

Visual Components 4.2.2 Release Notes – 26.05.2020

We've made improvements to the usability, stability, and performance of our products in this release. Here's an overview of the updates:

New Features

- Connectivity with Siemens S7 PLC added to the Connectivity Plugin. Support for S7 bool and numeric data types on PLC as well as PLCsim Advanced connection through TCP/IP. Available only in VC Premium.
- Python and .NET API for Process Modeling. The API allows the user to do layout configuration.
- WaitSignal, SendSignal, RunRobotSignal statements added to Process Modeling.
- New schema events have been added to .NET API. Developers can now get events when new items are added, removed, inserted or modified in schema.
- Visual Components has new configurable statement buttons on the 3D world. It makes it possible to create robot statements on the 3D world when programming a robot.
- Visual Components now supports configurable hotkeys to execute commands.
- CAD Importer updated to support the latest CAD formats. Solid Edge 2020, SolidWorks 2020 and Siemens PLM Software NX 1872.

Improvements and Optimization

- Improvements to performance of the Flow editor in Process Modeling.
- Move Joint and Work statements in Process Modeling can use an Expression as value.
- Expand all and Collapse all buttons added to the Cell Graph.
- Unifying UI styles of Component and Cell Graph search boxes.
- Tab key and shift + tab keys work correctly on the component properties field.
- Space bar to play / pause simulation when the cursor is located on the 3D world.
- Display View Metadata from component property panel.
- Option to enable/disable auto zooming after cloning on backstage.
- When selecting a geometry feature in Modeling context, the detail of the feature is shown.
- Updates to Help file.

Overall Bug Fixes

Ticket	Title
112	Bug related to Node property of the vcDimension object fixed
113	The visual robot program pointer on the program editor now indicates the execution of the first statement of the routine properly
115	"Include components" option on the layout save options persisted properly
299	vcSelectionManager.SetSelection() allows selecting vcScope objects properly via Python API
345	Issue with the robot path rendering when the path statement is inside a scope statement fixed
405	Fixed a licensing issue causing commuter codes get mixed up when two licenses for different products borrowed on the same machine
420	Fixed a bug causing a crash on Interact if the Servo Controller of the joint is deleted
423	Launching a Slice tool on modeling tab without object in selection handled now correctly
509	Fixed an unreachability error in the SCARA inverse kinematics solver
527	A bug fixed that caused "Processing..." progress bar to freeze the application when executing heavy calculation in python script
548	Exception while closing the application from Print section in backstage has been fixed
552	Dragging component in the scene with the Plug'n'Play tool moves the item on the XY-plane also in orthographic mode
553	System material bump maps not saved unnecessarily with the component save.
564	Arguments of the .Net ActionItem can be read now from python script after calling the command using the netCommand.
593	Performance improvements to the LayoutSchemaPropertyList.SchemaProperties
647	Setting the SimulationRunTime from python API updates the UI correctly
737	vcApplication.load(file) now imports the Schema Database for PathStatements correctly
760	Fixed an issue causing the application to crash in Process Modeling layout with transport node attached to a path behavior
767	Fixed a bug causing an application crash after dragging a path behavior from link to link and then running the simulation
773	Fixed a bug causing an application to crash when deleting a delta robot with the tool attached to it
774	Improvements to the stability of the routing rule behavior
781	Fixed an issue causing flow group names not always being unique when merging layouts
792, 925	Improvements to handling of components with sensor (processor) interface and Process Modeling transport nodes
814	Line set rendering now supports transparent materials

817	Fixed an issue causing collision detection to trigger on bound box not on geometry
837	Fixed an issue causing create statement to create products to incorrect location
845	Fixed an issue causing robot to change position when the Jog button is clicked
868	Fixed a bug causing Annotations property of the IDrawingView object not returning the annotations associated with it in .Net API
926	Python script editor handles now tab characters correctly
1015	Python module vcHelpers.VcmFile works now with the non-ascii characters in the file path
1140	Improvements to JointServoType of DOF object in Python API
1192	Fixed a bug causing a geometry feature to turn invisible upon copying
1224	Improvements to stability when clearing layouts
1268	Fixed an issue related to connecting signals to the signal map index out of range
1318	Improvements to the scene synchronization during animation streaming with VC Experience
1396	Simulation doesn't reset anymore when using saveBitmap command
1410	Fixed an issue where a product escaped a transport node before the transport out statement is executed
1415	Process Modeling error prints cleaned up
1443	Fixed a bug that caused a crash with certain layouts
1455	Robot path statement collapse state is not retained when moving between sub programs
1496	Product Feeder uses now the OriginFrame property of the product for positioning the product upon creation
1556	Fixed bug causing an action script error when swept volume container no longer exists
1559	Distribution property value is now updated in the UI once changed via python script
1562	Deactivating a license when uninstalling the software now properly deactivates the license in the portal
1579	The visibility handling of the properties in the process executor statements improved
1584	Improved error messages in Process Modeling
1597	Fixed a bug causing a crash when replacing scara kinematics behavior
1638	Allowed to use another rule as the default route in the Straing table rule in routing rule settings
1663 2089	Improvements to stability when opening layouts
1684	Added a method vcStatisticsTab.createLayout() to Python API and help documentation
1690	Improvements to responsiveness of the application to avoid Processing dialog

1693	Fixed a bug that resulted in non-working pdf if recording a scene with paint visualization
1726	Improvements to exporting layout into STEP format
1768	Fixed an issue that disabled the simulation mode combo box in Stäubli addon after resetting simulation
1771	Fixed an issue that caused tools (i.e. TCPs) imported from the end effector not to show in the Tool list in certain cases
1779	Hidden lines in the 2D drawing not exported to the output files in any format
1791	Fixed an issue that caused exchange robot command not to work in certain cases
1796	Improvements to exporting to JT when the layout has imported DWG geometries
1826	Import geometry file selection window now displays Creo files as supported geometry files
1850	Process Modeling Reserve Product statements now converts the variable to a list type if two or more statements use the same variable name
1851	Process Modeling TransportIn statement works now when fed more than one reserved product
1854	Fixed a bug causing high CPU usage when animation streaming is enabled from backstage and disconnected
1862	Fixed an issue that caused an exception when component nodes are deleted via python API
2076	"TRUE" and "FALSE" values translated to Japanese
2077	Fixed a bug causing a signal on a Component sublink not working correctly with Process Modeling signal statements
2090	Fixed an issue causing the animation file size generated on VC 4.2.2 to be much larger than in previous versions.
2096	Process Editor displays the requirement statements' execution state correctly
2173	The python script editor recognizes the Process Modeling constants in the python API
2175	Improvements to Process Modeling Buffer statement
2236	Fixed a bug causing an exception when creating user properties on the ProductCreator behavior tab (e.g. ProductCreator::MyProp). Note that in this version the properties are not shown on the behavior tab.
2310	Robot executor program statements not allowed to be created in Process Executor and vice versa
2311	Process executor handles properly cases if a transport node is not connected or is missing
2319	Improvements to the sensors connected to a path with sensor interface (processor)
2340	UI is updated after creating connectors to vcComponentFlowProxy in Python API
2407	Fixed an issue that caused a memory leak with the user material textures

2523	Robot program statements now remain in the correct order after copy and paste
27527	Corrected issues where Process Modeling PropertyCondition doesn't show behavior properties if the behavior is not at root node
27623	Source property of the TransportIn statement in value 'From Component Container' allows product filtering now
27655	vcApplication.CurrentContext returns the correct information in Process tab