

# Pumping Up PowerPoint

with custom graphics, movies, and sound



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[www.bps-ok.org/bhs/help/teachtech/pumpuppowerpoint.pdf](http://www.bps-ok.org/bhs/help/teachtech/pumpuppowerpoint.pdf)

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Last Update: October 29, 2005

## A. Custom and animated images and movies

### Common Image Types

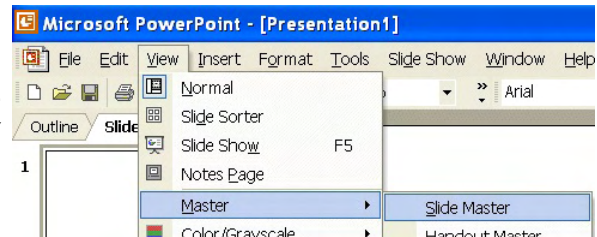
You actually don't have to know the type of image you are inserting into a PowerPoint presentation, but converting large bitmap images stored in the BMP and TIF formats into smaller compressed GIF and JPG files will save disk space and can speed up image loading. A very useful Windows shareware program for viewing, editing, and converting images is **ThumbsPlus** from Cerious Software (<http://www.cerious.com>). You can use it to convert larger images into the more compact GIF or JPG formats.



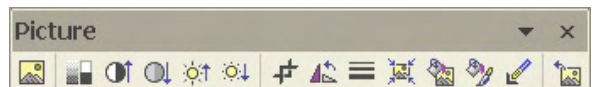
### Images and PowerPoint

[paraphrased from "Powerful Presentations" in the *Wired* column of *NEA Today*, February, 2003]

To make the look of your presentation match its subject, start by designing your presentation's "background" or, specifically, creating the "slide master" template. You access the slide master from PowerPoint's *View* menu bar: select *View*, then *Master*, then *Slide Master* or *View Master*. Once you're in the Slide Master View mode, you can set the font style, size, color, and alignment for all the slides in the entire presentation. Any additions and/or font settings you establish here will apply to every slide. Here you can also add your own graphics, and whatever you add to the white space at this stage becomes the background for every slide.



For example, you might have a digital photo stored on your computer's hard drive and want to use it in a presentation. From the *Insert* menu bar, select *Picture*, then *From File*. Locate the photo you want to use and select *Insert*. Your picture will appear on the screen. When you select *Insert*, a *Picture* tools palette also should appear. This window bar contains command icons that resize, crop, lighten or darken the image, and adjust the colors. If you don't see these tools, select the *Tools* menu bar option, then click *Customize*, and add a "check" to the *Picture* selection box. Note that not every tool on the menu will work with every graphic.



## PowerPoint Tips

[paraphrased from "Powerful Presentations" in the *Wired* column of *NEA Today*, February, 2003]

Here are some additional design tips you should know and practice:

- Always build your presentation outline first. Then set your text and arrange your slides. Add the art last.
- Only use art that's relevant to your message. Less is always more.
- Never compromise your message by making your artwork the focus of your presentation. Adjust the brightness, contrast, and opacity controls so that your picture won't obscure the text on your slides.
- Use the corner selection buttons on a picture when you resize it. (These appear on the picture after you import it into PowerPoint. You may need to click on the picture to see them.) This ensures that the picture resizes proportionally. If you resize using the side or bottom selection buttons, your picture will look stretched or squished.
- Review your presentation in the same location using the projection equipment you will use when delivering to the real audience. The presentation seldom appears the same on both the computer and projection screen. Colors and brightness always differ.
- If you receive any complaints about the visibility of your presentation press the escape key (ESC) to stop immediately! Go to the *View* menu bar option and select *Master* then *Slide Master* or *View Master* and change your colors or delete background pictures.

If you don't have a graphics library, check out the Microsoft Design Gallery Live at <http://dgl.microsoft.com/> where you can download a new image each day or browse the clipart collections to find images sorted by theme.

## Animated GIF's

The GIF format includes the ability to store multiple images as a single file for animated playback. These can not only heighten interest, but inform in ways a static image cannot. For example, I have wave motion diagrams on several slides of my *Failure By Design* presentation (an online version is at <http://www.bps-ok.org/physics/faildes/faildes.htm>) which are animated GIF files captured from the internet, and they show the types and parts of waves in a manner no static textbook image could ever convey.

## Movies

Movies can also be captured from cameras or downloaded from the internet and inserted into PowerPoint. *Failure By Design* has eight different movies which illustrate complex concepts such as how a walkway failed or how a bridge twisted and collapsed. Movies come in a variety of formats which PowerPoint can import. *Failure By Design* includes movies in the Apple QuickTime .MOV format, the Microsoft .AVI format, and the independent MPG/MPEG format.

## Custom Animation

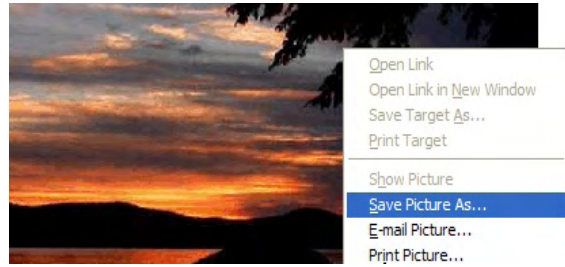
You can also make different parts of a PowerPoint slide appear and disappear, move around the screen, and so forth. Several slides in *Failure By Design* use the Custom Animation feature, including one to help describe failed attempts to stop the oscillations of the Tacoma Narrows bridge.

The next page illustrates how to import images and movies into PowerPoint and access the custom animation features.

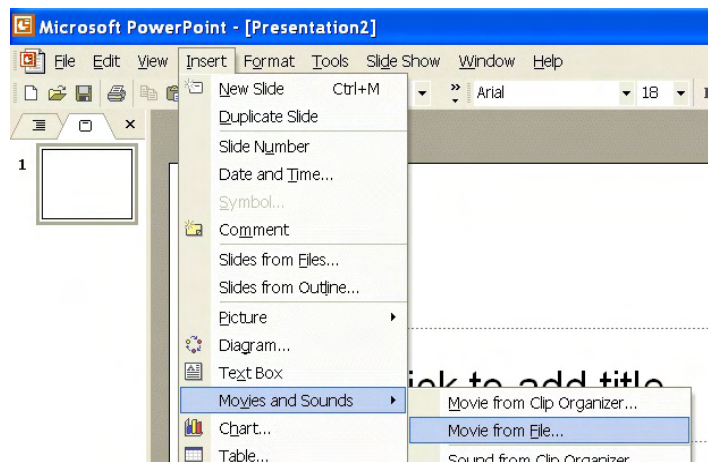
## Inserting Movies and Animated GIF's into PowerPoint 2002

[similar procedures should work in earlier versions of PowerPoint]

Capture or download the GIF or movie file onto your computer's hard drive (possibly saving it to the *My Pictures* folder inside your *My Documents* folder). For example, if you see an image on the internet you want to capture, in Internet Explorer you can *right-click* on the image and select *Save Picture As...* from the pop-up menu. Many movie files on the internet can also be downloaded onto your computer's hard drive.



Then in your PowerPoint file navigate to the slide where you want to insert the image or movie. Open the *Insert* menu, point to *Movies and Sounds*, and click *Movie from File...* Then locate the folder that contains the file you want, and double-click the file. PowerPoint will then ask if you want the movie or animated GIF played automatically when you go to the slide.



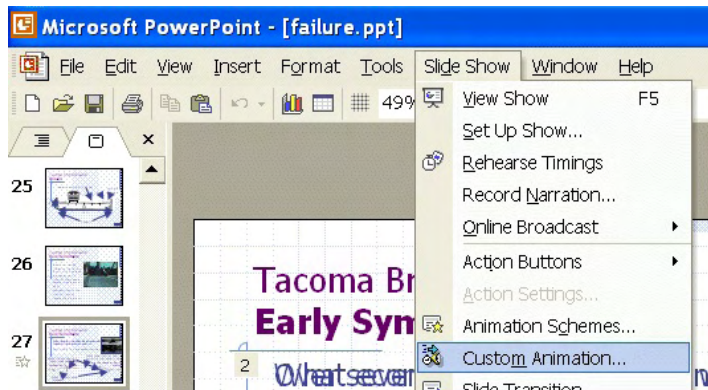
### Custom Animations

First go to the slide where you want some custom animation, and create the text or images or other objects you wish to animate. Select the object you want to animate. Open the *Slide Show* menu and click *Custom Animation...*

In the Custom Animation task pane, click *Add Effect*, and do one or more of the following:

- If you want to make the text or object enter the slide show presentation with an effect, point to *Entrance* and then click an effect.
- If you want to add an effect to text or an object that is on the slide, point to *Emphasis* and then click an effect.
- If you want to add an effect to text or an object that makes it leave the slide at some point, point to *Exit* and then click an effect.

The Custom Animation task pane will list the various animations, and you can add multiple effects to an object and re-order the animations for the slide as needed to make elements appear and disappear, etc. as you desire.



## B. Narration and music

*Electrical Power Generation* is an automated PowerPoint slideshow I created which has audio narration, music, and various sound effects. (There is an online version at <http://www.bps-ok.org/physics/elecpow/elecpow.htm>)

The original version of this “virtual field trip” to a power plant was created in the early 1990's on 35mm slides with the soundtrack on a cassette tape. Today digital cameras and modern computer technology make creating this kind of custom slideshow much easier and cheaper!



The original cassette soundtrack was created in 1996 using the sound card on a personal computer to record the narration, play the music and sound effects, and blend them together. So when the show was later converted to PowerPoint, it was simple to import the digital sound files created years earlier. You too can add fancy audio to a PowerPoint show by using a computer with a sound card, a cheap microphone, and simple software like the Sound Recorder program included with every version of Windows.

### Creating Narration and Music Files

1. First write a script for your show to match the images and/or text you have for each slide. Bear in mind the length of time you want an image on-screen and time yourself as you recite the script to ensure that you are not going too fast or too slow for your audience.
2. Plug a microphone into your sound card's microphone jack. Any inexpensive microphone will do - e.g. Radio Shack can sell you a cheap one. Just make sure its jack is the type that will fit into the microphone socket on your sound card (on the rear of the computer). Some microphone cords have two jacks, but if one will fit into the “mic” socket on the sound card, you're in business.
3. Use software to digitally record the narration for each individual slide onto the computer's hard drive. Your sound card probably came bundled with recording software, or you can always use the *Sound Recorder* program that comes with Windows. Be sure to save the narration for each slide as a separate file, and name each file after the slide number it accompanies in your slideshow. Your software will let you edit the length of the file - keep a slight pause in the narration at the beginning and end of each segment.

An online tutorial for *Sound Recorder* is located at:

[http://www.musiknet.se/mla/encoding/sound\\_recorder1.htm](http://www.musiknet.se/mla/encoding/sound_recorder1.htm)

## Creating Narration and Music Files (continued)

4. You can download various sound effects as Windows Audio (.WAV) files from the internet, and almost all sound cards can also play music MIDI files. Sometimes sample MIDI files are bundled with your sound card, and you can also download various MIDI files on the internet. You can also play music or sound effects on your computer's CD drive. You can even play sounds and music on a boombox or other player and record the sound onto the computer either by using its microphone or perhaps plugging the boombox/player into the LINE IN jack on your sound card.

A website with links to many different online MIDI files is:

<http://aitech.ac.jp/~ckelly/SMF.html>

and a Google search for MIDI files will turn up many more.

If you'll be using *Sound Recorder* to do your mixing, you'll need to play back each music MIDI file while running *Sound Recorder* to record and save that playback in the .WAV format so that you can later use *Sound Recorder* to mix that music with your audio narration.


5. To "mix" the various sounds into single audio files, your sound card probably came with a *mixer* program. You can also use the somewhat primitive effects in *Sound Recorder* if you don't have a fancy mixer program. For example, you'll probably need to greatly reduce the volume of the music so that it doesn't drown out your voice narration. In *Sound Recorder* you would open the recorded music file, open the *Effects* menu, and select *Decrease Volume*. Listen to the playback and repeat the process as needed until the music is soft and unobtrusive, and save it under a new name. (Don't overwrite your original recording - it can take several attempts to get the volume setting just right and you may need to come back later and fiddle some more with the music file.)
6. To use multiple music segments, time each of the slide narration audio files you recorded, and time the various music segments you plan to use or have available. Write a sequential play list to match up music segments of certain lengths to different series of slides so that the length of the audio narration and music match up. Pick music of different tempos and styles to match the different parts of your presentation. Then mix and record the completed blend.

For example, suppose you have a series of three slides that add up to 45 seconds and have picked out or edited a matching low-volume music track for the background. You could open up the first slide narration file in *Sound Recorder*. Then open the *Edit* menu and click *Insert File...* and tack on the next slide's narration. Repeat that process again so that all three slide narrations are now a single sound file. Save that file under a new name, so that you can quickly come back to this point later if needed. Finally, open the *Edit* menu and click *Mix with File...* and select your low-volume music file. Listen to the result. If it sounds good, save it under a new filename - that file is the one you will import into PowerPoint. But if the music is too loud or something else is wrong, discard it and go back and edit or re-record your narration or music files as needed.

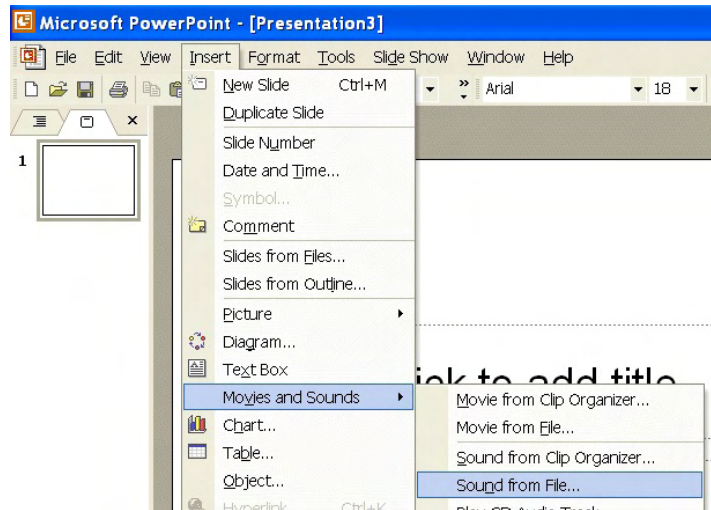
Warning: A soundtrack takes patience, perseverance, and more time than you'll expect!

## Inserting Sound Files into PowerPoint 2002

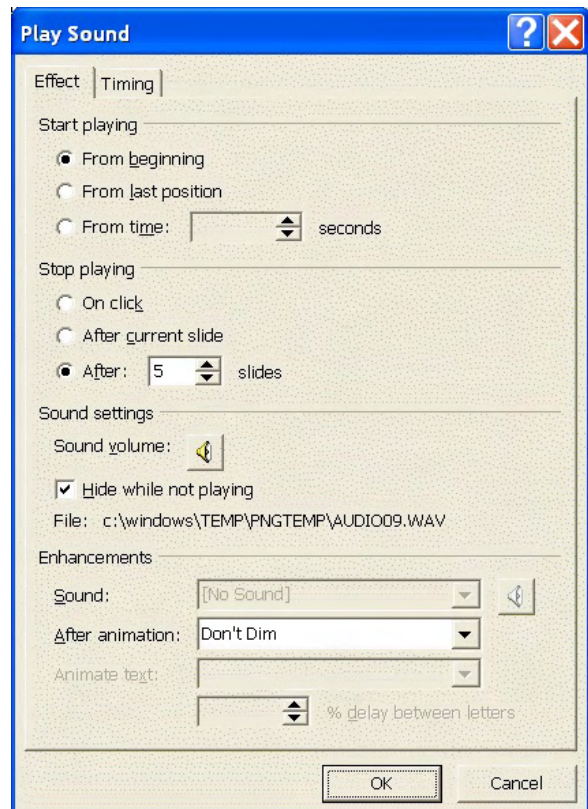
[similar procedures should work in earlier versions of PowerPoint]

When you insert music or sounds on a slide, a sound icon  that represents the sound file appears. To play the music or sound, you can set it to start automatically when the slide displays, start on a mouse-click, start automatically but with a time delay, or play as part of an animation sequence. If you don't want the icon to be visible, you can drag it off the slide and set up the sound to play automatically.

To insert sound, navigate in PowerPoint to the slide where you want to start playing the sound. Open the *Insert* menu, point to *Movies and Sounds*, and click *Sound from File...* Then locate the folder that contains the file you want, and double-click the file. PowerPoint will then ask if you want the sound to be played automatically when you go to the slide.



You can easily see the sounds you've imported into each slide in the Custom Animation sidebar. To bring up that sidebar, open the *Slide Show* menu and click *Custom Animation...* (see page 3). Double-clicking on the sound's entry in the sidebar will bring up the *Play Sound* dialog box shown at right. Here you can set options so that the sound will play for a set number of slides and so forth. You only need to insert a sound in the first slide where it will begin playing.

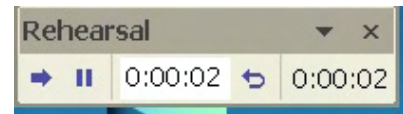


## Inserting Sound Files into PowerPoint 2002 (continued)

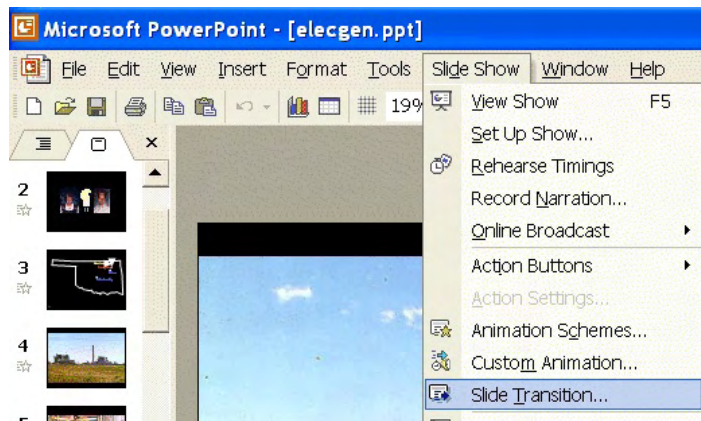
You'll also need to set each slide to automatically display for a set time before advancing, so that the slides match up with your recorded narration and music.

You can set the timings for the entire show in one step by using the *Rehearse Timings* option in the *Slide Show* menu. First insert the sounds throughout the show and set up the various options for playing them as described on the previous page.

Then click on *Rehearse Timings*. The show will play (including the sounds you have inserted) while an on-screen clock box shows the elapsed time. As you watch the show, you then click on the right-arrow icon in the clock box to signal that the next slide should appear. Next to that arrow icon is a pause button you can hit to stop the rehearsal if you need to take a break. When the show is complete, you'll be asked whether PowerPoint should save the timings you created. During your first few attempts to rehearse the show, will probably find some errors in your sound set-ups. Fix the problems and keep rehearsing until the show looks about right.



Even after a successful rehearsal, you may need to tweak some individual timings. This can be done in the *Slide Transition* sidebar. To bring up that sidebar, open the *Slide Show* menu and click *Slide Transition...*



In the sidebar's *Advance Slide* section, you can manually edit the number of seconds a slide is displayed before it advances.

By default, sounds are automatically linked to your file, rather than embedded in it, if they are greater than 100 KB in size. You can change this default to be more or less than 100 KB. When your presentation has linked files, you must copy the linked files as well as the presentation if you are going to be giving the presentation on another computer. Sound files are always large, so a presentation may have to be burned onto a CD to make it portable.