

Introduction

The new *Interactive Map Template* tools simplify map making by providing the ability to use standard map templates from our template library or interactively create customized map templates for use within **Oasis montaj**.

The template can be used to create simple base maps for standard presentations or very sophisticated final maps. This XML based template system also supports the creation of multiple data views on a single map. The user may define titles, text, logos, scale bars, and may even include background graphics or images in each view. For the power users, the templates are fully scriptable.



Once you have created a *Map Template* you can add it to your own personal library so that you can quickly create maps from this template in any Geosoft project. You can also share these template files with colleagues so that everyone in your office can create similar maps.

In this technical note we will create a map template based on the XYZ data (mag.xyz) which can be found in the "...\\Oasis montaj\\data\\various" directory. Copy the file (mag.xyz) into your current working directory and then import the XYZ file into a new Geosoft database file (for example, mag.gdb). Once you have imported the data into the new Geosoft database file, set the coordinate system information (NAD83/UTM zone 17N) and grid the data (e.g. mag.grd) using the Bigrid gridding method. Note that, the Bigrid default parameters are acceptable. For more information on using **Oasis montaj** importing and gridding capabilities, see the **Oasis montaj Quick Start Tutorials** from the *Help/Manuals and Tutorials* menu.

Working with the Interactive Map Template Tools

The *Interactive Map Template* tools are designed to simplify map making by providing standard map templates from the template library and easy-to-use interactive tools for modifying or creating customized map templates for use within **Oasis montaj**.

Tools for creating and working with *Map Templates* can be found in two locations:

- On the *Mapping* menu, select *Template/New map template/* and then select one of two options, *Blank map template* or *From template library*.
- On the *Map Template Tools Bar*, select one of the following buttons, *New template from library* () , *New blank map template* ().

Components of a Map Template

There are three general types of components that can be added to a Map Template, *Data Views*, *Data Groups* and *Base Groups*. Note that a *Map Template* can only have one *Base View*, which is defined when you initially create the *Map Template* and is based on your paper size.

Data Views define the area of the map where you will add data. A *Data View* is georeferenced and can have a projected or geographic coordinate system.

Data Groups are items that you can add within a Data view; these include colour Grids and Shaded grids.

Base Groups are items that can be added to the Base View and include, Scale Bar, North Arrow, Images (Logos), Rectangles as well as several different text options Titles, Text, Date and Time stamp and Question Text.

Data View Properties

Name	Data
Scale	1000000
Minimum X	436500
Minimum Y	7072800
Maximum X	459900
Maximum Y	7269800
Units	metre
Projection	UTM zone 10N
Inside data margin	1cm
Reference grid	Solid lines
Positive plot direction	Right
Vertical reference angle	67.5
Reference grid spacing	
Line colour	0, 0, 0
Y annotation orientation	Vertical, tops out
Add compass directions to annotations	No

Reference grid spacing
By default, the system will determine a suitable spacing between reference grid lines. If the default spacing is not suitable, you may specify your own in ground ...

Define From X,Y Define From Lat,Lon
(Re)calculate Scale Clear Coordinate Information

OK Cancel Help

This shows that the currently active View is the Data view, one of many possible data views.

The Data View properties enable you to set the extents of this data view; you can do this by scanning a grid or database file or by manually entering the values. In addition to setting the extents you can also set the coordinate system information. You also have all of the reference grid options here, such as controlling the appearance of UTM or latitude and longitude grid lines.

These buttons enable you to define the extents of the Data View by scanning grids or databases. You can also leave the extents of a Data view undefined; in this case when you are creating a map from the template you will be prompted to define the extents at that time.

Base View Properties

This shows the currently active View name, and enables you to change the active view using the dropdown list.

The View Properties section enables you to modify any attributes for the current view; the options that are shown here are different for Base and Data Views. Base View options include page size and orientation, base units and the Fit to View option - this removes the set page size and instead calculates the page size based on your data extents, scale and margins.

This area shows a description of the currently selected property; in this case we see the description for the Fit to View property.

Group Properties


Group Properties:	
Grid name	...
Shading effect	Normal (RGB)
Colour Method	Default
Colour Table	colour.tbl
Brightness	Normal
Contour interval	
Illumination inclination	45
Illumination declination	45
Vertical scale factor	


This shows the currently active group name, the dropdown list gives you the option to change the active group, and the delete button will remove the active group from the template.


The Group name box gives you the option to rename this group in the template.

The Group properties section enables you to modify any of the active group's attributes, simply click in the box to change attributes.

Using the Map Template Tools


Once you have a Map Template created and/or opened in your current project you can quickly and easily add a new *Base Group* to your map template using the *Add new base group* button () on the *Map Template Tools Bar*. You can also access this option by selecting the *Base View* in the map template window, right-click and from the popup menu, select *Add new base group*.

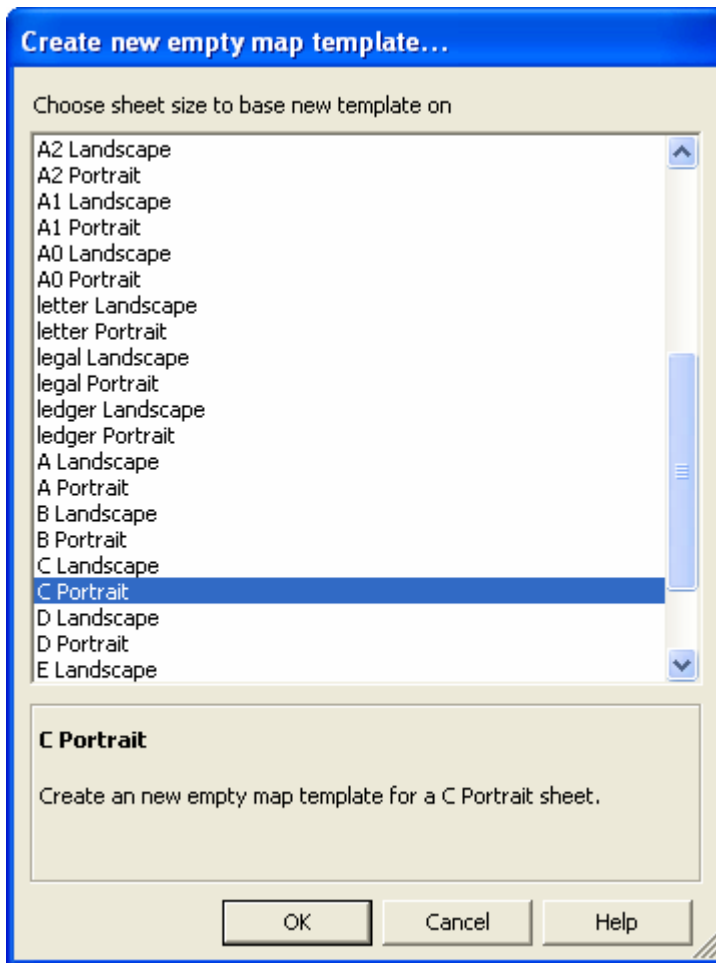
When adding new *Data Views* to your map template, you can define the data extents and projection information or leave the area undefined. Data groups can be added using the *Add new data group to current view* button () on the *Map Template Tools Bar* or by selecting the view you want to add the group to in the map template window, right-click and from the popup menu, select *Add new data group to current view*.

Template Group linking, which can be used very effectively to organize the layout on an output map (especially "map" style maps where the base view has a fitting view defined), is available by clicking the *Edit selection's links* button () on the *Map Template Tools Bar*. For more detailed information on the *Map Template Tools Bar*, see page 30.

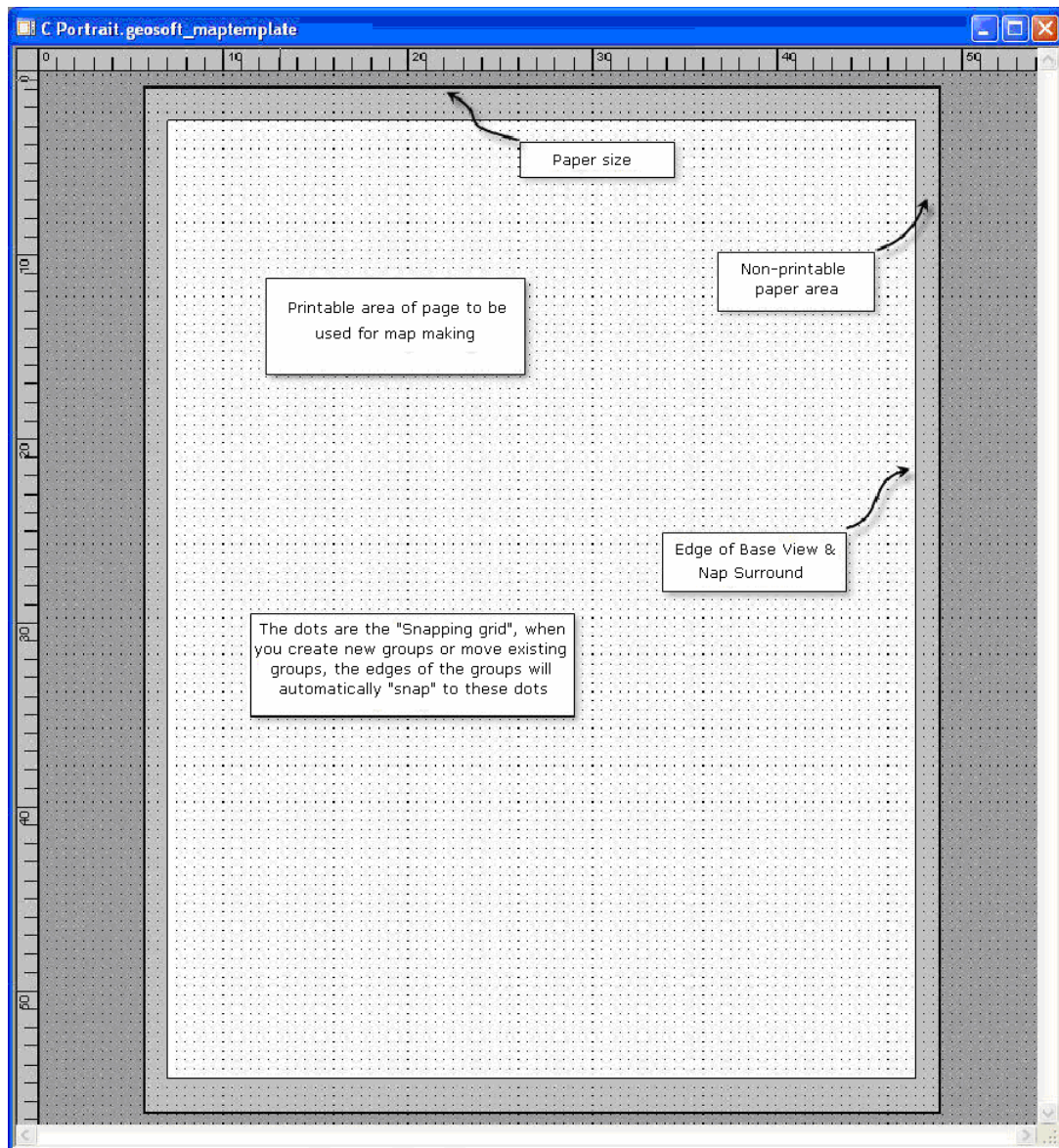
Create a new Map Template

The following procedure details the steps and the options available when creating a new *Map Template*.

- 1 On the *Mapping* menu, select *Template/New map template* and then select *Blank map template*. (Note that you could also select the *New blank map template* button () from the *Map Template Tools Bar*.) The *Create new empty map template* dialog is displayed.





- 2 Using the map sheet size list, select the page size and orientation of the new blank template as (**C Portrait**), this sets the extents of the Base View. Click the [**OK**] button and the *Save Map Template As* dialog will be displayed.
- 3 It's always recommended to save all your project data in your current project directory (default directory). Specify a *File Name* (**C Portrait**) and click the [**Save**] button (Note that, it is good practice to name the template so that the paper size is included in the name). The new map template **C Portrait.geosoft_maptemplate** will be created and displayed in your current project window.

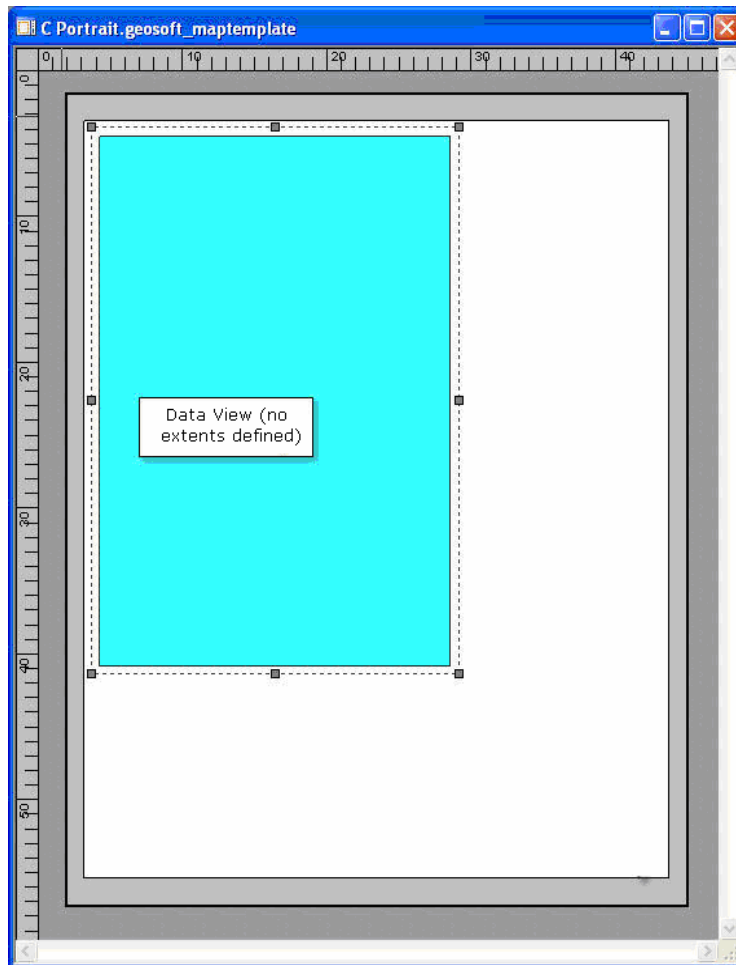


Adding a New Data View to a Map Template

When you add a *Data View* to your map template you can define the data extents and projection information or leave the *Data View* undefined until you create a map from this template. If you define the data extents now, the template will only be useful for the area extents that you define. If you leave the extents blank, then you will be able to use this template for any area (and you will be prompted to define the extents when you create the map from the template). This is discussed further in the section called *Adding Extents to a Data View*.

It is important to note that the scale and/or data extents are constrained by the initial paper size of your map template. Changing one parameter will have an effect on the other, for example; decreasing the Scale value will increase the data footprint on the map layout and you may need to modify the placement of your *Data View* in order to view the entire extents. There is also an option to force the *Base View* to be resized to match a specified *Data View* extents and scale.

- 1 On the Map Template Tools Bar click the Add new View button ().
- Note:** To activate the *Add new View* selection option, you can also, select the current Map template, right-click and from the popup menu select *Add new data view*.
- 2 Your cursor will change to a cross-hair (), enabling you to interactively specify the location of your new data view. To define the location *click and drag the cursor* to define a box shape for the view.
 - 3 Once you have outlined the location of your new *Data View*, it will be displayed on your Map Template with a light blue background.




- 4 We will discuss defining extents for a view, as well as adding multiple views and adding *Data Groups* below.

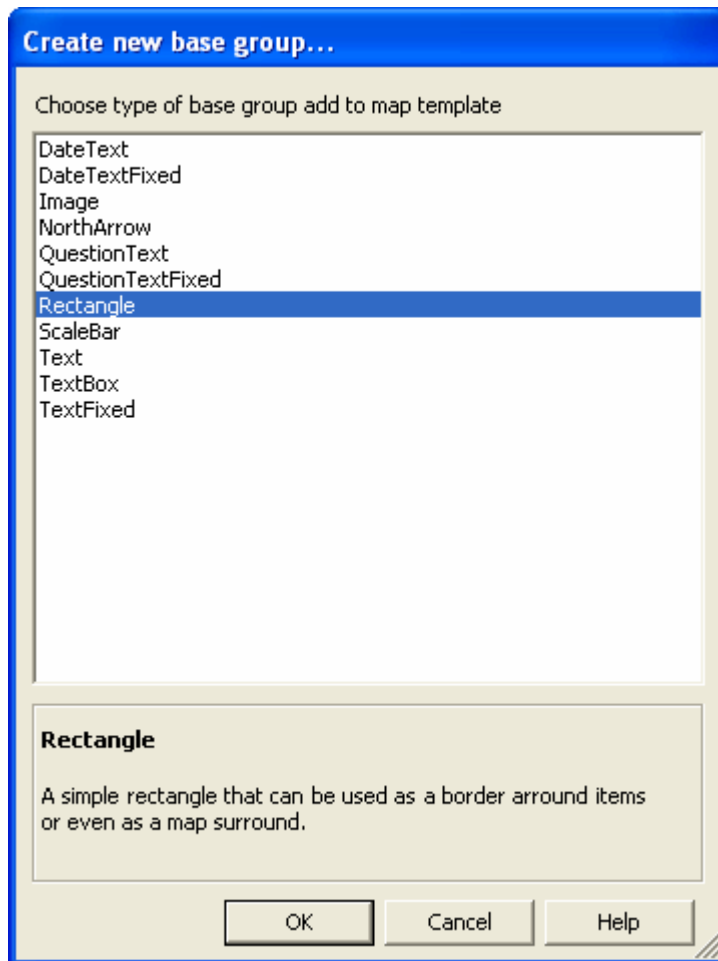
Adding New Base Groups to a Map Template


Once you have a template open and selected in your current project, you can add new *Views* and *Groups* to it. **Base Groups**, which can include, *Date Text*, *Images*, *North arrows*, *Question Text*, *Rectangles*, *Scale bars*, *Text*, and *Text Boxes*. Also available are *Fixed* text types (i.e. *Text*, *Date Text* and *Question Text*) that enable you to specify exact text height in mm, microns and pts.

We will start by creating a surround for our Data View. Note that, the Base View automatically includes a single surround line that is drawn at the very edge of the printable page area.

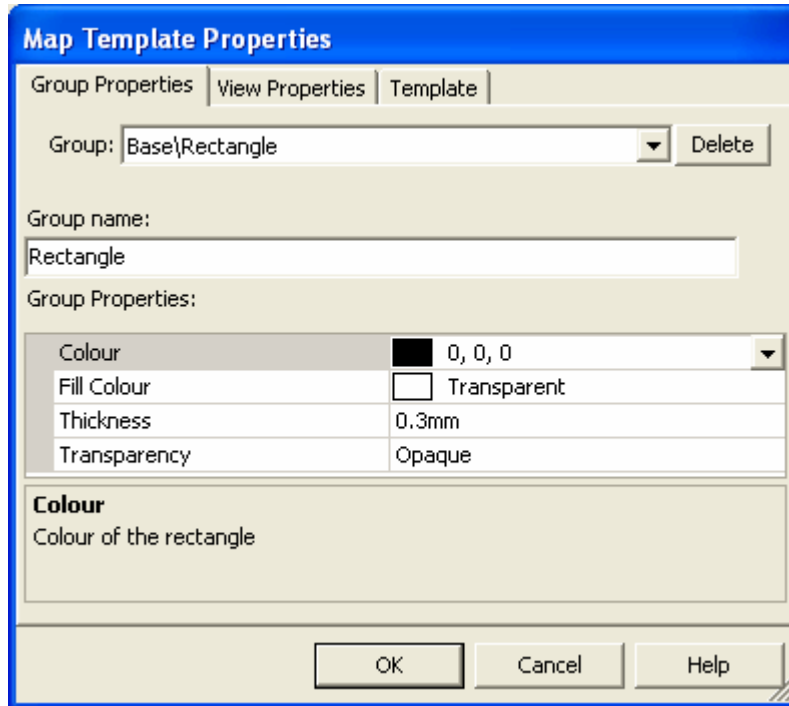
- 1 On the *Map Template Tools Bar* click the *Add new base group* button (). The *Create new base group* dialog will be displayed.

Note: You can also display the *Create new base group* dialog by selecting the current Map template, click the right mouse button and from the popup menu select *Add new base group*.

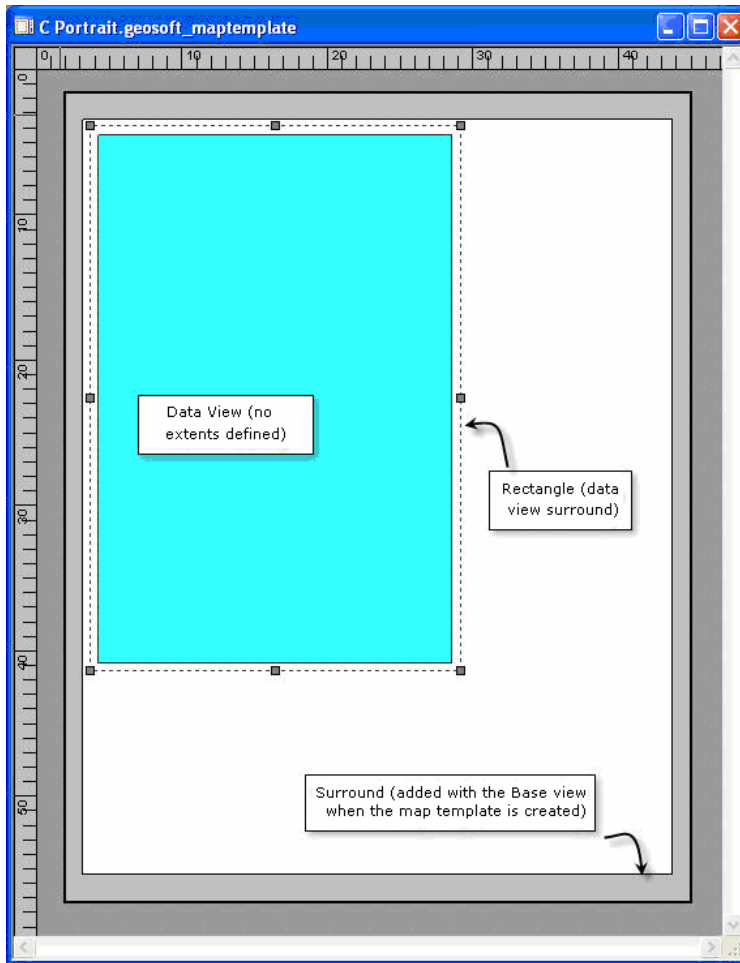


- 2 From the list of *Base groups* provided, select a group to add to the map template. For our example we will select the **(Rectangle)**, which can be used to create a Data View surround. Note that a name and a short description of the selected group is displayed at the bottom of the dialog.
- 3 When you have selected your group, click the **[OK]** button and your cursor will change to a cross-hair (), enabling you to interactively define the location of your new base group. Be sure that you click and drag to define the rectangle; note that the snapping option will force the rectangle edges to snap to the grid. For more information on snapping, see the *Layout Properties* section below.

- 4 For our purposes we defined a rectangle area that is exactly 0.5 cm from the edge of the Data View on all four sides. Once you have defined the location of your new group the *Map Template Properties* dialog will be displayed.



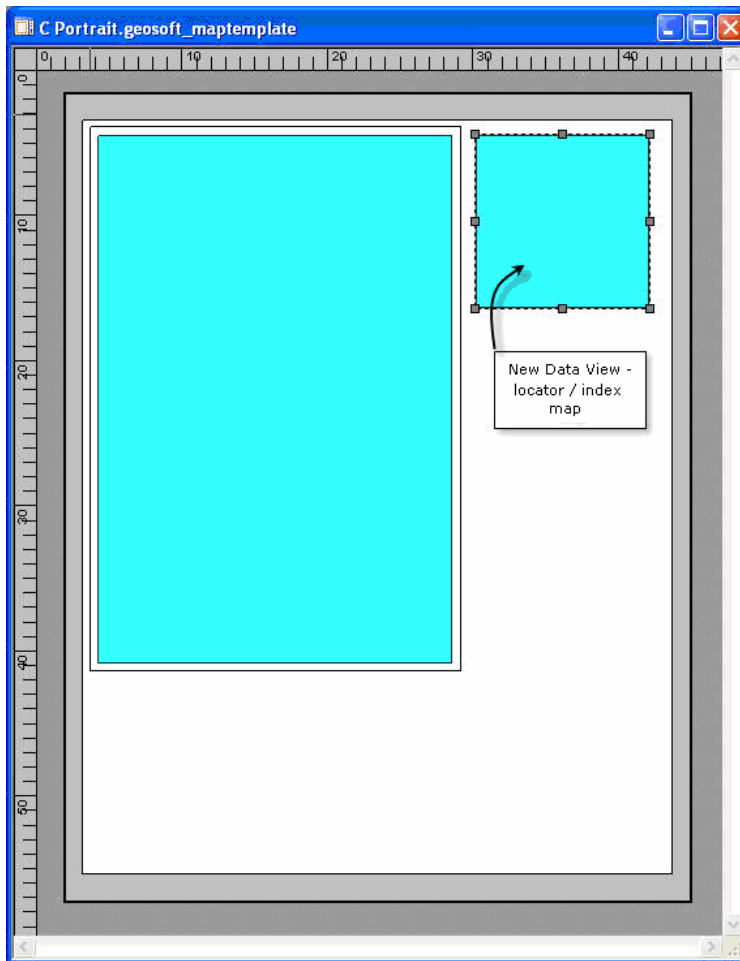
- 5 Using the different parameters on the *Group Properties* tab you can specify the properties of the currently selected *Group*. Note that, you can switch to modify the properties of other items in your Map Template by using the *Group* dropdown list or by switching to the *View Properties* tab. For more detailed information, click the **[Help]** button.
- 6 For our use as these properties are appropriate, once you are satisfied with your properties, click the **[OK]** button and your new group will be plotted to your map template.



Adding Multiple Data Views to the Map Template

Data Views are independent of each other and independent of the *Base View*. Therefore, you can add multiple *Data Views* to your Map Template and each *Data View* can have different coordinate extents and different projections. For example, if you have regional Latitude, Longitude data of your study area that you would like to include as a reference map on your template, you can simply add a new *Data View*, and specify the new data extents and projection information.

You can add an unlimited number of *Data Views* to the Map Template. Additional *Data Views* will be named *Data_1*, *Data_2* etc but you can rename these views in the *View Properties* dialog box.





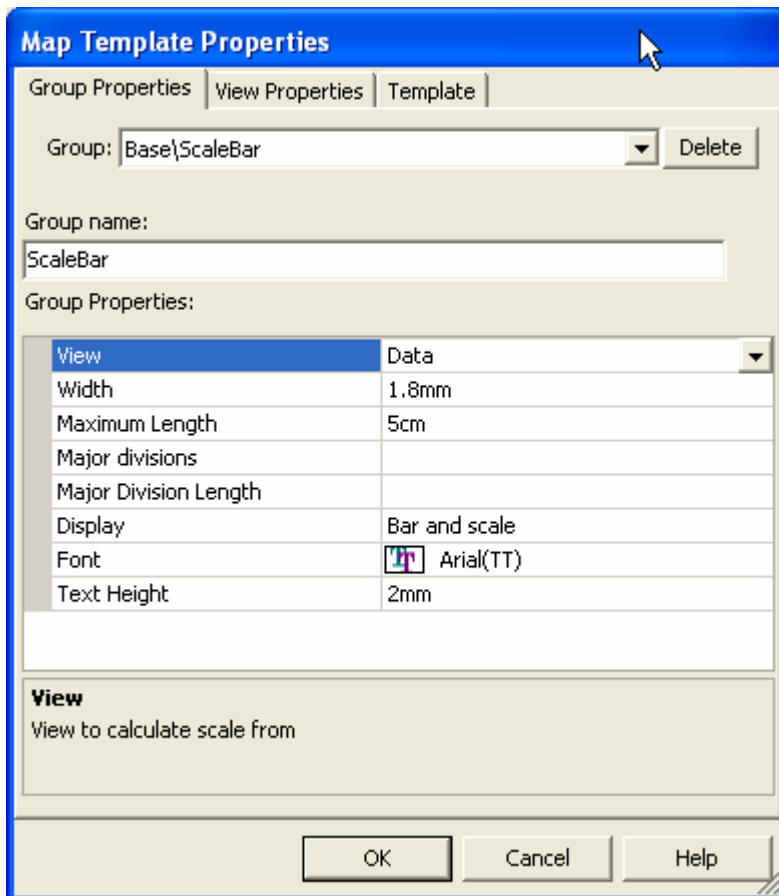
Adding Additional Base Groups to the Map Template

There are several different kinds of *Base Groups* that can be added to the map template, such as *Scale bars* (you can add individual Scale bars for each Data View), *North arrows* (including Inclination and Declination), various kinds of *Text* (e.g. *Titles*, *Date and Time*, *Text blocks from files*) and *Images* (e.g. *Logos*).

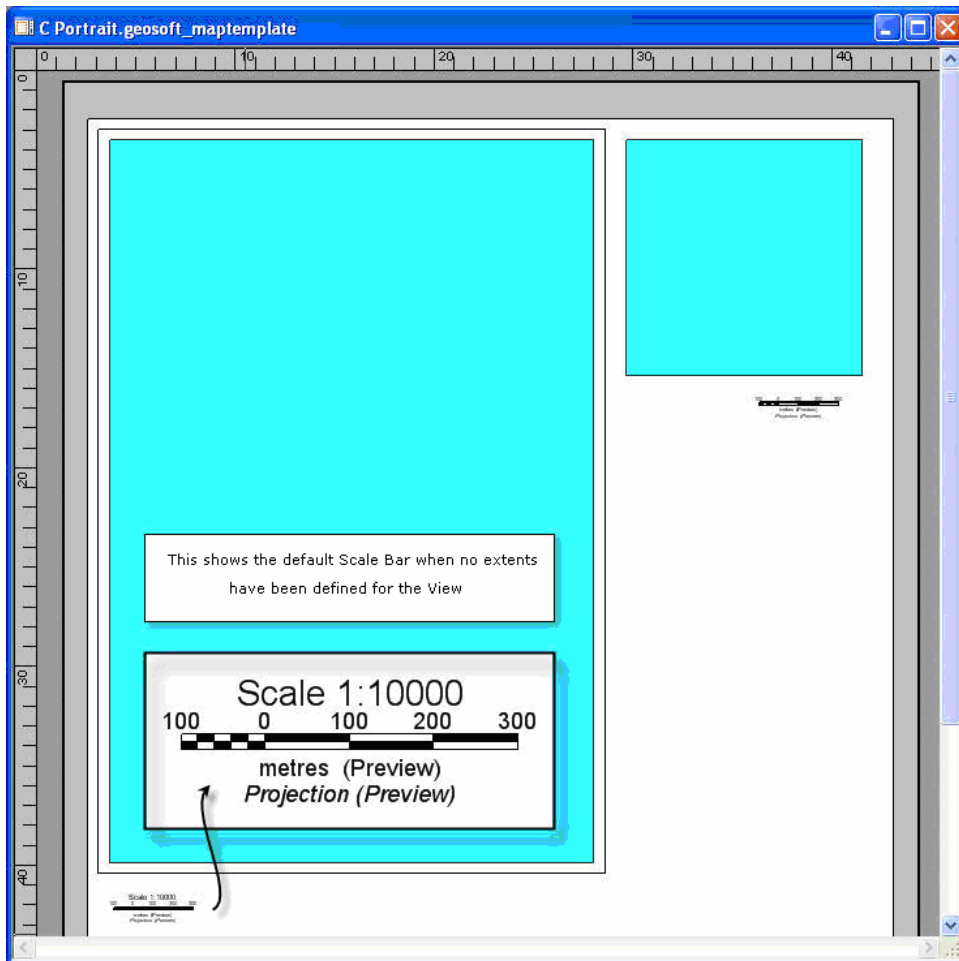
Adding Base Groups (Scale Bars) to the Map Template

Scale bars can be added for each individual *Data View* in the Map Template. If necessary, you can also add multiple Scale bars for a single Data View.

- 1 On the *Map Template Tools Bar* click the *Add new base group* button (). The *Create new base group* dialog will be displayed.
- 2 From the list of *Base groups* provided, select the group (**ScaleBar**) and then click the **[OK]** button. Your cursor will change to a cross-hair (), enabling you to interactively define the location of your new Scale bar. Click and drag to define the box to be filled by the scale bar.
- 3 In our example, we defined an area below the main *Data View* on the left side of the *Map Template*. Once you have defined the location of the Scale bar, the *Map Template Properties* dialog will be displayed.



- 4 The *Group Properties* tab is displayed. You can use this tab to specify the properties of your group (in this case, a *Scale bar*). The current active *Group*: (**Base\ScaleBar**) is displayed on a dropdown list at the top of the tab.
- 5 Using the *Group name*: text box you can either accept the default name (**ScaleBar**) or rename the *Group*.
- 6 To set a *View* to be used to calculate the scale for the **ScaleBar**, select (highlight) *View* in the *Group Properties*: window and a dropdown arrow (▼) will be displayed on the far right side of the row. From the dropdown list of *Groups*, select the (**Data**).
- 7 To change the style of the **ScaleBar**, click on the parameter called *Display* and select one of the options. Available options are Bar and Scale, Scale only and Bar only.
- 8 We can leave the remaining parameters to the intelligent default values and click the **[OK]** button and the Scale bar will be plotted to your map template and will display the scale based on the "Data" view.
- 9 To add *Scale Bars* for your other **Data** Views, repeat steps 1 – 7 above. Note that you will need to select the correct *View* (e.g. **Data_1** or **Data_2**) from the dropdown list to calculate the scale for each new Scale Bar.

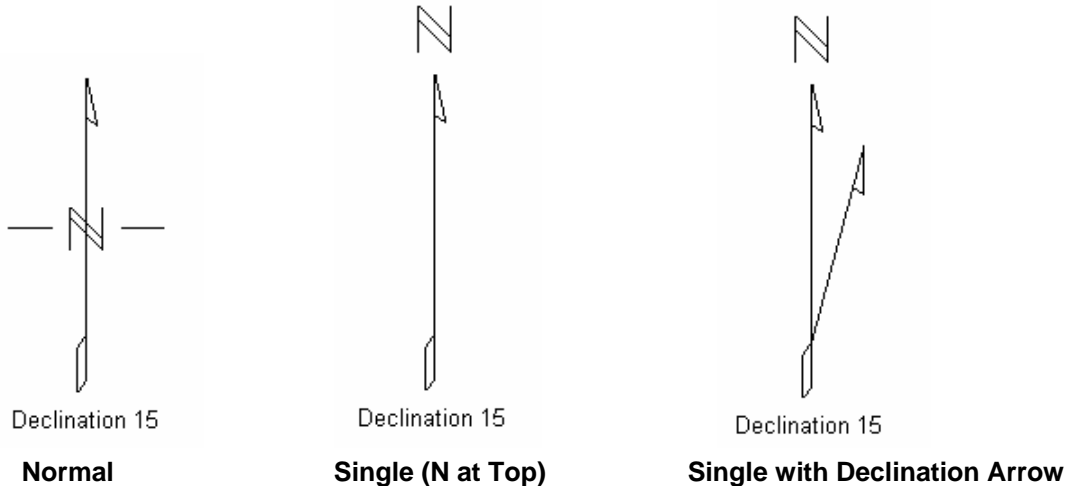


- 10 Each Scale Bar now has a scale calculated from the selected *View*. For more detailed information, click the **[Help]** button on the *Map Template Properties* dialog.

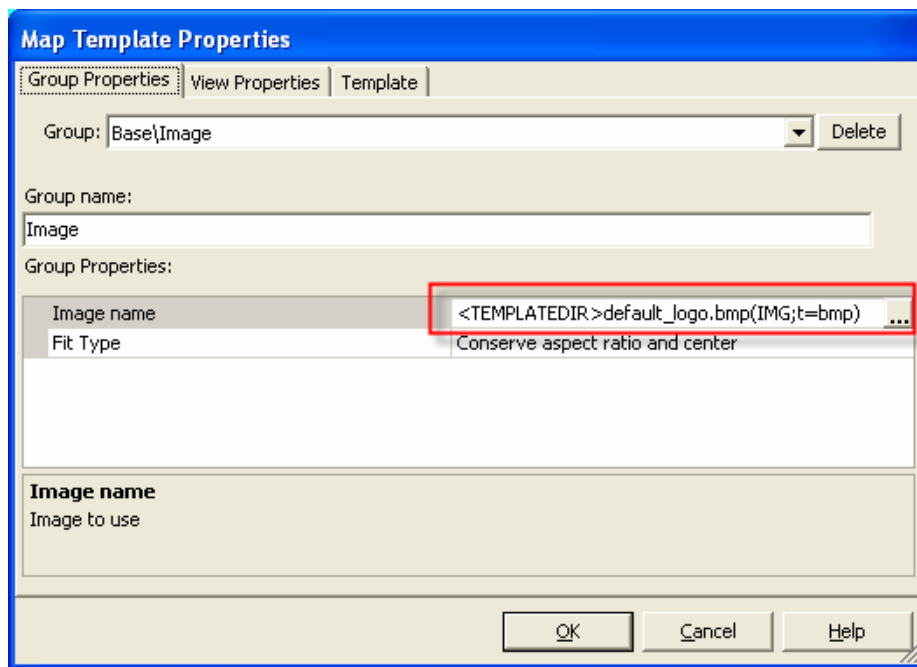
More Information about Adding Base Groups

You can continue adding different *Base Groups* to your map, such as *North arrows*, *Logos*, and different kinds of text (e.g. *Current Date*) until you are satisfied with the layout. Listed below are some of the interesting parameters that are available for some of these *Base Groups*:

North Arrows have three styles or types to choose from:



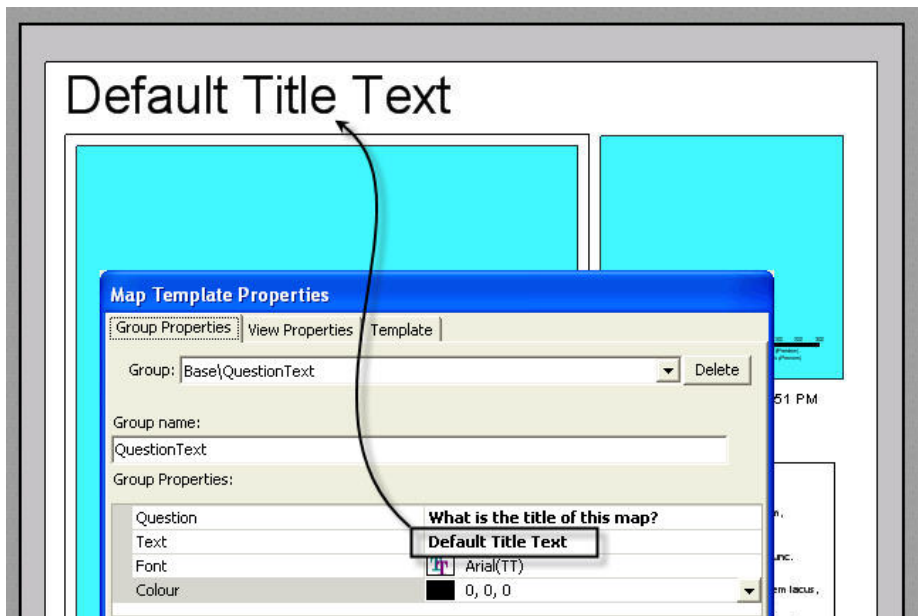
Images (Logos) will use the Geosoft logo in the *C:\Program Files\Geosoft\Oasis montaj\maptemplate* directory by default. You can use another logo image by browsing to find a different file, or you can replace the file in the maptemplate directory (default_logo.bmp) with your own logo.



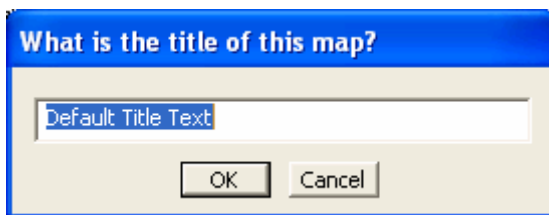
Text Groups

There are several types of Text options available including:

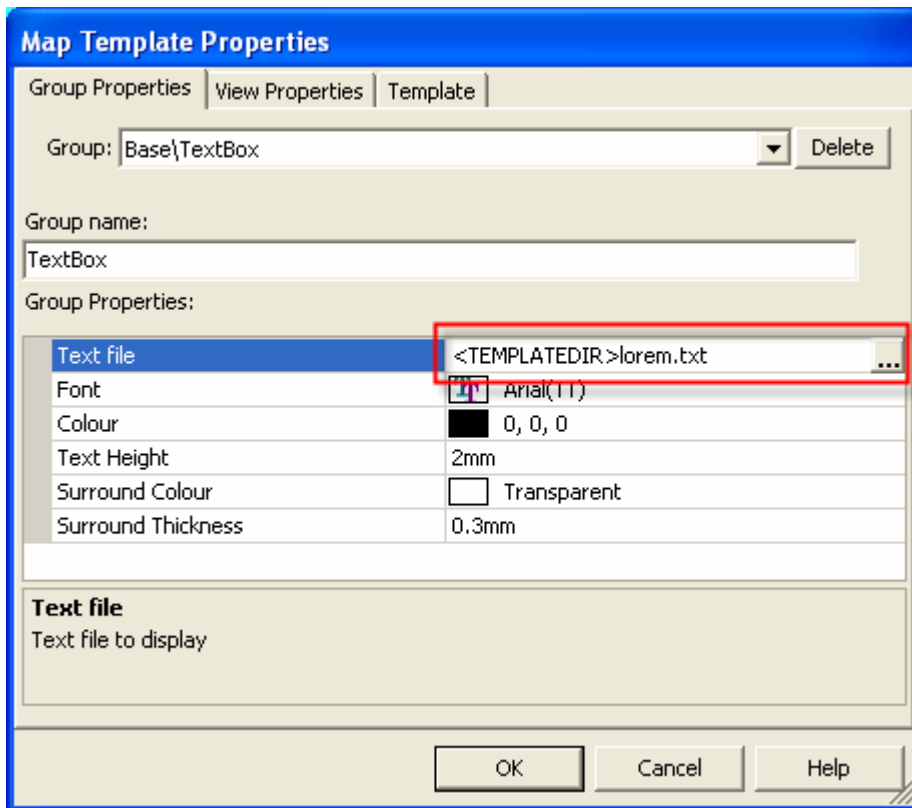
- **Date Text** – inserts the current date and time; there are several different date and time formats available. This will show you the current time or day until the map is created, then the data and time of map creation will be displayed.
- **Question Text** – Question Text is a special kind of text that can prompt the user to enter a text string when the map is being created.



For example, you might enter a question like “What is the map title?” and when the map is created a dialog box will be displayed that asks you this question and enables the user to enter the title.

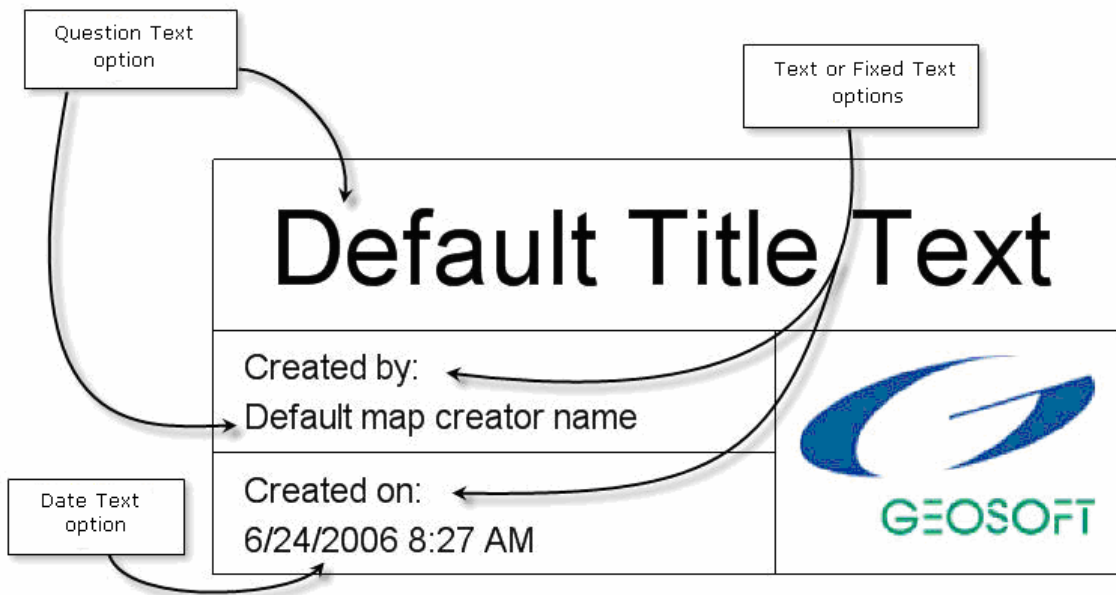


- **Text** – Single or multi-line text; this can be used to create titles or to add any kind of text to the map.
- **Text Box** – Enables you to specify a text file (*.txt) and the contents of this file will be plotted to a rectangular area on the map template. This option also has a default text file that can be found in the *C:\Program Files\Geosoft\Oasis montaj\maptemplate* directory, this file can also be changed.

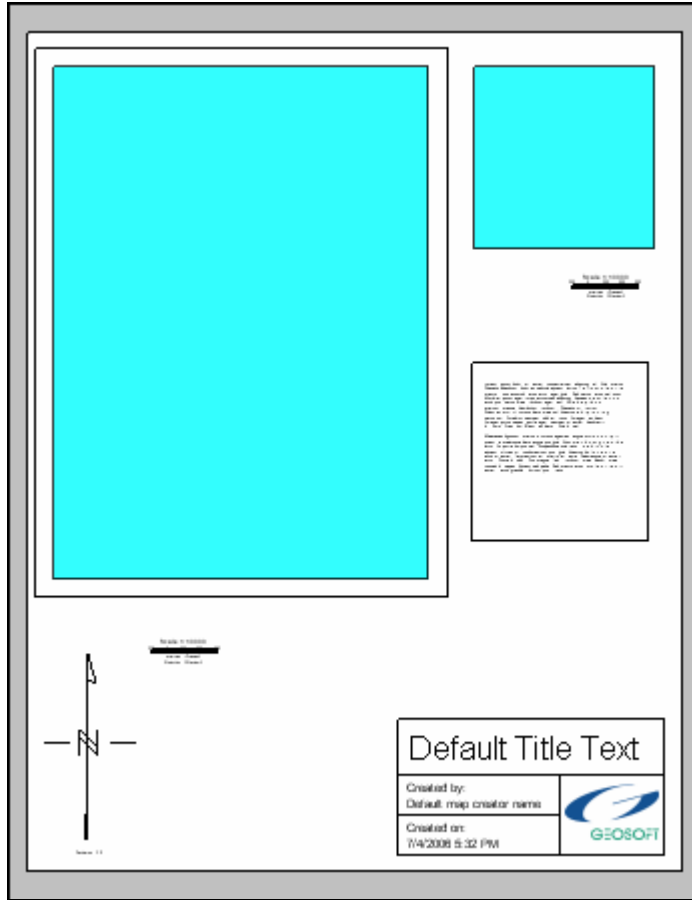


Most of these text options also have two modes; *Re-sizable* text and *Fixed font size* text. The *Fixed font* modes are identified by the word "fixed" at the end of the Group name.

These text groups can be used in combination with rectangles and logos to create simple or complex title blocks (the labels below show which *Text option* was used to create each part of the title):



Note that, you can change the Group and/or View names to more descriptive names to help in identifying each item while creating your Map Template.



Adding Extents to a Data View

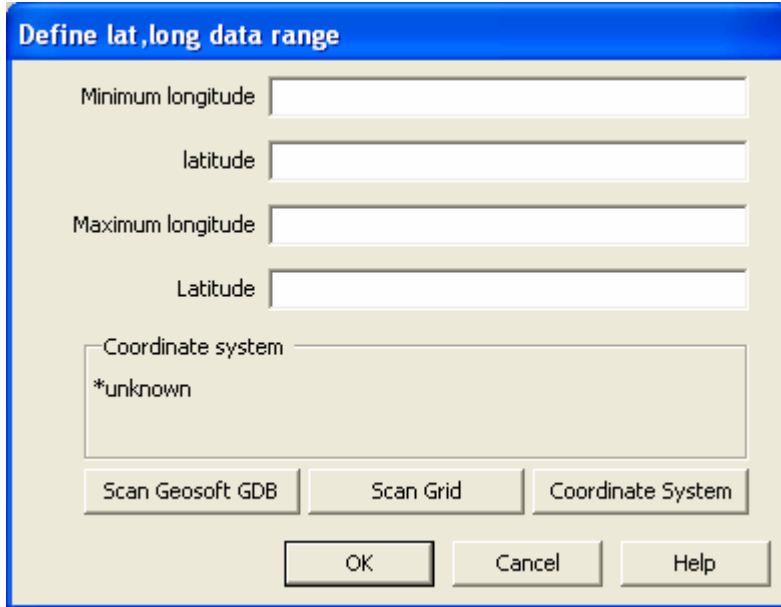
Once you have a map template with one or more *Data Views*, you may want to define the extents for one of these views. It is useful to consider what the template will be used for first. If you will be using this template to create several maps that are all showing the same area, then you should go ahead and define the Data View extents now. However, if you will be using this template to make maps of several different areas then you should leave the extents as undefined and set the extents at the time of map creation.

Finally, if you will be making a set of maps that cover adjacent areas, you may want to set the extents for the smaller data view (locator / index map) but not for the main data view. This will enable you to set the extents of the main data view when creating the map, but have the Index Map view pre-set. In the example below we will assign extents to the Data View of the Index Map.

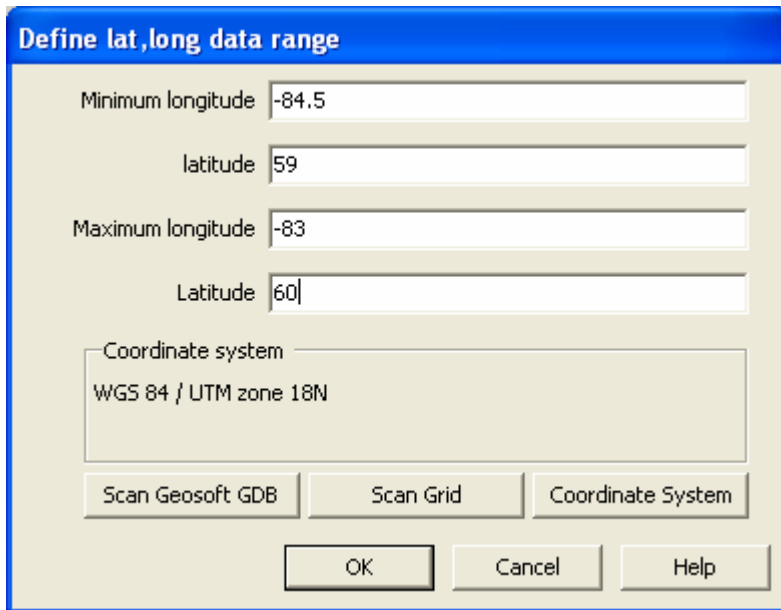
- 1 To specify the properties of the Index Map *Data View*, double-click inside the View and the *Map Template Properties* dialog will be displayed (or you can select the *View* and right-click and from the pop-up menu select *Properties*).
- 2 On the *View Properties* tab ensure that the *View:* is set to **Data_1** (this is our smaller Index Map Data View). Then, to define the data range of this selected

Data View, click the **[Define From Lat,Lon]** button. (Note that, if your data is in projected coordinates you would click the **[Define From X,Y]** button.)

- 3 The *Define lat,long data range* dialog will be displayed.

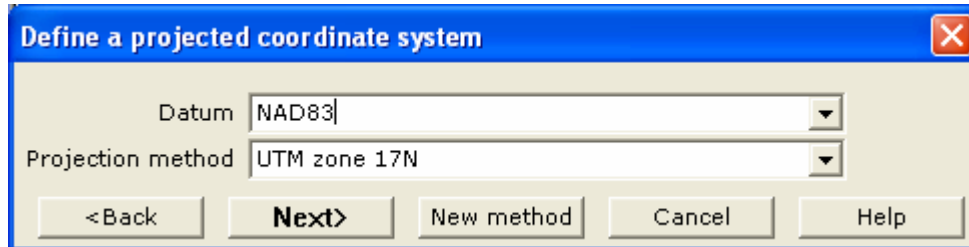


- 4 You can use this dialog to manually enter the *Minimum longitude,latitude* and *Maximum longitude,latitude* of your selected Data View, or you can click the **[Scan Geosoft GDB]** or **[Scan Grid]** buttons to scan a selected file for the appropriate data values and display them in the *View Properties* window. You can also specify a *Coordinate system/Projection* for the Data View by clicking the **[Coordinate System]**.button. This will begin the *Projection Wizard* which will lead you through the steps necessary to apply a projection to the Data View. For more information on these parameters, click the **[Help]** button.



- For this Data View, we will manually enter the *Minimum longitude/latitude* and the *Maximum longitude/latitude* values, as shown in the dialog above. Then, to set the projection of the View, click the **[Coordinate System]** button. The *Define a projected coordinate system* dialog will be displayed.

Note: If you did not set the projection of the database (**mag.gdb**) as outlined in the *Introduction* on page 1, then the *Unknown coordinate system (x,y)* dialog may be displayed. Click the **[Modify]** button on this dialog and the *Define a coordinate system* dialog will be displayed. Using the *Coordinate system* dropdown list, select **(Projected (x,y))** and click the **[Next>]** button and then the *Define a projected coordinate system* dialog will be displayed.



- To start the *Projection Wizard* dialogs, which will walk you through the projection process, click the **[Next>]** button.

- Set the following Projection parameters:

Coordinate system	<i>Projected (x,y)</i>
Datum	<i>NAD 83</i>
Projection method	<i>UTM zone 17N</i>
Local datum transform	<i><default></i>
Length units	<i>metre</i>

- For more information on defining projections and using the *Projection Wizard* dialogs, click the *Help/Manuals and Tutorials* menu and then select **Tutorial 11: Projections** from the **Oasis montaj Quick Start Tutorials** or you can download a technical note, **Projections - Understanding and Using Projections in Oasis montaj** available online at, www.geosoft.com/resources/technotes/index.asp

- Once you have specified your data extents, you can then determine the scale; based on your paper size and the scanned data extents, by clicking the **[(Re)calculate Scale]** button. The calculated scale will be placed in the *Scale* text box (e.g. **1:749598**). If the scale value is not appropriate you can modify the scale (e.g. **1:750000**).

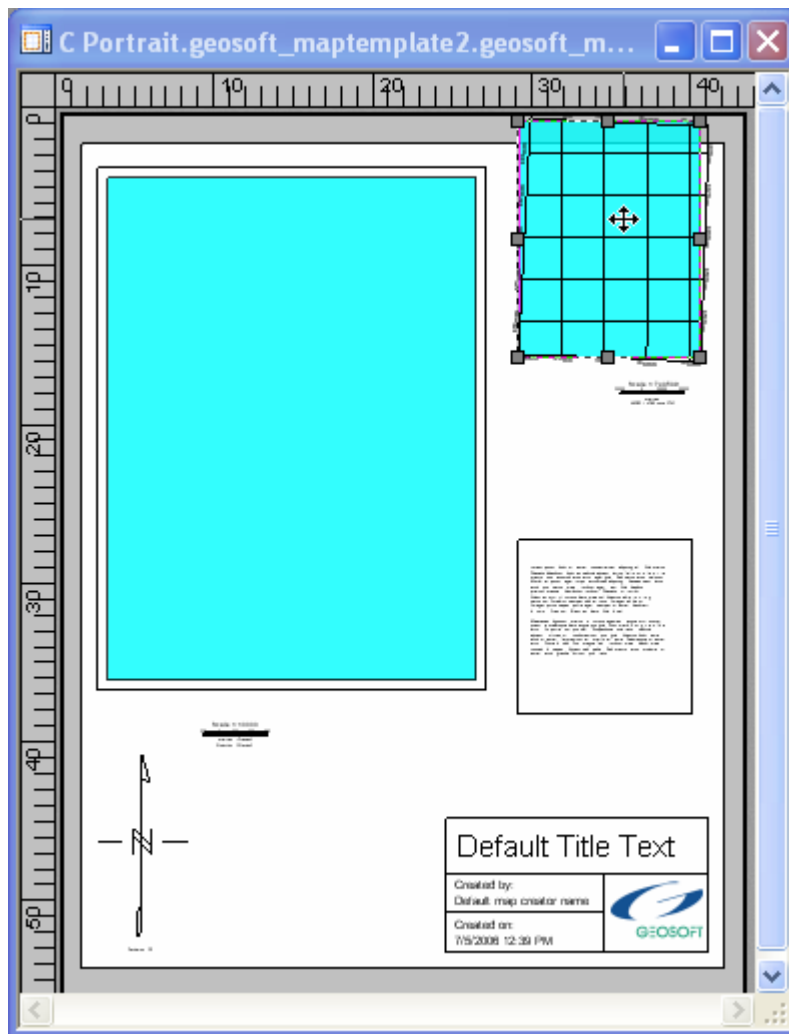
Note: It is important to point out that changing the scale will have an effect on the data extents, as the paper size, at this time, is fixed. You may need to modify the placement of your Data View in order to view the entire extents. See how to *Move a Data View* below.

- When you have completed with the *Map Template Properties* dialog, click the **[OK]** button and grid lines and coordinates will be displayed on your *Data View*.

Moving a Data View (or Group)


The new *Interactive Map Template* tools enable you to easily move Data Views (and Groups) in the map template window. For example, if you have modified the default scale and the Data View now extends beyond the map surround, you can interactively move the View to a better position.

- 1 Select (highlight) the *Data View* to move. Note that, when you have selected a View (or Group) your cursor will change to a double-arrow (↕) and sizing handles will be placed around the selected View.
- 2 Then, while holding your cursor over the selected View, press and hold the left mouse button down as you move the View to the desired location. Release the left mouse button when you are satisfied with the View placement.








- 3 Depending on your map layout, you may also need to move the Scale Bar. Moving a Group is the same as moving a View, therefore, select the Scale Bar Group and holding down the left mouse button, move the Scale Bar to the desired location and release the left mouse button.

Adding New Data Groups to a Map Template

To add a new **Data Group** to the map template, you must have a **Data View** selected, which will activate the *Add new data group to current view* button () on the *Map Template Tools Bar*. You can also access this option by selecting the *Data View*, right-clicking and from the popup menu select *Add new data group to current view*. Data Groups include; *Grids* and *Shaded Grids*.


It is important to note that, unlike base groups, data groups do not render in the template layout view, they are only displayed at map creation time. Data groups can be removed from the template by selecting the desired group from the *Group*: dropdown list on the *Group Properties* tab of the *Map Template Properties* dialog and clicking the **[Delete]** button

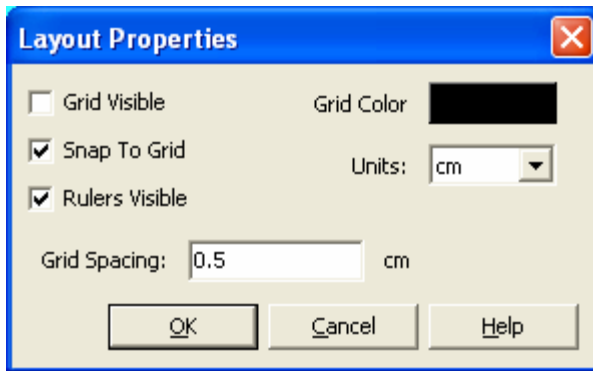
- 1 Select a *Data View* in your map template window and then on the *Map Template Tools Bar* click the *Add new data group to current view* button () .
- 2 The *Create new data group* dialog will be displayed. From the list of *data groups* provided, select a group to add to the map template. For example, select the **Grid** option. Note that, the name of the data group item and a short description is displayed at the bottom of the dialog box.
- 3 When you have selected your group, click the **[OK]** button. The *Map Template Properties* dialog will be displayed.
- 4 Using the *Group Properties* tab you can specify the properties of your group by selecting (highlighting) one of the *Group Properties* and either a browse button () , dropdown arrow () , or a text field will be enabled. For example, select (highlight) the *Grid name* and the browse button () will be enabled. Click the browse button () and the *Open Grid File* dialog will be displayed.
- 5 Select the grid file as (**mag.grd**). (Note that this is the grid file created from the database file (**mag.gdb**), which was in turn, created from the XYZ file (**mag.xyz**) at the beginning of this technical note.)
- 6 You can specify the remaining grid parameters or leave them to the intelligent defaults. Once you are satisfied with the *Group Properties*, click the **[OK]** button and your new data group will be saved with your map template. For more detailed information on the dialog parameters, click the **[Help]** button.

Note: Unlike base groups, data groups do not render in the template layout view, they are only displayed at map creation time.

Using the Map Template Layout Properties Tool

The *Layout Properties* dialog enables you to control several features that affect the map layout, such as showing *Rulers* along the edges of your template, enabling the *Snap To Grid* option, etc.

The *Layout view properties* option () can be accessed from the popup menu when you right-click on a Map Template, or from the *Navigation Bar*. The following is a brief description of each of the available options.



Grid Visible - the *Grid Visible* box enables you to display grid lines in the current map template. Removing the checkmark, removes the grid lines.

Snap To Grid - the *Snap To Grid* box enables you to easily align map objects in the current map template. Removing the checkmark removes the 'snap-to-grid' feature and enables objects to be placed between grid lines.

Rulers Visible - displays or hides *Rulers* along the top and right side of the map template.

Grid Spacing - Specify the *Grid Spacing* (cm) used for the visible grid and the 'snap-to-grid' feature.


Grid Colour - Click inside the *Grid Colour* box and the Color Tool will be displayed.

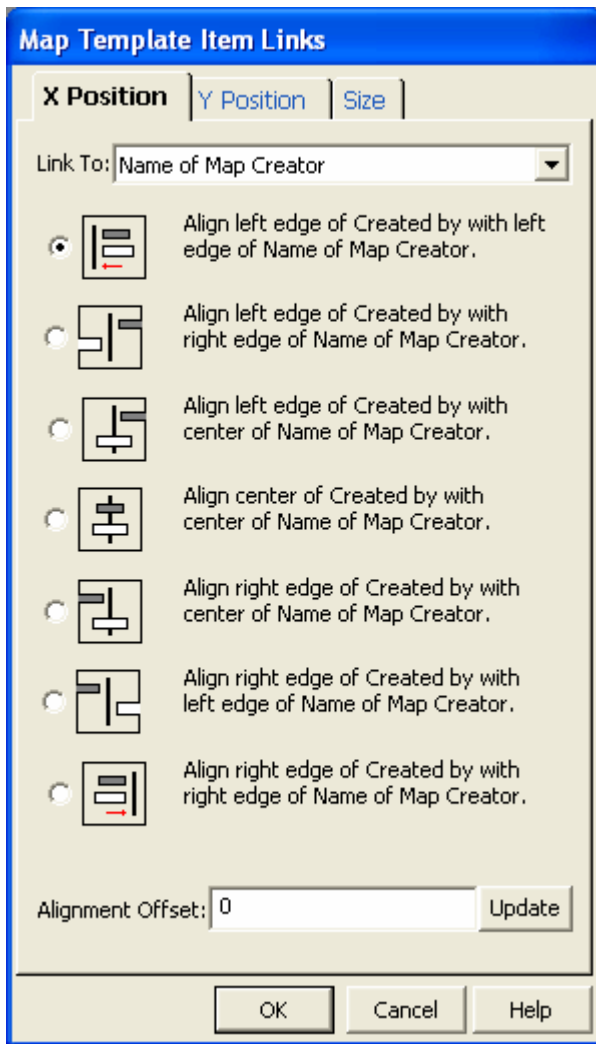
Units - Use the *Units* dropdown list to select the map sheet units (mm, cm, in) used for the current map template.

**Note that all of these Layout tools are also available in regular maps!

Linking Groups using the Map Template Tools

The new *Map Template* system also enables you to "link" different map groups together so that when one of the groups is moved or resized, the groups that are linked to it will also move and resize. The *Map Template Item Links* dialog enables you to edit the currently selected item's link properties. This option can be accessed by selecting a single item in the *Map Template* window and clicking the *Edit selection's links* button on the *Map Template Tools Bar* or by right-clicking and from the popup menu, selecting the *Edit Group (or View) links*. Note that, the "Edit links" menu item will depend on what type of item is selected, *Group* or *View*.

- 1 Select an item in the *Map Template* window, such as the text (**Base\Create by**) and click the *Edit selection's links* button () on the *Map Template Tools Bar* (Note that, you can link both Groups and Views so you can select any 'single' item). The *Map Template Item Links* dialog will be displayed.



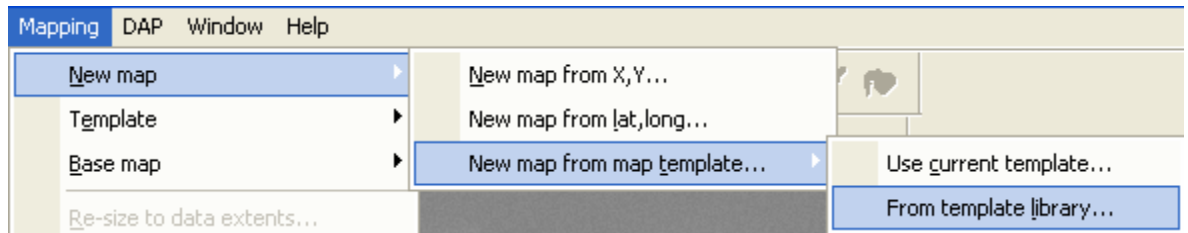
- 2 On the *X Position* tab, using the *Link To:* dropdown list, select an Item to link the currently selected item to, for example select (**Name of Map Creator**). The tab parameters will become enabled.
- 3 Use the *X Position* tab controls to link the right edge, left edge or horizontal center of an item to that of the selected item in the *Link To:* box. The *Alignment Offset* is calculated using the current positions on screen but can also be adjusted manually.
- 4 Select the radio button (**Align left edge of Created by with left edge of Name of Map Creator**) and then make sure that the *Alignment Offset:* is set to (0) and click the [**Update**] button. The two "Titles" will be aligned on the left side with each other. When you have completed your *X Position* links, select the *Y Position* tab.
- 5 On the *Y Position* tab, using the *Link To:* dropdown list, again select (**Name of Map Creator**) (note that, you do not have to link *X*, *Y* or *Size* to the same item) and the tab parameters will become enabled.
- 6 Use the *Y Position* tab to link the bottom edge, top edge or vertical center of an item to that of the selected item in the *Link To:* box.

- 7 Select the radio button (**Align bottom edge of Created by with top edge of Name of Map Creator**) and then change the *Alignment Offset:* to (3) and click the **[Update]** button. The two "Titles" will have 3 mm between the bottom of Title 1 and the top of Title 2. When you have completed your *Y Position* links, select the *Size* tab.
- 8 The *Size* tab controls the linking of the sizes in the X and/or Y dimensions of an item to that of the selected items in the *Link To:* boxes. The scale is calculated using the current positions on screen but can also be adjusted manually. It is also possible to do more advanced control using the offset property in either dimension. For more detailed information, click the **[Help]** button.

Creating a Map from a Template

There are two ways to create a map from your template; one which you can use if the template is currently open in your project and the other method can be used when the template is not open but has been added to your Template Library:

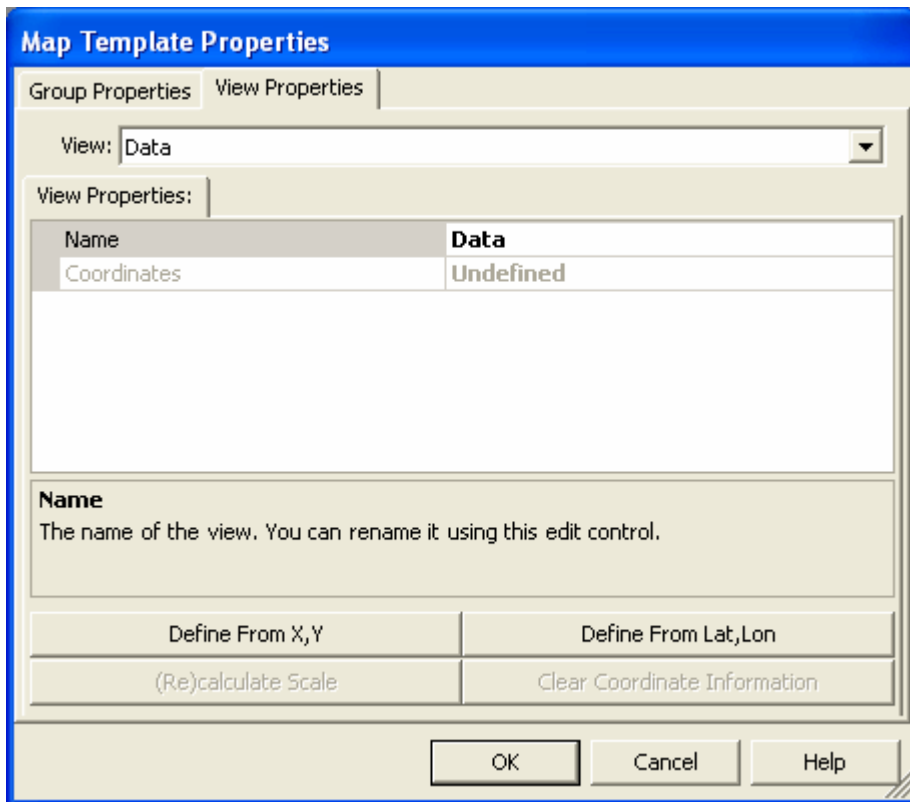
- To use a Template that is currently open to create a new map, simply right click anywhere on the template and from the popup menu, select *Create new map from this template*.
- To use a Template that is not currently open but has been added to your Template Library, from the *Mapping* menu, select *New map/New map from map template/From template library*.



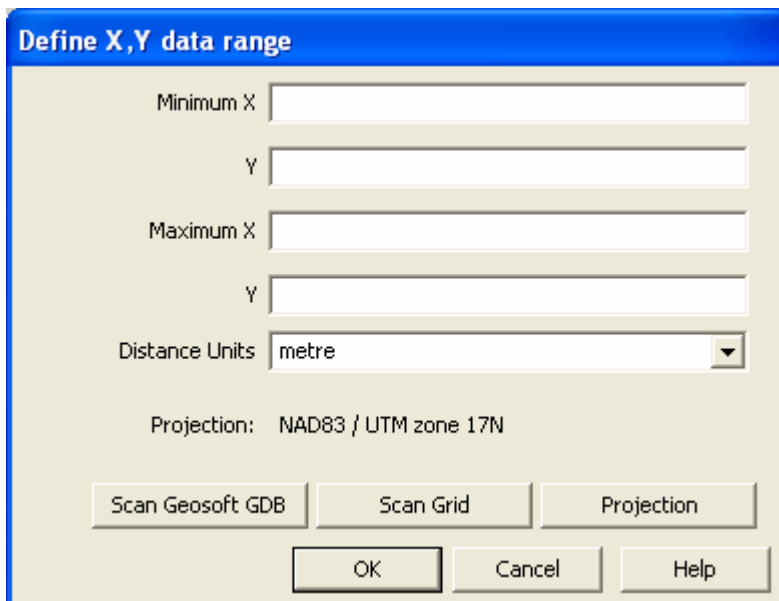
Note: If you are creating a map from a template that has one or more data views with no X,Y (or lat, long) extents defined, you will see this message:



This message is telling us that we will need to define the extents for the view called "Data". The *View Properties* dialog box is then opened up to enable us to set the extents.



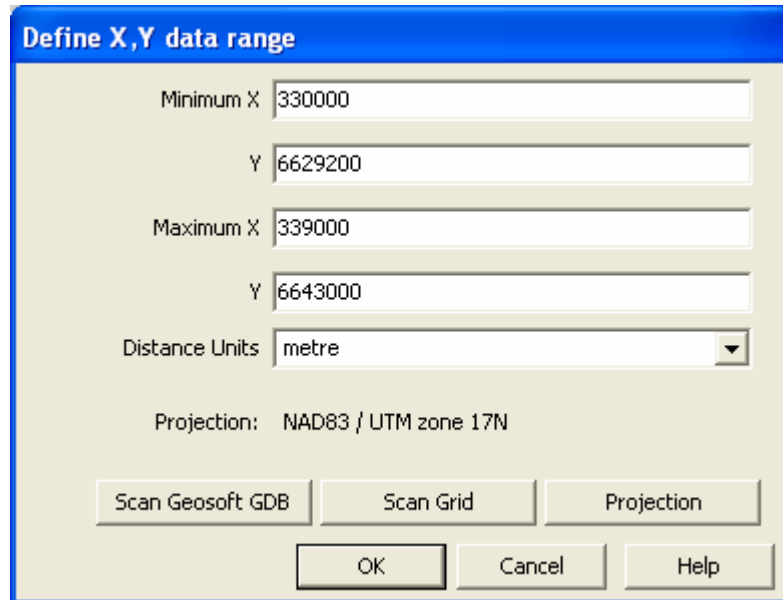
- 1 On the *View Properties* tab ensure that the *View:* is set to **Data**. Then, to define the data range of this selected data view, click the **[Define From X,Y]** button. (Note that, if your data is in geographic coordinates you would click the **[Define From Lat,Lon]** button).
- 2 The *Define X,Y data range* dialog will be displayed.



- 3 You can use this dialog to manually enter the *Minimum X,Y*, *Maximum X,Y* and *Distance units* of your selected data view, or you can click the **[Scan**

Geosoft GDB] or **[Scan Grid]** buttons to scan the selected file for the appropriate data values and display's them in the *View Properties* window. You can also apply a projection to the Data View by clicking the **[Projection]** button. This will begin the *Projection Wizard* which will lead you through the steps necessary to apply a projection to the data view. For more information on these parameters, click the **[Help]** button.

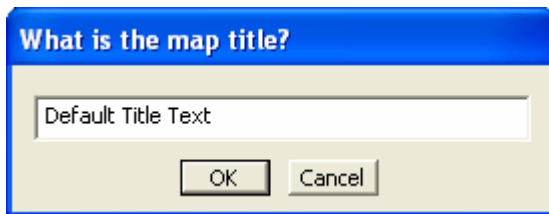
- 4 For our map template, we will click the **[Scan Geosoft GDB]** button. The *Choose GDB to scan extents* dialog is displayed.
- 5 Using this dialog, locate the database file (**mag.gdb**) that we created when we imported the mag.xyz file. Click the **[Open]** button and the database will be scanned and the *Minimum X,Y, Maximum X,Y* and *Distance units* will be displayed on the *Define X,Y data range* dialog.



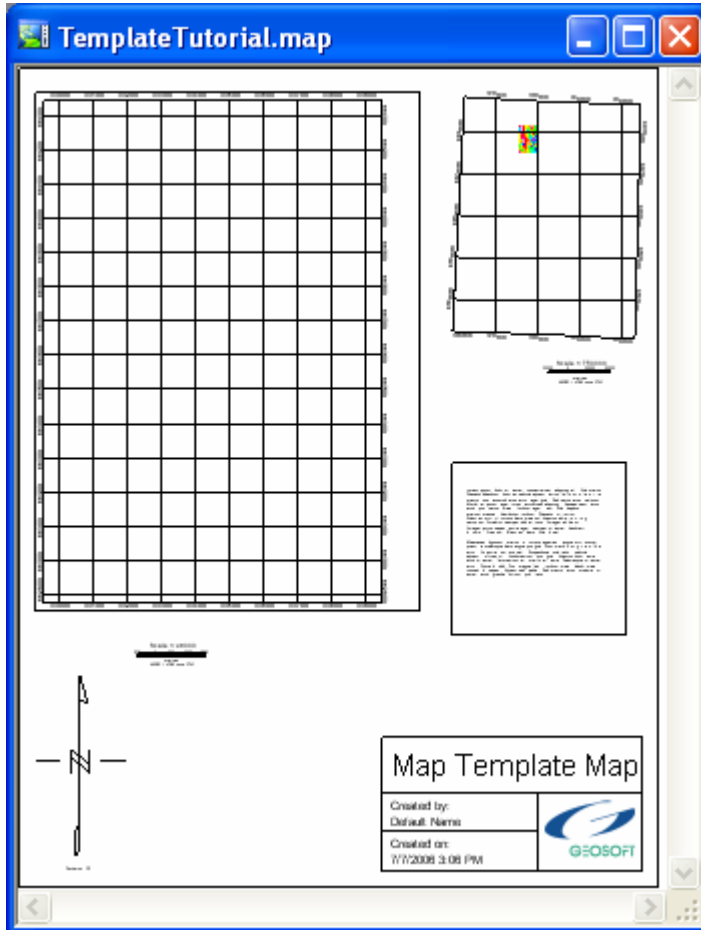
- 6 When the data range has been defined, click the **[OK]** button and you are returned to the *Map Template Properties* dialog.
- 7 Now that you have specified the data extents you can now determine the scale; based on your paper size and the scanned data extents, by clicking the **[(Re)calculate Scale]** button. The calculated scale will be placed in the *Scale* text box (e.g. **1:46000**). If the scale value is not appropriate you can modify the scale.

Note: It is important to point out that changing the scale will have an effect on the data extents, as the paper size, at this time, is fixed. You may need to modify the placement of your Data View in order to view the entire extents. See the topic ***Move a Data View*** on page 20.

- 8 When you have completed with the *Map Template Properties* dialog, click the **[OK]** button and the *Save New Map As* dialog is displayed.
- 9 Specify the new *File name*, for example (**TemplateTutorial.map**) and click the **[Save]** button. The map creation process begins and if included in the template the "*Question Text*" dialogs are displayed.



- 10 In our case, the *What is the map title?* dialog is displayed. Specify a Map title () and click the **[OK]** button and the next "*Question Text*" dialog is displayed, *Name of Map Creator?* Specify your name and click the **[OK]** button. The map (**TemplateTutorial.map**) will be created and displayed in your current project.

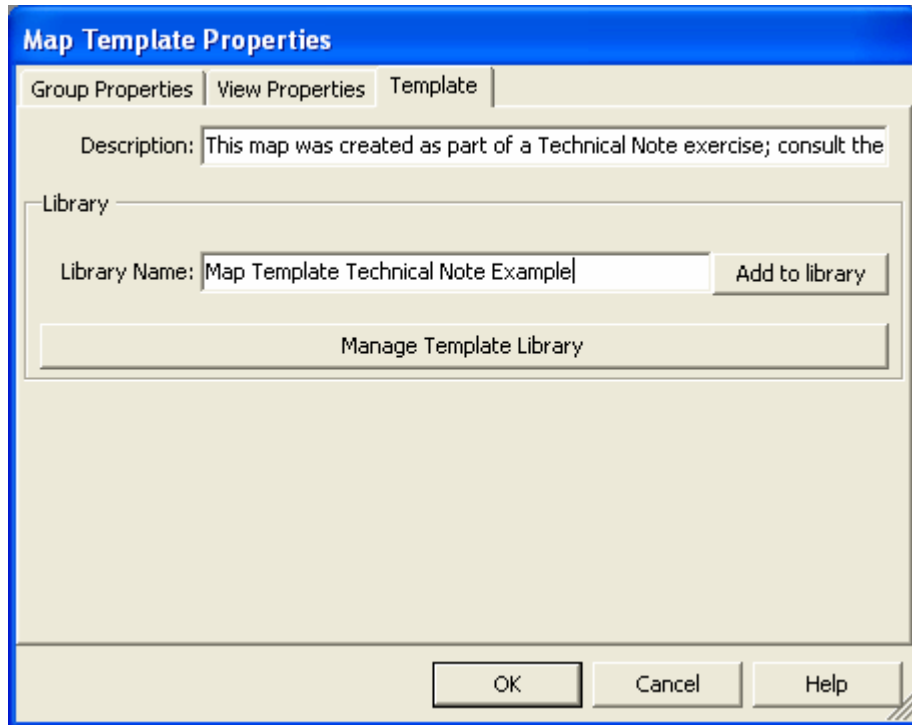


Adding a Map Template to the Template Library

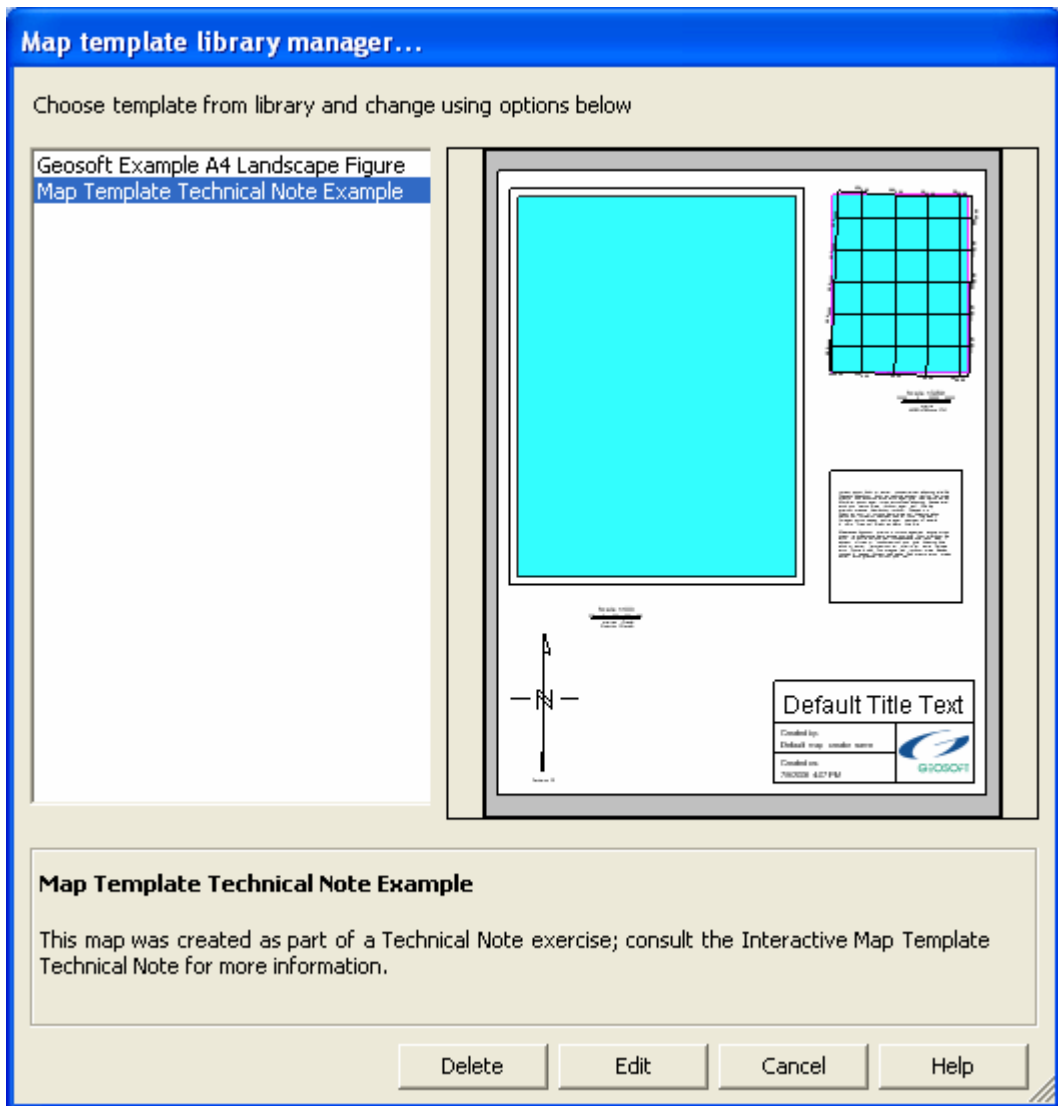
Once you have created a **Map Template** you can save it and add it to the *Map Template Library*, using the *Template* tab on the *Map Template Properties* dialog.

- 1 Double-click on a **Map Template** that you have open in your current project and that you wish to save to the *Map Template Library*. The *Map Template Properties* dialog will be displayed.
- 2 Select the *Template* tab. In the *Description* box, you can edit the description for the map template. When a map template is added to the library this

description will be used to give more information on the information pane on the *Add template* dialogs.



- 3 In the *Library Name* box specify a valid name for the Map Template and click the **[Add to library]** button. (Note that, valid names may not contain any characters that would be invalid for Microsoft Windows filenames and should not conflict with any of the example templates shipped by Geosoft.) The Map Template files can be found in the <GEOSOFT>\user\maptemplate\ directory. For more detailed information, click the **[Help]** button.
- 4 Click the **[Manage Template Library]** button to display the *Map template library manager* dialog.









- 5 Use this dialog to manage the map templates that are currently in the library. Management functions include changing names and descriptions as well as deleting existing templates from the library.












Map Template Tools Bar

The Map Template Tools Bar provides you with easy to access tools for designing a map template.



Listed below are the capabilities available on the new *Map Template Tools Bar*.

	<p>New template from library</p> <p>Click this button to create a new map template based on a template selected from the map template library.</p> <p>Note: This is usually done to slightly modify or reuse existing templates in some custom way to create new maps. If such a modified template will be used often it is a good idea to add it to the library to reduce repetitive work.</p>
	<p>New blank map template</p> <p>Click this button to create a new blank map template based on a predefined paper size and orientation.</p> <p>Note: This is usually done with the aim of creating a brand new type of map template to create new maps with. If such a modified template will be used often it is a good idea to add it to the library to reduce repetitive work.</p>
	<p>Open existing map Template</p> <p>Click this button to open an existing Geosoft map template.</p>
	<p>Add a new view</p> <p>Click this button to add a new data view area to the current map template. Your cursor will change to a cross-hair (<code>{{bmct crosshair.bmp}}</code>) enabling you to interactively specify the View's initial placement on the layout.</p> <p>Note: a view's final output and position is determined by real-world data extents (set during map creation or in the properties for the view) and may also be influenced by using linking properties (e.g. center view in base map) or by using the view as the fitting view with margins in the Base view properties. The latter is analogous to the legacy "map" style map in Oasis montaj.</p>
	<p>Add new base group</p> <p>Click this button to display the <i>Create new base group</i> dialog. Select the type of base group to be added from the list provided and click the [OK] button. Your cursor will change to a cross-hair (<code>{{bmct crosshair.bmp}}</code>) enabling you to interactively specify the group's initial placement on the layout.</p> <p>Immediately after defining the initial placement, the properties for the new base group will be displayed in the <i>Map Template Properties</i> dialog. You can modify the group's properties now, or display this dialog at any time by double-clicking on the group.</p> <p>Note: It is usually a good idea to pick a name for the base group at this stage (e.g. ViewTitles_Title1 or Margins_TextBlock2) because a template can quickly grow to contain many base groups and it makes management simpler.</p> <p>Base views will render themselves based on the settings in their properties. Some base groups (e.g. Scale Bar) have a preview mode that will show what they will look like even if not enough information exists to render them properly (e.g. Scale Bar attached to Data view with no extents defined).</p> <p>Note: A base group's final output and position can also be influenced by using linking properties (e.g. align top of Title 1 with bottom of Data view + 10mm).</p>
	<p>Add new data group to current view</p> <p>Click this button to display the <i>Create new data group</i> dialog. Select the type of data group to be added to the current data view and click the [OK] button. The <i>Map Template Properties</i> dialog is displayed, enabling you to edit the properties of the new data group.</p> <p>Note: Unlike base groups, data groups do not render in the template layout view, they are</p>

	only displayed at map creation time. Data groups can be removed from the template by selecting the desired <i>Group</i> from the dropdown list on the <i>Group Properties</i> tab of the <i>Map Template Properties</i> dialog and clicking the [Delete] button.
	<p>Align Top</p> <p>Click this button to align the top edges of the currently selected items with that of the main selection item.</p> <p>Note on multiple selection in the map template system:</p> <p>You can select multiple items by holding down the <Ctrl> key and remove items by holding down the <Shift> key. The last item selected is the 'main selection' item and is identified by darker handles on its selection rectangle. During this and the other alignment operations this is the item that does not move while the other items align to it in the chosen direction.</p> <p>Note on linked items: In some cases items may already have linking properties set. In this case alignment and moving may not have any effect on their position. If desired the linking properties can be removed using the <i>Remove selection's links</i> button ({bmct removelinks.bmp}).</p>
	<p>Align Middle</p> <p>Click this button to align the middles (vertically) of the currently selected items with that of the main selection item.</p>
	<p>Align Bottom</p> <p>Click this button to align the bottom edges of the currently selected items with that of the main selection item.</p>
	<p>Align Left</p> <p>Click this button to align the left edges of the currently selected items with that of the main selection item.</p>
	<p>Align Centre</p> <p>Click this button to align the centers (horizontally) of the currently selected items with that of the main selection item.</p>
	<p>Align Right</p> <p>Click this button to align the right edges of the currently selected items with that of the main selection item.</p>
	<p>Make same width</p> <p>Click this button to make all selected items the same width as the main selection item.</p>
	<p>Make same height</p> <p>Click this button to make all selected items the same height as the main selection item.</p>
	<p>Make same size</p> <p>Click this button to make all selected items the same size in both dimensions as the main selection item.</p>
	<p>Edit selection's links</p> <p>Click this button to display the <i>Map Template Item Links</i> dialog that enables you to edit the currently selected item's link properties.</p> <p>Note: An item's linking properties only control its own position. For example, if the left edge of item A is linked to the left edge of item B with a 10mm offset, then item A will move in X to match that offset. So, if item B is dragged 5cm right (or moved due to its own link properties) then item A will also move 5cm to the right. This may take some getting used to but can be used very effectively to control layout on an output map (especially on a "map" style map where the base view has a fitting view defined).</p>
	<p>Remove selection's links</p> <p>Click this button to remove the link from the currently selected item.</p> <p>Note: This button is enabled only when one or more of the items in the current selection have links attached to them. Removing the links can be useful to set up the initial placement again using the layout buttons and snapping before revising the linking again.</p>

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