

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.
- 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 |
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| 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 |

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| 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 |

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| 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 |

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| 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 |