SOLIDWORKS

VISUALIZATION

Design and market products better by turning imagination into reality through impactful content and experiences.

Matrix

RENDERING	VISUALIZE PROFESSIONAL	VISUALIZE STANDARD
Hardware agnostic, unbiased, interactive wysiwyg pathtracing using NVIDIA iray (Accurate Mode)	☐	☐
Hardware agnostic, biased, interactive wysiwyg raytracing using NVIDIA iray (Fast Mode)	☐	☐
Hardware agnostic, high quality, interactive wysiwyg rasterizer (Preview Mode)	☐	☐
Supported techniques such as global illumination, ambient occlusion, screenspace shadows, IBL, color bleeding, dispersive caustics, unlimited raybounces, refraction, rough reflections and more.	☐	☐
Automatic "Blending" between rendering modes	☐	☐
HDRI lighting	☐	☐
Light emission from geometry	☐	☐
Ground reflectivity and roughness	☐	☐
Rasterized baked lighting	☐	
Rasterized accumulation	☐	

INPUT	VISUALIZE PROFESSIONAL	VISUALIZE STANDARD
Solidworks (SLDPRT/SDLASM)	☐	☐
Alias (WIRE)	☐	☐
3D PDF	☐	☐
3DXML	☐	☐
ACIS (SAT)	☐	☐
IGES	☐	☐
STEP	☐	☐
Collada (DAE)	☐	☐
Pro/E / Creo (PRT)	☐	☐
Filmbox (FBX)	☐	☐
Animated Filmbox (FBX)	☐	

3D Studio Max (3DS)	☐	☐
Rhino (3DM)	☐	☐
Wavefront (OBJ)	☐	☐
SketchUp (SKP)	☐	☐
Maya (MB)	☐	☐
SolidEdge (ASM/PAR)	☐	☐
Autodesk (DWG/DXF)	☐	☐
Inventor (IPT/IAM)	☐	☐
CATIA	☐	☐
ICEM	☐	☐
U3D (Unigraphics)	☐	☐
Parasolids	☐	☐
NX	☐	☐
VDA	☐	☐
Live Update from CAD	☐	☐

OUTPUT

Unlimited resolution offline rendering	☐	☐
Alpha Channel	☐	☐
Early image save	☐	☐
Threaded offline renderings	☐	☐
JPG, BMP, PNG, TIFF, HDR and PSD output	☐	☐
Built in image viewer tab	☐	☐
Render Profiles	☐	☐
Preview (raster) output	☐	☐
Render all Configurations	☐	
Render all Cameras	☐	
Render Passes	☐	
Turntable rendering	☐	
Automatic movie (.mp4, .mkv, .flv) output	☐	
Browser based VR output	☐	
Browser based Panoramic output	☐	

SCENE PREPARATION

CAD LiveUpdate	☐	☐
AutoPaint	☐	☐
Direct manipulation of parts	☐	☐
Surface/Part Splitter	☐	☐
Group and reorganize parts in the tree view	☐	☐
Model/Part reset and freeze	☐	☐
Formation tool	☐	

Part retessellation	☐	
Multiple model sets	☐	
Simple vehicle wheel building	☐	

ANIMATION

Proprietary "3D graph editor" Ribbon	☐	
Turntable Animations	☐	
Sun Study Animations	☐	
Keyframe animations of Models, Groups and Parts	☐	
Keyframe animation of Materials	☐	
Keyframe animation of Cameras	☐	
Keyframe animation of Environments	☐	
Keyframe animation of Lights	☐	
Realtime turntable	☐	

MATERIALS

Scientifically accurate preset and adjustable materials	☐	☐
Supported techniques such as fresnel reflections, absorbtion, transmittance, anisotropy (mappable), emission.	☐	☐
Color/texture, opacity, specular, anisotropic, bump and normal mapping	☐	☐
Advanced materials: Subsurface, Thin Film, Backscatter	☐	☐
Flexible local or cloud based asset storage	☐	☐
Sharable material definition files (.svap)	☐	☐
Drag and drop materials/textures from desktop or any folder	☐	☐
Unique in and out of app color picker/dropper	☐	☐
Save favorite colors	☐	☐
Texturable and paintable decals	☐	☐
Layered decals	☐	☐
Decal projection	☐	☐
Controllable decal depth	☐	☐
Multple part decals	☐	☐
Displacement Mapping	☐	☐

LIGHTING

Lighting, shadow and reflection casting from HDRI	☐	☐
High Dynamic Range Image (HDRI) interation and control	☐	☐
HDR Light Studio compatible	☐	☐
Prop creation for additinal light sources	☐	☐
Time of day (Sun and Sky) lighting model	☐	
Photometric lights (Point, Spot and Directional)	☐	

Raster object reflections (Preview Mode)	☐	
Raster culling (Preview Mode)	☐	

CAMERA OPTICS

FStop, Focal length, Field of view and Perspective settings	☐	☐
Exchangeable camera files (.svcm)	☐	☐
Interactive depth of field with focal point selection	☐	☐
Multiple cameras with individual aspect ratio and settings	☐	☐
Orthographic camera	☐	☐
Walkaround camera	☐	☐
Rule of thirds overlay	☐	☐
Preset photographic camera filters	☐	☐
Realtime customizable photographic camera filters	☐	
Follow and aim cameras and objects	☐	
Real world camera positioning	☐	
Motion blur	☐	
Region rendering	☐	
FBX camera export	☐	

PRODUCTIVITY

Highly optimized parallel architechture	☐	☐
Hybrid Based CPU and GPU rendering	☐	☐
Near Linear performance scaling with added CPU's and GPU	☐	☐
3D Connexion device support	☐	☐
SOLIDWORKS Visualize cloud community connection	☐	☐
Queue rendering manager	☐	
Configurations	☐	
Multiple viewports (Dual, Quad and Orthographic)	☐	