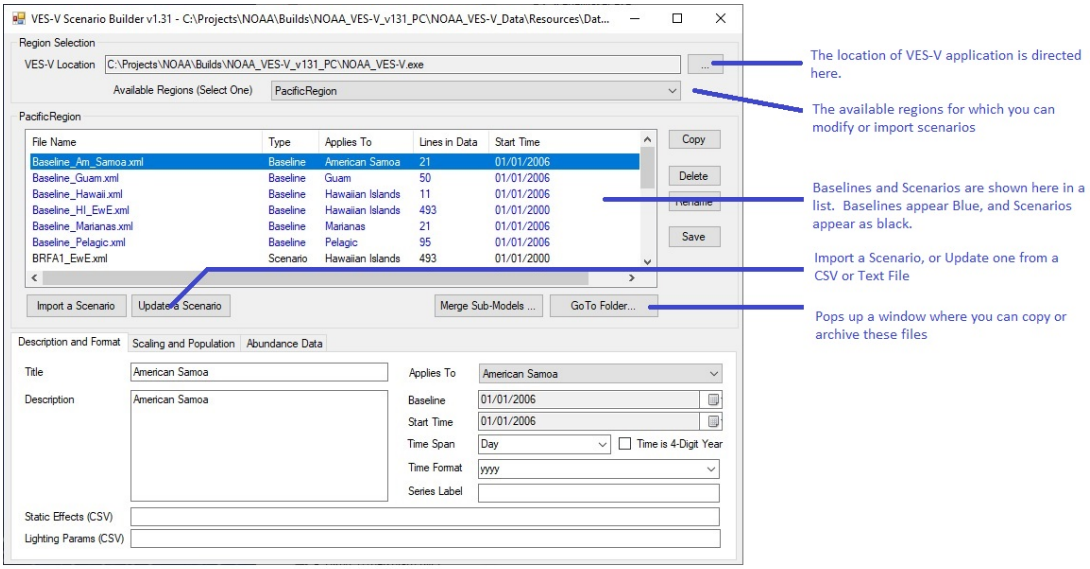
NOAA VES-V Scenario Builder v1.31

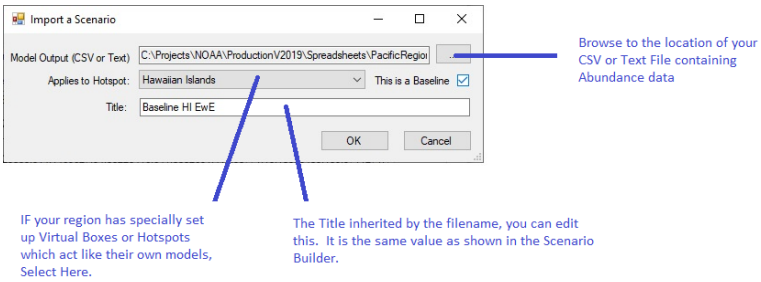
The VES-V Scenario Builder allows you to import, update, and modify abundance scenarios to enhance the end user experience in VES-V.

How it works, is that first you browse to the location of your VES-V application from which you want to test. After that, you select the appropriate region that you want to import/update/modify scenarios. Then, you can adjust each scenario including how it presents its population and changes to the end user within the VES-V application.



Importing a scenario

To import a scenario, click on the "Import a Scenario" button, which will bring a window like this up:



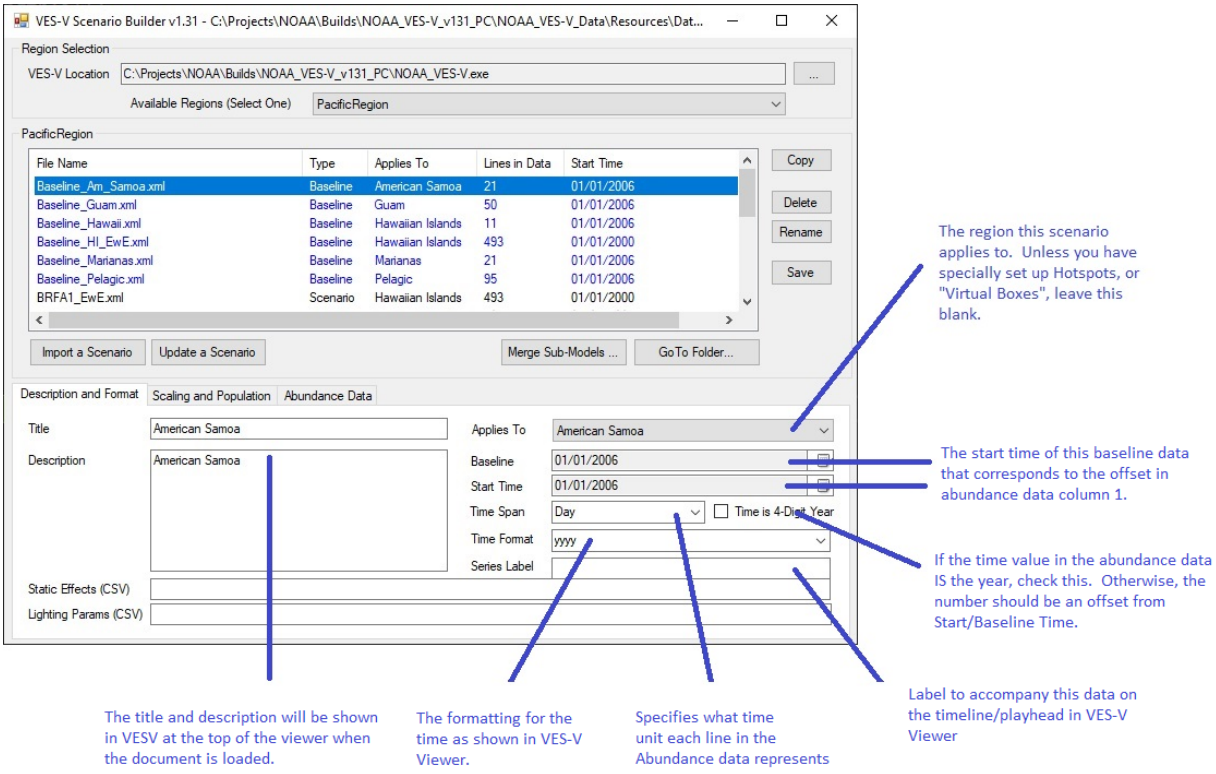
You can then browse to the model output, and set options as to which hotspot (if specially designated) the document is assigned to. You can select whether or not the document is a baseline as well.

The "Update a Scenario" button will allow you to quickly browse to a new CSV or Text document location and will refresh it's data.

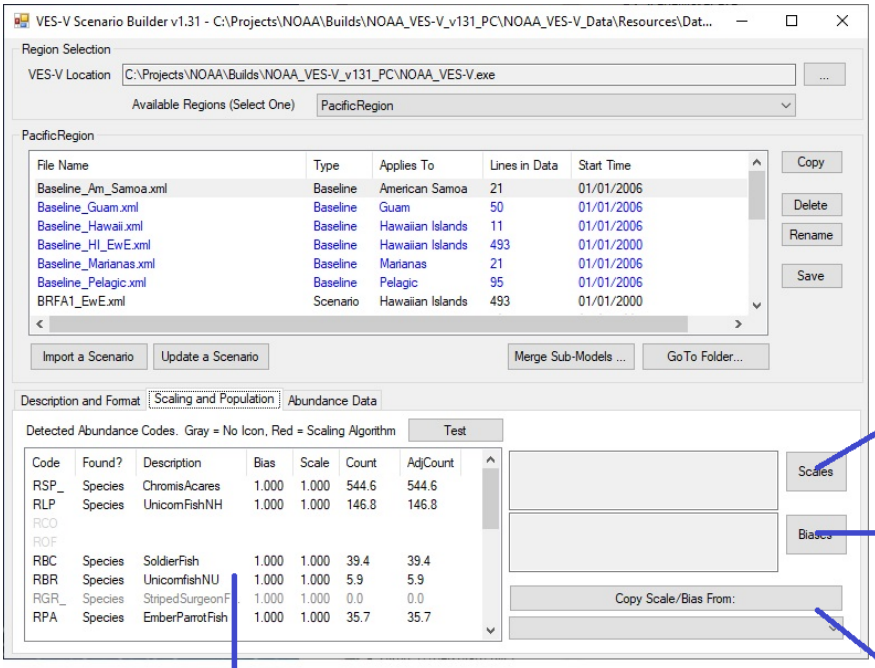
Once imported, the lower portion of the screen will now contain information and parameters specific to the document selected or imported.

It is broken down in to three sections or tabs:

Description and Format



Scaling and Population



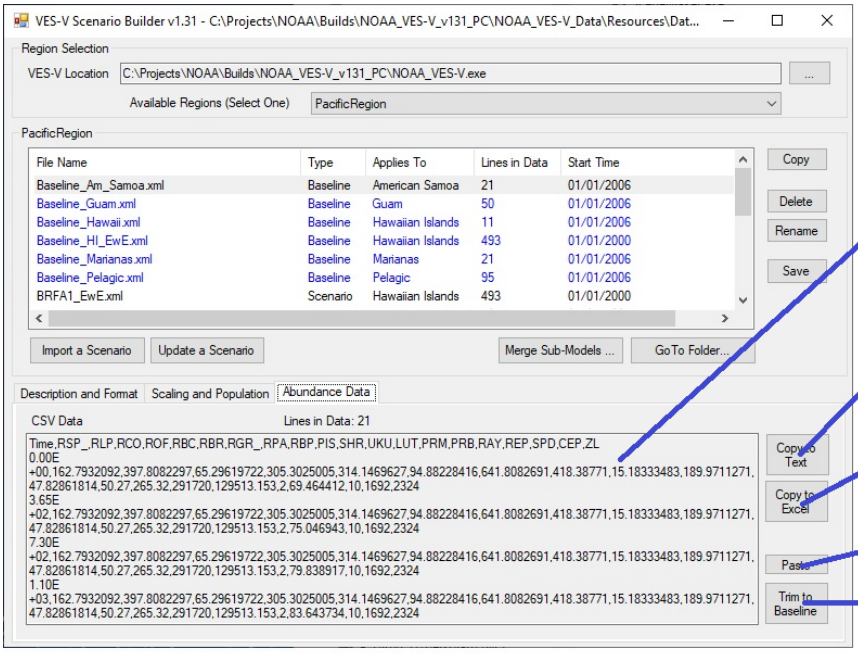
Scales allow a per species adjustment to make sure presence is visible if you want it to be.

Biases allow for preference on species or deference, on how they will be given priority to show more abundance than others. This applies to situations where the maximum number of meshes/critters is being shown.

This table shows what is present in the abundance data for this scenario as well as what anticipated populations will be present in the VES-V viewer. It is not exact as VES-V has some strict limits on the number of meshes or critters that can be shown, so know the whole of the population will be scaled back accordingly if you have very large numbers in any of the counts. Those heavy populations will be marked with red.

This allows you to easily copy the scales and biases from a baseline or another scenario document. Generally speaking you want to make sure the scales and biases in the baseline are copied to the scenarios that will be compared to it.

Abundance Data



This is a read-only presentation of the CSV data within this scenario.

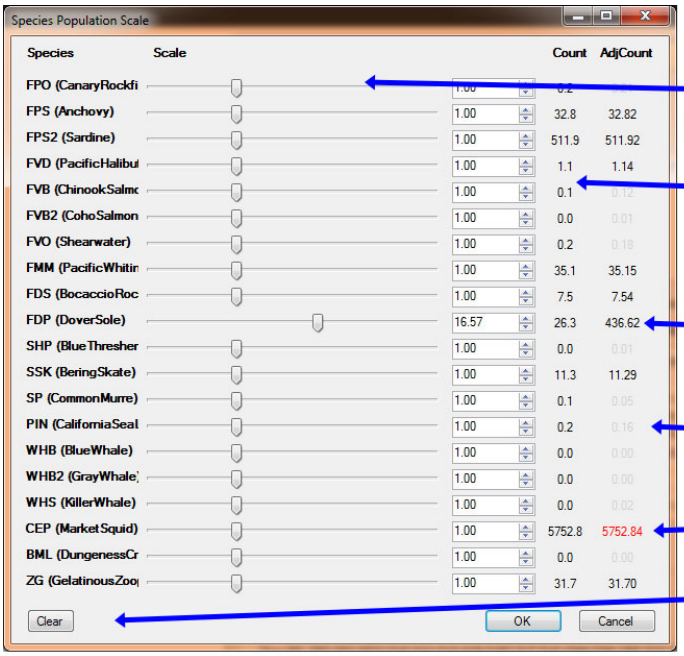
This button will copy the CSV data to the clipboard so you can paste it in to a text or word document.

This button will copy the CSV data to the clipboard so you can paste it in to an Excel Spreadsheet or Table.

This button will allow you to paste either text or Excel data back in to this scenario. Should include header line and time.

This button will allow you to trim this document back to the same number of lines as the baseline document.

Species Scale and Population Editor



Slider and Text Box Work together to set scale. Slider uses a Logarithmic scale.

This value here shows what the representative VES-V scene population maximum will be in the whole region.

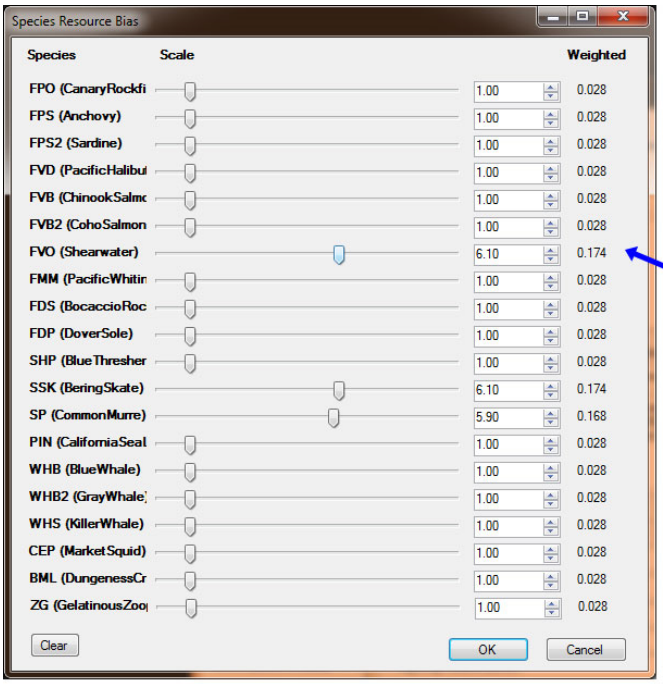
This column shows the effect of the scaling on the maximum count, within the scene.

Gray indicates not enough will be present in the scene to warrant an appearance.

Red indicates that under any condition, VES-V will not be able to show this number of species.

Reset all scales to 1.0.

Note, that you can type a value in to the numerical part of the control beyond what you can if using the slider.



Bias indicates only how important a species is in this file, in the allocation of resources. It does not directly affect the count.

The 'Weighted' column helps show how many total resources will be possibly allocated in a scenario. All of the values add up to 1.0 and are 'normalized' here.

The bias functions in a similar way. It shows the distribution of the species in terms of importance.

Using VES-V While Editing Scales and Biases

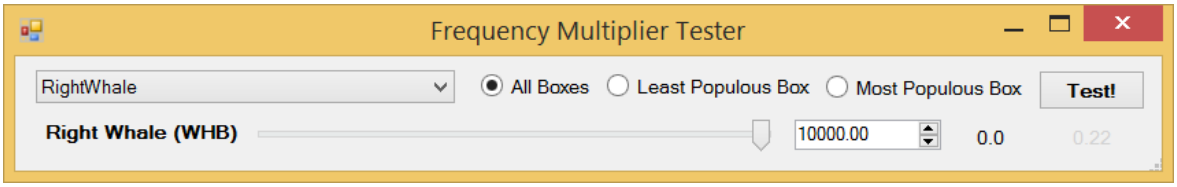
All that you need to do to edit within VES-V, is save your Scenario Document or Baseline document in Scenario Builder, and then “Return” and “Redive” in to a hotspot or region. Scenario Builder does not keep the files opened or locked, allowing this.

FrequencyMultiplier

Is located in each species lookup record in the species table, allows a per region adjustment to scale, beyond the **SpeciesScales** value. This is useful in edge cases where the population is consistently too high or scarce. It is also useful if you arrive at one set of scales for a region, as you can use this singular value per species instead of the SpeciesScales in each document. Note if you do this you would have to clear the scales to get a proper result.

You can use Scenario Builder, to determine rough FrequencyMultiplier values to enter in the Species Lookup Table.

a) Select the baseline scenario for the region of interest.
b) Select the “Frequency” Button. A dialog like this one will come up:



This version of the scale function helps you discover optimal frequency multiplier values.
c) Select any of the region’s species in the top left corner.
d) select “Most Populous Box”.
e) Press “Test!”.
f) Adjust the scale (note you need to use the text area for values > 10,000), until the value on the far right, is a reasonable number of critters to see in the VES-V scene.
g) Select “Least Populous Box”, and see if the number on the right still makes sense. (This will represent the max critters in the presumably lowest population box).
h) If you select “All Boxes” you will see the max critters in the scenario, all boxes.
i) If this scale value is extreme check your data, namely weight in grams.
j) If there is no difference between least populous and most populous, check the proportions in the species lookup table, they appear to be identical.
k) Note the final scale value! It is not programmed in to the species lookup table for you. Move on to the next critter.

Once you get all of the data straightened out, you should enter the frequencies you discovered in the Species Lookup table for this region. This will give you the best balance of data and populations possible, and I recommend doing this on the baseline only, not the extreme scenarios.