

## SolidWorks Standard 2010

3D Design and 2D Drafting  
Mechanical Parts,  
Mechanical Assemblies,  
Associative Drawings  
Automated parts lists and balloons  
eDrawings  
Complex surface design  
Sheet metal design  
Frameworks and Welded structure Design  
Mould Design  
Assembly Motion  
Physical simulation  
Interference detection  
Mass properties  
Data exchange (28 interfaces)  
Animation  
Simulation Xpress (Part  
Simulation FloXpress  
DriveWorks Xpress  
Sustainability Xpress  
Design For Manufacture Xpress

## SolidWorks Professional 2010

3D Design and 2D Drafting  
Mechanical Parts,  
Mechanical Assemblies,  
Associative Drawings  
Automated parts lists and balloons  
Complex surface design  
Sheet metal design  
Frameworks and Welded structure Design  
Mould Design  
Assembly Motion  
Physical simulation  
Interference detection  
Mass properties  
Data exchange (28 interfaces)  
Animation  
Simulation Xpress  
Simulation FloXpress  
DriveWorks Xpress  
Sustainability Xpress  
Design For Manufacture Xpress

### Additional productivity tools with SolidWorks Professional

eDrawings Professional  
SolidWorks Utilities  
FeatureWorks  
PhotoWorks & PhotoView 360  
Design Checker  
Task Scheduler  
3D Instant Website  
SolidWorks Toolbox (Standard Part Library)  
Workgroup PDM

## SolidWorks Premium 2010

3D Design and 2D Drafting  
Mechanical Parts,  
Mechanical Assemblies,  
Associative Drawings  
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Design Checker  
Task Scheduler  
3D Instant Website  
Toolbox  
Workgroup PDM

### Additional productivity tools with SolidWorks Premium

Routed Systems (Electrical, Piping, Tube Design)  
SolidWorks Simulation  
SolidWorks Motion Simulation  
ScanTo3D  
TolAnalyst  
CircuitWorks

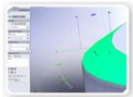
SolidWorks Premium 2010 is a complete 3D product design solution providing ease of use, performance, and depth of functionality. This one product provides tools for complex part and assembly modelling, production drawing creation, data management, environmental impact evaluation, as well as the ability to perform motion, flow, structural, and tolerance stack up simulations and optimizations.



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## SolidWorks Standard 2010



**Part Modeling:** With Instant3D, you have the fastest, easiest way to create and modify 3D part geometry. By simply clicking and dragging, you can precisely create and resize features—even section entities. As you ready your design for production, use DimXpert to create accurate 2D

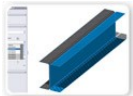
drawings (or “drawingless” data) to ensure your parts will fit when manufactured. | **Assembly Modeling.** SolidWorks gives you the tools to get it right on screen when you create assemblies, saving you the time and cost of physical prototyping and remanufacturing. You can mate components by picking individual surfaces, edges, curves, and vertices; create mechanical relationships between components; conduct interference, collision, and hole alignment checks; and link the motion of pulleys and sprockets. You can also automatically assemble fasteners and accompanying hardware; automate the assembly of commonly used components, appropriate hardware, and required features; and use MateXpert to fix conflicts such as over-constraining a component.



| **2D Drawing Creation.** Use the familiar interface of DWGeditor to draw in 2D, as well as edit and maintain your existing DWG data files. | **Bill of Materials.** Save significant time when you use SolidWorks to automatically generate a complete bill of materials (BOM) from your design. Your BOM is associative: When you change your design, the BOM updates automatically, and vice versa. Plus, you can export the BOM data to Excel, Intuitive ERP®, and other applications | **Advanced Surfacing and Complex Shapes.** Improve the aesthetics, ergonomics, and usability of your product designs. Using the Freeform feature, creating new geometry, or importing and manipulating new surfaces, is easy and intuitive.



| **Sheet Metal Design Tools.** Create sheet metal parts from scratch using folds, bends, flanges, ribs, tabs, and mitres, as well as lofted bends, sketched bends, hems, and more. Alternatively, you can create a solid shape as a starting point. Advanced capabilities, such as the “convert solid to sheetmetal” functionality, let you develop a manufacturable sheet metal part. | **Weldment Design.** Sketch a layout for your frame and select a weldment profile. SolidWorks will automatically generate a weldment design in 3D. Modify, validate, and reinforce your design, and then enhance it with standard parts that you can drag and drop from the Design Library or 3D ContentCentral®. Then, generate precise manufacturing drawings with cut lengths for all segments.



| **Part Validation.** SolidWorks Simulation tools help both new users and experts ensure their designs are durable, safe, and manufacturable. In addition, you can use SolidWorks FloXpress™ to optimize your designs for water and airflow effects.

| **Design Automation of Repetitive Tasks.** Save time with SolidWorks Smart Component technology to automate the selection and insertion of standard components. Use DriveWorksXpress to automate repetitive design tasks that can be used in product/sales configurators.



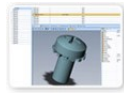
## SolidWorks Professional 2010

All the features of Standard SolidWorks plus...

**Design Communication.** With SolidWorks, you have numerous capabilities for accurately communicating design ideas and data to collaborators, upstream and downstream partners, and customers: **eDrawings® Files.** Provide accurate – even animated – 2D and 3D models that anyone can understand. PDF Files. Generate 2D or 3D PDF files directly from your SolidWorks designs. **3D Instant Website.** Create and publish live webpages to communicate visual information with customers or staff, and then receive immediate feedback. | **Feature Recognition.** When collaborators or partners use other CAD systems, FeatureWorks® helps you share and use 2D



and 3D models more productively. | **Photorealistic Rendering.** Use PhotoWorks™ and PhotoView 360 to leverage your SolidWorks 3D models for presentations, proposals, or virtual and material studies –before creating any parts. You'll save time, while eliminating the high costs of prototyping and photography. | **Design Standards Checking.** Raise your quality level with SolidWorks Design Checker. With thorough, automated checks and autocorrect capability, you can ensure full compliance with your company standards – before you release your designs for manufacture. | **SolidWorks Utilities** enables designers to compare parts or drawings to find the differences between two similar designs or similar drawings. | **Standard Hardware Libraries.** With **SolidWorks Toolbox**, SolidWorks Design ClipArt, and 3D ContentCentral, you have instant access to virtual encyclopedias comprising thousands of standard components.



**Workgroup PDM** helps individuals and small work groups control file revisions and manage project data securely and efficiently with little or no IT support. It consolidates design data in a secure central repository (or vault) where advanced search functions let you quickly retrieve files by name, date and version. Automatic version control protects data from overwriting.

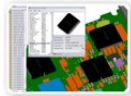
Key functions include:

- Securing access to engineering data
- Facilitating design reuse
- Enabling a workgroup design environment
- Automating revision control
- Reducing time spent organizing and tracking design data
- Providing rapid ROI with limited IT support

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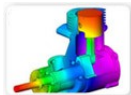
All the features of SolidWorks Professional plus...

**Routed Systems.** Automate and accelerate the process of routing tubes, pipes, electrical cables, cable harnesses, and electrical conduits with SolidWorks Routing. | **ECAD to MCAD Translation.** CircuitWorks is designed to bridge the gap between SolidWorks and Electrical Computer-Aided Design (ECAD) systems by providing an intuitive tool that allows users to import and export Printed Circuit Board (PCB) designs between SolidWorks and ECAD systems | **Leverage Scanned Data.** Import digital scans of handcrafted models into SolidWorks using **ScanTo3D**. You can also import design concepts created in Rhinoceros software or sketches developed in Adobe Illustrator.

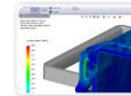


**Simulate Assembly Motion.** Simply by clicking and dragging components, you can check an assembly for proper motion and collisions. In addition, you can simulate physical motion involving assembly mates, contact, springs, and gravity. SolidWorks Motion also provides accurate measurements of velocity, accelerations, and forces on components due to motion – so you have a realistic understanding of design decisions before producing the prototype product.

**Tolerance Stack up Validation.** TolAnalyst analyzes a design based on the order and manner in which parts are assembled, as well as DimXpert applied dimensions and tolerances.



**Assembly Simulation.** Study the interactions of assembly components on screen, before incurring the costs of physical prototypes. Simulate static or dynamic loads to evaluate your design's performance under stress, strain, and displacement.



**Mechanism Simulation.** Apply a wide variety of physics based models to simulate real world operating conditions for your design. Check for colliding parts. Output numerical and graphic data of the results, as well as animations of your tests.

