



MAPINFO - An easy guide for new users in the Map Room

[Contents](#)

1. MAPINFO BASICS

This guide is intended primarily for Map Room users, but may be of interest to other University students and staff, or indeed the wider community. References to tables, folders etc., are not applicable outside the Map Room, so if you are located elsewhere, you should substitute your own.

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Tables, tables...

MapInfo may appear at first to be a complex application, but whilst it is powerful it is also straightforward to use, once some basic concepts are understood. Please remember that this is not an exhaustive guide to MapInfo - if you need more help or would like to discuss your mapping requirements please ask at the Map Room Enquiry Desk.

All data is stored as table (*.tab) files. These tables can contain just data values or data which has associated graphical data (symbols, lines etc.). If the table contains data only, then it can only be displayed in a browser window.

A browser window looks like a simple spreadsheet table, with columns and rows. If the table has associated graphical data then it can be displayed as a map in a mapper window.

You change an unmappable (browser) table to a mappable table by creating graphic data, as explained further on.

Layer by layer...

Tables can be layered to build up composite maps. For example you could combine a coast layer with a rivers layer to produce a simple hydrologic map.

The layers can be ordered as you wish, so that if you add a roads layer it can be placed *above* the rivers layer! New layers can be added or removed as required.

You can import your own data, either points (with coordinates) or thematic. Point data can be used to show spatial distribution of data and you can choose from a range of symbols to represent your data.

Multiple data layers can be used to show several datasets simultaneously. With thematic data you can create a shaded world map showing demographic data, for example.

Maps can also be customised (i.e. line style and colour, polygon fills and point styles can all be changed), so you do not have to use the default colours and styles. When you have created the map, you place it into a layout window. This enables you to position the map on a page, add a scalebar, title, key and any other details which are needed to complete your map. You can also add additional maps, such as location maps, enlargements etc., to your own requirements.

Save it or lose it!

It is most important that you save your work as your map progresses. You can then stop at any point and return to it another time, carrying on from where you left off.

You do this by saving your map(s) in a workspace. A simple analogy of a workspace is to compare it to a recipe. The workspace file contains a list of the tables you have used (the ingredients) and their zoom levels, geographic limits, style settings etc., and most importantly, your layout window settings (i.e: how to 'cook' your map).

The workspace can then re-create your maps each time you load the workspace file. One important difference between the workspace file and a recipe is that it also records where the tables are located (i.e: which cupboard the ingredients are in). So do **not** move files around and certainly do not delete any! If you do, you will not be able to open the workspace. (Although the workspace is a simple text file, think very carefully before attempting to edit it. This may be the only option if you have moved some tables and cannot remember where they should be, or have deleted some entirely, but it is very risky!)

You should create a workspace fairly early in your session and regularly save it so it is up to date. You then have a backup in the event of a disaster! When you create workspace file(s) - you can have more than one if you wish to keep two or more versions of your work - on the Map Room workstation they should be saved in a personal folder in the *usrfldrs* folder on drive **D**.

To create your folder, select drive **D**, then look through the list of folders and open the folder called *usrfldrs*. Click the *New Folder* button to create a new folder, naming it with your name. Always use this folder to save downloads and other files.

2. Let's make a map





[Bodleian Library Map Room home page](#)

written by [Nigel James](#)

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[Contents](#)

2. LET'S MAKE A MAP

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Start MapInfo (good, that's the easy part done...)

The first thing you see when you start a new session is the *Quick Start* dialog. This gives you a selection of options, depending on how you wish to proceed.

To start a new map from scratch, click the *Open a table* option, then OK. You can then start opening tables to create your map.

If you have already created a workspace in a previous session, click *Open a workspace*, then OK. Find your workspace file and open it. You can then carry on with your map.

If you were the last user, your workspace will be named, so just open it again. If you exited MapInfo without saving a workspace (oh, dear...), you can recover your work by selecting *Restore previous session*. This can be a lifesaver, but it is better to save everything *before* exiting!

Alternatively you can click the *Cancel* button to remove the dialog, then open the File menu and click *Open Table*, or you can use the Open table speedbutton below the menu bar. To open a workspace from the menus, open the File menu and click Open workspace.

Data, data everywhere...

There is a considerable amount of data available on the Map Room workstation and it is listed in the Datasets section of this guide. However, let's make a simple map to start with so you can see the principles in action.

For this example we will use the outline World map which is supplied with MapInfo. To open this, click *Open a table* on the Quick Start dialog (or File>Open table if it is not displayed), then open the MapInfo folder on drive D. Open the *Data* folder and then the *World* folder. (if you are following this on another workstation you will have to locate the table yourself). Select the file *world.tab* and click *Open*.

You will now see a basic outline world map. Note that as this data is mappable, it opens automatically in a *mapper* window. If the data was not mappable, it would open in a *browser* (this is explained further in the next section).

Tables, layers: the same but different...

You may think that tables and layers are one and the same, as tables create layers in a map. Well, they are.. but then again they are not!

A table is mappable if it has graphic objects associated with the data (the table *worldcap.tab* has a star symbol associated with each record in the table). therefore a mappable table can be used as a layer in a map. However if the table is *not* mappable (because it is simply data, without any associated graphic objects) it cannot be used as a layer, but it is still a table and can be displayed in a browser window (like a spreadsheet).

Now back to the World map which you have opened. If you cannot see the whole world, click the *right* mouse button while the pointer is in the mapper window and select *View Entire Layer* from the popup menu. At the moment you only have one layer, which is world, so click OK and the map will resize to fit inside the window. You can try the other navigation tools as well. There are two zoom buttons (they have a little magnifying glass with "+" and "-" for zoom-in and zoom-out respectively). To move the map around, use the *grabber* tool (a white hand). Click and drag with the *left* button to reposition the map - this is much easier than using the scroll buttons!

Now we can add a second table, so click File>Open table again and open the table *worldcap.tab* which is also in the World folder. You will now see world capitals displayed on the map. Note how the *worldcap* table opened in the same mapper. This is because MapInfo detected that the two tables covered a similar area and were the same projection, so they would layer automatically.

Everything under control

Ok, so now we have a world map with capital cities .

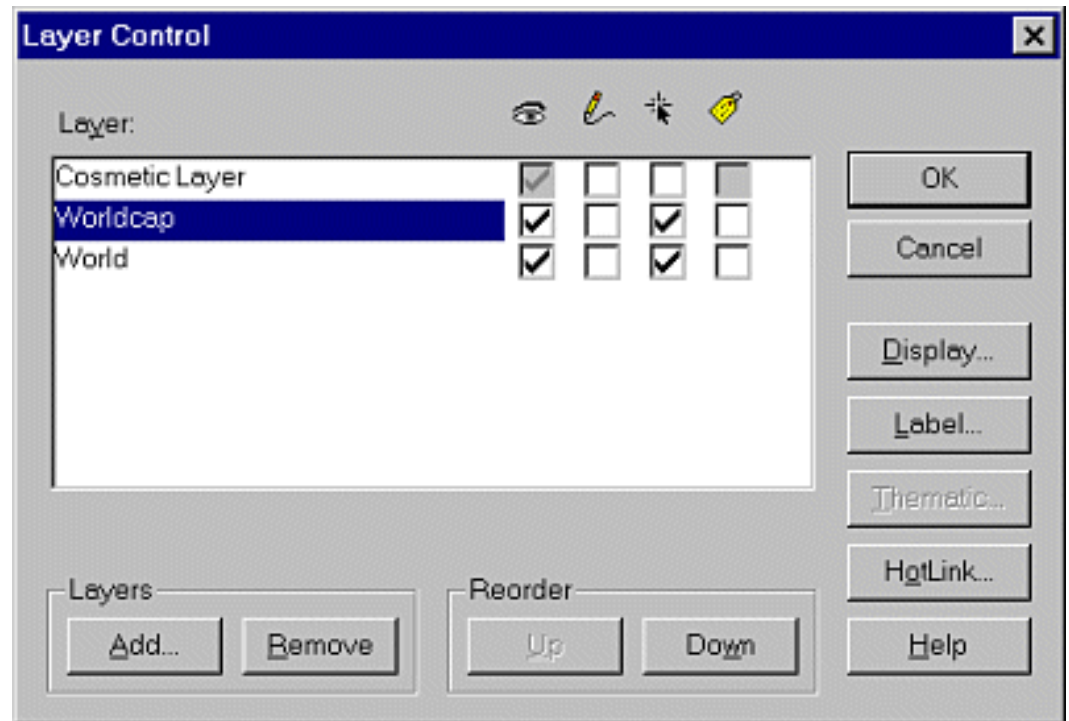
Suppose we want to change the appearance of the cities, or make other changes to the map. This is where the *Layer Control* is used. The layer control is can be accessed in two ways, depending on how you like to use the mouse.

It has a button in the main toolbox (half way down on the left, it looks like a stack of three sheets). Alternatively, *right-click* with the mouse, and it is the first option on the popup menu. Either way, open the layer control now.

You will see a list of layers, with a set of checkboxes and several buttons. The list contains the two layers which are currently open, with an additional layer at the top. This top layer is called the *Cosmetic layer* and is always present. Think of it as a

transparent overlay on which you can draw lines, boxes, text or whatever. We will come on to using it in a moment.

You will see that the worldcap table has been placed above the world table. This is a feature of MapInfo, which is that points and lines are placed above regions automatically. If the worldcap table was below the world table, the symbols would be hidden. You can see this by clicking *once* on the worldcap layer and then clicking the *Down* button in the Reorder box to place it below the world layer. Click OK and you will see that any symbol which was within a land area has disappeared. Open the layer control again and move the worldcap layer back up again. Do not click OK yet.



Colours and symbols and styles...Oh my!

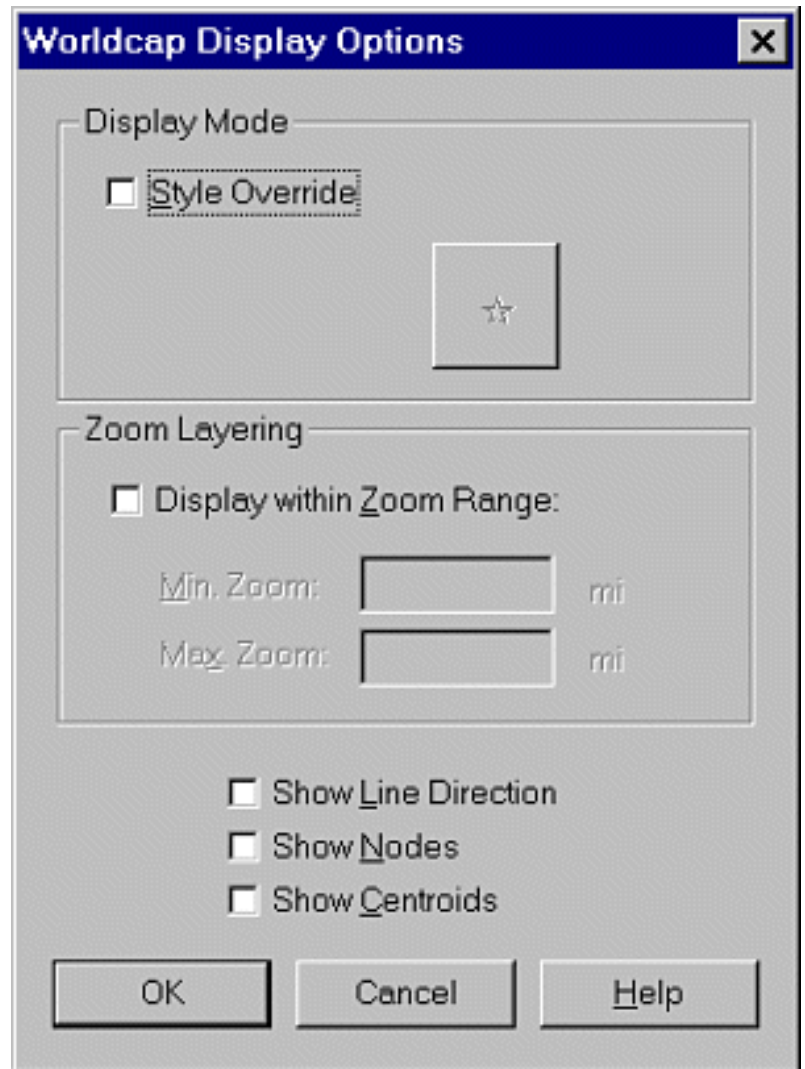
On the right of the layer control you will see a button labelled *Display*. This enables you to change the style of any layer. We will come on to the four check boxes next to each layer in a moment, but you will find that the *second* checkbox is greyed when you open data sets in the Map Room, so you cannot click it. This shows that the table is read-only, so you cannot make changes to it.

All the datasets are read-only to prevent users editing them (you may like pink rivers on your map but the next user may rather have the standard blue ones...). This suggests you cannot change the colours and styles - well you can't permanently, but you can override the settings for your own map. This means that the original data is unchanged, but the override settings are stored in your workspace so they will be applied each time you open your map.

This is where the Display button is used. Click *once* on the worldcap layer to highlight it, then click the Display button. You will now see the Display Options dialog for this layer.

This contains several features, but we are only concerned with the Display mode section at the moment.

You will see a checkbox Labelled *Style override* - click this and a large button will be enabled. Now click the button to display the style dialog. As we are overriding a symbol object, we can choose the symbol style, colour and size. There are a number of symbols available, ranging from simple geometric shapes to cartographic and other pictorial styles. For this example, choose from the MapInfo 3.0 compatible set and choose a filled square (the one with a grey fill, not the outline one). Choose another colour, say blue and make the size slightly larger. Now click OK in each dialog in turn, finishing with the layer control - the cities are now represented by blue squares. Now change the style of the world map. Open the layer control again, highlight the *world* layer this time and click Display. Enable style override again and click the big button. Now you are changing a region object, so you can choose the fill pattern (solid black simply means a solid fill and *N* means no fill), the fill colour, border style, colour and line thickness. Make a few changes and then OK everything and see the difference. Remember that the style can be changed at any time - *and it will only be saved if you save a workspace.*



Let's be selective

You will see that any style change applies to the entire dataset - all symbols change for example. What if we wanted to make selective changes - say make London a big green circle but leave the others as red stars?

Well, if the table is read-only then the short answer is you can't!

This is because changing individual objects within a layer means editing the layer, which you cannot do if it is read-only. So how do you do it? Well, you make a copy of the table you wish to modify, as this copy will then be editable. However you should remember that some datasets can be 20Mb or more in size! You would normally be working on part of a dataset, so that although a map of the UK could be using a worldwide dataset, you only need the UK part of it. Copying part of a dataset is more practical and is the normal procedure.

I'll have that and that and that and...

Zoom in to a smaller area, using the zoom-in control (a magnifying glass with a "+"). You can either click once to double the scale (reduce the area) or drag a box around the area by starting at one corner (say top left) and holding down the left mouse button while you drag.

When you release the button it will zoom in. Zoom in to an area which shows two cities, say London and Paris. We will now save a copy of these two cities and if you are using the Map Room workstation save these into your own user folder.

If you do not already have one, create one now, as explained in Appendix A, and while you are at it, save a workspace. Assuming you have a folder to save tables in, you can now select the two towns. MapInfo has a number of selection tools. The simplest is the pointer, which can be used to click on a single object. To select a number of objects at once, use the *Marquee select tool*, to the right of the pointer tool (tip: if you pause the cursor on a tool, a hint will appear telling you what it is!).

To use the marquee tool, just drag a box around a group of objects to select them all. If the objects cannot be contained with a box (say you want all the towns within a single country) then use the *Region select tool*. You simply click within the containing boundary and all the objects are selected. Other selection tools select within a given radius, or can draw an irregular shaped region to select within. As we are only selecting two cities, click the first one with the pointer tool, then *hold down the shift key* and click the other one. Both objects are now highlighted.

To save them, open the *File* menu and click *Save copy as...* A list will appear of all the currently open tables, together with a table called *selection* - this is your selected objects - so highlight it and click *Save...*

Click on the object, not a label! - When selecting objects (regions, points or lines) make sure that you click the object itself, not a label. The objects themselves need to be selected to save them. Labels are simply attributes of the the objects and will be copied with the objects anyway, but you will need to display them again when you open the saved table.

Save the table in your own folder, and give it a descriptive name, such as LondonandParis. The *.tab* extension will be added automatically. Now open the Layer control and highlight the *worldcap* layer. Click the Remove button to remove it from the list. Close the Layer Control again.

You can now open your saved table by clicking the open table speedbutton (or *File>Open table*). Open the new table and the two cities will appear on the map.

Be careful - When a layer is editable it is at risk - you can accidentally move or even delete objects with realising it, so take care. As soon as you have finished editing a layer, open the layer control and uncheck the edit box to protect it.

Let's be individual...

When we changed the symbol style for the worldcaps layer, all the symbols changed - we could not have different symbols for some cities. However if a layer is *editable*, then individual symbols can be changed. Open the layer control again (you do this rather a lot in MapInfo...). You will see your new layer has appeared. The *edit* checkbox (the second one) is enabled, so click it now to make the layer editable.

Click OK to close the Layer Control.

If you now click the symbol for London, it will appear slightly different - the symbol has a 'hotspot' at its centre. If you are particularly observant you will also have noticed that the drawing tools are enabled. You can move the symbol by dragging the hotspot around, but note the warning above! We don't want to move it, so just leave it selected.

To change this symbol, click the *Symbol Style* button (it is near the bottom and has a map pin with a question mark) on the drawing tools to display the symbol dialog. Choose a new symbol style and colour and click OK. The symbol for London has now changed. It is very important to understand the difference between using style override and making a symbol/object editable and then changing its style. In the latter case you are permanently changing the object, whereas in the former case you are temporarily changing it.

If you have used the table in another workspace and you edit it, then it will be changed there also, but using style override changes it only in the current workspace. Remember also that style override is only saved in a workspace. So:

Style override:

Can only be applied to *entire layer*

Will only be saved if you create and save a *workspace*

Does not change table itself so will not affect other workspaces

Can be changed back by unchecking Style override in display dialog.

Edit object/symbol

Can be applied to a *single* object or symbol (or *selection* of objects/symbols)

Will only be saved if you save the *table*, **BUT**:

Changes table itself and therefore *affects any other workspace using the table*

Cannot be changed back (unless you remember the original style!)

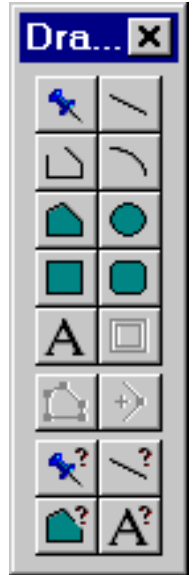
Draw me a picture...

So now we have a basic map, but perhaps it could do with some extra touches, such as a box around the UK, for example, or some other annotations.

You can do all this using the drawing tools, but as we do not want to draw directly on to the map layers (as we may want to change things, and if the layer is read-only you cannot draw on it anyway), such cosmetic changes to the map are made on the... Cosmetic Layer!

The Cosmetic Layer is a fixed layer (you cannot move or remove it) and is always the top layer. Think of it as a transparent surface over the map which you can draw on.

To draw on the cosmetic layer, first open the Layer Control and make the Cosmetic Layer editable. When the Cosmetic Layer is made editable, the drawing tools become enabled. The first nine buttons counting down from the top left select the type of object to be drawn (or in the case of the A button, write text). The four lowest buttons with a ? next to the object set the style for symbols, lines, polygons and text. In between are some special tools which we will come on to later.



A circle, or a star, or a box...or perhaps a cute little duck...

It is easier to select a style first, then draw the object or place the symbol, but you can always change an object once you have drawn it by double-clicking it.

You will then see a dialog which has a style button and boxes to enter precise coordinates (and size in the case of objects). The symbol tool (top left) places a single symbol on the map at the point you select by clicking with the mouse. There are plenty of symbols to choose from. You can use simple geometric shapes (circles, squares etc) from the MapInfo 3.0 set, or pictorial symbols from the cartographic, miscellaneous, real estate etc., sets. The latter sets are True-type symbols (like the fonts in Word) so they can be rotated and be given borders and shadows.

Top right is the line tool, which draws a single straight line between two points - just hold the left mouse button down and drag a line. Second down on the left is the polyline tool. This draws a segmented line. Click once to start, then click at each point you wish to change direction. Double-click to finish. Second right is the arc tool (which draws arcs...).

The next four buttons draw region shapes. The first one draws a polygon (a polyline but with a fill). The next is an ellipse (tip: hold down the shift key and it draws a circle). Below is the rectangle tool (yes, you've guessed it: hold down shift and it draws a square!). Finally there is the rounded rectangle tool.

Oops! I've gone crooked...

If you have drawn a polyline, for example and it's not quite right, how do you edit it? Try clicking once on the line to select it, then drag one end with the mouse - the whole line moves around! (the same thing happens with straight lines and regions).

When you draw a line, each end of the line terminates in a node. A polyline also has nodes at each change of direction (or angle in the case of a polygon) and a box, rectangle or ellipse/circle has just four - one at each corner. Okay, so circles do not have corners, but the nodes are at the corners of its bounding rectangle (a rectangle which just encloses the object).

So to change the shape of a line for example, or move just one end of it, we use the *Node editor*, which is the button below the text tool.

NB: The layer containing the object must be made editable before the node tool can be used - it is disabled if the layer is not editable. Remember that you are making changes to the table, so save it afterwards.

Click the line or object to edit, then click the Node Tool. You will now see the nodes in your line or object (nodes occur at each change in direction as well as the start and end). Now you can move an individual node as you wish. Suppose you have missed an angle? To put a 'bend' in an otherwise straight section, use the Add node tool, which is next to the node editor. Click it first, then click on the line or object to add nodes as required. Nodes can be moved along a line to reposition them and if you have too many, then delete them by clicking once on the node to select it then press the hit the delete key. TIP: If you have drawn an object, an wish to add another which joins exactly to it (such as extending a river or creating adjoining polygons), use the SNAP function. Snap works by attracting a node to another, so as you bring the line towards an existing line, it will 'snap' exactly to it. To use snap, just press 'S' on the keyboard. As you approach an existing node a cross will appear and the new node will be snapped to its neighbour. To turn snap off, just press S again.

That's enough for now...

This has covered the basics of creating and annotating your map. You should now be able to open and modify tables, make selections of objects and annotate your maps (and if you can't then just go right back and read it again...) The *How to* guides give step-by-step instructions for a range of further activities, such as using your own data, multiple maps etc., so it is not included here.

3. Time to put it all on paper



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[Bodleian Library Map Room home page](#)

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MAPINFO - An easy guide for new users in the Map Room

[Contents](#)

3. TIME TO PUT IT ALL ON PAPER

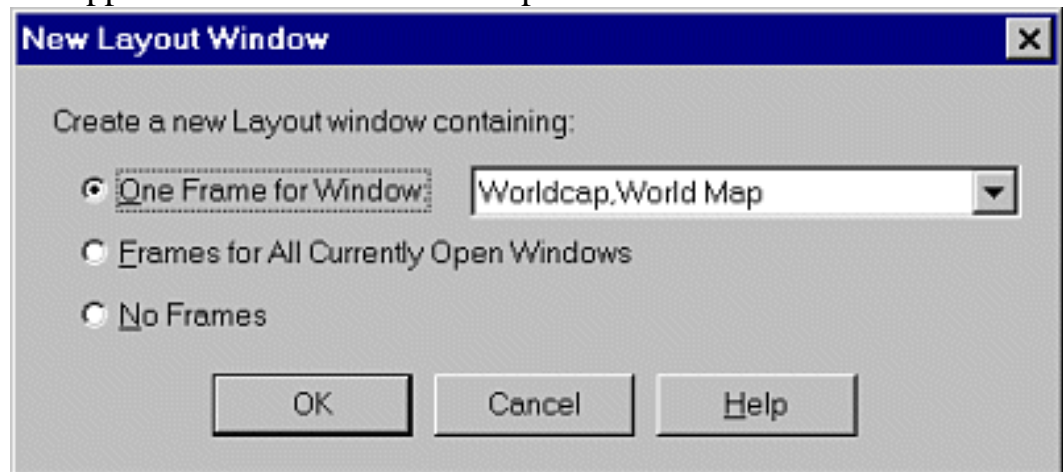
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If you wish to print your maps, you should create a *layout*. This enables you to arrange your maps, legends and title etc, on a page which appears on screen as it will be printed.

Each map (which may contain several layers) will appear on the layout in a frame. The frame acts a placeholder for the map and can be positioned and sized as required.

To create a layout, open the *Window* menu and click *New Layout Window*. You will see this dialog:



If you have used a desktop publishing package such as Freehand or Corel Draw then you may be familiar with the concept of frames. Any changes to the content of the frame is done in the object's window. (This means that to add a layer to a map, for example, you do this in the mapper window, not the layout window - the layout is automatically updated).

If you have one mapper or browser window open, use the first option - *One Frame for Window* and click OK.

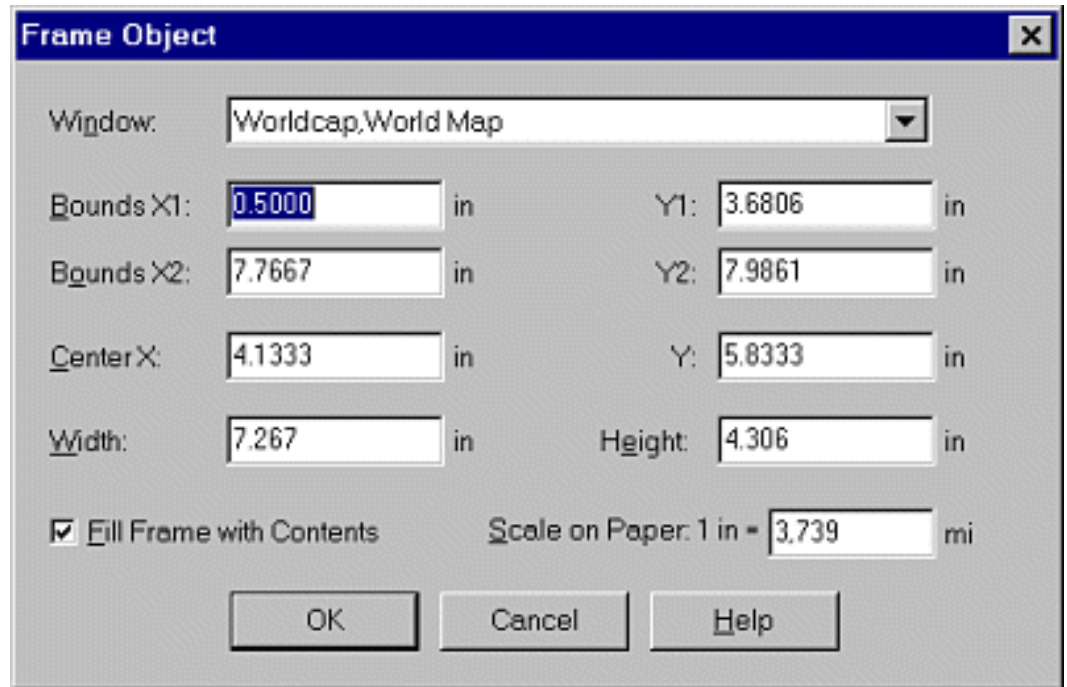
If you have several windows open then use the second option to create a frame for each window. Alternatively select the third option to create a blank layout, to which you can add frames as required. If you select the first or second options, you will see a layout window displayed, containing one or more objects. You can change the page size and orientation by opening the *File* menu and clicking *Page Setup*. Choose your settings and click OK.

Sometimes you may find that your layout is across two or more pages (MapInfo can create multipage

layouts if required). To return to a single page layout, open the *Layout* menu and click *Options*. Set the number of pages as required. The *Show Frame Contents* option should be left at *Only When Layout Window is Active*, to speed up display time.

Now that goes there, and this goes here...

You can position the frame and resize it as necessary. To set the size and position of a frame precisely, just double-click it - you will then see the Frame Object dialog. Just make any changes required and click OK.



"This is my first map..."

To add text (a title, for example) click the *Text Tool* (the button with a letter A) in the drawing toolbox. Click anywhere on the layout window and type your text. You can set the font size, style and other options first if you wish by clicking the *Text Style* button (the A? button).

Alternatively you can change the text after typing it by double-clicking the text string using the select tool. This is also how you edit text once it has been typed.

You have a choice of views for the layout window: To see the layout at 1:1 size, *right-click* on the layout and choose *View actual size* from the pop-up menu. To see the entire layout, select *View entire layout* instead. When adding text etc, always work at actual size as you can then see just how large or small the text will be.

Get in line there!

MapInfo has alignment tools to position map frames and text etc, precisely. You can align maps and text with the whole page, or with each other.

To see how this works, click *once* on the map with the left button to select it, then click again on the map, but this time with the *right* button. From the pop-up menu select *align objects*.

You can set the horizontal and vertical alignment of objects, either with relation to the entire layout, or to each other. Both positions have a 'don't change' option, to leave that position as it is. If you have a number of objects you can also space them equally, which is useful for simple legends, for example.

In the align objects dialog, choose the following: Horizontal: *Align center of selected objects with respect to Entire layout*. Vertical: *Align center of selected objects with respect to Entire layout*. Click OK. The map will be in the centre of the page! Now add a title to the map by choosing a suitable font by clicking the Text style button in the drawing toolbox and selecting say, Arial 20pt. Then click the Text button and click once roughly where the text should go. Type a title, then click the pointer button in the main toolbox when you have finished. Do not press Enter or you will simply add another line of text. Move the text to the position you would like, just above the map, for example. Don't worry about getting it in the center of the page as we will use the align function for this. We will now align the two objects (map and title) with each other. Click once on the map to select it, then hold down the *Shift* key and click the title to select that as well. Release the shift key and *right-click* on either the map or the text (it doesn't matter which)

In the Align Objects dialog, choose *Align center of selected objects with Respect to each other* for the horizontal alignment and in the vertical alignment choose *Don't change*. Click OK and the text will stay the same distance above the map, but it will now be aligned with the map as well.

NOTE: When aligning objects with each other, remember that the first object you select will not move, but the other objects will move to align with it. If we had clicked the title first, then shift+clicked on the map, the map would move to align with the title, which was not what we wanted. Also: Horizontal alignment means alignment along the horizontal plane, *not* moving the horizontal position up or down the layout.

Vertical alignment means alignment along the *vertical* plane, i.e: up or down the layout.

If the printed colours are not what you expect, download and print the [MapInfo Colour Grid table](#) - you can then select colour styles in your tables to match the required print colours.

4. Data analysis and display - real GIS stuff!



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Bodleian Library 2000



MAPINFO - An easy guide for new users in the Map Room

[Contents](#)

4. Data analysis and display - real GIS stuff!

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For more advanced use of MapInfo, including displaying and analysing your own data, using scanned maps, creating grid thematic maps, using queries and so on, see the *MapInfo How To* guides, which explain a number of procedures in a step-by-step way. However, just to see how MapInfo can be used to display data, here's a simple introduction which creates a ranged thematic map (shading by colour according to values), using the World map you have open already.

If the layout window is still displayed, click the mapper window if you can see it, otherwise open the *Window* menu and select the *World map...* window.

Three steps to Heaven (or to creating a thematic map anyway...)

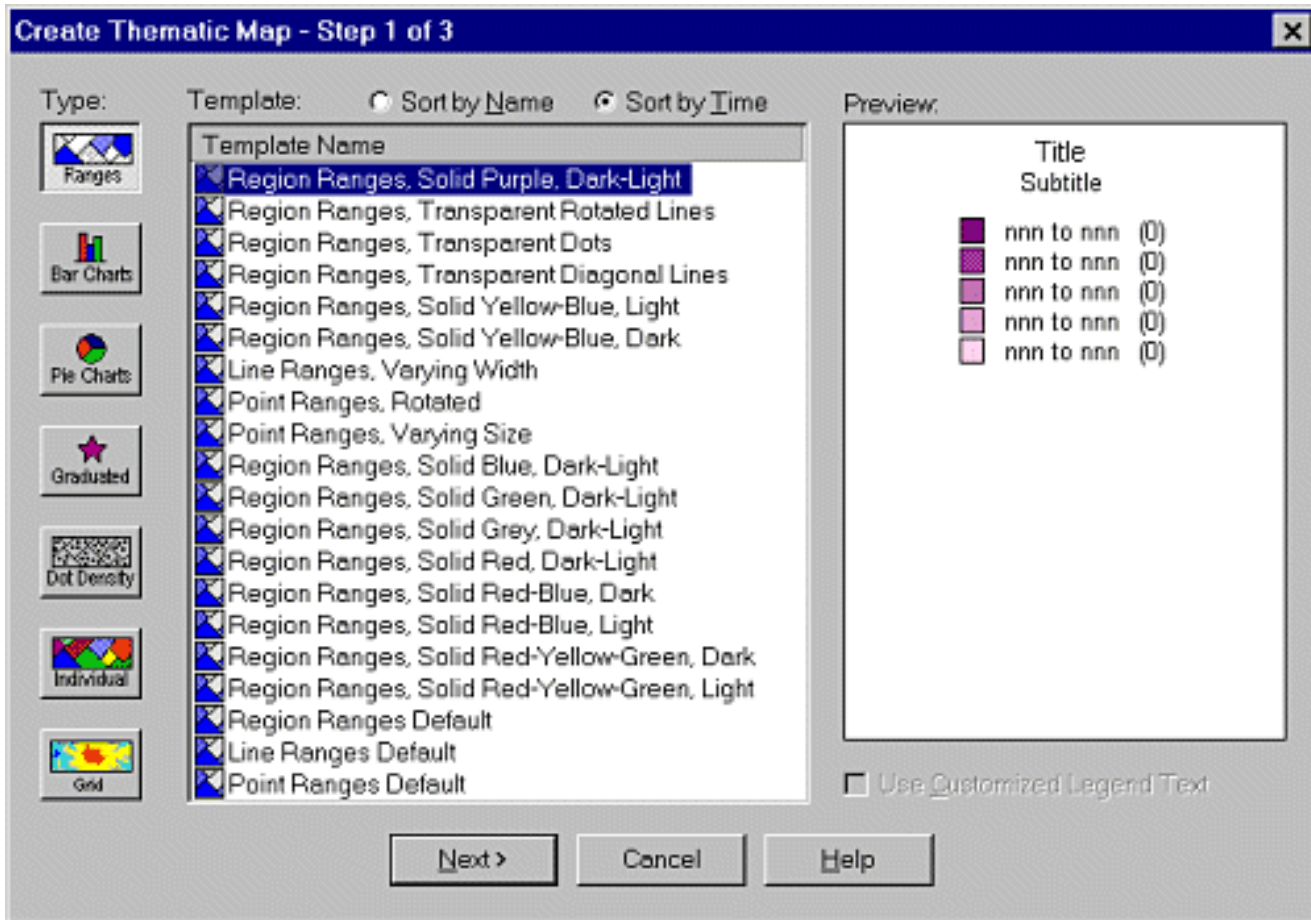
Creating a thematic map in MapInfo requires just three steps:

1. [Choose the type of map](#)
2. [Select a table and a data field \(or fields\)](#)
3. [Preview the results and make any changes, then display the map](#)

Step One

Open the *Map* menu and click *Create Thematic map...*

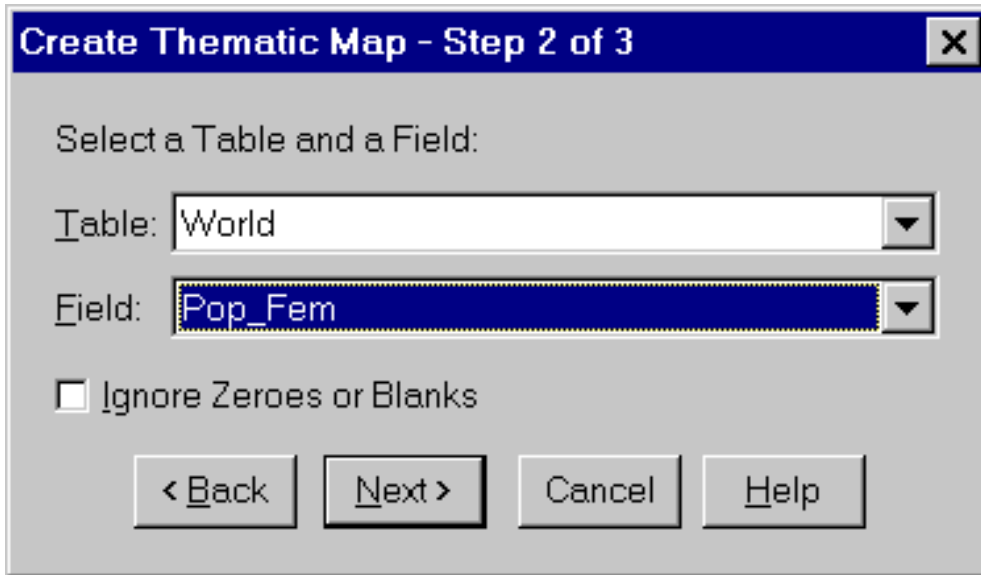
Chose the type of map. For single variables, you can use ranges, proportional symbols etc. For this example choose *Ranges*. You can then select a style (don't worry if you don't like any of these as you can change them later - just choose one for now):



Now click the *Next* button to display Step 2.

Step 2

The next step is to choose the *table* and *data field* (for ranged maps you can only display one field at a time, but with pie-charts for example you can select multiple fields). The table is the table containing the data - which in this case is the World map table, as it has a selection of variables included as *attribute data* (data relating to each graphic object in the table). To display the female population in 1994, select *World* as the table and *Pop_Fem* as the field (you can choose *Pop_Male* if you want to, or whatever you like...):



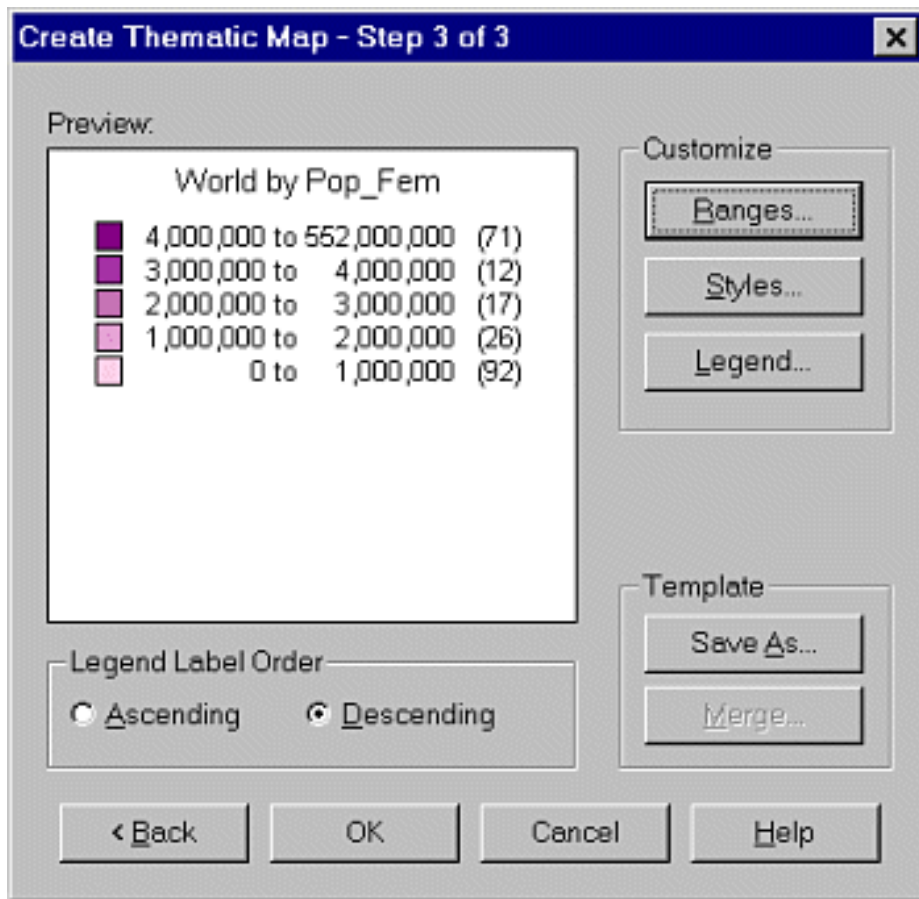
You will notice a checkbox labelled *Ignore Zeroes or Blanks*. If your data table has zero values or blanks for any record, checking the *Ignore Zeroes or Blanks* box will leave these countries without colour (or the colour of the basemap if it has one).

If you do *not* check this and there *are* zeroes or blanks, they will be included in the lowest data category, which could be misleading. (To see the difference, leave it unchecked for now, but then create a thematic map again but with the box checked).

Click the *Next* button to move to Step 3. If the *Next* button is disabled then you have done something wrong, so check you have a valid table and field selected.

Step 3

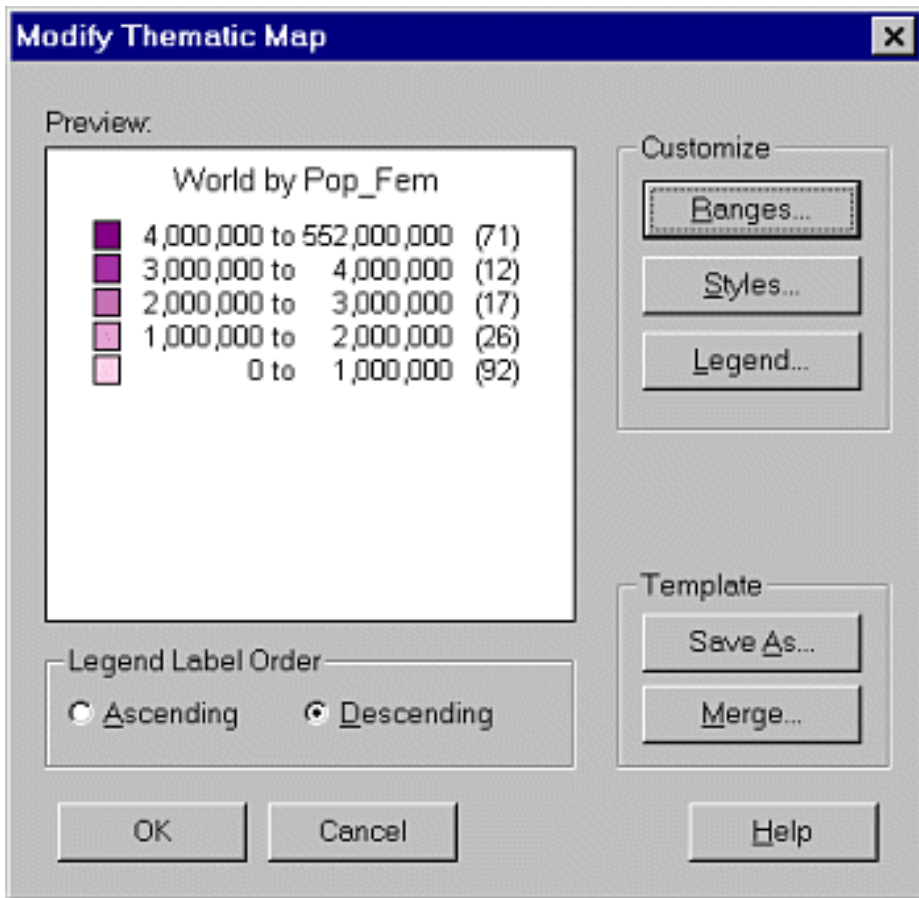
You will now see a preview. Don't make changes for now, as any changes can be made in the *Modify Thematic Map* dialog which we will come on to in a moment:



Click *OK* and you should now see the data mapped thematically!

Yuk, those colours just don't go together...

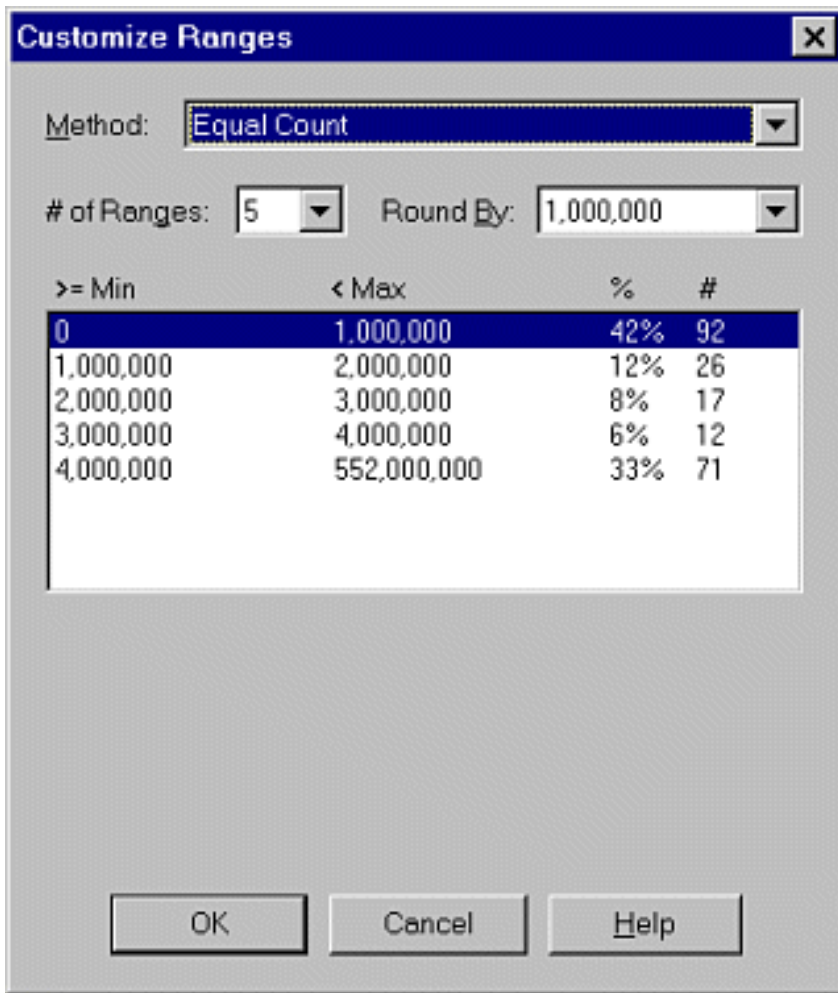
To modify how your data is displayed, open the *Map* menu (make sure that the map window is active) and click *Modify Thematic Map...* The previous dialog will now be displayed, but is now called *Modify Thematic Map* instead. You have three customise options, accessed by clicking the appropriate button:



The three choices are:

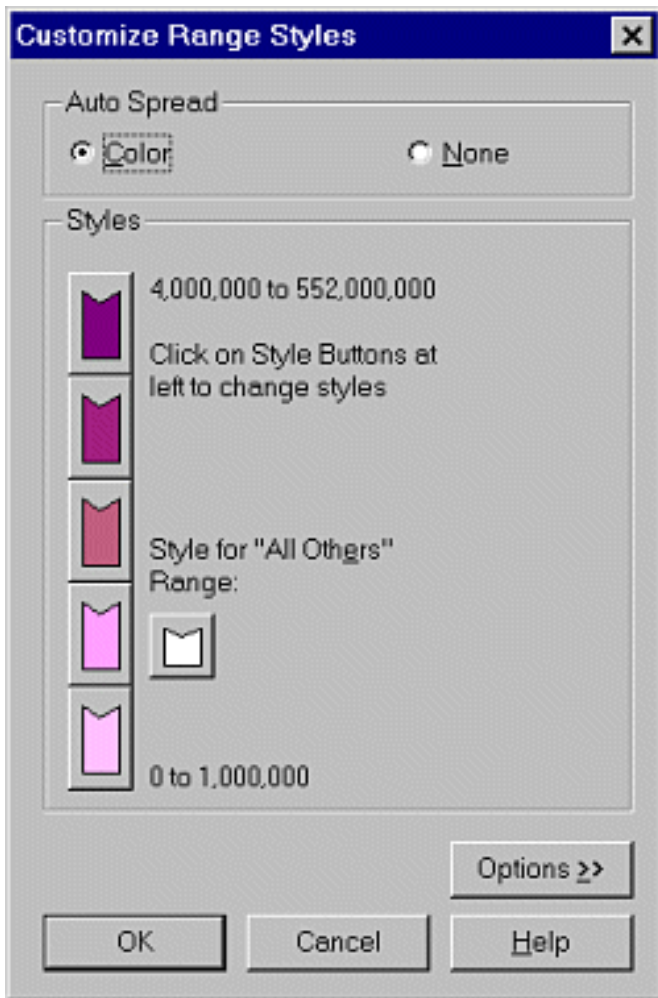
1. Ranges
2. Styles
3. Legend

Click *Ranges* to display the Customise Ranges dialog, which allows you to change the method, number of ranges and rounding:



If you make any changes here, the OK button changes to *Recalc*. Click this to recalculate your ranges.

The *Styles* button displays the *Customise Range Styles* dialog:

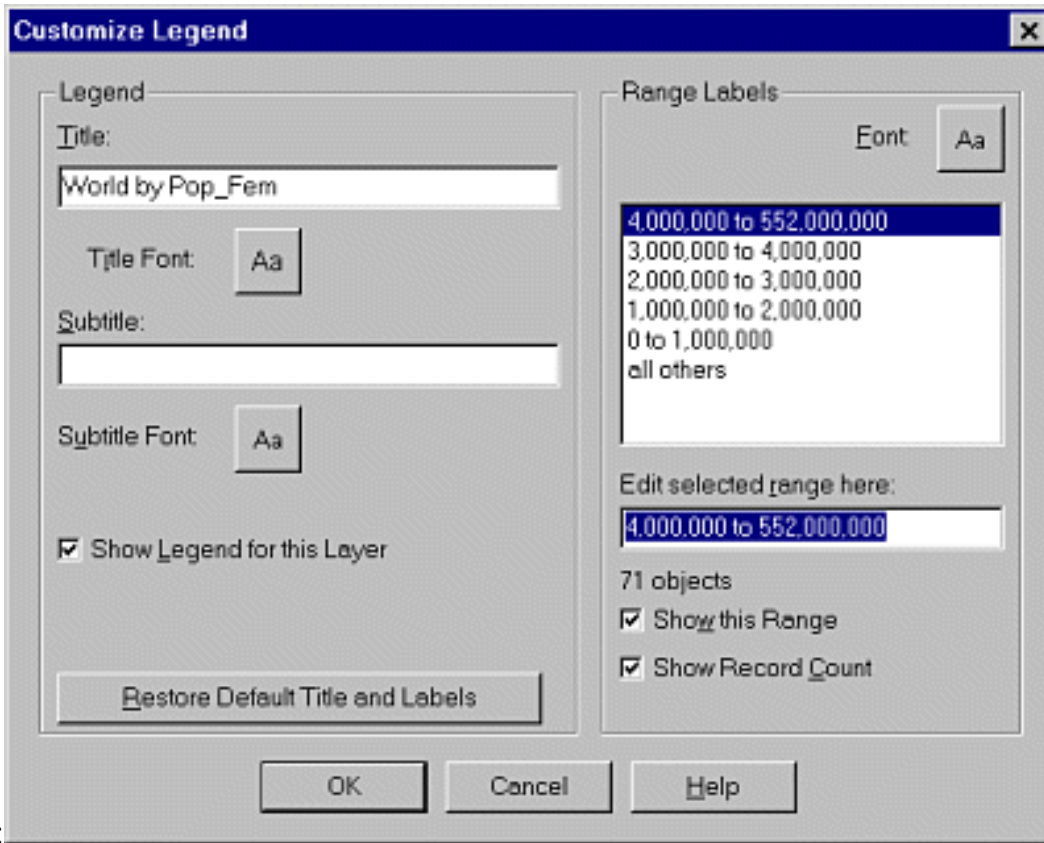


Here you can experiment with different colours. To change the range in this example to red through to yellow, click the top colour box and select red as the foreground colour. Do the same for the bottom box but this time select yellow.

You will see that the colour range has been changed automatically - you do not need to change all the intermediate colours as well! By clicking the *Options* button, you can change the *inflection point* (the colours are ranged from each end of the scale in towards the inflection point - useful if you have positive and negative values (e.g. population increase/population decrease). Click OK to apply changes.

Make your map legendary

Click the *Legend* button to display the Legend dialog. This allows you to determine the appearance of the legend:



You can start by changing the title to something better than World by Pop_fem, so just delete it and enter your choice of title. You can also add a subtitle if you wish. The font style for both title and subtitle can be changed.

You can edit the range labels, but remember that this does not change the actual ranges - you do that by clicking the *Ranges* button in the *Modify Thematic Map* dialog. By default the *record count* (the number of records in each range) is shown, so uncheck the *Show Record Count* box if you wish to remove them. When you have made any changes to the legend, go back to the layout window. If the legend has not appeared on the layout, you can now add it.

To do this, make sure that the Layout window is the active window (check it is visible and it has a blue title bar). To add the legend to the layout, you first draw a frame. Click the *Frame tool* (the button with a yellow square on the Drawing toolbox), then draw a box roughly where the legend will go. When you release the mouse you will see a dialog asking which window you wish to display - select Legend of World map in this case. The legend will now be displayed with a border. You can move and resize the legend as you wish, by clicking it then using the mouse. To move it, click on the legend and then drag. To resize it, click and drag one of the corner nodes.

The legend box is a region object, so you can choose a different border (or no border at all) or background colour by clicking the legend to select it, then clicking the Region style button (bottom left tool) in the drawing toolbox. Make any changes and click OK to change the appearance of the legend.

If you look at the Layer Control, you will see your thematic layer indented above its associated map

layer. You can use the layer control to show or hide this layer, or change its order in the stack, but note that it always stays attached to its map layer.

Remember: To save your thematic layer for future use, you must save your map in a Workspace!

Now that you can create a thematic map from existing data, you may want to go on to making thematic maps from your own data. To map your own thematic data, you use an existing boundaries map (such as a world map, or a map of districts or counties) and link your data to it. It's not difficult to do and you will find step-by-step instructions in the *MapInfo How to* guides

I wish to make a point... (or several points, in fact)

Point data maps differ from thematic data maps in that the table containing the data has a hidden column attached which stores the window x,y point location and symbol data. This means that once the point data table has been created, it can be saved as a table. Also, it does not need an existing map to display data - it is a map in its own right (the table of world capital cities for example, is a point data table). As with thematic data maps, you will find step-by-step instructions in the *MapInfo How to* guides.

Moving on...

You should now have a reasonable understanding of the basics of MapInfo (certainly enough to impress colleagues and casual onlookers...). You are now ready to use the MapInfo How to guides to create just the map you need, with multiple maps on a layout, your own data and painlessly exploring the mysteries of SQL, grid thematic maps and geocoding, so have fun!

Appendix A: Saving a workspace



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[Bodleian Library Map Room home page](#)

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MAPINFO - An easy guide for new users in the Map Room

[Contents](#)

Saving a workspace

This guide is intended primarily for Map Room users, but may be of interest to other University students and staff, or indeed the wider community. References to tables, folders etc., are not applicable outside the Map Room, so if you are located elsewhere, you should substitute your own.

MapInfo and the datasets available in the Bodleian Library Map Room can only be used for education and research purposes. It is not licensed for commercial publication or other purposes. There are also restrictions on the use of Ordnance Survey and Census boundary data - please ask for further information.

Saving a Workspace

If you wish to save the map(s) you are working on, save them to a Workspace.

A workspace saves information about the tables you are using, any styles you have selected and objects in the cometic layer etc. It also saves the Layout Window (see next section). When you save files, you should create your own folder to save your files in. You should also use sub-folders when necessary to keep your various table and data files organised.

If you are working in the Map Room, all user folders are in a folder called *USRFLDRS* on drive D:

To create your folder, select drive D, then look through the list of folders and open the folder called *usrfldrs*. Click the *New Folder* button to create a new folder, naming it with your name. Open your folder and save your workspace. Obviously if you are working elsewhere then you will have to set up your own directories and folders, but the idea is the same.

Beware: A workspace does not save copies of any tables, simply paths to them, so do not delete or move any tables which are used by your workspace, as you will not be able to open it again (...and there will be a great wailing and gnashing of teeth...)

To save a workspace, open the *File* menu and click *Save Workspace*. Select your folder and give the workspace a name. It will be saved with a *.wor* extension. The next time you wish to work with your maps, open the *File* menu and click *Open Workspace*. Find your *.wor* file and open it - your maps and layout will be recreated ready to continue working on them.