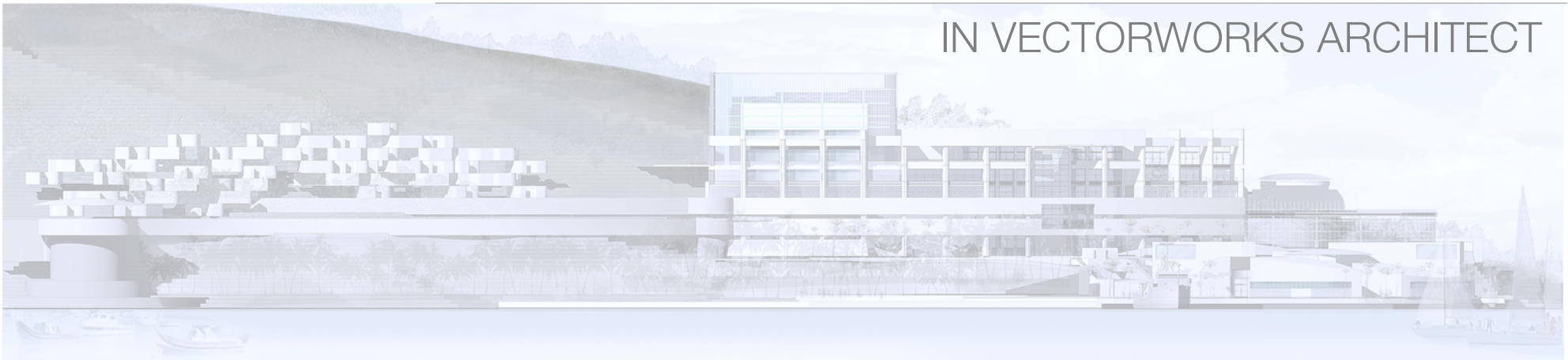


# DATA VISUALIZATION

## A TUTORIAL

IN VECTORWORKS ARCHITECT



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Written for Vectorworks Architect 2017

## INTRODUCTION

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The Data Visualization tool in Vectorworks is used to help designers create viewport-based presentations where an object's attributes can be controlled by the data associated with the object.

For example, the tool can be used to show clients various sequences of construction, allocations of space, or egress requirements by means of easy-to-read, color-coded diagrams.

## DATA VISUALIZATION

The visualization of data is accomplished through the use of viewports typically placed on sheet layers. The various colors, hatches, or line types that you choose to depict the data are tied to an object, consequently, when a change is made, the visualization diagram updates. An added bonus feature of this tool is that it does not require you to change the appearance of any object that is being “reported” either on design layers or other viewports. Additionally, both “standard” records and custom record formats can be used to display your intent more clearly.

A very straightforward example is a plan-view of an office building with spaces designated by use or occupancy that are then delineated by color or hatch giving the user a fast, graphic reference.

Using the above plan-view scenario as an example, the first step is to assign occupancy usages to the various spaces in the project. This is done on your design layers via the Space Tool. In the Occupancy Grouping in the Object Information Palette choose an occupancy type or double-click on the space and in the Space Settings dialog, choose the Occupancy pane then go to the Occup. Organization drop-down and choose a usage group. Continue through your project making the appropriate selections

or creating custom selections as required. You don’t need to complete this process all the way through for the Data Visualization feature to work. You’ll understand once you’ve added a few bits of data and complete a few of the set-up steps below.

Next, create a viewport on a sheet layer or duplicate and repurpose one that has already been created. A note here, if the viewport you are intending to use for data visualization has ANY Class Overrides in it, you will get an error message. The solution is to enter the class structure of the viewport and *Revert* any overrides. (See Fig. 1)

With the viewport selected, in the **OIP**, choose the **Data Visualization** button opening the Viewport Data Visualization dialog. Note that in the upper left, there’s a checkbox “Enable Data Visualization for this Viewport” that is “Off” by default. This should be checked to be “On” otherwise none of your work will show. (See Fig. 2)

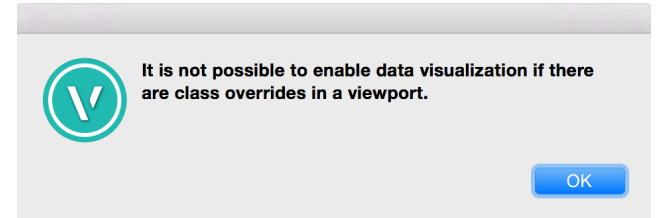


Fig. 1

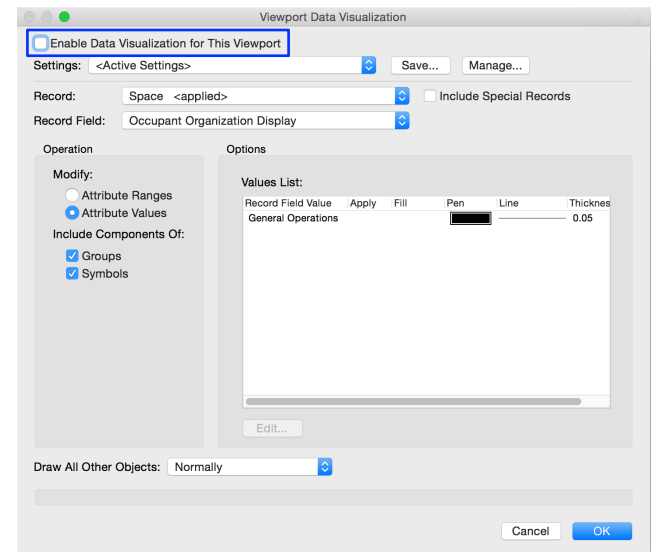


Fig. 2

The next steps involve selecting the Record that you want to use for visualization (See Fig. 3)

And which Record *Field* is to be used (See Fig. 4)

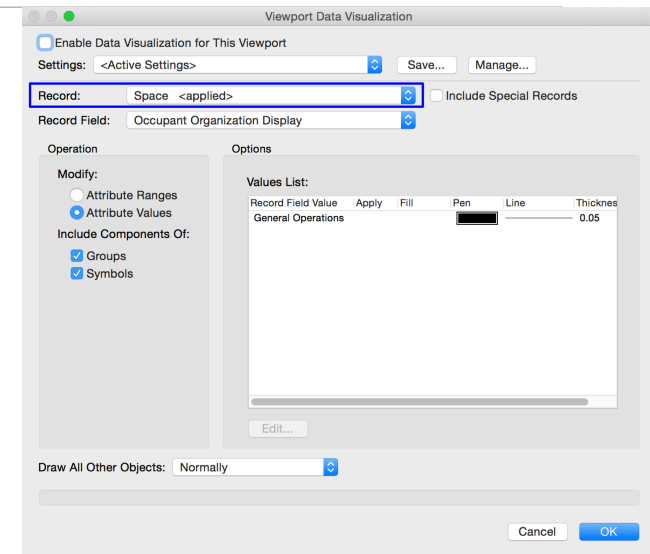


Fig. 3

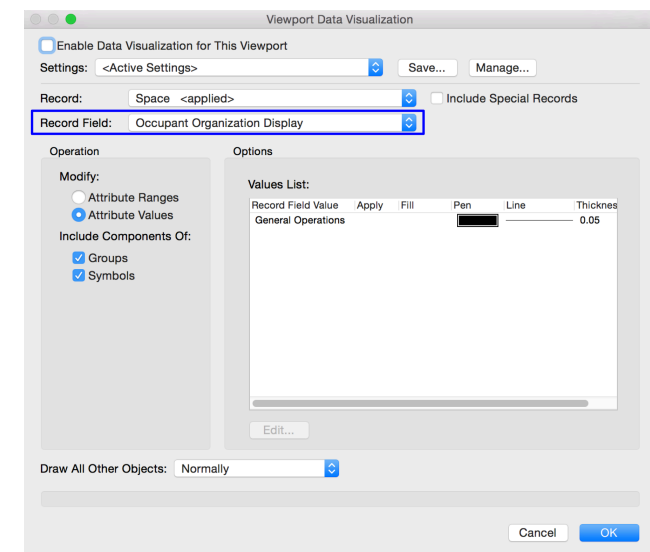


Fig. 4

After making these choices, the **Values List** will populate (See Fig. 5)

Choosing one of the Record Field Values lets you assign a line type, color, hatch, gradient or tile OR you can choose to use the one (if any) that's already assigned to that particular space. In this example, in the lower portion of the pane, the PEN has been set to "0" thickness. This is strictly a graphic choice so that the border around the color fill doesn't show.

Once again, notice in the top left, there's a check box "Apply Attributes" that needs to be checked or nothing will show. (See Fig. 6)

Once these choices have been made, returning to the viewport will reveal your selections.

In summary, the Data Visualization tool in Vectorworks is used to help designers create viewport-based presentations where an object's attributes can be controlled by the data associated with the object. The tool is capable of using both standard "out-of-the-box" records as well as custom records attached to any object.

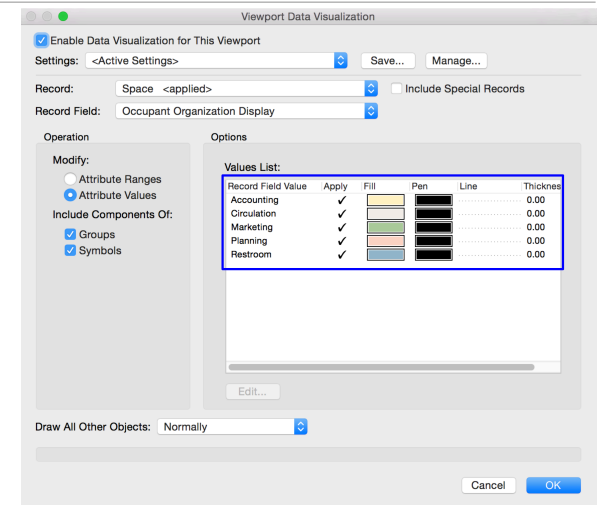


Fig. 5

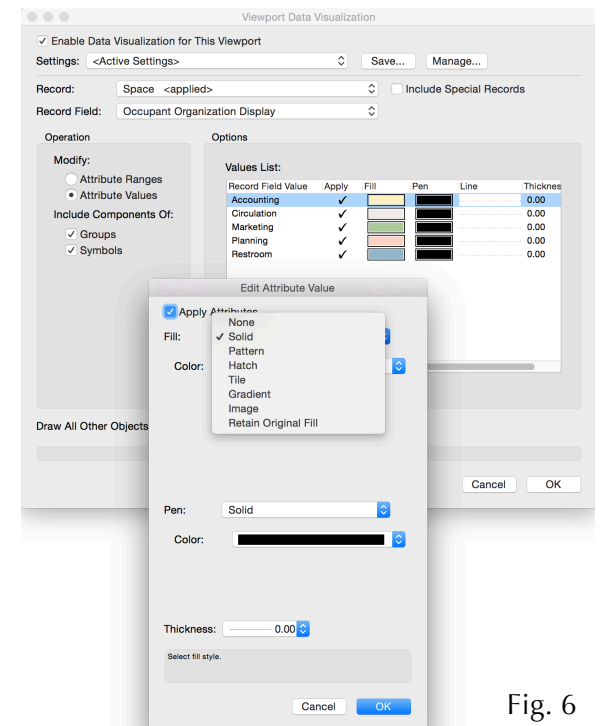


Fig. 6