

Understanding and Adjusting Line Weight Scaling

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The information in this article applies to:



QUESTION

I would like to understand how the Line Weight Scale and line weight scaling options work. What do these do and how can I best implement them?

OR

When I try to send a view to layout, I keep getting this error message: "The line weight scale in your layout is not the same as in the view being sent to layout. You should change them to be the same or the resulting line weights will be lighter or heavier than expected. This can be corrected in the Drawing Sheet Setup dialog."

What does this mean?

ANSWER

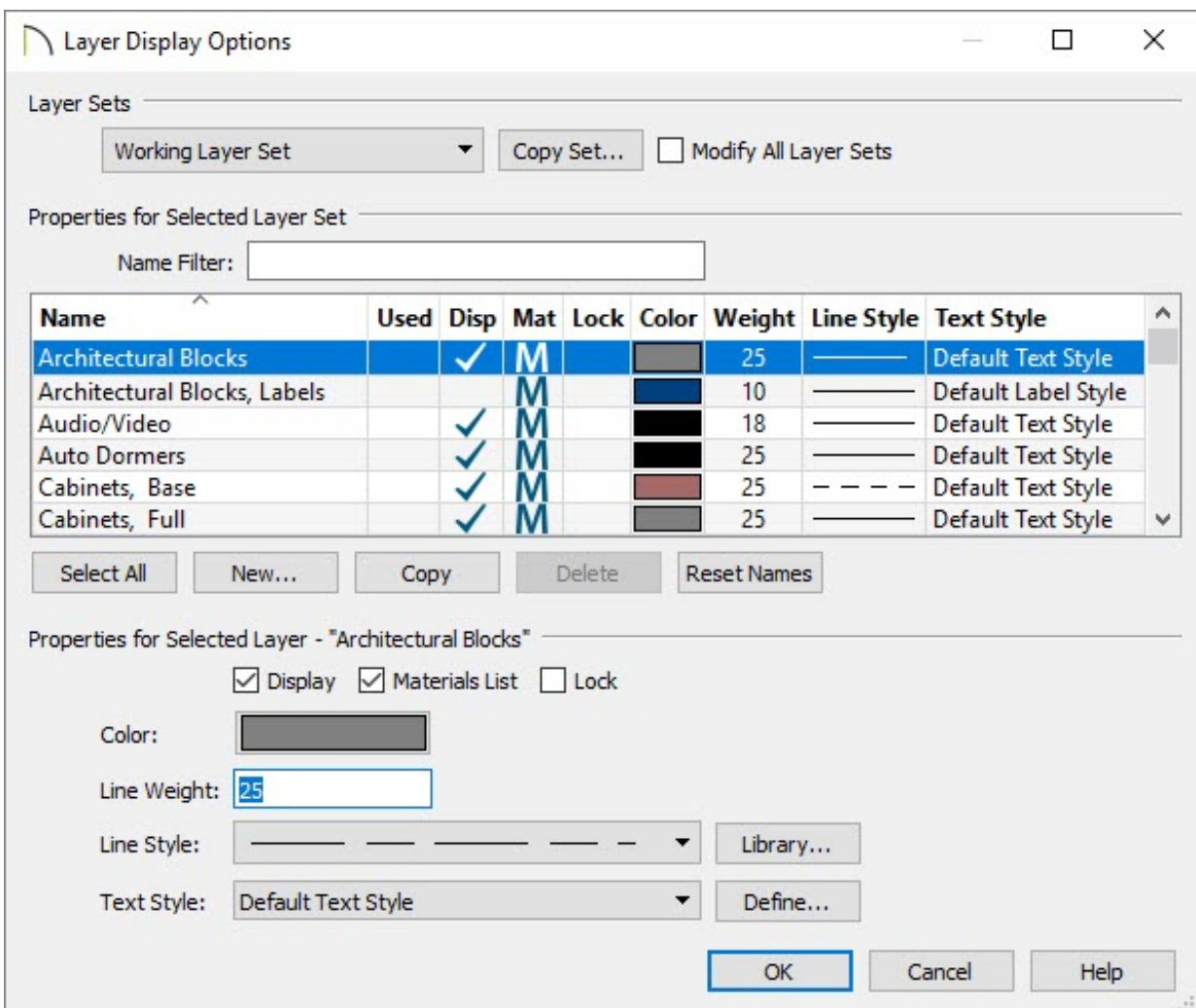
The weight of a line refers to its thickness on the printed page and is described in absolute terms as a fraction of a unit, often 1/100th of a millimeter or 1/1000 of an inch.

In Chief Architect and Home Designer Pro, line weights are assigned to objects, patterns, and layers using whole numbers that correspond to the numerator of this fraction. You can specify the Line Weight Scale by defining the denominator and the unit used in this fraction in the Drawing Sheet Setup dialog.

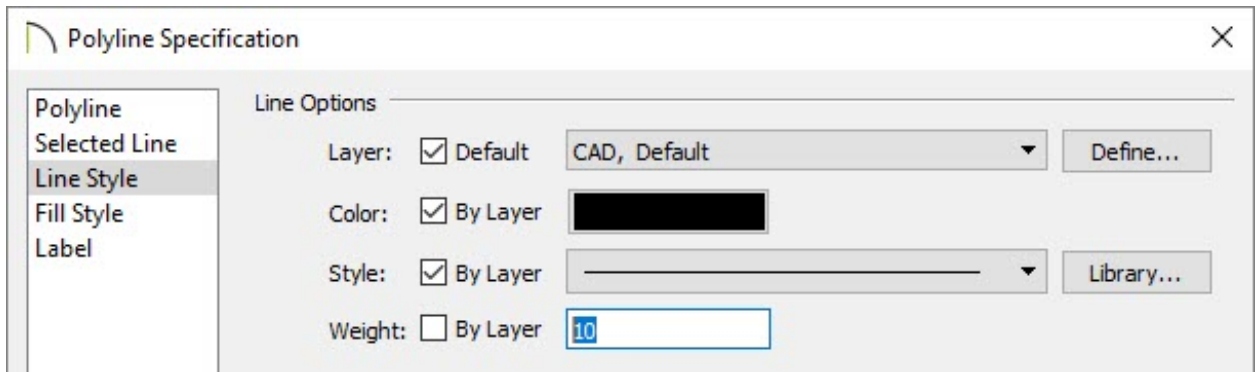
While the default line Line Weight Scale and line weights will work for most normal drawing practices, you can specify your own values if you so desire.

The method for specifying an object's line weight depends on the object and the type of view.

- Most objects' line weights can be set by layer.



- Some objects' line weights can be set in their specification dialogs.



- The line weights for walls in floor plan view are defined by wall type in the Wall Type Definitions dialog.
- The line weights of material pattern lines, which are visible in Vector Views, can be set in the Define Material dialog.
- The line weight for fill patterns is set for individual objects in their specification dialogs.
- The line weight applied to surface edges in Vector Views can be set in the Print dialog.
- The end cap length of dashed lines in plan view is set in the Preferences dialog.
- An assigned line weight of 0 draws a line weight of 1 pixel, the thinnest line weight a printer allows. How thick this is varies from printer to printer.

In order to produce predictable, accurate printed drawings, it is necessary that the Line Weight Scale located in the Drawing Sheet Setup dialog be identical in both the layout file and in the original view sent from the plan file. If they are not, you may receive an error message mentioning the variance, in which you will want to set them to be the same.

Line Weights and Scaling

When a view is sent to layout, line weights may be affected by the drawing scale selected for the view. This occurs when the layout view's scale is different from the drawing scale of the original view.

For example, assume that you have an object in a view with a line weight of 20, and that the view's drawing scale is 1 mm = 50 mm.

- If you send the view to layout at 1 mm = 25 mm scale, twice the original scale, the resulting printed line weight for this object will increase from 20 to 40.
- If you send the view to layout at 1 mm = 100 mm scale, half the original scale, the resulting printed line weight for this object will decrease from 20 to 10.

You can specify the drawing scale for any orthogonal view by opening the Drawing Sheet Setup dialog while in that view.

For any layout view, you can specify whether the original line weight is maintained or not in the Send to Layout dialog and Change Scale dialog.

In order to produce exact line weights, a Vector View must be sent to layout using the Plot Lines option.

Note: Under most circumstances, you should select 'Use Layout Line Scaling' when sending views to layout.

Printers and Line Weights

Line weight and print scaling are subject to the limitations of the printer being used. For example, you will not be able to see the difference between a line that is 1/150th of an inch wide and one that is 1/300th of an inch wide when they are printed using a printer that prints 150 dots per inch (DPI).

That is, a CAD line with a line weight of 1 will look the same as a CAD line with a line weight of 4 when the Line Weight Scale is set at 1 = 1/600th of an inch and you print to a printer capable of 150 DPI.

Setting an object's or group of objects' line weight to zero causes the lines to print as thinly as possible.

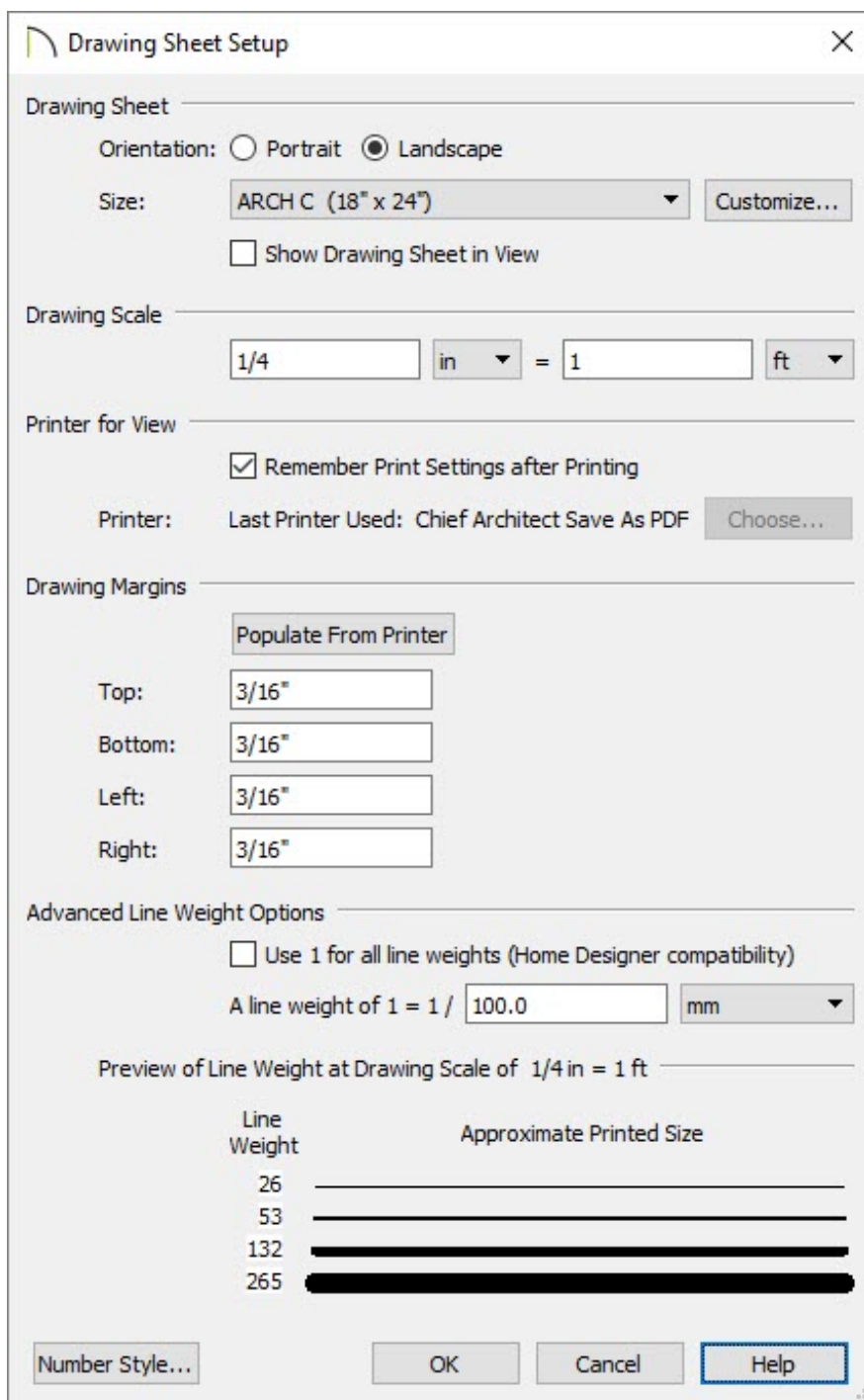
Note: The default Line Weight Scale of 1 = 1/100 mm makes it easy to meet many professional drawing standards and in most cases should not be changed.

More information on Line Weights and Scaling can be found in the Line Weights section of the Reference Manual, located in the software's Help Menu.

Specifying the plan and layout to use the same Line Weight Scale

1. From within your plan file, navigate to **File> Print> Drawing Sheet Setup** .

2. In the **Drawing Sheet Setup** dialog that displays:



Drawing Sheet Setup

Drawing Sheet

Orientation: Portrait Landscape

Size: ARCH C (18" x 24")

Show Drawing Sheet in View

Drawing Scale

1/4 in = 1 ft

Printer for View

Remember Print Settings after Printing

Printer: Last Printer Used: Chief Architect Save As PDF

Drawing Margins

Top: 3/16"

Bottom: 3/16"

Left: 3/16"

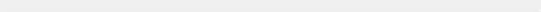
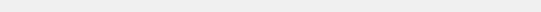
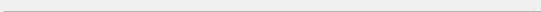

Right: 3/16"

Advanced Line Weight Options

Use 1 for all line weights (Home Designer compatibility)

A line weight of 1 = 1 / 100.0 mm

Preview of Line Weight at Drawing Scale of 1/4 in = 1 ft

Line Weight	Approximate Printed Size
26	
53	
132	
265	


- Under Advanced Line Weight Options, make a note of the value and units listed next to **A line weight of**.

Recall that by default, all current version Chief Architect plan and layout template files use a Line Weight Scale of 1 = 1 / **100.0 mm**.

- Ensure that the box for **Use 1 for all line weights** is not checked.

This feature was added for better interoperability between the Chief Architect professional software products and the Home Designer consumer software products. This allows the program to maintain a consistent line thickness and dash size when the drawing scale is changed. When checked, the Line Weight Scale is based on a 1/4 inch = 1 foot drawing scale and 1=1/300 inch Line Weight Scale.

- Click **Cancel** to close out of the dialog without making any changes.

3. Open your layout file, and follow the same procedure by navigating to **File> Print> Drawing Sheet Setup** .

4. Make a note of the **A line weight of** value and the units listed.

5. Compare the **A line weight of** values and units between the plan and layout to determine whether the plan, or layout, is incorrectly set, then correct that value in the appropriate Drawing Sheet Setup dialog so that both match.

6. Once your plan file and layout file both have the same Line Weight Scale set, you will no longer receive a warning message.