# Ready for widescreen? How to manage aspect ratios in PowerPoint (16:9 vs. 4:3) 

by Holly Thomas on June 23

Widescreen, with its 16:9 aspect ratio, is taking over video screens faster than Godzilla in a scale model city. And that's a good thing, with PowerPoint. As the name implies, widescreen brings wider, more beautiful images onto your TV and computer screens. So why does your PowerPoint presentation suddenly look terrible? Possibly because you copied slides that contain graphics between one presentation created in 16:9 and another created in 4:3.

While you can copy slides without graphics or logos from one presentation into another without a hitch, sometimes when you reuse slides that have art, you can get unexpected results, such as stretched or distorted graphics.

This occurs when the templates for the original presentation and the destination presentation use different aspect ratios (aspect ratio: The ratio between picture width and picture height. This ratio can be maintained even when resizing a picture.) Most templates use either a $4: 3$ or 16:9 aspect ratio.

Big-screen presentations, such as major keynote addresses at conferences, often use templates with a 16:9 aspect ratio. The dimensions of templates with a $16: 9$ aspect ratio vary depending on the screen-projection requirements, but they are almost twice as wide as they are tall.


Here are five tips for moving slides and graphics between presentations that use the 4:3 and 16:9 aspect ratios. The information below is fairly long, but we think you'll find it quite helpful.

## 1. Enter text on shapes and graphics by using an Office program

Text entered by using PowerPoint is resized proportionally, even if the shapes or graphics containing the text are stretched. The text will not be distorted when you copy it from one template to another, although the text might wrap differently within the shapes.

## 2. Restore the original dimensions for a graphic

You can "fix" a distorted graphic by resetting it to its original dimensions. Simply double-click the graphic and then on the Format tab on the ribbon menu, in the Adjust group (in PowerPoint 2010) or the Picture Tools group (in PowerPoint 2007), click Reset Picture. (Or follow this link if you're working with aspect ratios in PowerPoint 2003.)

## 3. Move slides and graphics by copying and pasting

You can avoid distorting graphics by copying them from one slide to the Clipboard, and then pasting them into the destination presentation that uses the different aspect ratio.

1. Click the graphic in the original presentation to select it.
2. On the Home tab, in the Clipboard group, click Copy or press CTRL+C.
3. Switch to the slide in the second presentation or template, click the distorted graphic, and then press DELETE.
4. On the Home tab, in the Clipboard group, click Paste or press CTRL+V.

If you have a large number of slides to move, you might want to paste all the slides into the destination presentation (letting the graphics distort), and then go back slide-by-slide and copy and paste the graphics individually (after deleting the distorted ones). You might find, however, that after pasting the graphics they are still either too large or too small. To fix this, you can resize your original template before copying the graphics (see the next tip).

## 4. Resize your original template

Suppose that you want to copy a graphic from a template that uses a 4:3 aspect ratio into a template that uses a 16:9 aspect ratio. If you want the graphic to appear the same height in the 16:9 template, change the height of the $4: 3$ template to match the 16:9. If the $4: 3$ template has a width of 10 inches and a height of 7.5 inches, and the $16: 9$ template that you want to copy into has a width of 16 inches and a height of 9 inches, you can use the Dimensions proportional to $4: 3$ table later in this article to determine that a new height of 9 inches in a $4: 3$ template would have a corresponding width of 12 inches.

So in the Page Setup dialog box (located on the Design tab, in the Page Setup group), you would change the Width to 12 inches and the Height to 9 inches in the $4: 3$ template. You won't see a change because it is still $4: 3$ proportional, just scaled up. But when you copy the graphic from the resized $4: 3$ template into the 16:9 template, it will be the same height as it appears in the $4: 3$ template. If you want a graphic to appear the same width, resize your original template to match the width of the destination template.

Note If you have a precise height or width that you must match, you might need to calculate the corresponding width or height yourself. If the height will remain the same, calculate the width for the $4: 3$ template. Remember, you want the ratio of 4.3 width (or height) to be the same for the 16.9 width (or height). Thus, the formula to calculate the new width for $4: 3=(16: 9$ width $\times 4: 3$ height $) / 16: 9$ height.

Copy a graphic while maintaining the height

1. Click the graphic to select it.
2. On the Design tab, in the Page Setup group, click Page Setup.
3. In the Height box, enter the number that you want to keep the same.
4. In the Width list, enter the number that you want to change to.

Use the following tables to determine the new width.

Copy a graphic while maintaining the width

1. Click the graphic to select it.
2. On the Design tab, in the Page Setup group, click Page Setup.
3. In the Width box, enter the number that you want to keep the same.
4. In the Height box, enter the number that you want to change to.

Use the following tables to determine the new height.

## 5. Aspect ratio conversion tables

This is actually a very simple concept, but it's a bit tricky to explain without sounding very technical. So if you are a bit confused, here's another way to think about this.

The tables below provide width and height dimensions for $4: 3$ and $16: 9$ aspect ratio templates. So for instance, in PowerPoint, you can set the page dimensions for a $4: 3$ template to 4 " $w \times 3$ " $h$, or $8 " w \times 6 " \mathrm{~h}$ or $10 " w \times 7.5$ " high. These are all $4: 3$ aspect ratios. (You change the page dimensions on the Design menu, under Page Setup.)

The standard size for a $4: 3$ template is $10 " w \times 7.5$ " h . If you read the section above "Resize Your Original Template", it described how you can copy and paste a graphic (not a slide, but just the graphic or all the graphics on the slide by marqueeing them, and choosing Copy) from a $4: 3$ template into a $16: 9$ template, or vice versa. Copying and pasting the graphic or graphics is a workaround to avoid distorting them. But if the graphic you pasted drops into your target presentation too large or too small, sometimes, you can't easily resize it. For instance, even if you first group it, text won't scale down with the graphic, and you may end up with a mess.

The workaround is to go back to the 4:3 template and first resize the template so it is larger or smaller as needed. Use the tables below to find a larger or smaller page size that is still proportional. For example, if your template is standard $4: 3,10 " \mathrm{w} \times 7.5^{\prime \prime} \mathrm{h}$, and the graphic you copied and pasted from it into the $16: 9$ template was a little too large, go back and change your $4: 3$ template to 8 " $w \times 6$ " h . Then copy and paste the same graphic/s into the $16: 9$ template and this time they will drop in about $20 \%$ smaller.

So the idea is, scale the PowerPoint file up or down, then copy the graphics, then go to the second PowerPoint file and paste. If the graphics aren't the right size and aren't easy to resize in your target file, go back to the first file, resize the page, copy and paste again. Got it?

| $\begin{gathered} 4: 3 \\ \text { dimensions } \end{gathered}$ | in inches | $16: 9$ dimensions | in inches |
| :---: | :---: | :---: | :---: |
| Width | Height | Width | Height |
| 1 | 0.75 | 1 | 0.5625 |
| 2 | 1.50 | 2 | 1.1250 |
| 3 | 2.25 | 3 | 1.6875 |
| 4 | 3.00 | 4 | 2.2500 |
| 5 | 3.75 | 5 | 2.8125 |
| 6 | 4.50 | 6 | 3.3750 |
| 7 | 5.25 | 7 | 3.9375 |
| 8 | 6.00 | 8 | 4.5000 |
| 9 | 6.75 | 9 | 5.0625 |
| 10 | 7.50 | 10 | 5.6250 |
| 11 | 8.25 | 11 | 6.1875 |
| 12 | 9.00 | 12 | 6.7500 |
| 13 | 9.75 | 13 | 7.3125 |


| 14 | 10.50 |  | 14 | 7.8750 |
| :---: | :---: | :---: | :---: | :---: |
| 15 | 11.25 |  | 15 | 8.4375 |
| 16 | 12.00 |  | 16 | 9.0000 |
| 17 | 12.75 |  | 17 | 9.5625 |
| 18 | 13.50 |  | 18 | 10.1250 |
| 19 | 14.25 |  | 19 | 10.6875 |
| 20 | 15.00 |  | 20 | 11.2500 |
| 21 | 15.75 |  | 21 | 11.8125 |
| 22 | 16.50 |  | 22 | 12.3750 |

Honest, the steps can take some getting used to, but once you've done it once or twice it's not that hard. Any questions? You can also download a wide variety of widescreen PowerPoint templates from the templates collection at Office.com.
--Erik Jensen and Mary Feil-Jacobs
Erik writes about PowerPoint and other Office products for Office.com. Mary manages presentations for senior executives.
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