

Paper or Cloud? Printing and Uploading Your Work

IN THIS CHAPTER

- » Printing views of your model
 - » Figuring out the printing dialog boxes
 - » Printing to scale
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-

You live at a time in history when it is often necessary to inscribe an image of your design onto dried and bleached wood pulp, and then, in a few seconds, send that same design, in the form of ones and zeros, thousands of miles to a series of data centers, where it's available in its entirety to anyone with an Internet connection.

Printing on paper and uploading to the cloud may seem like diametric opposites, but they're really just points on the same continuum of sharing.

In the first part of this chapter, you learn how to print views of your SketchUp model. Because the Windows and Mac versions of this procedure are so different, each operating system has its own section.

The second part of this chapter is dedicated to the SketchUp 3D Warehouse. It's a giant online repository of models made (mostly) by everyday SketchUp modelers. Uploading your own creations to the 3D Warehouse is useful for sharing and archiving your work.

Printing Your Work

As much as everyone likes to pretend that we live in an all-digital world, the truth is that we don't. Some clients simply prefer looking at printouts. Aidan loves having a printout to stick to the wall. Rebecca likes to brainstorm and sketch out potential changes on a printout, as a way of developing a roadmap for the changes she really wants to make before further changing a digital file.



TIP If you're using the Pro version of SketchUp, you can always use LayOut to print views of your models. Making both scaled and nonscaled prints is easier in LayOut than in SketchUp; take a look at [Chapter 14](#) for all the juicy details.

Printing from a Windows computer

Printing from SketchUp is easy, as long as you're not trying to do anything too complicated. By complicated, we mean printing to a particular scale, which can be a harrowing experience the first couple times you attempt it. Fortunately, printing to scale is something most people almost never have to do, so we save the instructions for how to do it for the end of this section.

Making a basic print (Windows)

Most of the time, all you need to do is print exactly what you see on your screen. Follow these steps to do that:

1. **Make sure that the view you want to print appears in your modeling window.**

Unless you're printing to scale, SketchUp prints exactly what you see in your modeling window.

2. **Choose File ⇒ Print Setup.**

The Print Setup dialog box opens, which is where you choose what printer and paper you want to use.

3. **In the Print Setup dialog box shown in [Figure 12-1](#), do the following:**

- a. *Choose the printer you want to use.*
- b. *Choose a paper size for your print.*
- c. *Choose an orientation for your print; most of the time, you want to use Landscape because your screen is usually wider than it is tall.*

4. **Click OK to close the Print Setup dialog box.**

5. **Choose File ⇒ Print Preview.**



TIP The Print Preview dialog box opens. Print Preview lets you see an image of what your print will look like before you send it to a printer. Lots of trees thank you for saving paper by using Print Preview every time you print.

6. In the Print Preview dialog box, do the following:

- a. *In the Tabbed Scene Print Range area, choose which scenes you want to print, if you have more than one.*

If you need to, you can read all about scenes in [Chapter 11](#).

- b. *Tell SketchUp how many copies of each scene you need.*
- c. *Make sure that the Fit to Page check box is selected.*
- d. *Make sure that the Use Model Extents check box isn't selected.*
- e. *Choose a print quality for your printout.*

We recommend High Definition for most jobs.



TIP For a complete description of all the knobs and doohickeys in the Print Preview and Print dialog boxes, have a look at the next section in this chapter.

7. Click OK.

The Print Preview dialog box closes, and you get an on-screen preview of what your print will look like.

8. If you like what you see, click the Print button in the upper-left corner of the Print Preview window to open the Print dialog box.

If you *don't* like what you're about to print, click the Close button (at the top of the screen) and go back to Step 1.

9. In the Print dialog box (which should look exactly like the Print Preview dialog box), click OK.

Your print job goes to the printer.

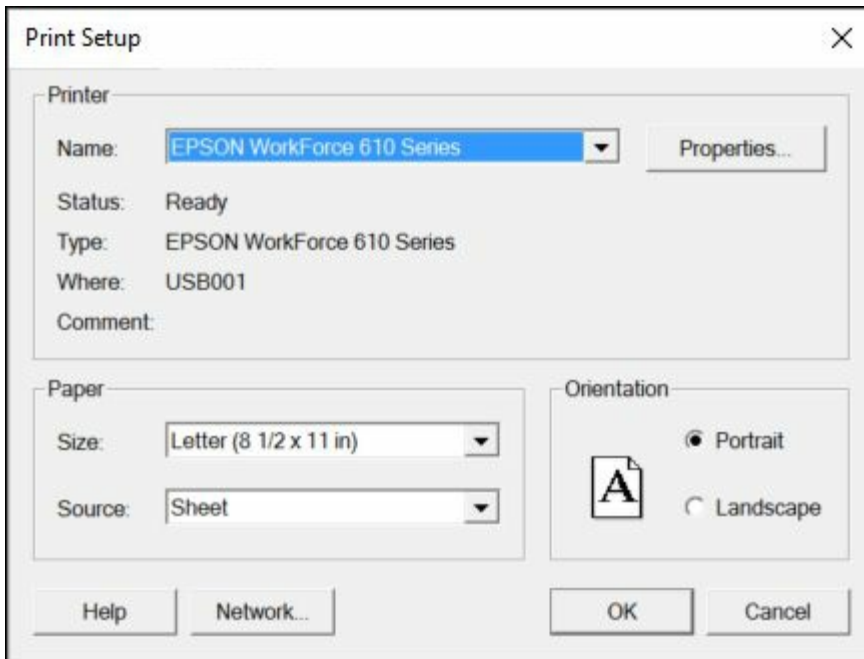


FIGURE 12-1: The Print Setup dialog box in Windows.

Decoding the Print Preview and Windows Print dialog box

Three cheers for simplicity! The Print Preview and Print dialog boxes in SketchUp are exactly the same. [Figure 12-2](#) shows the former because that's the one we advocate using first every time, but the descriptions in this section apply to both.

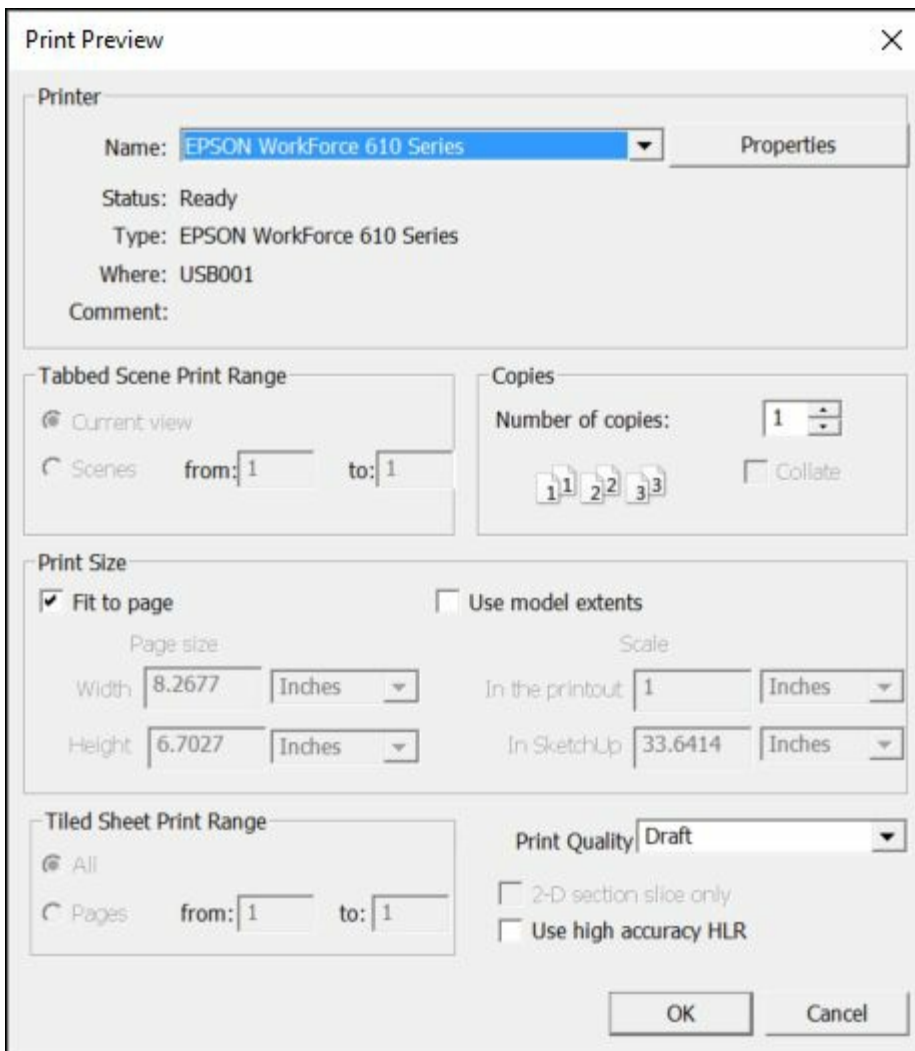


FIGURE 12-2: The Print Preview dialog box in Windows. The Print dialog box looks exactly the same.

PRINTER

If you used the Print Setup dialog box first, you shouldn't need to change the settings in this section. If you want, from the drop-down list, you can choose which printer to use. If you know something about printers, you can even click the Properties button to make adjustments to your printer settings. (Because settings are different for every printer on Earth, that's between you and your printer's user manual.)

TABBED SCENE PRINT RANGE

Use this area to tell SketchUp which of your scenes you want to print, if you have more than one. This option is really handy for quickly printing all your scenes. Select the Current View option to print only whatever's currently in your modeling window.

COPIES

This one's pretty basic: Choose how many copies of each view you want to print. If you're printing multiple copies of multiple scenes, select the Collate check box to print *packets*, which can save you

from assembling them yourself. Here's what happens when you print three copies of four scenes:

- » Selecting the Collate check box prints the pages in the following order: 123412341234.
- » Deselecting the Collate check box prints the pages like this: 111222333444.

PRINT SIZE

This is, by far, the most complicated part of this dialog box; Print Size controls how your model will look on the printed page. [Figure 12-3](#) shows the effect of some of these settings on a final print.

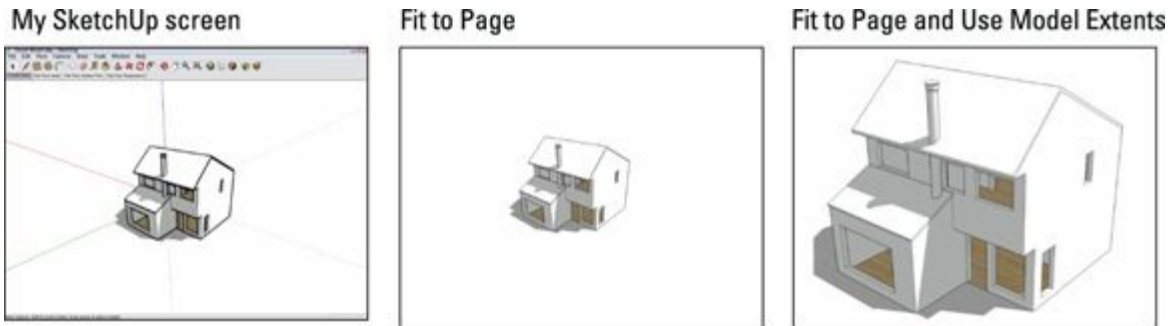


FIGURE 12-3: Different Print Size settings applied to the same view in SketchUp.

The Print Size controls are as follows:

- » **Fit to Page:** Selecting this check box tells SketchUp to make your printed page look like your modeling window. As long as the Use Model Extents check box isn't selected, you can see exactly what you see on your screen — no more, no less.
- » **Use Model Extents:** This option tells SketchUp to zoom in to make your model (excluding your sky, ground, watermark, and whatever else may be visible on your screen) fit the printed page. If we want this effect, we prefer to choose Camera ⇒ Zoom Extents from the menu bar before printing a model. Doing so ensures we know exactly what we're getting.
- » **Page Size:** As long as you don't have the Fit to Page check box selected, you can manually enter a page size using these controls. If you type a width or height, SketchUp figures out the other dimension and pretends it's printing on a different-sized piece of paper.



TIP The Page Size option is especially useful if you want to make a big print by tiling together lots of smaller pages. See the next section in this chapter, "[Tiled Sheet Print Range](#)," for more details.



- » **REMEMBER Scale:** Here's where printing gets a little complicated. To print to scale, you must do two things before you go anywhere near the Print or Print Preview dialog boxes:

- Switch to Parallel Projection mode.
- Make sure that you're using one of the Standard views.

Take a look at the section “[Printing to scale \(Windows and Mac\)](#),” later in this chapter, for a complete rundown on printing to scale in SketchUp.

TILED SHEET PRINT RANGE

Perhaps you're printing at a scale that won't fit on a single page, or you've entered a print size that's bigger than the paper size you chose in the Print Setup dialog box. The Tiled Sheet Print Range area lets you print your image on multiple sheets and then attach them together later. You can get posters from your small-format printer!

PRINT QUALITY

To be honest, selecting a print quality for your image involves a little trial and error. What you get with each setting depends a lot on your model, so try a couple different settings if you have time.

- » Draft and Standard are really only useful for checking how your model appears on the printed page.
- » For a finished-looking print, try High Definition first and then bump up to Ultra High Definition if your computer/printer setup can handle it.

OTHER SETTINGS

You can control the following odds-and-ends settings in the Print Preview dialog box, too:

- » **2-D Section Slice Only:** If you have a visible section cut in your model view, selecting this check box tells SketchUp to print only the section cut edges. [Figure 12-4](#) shows what the same model view would look like without (on the left) and with (right) this option selected. You can use this option to produce simple plan and section views.
- » **Use High Accuracy HLR:** The bad news is that we have no idea what HLR stands for. The good news is that it doesn't really matter. Selecting this check box tells SketchUp to send *vector* information to the printer instead of the usual *raster* data. (Check out [Chapter 14](#) for a description of what these terms mean.) Why should you care? Vector lines look much smoother and cleaner when printed, so your whole model will look better — with one condition: *Gradients* (those nice, smooth shadows on rounded surfaces) don't print well as vectors. If you have a lot of rounded or curvy surfaces in your model view, you probably don't want to choose this option. Try to print both ways and choose the one that looks better. Thank goodness for Print Preview, huh?



TIP

If your model view includes a Sketchy Edges style, don't use high accuracy HLR; you won't see any of the nice, sketchy effects in your final print.

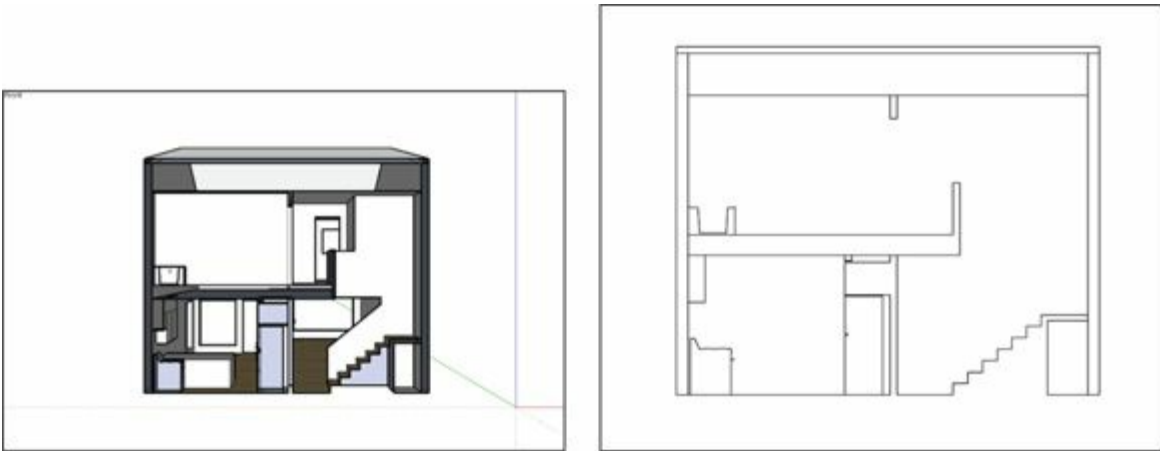


FIGURE 12-4: Printing only the 2D section slice yields a simple drawing that's easy to sketch over.

Printing from a Mac

If you're using a Mac, the printing story is a little simpler than it is for folks who use Windows computers — but only by a little. The first part of the following sections lays out a procedure for generating a simple, straightforward print of what you see in your modeling window.

The second part can be called “Gross anatomy of the Mac dialog boxes.” In these sections, we explain what each and every setting does.

Making a basic print (Mac)

Follow these steps to print exactly what you see in your modeling window on a Mac:

1. **Make sure that your modeling window contains whatever you want to print.**

SketchUp prints exactly what you see in your modeling window, unless of course you're printing to scale. Because printing to scale is complicated, the topic has its own section later in this chapter.

2. **Choose File ⇒ Page Setup.**

The Page Setup dialog box opens, where you decide what printer and paper size to use.

3. **In the Page Setup dialog box shown in Figure [12-5](#), do the following:**

- a. *Choose the printer you want to use from the Format For drop-down list.*
- b. *Choose a paper size for your print.*
- c. *Choose an orientation for your print.*

Landscape is the most common choice, because SketchUp's modeling window is usually wider than it is tall.

4. **Click OK to close the Page Setup dialog box.**

5. **Choose File ⇒ Document Setup.**

The Document Setup dialog box opens.

6. In the Document Setup dialog box, make sure that the **Fit View to Page** check box is selected.

Check out the next section in this chapter for a full description of what everything does.

7. Click **OK** to close the Document Setup dialog box.

8. Choose **File ⇒ Print** to open the Print dialog box.

In the Print dialog box, you see an on-screen preview of what your print will look like on paper.

9. If the preview suits you, click the **Print** button to send your print job to the printer.

If you're not happy with the preview, click the Cancel button and start again at Step 1. Isn't printing fun?

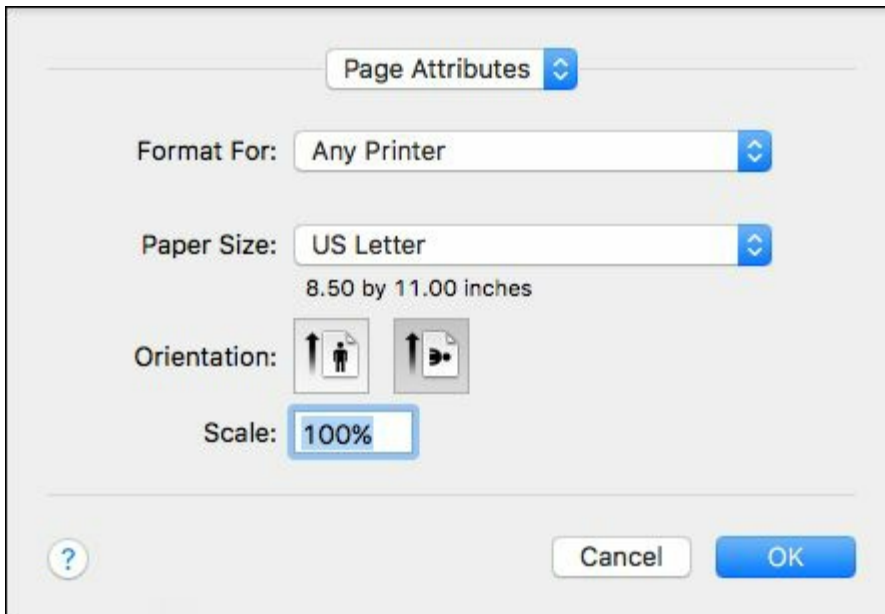


FIGURE 12-5: The Page Setup dialog box on a Mac lets you select a printer, a paper size, and a page orientation.

The Document Setup dialog box

You use the settings in the Document Setup dialog box shown in [Figure 12-6](#) to control how big your model prints. Here's what everything does:

» **Print Size:** This one's pretty self-explanatory, but here are some details just in case:

- *Fit View to Page:* Select this check box to tell SketchUp to make your printed page look just like your modeling window on-screen. It's really that simple.



- **TIP** *Width and Height:* If the Fit View to Page check box is deselected, you can type either a width or a height for your final print. This is the way to go if you want to

print a tiled poster out of several sheets of paper; just enter a final size, and you'll have a poster in no time flat.

- » **Print Scale:** Use these settings to control the scale of your printed drawing, if that's the kind of print you're trying to make. Because printing to scale is a bit of an ordeal, we devote the last section of this chapter to the topic. See that section for a description of what these settings do.
- » **Pages Required:** This is really just a readout of how many pages you need to print. If you have selected the Fit View to Page check box, this is 1. If your print doesn't fit on one sheet, it's tiled onto the number of sheets displayed in this section of the dialog box.

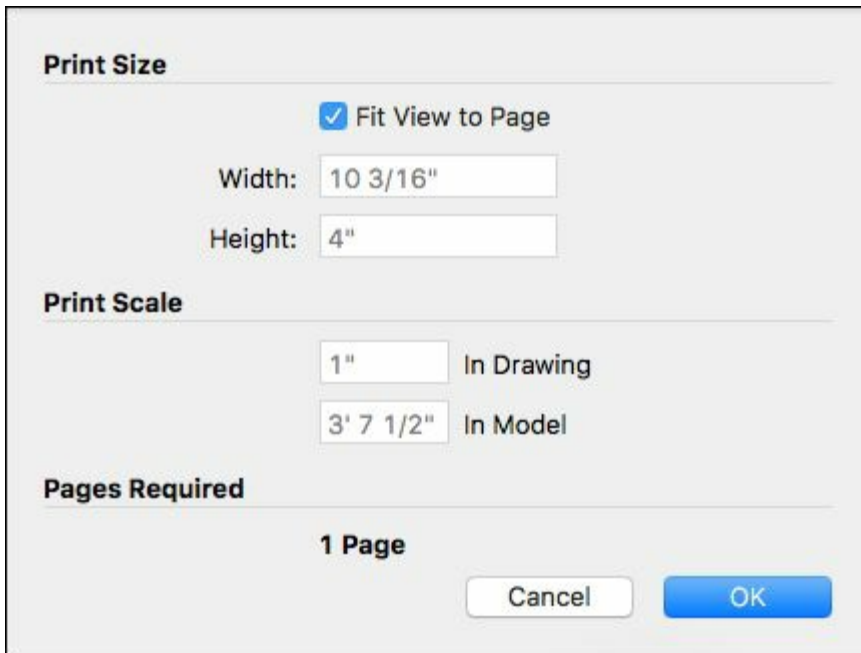


FIGURE 12-6: The Mac Document Setup dialog box.

The Print dialog box

The Print dialog box on the Mac is something of a many-headed beast; several panels are hidden underneath the SketchUp drop-down list. Luckily, you don't need to adjust those options unless you're managing color or other printing technicalities that are beyond the scope of this book. The options on the SketchUp panel, shown in [Figure 12-7](#), are described in the following list:

- » **Copies:** Tell SketchUp how many copies you'd like to print.
- » **Pages:** If the Pages Required readout at the bottom of the Document Setup dialog box (refer to [Figure 12-6](#)) said that you need more than one sheet to print your image, you can choose to print all or some of those pages right here.
- » **Print Quality:** This setting may require some trial and error, because each printer handles the quality setting in its own way. To start, try the High setting and adjust from there. In general, Draft or Standard is only good for checking how the page will look. If you have time, try both High and Extra High and see which one looks the best.

» **Vector Printing:** When you select this check box, SketchUp sends *vector* (instead of *raster*) information to the printer. Have a look at [Chapter 14](#) for a description of these terms.



REMEMBER The upshot here is that vector printing makes edges look much smoother and cleaner but does a lousy job on *gradients* (the shadows on your curved surfaces). Use vector printing if your model view is made up of mostly flat faces, but try printing both ways (with vector printing on and off) to see which looks better.



TIP If your model view includes a Sketchy Edges style, don't select Vector Printing; you won't see any of the nice, sketchy effects in your final print.

» **Line Weight:** This option works only if you've selected the Vector Printing check box. The number in this box represents the thickness of edges in your print; any edges that are 1-pixel thick in your model view will be drawn with a line as thick as what you choose for this option. The default is 0.50 points, but feel free to experiment to see what looks best for your model.

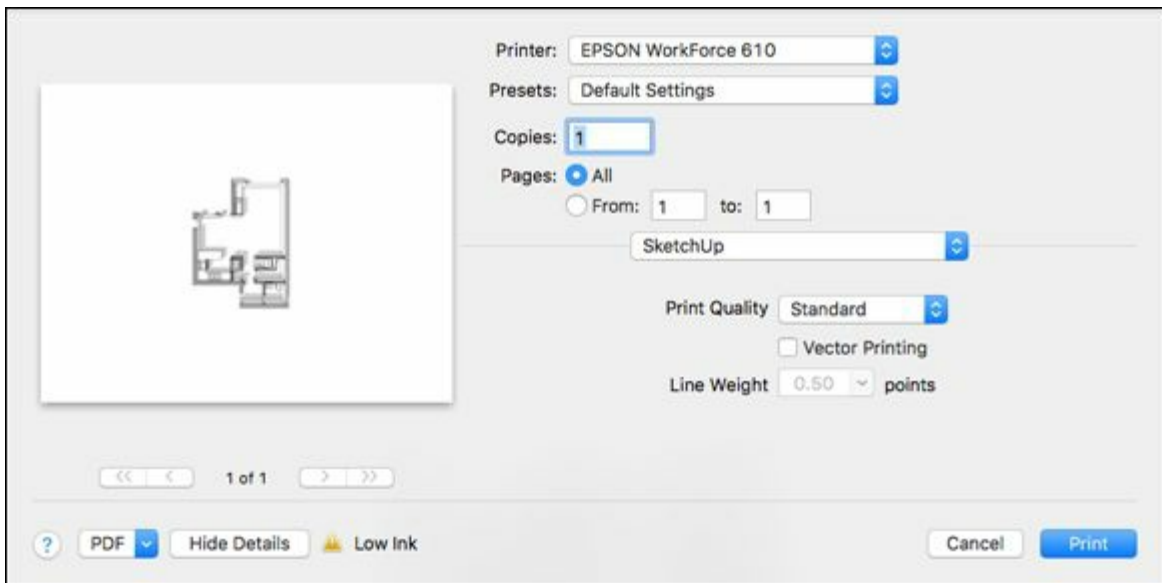


FIGURE 12-7: The SketchUp panel of the Print dialog box.

Printing to a particular scale

Here's where printing gets interesting. Sometimes, instead of printing exactly what you see on your screen so that it fits on a sheet of paper, you may need to print a drawing *to scale*. See the nearby sidebar "[Wrapping your head around scale](#)" for more information about drawing to scale.



TIP

Keep in mind that if you have SketchUp Pro, you can use LayOut to generate scaled views of your model very easily. Take a look at [Chapter 14](#) for more information.



WRAPPING YOUR HEAD AROUND SCALE

When you print to scale, anyone with a special ruler (called a *scale*, confusingly enough) can take measurements from your drawing, as long as he knows the scale at which it was printed. You can use three kinds of drawing scales:

Architectural: In the United States, most people use feet and inches to measure objects. Most architectural scales substitute fractions of an inch for a foot. Three common examples of architectural scales follow:

- $\frac{1}{2}$ inch = 1 foot (1 inch = 2 feet)
- $\frac{1}{4}$ inch = 1 foot (1 inch = 4 feet)
- $\frac{1}{8}$ inch = 1 foot (1 inch = 8 feet)

Engineering: When measuring big things like parcels of land and college campuses, U.S. architects, engineers, and surveyors still use feet, but they use engineering scales instead of architectural ones. Three common engineering scales follow:

- 1 inch = 20 feet
- 1 inch = 50 feet
- 1 inch = 100 feet

Metric: Outside the U.S., virtually everyone uses the metric system. Because all measurement is based on the number 10, metric scales can be applied to everything from very small things (blood cells) to very big things (countries). Metric scales use ratios instead of units of measure. Here are three examples:

- 1:10 (The objects in the drawing are 10 times bigger in real life.)
- 1:100 (The objects in the drawing are 100 times bigger in real life.)
- 10:1 (The objects in the drawing are 10 times smaller in real life.)

Preparing to print to scale

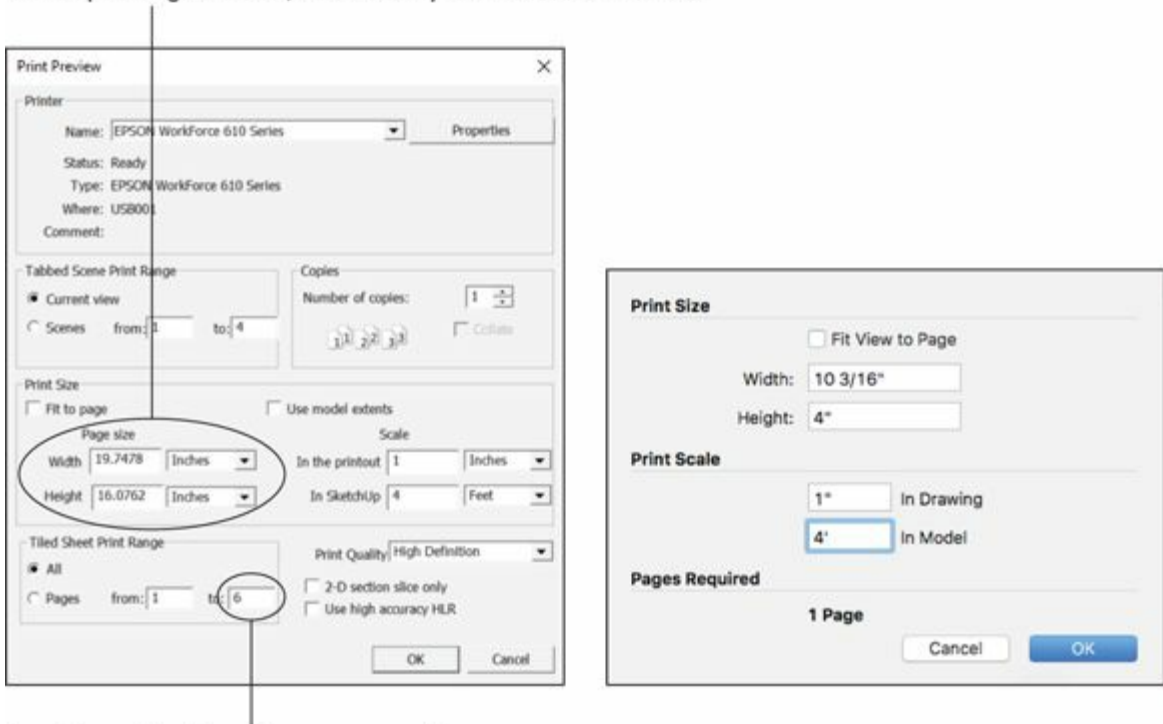
Before you can print a view of your model to a particular scale, you have to set up things properly. Keep the following points in mind:

- » **Perspective views can't be printed to scale.** If you think about it, this makes sense. In perspectival views, all lines appear to “go back” into the distance, which means that they look shorter than they really are. Because the whole point of a scaled drawing is to be able to take accurate measurements directly off your printout, views with perspective don't work.
- » **Switch to Parallel Projection if you want to print to scale.** We know, we know — this is the same as the last point. But it's important enough to mention twice. To change your viewing mode from Perspective to Parallel Projection, choose Camera \Rightarrow Parallel Projection.
- » **You have to use the Standard views.** SketchUp lets you quickly look at your model from the top, bottom, and sides by switching to one of the Standard views. Choose Camera \Rightarrow Standard and pick any of the views except Iso.

Printing to scale (Windows and Mac)

The steps in this section allow you to produce a scaled print from SketchUp. The Windows instructions appear first and then Mac details. When the user-interface elements are different for the two platforms, the ones for Mac are shown in parentheses. [Figure 12-8](#) shows the relevant dialog boxes for printing to scale in Windows and on a Mac.

When printing to scale, don't worry about these numbers



To print at 1 inch = 4 feet, you need 6 pages

FIGURE 12-8: Setting up to print at 1 inch = 4 foot ($\frac{1}{4}$ inch = 1 foot) scale.



REMEMBER Before you begin, make sure that you've switched to Parallel Projection and that your view is lined up the right way. See the preceding section of this chapter for help with your model view for scaled printing. Follow these steps to produce a scaled print:

1. **Choose File ⇒ Print Setup (Page Setup).**
2. **Select a printer, paper size, and paper orientation, and then click OK.**
3. **Choose File ⇒ Print Preview (Document Setup).**
4. **Clear the Fit to Page (Fit View to Page) check box.**
5. **Windows: Make sure that the Use Model Extents check box is clear.**

Mac users don't have this option.

6. Enter the scale at which you want to print your model view.

If you want to print a drawing at ¼ -inch scale, enter the following:

- **1 Inches** into the In the Printout (In Drawing) box
- **4 Feet** into the In SketchUp (In Model) box

If you want to produce a print at 1:100 scale, enter the following:

- **1 m** into the In the Printout (In Drawing) box
- **100 m** into the In SketchUp (In Model) box

7. Take note of how many pages you'll need to print your drawing.

If you're using Windows, you can check this in the Tiled Sheet Print Range area of the dialog box. On a Mac, the number of pages you'll need appears in the Pages Required section of the Document Setup dialog box. If you want to print on a different-sized piece of paper, change the setting in the Print Setup (Page Setup) dialog box.

8. If you want to print your drawing on a single sheet and it won't fit, use a smaller scale.

Using the ¼ inch = 1 foot example, try shrinking the drawing to $\frac{3}{16}$ inch = 1 foot scale. To do this, enter the following:

- **3 Inches** into the In the Printout (In Drawing) box
- **16 Feet** into the In SketchUp (In Model) box

9. When you're happy with how your drawing will print, click OK.

10. Perform the step based on your operating system:

- *Windows:* If you like what you see in the Print Preview dialog box, click the Print button (in the upper-left corner) to open the Print dialog box.
- *Mac:* Choose File ⇒ Print.

11. In the Print dialog box, click OK to send your print job to the printer:

See this chapter's earlier "[Making a basic print](#)" section (for your operating system) for the whole story on basic printing from SketchUp.