



# PowerPoint Presentation

---

## Guide

## Table of Contents

TASK: Creating a PowerPoint Presentation Lesson.....	3
OUTCOME: Instruction Through PowerPoint.....	3
PARAMETERS: Using PowerPoint to Educate .....	3
Types of PowerPoint Lessons .....	4
PARAMETERS: General PowerPoint Guidelines.....	6
PROCEDURE: Using the CADLearning PowerPoint Template.....	6
PROCEDURE: Using Images in a Slide Show.....	7
Working with Images in PowerPoint.....	10
PROCEDURE: Using Video in a Slide Show .....	13
Working with Video in PowerPoint.....	13
PROCEDURE: Using Transitions When Moving Between Slides .....	15
PROCEDURE: Applying Animation Effects to Text or Objects .....	16
Applying an Animation Effect to Individual Elements.....	18
Applying an Animation Effect to Multiple Objects .....	20
Applying Multiple Animation Effects to One Object .....	22

## TASK: Creating a PowerPoint Presentation Lesson

Create a Lesson that contains a compelling PowerPoint video presentation recorded using the CADLearning standards as described in the *Recording Videos Guide*, and that provides instruction of overarching themes, ideas, concepts, workflows, processes, procedures, or similar overall knowledge.

## OUTCOME: Instruction Through PowerPoint

Microsoft PowerPoint is a slideshow presentation program that has been in use for more than 25 years. PowerPoint comes as part of Microsoft Office. CADLearning uses Microsoft Office 365; this guide is based on that version.

For CADLearning purposes, presentations that would require the use of PowerPoint as a teaching tool are those lessons that provide instruction of overarching themes, ideas, concepts, workflows, processes, procedures, or similar overall knowledge. Keeping this ultimate goal in mind helps in determining whether the best way to teach the content provided in the lesson is indeed through the use of PowerPoint.

Lessons that incorporate PowerPoint presentations must conform to the 4D Technologies/CADLearning standards for style and appearance. The following instructions provide many step-by-step procedures for creating animated builds, adding images, embedding videos, reusing slides, and creating transitions between slides.

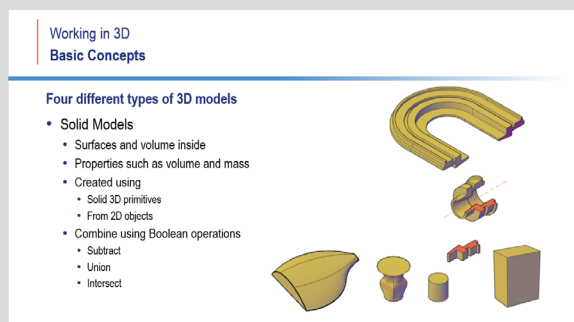
## PARAMETERS: Using PowerPoint to Educate

PowerPoint presentations should be used whenever you need to introduce or explain a concept or theory, which you will then expand upon in subsequent demonstration lessons. In general, these lessons help explain *why* something is done, as opposed to showing the individual steps one would perform to use a command or feature of a program. For example, an explanation of why layers are used to organize information in an AutoCAD drawing would be best described and illustrated in a PowerPoint presentation, whereas the steps involved in actually creating a new layer would be something that you would demonstrate directly in AutoCAD to record the procedure and show it in a lesson.

Use the provided PowerPoint template as the basis for creating PowerPoint presentations. This template contains predefined sheets, layouts, and styles.

When you record your PowerPoint presentation lesson, use the PowerPoint capture tools in Camtasia Studio.

While all the PowerPoint presentations you create **must** be based on the template and adhere to the required layouts and styles, feel free to copy and repurpose any of the example slides in the sample file. A screenshot from one of the sample videos is shown below:



Be aware that some types of concept lessons lend themselves to a particular style of presentation using PowerPoint. For example, lessons often consist of a series of slides with relatively unstructured text and illustrations, whereas workflow and process lessons are often best presented using some sort of flow diagram. Also, a compare-and-contrast lesson lends itself to a simple pair of lists that are populated as information is shared.

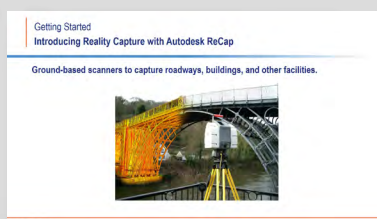
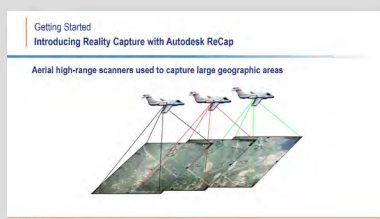
## Types of PowerPoint Lessons

The types of lessons you will create using PowerPoint often fall under one of four general types:

### Topic Concept Lesson

A topic concept lesson explains a topic in very broad terms in relation to common experience and general knowledge. Lessons should not include details about how a command works. For example, the definition of point clouds and the types of scanners that might be used to capture point cloud data would be best presented in a PowerPoint topic concept lesson.

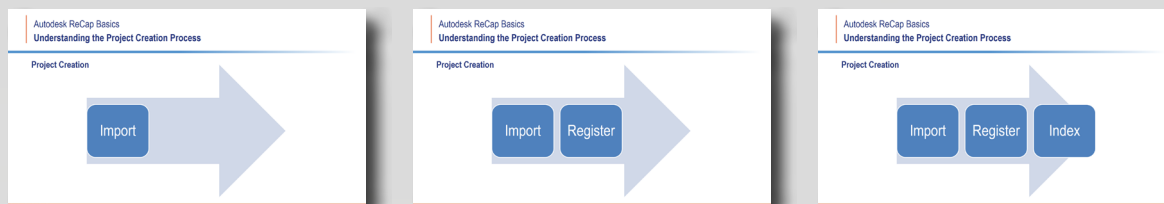
**EXAMPLE:** The images below show a sequence of slides from a typical lesson. Each slide explains a portion of the topic:



### Workflow Lesson

A workflow lesson provides a high-level description of a sequence of activities, actions, or tasks in general terms. For example, when using Autodesk ReCap, there are four basic steps in the program workflow: scanning, importing, organization, and attaching.

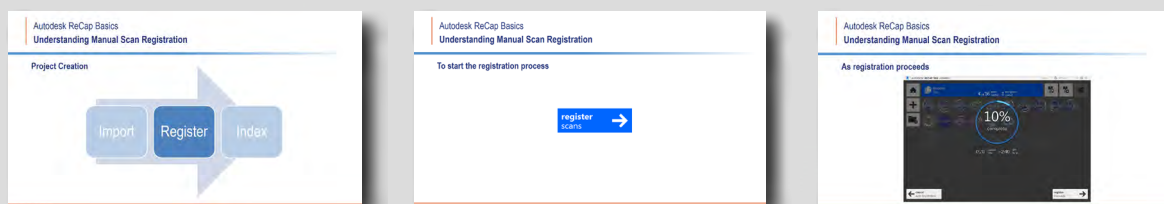
**EXAMPLE:** The images below show a sequence of slides from a typical workflow lesson. The slides build to show the steps within the workflow:



## Process Lesson

A process lesson explains the individual steps involved in performing a certain task. It is similar to a workflow lesson, but it does not include any of the generalities included in the higher-level workflow lesson, and it focuses on just a single step within a larger workflow. For example, when importing point cloud files into Autodesk ReCap, you can import raw scan files, unified scan files, or indexed scan files. If you import raw scan files, you must first combine and register the individual scans, whereas when working with unified or indexed scans, there is no registration step.

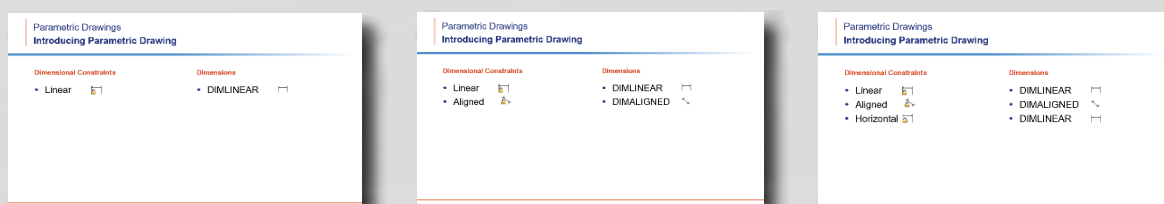
**EXAMPLE:** The images below show a sequence of slides from a typical process lesson. The first slide shows the step within the workflow, and then subsequent slides explain the individual processes within that step:



## Compare-and-Contrast Lesson

A compare-and-contrast lesson is used to explain the similarities and differences between two different concepts. One of the two concepts may be selected because it is familiar to the student. Or, a compare-and-contrast lesson might be used to introduce new concepts that are either very similar or distinctly different, yet both are related to a common element. For example, you could use a compare-and-contrast lesson to introduce the concept of dimensional constraints in AutoCAD, comparing each type of constraint to its similar dimension type.

**EXAMPLE:** The images below show a sequence of slides from a typical compare-and-contrast lesson. As the slide builds, it shows the concept within the context of working with constraints (on the left) compared to the similar concept when working with standard dimensions (on the right):



## PARAMETERS: General PowerPoint Guidelines

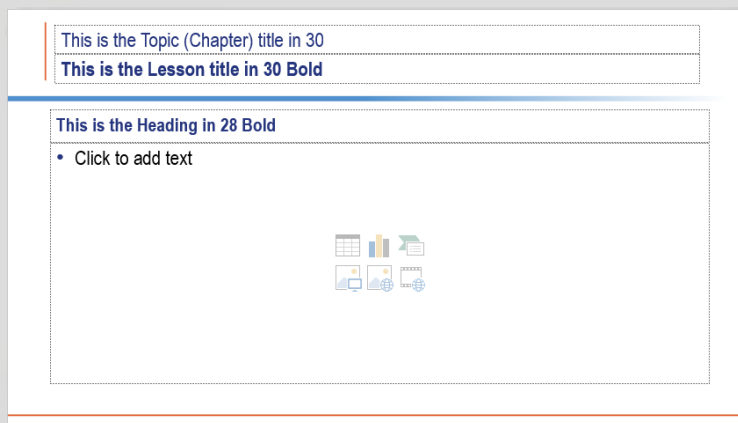
When creating a PowerPoint presentation, there are a few simple guidelines to keep in mind:

- Keep it brief. Do not use PowerPoint to explain complex software operations and procedures. Ideally, a video of a PowerPoint presentation should not be more than 2 to 3 minutes long.
- In the interest of brevity, do not put too much text on a single slide. The viewer should be able to quickly scan all the information placed on a slide. If the viewer wanted to read, they would not be watching a video.
- Refrain from using several complete sentences, deeply developed outlines, or extensive lists. These can lead the viewer to try to read the slide instead of listening to the narration.
- Use images and graphics. Not every word needs to be reinforced with an image or graphic, but no PowerPoint should consist of text only.
- Be consistent in the appearance of each slide. Watching a presentation can be very annoying when the slides are not consistent.

You must follow the CADLearning standards regarding PowerPoint creation. Be sure to adhere to the rules pertaining to font style, size, location, and color. Also refer to the Recording Videos Guide, which covers how to properly capture PowerPoint presentations using Camtasia Studio.

## PROCEDURE: Using the CADLearning PowerPoint Template

The CADLearning PowerPoint template provides a starting point for the creation of your concept lessons. It is based on a 4D theme and a slide master that includes the basic components and styles you must use so that your presentation adheres to the CADLearning style. You will find a copy of this template in the ZIP folder that was provided to you.



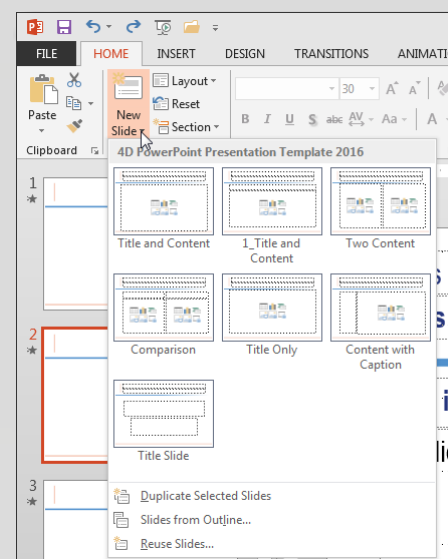
The template includes a background image (that cannot be changed), as well as a number of predefined layouts, each of which has several standard elements included as placeholders. **Click the placeholder to enter your own text, but do not change the size, color, font, style, or placement of the following:**

- **Topic/Badge:** Every slide in your presentation must have a Topic or Badge title. This should match the name of the topic or badge in which the lesson occurs within the Roles and Goals outline.
- **Lesson:** Every slide in your presentation must have a Lesson title. This should match the name of the lesson within the Roles and Goals outline.

The other elements within the slide are optional and can be included or omitted based on the information you are conveying as part of your presentation. Each layout includes different placeholders, and you can create each new slide in your presentation by starting with an appropriate layout.

#### To select the layout to be used when inserting a new slide:

1. On the **Home** ribbon, in the **Slides** panel, expand the **New Slide** gallery and pick a slide layout.



## PROCEDURE: Using Images in a Slide Show

Images are an important element of any concept lesson. A well-selected image or animation can communicate a point very effectively. Remember that a picture is worth a thousand words.

Thankfully, obtaining and using images and animations is a simple process. You can either create an image yourself or obtain one online.

There are numerous tools that you can use to capture images. In many cases, you may be able to right-click and simply save the image to a folder on your system. Or you can use the Snipping tool that comes with Windows. (From the Windows Start button, choose **Accessories > Snipping Tool**.) Or, you can use SnagIt from TechSmith Corporation.

Important: Before including any image in your PowerPoint presentation, you must ensure that you actually have the right to use it. Otherwise, you could expose both yourself and 4D Technologies to a claim of copyright infringement.

Before using any image, ask yourself the following questions:

**Did you create the image yourself?** If the answer is yes, then you can typically include the image without any fear of copyright infringement. But if you created an image that is so similar to someone else's that it might be thought of as theirs, then you cannot use your image.

**Did you find the image online?** If so, then you can only use it if it is in the public domain or protected by creative commons agreements that expressly give you the right to use it. An image in the public domain means that the original creators released their rights to the image. If the image is protected under creative commons, you must check the conditions under which you can use it. For example, if you cannot profit from its use, then you cannot include it in your PowerPoint, since 4D Technologies profits from the sale of the lesson that includes your PowerPoint presentation.



Simply including an attribution (image credit) does not negate copyright infringement. You must ensure that any images you use are available for use in a commercial enterprise without credit or compensation to the original creator. **You will be held personally responsible for any claim of copyright infringement resulting from your use of an image.**

Copyright is automatic and does not require the creator to file any special paperwork (such as required for trademark and patent). You should therefore start with the assumption that every image you find online is copyrighted, and then determine whether this is actually the case for the specific images you want to use.

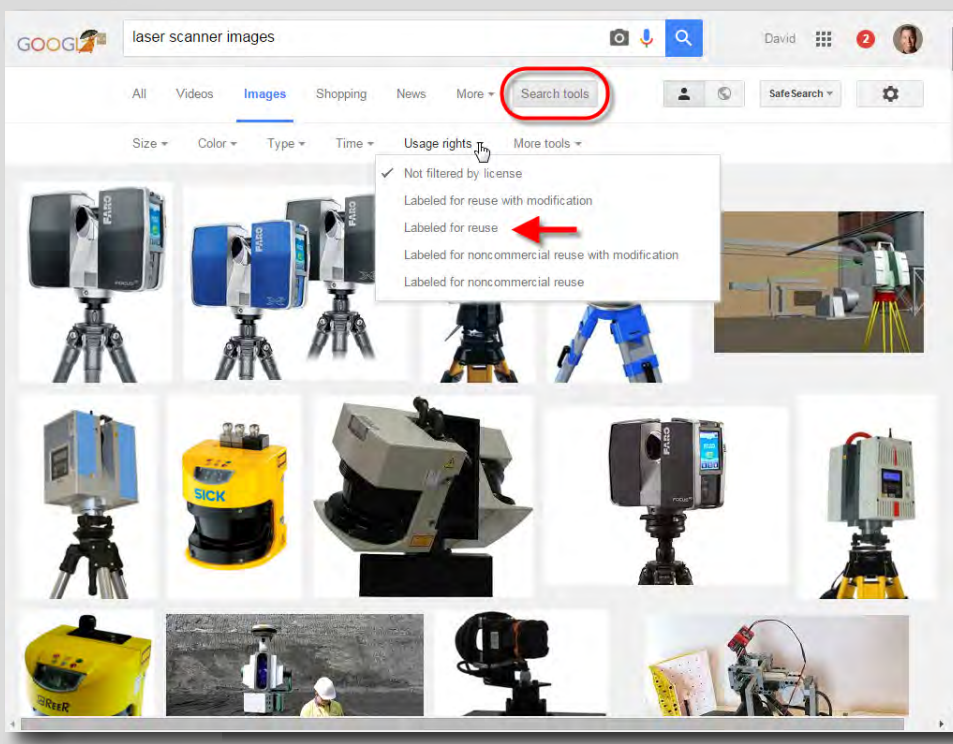
That said, there are countless images that are free for the taking and can be used in any way you wish. Generally, any image you capture from within a software interface can be used in any way you wish. Even though the software program is protected by copyright law, fair use enables that image to be used for educational purposes, and therefore allows you to include it in your presentation.

You can also generally use any product photos you find on a manufacturer's website. For example, if you are creating a lesson about point clouds, you should be able to use an image of a laser scanner that you found on the manufacturer's website.

There are also many royalty-free images and some search tools make it easy to locate them. For example, both Google and Flickr enable you to filter image searches to show only those images that can be reused.

## To find royalty-free images using Google Images:

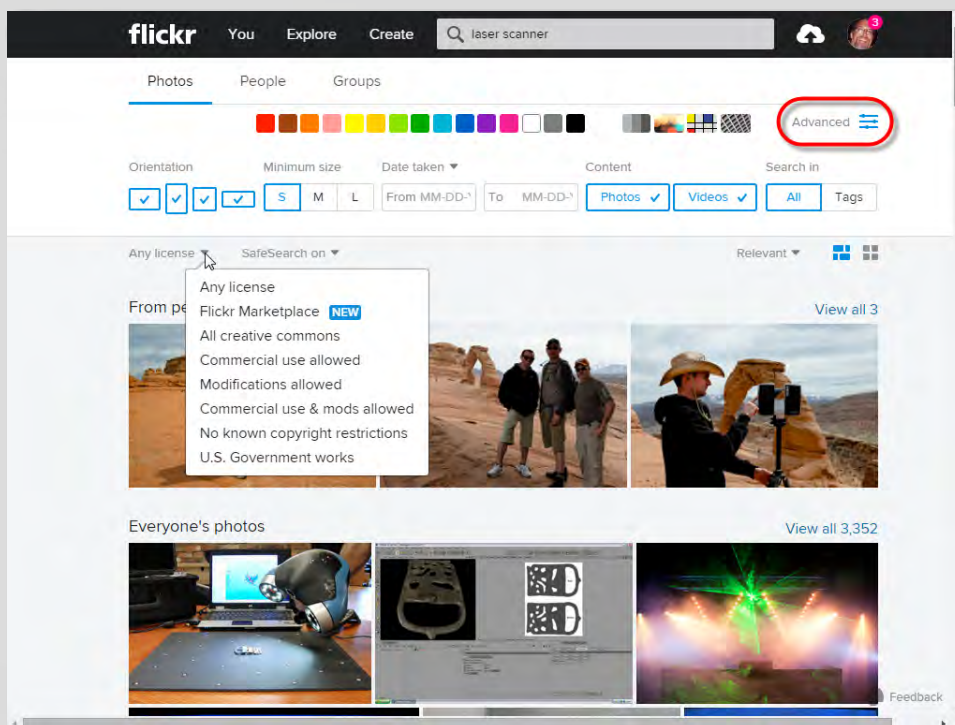
1. Search for images using keywords as usual.
2. When results are returned, click **Search Tools**.
3. Expand **Usage Rights**, and then select **Labeled for reuse** in the drop-down.





## To find royalty-free images using Flickr:

4. Enter the search keyword or phrase.
5. When the results are returned, click **Advanced Search**.
6. Expand the **Any license** drop-down and choose the appropriate license (such as **Commercial use allowed** or **No known copyright restrictions**).



There are also a number of websites that provide free or very inexpensive stock photos. Some of the most popular include:

- **Morguefile** more than 26 million stock photos, videos, and vectors
- **Pixabay** more than 540,000 free photos, vectors, and art illustrations
- **Wiki Commons** a crowd-sourced database of nearly 30 million freely usable media files

Include images that support and clarify the points you are trying to teach. The lesson will be more easily understood and remembered longer.

You can use virtually any raster image format (BMP, CGM, EPS, GIF, JPG, PNG, TIF, WMF, and so on) in PowerPoint. You can even use animated GIF images. The sample PowerPoint provided includes a number of animated GIF images so you can see how this works. If you do include animated images, use them sparingly, however, as they can become distracting.

## Working with Images in PowerPoint

Properly used, images can make the difference between a boring presentation that people simply endure, and an intriguing presentation that keeps viewers on the edge of their seats, eager for each morsel of knowledge that you decide to share with them.

You can insert images into a PowerPoint slide by using drag-and-drop, or by using the Insert tool.

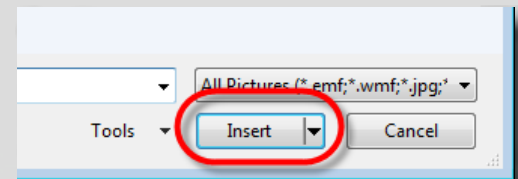
### To insert an image using drag-and-drop:

1. In Windows Explorer, locate the image file you want to insert.
2. Drag-and-drop the image onto the slide in PowerPoint.
3. Use grips to move and resize the image as needed.

### To insert an image using the Insert tool:

1. In PowerPoint, on the **Insert** ribbon, in the **Images** panel, click the **Pictures** tool.
2. In the **Insert Picture** dialog, locate the image file you want to insert and then click **Insert**.
3. Use grips to move and resize the image as needed.

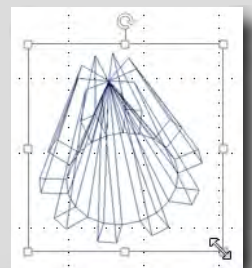
The original image is embedded in your document. Embedding is the default behavior when using drag-and-drop or when using the Insert tool. While it is possible to create a link to the image, you **must** embed all images. In the **Insert Picture** dialog, make sure that the button shows **Insert**, not Link to File.



Once an image has been added to a slide, you can select it and move it. You can also resize it and rotate it, either using grips or specific tools in PowerPoint.

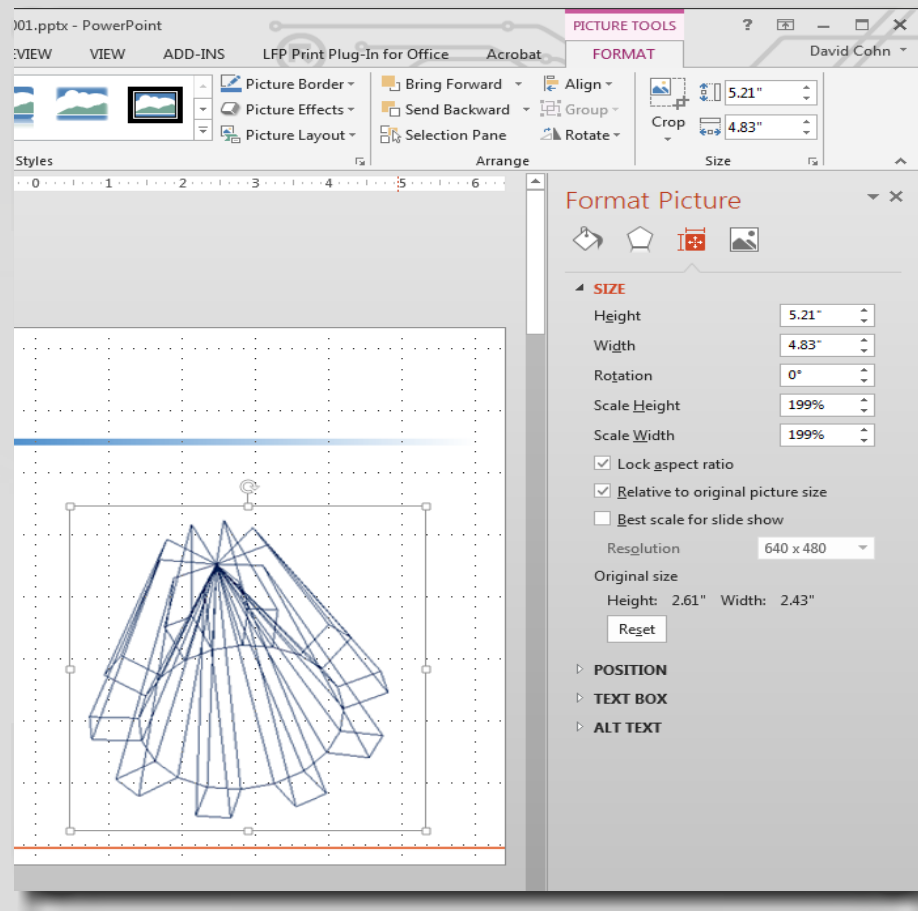
### To resize an image using grips:

1. With the image selected, click and drag the grip in a corner to resize the image equally in height and width. (Warning: if you click and drag a grip along one edge, you change only the height or width, which will alter the aspect ratio of the image.)



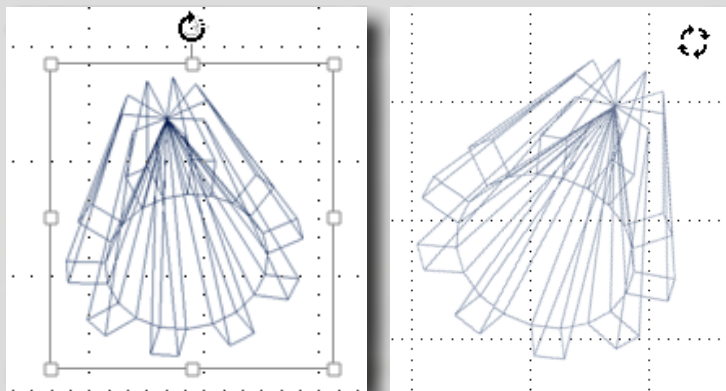
### To resize an image precisely using PowerPoint tools:

1. Select the image.
2. On the **Picture Tools|Format** contextual ribbon, do one of the following:
  - Use the tools in the **Size** panel to change the **Width** and/or **Height** values.
  - In the **Size** panel, click the dialog box launcher to open the **Format Picture** panel. On the **Size & Properties** page, make sure that **Lock aspect ratio** is selected, and then use the tools in that panel to change the **Height**, **Width**, **Scale Height**, or **Scale Width** values.



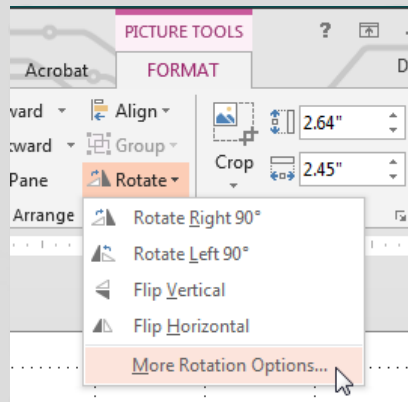
## To rotate an image using grips:

1. With the image selected, click the rotation handle at the top of the image, and then drag in the direction that you want.



### To rotate an image precisely using PowerPoint tools:

1. Select the image.
2. On the **Picture Tools|Format** ribbon, in the **Arrange** panel, expand **Rotate** and then choose the desired rotation. To rotate an image to an exact rotation, choose **More rotation options...** to open the **Format Picture** panel. On the **Size & Properties** page, enter the **Rotation** value.

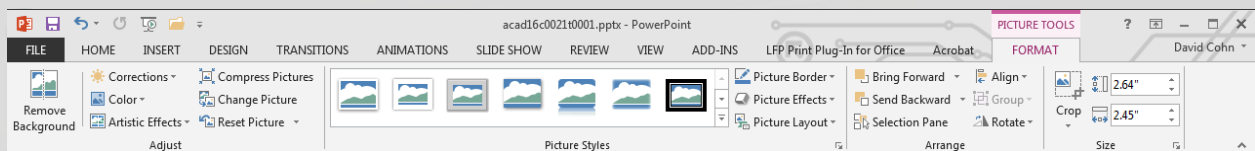


The order in which you place images into a PowerPoint slide initially determine their order within the slide. Newer images initially appear in front of older images. But, you can change the order by right-clicking an image and then choosing one of the available tools:

- **Bring to Front** moves the selected image to the front
- **Bring Forward** moves the selected image one level forward
- **Send to Back** moves the selected image to the back
- **Send Backward** moves the selected element one step backward

This also works with text and other elements. So, if text appears to be behind an image, right-click the text and then choose the appropriate tool.

When you select an image, you can also use other tools in the **Picture Tools|Format** contextual ribbon to further enhance your images. For example, you can remove backgrounds, apply artistic effects, add borders and drop shadows, and so on.



**IMPORTANT:** When working with images in PowerPoint, **do not** use the Crop tool in PowerPoint to alter the image. If you need to remove part of an image, you **must** edit the image using image editing software **before** inserting the image into PowerPoint. Similarly, **do not** use the Compress Pictures tool to reduce the file size of images embedded within a PowerPoint presentation. Using either of these tools can alter the original size, scale, or resolution of the image.

Although all images are embedded within the PowerPoint file, you must **also** save a copy of the original image to the `\powerpoint\support_images\` folder on OneDrive. Images and videos included in a PowerPoint presentation should be named using the same natural key as the presentation. For example, if the PowerPoint presentation is `abcd20t0001.pptx`, then the first image embedded in the presentation would be `abcd20t0001-01.png` and the first video embedded in the presentation would be `abcd20t0001-01.mp4`, and each subsequent image or video would be numbered incrementally.

## PROCEDURE: Using Video in a Slide Show

Sometimes it makes sense to embed video right into a PowerPoint slide. For example, in a lesson about capturing point clouds using a laser scanner, it might make sense to show a laser scanner in action. Or perhaps the lesson explains the basic concepts of rendering and animation in AutoCAD. In that case, after explaining the basic steps involved, you may want to include a short video of the resulting animation.

As is true when adding images to a PowerPoint presentation, be sure that the video is not copyrighted material, and that you have the right to use the video. Remember that you are responsible for ensuring that you actually have the right to use it. Otherwise, you could expose both yourself and 4D Technologies to a claim of copyright infringement.

Although you can use virtually any video format (ASF, AVI, MOV, MP4, MPG, MTS, SWF, WMV, and so on), we recommend MP4 due to its relatively small file size in relation to its image quality.

### Working with Video in PowerPoint

You can insert video into a PowerPoint slide by using drag-and-drop, or by using the Insert tool.

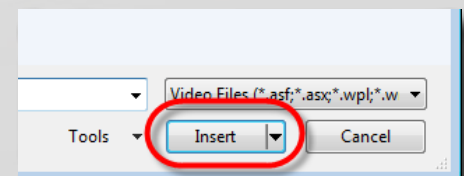
#### To insert a video using drag-and-drop:

1. In Windows Explorer, locate the video file you want to insert.
2. Drag-and-drop the video onto the slide in PowerPoint.
3. Use grips to move and resize the video as needed.

#### To insert a video using the Insert tool:

1. In PowerPoint, on the **Insert** ribbon, in the **Media** panel, click **Video > Video on My PC....**
2. In the **Insert Video** dialog, locate the video file you want to insert, and then click **Insert**.
3. Use grips to move and resize the video as needed.

The original video is embedded in your document. Embedding is the default behavior when using drag-and-drop or when using the Insert tool. While it is possible to create a link to the video, you **must** embed all video. In the **Insert Video** dialog, make sure that the button shows **Insert**, not Link to File.

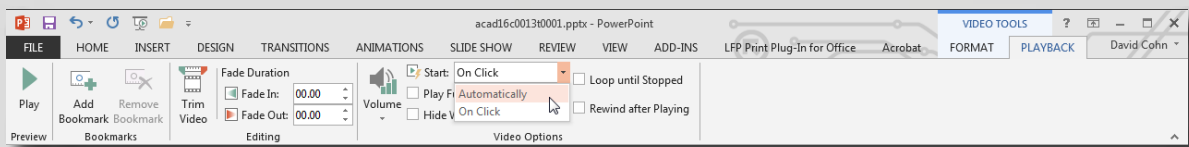


Once a video has been added to a slide, you can select it and move it, resize it, and rotate it. You can also change its order within the slide and use formatting tools to adjust its appearance. All of these functions work exactly as when working with images.

However, you do need to determine whether the video will play as soon as you advance to the slide containing the video, or if you must first click on the video within the slide. Since the cursor should never be captured as part of the video you create from a PowerPoint presentation, you should set the video so that it starts playing automatically after you advance to the slide containing the video.

### To play the video automatically:

1. In the PowerPoint slide, select the video.
2. On the **Video Tools|Playback** contextual ribbon, in the **Video Options** panel, expand the **Start** button and choose **Automatically**.

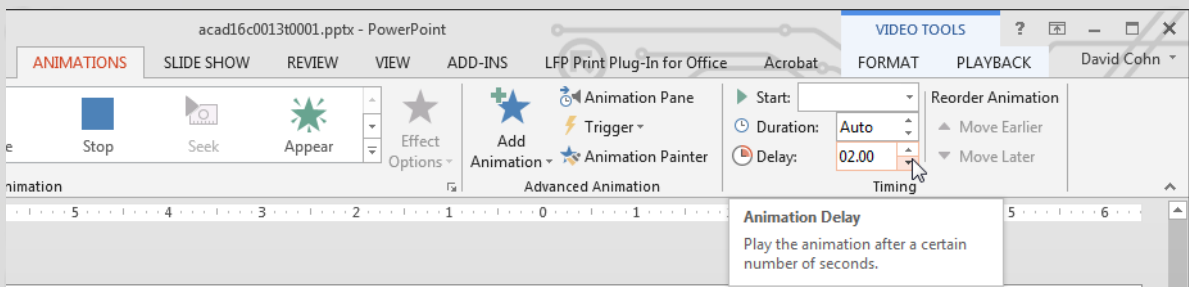


3. Make sure that the other Video Options (Play Full Screen, Hide While Not Playing, Loop until Stopped, and Rewind after Playing) are **not** selected.

After making this change, when you are playing or recording the slideshow, by default, the video will begin playing as soon as you advance to its slide. However, you can use the animation controls to change this if you wish. For example, you can set a delay so that the video does not begin to play until a specified amount of time has passed after advancing to the slide.

### To set a delay:

1. In the PowerPoint slide, select the video.
2. On the **Animations** ribbon, in the **Timing** panel, change the **Delay** value to the desired delay (measured in seconds).



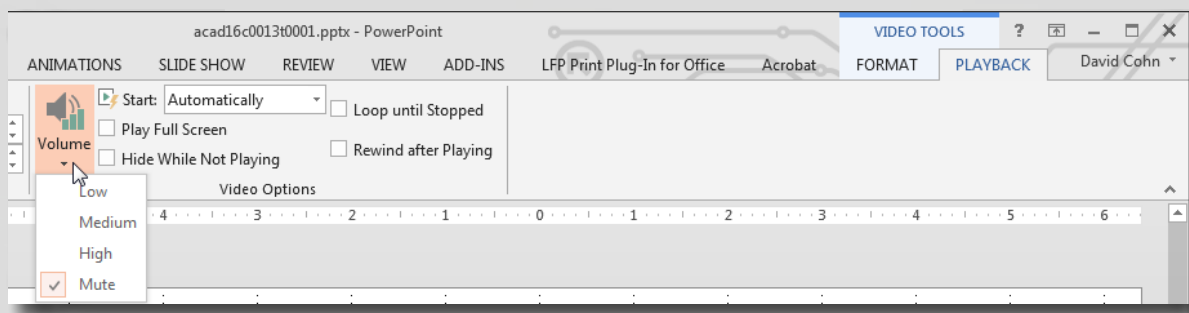
If there are other elements on the slide and you want the video to begin playing **after** those other elements are displayed, you can use the animation controls to set the delay, control the order in which animations occur, and the timing of the animations. For additional information about controlling animation in PowerPoint, see the section titled [“Applying Animation Effects to Text or Objects”](#) later in this document.



If the embedded video has its own audio track, make sure that it does not play as part of your PowerPoint presentation. The entire audio narration for your PowerPoint presentation should come from the pre-recorded audio track you create or that was created for you (as described in the *Recording Audio Guide*). If the embedded video has its own audio, you should make sure that it is muted when the video plays within your PowerPoint presentation.

#### To mute the audio track of an embedded video:

1. In the PowerPoint slide, select the video.
2. On the **Video Tools|Playback** contextual ribbon, in the **Video Options** panel, expand the **Volume** button and choose **Mute**.



**IMPORTANT:** When working with videos in PowerPoint, **do not** use the Crop tool in PowerPoint to alter the video. Doing so can alter the original size, scale, or resolution of the video.

Although all videos are embedded within the PowerPoint file, you must also save a copy of the original video to the `\powerpoint\support_images\` folder.

## PROCEDURE: Using Transitions When Moving Between Slides

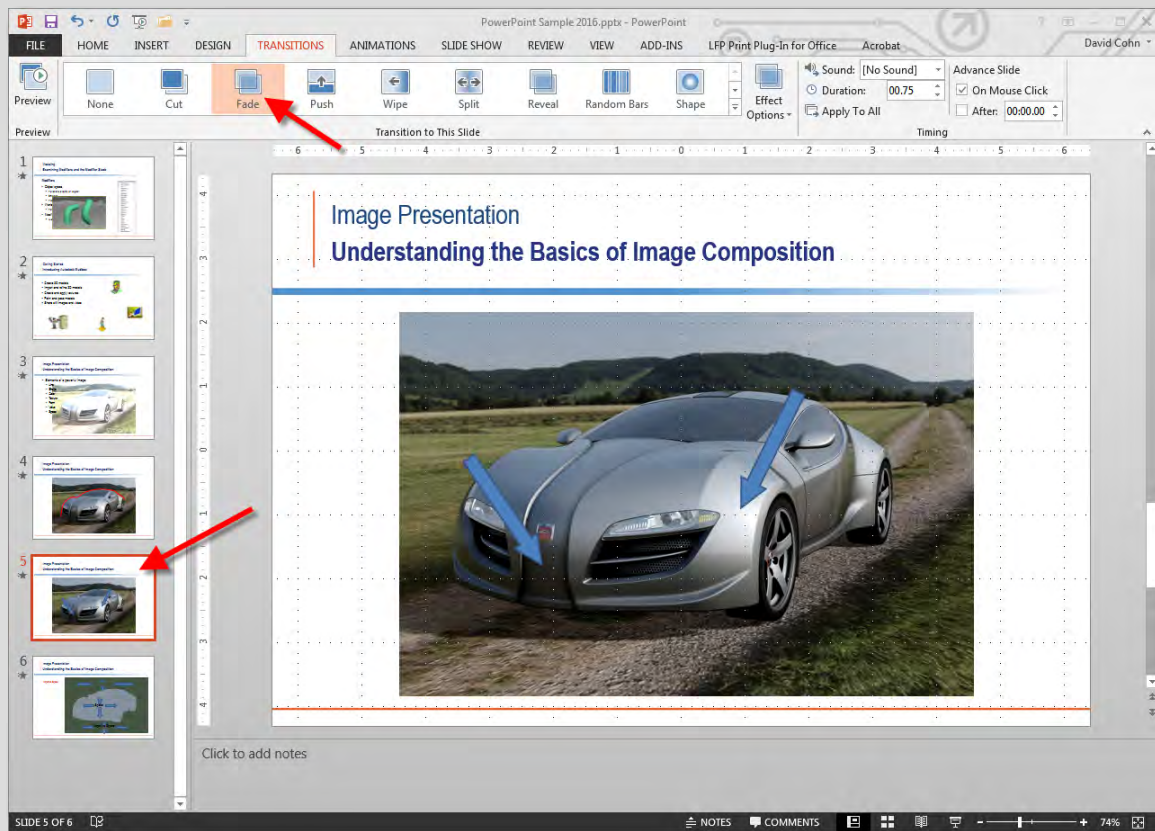
Slides that snap from one to the next can be jarring to an audience. To make the pace of your presentation feel more controlled and flowing, you can add transitions between slides. Transitions control how the current slide leaves the screen and the next slide enters.

Both the 4D PowerPoint Presentation Template and the PowerPoint Sample provided already have transitions included. When you use the 4D template, each slide you add will automatically have the proper transition already applied.

Although PowerPoint provides more than 45 different transitions, you must only use the Fade transition for any CADLearning PowerPoint presentation.

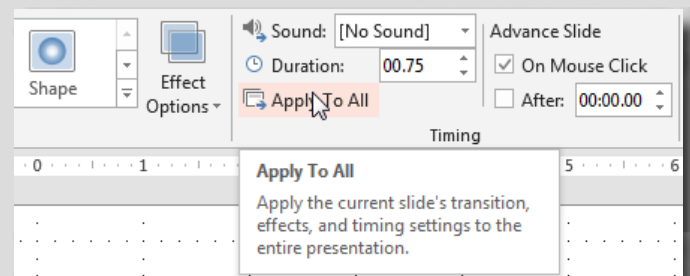
All of the tools for adding and controlling transitions are located on the **Transitions** ribbon. When you select a slide in the **Thumbnail** panel, in the **Transition to This Slide** panel you can see the transition assigned to that slide. For example, in the image below, with slide 5 selected, in the ribbon you can see that the Fade transition is already assigned to that slide.





In the **Timing** panel, the **Duration** setting determines the speed of the transition (measured in seconds). The default Duration is 0.75 seconds, and that should work fine for all CADLearning PowerPoint presentations.

**TIP:** To apply the Fade transition to all of the slides in the presentation, select it in the ribbon, and then in the **Timing** panel, click **Apply To All**.



## PROCEDURE: Applying Animation Effects to Text or Objects

You can apply animation effects to text, images, and other objects in a PowerPoint presentation so that they play in your slide show. This enables you to build a slide presentation that animates the revealing of bullet points, makes images appear on a slide at the appropriate time, and even makes objects move within a slide.

Animations are not the same as transitions. A *transition* animates the way one slide changes to the next. An *animation effect* controls what happens to the objects on a single slide.

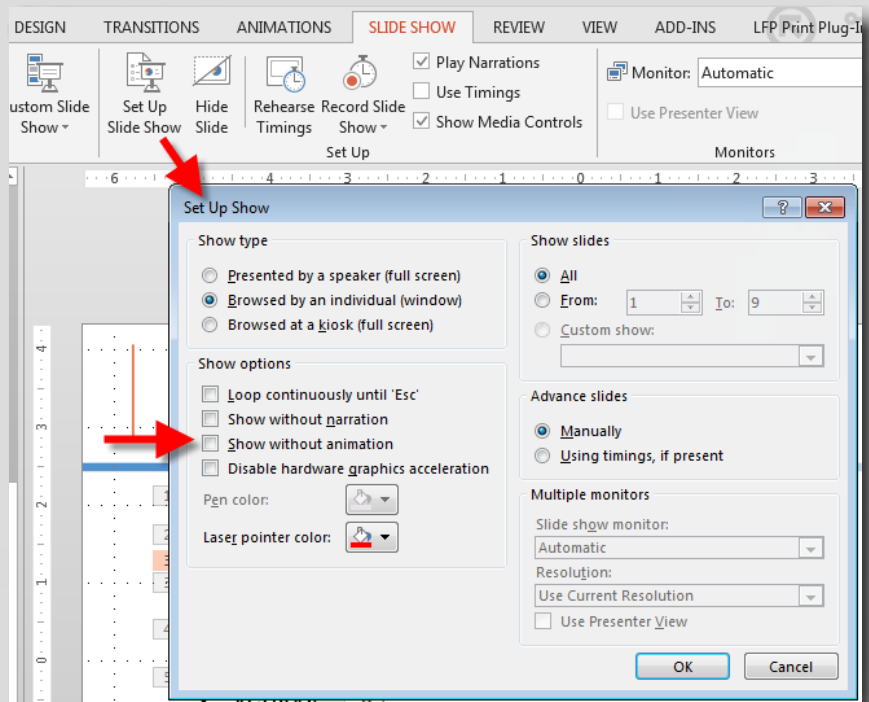
There are four different types of animation effects available in PowerPoint:

- **Entrance** effects control how an object initially appears on the slide. For example, an object can gradually fade into focus, fly onto the slide from an edge, or bounce into view.
- **Exit** effects control how an object disappears from the slide. For example, an object can fly off the slide, disappear from view, or spiral off the slide.
- **Emphasis** effects can be used to call attention to an object once it has initially appeared. For example, an object can shrink or grow in size, change color, or spin on its center.
- **Motion Paths** can be used to make an object move up or down, left or right, move in a star or circular pattern, and so on. You can also draw your own motion paths.

You can use any animation by itself or combine multiple effects together. For instance, you can apply an **Entrance > Fade** effect to make each item in a bullet list appear in sequence. To make the previous item in a bullet list appear lighter when the next item in the list appears, you can add an **Emphasis > Transparency** effect to the previous item as the new item appears. And to make one image disappear when a new image appears, you can add an **Exit > Fade** effect to the previous image when the new one appears.

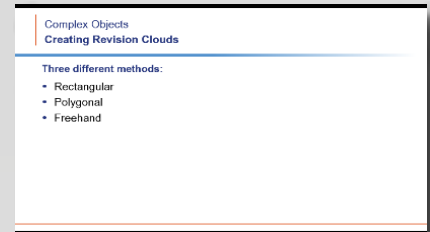
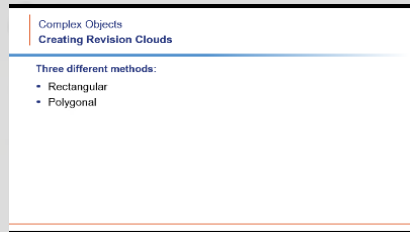
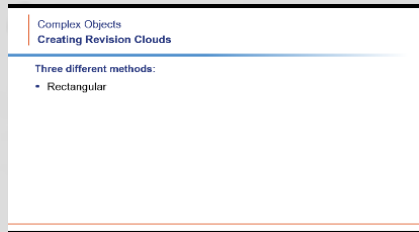
Although PowerPoint provides many different animation effects, you should use them sparingly. For most CADLearning presentations, you should limit animation effects to just the three described in the previous paragraph.

**IMPORTANT:** To make sure that animations play when you present and record your slide show, make sure that when you select **Slide show > Set Up Slide Show**, the **Show without animation** option is cleared. If this box is selected, animations will show when you preview your slide show, but not when you present or record it.



## Applying an Animation Effect to Individual Elements

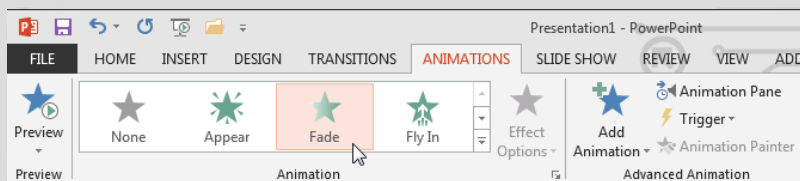
Many PowerPoint presentations include slides consisting of a list that appears during the narration. Instead of displaying the entire list at once, you can make your presentation more interesting by having each item in the list appear one at a time. This is sometimes referred to as a *build*.



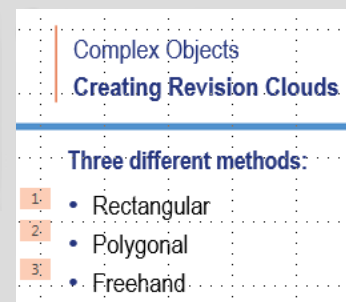
This type of animation is quite easy to create, using tools on the Animations ribbon. First, create the entire bullet list as you normally would.

### To animate the list by picking the text box:

1. In the PowerPoint slide, select the text box containing the bullet list.
2. On the **Animations** ribbon, in the **Animation** panel, select **Fade**.



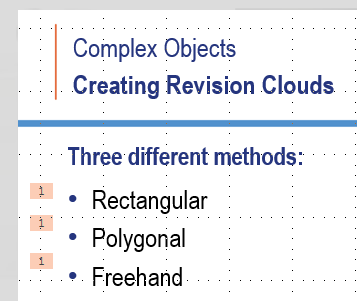
This adds an Entrance > Fade animation to each element in the bullet list. In the slide, you can see the numbers **1**, **2**, and **3** in small boxes adjacent to each bullet item. When you play the animation, each item in the list appears individually when you click.



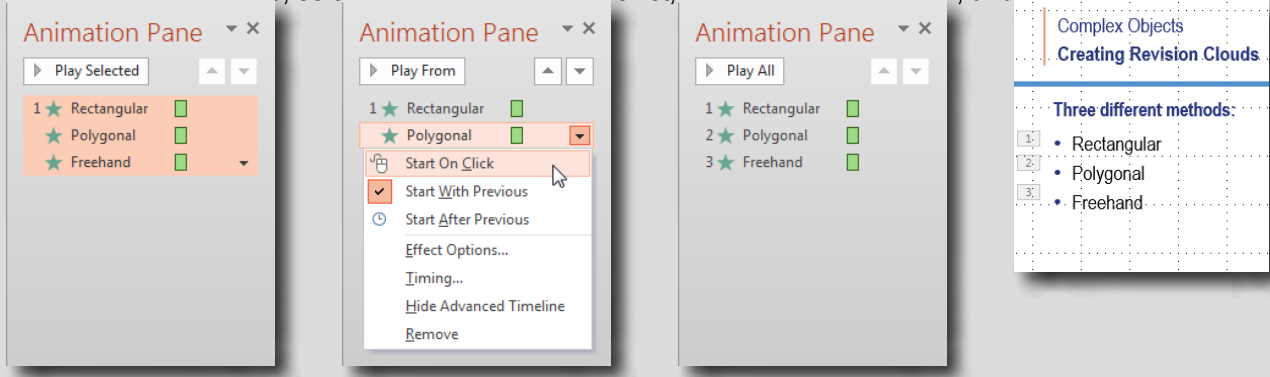
If you had selected the individual lines of text within the text box rather than selecting the text box itself, the result would have been much different.

### To animate individual elements:

1. In the PowerPoint slide, in the text box, select the items in the bullet list.
2. On the **Animations** ribbon, in the **Animation** panel, select **Fade**. This time, this adds a single Entrance > Fade animation to all of the elements in the bullet list. In the slide, you can see the number **1** adjacent to each bullet item. If you were to play the animation now, all of the bullet items would appear at the same time.



- On the **Animations** ribbon, in the **Advanced Animation** panel, select **Animation Pane** to open the Animation Pane. Here, you can see that all three bullet list items are currently assigned the same animation.
- In the **Animation Pane**, select the second item in the list, click the adjacent arrow, and select **Start on**



**Click.** As soon as you do, the number **2** appears adjacent to the second item in the list in both the Animation Pane and in the bullet list in the PowerPoint slide.

- Repeat step 4 for each successive item in the list.

Once you have made this change for each item in the list, each will have its own number, indicating that each is a separate animation. You can click **Play All** to preview the animation. When you present or record your slide show, each bullet item will appear in sequence when you click the mouse.

You can change the order of the animations by using tools in the Animation Pane. You can use drag-and-drop to change the order, or you can select an animation and then move it up or down in the list. To do so, click the arrows in the upper-right of the Animation Pane or the **Move to Earlier** and **Move to Later** buttons in the **Timing** panel.

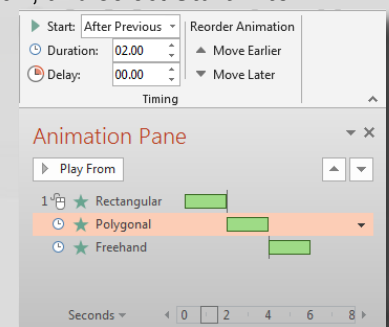
Also be aware that when you select an animation number in the PowerPoint slide, its associated animation is selected in the Animation Pane. Conversely, when you select an animation in the Animation Pane, its associated animation number is selected in the PowerPoint slide.

If you prefer, rather than having to click to cause each item in the list to appear, you can change each successive animation so that it starts after the previous animation, and then adjust the Duration of each animation.

For example, to change the bullet list in the previous example so that the first item in the list appears when you click, and then each successive item appears 2 seconds after the previous item (without any additional clicking on your part):

- In the **Animation Pane**, select the second item in the list, click the adjacent arrow, and select **Start After Previous**.
- On the **Animations** ribbon, in the **Timing** panel, change the **Duration** to **2.00**.
- Repeat these steps for each successive item in the list.

Once you have made this change, only the first item in the list is assigned an animation number, so only that first item needs to be triggered by clicking. Each successive item in the list will appear 2 seconds after the previous item. You can easily adjust the delay between each item in the list by changing the Duration value.



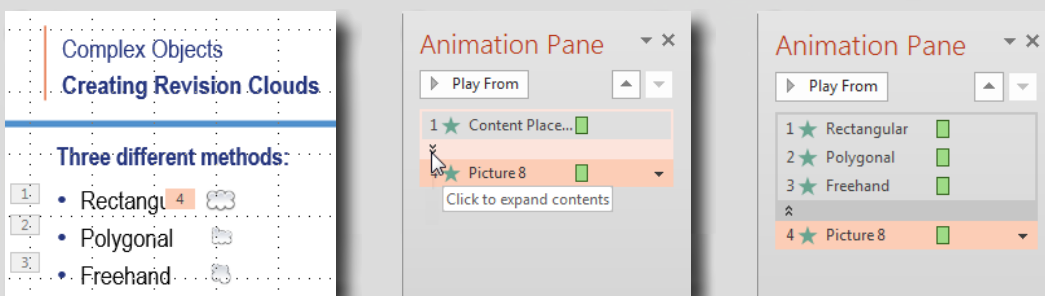
## Applying an Animation Effect to Multiple Objects

While it is relatively easy to apply animation effects to individual objects, either all at once or one at a time, it takes a bit more effort to apply a single animation effect to multiple objects. For example, suppose you have a bullet list with an image associated with each item in the list and you want both the bullet text and the image to appear in the list, one at a time.

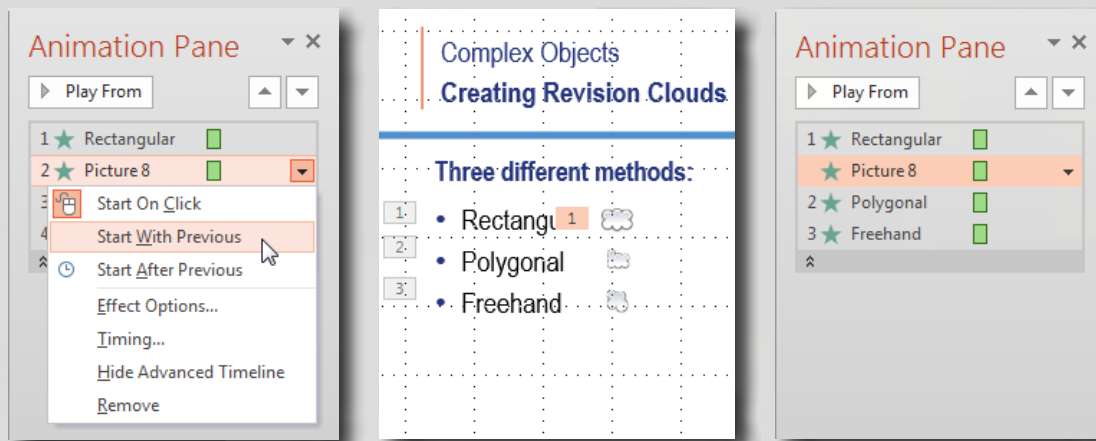
This type of animation takes a bit more effort, since you must reorganize multiple animations within the Animation Pane. First, create the entire bullet list and add the images to the PowerPoint slide.

### To animate multiple objects:

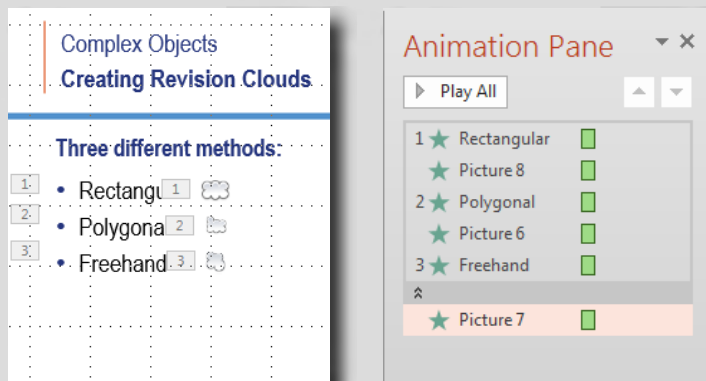
1. In the PowerPoint slide, select the text box containing the bullet list.
2. On the **Animations** ribbon, in the **Animation** panel, select **Fade**.  
This adds an Entrance > Fade animation to each element in the bullet list. In the slide, you can see the numbers 1, 2, and 3 in small boxes adjacent to each bullet item. But no animation has been applied to the images. When you play the animation, the images are always visible but each item in the list appears individually when you click.
3. Select the image adjacent to the first item in the bullet list.
4. On the **Animations** ribbon, in the **Animation** panel, select **Fade**.  
Now the number 4 appears adjacent to the first image. If you were to play the animation now, each item in the list would appear individually when you click, and then the first image would appear.



5. On the **Animations** ribbon, in the **Advanced Animation** panel, select **Animation Pane** to open the **Animation Pane**. If necessary, click the arrow below animation 1 to expand the list of animations assigned to the bullet list. Here, you can see the order in which the animations will occur.
6. In the **Animation Pane**, select animation number 4 (shown here as Picture8) and move it up to position 2. (To change the order, you can use drag-and-drop, the arrows in the Animation Pane, or the **Move Earlier** and **Move Later** tools.) If you were to play the animation now, the first bullet item would appear, then the image, and then the second bullet item.
7. In the **Animation Pane**, click the arrow adjacent to animation number 2 (Picture8) and select **Start With Previous**. As soon as you do, in the PowerPoint slide, the number 1 appears adjacent to both the first bullet item and its adjacent image. And in the Animation Pane, Picture8 now appears slightly indented below the first bullet item. If you were to play the animation now, both the first bullet item and the adjacent image would appear simultaneously.



8. Repeat steps 3-7 for the remaining images.



After completing these steps, in the PowerPoint slide, you can see that each image has the same number as its adjacent bullet item. And in the Animation Pane, you can see that none of the pictures have numbers, but instead, they appear below each of the associated bullet items. You can click **Play All** to preview the animation. When you present or record your slide show, each bullet item and its adjacent image will appear in sequence when you click the mouse.

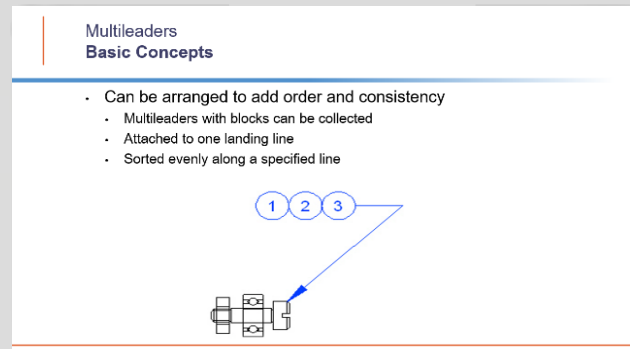
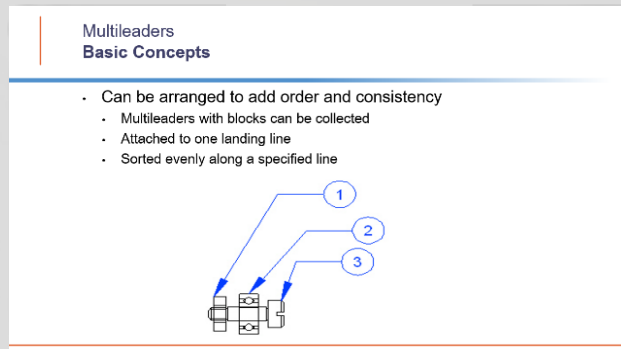
As you have seen, when working in the Animation Pane, you can select any animation and change its order within the list and how it behaves. There are three settings:

- **Start On Click** assigns a specific animation number to the element, and you must click to trigger that animation.
- **Start With Previous** assigns the same animation number to the element as the previous element in the list and causes that element to appear simultaneously with the previous element.
- **Start After Previous** assigns the same animation number to the element as the previous element in the list, but causes the element to appear after the previous element. The delay before the element appears is determined by the Duration assigned to the previous element.



## Applying Multiple Animation Effects to One Object

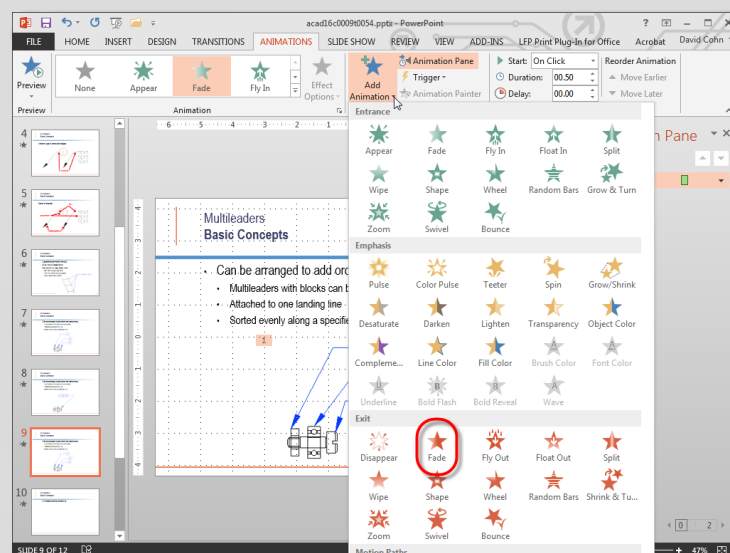
You can apply multiple animation effects to a single string of text or an object, such as a picture or shape. For example, you can apply an entrance animation effect to cause a picture to appear, and an exit animation effect to cause that picture to disappear before a new picture appears in its place.



While you could certainly create two separate slides and simply place one image on one slide and the second image on the other (and that method is a completely acceptable), this may not always be practical. Instead, you can place both images on the same slide and simply make the first image disappear before the second image appears.

### To apply multiple animation effects to one object:

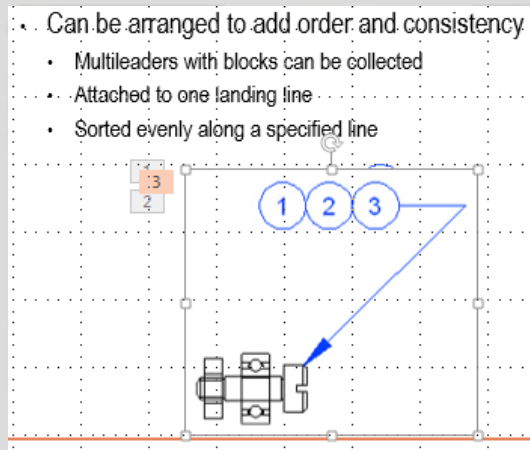
1. In the PowerPoint slide, select the object (in this case, the first image) that you want to animate.
2. On the **Animations** ribbon, in the **Animation** panel, select **Fade**.  
This adds an Entrance > Fade animation to the first image. In the slide, you can see the number 1 adjacent to the image.
3. To apply a second animation to the same object, on the **Animations** ribbon, in the **Advanced Animation** panel, expand **Add Animation** and select another animation effect. In this case, under **Exit**, select **Fade**. This adds an Exit > Fade animation to the first image.





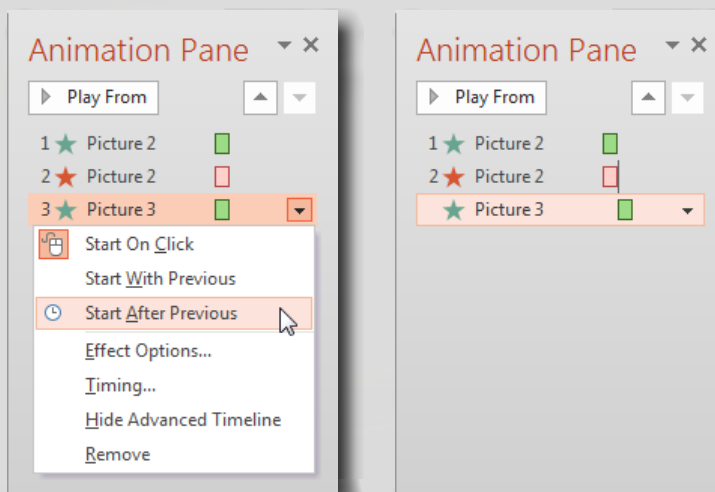
Now, the picture will appear the first time you click and disappear when you click again. At this point, you can add an Entrance > Fade animation to the second image.

4. In the PowerPoint slide, select the second image.
5. On the **Animations** ribbon, in the **Animation** panel, select **Fade**.  
Now you can see the number **3** adjacent to the second image.



If you were to play the animation now, you would have to click once to make the first image appear, click again to make it disappear, and click a third time to make the second image appear. But it probably makes more sense to have the second image appear as soon as the first image disappears.

6. In the **Animation Pane**, select animation **3**, click the adjacent arrow, and select **Start After Previous**.



Now, when you play the animation, the first time you click, the first image appears. When you click a second time, the first image disappears and then the second image appears.

The Duration of animation 2 (the exit of the first image) determines the delay before the second image appears. If you prefer to have the second image appear simultaneous with the disappearance of the first image, you could change the animation to **Start With Previous**.

**IMPORTANT:** After applying the first animation effect, if you try to add more animation effects by any method other than clicking **Add Animation**, you will not apply an *additional* effect. Instead, you will replace the existing effect with the one you are adding.

**FINAL NOTE:** There are many other tools you can use to control and modify individual animations. This document is not meant to provide all-inclusive instructions about how to use PowerPoint. You should refer to other PowerPoint training materials for more extensive training.

Questions? Contact [support@cadlearning.com](mailto:support@cadlearning.com).