SolidWroks Visualize Product Matrix	SolidWroks Visualize Standard	SolidWroks Visualize Professional
Graphics Processing Unit (GPU) Accelerated Rendering SOLIDWORKS Visualize is hardware-agnostic and can leverage one or many GPUs in a single machine or across a network, which dramatically increases rendering performance over CPU hardware. Utilizing NVIDIA® graphics card(s) for rendering is much faster than competitor CPU technology and helps to speed up your daily workflow, generating more content. This feature alone provides dramatic acceleration of the design and engineering process.	✓	✓
Hybrid Render Mode In addition to leveraging one or many GPUs or CPUs, SOLIDWORKS Visualize can leverage both GPU and CPU simultaneously (Hybrid mode) in a single machine or across a network, which dramatically increases rendering performance. This render mode allows entry-level machines to have increased performance to generate content faster.	✓	✓
Physically-Based Raytracing Using NVIDIA's Iray® render engine inside of SOLIDWORKS Visualize, you view a precise and physically correct representation of your CAD model, as if you had physically produced it. Lighting, materials, and form all come together realistically without sacrificing visual quality and not taking shortcuts to increase render speeds. Physically-based raytracing is more than just pretty pictures—it's critical digital accuracy that shows what your design will look like in the real world.	✓	✓
Intuitive User Interface SOLIDWORKS Visualize lets you work like you would in a photo studio, moving the camera around your product easily "taking pictures" of your CAD data.	✓	✓
CAD and Graphic File Support SOLIDWORKS Visualize imports over 25 different CAD file types, including common generic formats such as IGES, STEP, and OBJ. SOLIDWORKS Visualize outputs include JPG, BMP, PNG, TIFF, HDR, and PSD.	✓	✓
CAD Live-Update Already been working on your Visualize file and need to import some design changes? As your design evolves, simply save over the existing file and Visualize will update only the parts that have been changed. Visualize will even remember if you changed the color and keep that change on the newly updated part. You can always re-link the file if the name changes or the location moves.	✓	✓

Surface/Part Splitter Split out parts, surfaces, and faces with this handy integrated Part Splitter. Easily separate geometry to apply a different material or texture. No need to go back to your CAD package to make this change.	✓	✓
Interactive Depth of Field Add that extra touch of photorealism to your Visualize content with Depth of Field. This feature allows you to interactively select the point of focus by simply clicking on your model, and then adjust the amount of desired blur. You can even enter physical camera settings like F-Stop and Aperture.	✓	✓
Artificial Intelligence (AI) Denoiser Uses Artificial Intelligence to decipher and eliminate noise from your Visualize renders with a single checkbox, dramatically boosting your render speed on average by 10x!	✓	✓
Advanced Material Support with NVIDIA MDL and PBR Reuse your existing database of measured materials directly within Visualize, by scanning real-world materials and import them via MDL or PBR Appearance Types. Explore online libraries of materials and textures and easily re-create them in Visualize using these new industry-standard Appearance Types.	✓	✓
Decals (Interactive Stickers) Easily place logos, graphics and more with simple and intuitive to use Decals. All Decal Mapping types are supported from SOLIDWORKS CAD and now you can choose from multiple mapping modes directly within Visualize, giving you even more flexibility and control.	✓	✓
Custom Keyboard Shortcuts Save time by creating your own custom keyboard shortcuts, specific to your own preferences, then export your list to load onto another machine. You can even choose single-key shortcuts! Makes using Visualize even that much faster.	✓	✓
Automatic Data Recovery If your session terminates unexpectedly, you can recover automatically saved data the next time you start a session. You can specify the frequency and folder for saving auto-recovery data.	✓	✓
Import SOLIDWORKS Animations and Motion Studies Use the new Visualize add-in for SOLIDWORKS CAD to easily bring your existing animations and motion studies to life in SOLIDWORKS Visualize Professional. CAD Live-Update works with these animations as well, so as your movements and key frames change in SOLIDWORKS CAD, they will be updated in Visualize.	X	✓
Full Animation Suite Tell a deeper story with your CAD data using the full Animation suite in SOLIDWORKS Visualize Professional. Animate exploded views, part opacity, cameras, and much	X	✓

more with ease to create photo-quality videos to describe even the most complex projects.		
Animation Ribbon This unique feature provides a 3D representation of how your camera or parts are moving throughout your scene while setting up an animation. The Animation Ribbon is colored to show the speed of moving objects, and shows the actual key frames, making editing complex animations easy.	X	✓
Visualize Boost Support Create amazing Visualize content faster than ever before. SOLIDWORKS Visualize Boost is a new add-on product to SOLIDWORKS Visualize Professional that instantly increases render speeds and content productivity. Similar to a printer queue in your office, SOLIDWORKS Visualize Boost allows SOLIDWORKS Visualize Professional users to send jobs to other machine(s), freeing up your machine to keep using Visualize, CAD, or other demanding applications.	X	✓
Power Boost Real-time Network Rendering A new render mode in Visualize Professional, Power Boost lets you connect NVIDIA VCA(s) or any other GPU/CPU render farm to stream the raytracing directly to your Visualize Viewport. Power Boost grants you direct access to loads more hardware than can fit in your local machine, producing extremely fast render speeds while working on your project.	X	✓
Browser-based Interactive Image and Panoramic Outputs Easily create interactive web content to drop into your website or spice up your internal presentations with these two eye-catching outputs. Make your CAD files come to life and create an emotional connection with your target audience. The Interactive Image stitches the desired number of still images together to create an interactive experience of tumbling your model. Panoramic outputs teleport you inside your CAD data for and interactive 360 experiences	X	✓
Customizable Photographic Camera Filters Act like a professional photographer and add some "pop" to your Visualize content. No need to use post-production applications to adjust the exposure, brightness, color balance, contrast, and other frequently used settings. All this can be achieved directly inside Visualize Professional. You can also animate these camera filters!	X	✓
Integrated Render Queue Instantly increase productivity with the integrated Render Queue by stacking up multiple jobs and letting them complete while you're away. Never wait for a render to finish again!	X	✓
Configurations Rapidly generate colorways, product variations, and other design choices using Configurations. Present in real time using Visualize and make important design and	X	✓

engineering decisions by flipping through your Configurations. You can even render all Configurations in a single click!

New Area Lights and Light Placement Render complex interior scenes faster than ever before using new Area Lights, which are also supported in Fast mode. These Area Lights produce picture-perfect shadows and render up to 8x faster than using traditional lights and Accurate mode. This new update also comes with an even easier way to interactively place your lights. No longer struggle manually setting up lights in your scene; now only a single click places the light exactly where you want it—allowing you to dial in the perfect shot.	X	✓
Create VR Content Take advantage of the photorealism of SOLIDWORKS Visualize Professional to explore/review beautiful immersive images and animations at 1:1 scale. Easily set up your camera where you want to look around and click a single button in Visualize to create amazing VR content with 360 stereo images and even animations in VR! Support for any VR device, including HTC® Vive®, Oculus Rift™, Samsung® Gear VR, Google® Daydream, and Google Cardboard™.	X	✓
Integrated Physics Engine Enable Physics with a few simple clicks and watch your items collide and fall, just like they would in real life. After Physics is setup, use the Earthquake tool to randomize or jitter the selected elements. This helps to add a natural touch to stacked plates, or pens in a cup, without having to manually move each one individually, saving loads of scene set up time.	X	✓
Vehicle Driving Simulator Create beautiful, photo-quality driving images and animations of your vehicle that doesn't even exist yet, with accurate real-time physics. The new Physics system supports driving a car alongside a predefined path as well as steering via the keyboard or a connected game controller. Adjust several Car Driving settings, like Suspension, Wheel Friction, Ride Height and many others, all calculated in Real-time. Then record the vehicle driving with a single click for life-like driving footage.	X	✓
Video Decals Import videos or image sequences directly into Visualize, creating vivid animations of products with LED screens (i.e.: laptop, car navigation screen, airline headset). Spice up your animations as the camera is panning across your product or throughout an exploded animation with a video sequence playing on the screen.	X	✓
XR Exporter for AR/VR Experiences Easily export your Visualize projects to a new file format (.glb & .glTF) for use in immersive downstream Augmented Reality and Virtual Reality experiences.	✓	✓
Support for High-resolution Displays (4K Monitors and Beyond) Dynamic user interface scales to support high-resolution displays.	✓	✓

IES Light Profiles Support industry-standard IES Light Profiles to define the exact light pattern from a light source on a wall.	X	✓
SOLIDWORKS PDM Integration (SV) Use the integrated SOLIDWORKS PDM menu to access vault commands and view Visualize file information when the file is open in SOLIDWORKS Visualize. SOLIDWORKS PDM Professional needs to be installed.	✓	✓