



VISUAL COMPONENTS PREMIUM

Visual Components Premium is our complete factory simulation solution. It includes everything in Essentials, Professional, and Robotics.

ESSENTIALS

LAYOUT CONFIGURATION

The core application of Visual Components Essentials. Quickly build layouts with the help of our eCatalog, drag-and-drop, and plug-and-play features. Take advantage of our library of more than 1,200 components from over 30 of the largest brands in industrial automation.

CAD COMPATIBILITY

Import your CAD files directly into the 3D world. Visual Components supports CAD file types from many of the leading CAD vendors, making it easy to import geometry files created with popular software applications by Autodesk, Dassault, PTC, Siemens, and others.

OUR CORE FACTORY SIMULATION PRODUCT

PLC CONNECTIVITY

The connectivity feature makes it easy to connect simulations with your control system using either the industry standard OPC UA or supported vendor specific interfaces. This enables virtual commissioning activities such as testing and verifying logic programs and control changes in the context of your production process. With PLC connectivity you can also visualize your production's real-time activity, collect and analyze real time data, then test and simulate improvements.

2D DRAWINGS

We've added more support for 2D drawings and incorporated this format into many of the workflows, including layout design and project deliverable templates.

PROJECT READY DELIVERABLES

Easily capture and export screenshots from the 3D world directly into your presentations. Record and export video in up to 4K HD quality. Create animated and interactive 3D PDFs with embedded simulations, built-in navigation and playback options, and bill of materials. Convert 3D layouts to presentation-ready 2D drawings.

SIMPLE ROBOTICS

A simple but powerful package of features for defining and modeling robotic behavior. It has built-in features for robot jogging, analyzing reachability and collisions, and defining robot logic and postures with control flow statements.

PROFESSIONAL

GEOMETRY SIMPLIFICATION

Reduce file sizes and improve simulation performance by simplifying and removing unnecessary details from your models.

COMPONENT MODELING

Bring CAD files to life with our robust component-modeling tool. Customize the building blocks of components: geometry, behaviors, and properties. You can add kinematic structures and functional behaviors to imported CAD models, modify feature details of existing models, and build your own personalized library of components.

ROBOTICS

PAINT PROCESS VISUALIZATION

Visualize the application of paint on surfaces and measure coat thickness, thereby reducing robot teach time and improving motion planning.

VIRTUAL TOPOLOGY

Easily distinguish features of CAD files imported into the 3D world. Our 3D geometry engine analyzes any imported CAD model and provides well-structured data of geometry surfaces, curves, and curve loops. Use the topology API to develop your own robot path planning and teaching tools that take advantage of this feature.

POINT CLOUD SUPPORT

Context is crucial. That's why we've added support for 3D point clouds. With this feature, you can import point cloud models of your facilities directly into the 3D world, and configure layouts inside them.

STATISTICS AND REPORTING

Visualize simulation statistics using line, area, bar, or pie charts. Charts are created, modified, and visualized on a dedicated statistics dashboard. The dashboard helps users to visualize the dynamics of their production line, identify bottlenecks, and evaluate changes to production performance. When more in-depth analysis is required, simulation data can be easily exported in PDF or Microsoft Excel data formats.

PROVIDES EVERYTHING IN ESSENTIALS AND ALLOWS USERS TO DESIGN AND CREATE COMPONENTS

WIZARDS

Create components easier and faster. The component-modeling wizards streamline the component development process by asking for simple inputs and automatically configuring the component behaviors.

BASIC CAD

Build new 3D geometries and modify imported CAD files using the modeling toolkit. We've developed a set of tools for creating, editing, and customizing geometry, solid shapes, and structures. Make quick updates to your 3D geometries, right inside the product.

CREATE ADVANCED ROBOTICS APPLICATIONS

CREATE PATH STATEMENTS

Quickly teach and simulate paths of positions with robots. Edge and curve selection tools help you pick and edit robot paths with practical applications for robot welding, machine tending, paint and water jet operations, sealing and cutting.

CURVE TEACHING TOOL

Plan robot paths faster using the curve-teaching tool. This feature automates robot path planning by analyzing object geometries, making paths predictions, and suggesting robot paths.