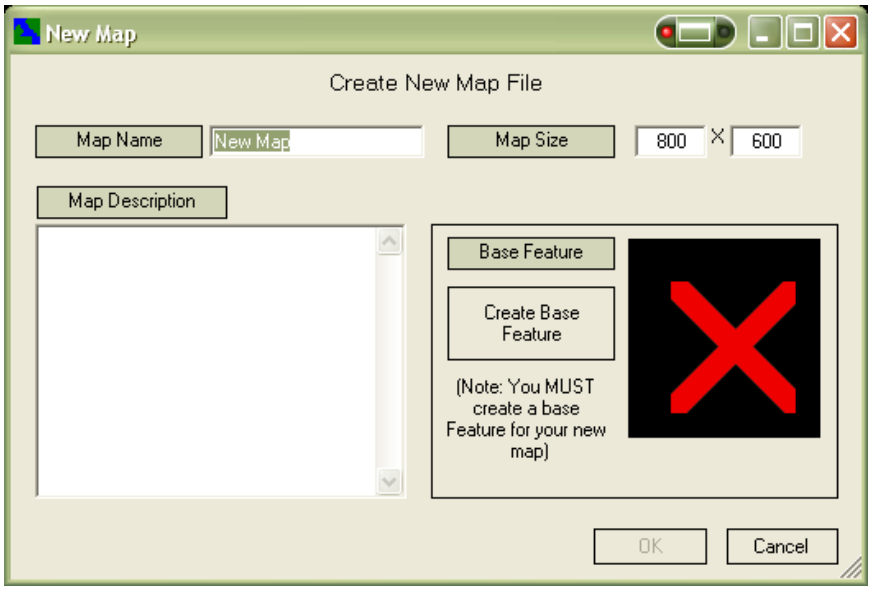
Flexmap Builder Tutorial

Welcome to the Flexmap Builder tutorial. In this tutorial you will learn how to create and edit your own maps. You will also learn how to easily import your own textures to create any kind of environment you can imagine.

Create a New Map

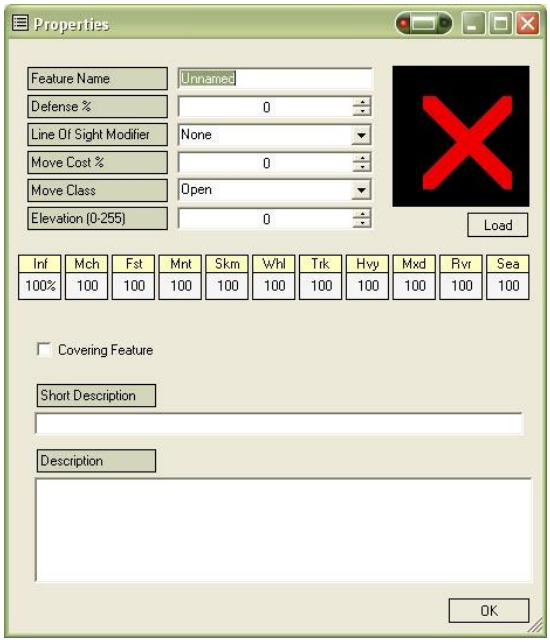
The first step is to create a new File. Click on the “NEW” icon on the top left side of the toolbar.



Select a name for you map and choose an appropriate size. You can also create a description for your map in this box.

The first thing you will need to do is create a base feature for your map. The base feature is a starting point for the map as a whole. It can be the most dominant feature or simply the bottom layer of feature (more on layers later).

Select the “Create Base Feature” button.



Feature Properties window

This is the “Feature Properties” Window. It allows you to adjust the defensive and movement values for the terrain. For this example we’ll use the “Grassland” texture for our base feature.

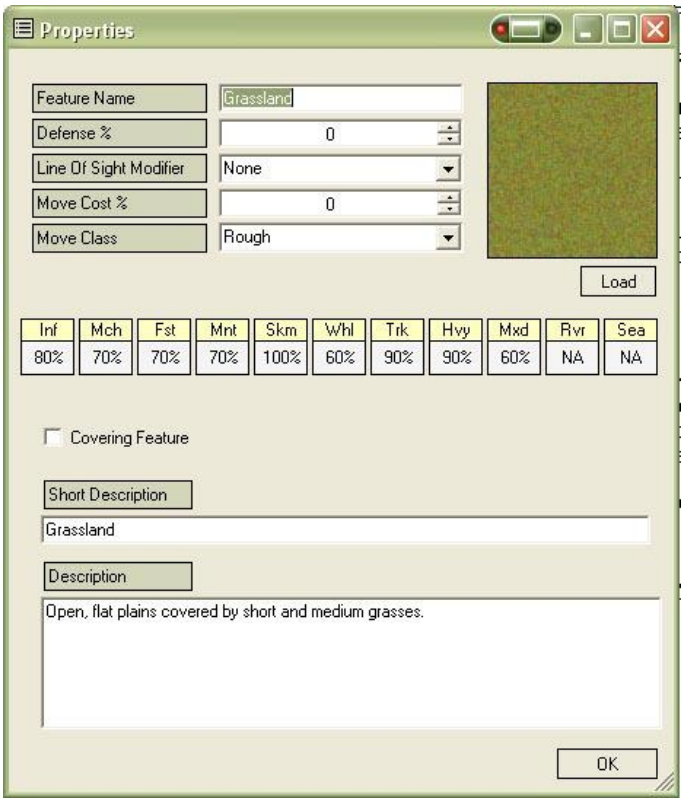
Name the feature “Grassland” and Load the corresponding image by clicking on the “Load” button. For this example we’ll use the images (or textures) that come with the basic mapmaker. More information on creating your own textures will be discussed later. Find the image named “Grassland” in the Flexmap/Textures Directory. Once selected, the image will show up in the properties window.

The next step is to adjust the values for the terrain. All features in the map will affect the units crossing it in a variety of ways. Each value is represented by a percentage (%).

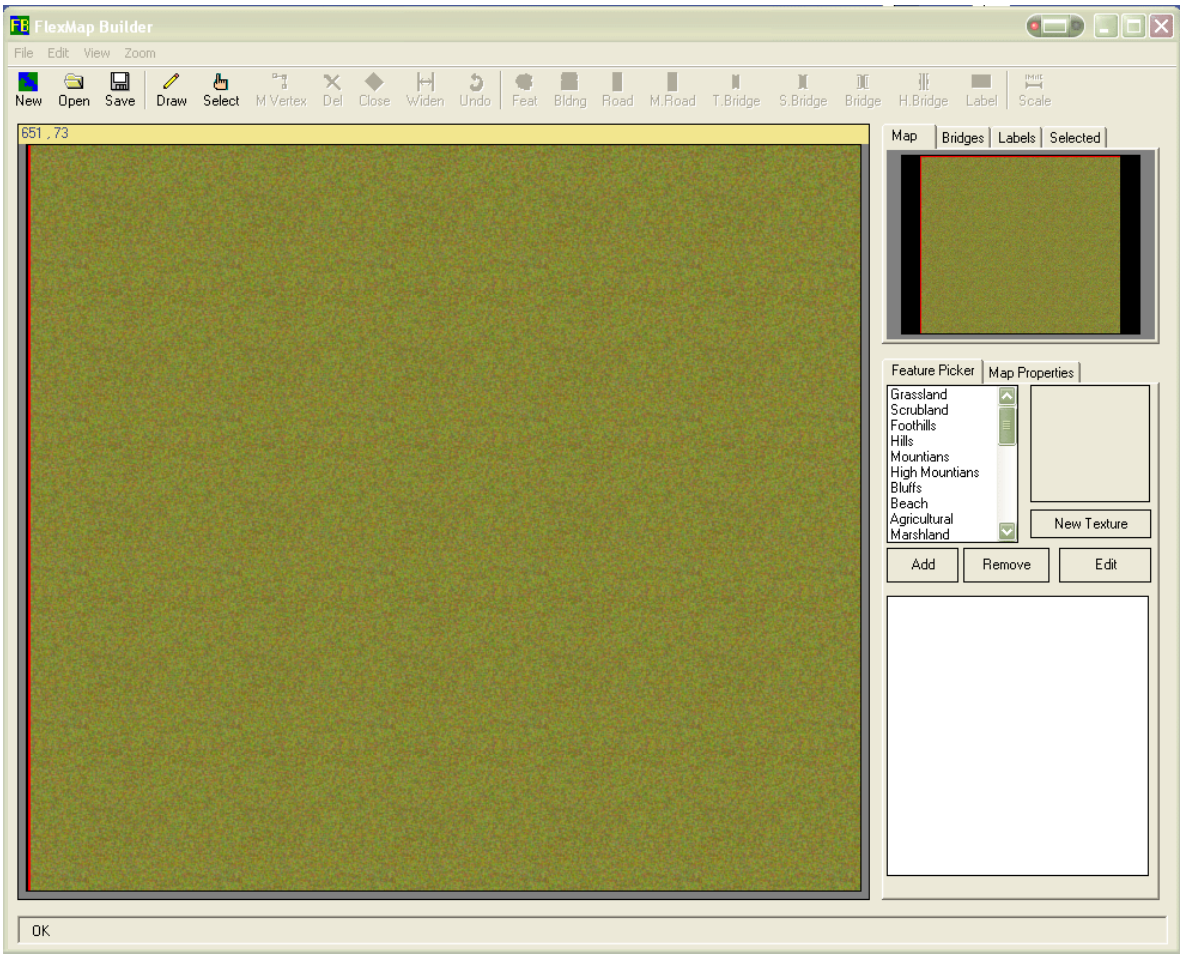
- Defense – This value represents the terrain’s natural defensive value. Although it has little actual effect on the campaign it’s a good way to represent how much terrain to use when a battle is played here. The % can be considered a positive attribute.
- Line of Sight Cost – This represents how dense or how hard a feature is to see through. Any unit in this terrain is considered to be “smaller” when it comes to being detected. How much smaller depends on the %. For example, a Tank unit (size 10) sitting in a forest (-50%) would be considered a size 5 and therefore harder to spot (for more on unit size see “Campaign Builder”). A good general rule of thumb would be, the higher the negative percentage, the easier it is to hide in a given terrain feature.
- Move Cost – This value represents how difficult the terrain is to cross. The percentage here modifies a unit’s maximum speed across a terrain feature. For example, an infantry unit whose max speed is 6 MPH is crossing terrain with a Move cost of -50%.
- Move Class – This value further modifies the movement class specific to the different types of movement that can be assigned to a unit. When this option is changed you can see how it affects the various unit movement types in the chart below.

Covering Feature – A feature can be marked as “covering” by selecting the option box. When a feature is marked as covering, it will add its values to the feature it sits on.

Once you have created the values for the terrain feature you can add a description. This text will appear in the battle resolver in campaigner so it’s easy to know what kind of terrain the battle will be fought over.



Once you have added all of the terrain properties that are needed you can now start adding them to your map. Since the task of creating all the features is tedious and time consuming I'll usually save the empty map as its own file. You can go back afterwards and change the size, name and other details afterwards when you create a fresh map.



Here is your new map. As you can see all of my features are created and I'm ready to begin. One important thing to remember is that the features are all on their own layer. Meaning, they are all stacked on top of one another. Features at the top of the feature picker list will be on the bottom and features below them will appear above them. So, for example; if I create some scrubland terrain then overlap it with foothills, the foothills will hide the feature of the scrubland.

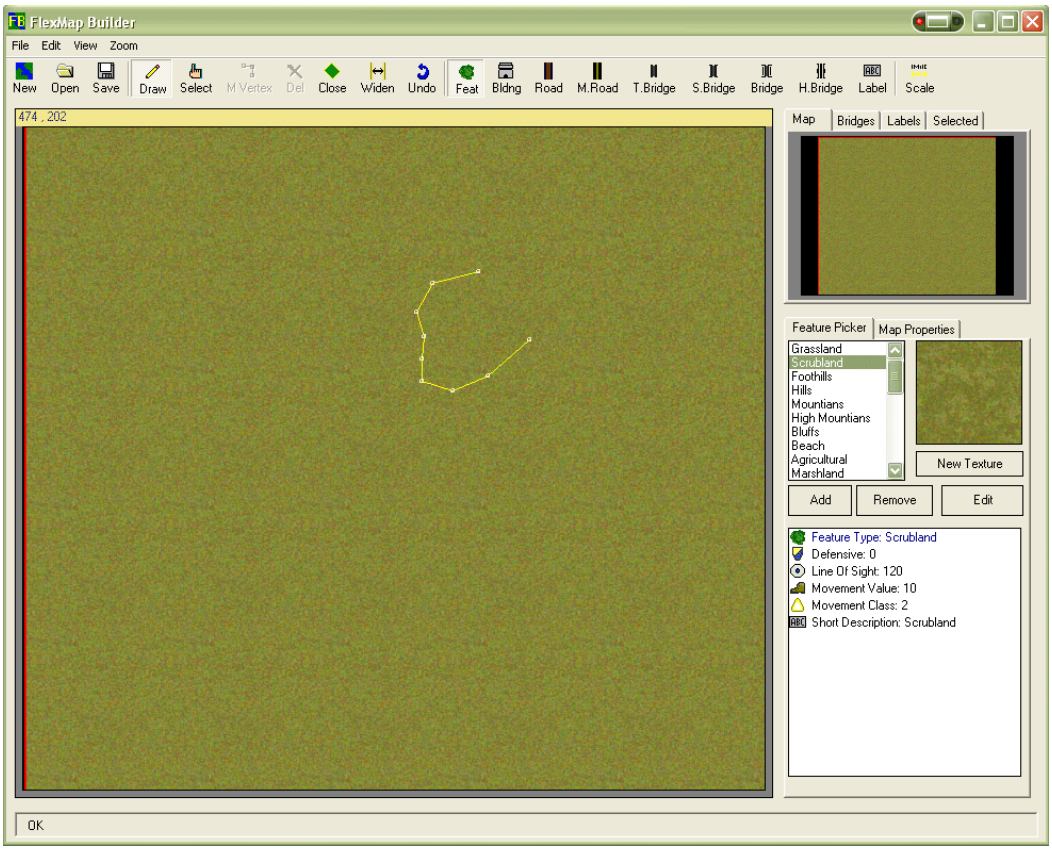
Placing Features

Let's place some terrain so you can get a better idea.

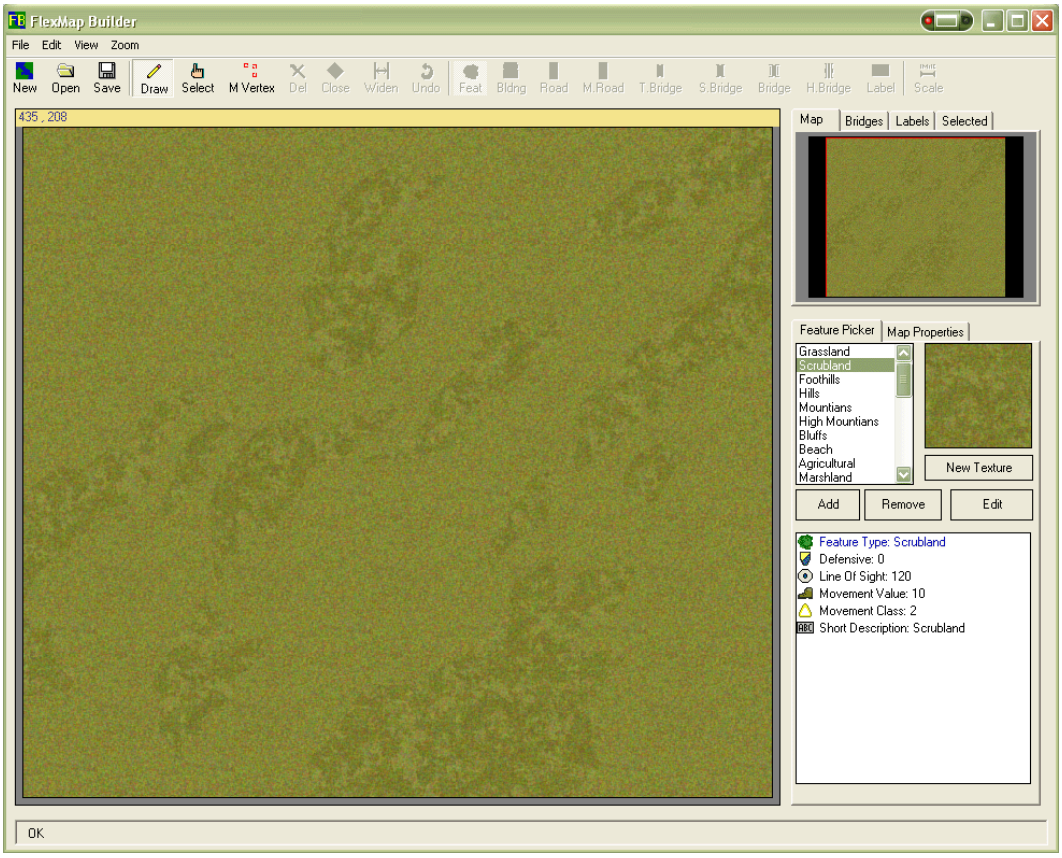
- Select "Scrublands" in the feature picker.
- Click on the "Draw" button in the upper left corner.

Once you've selected the "Draw" button you'll see other buttons become active. This means you can now place them.

- Select the "Feat" button (short for "feature")
- Click on a point in the map window.
- Once you have finished click on the "Close" button. This will close the shape of the terrain feature you've just created.

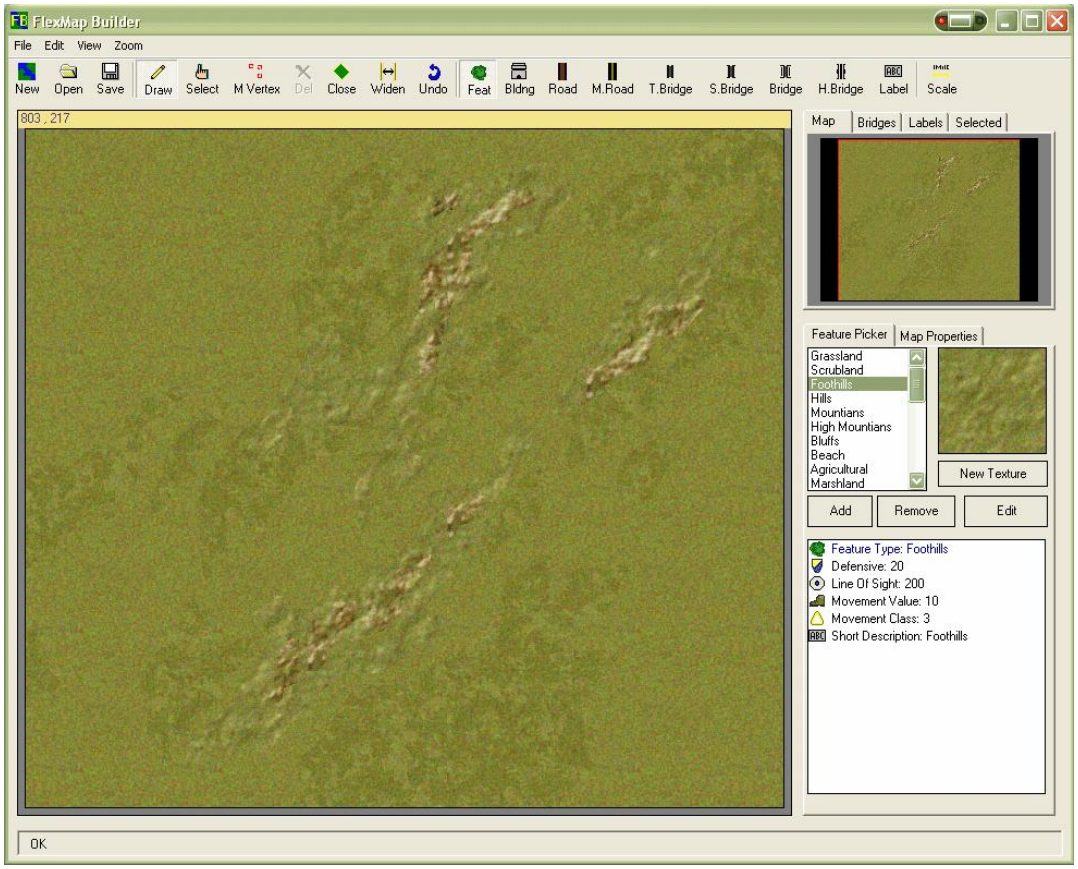


Take a moment to place a few more “Scrubland” features to your map. I tend to use quite a few points in this process to make the feature look as natural as possible.



Now that you have a feature lets add some foothills. Again, keep in mind that any placed foothills will be added on TOP of the scrublands. Unless you specified that the feature is “covering” when you created it, Campaigner will use the topmost feature to get its info for movement, line of sight etc.

If you need to change the order of the features for some reason that can easily be done by selecting “edit – Change Feature Z Order”.

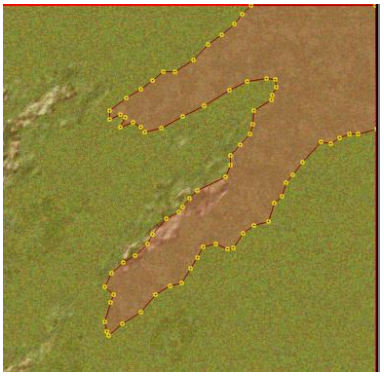


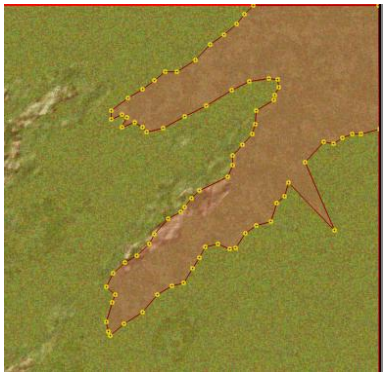
As you can see I’ve added some foothills and also some Hills on top of them. All features work on this principle. You can keep adding Features until you are happy with your map.

As you create your map you may occasionally make an error. If you do its easy to change the feature to the proper shape.

- Click on the “Select” button
- Click on one of the features you’ve placed.
- Click on the M Vertex Button.

When you click on this button you will see the feature and points you have created for it become highlighted. You can now select one of the vertices and move them.

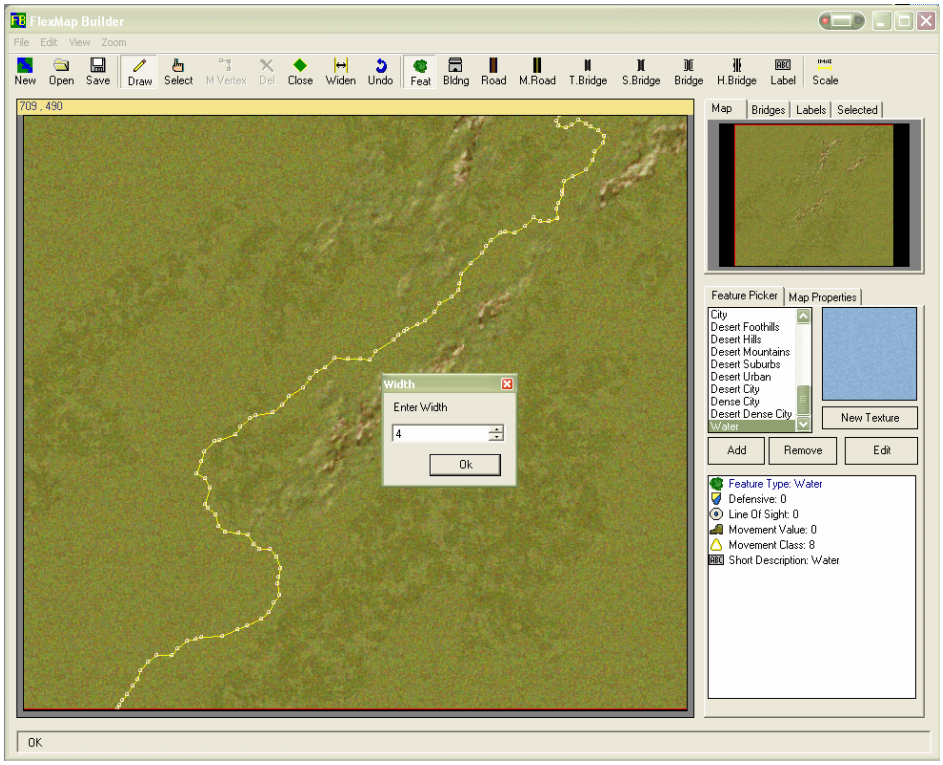




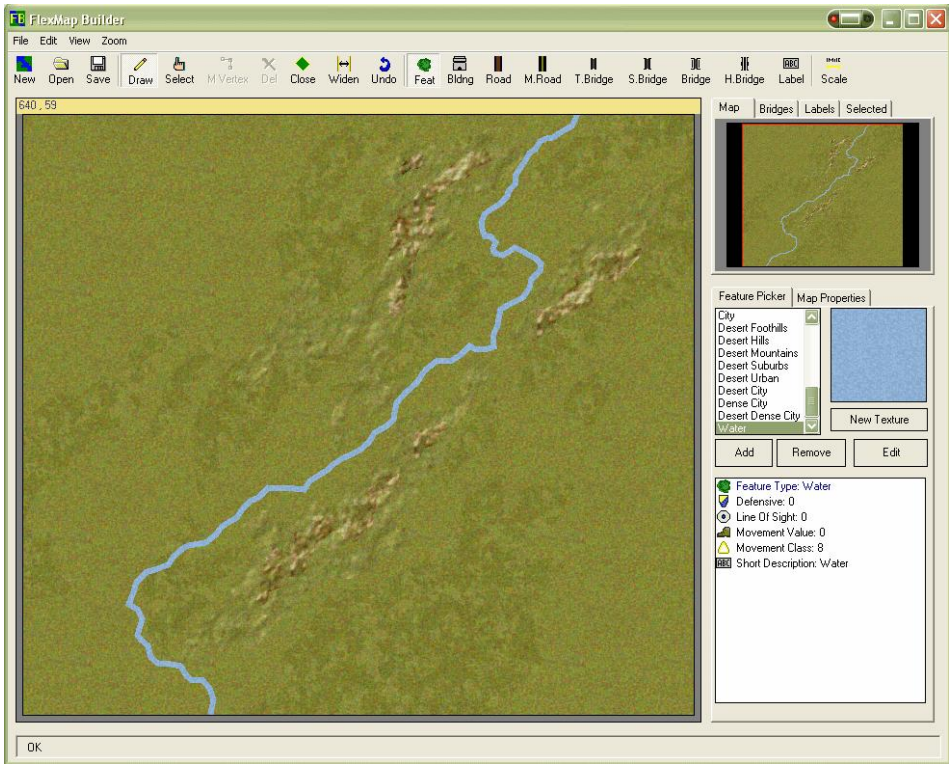
The Widen Tool

Now that we have a few details lets create a river.

- Scroll down with the Feature Picker and select the “water” feature.
- Create a line that is the river but DO NOT CLOSE the feature.
- Instead, click on the “Widen” Button right next to the close button.



As you can see a dialogue box appears and asks you how wide you want to make it. The number is in pixels so you may need to try once or twice before you get a width you like.



Now that you have the base features lets add a small City. Cities are added like any other terrain feature. Click on the “Suburbs” in the feature picker and add it. Make it somewhat large so you can add density to the center of the city.

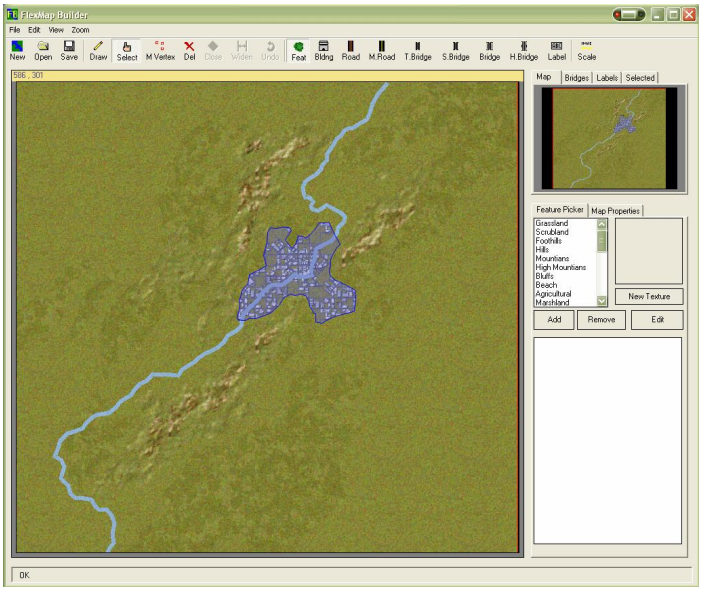
Notice how the River overlaps the city? Again, that’s because the Water feature is farther down on the feature list and will therefore be “on top” of the city.

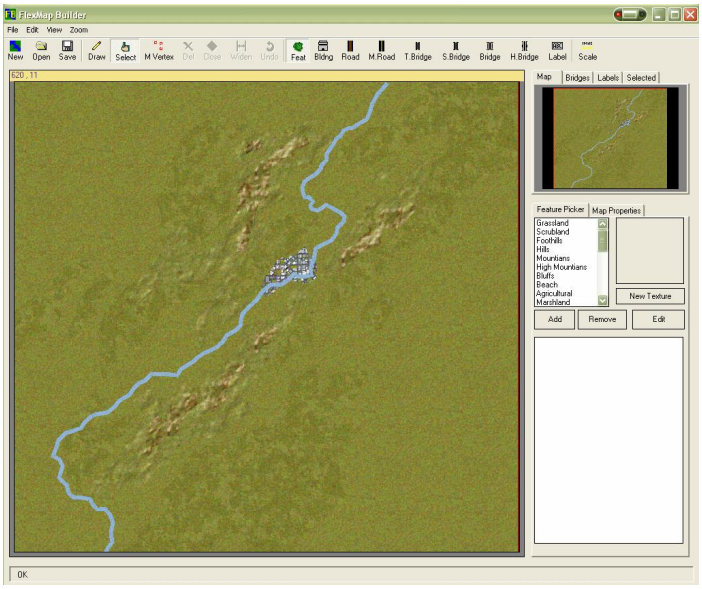
Deleting

Let’s say I don’t like the shape of the city I’ve created. It’s easy to delete features if it didn’t turn out how you would have liked it.

To delete a feature shape, do the following:

- Click the “Select” button.
- Select the feature you want to remove. (it will become highlighted)
- Click the “Del” Button.





You will need to keep in mind that if you create a feature that’s “above” another it will pick the topmost feature of the two. Notice how the “suburban” feature I placed is deleted while the “Urban” feature remains.

Labels

Once I’ve redrawn the Suburban feature the way I wanted it I’ll go ahead and name my city. With the “Label” Button, you can create a textbox that can be used for various things. Naming cities, rivers, lakes or whatever features are important to your map.

Create a Label:

- Select the “Label” button.
- Click on the map where you want to label to appear.
- Click the “Label Text Color” Button change if desired.
- Click the “Label Background” Button to change if desired.
- Click OK.

If the Label does not appear make sure that “Labels” is checked in the “View” menu.

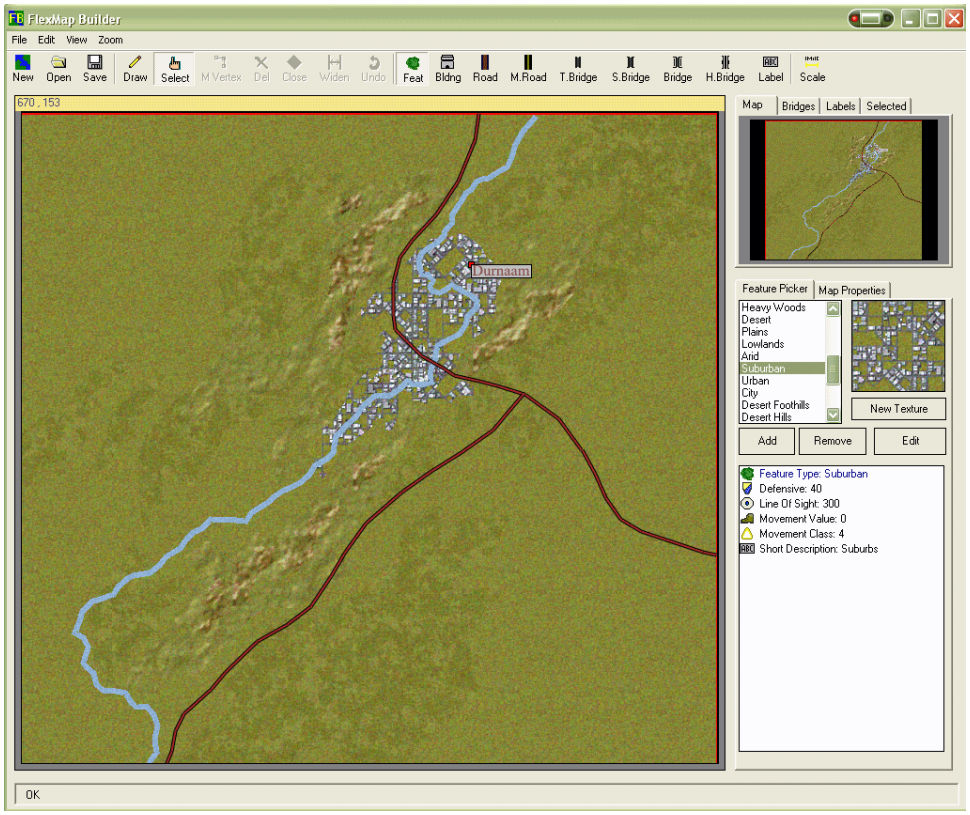
Roads

Now that we have our city lets create a road that goes through it. By clicking on the “Draw” button once again you will notice that there are 2 Road buttons available. As of now there is no difference between the 2 besides how they look. In the future the plan is to make these affect movement. But for now they are simply esthetic.

Create a Road:

- Click the “Draw” Button.
- Select one of the 2 Road buttons.
- Click on the map where you want to begin the road.
- Move the mouse to the next part of the road.
  - If you plan to continue the road DOUBLE CLICK.
  - If you plan to end the road SINGLE CLICK.

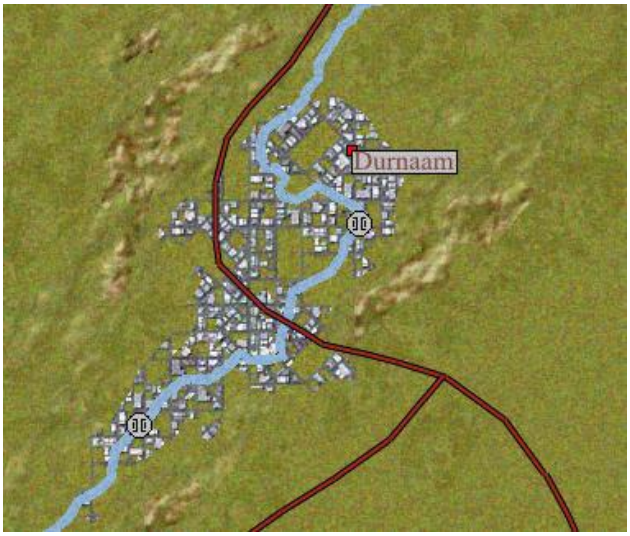
If you don’t like how a road turned out you can delete it just as if it were a feature. Keep in mind that the road is actually built in sections, as a straight line to the next change in direction. If you make a very curvy road you’ll need to individually select the small straight sections and delete them one at a time.



Bridges

Bridges can be added to span an area that would otherwise be impassible. In the above example I will use it to span areas of the river not spanned by a road. In the future it is planned to make bridges destroyable. But for now they are not.

To place a bridge simply Click on the “Draw” Button and select a bridge to place. There are 4 types which at this point all pretty much do the same thing. Once you’ve clicked on the button click on the map where you want it to have it placed.

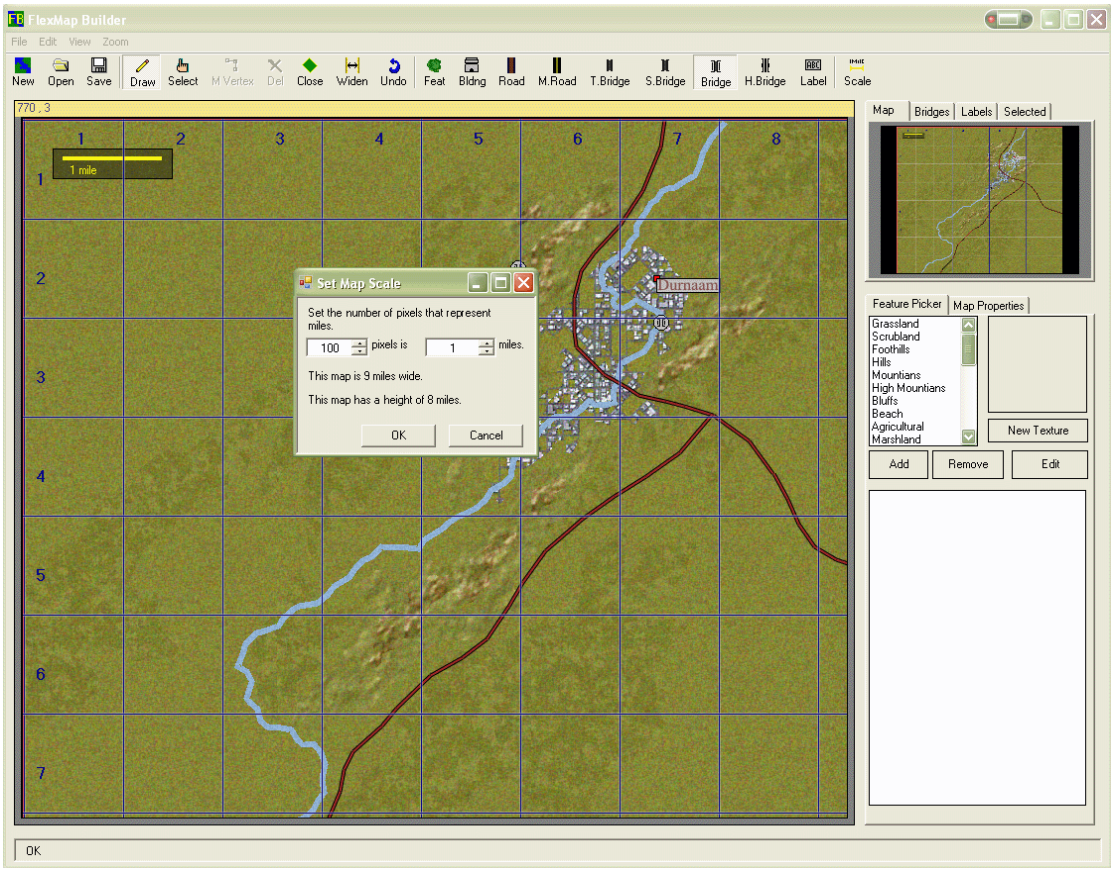


Here you can see that I've added 2 bridges in the city. These are areas that will now be crossable by units.

Scale and Grid

An important step is to make sure that the size of the map corresponds to the size of your textures. This is achieved by setting the scale of the map.

The scale is measured in miles and specified in pixels. It's important to consider this size when you create your textures. You can also estimate; it doesn't have to be precise.



Once you've gotten the scale you like you can display it by clicking "View" "Show Grid" and "Show Scale"

As you can see FlexMap is easy to use. It's important to note that there may be some back and forth with campaigner to make sure your units are moving as fast as you like.