

Creating a local map from the Forestry Commission on-line browser

Purpose

This tutorial will show the user how to create a map using the Forestry Commission Wales (FCW) on-line map browser, at any location throughout Wales. It will also demonstrate how to display various data layers derived from the Forestry Commission data series.

Section 1 and 2 in this tutorial cover the basics, regarding how to locate the browser on-line (Section 1), as well as what each icon within the map-browser will do (Section 2). If you are comfortable with on-line map browsers and how to find the FCW browser, then Section 3 will show how to create a map using specifically the FCW browser.

1. Finding the map browser on-line

The easiest way to find the map browser is to simply copy and paste [this](#) link into your web browser address bar, which will take you to the correct location:

http://maps.forestry.gov.uk/imf/imf.jsp?site=fcwales_ext&

Alternatively, because links sometimes change, you can also find the map-browser by typing into your search engine (Google.com for example) “Forestry Commission Wales map browser”, which should take you to a screen similar to the one below in Figure 1.1, whereby the correct link is the top one (maps.forestry.gov.uk/fcwalespublic)

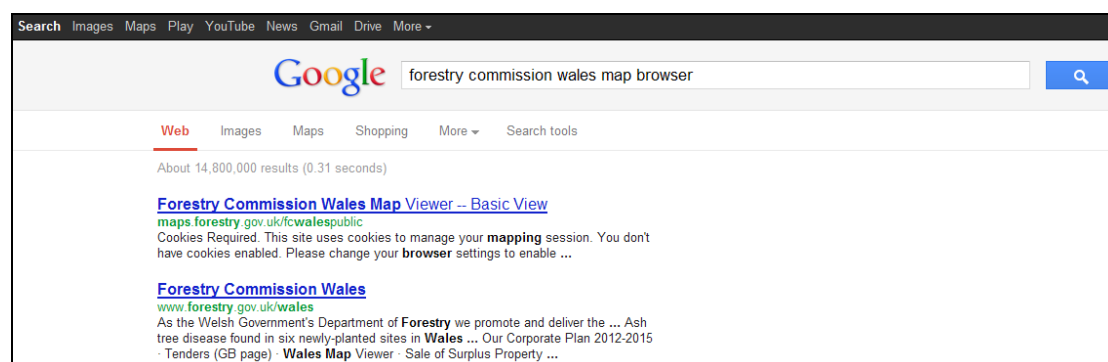


Figure 1.1: Image of the Google search engine to show how to find the FC map browser.

Once the map browser has loaded, the screen should look similar to the one on the next page; Figure 1.2. The 7 boxes drawn on top of the image correlate to the section numbers in Section 2, and explain the usability of the map browser as follows:

1. Map toolbar
2. Zoom facility
3. Scale selector
4. Quick locator
5. Help system
6. Layer information toolbar
7. Map layers

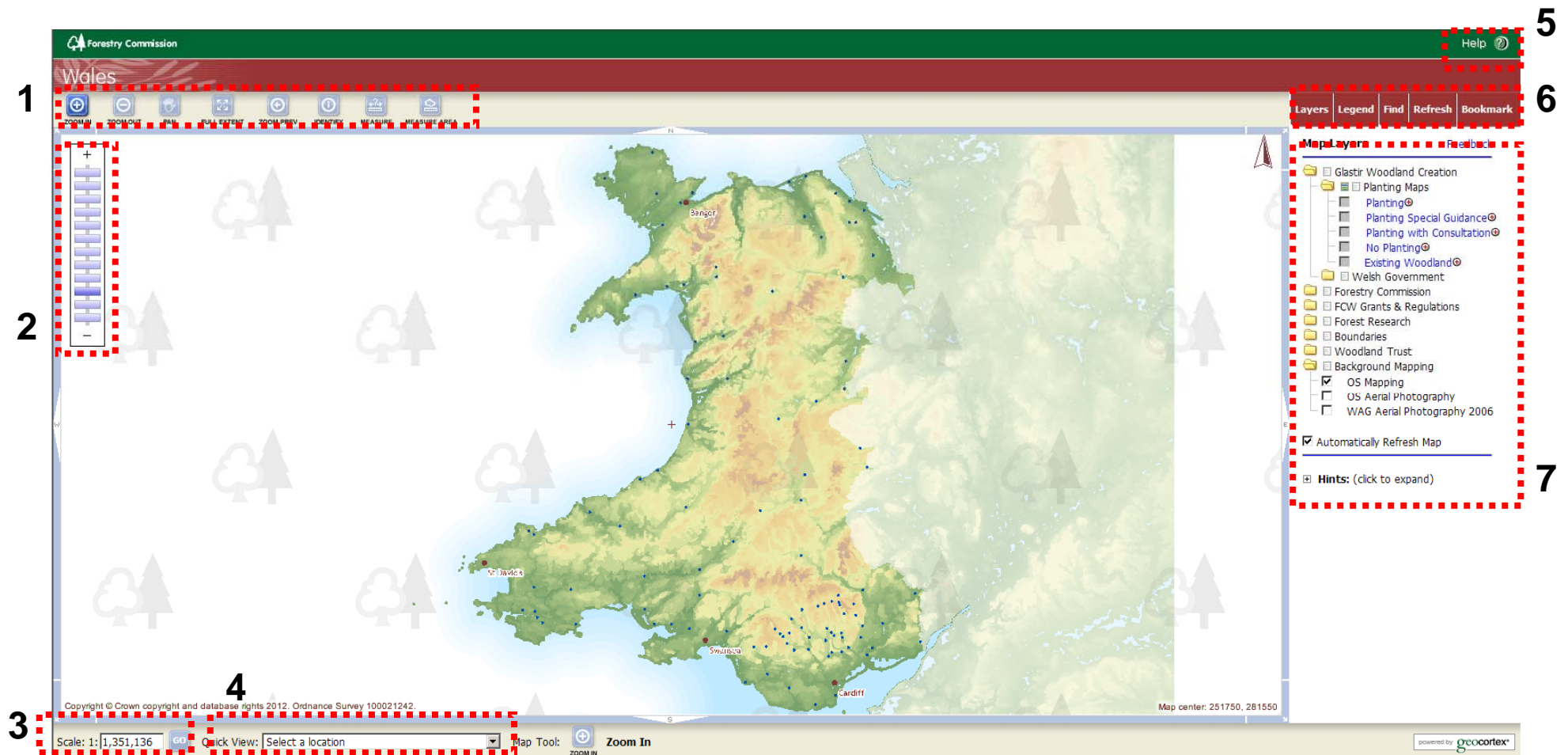


Figure 1.2: Screen shot of the Wales map browser, with boxes 1-5 drawn over the top to allow explanations of use.

2. Functionality within the browser

Each box overlaid on the image will now be explained in sequence.

2.1. Map toolbar:

This toolbar provides the basic functionality within the actual mapping part of the browser, such as zooming in and out of the map, as well as identifying areas and measuring their distance.

The tool in use will be highlighted in a darker colour, so for example in Figure 1.2, the “zoom in” function is in use, identified due to its dark blue colour. A full explanation for each of the tools within this toolbar is explained within the “Help” section, located in the top right of the browser (box 5).

2.2. Zoom facility

This segmented bar allows the user to zoom to the appropriate scale by hovering the cursor over the desired zoom scale and clicking once. The bars at the bottom of the scale will zoom out, and the bars at the top will zoom in. This zoom is quite crude, and will only zoom to the centre of the area shown, so the “zoom in” and “zoom out” tools within the ‘Map toolbar’ may be more useful, or alternatively the “Scale selector” explained in section 2.3.

2.3. Scale selector

This allows the user to type a desired scale, such as 10,000 (which will zoom in to show lots of detail) or 1,000,000 (which will zoom out to show most of Wales within the image). Once the desired scale has been typed, the “Go” button should be pressed to apply the zoom.

2.4. Quick locator

The scroll menu in this box allows the user to zoom to a selected region of the map, which are labelled by local authority, using Welsh and English names. The list of possible zoom locations is shown to the right of this text, once a region has been selected, click the region once with the left mouse button and wait for the map to zoom to this location.



2.5. Help system

One left mouse click on this help icon will load the help pages, which explain each of the tools within the “Map toolbar”, as well as the “Layer information toolbar”. Tutorials are also available, which introduce more in-depth information on how the map browser works, and how to use each tool. The opening screen of the help page is shown below in Figure 2.1.

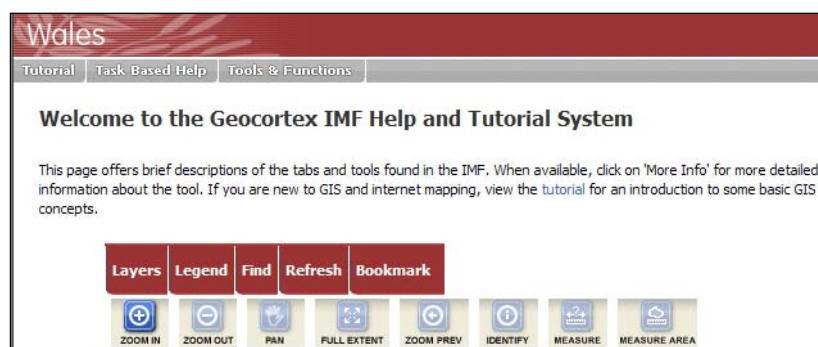


Figure 2.1: Opening screen of the help page.

2.6. Layer information toolbar

This toolbar provides information regarding the layers which are 'drawn' over the Ordnance survey map already present, and is broken into 5 categories:

- Layers:** Is displayed in Figure 1.2, and shows which layers can be 'drawn' over the map. Further information for this is given in point 7.
- Legend:** Identifies the layers which are drawn within the map, showing what each coloured area represents. However, only for the data 'drawn' over the top of the OS map.
- Find:** gives the functionality to search for a specific place within Wales, using a place-name, national grid reference, or postcode.
- Refresh:** refreshes the map, in the case that any layers which are clicked have not drawn.
- Bookmark:** creates a 'favourites' address within your search engine so that you can come back to the map browser with ease should you want to access the page again.

2.7. Map layers

This area shows which map layers can be 'drawn' over the Ordnance Survey map already present. The data is organised into folders, and to open a folder simply click once with the left mouse button to expand the list and show which map layers can be 'drawn'.

For example in Figure 1.2, the "Glastir Woodland Creation> Planting Maps" folder has been opened to show the layers which can be drawn, as well as the "Background Mapping" folder. It can also be seen that the only layer which is 'drawn' is the 'OS Mapping' base map, shown by the tick within the corresponding box.

Also notice that the boxes within the "Planting Maps" folder are grey, whereas the "Background Mapping" boxes are white. This is a scale issue, meaning that greyed out boxes will not draw at the current scale. This is because detailed data such as the "Planting Map" layers will take too much processing power to draw over the entire Wales map. To overcome this issue and allow the greyed out layers to draw, you must zoom in until the boxes are no longer greyed out, or click the red cross next to the layer label as shown in Figure 2.2. The outcome from using the automatic zoom as shown in Figure 2.2 is shown in Figure 2.3 (centre image). Several drawn layers are also shown as an example (right image).

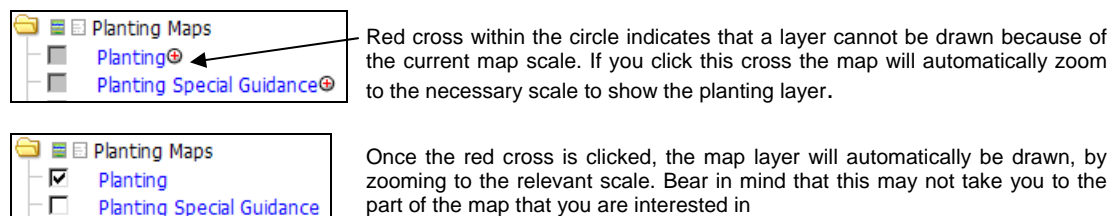


Figure 2.2: Map layers showing greyed out boxes and a red cross, which can be clicked to force the necessary zoom (top), as well as the outcome of clicking the red cross (layer is drawn over the map and the layer is thus checked "on", shown by the tick mark) (bottom).



Figure 2.3: Original OS map (left), OS map with 'Planting' map layer drawn over the top (centre), OS map with all 'Planting Map' layers drawn over the top (right).

3. Creating a local map using the on-line browser

3.1. Zooming to the appropriate area

Once the map browser has been located on-line, a screen similar to the one shown in Figure 1.2 should appear. From there the area which is to be mapped needs to be identified. This section will use the area around Aberystwyth as an example, with the National Forest Inventory (NFI) drawn over the top. To zoom to the area of interest, the most effective tool is the “zoom in” tool, which is the default cursor tool upon opening the browser, with an icon as follows:



Use the “zoom in” tool to draw a box around the area of interest, as shown in Figure 3.1. However, if a fine scale area is required the postcode option within the ‘Layer information toolbar’ > Find > [Find by Postcode](#) option can also be useful. Once the area has been zoomed into, if the area is not correctly located, the “pan” tool can be used to move the map around in any direction. Alternatively if the desired area is far from the zoomed area, the “zoom to previous extent” or “zoom to full extent” tools can be used. These three tools are situated in the ‘Map toolbar’ situated at the top of the browser (image below).

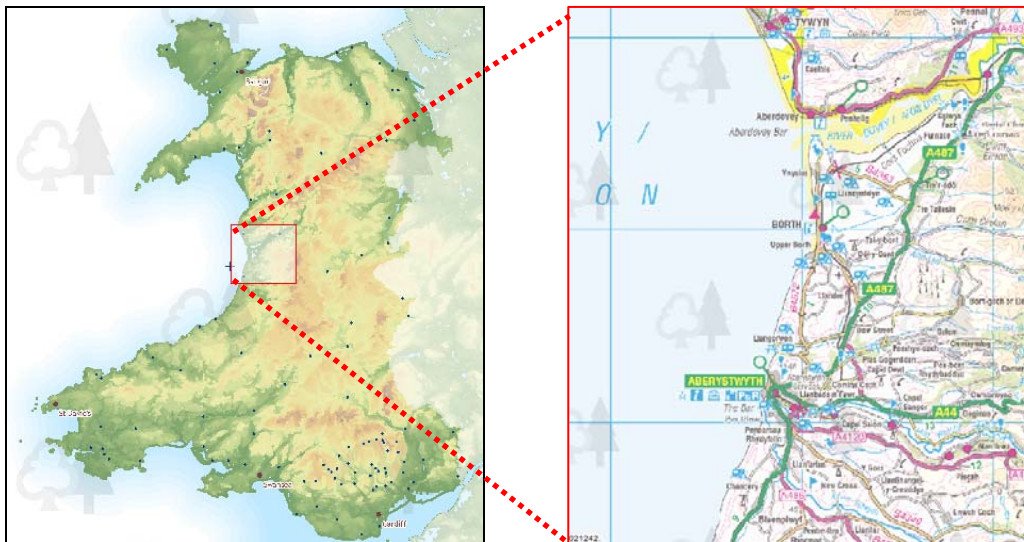


Figure 3.1: “zoom in” tool used to identify an area of interest (left). Zoomed area showing the mid-west coast of Wales around Aberystwyth (right).

3.2. Displaying and interrogating overlaying data

Once the desired location is found, the map layers described in section 2.7 can be overlaid on the OS map image as required. Choosing the NFI as an example, check on the NFI layer, which will draw the national forest inventory areas over the map.

These forest areas can then be interrogated in several ways. The most simple perhaps, is to click on the ‘Legend’ tab within the ‘Layer information toolbar’ to view which colour correlates to which forest type. An example of this shows the NFI legend in Figure 3.2. There is also the opportunity to identify individual features using the “identify” tool, which will return a set of information shown in Figure 3.3 a. Alternatively, it is also possible to measure the distance in kilometres between two areas using the “measure” tool, which will return results as shown in Figure 3.3 b. These tools are again within the ‘Map toolbar’ at the top of the browser (image example below).



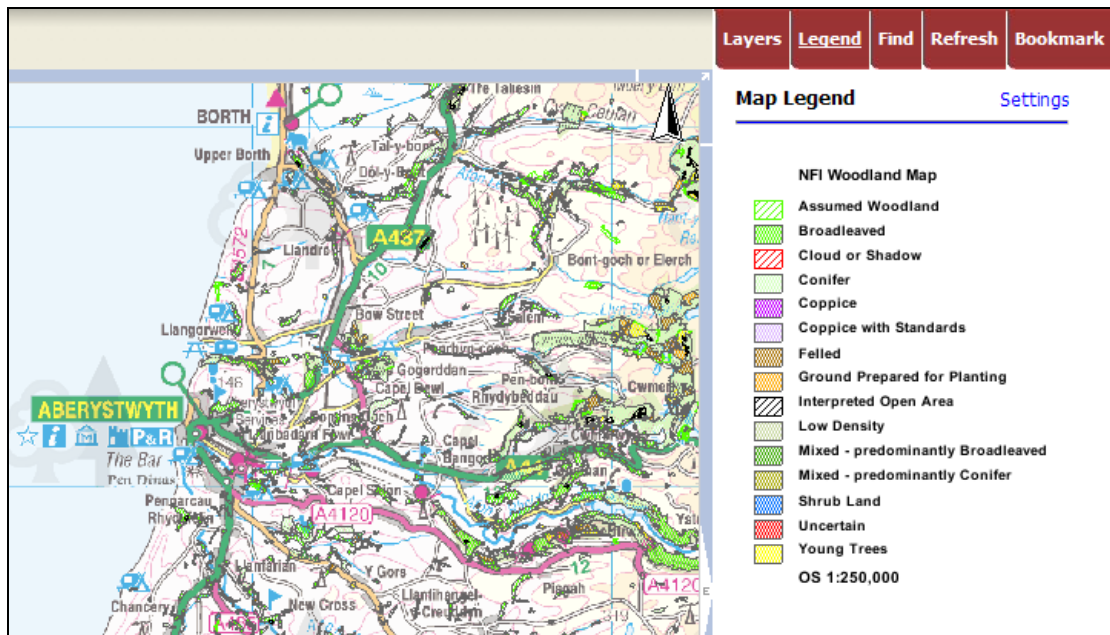


Figure 3.2: Map browser zoomed in to Aberystwyth area, with NFI drawn over the top and the legend showing forest types, found using the ‘Layer information toolbar’.

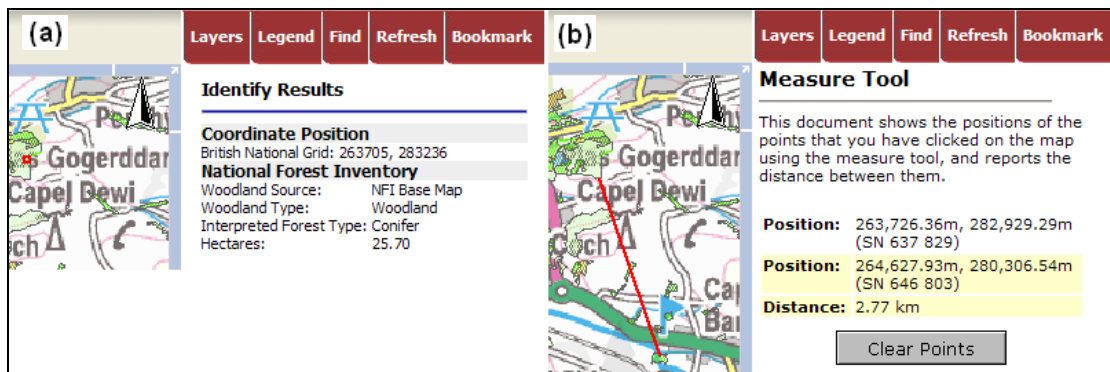


Figure 3.3: (a): Example of using the “identify” tool to determine information for a particular drawn area. (b): Example of using the “measure” tool to determine the distance in kilometres between two areas of woodland.

There are several other functions within the map browser that enlarge the capability of the maps, such as area calculations to work out the area in hectares of a particular forest for example, but these skills will be learned as you use the browser more and explore the functionality.

3.3. Creating a map

At present within the browser capability, there is no option to ‘export’ a mapped product as with some other browsers. Therefore the easiest way to re-create the image within the browser is to use the “print-screen” (sometimes written as Pr-Scr) key on your keyboard, and then paste the image into a picture editor such as Microsoft Paint. The image can then be cropped as desired and saved as a JPEG image for further use.

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