OUR FIRST MAP

Now that we've looked at the interface, let's begin our first map. Our maps are created on templates. These templates, which are FCT files, give us a foundation of tools on which to create our drawings.

Before we start mapping, let us stop and think for just a minute. Drawing a map is not something we should dive headlong into. Instead, we should have a plan. We need to know what we want to draw, and some details about it, like the size of the area. Let me tell you a bit about the map I plan to draw here now.

The map will detail the King's Coast. This is a stretch of coastline near Snowport, the capital of Windclaw, the largest of the Windclaw Isles, situated in the Maldaric Ocean, located on a world called Virana. This map is intended to be used for a roleplaying game, and the flavor of the setting is a low-magic medieval feel. The area is lightly populated. The island of Windclaw is about the same size as a medium-sized European country, so the part we will be mapping is just a small piece of the coastline. The island itself is dominated by large forests and hills, so I want that to influence our map as well.

So, the text above should provide some ideas for what we want. I could easily have gone into more details, and I might even have drawn a sketch on paper, but I am not going to do that. Instead, let us get mapping, and I'll get back to details from the description as they become relevant.

For this map, we will be exploring how to create a basic map using the tools provided, but we will also dig a little bit deeper, do some tweaking, and demonstrate how we don't always have to use everything exactly as provided.

If you have add-ons installed, begin by clicking **Map Menu** to set the interface to the **Overland** menus.

Defining the Map

1. Click **New**.
   The New Drawing Wizard opens.
   Select **Overland Maps** then click the radio button to select **Decide Settings Myself**. Click **Next**>.

2. Select **CC3 Mike Schley Overland**. Click **Next**>.
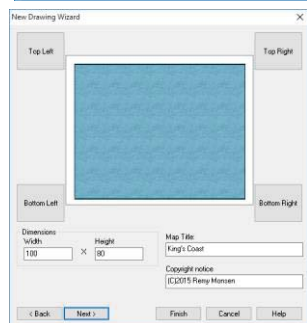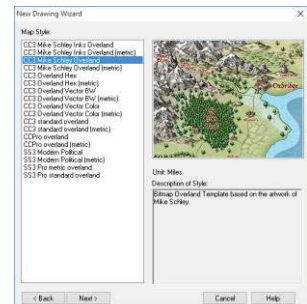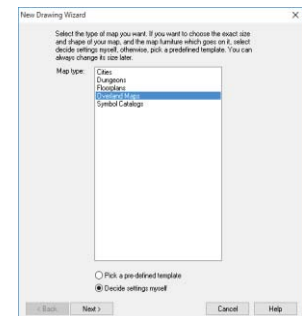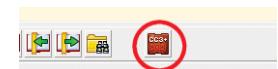   The **New Drawing Wizard** presents us with options.
   Since our map will depict a small stretch of coastline, we'll stick with a relatively small map. Change the dimensions to **100 Width** and **80 Height**. For overland maps, these dimensions are measured in miles. So, even if this is a small map as far as maps go, do keep in mind that 100 miles is still a considerable distance.

3. Let's also add a compass rose. Click **Bottom Right**. From the **Select symbol** dialog, click to select a compass rose. Click **OK**.
   As you can see from the list of symbols, we could also have placed a map title and a scale bar at this point. However, I want to see more of the map complete before I place these components.
   Note that the Map Title and Copyright notice fields in the wizard is only used if you actually place the Map Title or copyright symbol in the map from the Select symbol dialog. Otherwise, they are ignored.

4. We could click **Finish** now and our new map would be created. Instead, let's click **Next**> just to continue exploring the wizard. From this page of the **New Drawing**

Sidebar

Templates

Templates, either pre-drawn or created with the wizard, will contain all the tools necessary to create our map. It will have appropriate drawing tools, symbol style filters and effects already defined.

Add-ons

Add-ons to CC3+ include, but are not limited to, Dungeon Designer 3 (DD3), City Designer 3 (CD3), Cosmographer (Cos3), and Perspectives.

New Drawing Wizard

The New Drawing Wizard allows us to make selections and create a template that is suited for our purpose. We can select a pre-defined template from choices in useful sizes or we can input our own settings.

CC3 Mike Schley Overland

This list contains all the different drawing styles you have available for this type of map. The CC3 Mike Schley overland style is the default CC3+ style, and is used for most examples in this manual, but you are encouraged to try the other styles as well

Options

From here we can quickly and easily create a custom template by entering the width and height dimensions and also by adding standard mapping elements. The Top Left, Top Right, Bottom Left and Bottom Right buttons select positions on the soon to be created template for a compass rose, scale bar, map title and copyright notice. If you don't wish to add those elements at this time, you can click Finish. Those elements can be put into the drawing later by adding them as symbols.

Wizard, we can choose from a selection of backgrounds if we don't want the default background. We can also apply a grid with the **Grid Overlay** option if one was desired. For our exercise, we won't apply a grid and we will accept the water background.

5. Click **Next**>. This last screen of the wizard allows us to enable multiple levels. This isn't normally used for overland maps, but it is helpful for floorplan or dungeon maps, where you want many maps of the same size. If you do enable multiple levels, **CC3+** will generate one separate map file for each floor/level in the drawing. Hyperlinks will also be added to the maps, allowing you to navigate between them with the click of a mouse. None of this is helpful to us now, so just leave the option unchecked.

6. Click **Finish**.

7. In the **Save your new map** dialog, enter a name for your new map, then click **Save**.

Our template has now become the beginning of a drawing. Our drawing at this step can be viewed in **Tutorials/UserManual/First Map-01.FCW**.
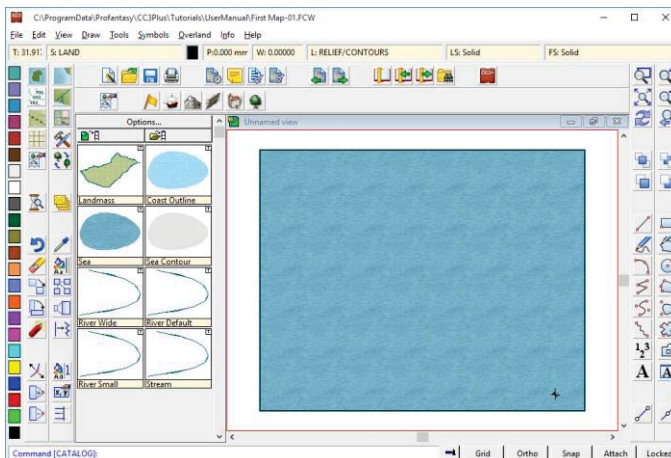
Drawing a Map

Let's start actually drawing the map. The map will be a simple map, based on our explanatory text earlier. You have already seen the finished result in the Viewing and Navigating chapter. Our first question is what to draw in what order?

Entities in a **CC3+** map are displayed in the order they are added, with more recent entities laying over previous entities on their respective sheets. It is possible to reorder the entities after they've been added, though it is worth trying to draw them in the right order in the first place. By using the drawing tools which utilize sheets, however, it is easy to go back and add things without having to reorder the entire drawing

The general rule is to add all the solid and bitmap fills first, working from lowest elevation to highest. These entities form the foundation for our drawing. Once the landmasses are in, we can add mountains, rivers, vegetation, roads, structures and finally text.

Landmasses

8. Click **Default Landmass** . Notice that the settings on the **Status bar** have changed.
The **Command Prompt** reads **Fractal polygon: First point (E ~ Edit):**. CC3+ is ready for the first point of the landmass.

9. Click a starting point for our landmass.
In this example, we clicked our first landmass point at A. Note that this point is slightly outside the map border. This is intentional, as all drawing tools stop at the map border. Thus, by clicking right outside, we ensure that there is no gab between the map border and the start of our landmass.
The Command Prompt reads **Next point: (DEL ~ back, Space ~ Randomize, L/R Arrows ~ Depth, U/D arrows ~ strength, T ~ Trace):**. As the cursor is moved around in the **View**
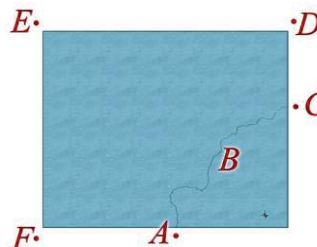
Compass Rose

You can select any of the compass roses that you like. The example we'll be following in this exercise uses **Compass Rose 2 n**. There is no functional difference between the compass roses. The choice is simply artistic preference.

Choose

Note that any selections we make in the New Drawing Wizard can be changed later. If we decide later that we don't want the water background or if we decide later that we want a grid, we can make these edits in our drawing. No selections we make in the New Drawing Wizard are set in stone.

Save

CC3+ defaults to the last directory used. Currently, this is the CC3+ data directory. You may want to save your map somewhere else, like your My Documents folder.
Note that in some cases, CC3+ may suggest the program installation directory, you should never save your maps here, instead browse to an appropriate location.

Entities

Entity is a term you'll see a lot when talking about CC3+ drawings. An entity is anything that is in or added to the drawing. Symbols, text, landmass shapes, and paths are a few examples of entities. Entities in the drawing can also be invisible such as Action Hotspots, Control Points and External References. These invisible entities are more advanced topics and will be explained in later chapters.

Sidebar continue on next page...

Window we can see a segment of fractal coastline stretching out from our initial point. Watch the shape of the coastline trailing from the cursor. Edit it as desired using the key press options, then click at points along the line marked B as necessary to set the coastline. Let the automatic fractalization help you, don't try to manually set every minor point long B. Once the coastline is set, extend the cursor off the drawing to click at C. Click at D, E and then finally at F. Now right click to complete the landmass.

10. The **Command Prompt** reads **Fractal polygon: First point (E – Edit):.** CC3+ is ready to draw another landmass. If we left click in the drawing, **CC3+** will begin drawing another landmass. We don't need another landmass in this map, so right click to end the command.
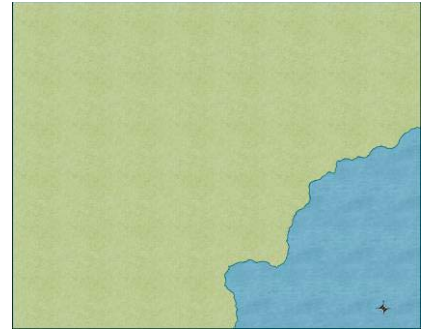
The **Command Prompt** reads **Command [DRAWTOOLSP]:.** CC3+ is waiting for your next action. The current form of the map can be found at **Tutorials/UserManual/First Map-02.FCW.**

Terrain Features

Now we have a foundation on which to build the rest of our map. We'll start by adding some hills and an area of grasslands to our map.

11. Right click **Default Terrain** 🗺.

From the selection of **Terrain** drawing tools, select **Terrain Default, Hills Back**.
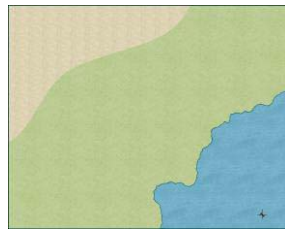
The prompt reads **Smooth Polygon: First point):.** Use this tool to add a background for our hills in the top left corner. Note that this is a smooth tool, as opposed to the fractal tool you used to draw the coastline. While a fractal tool adds additional detail by adding intermediate points in between your points, a smooth tool will use your points as a base for a smooth curve. This means that the final result will not go through the exact placements of your points, these will only guide the curve. Just as with the fractal tool, the tool will not progress beyond the map border, so use this to your advantage to make sure the tool fills in the corner properly.
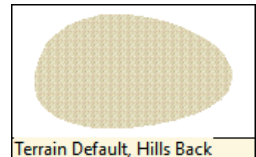
12. Click **Vegetation** 🌳.

The symbol catalog window changes to show symbols and drawing tools related to vegetation. Find and click the **Grassland** tool. Do note that we could also have found this tool by right clicking **Default Terrain** 🗺 as we did previously.

The prompt reads **Smooth Polygon: First point):.**

For the grassland, we are going to add a swath to the upper right corner of the map, but I want to add another requirement, I want it to follow the coastline. Trying to do this manually is an exercise in frustration at best, as this is a smooth tool, and the coastline is fractalized. But we can accomplish this using an advanced feature of the drawing tool – Tracing.

Click at point A to place the first point. Then place a few points along the line B to create a smooth curve similar to the illustration. As you approach point C, look at the prompt. It currently reads **Next Point (DEL – back, T – Trace):.** The text in parenthesizes are options we can invoke. In this case, we wish to start a trace, so hit the T key on your keyboard. The prompt immediately changes to **Entity to trace:.** Now, click on the coastline near D to select it. This will tell the tool that we want to trace along the coastline. If you selected the coastline properly, the prompt should change to **Starting point of portion:.** Click on the coastline near C to start the trace here.
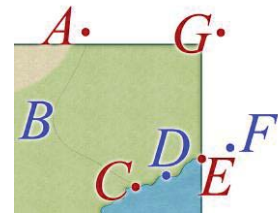
The prompt no changes to **Ending point of portion**, and if you move your mouse, you'll see that the preview line starts following the coastline. Move your cursor just off the map at point E, where the coastline ends, and click. This ends the tracing, and let us go back to drawing normally. Now, simply finish up the grasslands by clicking at F, then at G before right-clicking to end the command and complete our polygon. Note that if you zoom real close in to the coastline, you can see some minor imperfections. This is caused by the fact that it is impossible for a smooth tool to match a fractal line exactly, but don't worry, these imperfections will turn invisible when we enable effects in the map.

13. Click **Save** 💾.

To continue along using our drawing, open **Tutorials/UserManual/First Map-03.FCW**.

Adding Symbols

Symbols are a special type of entity used for map features such as trees, cities and mountains. They are the little graphic entities that you see in the example maps.

The symbol catalogs included in CC3 have many features which include:

- Shaded Varicolor (SVC) symbols which, when placed, are shaded in the color that is currently displayed on the **Status bar**. SVC symbols are indicated by a color box in the corner of the symbol's window.

- Random symbol from collection. Some symbols are picked randomly from a collection of similar symbols, like a collection of different mountains. This allows you to easily have variation in your map without having to manually pick and place different symbol. A new symbol will be automatically selected from the collection for each placement. Such symbols are indicated by the letter R in the coirner.

- Symbol is part of a collection. Symbols with a + in the top left corner are the first in a collection of related symbols. Click the + to expand the collection and see all the symbols it contains.

To insert a symbol from the catalog, click on the desired symbol in the **Symbol Catalog Window**. A dynamic cursor of the symbol appears, allowing you to see the position of the symbol as you place it.

While holding a symbol on the cursor, the prompt reads: **Place symbol (CTRL – scale, CTRL+SHIFT – rotate, TAB – next,) [options]:**

The prompt is telling you that you can also:

- press and hold CTRL while moving the mouse to dynamically scale the symbol on the cursor

- press and hold CTRL and SHIFT together while moving the mouse to dynamically rotate the symbol on the cursor

- press TAB to go to the next symbol in the collection if the symbol chosen is in a collection.

- right click or press ENTER to accept the default, which in this case is the **Options** dialog box.

Click in the drawing to place that symbol.

Symbol Scale

You can represent height using contours, symbols or a combination of both. In our drawing, we added a terrain contour for our hills, but we'll also add hill symbols.

14. Click **Minerals/ Mountains** ⛰.
CC3+ changes the current settings in readiness for drawing hills & mountains. Mountain symbols and drawing tools load into the **Symbol Catalog Window**. To get a wider view of the symbols in the current catalog, right click in the **Symbol Catalog Window** to expand the window. Pick a symbol from the catalog or right click again to collapse the window.
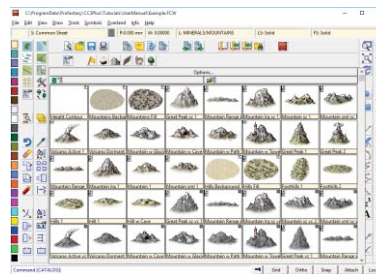
Selection

If the drawing tool window only shows a list of names and no preview images, you can check the **Display Sample** checkbox.

Drawing Tools

There are two ways main to access drawing tools in CC3+. Either by clicking on one of the drawing tool buttons to the left, like we just did, or by finding them in the symbol catalog window. For example, if you click one of the buttons on the Symbol Toolbar, like **Minerals/ Mountains** ⛰, you'll find the Hills Background here as well, right next to the hill symbols in the Symbol Catalog Window.

Hills

There are different ways to show elevation, like hills and mountains in our maps. We can use contours like those we'll draw with the drawing tools, we can use hill and mountain symbols, or we can use a combination of both. For this exercise, we'll use a combination of both.

Symbols

Symbols consist of two parts: A Definition, which is always hidden from view. You only need one definition of a particular symbol in a drawing. A Reference, which is what you see on the screen. Many references can point to the same definition, so you can have many tree symbol references in a drawing without taking up lots of memory.

15. Select the Hills 1 symbol from the symbol catalog window (you may need to scroll down to find it). You'll find that it attaches itself to your cursor. Start placing a few of these in the upper right corner of the map, don't worry if small parts of the symbol extends beyond the map border. You should notice that the symbol on your cursor changes between each placement, because this is a random collection of symbols, as discussed above. After placing a few symbols, right click inside the drawing area. This will bring up the **Symbol Parameters** dialog. Click the **Finished** button to indicate that you are done placing symbols for now.

Collection

After clicking on a symbol to select it for placement, you can press TAB to move between symbols in that collection.

Completed Example

If you open up two instances of CC3+, you can keep the finished example open in one, and the map you are working on in the other.

Much Larger

We are going to do some more tweaking later, so you may notice several other differences as well. When working, you should compare your results to the screenshot in this manual and the in-progress maps provided, and not the finished example. We will arrive there, but one step at a time.

Not Select

Note that if you accidently selected other entities, you can hold down the [CTRL] key and click on them to deselect them, or simply hit [ESC] to abort the command, then start again.

Selection Window

A selection window is a way to select multiple entities, or difficult to select entities. When the prompt asks you to select entities, you can always start a selection window by clicking on a spot in the map that is not on the edge of any entity. This starts a selection window, and you'll notice that a rectangle forms between the first click and your mouse cursor. Click again to finish the selection window, and any entities that have at least part of their edge inside the area defined by the selection window will be selected. Be careful when using a selection window, you may end up selecting more than you wanted.

Let us talk for a bit about the symbols we just placed, more specifically, about the size, or scale, of the symbols. It may not be immediately obvious, but for the map I am planning to do here, I believe these symbols are far too small. If you open up the completed example drawing from earlier, you can see that the hills symbols are much larger there.

The reason for the larger symbols in the completed map is that I felt that size fit better with the map I envisioned when I started designing it. So, I changed the scale of the symbols.

When creating a map, there is a rule of thumb that says the symbol scale should be the map width divided by 1000. Our map is 100 wide, so 100/1000 is 0.1, which happens to the current scale of our hills. For the mathematically inclined of you, you may already have figured out that using this guideline means that there will be space for exactly the same amount of symbols on a large 10000x10000 continental map as a small 50x40 local map. And yes, that is correct. The reasoning behind this is that a map is intended to be readable. If you make symbols too small, they are difficult to make out, and too many symbols often ends up cluttering the map. The idea here is to know what details to represent, and how to represent them. First of all is level of detail. If you look at a real world map of the entire world, it does not show every minute detail of every place on earth. Only the big features are represented here. You may see a mountain range represented, but not each individual peak. And this should also hold true with CC3+ maps. Yes, you can use tiny symbols and thus represent every individual mountain in the range. And with CC3+'s zoom feature, the mountain range will look very nice and detailed when you zoom in to it, but if you zoom out and try to look at the entire map, it is going to look messy. This is why we use larger symbols on a larger map. We don't use a single symbol for each individual mountain in the mountain range, instead we use a couple of larger mountain symbols symbolizing the range. The exact details of the mountain range is better left to a more local map focused on that mountain range, and not in the world map.

Now, all of the above is a guideline. A sensible one, but no absolute rule. And it is here that we start to make the map truly ours. Instead of accepting the defaults, we are going to change things around a bit.

Let us erase the current hill symbols and place some larger ones. We could resize the ones already there, but that is more work.

16. Click **Erase** 🧽. Now, using the pick cursor, click on the edge of each of the hill symbols. As you click on them, they should get selected, shown by a magenta outline. If you miss the edge when clicking, you will start a selection window instead. If this happens, just move your mouse trying to capture as many hill symbols as possible within the selection rectangle and then click again; everything with an edge inside that rectangle will be selected, the rectangle doesn't need to encompass the entirety of the symbol. Be careful not to select the map border.
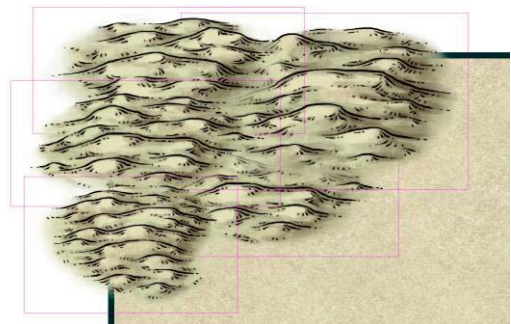

Once you have selected the hills, right click within the drawing area and select **Do It** from the menu. Once deleted, the hills will leave behind some white areas. To allow the program to work smother and be more responsive, areas beneath moved/deleted entities won't be automatically redrawn. The white spots will disappear by themselves the next time you zoom or scroll the map, or if you issue a map **Redraw** 🔁.

17. Click **Drawing Properties** 🔧. In the **Drawing Presets** dialog that opens, change the value for scale from 0.10000 to 0.25. Doing so will set the default scale to use for new symbols. A scale of 0.25 means that that any dimension of the symbol will be one-quarter of its normal size.

18. Click the **Hills 1** symbol again. You may notice that the symbol attached to the cursor is still the same size as previously. This is because we changed the default scale, but not the current scale. The current scale doesn't get reset to the default for each symbol, since you sometimes wish to work using a different scale temporarily. Therefore, we need to tell it to reset the current scale to the default.
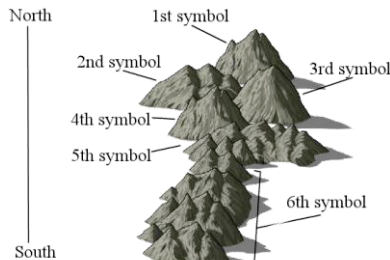
You do this by right-clicking in the drawing (with a symbol on your cursor), to bring up the **Symbol Parameters**. No click the **Set Normal** button, and note that the scale input fields change to our default scale. Then click **More** to go back to the map and continue placing symbols. You can read more about the Symbol Parameters dialog on page 79.
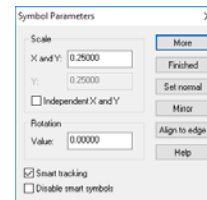
19. Now, it's time to place some hills.

When adding hills, work from top to bottom so that each hill covers the base of the one behind and the shadows lay correctly. Don't be afraid to overlap the symbols, these hills blend together quite nicely, and don't worry if they extend a little outside the map border either.

Use this technique to add hills to the drawing. While placing symbols, use **Zoom Window** 🔍, **Zoom Extents** 🔍 and **Zoom Last** 🔍 to get the best view. I left the little gap you can see in my image because I am going to have a river come through there.

To continue along using our drawing, open **Tutorials/UserManual/First Map-04.FCW**.

Rivers

Now that highlands have been added, we can add rivers.

20. Click **Default River** 🖌.

The command prompt reads **Smooth Path: First point):**. Add rivers to the drawing where you think they should be. Click points to create a meandering river, guided by the high-ground, then right click to end the river.

The prompt reads **Smooth Path: First point):**. CC3+ is ready to draw more rivers. Right click to end the River tool now, or continue to add any tributaries, distributaries or deltas. As with the mountains and hills, use **Zoom Window** 🔍, **Zoom Extents** 🔍, and **Zoom Last** 🔍 to get the best view to place the rivers.

To continue along using our drawing, open **Tutorials/UserManual/First Map-05.FCW**.

Adding Hills

Don't use too many symbols. The most beautiful maps are not completely covered with symbols. If you combine contours and symbols, don't completely fill the contoured areas. Leave a gap at the edge so the contour color shows through.

River Tool

Right click Default River to pull up a selection a river drawing tools in various widths.

End the River

Note that when you right click to end the river, it will end at the last point you placed using left click, not where you right clicked. This is because a river is a path, as opposed to the closed polygons you have been drawing earlier, so no additional lines will be added automatically when you end the command.
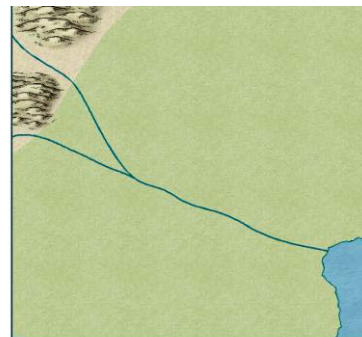
Vegetation

If you remember the map description from earlier, I said that this area was thinly populated. That usually means that they haven't made any large changes to the area, such as deforestation. So, in this case, it makes sense to start with the forests.

21. Click **Vegetation** 🌳. This loads the vegetation catalog into the symbol catalog window, containing both vegetation symbols and drawing tools. We'll start by concentrating on the forest.

22. Find the Mixed Forest Tool in the catalog window, and use it to place some forests in the map. This drawing tool is used exactly the same way as other drawing tools you are used to, but it differs in one regard. Once you finish drawing the forest area, it will fill it with actual tree symbols instead of a bitmap fill, like for example the grasslands we drew earlier.

23. After placing the major forests, use the individual tree symbols to place a scattering of trees around the map. These represents lighter forested areas on the map. Do remember that this map does depict a reasonably sized area, so each individual tree symbol represents a small forest in itself. When adding trees, we use a technique similar to the one used when adding mountains and hills. Work from top to bottom and don't overdo it.
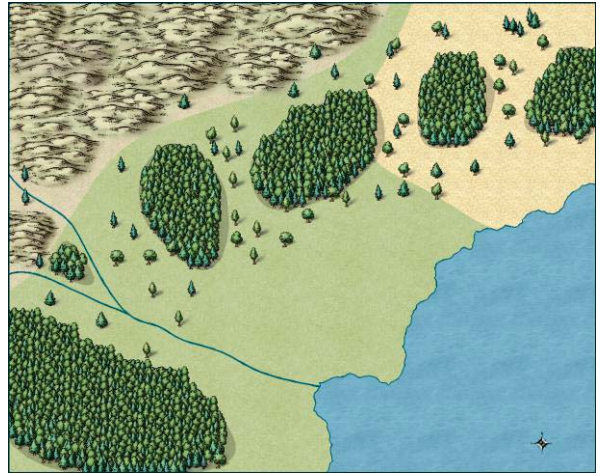
To continue along using our drawing, open **Tutorials/UserManual/First Map-06.FCW**.

Structures and Roads

Now that the main terrain features are in place, it is time to add a touch of civilization to our map.

24. Click **Structures** 🏠. This catalog contains a variety of symbols for villages, towns and cities as well as bridges, ruins, monoliths and other man-made structures. Add a sprinkling of settlements in different sizes to the map.

I find it useful to start with the largest cities, and work my way downward. You'll note that I didn't use the city symbol at all in my map. Even though Snowport is the capital of the isles, and certainly the biggest settlement around, it is too small to be called a city in this world. Don't be too bound by the symbol names though, it is the symbols themselves which are visible in the map, not their names.
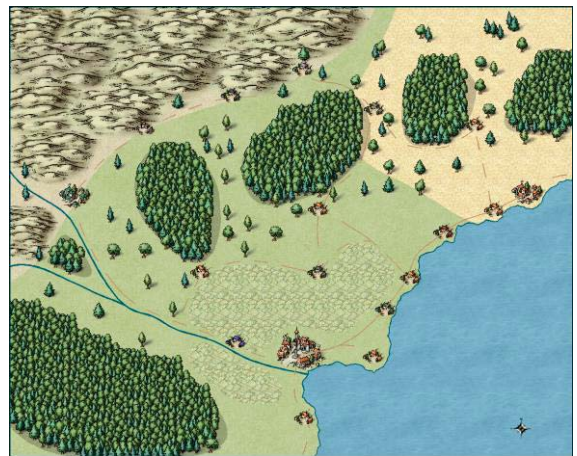
Don't be afraid to move or erase some of the trees we placed earlier to make better room for the settlements and roads.

25. Right click **Default Terrain** and select the **Terrain Default, Farmland** tool. Use this tool to add some farmland around the main city.

26. Select the **Road Major** tool from the symbol catalog, and use it to draw a main road between two major settlements. Make it go through any smaller settlements on the way. You'll notice that this tool draws a solid line.

27. Select the **Road Minor** tool from the symbol catalog. Use this to connect the rest of the settlements to each other. The roads drawn by this tool are represented as dashed lines.

To continue along using our drawing, open **Tutorials/UserManual/First Map-07.FCW**.

Final Tweaks

Except for text labels, which we will cover in the next chapter, we now have a pretty complete map. All major aspects are in place, and it looks quite ok. But I think we can do better. Let us add some more minor details to the map, and do some tweaks of the existing visuals. Note that this final section is slightly more difficult than the preceding part of the tutorial.

Shallow Water

First of all, let us start by adding some shallow water near land, this will serve make the sea a bit more varied.

28. Click **Coast/Sea** . Select the Coast Outline tool from the catalog window, and use it to draw shallow water. Draw this the exact same way we drew our landmass back on page 25, but make it extend a bit from the landmass along the coast.

You'll notice when you finish drawing it that it seems to cover the landmass. However, once you change the view or click the **Redraw** button it will fall in place behind the landmass.

Compass Rose and Scale bar

Our compass rose looks a little bit small, and we have yet to add a scale bar. The simplest option right now would be to just delete the existing compass rose and then add a new one, but let us try rescaling it, since this is a technique you definitely want to use in other cases.

29. Click **Scale** , then select the compass rose by clicking one of its edges. It should be outlined in magenta to indicate that it has been selected, and the prompt should read **Select entities (1 picked):**. Right click inside the drawing area, and select **Do It** from the popup-menu.

The prompt now asks for **Scale origin:**. Click in the middle of the compass rose to set a reasonable position. You can now move the mouse to scale the symbol. Move it towards the top of the drawing, and the symbol will get larger, move it downwards, and it will get smaller. The symbol itself will be represented as a square outline. You can see the current scale value in the top left corner of CC3+, on a red background. A value larger than one means you are making the symbol bigger, while a value less than one means you are shrinking the symbol.

You can make the compass rose any size you want, but I opted for a scale of approximately 2.5. Once you are happy with the scale, simply click the left button to finish scaling.

30. Time to adjust the position of the compass rose. Click **Move, Scale, Rotate** and select the compass rose as before, finishing up with a right click and **Do It**.

The prompt asks for Move from point:. Simply click in the middle of the rose to set this point. You can now move the symbol around with your mouse, and click to place it in the desired location. I like to put it quite close to the bottom corner of the map, with equal distance

Approximately

When scaling by moving your mouse, it is easy to find a size that looks good, but it is more difficult to get something to an exact size. If you ever need to be exact, you can actually type in the new scale on the command line instead of moving the mouse. So in our example, to make the symbol exactly 2.5 times larger, you start the command the exact same way, but when the time comes to move the mouse to define the new scale, simply let the mouse be and type 2.5 on your keyboard, then hit enter.
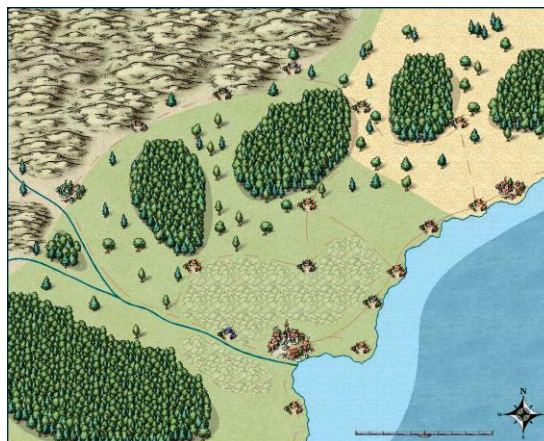
There is also a separate non-visual scale command which is designed for this. In general, if you see the keyword non-visual in front of a command, then that is a command that is designed for typing in data instead of using your mouse.

from the symbol to the bottom and right borders respectively.

31. So for the scale bar. Click the **Symbols in Drawing** button. You should find a couple of scale bars near the top. I've used **Scalebar 1 n** for my map.

Before placing the scale bar, it is vital that the symbol scale is correct. The scale bar is supposed to show the scale of the map, so it is important that the scale of the scale bar itself is correct. With the scale bar selected from the catalog window and showing at our cursor, right click inside the drawing window to bring up the **Symbol Parameters** dialog. Click **Set normal** to ensure scale and rotation is properly set, then click **More** to go back to placing it. Place the scale bar near the bottom, to the left of your compass rose.

If you noticed the scale values in the Symbol Parameters dialog, you'll remember that they were set to 0.25, the same as our default scale from earlier. The scale bars we used are all 100 miles long, but since we use a scale of 0.25, ours is now 25 miles long. We need to label it as such so viewers of the map can understand the scale. Normally, I would do this immediately, but we'll just remember it for now, since we talk about text in the next chapter.

Decorations and Interesting Places

Unless you are going for a realistic modern-day map, most maps can benefit from some decorations. And if it is a fantasy map, you will probably wish to add some interesting location to pique the interests of players/readers.

For my map, I've added quite a few such symbols, such as a hill with a cave, a ruined tower, an obelisk, a burial mound, fish, windmills, fruit trees, horses, cows, waves, a ship and various sea hazards. These symbols both serve as decoration, and illustrate what you can find in the area. For example, on my map, the horse means that the immediate area has a lot of horse farming.

32. Pick and place interesting decorative symbols from the **Borders/Political** , **Coast/Sea** , **Minerals/ Mountains** , **Structures** and **Vegetation** catalogs.
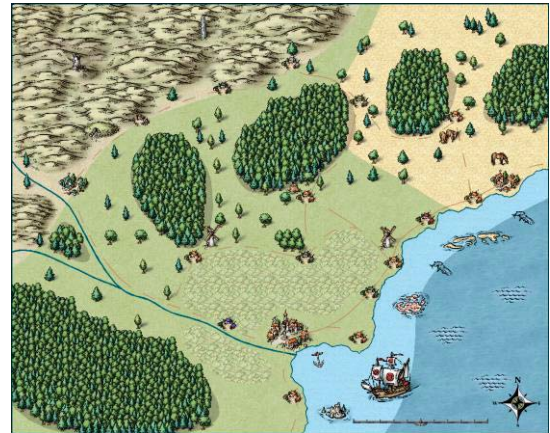
Select

There are many ways to select entities, for example based on their color, their layer, and their existing line style. In this case, I could have selected by the line style Road to instantly select all my dashed roads in one go without hunting for them or trying to select them individually. This rely on slightly more advanced techniques and understanding, so we won't explore that now. More details on the various selection methods in CC3+ can be found in the Editing chapter starting on page 51.

To continue along using our drawing, open **Tutorials/UserManual/First Map-09.FCW**.

Roads

I am not 100% pleased by how the dashes for the minor roads turned out. These dashes may work perfectly fine for a map in a different scale, but I want to tweak their appearance by switching to a different line style. Fortunately, this is simple.

33. Click **Change Properties** . The prompt now asks you to select entities. Select at least one of the minor roads by clicking on it with the pick cursor. Be careful not to select anything else at the same time. Once you have one or more roads selected, right click and select **Do It**. The Change Properties dialog appears.

34. Change the line style in the box to ecw-3. This is a different kind of dash. You'll see that a check mark appeared in the checkbox to the left. This indicates that the selected Line style value will be applied to the selected entities.

35. Click OK. You should now see that the selected roads switch to a different line style. You may need to do a **Redraw** to see the change properly.

Another issue you may notice with the roads is that they appear on top of the various symbols. When I draw map, I like to just draw a long road passing straight through settlements, and this does not look good. If you remember the introduction to sheets earlier (page 13), drawing objects are layered on top of each other based on the order of the sheets. Right now, the roads appear on top of the symbols because the roads are drawn after the symbols, so let us change this.
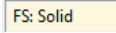
36. Click **Sheets and Effects** 🗗.

37. In the Drawing Sheets and Effects dialog, find the ROADS sheet and select it. Now press Move Up twice. This should move it up to just above the SYMBOLS sheet. This means that the roads will be drawn first, and then symbols, such as the settlement symbols will be drawn next, on top of the roads. Place a checkmark in the Redraw on OK box, then hit OK. The roads should now be hidden beneath the settlements.

Fill scale

The final change I want to do with the map is to change the scale of some of the fill styles. Right now, I think the scale is a bit small, so let us increase it. For this step, we are going to change the properties of some of the fill styles themselves. But note that in CC3+, all fill styles are defined on a per-map basis, which means that our changes here will not affect other maps, past or future.

38. Click the **Fill Style Indicator** `FS: Solid` in the top right corner of the user interface. This will bring up the **Fill Style Properties** dialog.

39. Click the **Bitmap Files** tab. This tab contains all fill styles based on raster images.

40. Select the **Grassland_MS** fill style from the dropdown.

41. If you look near the bottom of the dialog, you'll see that this fill style has a scaled width and height of 5 each. Change these values to 50 instead, then click OK. You'll notice that the texture in the grasslands is no much larger, providing much more detail.

42. Use the process above to set the scale values for Farmland_MS to 12, Hills Background_MS and Sea_MS to 50, and Ocean_MS and Land_MS to 125.
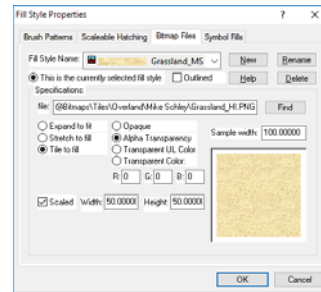
Stuff Outside the Map Border

If you look at my in-progress drawings, you'll notice that I have a small part of a hill visible outside the map border. It is not often this happens, but sometimes it does, so let us examine this a bit.

First of all, why does it happen at all? Why can I put anything outside the map border? The reason for this is that the drawing canvas in CC3+ isn't really limited, or at least not any limits you'll experience during normal use. So the map border doesn't really signify the edge of your drawing area, it only signifies the edge of your intended map size. Now, drawing tools do usually respect the map border, you might remember this from when you drew the landmass. These tools are specifically designed to do just that because it makes drawing easier, but there is no way to stop a symbol from being partly outside the map border, since this is a single rigid entity that can't be deformed to follow the border.

Now, to allow people to place a symbol next to the map border so only half the symbol is visible in the map, the various **CC3+** templates "cheats". They have a white polygon right outside the map border (This is called a Screen). This polygon is placed on the last sheet in the drawing order, basically hiding everything it covers. What you can see in my map is that the hill actually extends beyond the border of this white polygon. It is partly covered by it, but some sticks out past it.

The most elegant way to fix this is to edit this polygon a bit, but the procedure for that involves tools we haven't looked at yet. So, let us instead fix it using one of the basic tools of **CC3+**. Basic tools, as opposed to drawing tools doesn't set everything automatically, so we need to set the appropriate settings manually.

43. Click **Sheets and Effects** 🗗. Make sure **SCREEN** is the selected (checkmark) sheet in the list. Click **OK**.

Change the Scale

I am increasing the scale rather drastically on several of the fill styles here. You may fell that the details in them become too large for your taste. If so, feel free to use smaller values.

Also note that by using a relatively large scale like this, especially for the Ocean and Land fills, I limit how much you can zoom in before you see pixelation. If this is a concern, use a smaller value. Also remember, that if you find you want to actually use a map at a very high zoom level, you are probably better off making a separate, more detailed map for that area. That way, you can include all kinds of extra details.

Width and Height

Make sure to scale width and height by the same amount, otherwise the fill will look distorted.
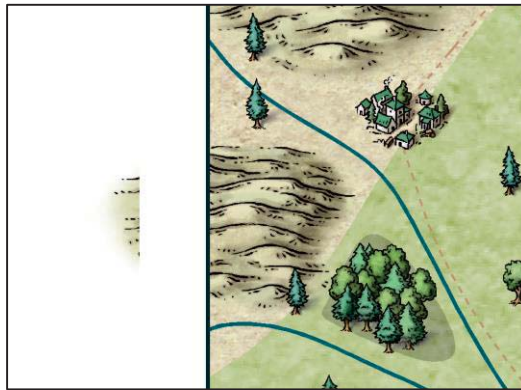
44. Click the **Color Indicator** in the status bar. Choose the last color on the first row (white) in the **Select Color** dialog that pops up. Click **OK**.

45. If the **Line Width** `W: 0.00000` indicator on the status bar is not **0**, click on it and set it to **0**.

46. Click the **Layer** `L: STRUCTURES` indicator on the status bar, and make sure **SCREEN** is the selected (checkbox) layer.

47. Click the **Fill Style** `FS: Solid` indicator on the status bar, and select **Solid** as the fill style from the **Brush Patterns** tab, and remove the checkmark in **Outlined** before clicking **OK**.

48. Click **Box** from the rightmost toolbar. This basic tool doesn't have any default properties, and will use the various values we just defined.

49. The prompt reads **1st corner:**. This basic tool lets you place a rectangle by defining two diagonally opposite corners. Place a rectangle that covers up that little piece of hill. Don't make it too big.

You'll find my final result (for now) in **Tutorials/UserManual/First Map-10.FCW**.

Effects

To see the fruits of our labors so far, let's take a sneak peek at our map with effects turned on. We don't need to be graphic artists to make great looking maps in CC3+. It is as easy as clicking a button.

50. Click **Sheets and Effects** .

   Click to put a check in the **Activate Sheet Effects** box, then click **OK**.

Remove the Checkmark

Effects require additional processing power to show, and may slow down the program. If you have a powerful computer and don't overdo the effects use, you can probably work with effects on, but if you notice any slowdowns, it is recommended to turn them off for a smoother work experience. If you have previously worked with CC3 before using CC3+, you'll find that CC3+ is much more efficient with effects.

51. Click **Sheets and Effects** .

   Click to remove the checkmark in the **Activate Sheet Effects** box, then click **OK**.

Adding Text

Text deserves a chapter all to itself, so we'll go to the next chapter to begin adding text to our drawing.

Our First Map Review

- Entities in a CC3+ map are displayed in the order they are added, with more recent entities laying over previous entities on their respective sheets.

- As a general rule, work from the lowest elevations to the highest elevations, working from the top of the drawing to the bottom.

- Drawing tools set the sheet and layer for most mapping entities which force proper drawing order.

- Shaded Varicolor (SVC) symbols are shaded in the color that is currently displayed on the **Status bar**.

- Don't use too many symbols. The most beautiful maps are not completely covered with symbols.

- Some of the drawing tools, such as the river tools, use **Attach**. **Attach** can be enabled or disabled in mid command. Right click **Attach** to change its attach mode.

- Zoom functions can be used in mid command to focus on a particular area of the drawing.

- Watch the **Command** Prompt. Options for using **Drawing Tools** and placing symbols are given in the **Command Prompt**.

The Lost Realm of Astirlerond

The Lost Realm of Astirlerond map was created in **CC3** by **Steve Townshend**.

This style is provided in the Cartographers Annual Volume 2 (http://www.profantasy.com/annual/2008/)