

# PhotoWorks Product Overview

PHOTOREALISTIC RENDERING SOFTWARE, FULLY INTEGRATED WITH SOLIDWORKS  
3D CAD SOFTWARE

PhotoWorks™ software is a best-in-class rendering solution for creating photorealistic images from 3D CAD models. Add impact to presentations and proposals with the only rendering software fully integrated with SolidWorks® 3D CAD software.



Communicate design concepts more powerfully using photorealistic images and advanced effects available in PhotoWorks.  
Image courtesy of DiMonte Group



Create images comparable to actual photographs by adjusting camera settings such as perspective, depth of field, and field of view.

**Generate compelling images for presentations and proposals.** Why settle for standard shaded views of your parts and assemblies when you could be communicating design concepts more powerfully with photorealistic images?

**Enjoy unmatched ease of use.** PhotoWorks Studio lets you quickly and easily create photorealistic images. Select from a number of predefined HDR (Hi-Dynamic Range) scenes complete with background and lighting, designate the desired image quality and brightness, and then render your image. Using these HDR scenes, it is possible to completely light your scene with ultimate realism without the need to create and position SolidWorks lights.

**Create advanced visual effects.** Generate photorealistic images of 3D models easily using commands available on the PhotoWorks menu and toolbar. PhotoWorks software is built on mental ray®, the leading high-performance rendering engine. The software includes an extensive library of materials and textures, user-defined lighting and shadows, background scenery, and more. Select appropriate material characteristics for your SolidWorks parts and assemblies. Preview a variety of materials and settings before applying them to the model. Set the background, lighting, and scenery conditions. Combine with SolidWorks Animator to create photorealistic rendered animations.

**Reduce prototyping costs and cut time-to-market.** PhotoWorks release 2 lets you demonstrate how your design will look without expensive mock-ups, prototypes, or studio photo sessions. Speed review cycles, market product concepts before manufacturing even begins, create images for sales and service documentation, and reduce time-to-market.

## Materials

- PhotoWorks offers the most comprehensive choice of materials for designers in the machinery and consumer products industries. Choose materials from a wide selection of built-in libraries of predefined metals, plastics, woods, glass, rubber, stones, and many other textured material types.
- Define or modify existing material properties, including surface color, reflectance, transparency, roughness, and texture-mapping.
- Apply materials to entire parts, features, or individual faces, allowing multiple assignments per part using simple drag-and-drop capability from the SolidWorks Resource Pane.
- Select displacement properties and dynamically edit them to give materials an irregular or indented appearance.

## Decals

- Drag and drop custom labels or artwork to products and packaging.
- Interactively size, position, and rotate individual decals.
- Overlay multiple decals onto any SolidWorks part, feature, or face.



### Local language support

- Chinese
- Czech
- English
- French
- German
- Italian
- Japanese
- Korean
- Polish
- Portuguese
- Russian
- Spanish

### SolidWorks integration

- Take advantage of full support for SolidWorks models, including section views and exploded assemblies.
- Create realistic camera views complete with depth of field, perspective, and field of view.

### Lights and shadows

- Control shadows easily, including those showing through transparent surfaces.
- Create realistic shafts of light with fog lighting.

### Background/scenery

- Choose from five default HDR scenes to create realistic lighting without the need to fine-tune settings to achieve an optimum result.
- Create photo studio-style backdrops to enhance the display of SolidWorks parts and assemblies.
- Preview, resize, and reposition background scenery.
- Simulate environments in which products will be used, such as under a blue sky with light cloud cover or in an industrial setting.
- Import backgrounds from standard image-format files (JPEG, TARGA, TIFF, BMP, PNG and HDR).

### Rendering controls

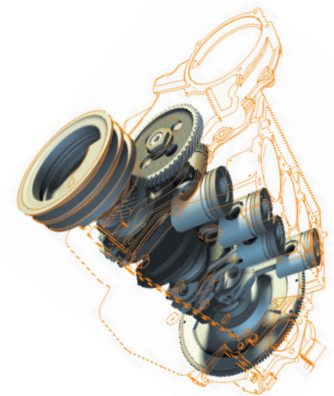
- Enhance realism with advanced rendering options such as indirect illumination, caustics, and global illumination.
- Adjust overall brightness and reflections of HDR scenes to quickly adjust overall lighting of your scene.
- Preview shaded renderings with texture mapping, ideal for scene composition.
- Select "on demand" ray-tracing for reflective and transparent materials.
- Improve image quality by smoothing areas of high contrast and eliminating "jaggies" along silhouette edges utilizing adaptive antialiasing.
- Use contour rendering to highlight edge contours or show edges of parts that are otherwise hidden.



Using PhotoWorks, you can create powerful photorealistic effects using materials, indirect illumination, scenes, environments, and shadows. Image above courtesy of UAMZ

### Image output

- **To window:** Output rendered images to the SolidWorks window, or use Interactive Rendering mode for fast, efficient on-screen preview.
- **To file:** Render images to file at user-defined output resolution as 24-bit PostScript®, JPEG, TARGA, TIFF, BMP, EPS, ALIAS, CT, MI, PIC, PPM, QNTNTSC, QNTPAL, RGB, RLA, or RLB.
- **To printer:** Print rendered images directly from within SolidWorks software; resize the image to cover the entire printed output area while maintaining aspect ratio if desired.



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