual Components Simulation improvements and optimizations

ID #	Description
28096	Connectivity / BeckhoffAds: Load TwinCAT.Ads dependency only when present
11019	Improved eCat search result relevancy
22657	Backstage setting for graphics card with high performance GPU selected by default
26230	Set joint values to ensure same joint turns as in the motion target in vcHelpers.Robot2 readFromTarget
28877	Improved performance when importing STL files
28391	Easy improvements for eCat sync
28469	HOOPS Exchange 2024.1 update
28604	Implement display of folder stucture from remote eCat sources
28605	Config file toggle for displaying remote eCat source subfolder tree
28695	Works library option removed from Machine Wizard
28931	ConveyorWizard now creates a ProductCreator instead of ComponentCreator
27304	Update Visual C++ redistributables to the latest version
29044	User can select if he wants to install Doosan connectivity plugin
26908	Feature primitives support direct trimesh tesselation using new fill option for "open" primitives
28716	Allow dropping behavior and property names into Python editor
29178	Expose Accurate Tesselation and related properties in geometry import
29804	HOOPS Exchange 2024.2 update

29785	Improved settings UI for the Accurate Tesselation
29178	Expose Accurate Tesselation and related properties
29832	Configuration file flag to enable/disable automatic sub-layout creation on layout import
29781	Improved point cloud reading times by removing unnecessary extension processing.
29782	Improved point cloud rendering performance by avoiding inefficient API calls.

Visual Components Simulation bug fixes

ID #	Description
15489	Copy/pasting of the whole "ABB Turntable Demo" layout and clearing the layout throws errors
16196	Deactivation command during uninstallation applies to multiple products
27096	Python: vcScopeStatement does not print its Type
25239	Cannot import a specific DWG file
17496	Exchange Robot does not work when robot is connected with PM Robot Transport Controller
21667	Error when installing to a user with chinese characters in name
21666	Jog Handle doesn't activate if robot has physics cable
23454	Reference property values are not copied correctly when copy-pasting components
24581	VC crash when clearing and reopening layouts (access violation)
25510	References in PM statements are not copied correctly when cloning "ABB turntable demo" layout
26237	Reference property UI doesn't update correctly in GetProperty statement.
24363	Program Editor option absent from show window in program tab
28342	Remote eCat sources have thumbnail and high resolution preview icons swapped
22021	Issues with drawing export when dimension height is zero
28484	FBX: Links with Japanese characters are not properly exported
22584	Geometry import breaks customer CAD models with tessellation quality high or extra high
27887	Import: Surfaces missing when imported with High or Extra High tesselation
11317	Static component jump to origin when running / resetting simulation from Python
19084	Statistics dashboard failed to open after undocking and docking the panel
22612	Static components teleport to world origin if simulation is run from Python
26659	Setting vcStatisticsTab.Layouts crashes the app
27400	VC unexpectedly forces its window to be in focus
28647	Python command execution does not always work in 4.8
28916	Cannot open the Assembly Editor when Product Type Editor panel is set to Auto Hide
29080	vcProcessFlowTable2 events not working
25116	VC crashes after deleting servo controller in layout

25141	Error in components when clearing layout
26005	App crashes when loading layout with deep attachment hierarchy
26821	App crashes when loading layout with deep attachment hierarchy
27430	VC Crashes in opening with big child-parent chain layout
28346	Searching from smart collections in eCat is slow
28486	Splitting the last position of a path statement throws an exception
28706	"Recent Documents" in backstage includes components opened from eCat public models
28873	Exception in Program Editor when loading a component with Servo Controller behaviour
28965	Area select selects hidden components
26444	Unhandled exception when deleting components from cell graph search results
14631	Environment variables don't work on eCatSourceLists key in configuration file
29370	Product property filter in assembly slot is not persisted
29746	Selecting a component first time in Modeling context is slow
1631	UI becomes slow when a lot of properties are added to a component
12613	User panel settings are not persistent between application runs
26114	Locked components can be deleted in Modeling and Program tabs
26281	Unhandled exception at [HOME]>[Hierarchy]-"Attach">Pick property value from the 3D world
29891	Template pie chart statistics shows line chart instead
29601	Command icons missing from modeling 3D context --> tools menu
27231	Fixed silent exception on application close

Visual Components OLP release notes – 16.05.2024

New Features
A short overview of what is new:
- Robotic Assembly Operations
- OLP Calibration Tools redesigned
- New UI Panel for Statement Groups
- New Touch Sensing options
- Other improvements

Robotic Assembly Operations
Introducing new Robotic Assembly Operations tools for easy and more intuitive programming of robotic workpiece assembly tasks. These tools significantly improve the support for jigless welding applications.

OLP Calibration Tools
- New Calibration Tool for Robot World Frame calibration.

- New Calibration Tool for Robot-to-Robot calibration.
- We've redesigned all layout calibration UI's, promising more intuitive use and feedback for the user.

New UI Panel for Statement Groups
Significant usability improvement for handling Statement Groups. Use Case example: Improved program structure and handling of uploaded Robot programs when uploaded to Statement Groups.

OLP Post-processors
- Upload option to upload robot programs to Statement Groups.

OLP extras
- Improvements for Torch Cloud export
- All Euler Conversions added to Convert Tool

Touch Sensing
- New Touch Offset property to better support e.g. probe type of search tools.

Other improvements (from VC OLP 4.8)
New KUKA Multilayer option.

Visual Components OLP improvements and optimization

ID #	Description
20313	Wire Sense for Yaskawa
22574	Yaskawa Conveyor sync postprocessor support
24786	Fanuc: Implement writer function WriteProgramLogicFooter
25675	End of arm tool support for Kuka
25858	Upload paths to Scope - all post-processors
26065	Spot welding support for KUKA
26551	Updated QIF
26761	Explode components to categories by source component name
26882	Euler conversions
27558	Yaskawa Upload Conveyor Sync support
27625	XML import elements and logic update
27732	VIA Solver API
28022	UR+Mirka Tool Support
28270	Solver to update other robot positions at sync statement
28699	Multipass generating - KUKA specific structure to program editor
28757	Highlight for multipass UI
28760	Touch Offset for Search
28806	ElseIf download for older than YRC1000
29360	Fanuc: Support for External motion statement
29507	Torch Cloud Export Scaling

29616	Kawasaki post-processor *.pg to the Save As list

Visual Components OLP bug fixes

ID #	Description
28097	Stitch around corner orientation
28102	QIF Weld Import bug
27383	Robot does not jump to Via Path correctly
26119	Japanese characters not being displayed correctly during installation
26687	Autosearch settings 'drive distance' does not allow negative value
22016	Handler issue when Base is attached to moving node
25665	OTC postprocessor: wrong deviation file number when shifting 2d search path with previous search results (using SF4)
27640	Statement copy-paste bug with speeds
27034	Joint Motion should be possible to set for Weld Start
27036	Fix zigzag path extend crashing that is caused by change in lead in/out rotation