

# How to Create a Fully-Rendered SolidWorks Movie (SW 2014)

by **Matt Gerber**

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This tutorial assumes you know how to make an animation (Motion Study) in SolidWorks. If not:

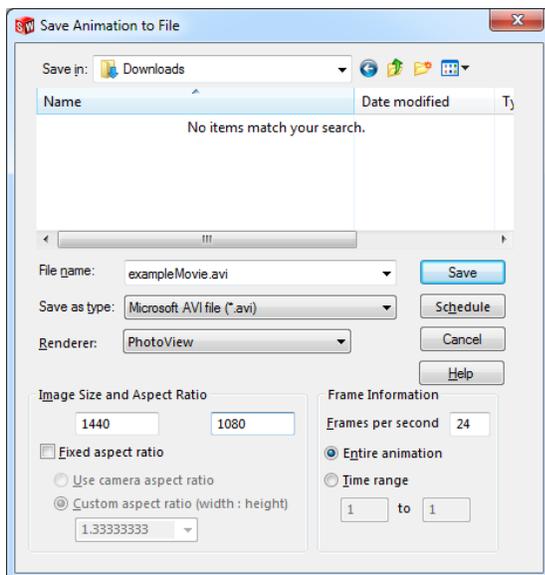
Help → SolidWorks Tutorials → Design Evaluation and Simulation → SolidWorks Motion

Note, two SolidWorks add-ins are required: **PhotoView 360** and **SolidWorks Motion**

Once your animation is ready, click on the “Save Animation” icon above the animation timeline:



A pop-up window appears:



Select the following:

**Renderer:** PhotoView

**Image Size and Aspect Ratio:** 1440 × 1080

→ Uncheck “Fixed aspect ratio”

**Frames per second:** 24

→ Provides a steady (non-jerky) animation with minimum file size

For **Save as type** there are two relevant options:

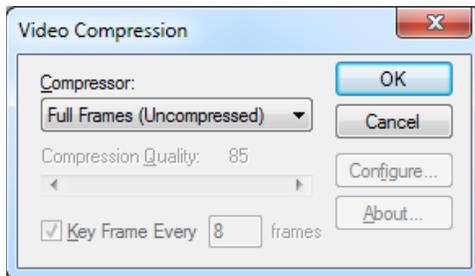
1. Microsoft AVI file (\*.avi)
2. Series of Windows Bitmaps (\*.bmp)

The differences between the two save types are outlined next, but regardless of which option is chosen:

1. Generating the output will require approximately 1–3 minutes *per frame* of animation
2. Because each frame is being rendered with PhotoView 360, your computer will be fully engaged at 100% CPU load during the file creation (you won't be able to use your computer for anything else)

## Option 1: Microsoft AVI file

A pop-up window appears if you select the AVI option:



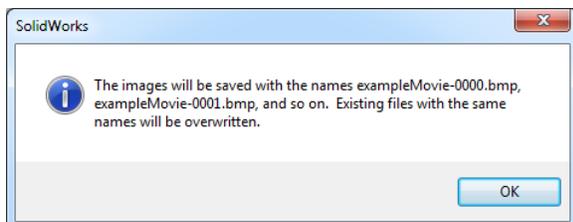
For **Compressor**: Select “Full Frames (Uncompressed)”

Clicking “OK” will save the animation as an uncompressed .avi file. Notes:

1. *Full Frames (Uncompressed)* is preferred over the other three choices (*Microsoft Video 1*, *Intel IYUV codec*, and *Logitech Video*) because they are awful and produce choppy, overly degraded video outputs.
2. The uncompressed .avi output should be converted/compressed with third-party software post-creation. **Handbrake** (<https://handbrake.fr/>) is highly recommended: it is free, open-source, and quick to install.

## Option 2: Series of Windows Bitmaps

A pop-up window will appear if you select the Bitmap option:



This option outputs a series of .bmp files, sequentially numbered. This option is preferred over Option 1 (the AVI output). Notes:

1. One frame is created and saved at a time. This allows you to immediately check if the final appearance is good and—if not—you can stop it and fix what’s wrong
2. The .bmp files can be post-processed (for example, in Photoshop) to create “special effects” or clean-up the appearance of each individual frame
3. From experience, this option is ~10% faster overall than Option 1
4. The series of .bmp files must be converted to an .avi movie file with third-party software. **EasyBMPtoAVI Movie Creator** (<http://easybmptoavi.sourceforge.net/>) is free and the best I’ve found.