

Local Map Tutorial

After creating a large, regional map of their campaign, many GMs want to render small, local maps from the larger whole. This tutorial covers one of many methods of accomplishing this goal.

Assumptions

This tutorial makes a few assumptions about your CC2 installation and the nature of your regional map:

- This tutorial was written using Campaign Cartographer 2 Pro, v. 6.12, with the Universal Update v. 8
- Your map border is a rectangle
- The border rectangle is on the MAP BORDER layer
- You have experience with standard Windows dialogue boxes

Conventions

To clarify instructions, the following conventions are used:

- Commands are referenced by their names, noted in **Bold Type**; text equivalents are noted in brackets following the command. If desired, you can invoke the command with its icon button, but due to possible differences in an installation's icon bar layout, these buttons are referenced in this tutorial.
- Dialogue box command buttons and fields are referenced by their names, noted in **Bold Type**.
- Menu commands are separated with “->” and noted in **Bold Type** (e.g., **File -> Save As...** means open the File Menu and click on the Save As... command).
- Map layers are referenced in **BOLD CAPITAL LETTERS**.
- **Select** means that you click on a map entity with the left mouse button.
- Command line refers to CC2's command line, located at the lower left of the CC2 window.
- *Italic* text refers to author notes.

Getting Started

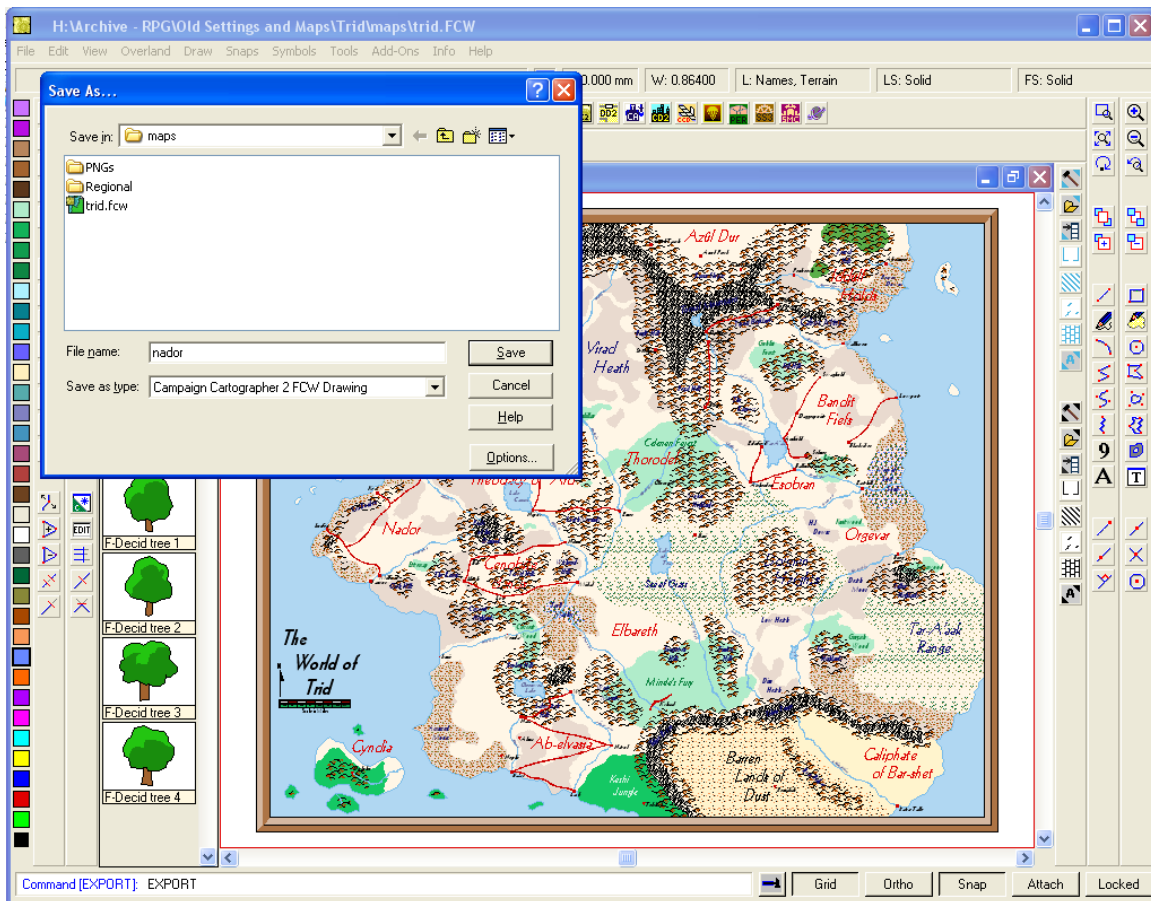
While not absolutely necessary, it's helpful to know your campaign map's dimensions and to have an idea of how big you want your local map to be. These values will aid in some calculations made in the instructions below, and typically grants greater precision in your final result.

In this tutorial, I am using my big campaign map of Trid. The campaign map is quite large, measuring 2,030 miles east to west and 1,700 miles north to south. I want to create a local map of a particular area, and for the sake of example, I want my local map to measure 100 miles across, though I'm not particular about the north/south distance..

Creating the Local Map

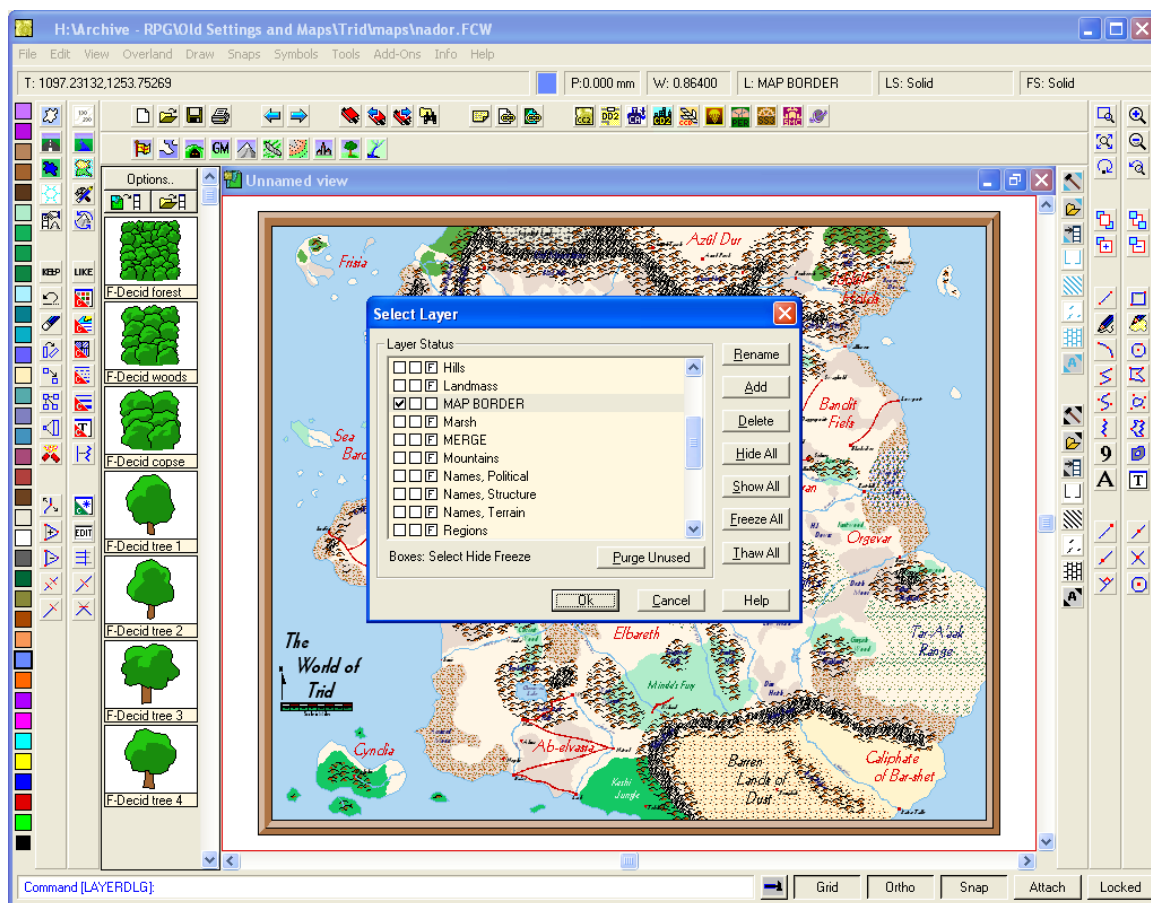
1. Open your campaign map in CC2.
2. Use **Zoom Extents** (Zext) to zoom out to the map's extents.
3. Use **File -> Save As...** to save your map with a new name. This lets you work with a copy of your original map.
4. Type the name of your new map in the **File Name** field; I suggest using the name of your local area.
5. Click **Save** to save the map with the new name.

I've opened my campaign map of Trid to create a detail map of the Trollmarche River delta along the southern border of Nador, a nation along the West coast. I save a copy of my original map with the name "nador.fcw".

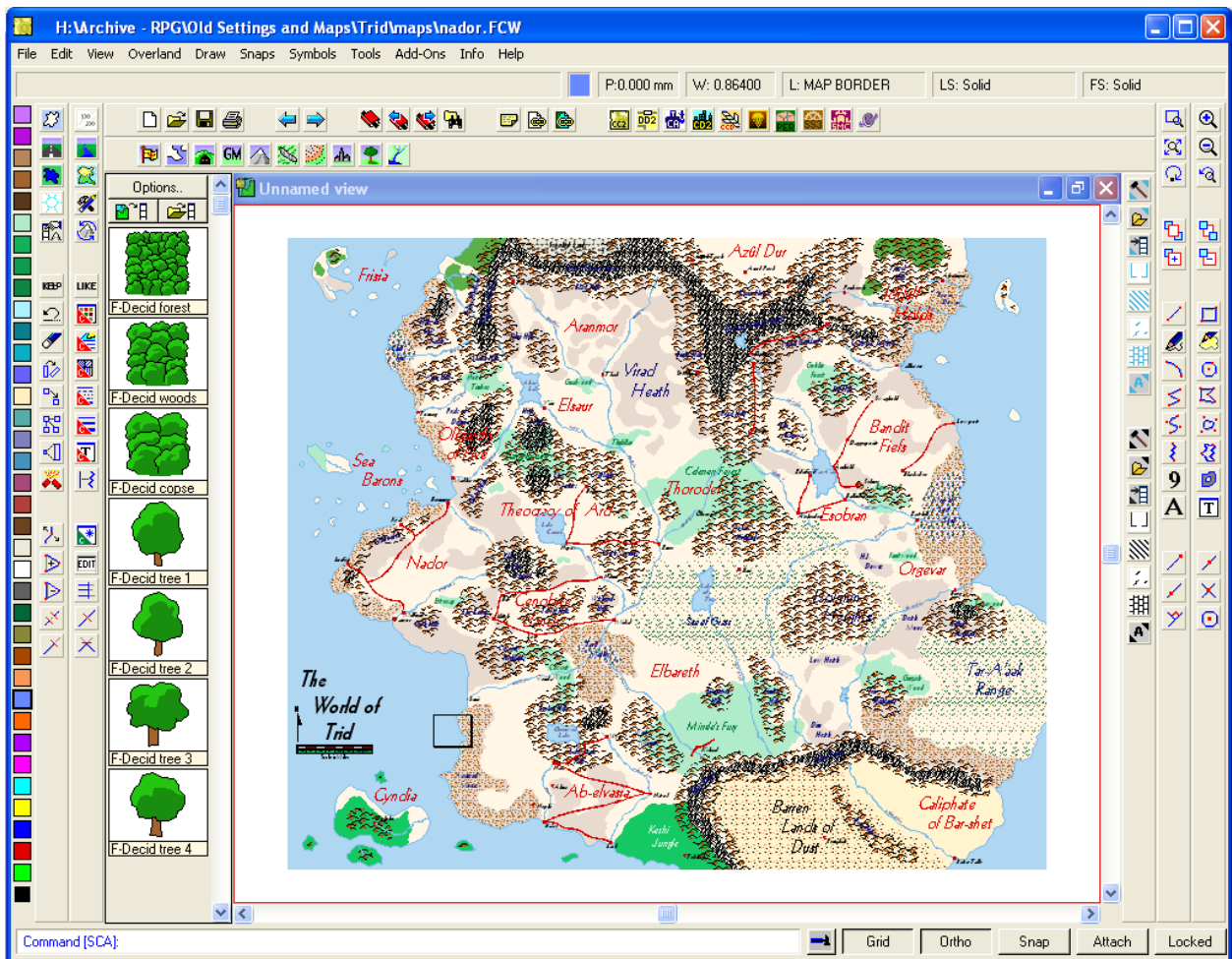


6. Open the Map Layers dialogue box with the **Select Layer** button on the top toolbar. Alternately, you may use **Tools -> Set Properties -> Layers...**
7. Select the left-most box next to the **MAP BORDER** layer to make the **MAP BORDER** layer current.
8. Click the **Freeze All** button to freeze the other layers. An “F” will appear in the right-most box next to each layer; this means that layer is frozen and cannot be selected, edited, or deleted.
9. Click **OK** to clear the Select Layer dialogue box and return to the map.

*You're setting things up to resize the map border rectangle, giving you a “frame” to help you select the area you want to detail. The reason you need to freeze the other layers is because when you do your resizing, you want to affect only the **MAP BORDER** layer.*

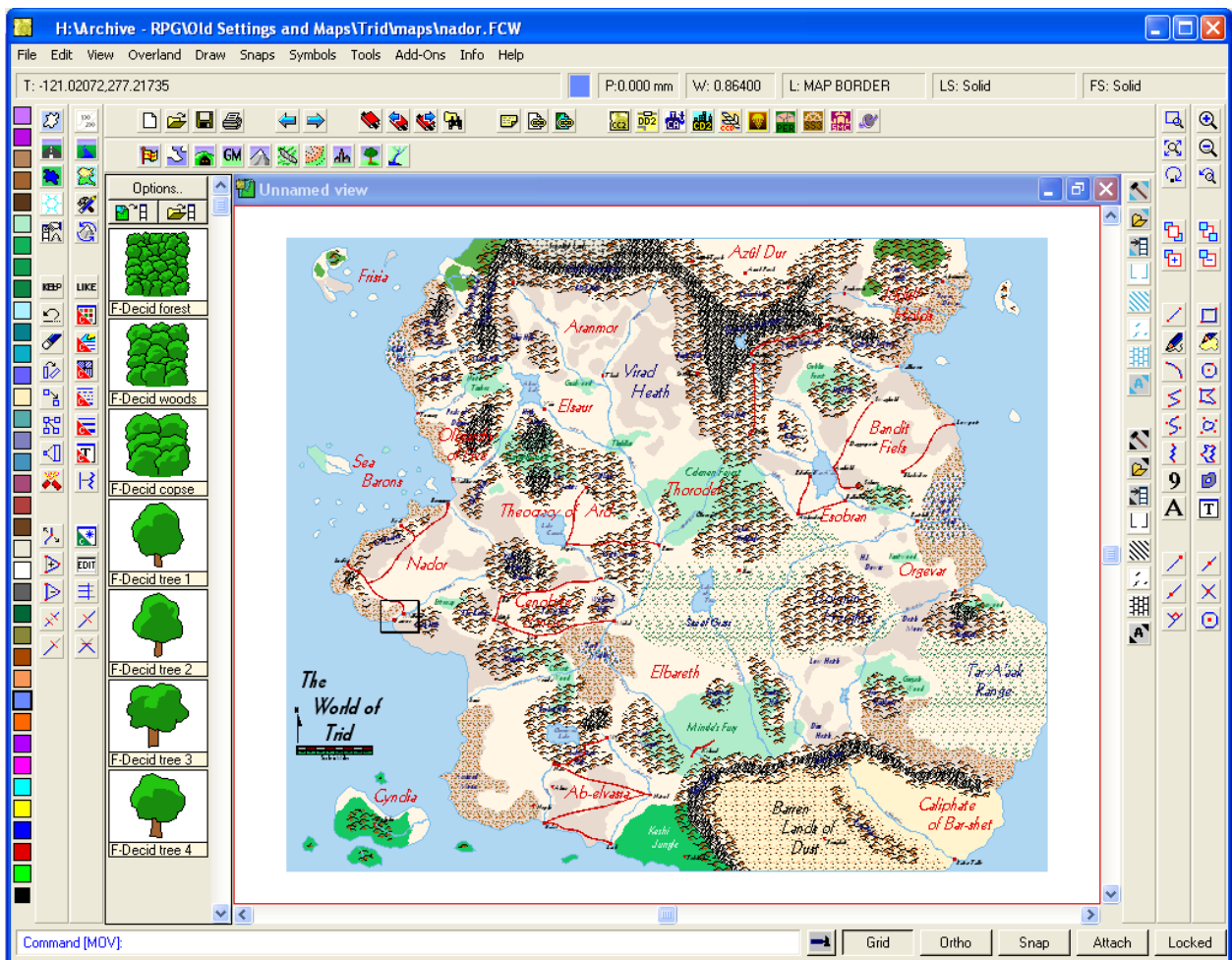


10. Invoke the **Scale** (Sca) command. The command line reads:
“Select entities (0 picked) [Dialog:]”
11. Right-click.
12. Select **All**.
13. The MAP BORDER turns grey, indicating that it is selected.
14. Right-click.
15. Select **Do It**.
16. The command line reads “Scale Origin”.
CC2 is asking you to identify the point at which the scale change is anchored.
17. Type “0,0” to indicate the lower left corner of the map. Press **Enter**.
18. The command line reads “Scale to (Shift=Change ref, Ctrl=Independent X/Y)”.
CC2 is asking you for a scale factor (numbers greater than “1” increase size; numbers between zero and “1” decrease size). You can enter a formula for precision values. We want a local map 100 miles across, and our campaign map is 2,030 miles wide, so we’ll type an expression that evaluates to the correct scale factor.
19. Type “100/2030” and press **Enter** to resize the **MAP BORDER** and return to the map.



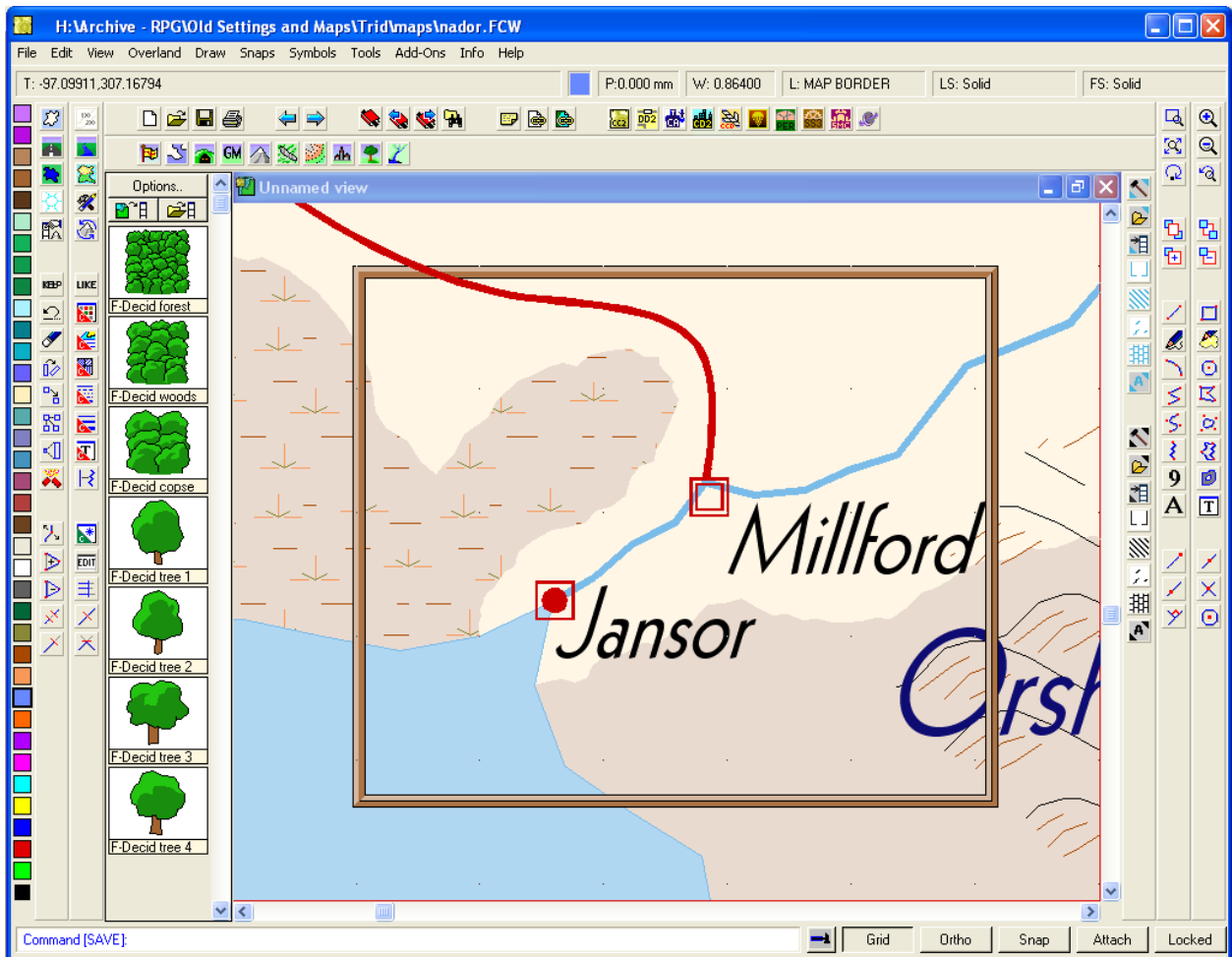
*Note the small rectangle to the right of the scale bar. This is the new, resized **MAP BORDER**, which you can use as a “window” through which you may view your local map.*

20. Invoke the **Move** (Mov) command. The command line reads:
“Select entities (0 picked) [Dialog:]”
21. Right-click.
22. Select **Layer**.
23. Right-click to open the Select Layer dialogue box.
24. The **MAP BORDER** layer should be selected; click **OK**.
25. Right-click.
26. Select **Do It**.
27. The command line reads: “Move from point”
*CC2 is going to move the **MAP BORDER** and needs to know where to move it from. Note the cursor has turned into a cross-hair.*
28. Left-click somewhere near the **MAP BORDER**.
29. The command line reads: “Place (Shift=15° Rot, Shift+Ctrl=Rot, Ctrl=Scale)”
*You can now visually drag the **MAP BORDER** to wherever you want.*
30. When you’ve placed the **MAP BORDER**, left click to place it.



*The area inside the **MAP BORDER** will become your local map. Before doing anything else, though, let's zoom in to get a better look at what we're working with.*

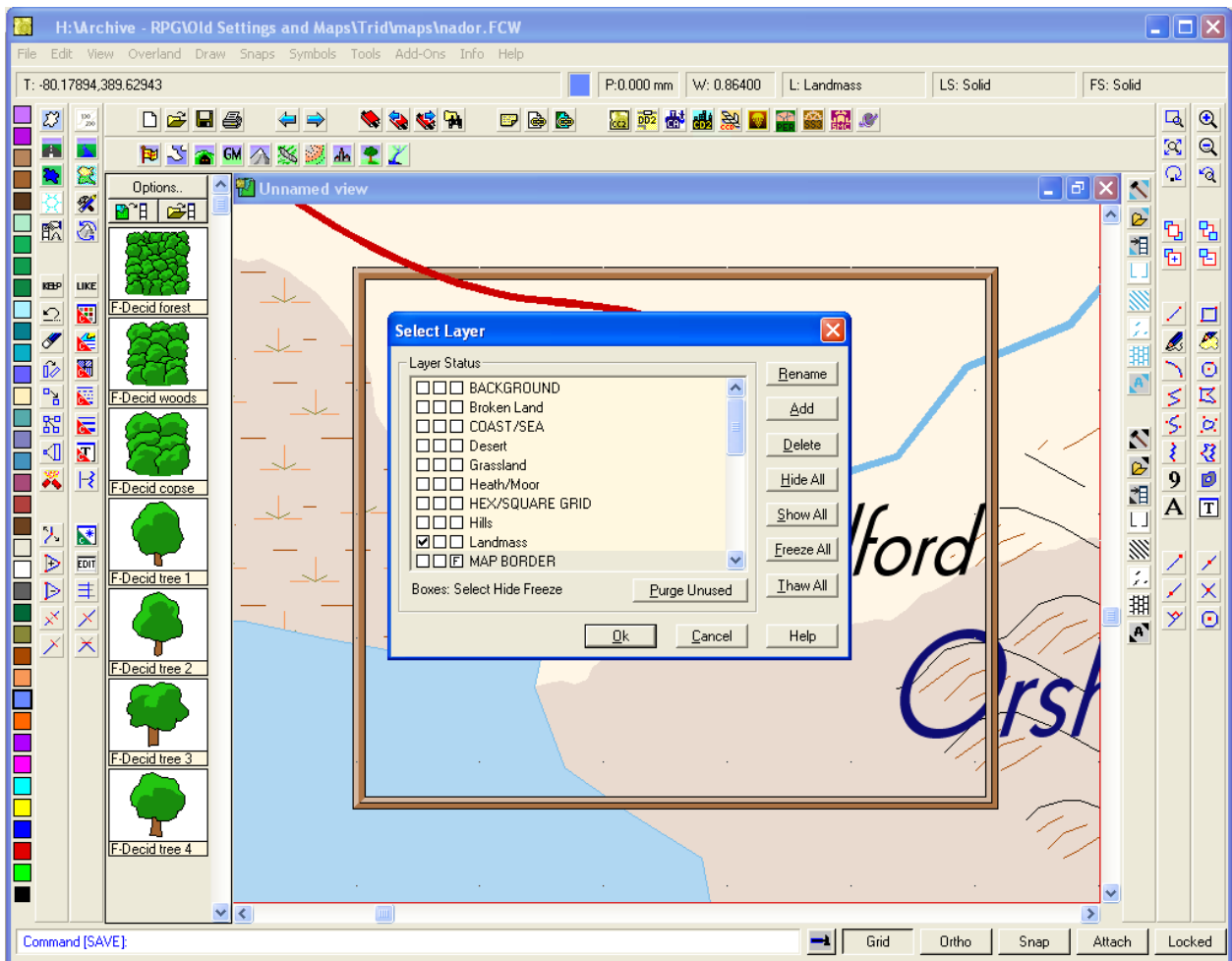
31. Invoke the **Zoom Window** (Zwin) command. The cursor turns into a cross-hair and the command line reads: “Zoom Window:”
32. Select a point a little above and to the left of the **MAP BORDER**.
33. The command line reads: “Opposite corner:”
34. Select a point a little below and to the right of the **MAP BORDER**.
CC2 zooms into the area selected. Now that you have a better view, you may wish to reposition the **MAP BORDER**; if so, repeat Steps 20–30, above.



*You’re looking at the beginnings of your local map, which includes (in this example) some coastal area, moors to the west, a river, hills to the east, and two settlements. In the next series of instructions, we’ll cut away everything outside the **MAP BORDER**, leaving just the features within the local map “frame.”*

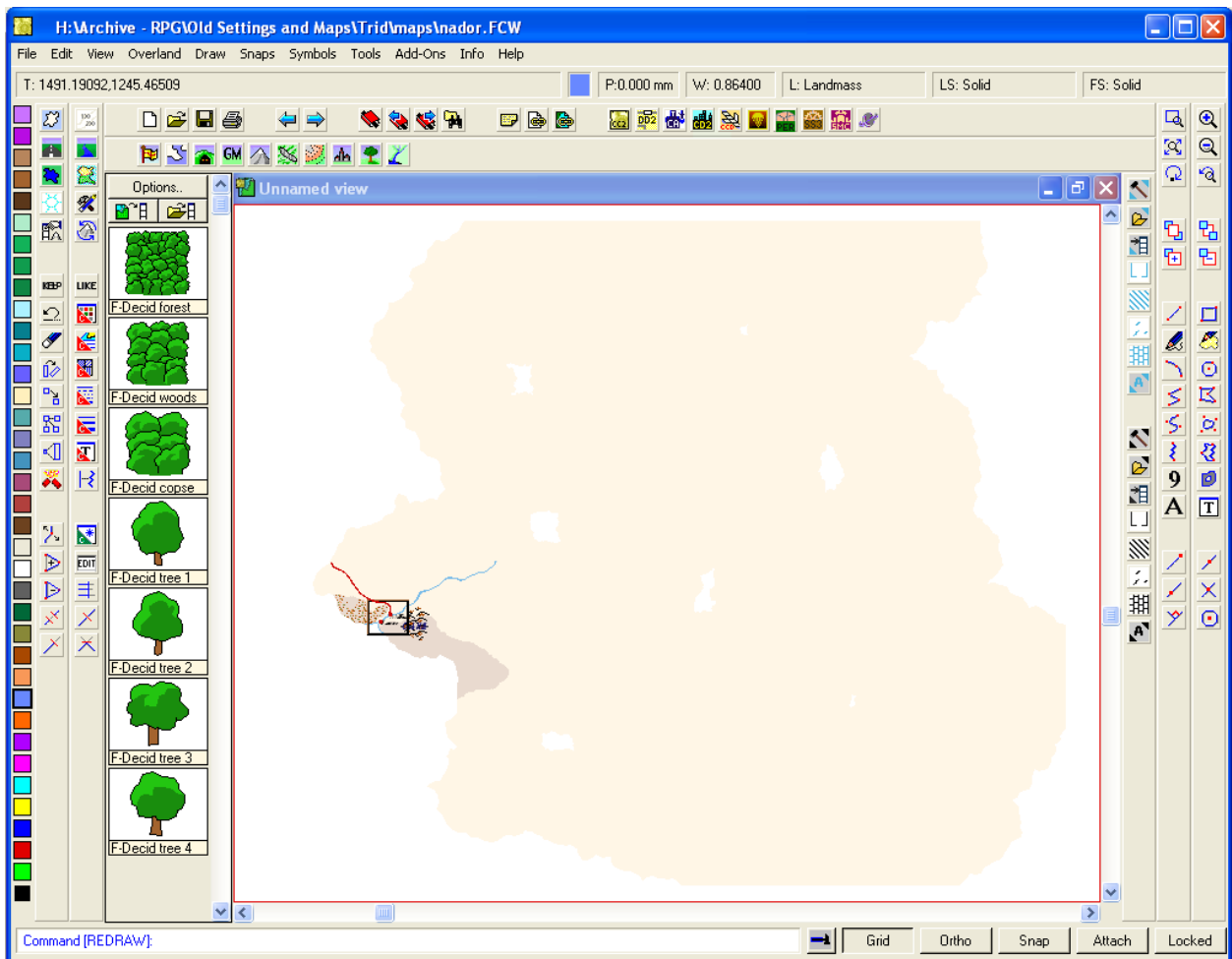
35. Open the Map Layers dialogue box with the **Select Layer** button on the top toolbar.
36. Click the **Thaw All** button to unfreeze all the layers. The “F” in the right-most box next to every layer disappears.
37. Select the left-most box next to any layer other than **MAP BORDER**.
38. Select the right-most box next to the **MAP BORDER** layer to freeze it; this means that the **MAP BORDER** layer cannot be selected, edited, or deleted.
39. Click **OK** to clear the Select Layer dialogue box and return to the map.

*You're paving the way to getting rid of everything outside the **MAP BORDER**. Freezing the **MAP BORDER** layer prevents it from suffering the same fate you're about to inflict on everything else in your map.*



*In the next step, you're going to erase everything outside the **MAP BORDER**. If you haven't already done so, save your map with the **File -> Save** command, or use the **CTRL+S** keyboard shortcut.*

40. Invoke the **Erase** (Erase) command. The command line reads:
“Select entities (0 picked) [Dialog:]”
41. Right-click.
42. Select **All**.
*Chances are that everything in the CC2 window turned grey, obscuring your **MAP BORDER**. That’s alright—we’ll get it back.*
43. Use **View -> Redraw** or **CTRL+R** to get your **MAP BORDER** to reappear.
44. Right-click.
45. Select **Combine -> Not**.
46. Use the **Endpoint** (Ept) command. The command line reads: “Entity”
47. Select a point at the lower left of the **MAP BORDER**. The command line reads:
“Opposite corner”
48. Select a point at the upper right of the **MAP BORDER**.
Several map entities will reappear; don’t worry—that’s supposed to happen.
49. Right-click.
50. Select **Do It**.
*The CC2 window may blank out; use **View -> Redraw** or **CTRL+R** to redraw the map.*
51. Use **Zoom Extents** (Zext) to zoom out to the map’s extents.



You'll note several entities outside the **MAP BORDER**, which is normal. These are entities that cross the **MAP BORDER**. In Step 42, we selected everything except for the **MAP BORDER** and in Steps 45–48, we used **Combine** -> **Not** to de-select everything inside the **MAP BORDER**. Because these entities inside the border extend beyond it, they weren't erased.

The entities remaining will be one of three types:

1. **Path:** These are lines connected to each other at their endpoints. You can **Explode** a path to convert it to lines, but it's often easier just to **Trim** away the portion you don't want. In the example above, the red and blue lines, representing a road and a river, respectively, are paths.
2. **Polygons:** These are filled or unfilled polygons; they may be "unclosed," then treated like paths, above. In the example above, the hills along the eastern edge of the **MAP BORDER**, and the dark brown areas to the west and south are filled polygons.
3. **Multipolies:** These are similar to polygons, but behave a little differently. To edit a multipoly, you must reduce it to its components parts with the **Explode** command. This converts the multipoly into individual lines. In the example above, the big, beige blob representing the continental landmass is a multipoly.

It's important to understand the "hierarchy" of CC2 entities. For our purposes, there are four types we need to know about:

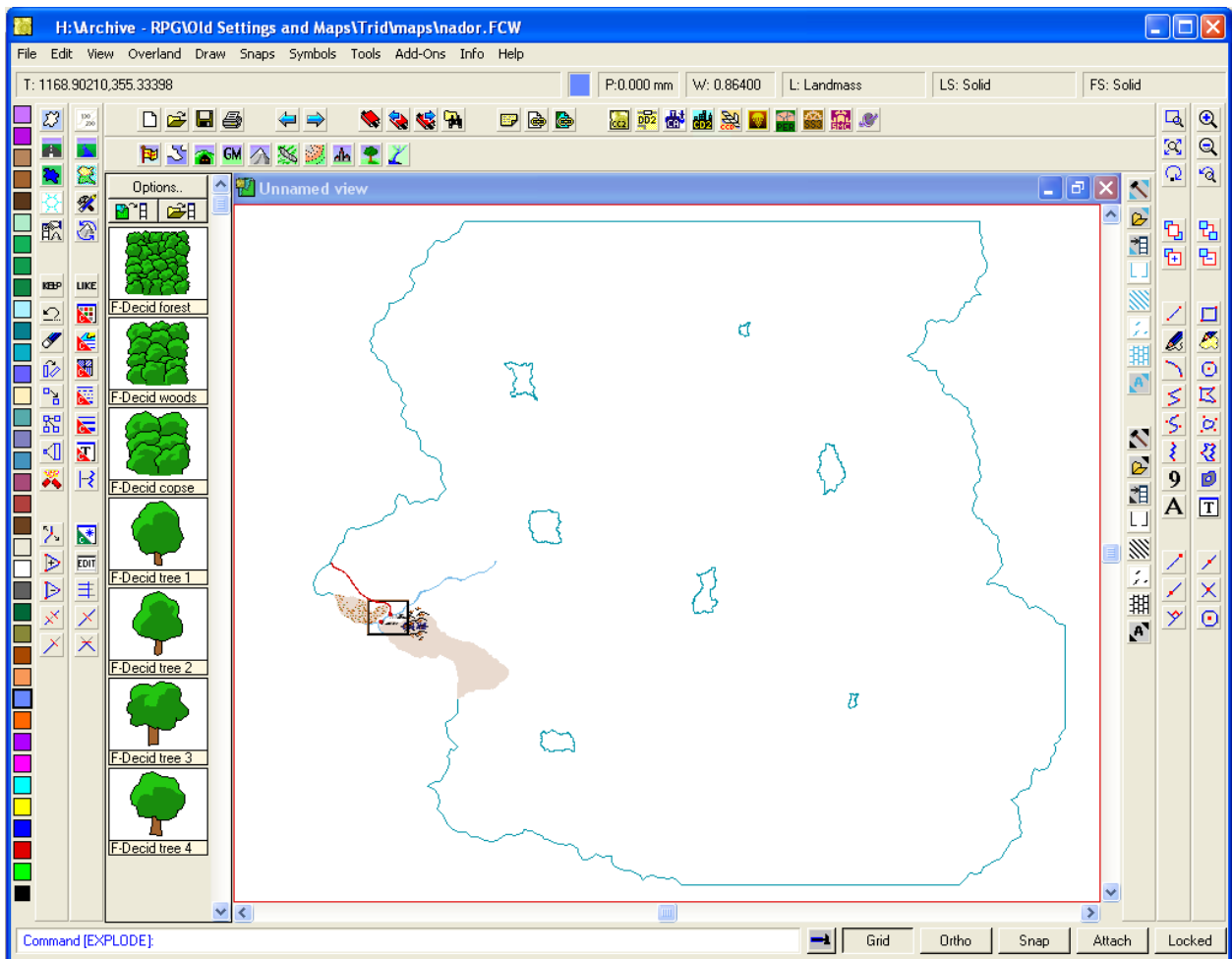
- **Line:** The "lowest" form of CC2 entity; think of it as an "atom".
- **Path:** A series of lines connected at their endpoints. While CC2 treats a path as a single entity, it is actually composed of two or more lines. Think of it as an "element."
- **Polygon:** Essentially a closed path whose end points meet. Like a path, it is treated as a single entity, but it is actually composed of three or more lines.
- **Multipoly:** A single entity composed of lines, paths, and polygons. To extend our analogy, think of it as a "compound."

Editing and erasing these entities is variously accomplished as shown below:

Entity Type	Explode	Trim	Break	Erase
Line	n/a	Trims line	Breaks line	Erases line
Path	Converts to lines	Trims path	Breaks path	Erases path
Polygon	Converts to lines	n/a	Breaks polygon	Erases polygon
Multipoly	Converts to lines	n/a	n/a	Erases multipoly

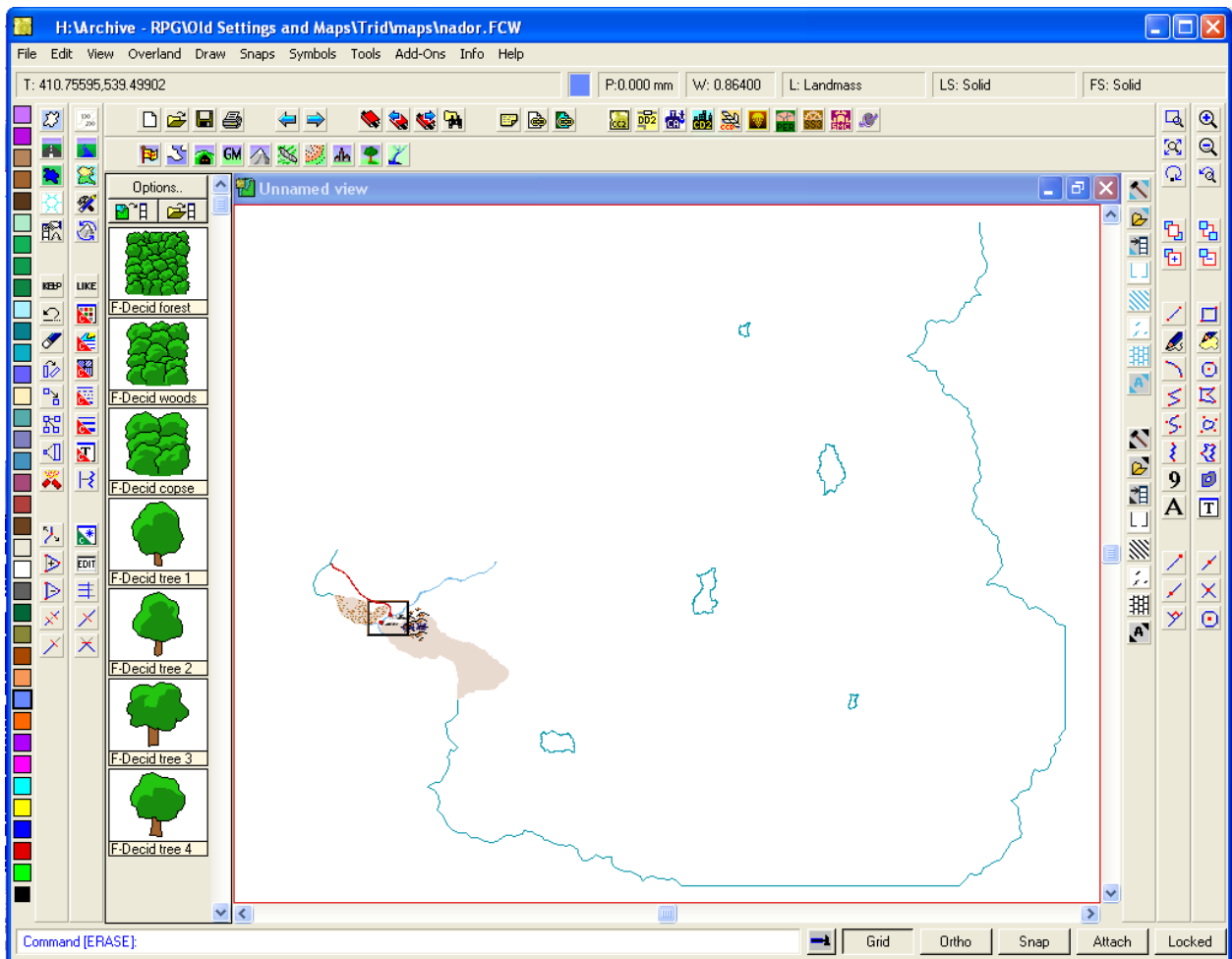
We'll start our editing with the multipoly.

52. Invoke the **Explode** (Explode) command. The command line reads:
 “Select entities (0 picked) [Dialog:]”
53. Select the multipoly.
54. The multipoly turns grey, indicating that it is selected.
55. Right-click.
56. Select **Do It**.
57. Use **View -> Redraw** or **CTRL+R** to redraw the map.
 The multipoly turns into an outline and its fill disappears—it’s now just a set of lines.



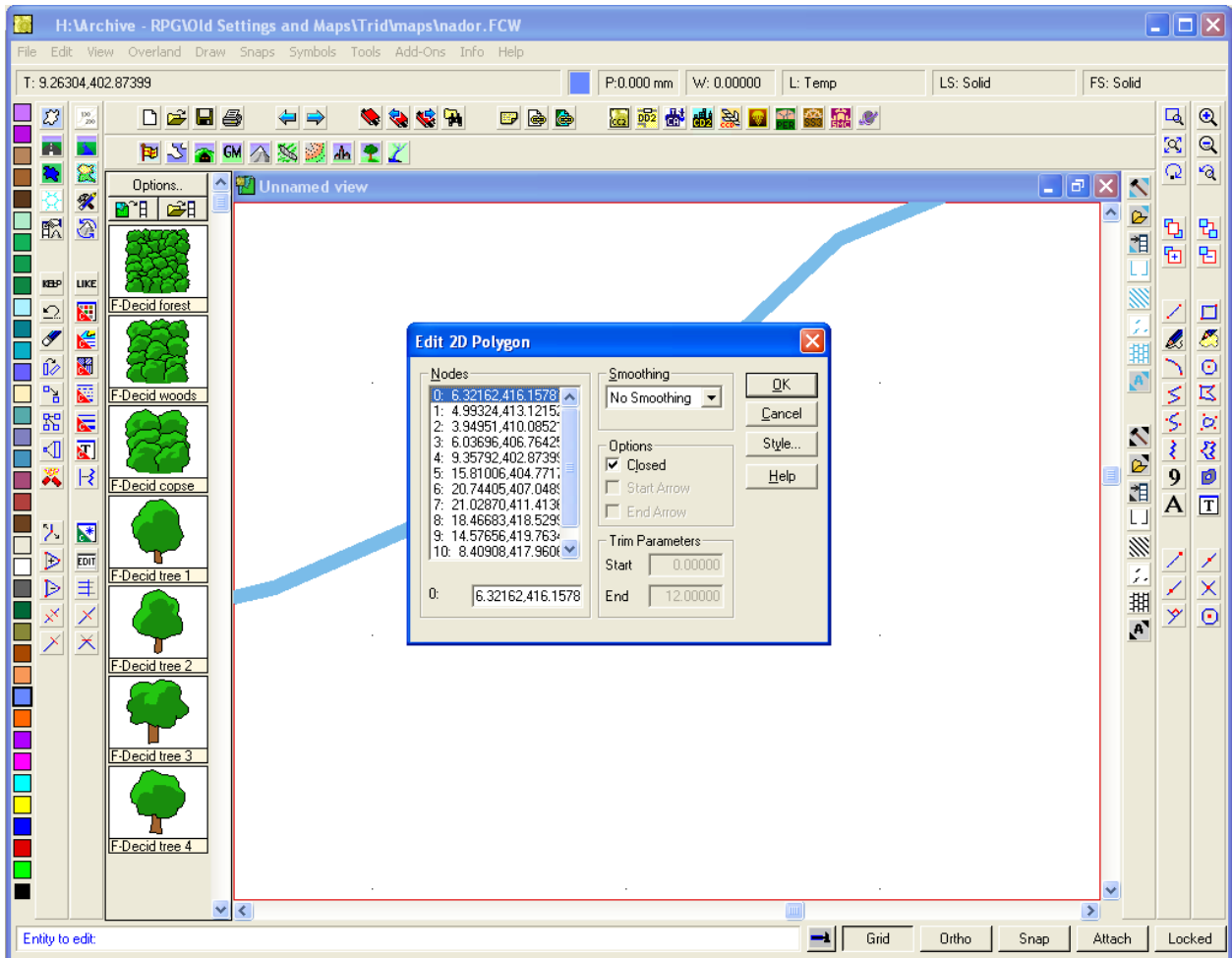
*With the multipoly converted to lines, you can begin erasing those portions outside the **MAP BORDER**.*

58. Invoke the **Erase** (Erase) command.
59. Right-click.
60. Select **Window**. The cursor turns into a cross-hair and the command line reads:
“pick entities in a window”
The Erase by Window command lets you delete everything inside a rectangle you draw.
61. Select a point to represent the upper left corner of your rectangle.
62. Select a point to represent the lower right corner of your rectangle.
Take care to select only the lines created by your exploded multipoly.
63. Right-click.
64. Select **Do It**.
Everything in your Erase window disappears.



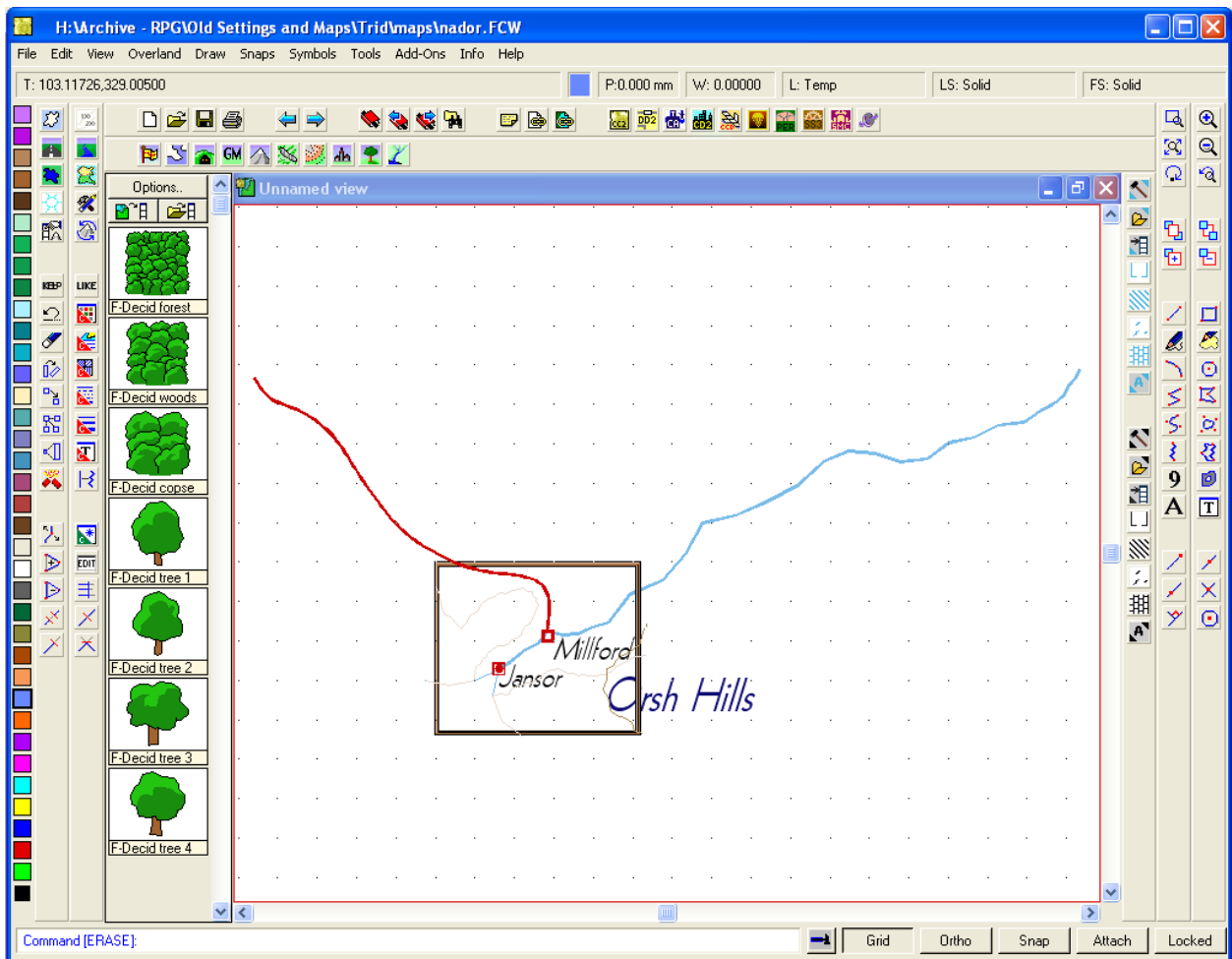
*My **Erase** window started at the upper-left corner of the map and extended down and to the right. The result erased the upper-left corner of what used to be my multipoly. Repeat steps 58–64 until every bit of the exploded multipoly outside the **MAP BORDER** is gone; do the same with any other multipolies you may have, using **Zoom Window** and **Zoom Extents** to do some detailed erasing or see how much is left outside your **MAP BORDER**. Finally, make sure you don't erase anything inside the border, since you'll need those entities for the local map. Next, we'll work on the polygons.*

65. Invoke the **Edit** (Edit) command. The command line reads:
“Entity to edit:”
66. Select a closed polygon.
The Edit 2D Polygon dialog box opens.
67. Uncheck the “Closed” entry in the Options frame
68. Click **OK** to return to the map.
The closed polygon is converted to a single path; any fill style disappears.
69. **Explode** the path you just made.
The path is reduced to its component lines.



*In my example, map, I had to “unclose” the hill area along the eastern edge of the **MAP BORDER**, along with the dark brown patches that represented moors and heath on the larger campaign map. Repeat steps 65–69 until all the polygons that cross your **MAP BORDER** are “unclosed” and converted to lines. Again, use **Zoom Window** and **Zoom Extents** for detail work and gauge how much is left outside your **MAP BORDER**.*

When you're done, use the **Erase** command to get rid of lines outside the border. When you're done, use **Zoom Extents**: you should be left with a **MAP BORDER** and a set of lines (and possibly some text labels, as shown on the example below):

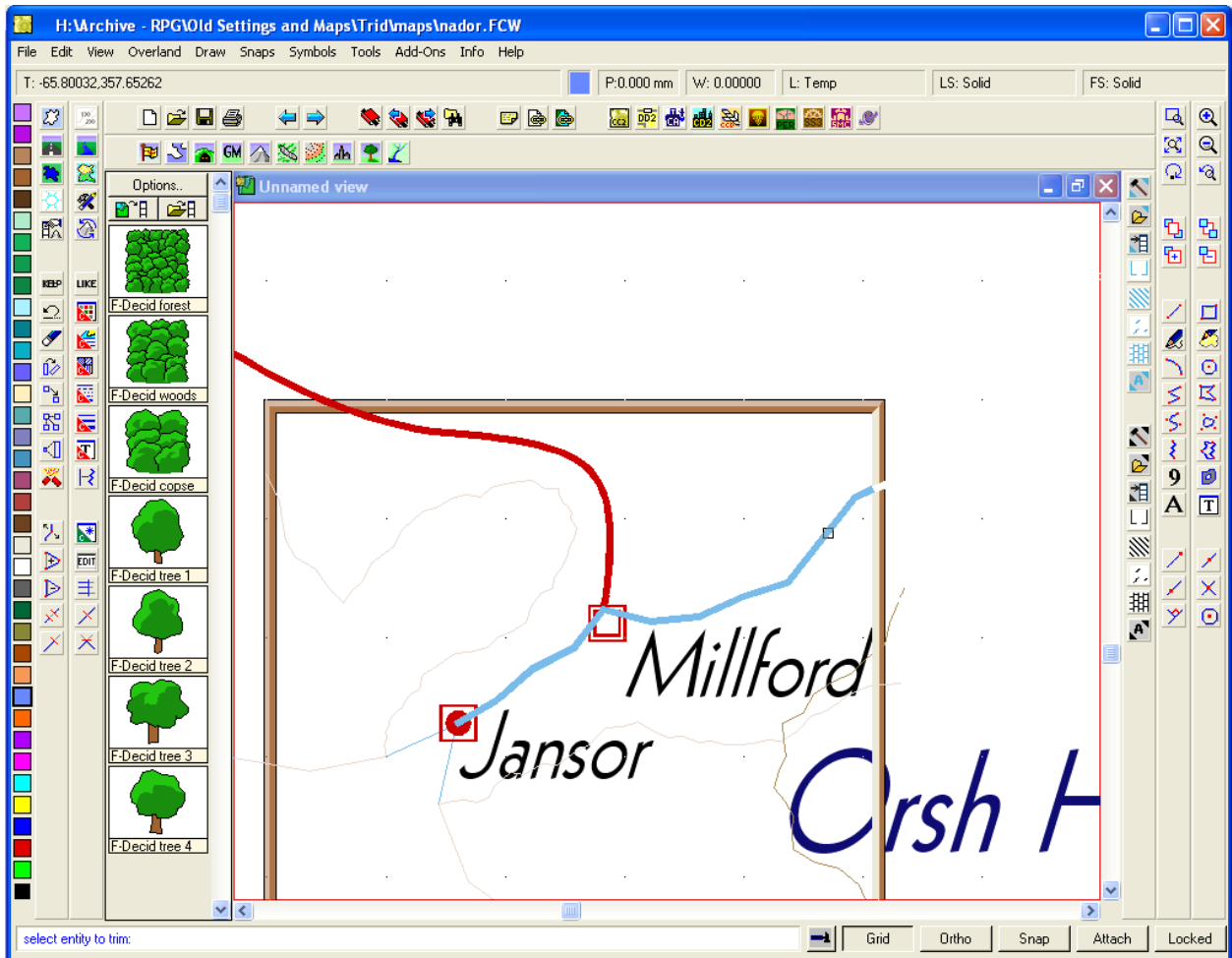


You can see the remains of both the the multipoly and polygons inside the **MAP BORDER**. The light brown lines represent what's left of the moors, heath, and hill areas, and when we get to actually editing the detail map, these will mark the edges of those terrain types.

The last bits to edit at this point are the road (red path) and river (blue path). Instead of simply chopping them off with the **Break** command, we'll incorporate some finesse and Trim them precisely so their endpoints rest on the **MAP BORDER**.

To do this with some precision, use **Zoom Window** to get a closer look at where these paths cross the **MAP BORDER**.

70. Invoke the **Trim to Entity** (Trimto) command. The command line reads:
“Select entity to trim to:”
71. Select the edge of the **MAP BORDER** crossed by the path.
*Even though the **MAP BORDER** layer is frozen, it should appear grey when selected.*
72. The command line reads: “Select entity to trim:”
73. Select a segment of the path you want to trim **inside the MAP BORDER**.
*The portion of the path outside the **MAP BORDER** should disappear.*
74. Redraw the map.
*The endpoint of the path should lie on the **MAP BORDER**.*



As shown above, my river path is now trimmed to the **MAP BORDER**. Repeat Steps 70–74 with any other paths that extend beyond the **MAP BORDER**. When you’re finished, use **Zoom Extents** to make sure there are no more entities outside the **MAP BORDER**.

Let’s also take a moment to deal with text labels—they’re too large for the local map. In the next step, we’ll reduce them to manageable size and keep them inside the **MAP BORDER**.

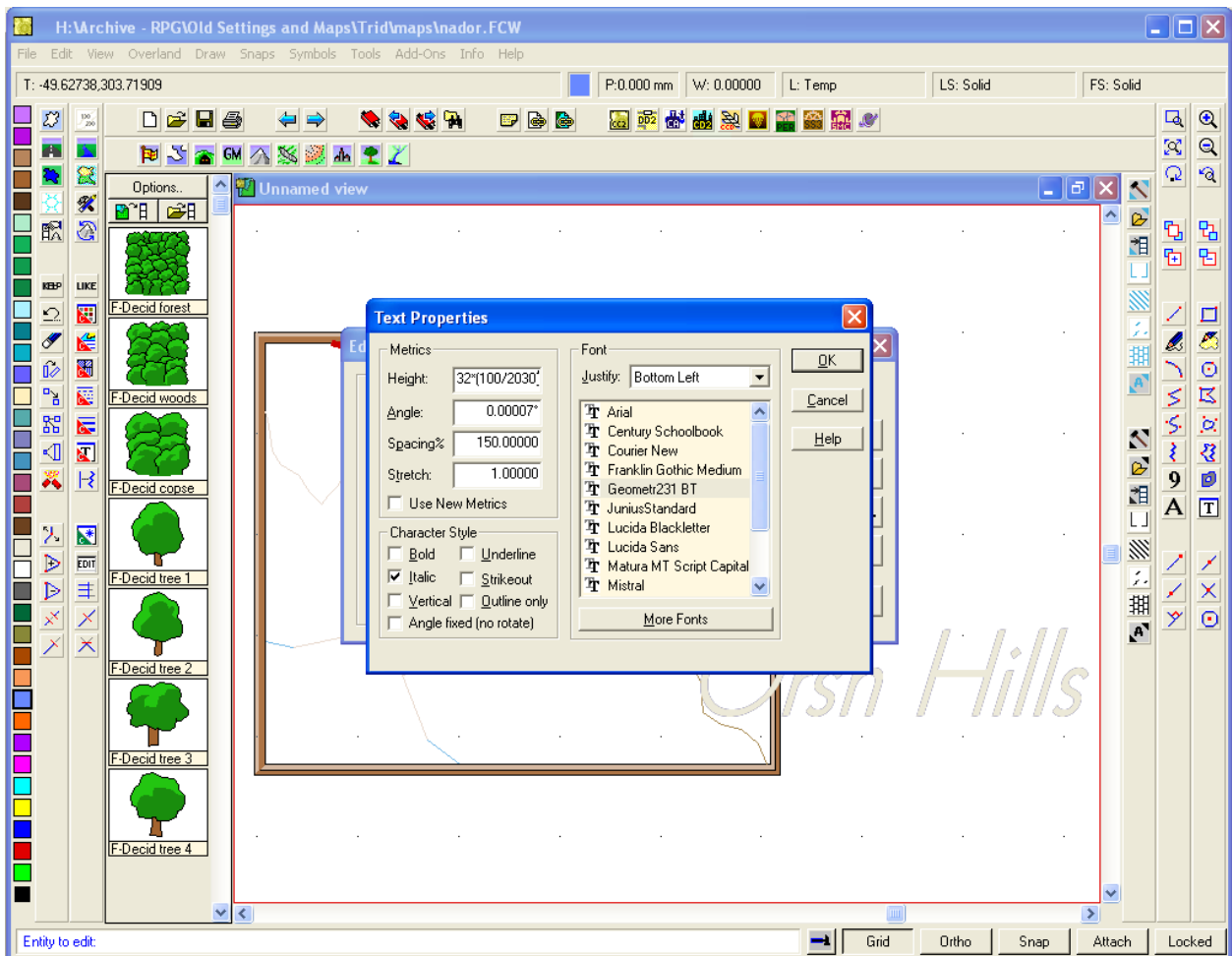
75. Invoke the **Edit** (Edit) command.
76. Select one of the text labels.
The Edit Text dialogue box opens.
77. Click on the **Properties** button.
*The Text Properties dialogue box opens. Look for the **Height** field in the upper left.*
78. Enter a new, smaller value in the **Height** field.
The value you enter is a matter of map scale and your taste for proportion. If you want, you can simply enter a number and see how it looks.

*But if you want to keep the new text size relative to the original map, you should apply the scale factor you used when you resized the **MAP BORDER** (Step 19). In this case, the value is (100/2,030).*

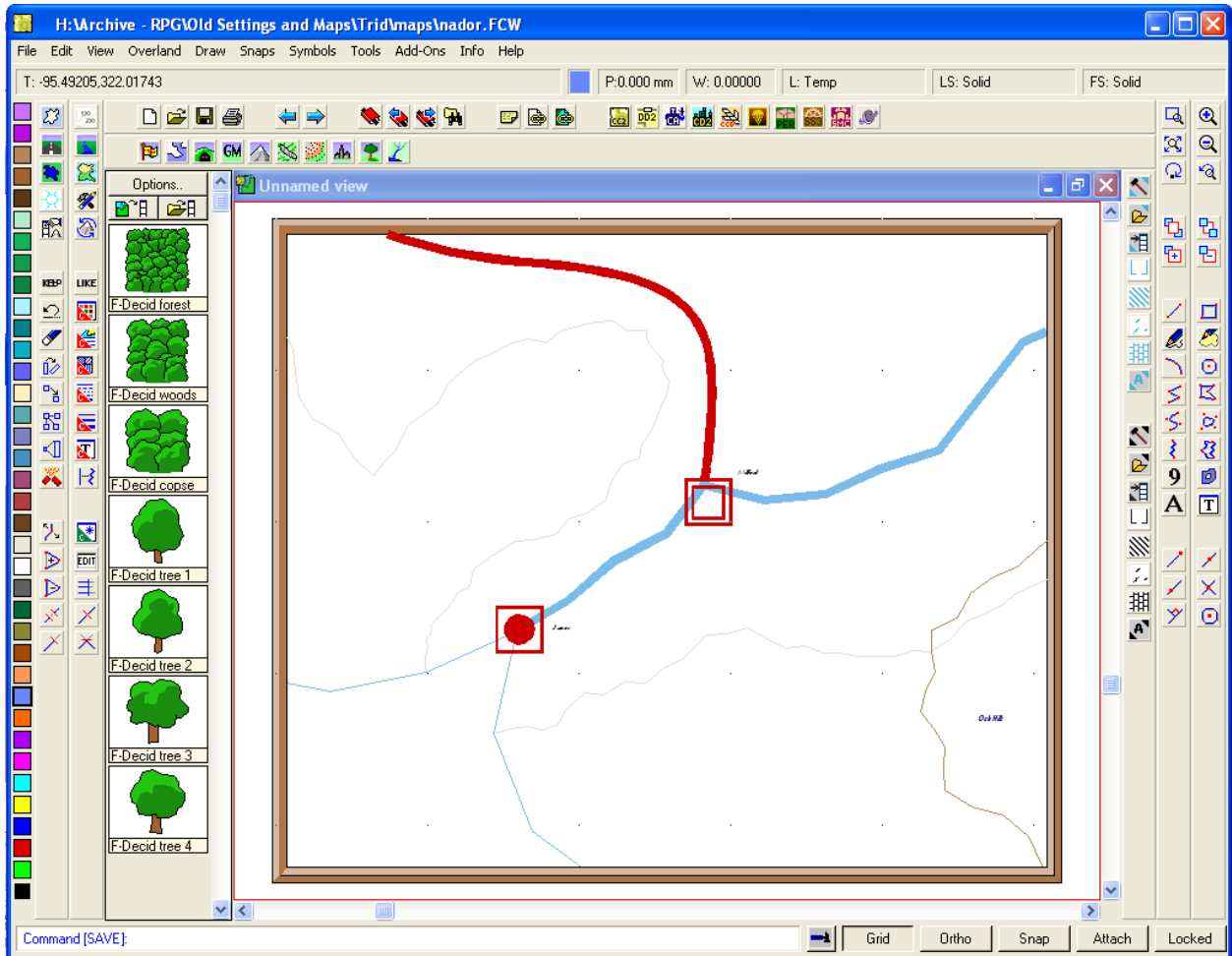
*Now, before you get out your calculator, understand that CC2 lets you enter a formula in the **Height** field. The formula you want to use multiplies the current value by the scale factor, and the expression to enter in the **Height** field is something like this:*

*[current height] * (100/2030)*

79. Click **OK** to return to the map.



When the map reappears, the text label is resized. It may not appear exactly where you want it, but you can fix this with the **Move** command (as I've done in the figure below). Repeat Steps 75–79 with the remaining text labels, then **Zoom Extents**: Your map should now fill CC2's editing window.



Things are starting to come together on your local map, though there's still some work to do. Specifically, we need to resize the two settlement symbols), the river, and the road.

Before we do this, we need to address a subtle aspect of the local map. When we started, the coordinate system of the original campaign map placed the Cartesian point "0,0" at the lower-left corner. When you rescaled the map, however, CC2 moved the map's position on the Cartesian grid. As a result, "0,0" no longer references your local map's lower-left corner. We need to bring the map back in line with the grid.

Once again, though, CC2 provides, and we can invoke a simple command to do just that.

80. Use **View -> Move Origin** (Origin). The command line reads, “Origin”.
CC2 is asking you to select a point that will become the map’s origin (i.e., the Cartesian point “0,0”).
81. Move the crosshair to the map’s lower-left corner.
82. Left-click on the intersection of the border’s vertical and horizontal axis, **inside the MAP BORDER**.
The lower-left corner is now the map’s origin, (“0,0”), which makes it easier to perform the rescaling we need to do next.

*The settlements are represented by symbols, which can be rescaled. The most efficient way to rescale symbols is to use the Scale command as described in Steps 10–19. However, when selecting entities to scale (Step 12), you can select by **Layer**. Use the same scale origin (“0,0”), but when CC2 asks you to provide a scale factor, don’t use the same value you entered in Step 19. Instead, enter this formula:*

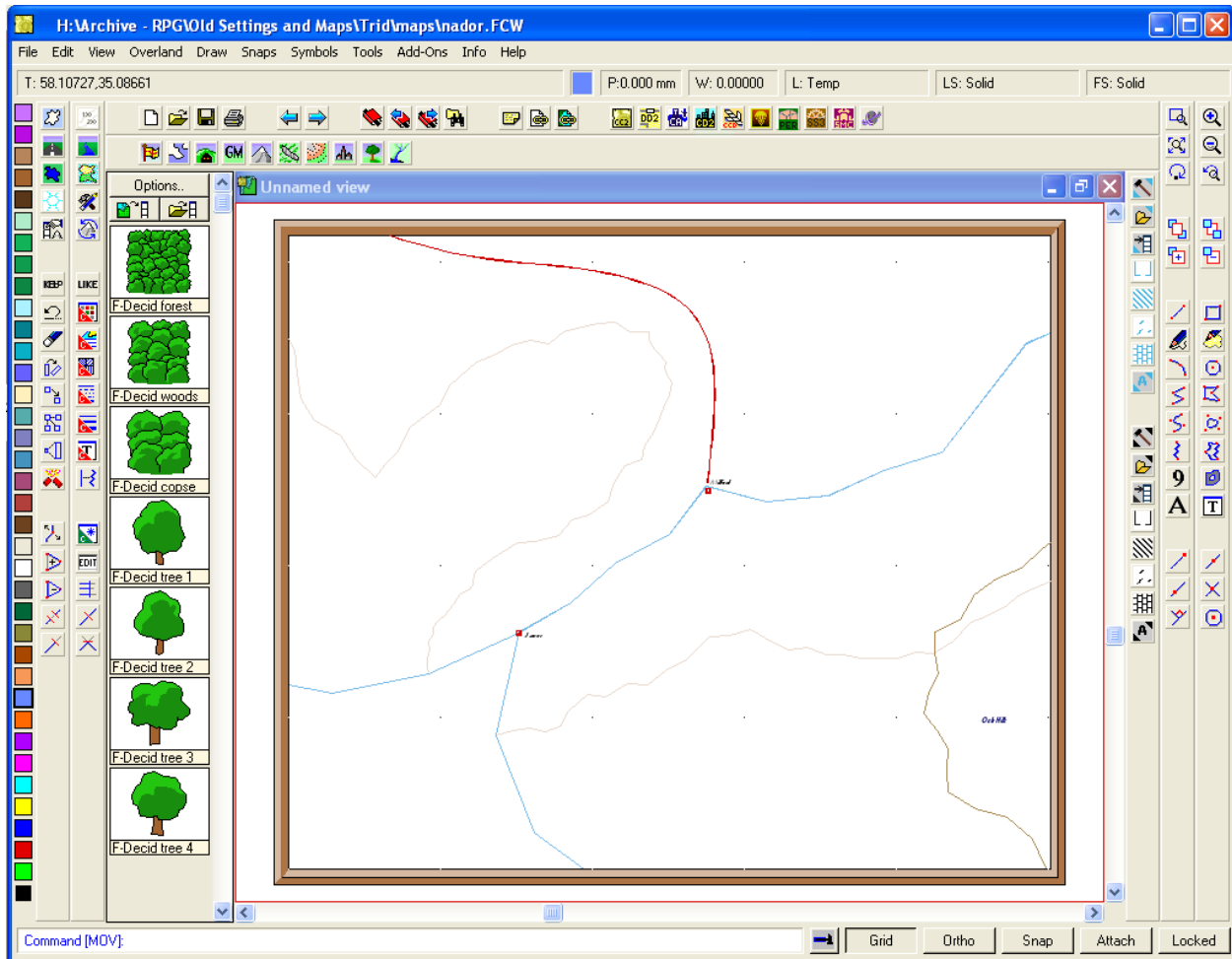
[map width] / 1000

*In this case, you’d enter “100/1000”. You want to do this because CC2’s overland symbols are optimally scaled to 1/1000th of a map’s width. When the map reappears, the symbols are resized and repositioned, but they’re in proportional distance to one another and, most importantly, they’re **inside the MAP BORDER**. If you hadn’t moved the map origin in Steps 80–82, they probably would have appeared outside the **MAP BORDER**, which makes them difficult to find, even with **Zoom Extents**.*

*Use the **Move** command to drag the resized symbols to their desired locations. The next step is to rescale any roads and rivers.*

Because these entities are paths, they’re not resized in the same way as symbols or text. Instead, you want to adjust their width so that they conform to the local map’s scale.

83. Invoke the **Change Width** (Changelw) command. The command line reads:
“Select entities (0 picked) [Dialog:]”
84. Select any paths representing rivers, roads, trails, borders, etc.
85. Right-click.
86. Select **Do It**. The command line reads: “New line width”
CC2 is asking for a value to represent the width of the selected paths. To keep everything in proportional scale, use the scale factor you entered in Step 19.
87. Type “100/2030” and press **Enter** to rescale the selected paths and return to the map.



Campaign Cartographer 2 Tutorial Creating Local Maps from Regional Maps

At this point, you're finished with the fundamentals of creating your local map. It may not look like much, but now you have a properly scaled map of the area you wanted to detail, and you can use other CC2 editing tools to add details:

- *Fractilise coastlines and rivers*
- *Convert paths to polygons to create coloured fills for terrain, lakes, and oceans*
- *Add symbols*
- *Overlay a hex or square grid*
- *Add a scale bar and compass rose*

These procedures are beyond the scope of this tutorial, but with some additional editing, you dress up your local map with detail, as shown on the work-in-progress example below:

