

# SOLIDWORKS PRODUCT MATRIX

3D Design, Simulation, Data Management, Sustainability, and 3DVIA

3D DESIGN PRODUCT FEATURES	SOLIDWORKS PREMIUM	SOLIDWORKS PROFESSIONAL	SOLIDWORKS STANDARD
<b>Part and Assembly Modeling</b>			
3D Solid Modeling	●	●	●
Large assembly design capabilities	●	●	●
Advanced surfacing	●	●	●
Sheet metal	●	●	●
Weldments	●	●	●
Mold Design	●	●	●
Read PCB data as 3D parts	●	●	●
Direct model modification	●	●	●
Full ECAD-MCAD data exchange	●		
Piping/tubing Design	●		
Electrical Cable/Harness design	●		
<b>2D Drawings</b>			
Automatic Drawing View Creation	●	●	●
Automatic Drawing View Updates	●	●	●
Dimensioning	●	●	●
Annotation	●	●	●
Bills of Materials, cut lists	●	●	●
Automatic hole tables, weld tables, and pipe bending data	●	●	●
International standards support	●	●	●
Drawing Control (compare)	●	●	●
Standards Checking	●	●	
Flattened harness drawings	●		
<b>Design Reuse and Automation</b>			
SolidWorks Search	●	●	●
Design Automation	●	●	●
Configurations	●	●	●
Design Library	●	●	●
3D Models from Suppliers	●	●	●
Smart Components and Smart Fasteners	●	●	●
Standard Component Library	●	●	
Task Scheduler	●	●	

**3D DESIGN  
PRODUCT FEATURES**

**SOLIDWORKS  
PREMIUM**

**SOLIDWORKS  
PROFESSIONAL**

**SOLIDWORKS  
STANDARD**

**Animations and Rendering**

Assembly animation	●	●	●
Walk-through/fly through animations	●	●	●
Photorealistic rendering	●	●	

**Design Validation and Simulation**

Collision and Interference Detection	●	●	●
Hole Alignment checks	●	●	●
Check manufacturability	●	●	●
Fluid flow simulation	●	●	●
Sustainability	●	●	●
Draft and undercut analysis	●	●	●
Tolerance stack-up analysis	●		
Kinematic motion simulation	●		
Structural validation	●		

**Collaborate and Share**

Import/export	●	●	●
3D for rapid prototyping	●	●	●
Utilize 2D DWG/DXF data	●	●	●
Protect design information while sharing	●	●	●
eDrawings	●	●	●
eDrawings Professional	●	●	
Feature recognition	●	●	
Data Vaulting and revision control	●	●	
Import scanned data	●		

**SIMULATION  
PRODUCT FEATURES**

**SOLIDWORKS  
PREMIUM**

**SOLIDWORKS  
SIMULATION  
PROFESSIONAL**

**SOLIDWORKS  
SIMULATION  
PREMIUM**

**SOLIDWORKS  
FLOW  
SIMULATION**

Assembly Simulation	●	●	●	
Mechanism Analysis	●	●	●	
Event-Based Motion		●	●	
Compare and Optimize Design		●	●	●
Simulate Natural Frequencies		●	●	
Predict Buckling or Collapse		●	●	
Simulate Heating or Cooling		●	●	●
Simulate Drop Test		●	●	
Simulate Fatigue		●	●	
Simulate Plastic and Rubber Components			●	
Simulate Composites			●	
Simulate Forced Vibrations			●	
Nonlinear Dynamics			●	
Fluid Flow Simulation				●

## DATA MANAGEMENT PRODUCT FEATURES

### SOLIDWORKS ENTERPRISE PDM

### SOLIDWORKS PREMIUM

### SOLIDWORKS PROFESSIONAL

Secure Access	●	●	●
Revision Control	●	●	●
Find Files	●	●	●
Scalability	●		
Custom Configuration	●		
Find and Reuse Design Data	●		
Full Document Preview	●		
Distributed Design Teams	●		
Remote Access	●		
Automated Approval Process	●		
Audit Trail	●		

## SUSTAINABILITY PRODUCT FEATURES

### SOLIDWORKS SUSTAINABILITY

### SOLIDWORKS SUSTAINABILITYXPRESS

Environmental Impact Dashboard with Key Indicators	●	●
Seamlessly integrated with SolidWorks interface	●	●
Environmental Impact Estimates of Parts	●	●
Material Selection Tool	●	●
Customizable Reports	●	●
Establish Baseline to Compare Design Decisions	●	●
Baseline Comparison Report	●	●
Environmental Impact Estimates of Assemblies	●	●
SolidWorks Configuration Support	●	
Input "Use Phase" Energy	●	
Specify Primary Transportation Type	●	
Report Includes BOM with Best/Worst Components	●	
Assembly Visualization Support	●	

## 3DVIA PRODUCT FEATURES

### 3DVIA COMPOSER

### 3DVIA ENTERPRISE SYNC

### 3DVIA COMPOSER PLAYER

Import SolidWorks, CATIA®, Pro/Engineer® (read only)	●		
Update content with latest design changes (geometry, BOM tree, metadata)	●		
Create step-by-step procedures showing incremental components	●		
Capture exploded views with automated trail lines	●		
Add annotations (auto-balloons, BOM table, arrows, detail views, and more)	●		
Change appearances (hide/show, transparency, colors)	●		
Create manufacturing BOM independent of engineering BOM	●		

## 3DVIA PRODUCT FEATURES

## 3DVIA COMPOSER

## 3DVIA ENTERPRISE SYNC

## 3DVIA COMPOSER PLAYER

Customize parts lists and properties for each view	●		
Create keyframe animation by drag-drop views on timeline	●		
Create interactive storyboards by adding links to relevant views	●		
Animate appearances and custom properties	●		
Interactive animation with markers	●		
Filter timeline keys for finer control	●		
Update animation with latest design changes	●		
Static images (raster graphics and vector line art)	●		
Dynamic AVI videos (multiple codecs supported)	●		
Interactive 3D documents (as lightweight executable)	●		
Interactive 3D PDFs and web pages	●		
Protect intellectual property (secure 3D brush, rights manager)	●		
Standardize styles for creating content (balloons, labels, annotations)	●		
Standardize profiles for publishing content (raster, vector, video, views, BOM)	●		
Standardize default document settings (import, output qualities, security rights)	●		
Publish consistent quality with paperspace (WYSIWYG - What you see is what you get)	●		
Automate content creation by using custom API programs	●		
Automate batch mode import of 3D files and publishing content		●	
Automate document creation within existing workflow systems		●	
Automate document translation by using custom XML program		●	
Rotate, zoom, animate, measure, view BOM, section (rights controlled by author)			●
View step-by-step interactive instructions with no additional UI			●
Create custom applications to distribute internally or over website			●

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