

An Introduction to TUMONZ *Tutorial*

Purpose

To provide a general understanding of the what TUMONZ is, its functionality and the data sets it includes.

What is TUMONZ?

TUMONZ is essentially two products:

1. a GIS (Geographic Information System) that loads and displays spatial data and is equipped with a number of important mapping related functions and tools, and
2. spatial data sets.

Why is TUMONZ Special?

There are many applications in the international market place that render onscreen large spatial data sets (both vector; - ESRI shape files are the most common format, and spatially referenced aerial photos). There are also many applications that provide a range of drawing tools. So What is so special about TUMONZ? There are three general reasons:

1. Firstly, most applications loading large spatial data sets rely on high end hardware to overcome the memory burden. (If you ever have the opportunity in another application, try switching on all layers in a data set like the NZ Topo set and see how it crashes you average home PC.) The same data sets that TUMONZ is loading and displaying are quite different from the originals in structure. Data sets are converted into the unique TUMONZ data structure which makes use of some very important proprietary technologies so that the burden on computer memory is always low no matter what layers are 'turned on' and how extensive the land & sea surface is.
2. Secondly, TUMONZ is entirely proprietary code. It has been designed and built by the TUMONZ company, Management & Technology Systems Limited (MTS) under its trademark Vision Software. TUMONZ's architecture means it is completely adaptable. New data basis can be added at any time without any consequences and the functionality can continue to grow and evolve with client requirements. For instance, a number of the functions added over the last two years have been at the request of NZLSAR. Currently NZLSAR have asked for compass bearing and two dimensional track profiles to be drawn and these functions will be added in the coming months.
3. Thirdly, TUMONZ is a very comprehensive package providing a massive list of capabilities suited to many activities yet it remains an essentially easy programme to use and can be successfully used by both advanced and relatively unskilled users.

What map data does TUMONZ provide?

Standard TUMONZ is the GIS engine but it also provides NZ's topographic database. Standard TUMONZ will also load and display many other datasets which are supplied as modules.

TUMONZ can display national data sets from four different sources simultaneously;

1. Topographic (vector),
2. Cadastral or Properties (vector),
3. National & Regional Aerial Photograph sets (raster), &
4. Sea Contours (vector)

Each of these data sets are effectively independent and the fact that they superimpose well within TUMONZ is a credit to the NZ Government and other agencies who own and maintain them.

In addition to these data sets TUMONZ will load and display an increasing number of MapBooks. These are essentially books that have important spatial connection (for instance New Zealand's golf course, schools or motels). They are represented on the map by an icon at each location with unlimited embedded information including text, photos and map objects

What is the minimum I must know to use TUMONZ successfully?

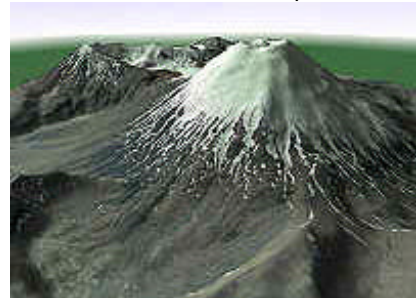
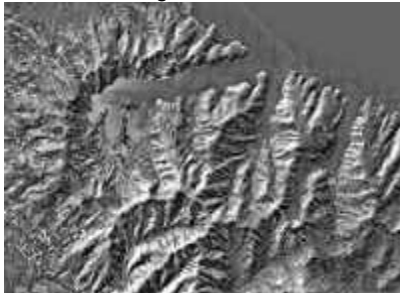
Essentially three things:

1. A general understanding of what TUMONZ is, what the standard product and the modules provide, and the User Interface.
2. How to install TUMONZ and the modules, register and copy map files to your hard drive.
3. Just some very basic browsing functions:
 - how to zoom and pan,
 - load schemes, and
 - how to search and print,

What should I know to get real value from TUMONZ?

These are very basic functions and you should master most or all of them to get the maximum benefit from TUMONZ. Please note, many of these skills are quite generic and will be helpful in using many applications.

- Proficiency in using the Toolbar, menus, and Quick Keys, and Settings
- A general understanding of the projections (NZMG, NZGD49 and WGS84),
- Use advanced search,
- Use the Map Legend,
- Create your own colour schemes and save,
- Use the Print engine and its full set of options,
- Export images using Clipboard, Composite map, and print screen,
- Use 2D shading,
- Use 3D and associated capabilities



- Display aerial photos,



- Open and browse Mapbooks,



Including accessing their properties via the Images Legend

- Use route planning & route solving,
- Add icons (and then select type, shift, add name, add text, add photos),
- Build and edit maps,
- Manage map data and icons in the User Defined Map Objects window including naming and shifting into folders,
- Upload/download GPS data,
- Add text associated with map objects and print, and
- Backup.

How do I get HELP in learning how to use TUMONZ?

There is a comprehensive interactive HELP available within TUMONZ (Toolbar HELP button and 'Interactive HELP' or just use the F1 key).

The TUMONZ Help is also the manual. It displays within the General Tools window and you can leave it open while using many of TUMONZ's functions. The Help is arranged in main topics with sub topics as tabs along the top of the window and then small browsable pages to work through. The HELP is interactive and clicking on hyperlinks will activate functions.

What Tutorials are available?

1. An Introduction to TUMONZ
2. Map Building
3. Adding and Managing Icons
4. Printing and Exporting Maps
5. GPS

The User Interface

The TUMONZ interface makes maximum use of the screen to display the map. The only intrusions onto the screen are the small Toolbar (Ctrl T to show or hide) and two configurable pop-up panels which are the interface to all functions and results of commands.



Hovering the cursor over the Toolbar buttons provides a hint window while clicking the button activates a function or provides a choice of functions. The configurable pop-up panels automatically appear when you request a function (for instance Print). You may re-size and drag these to any position on screen. Clicking left mouse on the map will activate direct actions for instance indicating what object type you selected or starting route planning. Clicking right mouse on the map will provide an alternative way into the Toolbar functions.

Basic Browsing

There are many browsing techniques - but just the default browsing techniques are outlined here:

Zooming. Position the mouse cursor on the map at the spot you want to zoom into, click the left mouse button and while keeping the mouse button down move the mouse forwards (zoom in) or backwards (zoom out). Release the mouse button when you want to stop zooming.

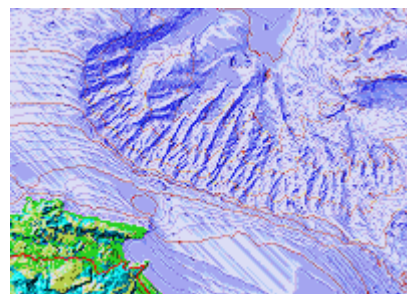
Panning. Click the left mouse button on the map while holding down the Shift keyboard key, and while keeping the mouse button down move the mouse forward / backward / left / right. Release the mouse button when you want to stop panning.

Zoom to Rectangle. Click the left mouse button on the map while holding down the Ctrl keyboard key, and while keeping the mouse button down move the mouse in a diagonal line - you will see a dotted rectangle following the mouse cursor. Release the mouse button when the dotted rectangle fits the area you want to view.

Returning to the all NZ view. Hold down the SHIFT Key and click with the left mouse button on the map overview. Alternately, you can press the Home key on the keyboard.

The Schemes

TUMONZ allows you to configure the map to suit your needs and preferences (colours, show/hide, show when, line styles, font, and fills). These are accessed through the Map Legend (Ctrl L). TUMONZ comes with a number of pre-configured colour schemes. Just click the Toolbar Schemes button and select any scheme. The scheme name does provide a hint as to what its special features are, for instance the word '**Property**' indicates it will load Property Boundaries, '**Aerials**' for aerial photos, '**Seabed**' for Bathymetry and so on.



Backup your files.

You will inevitably develop your own very important personal database of information such as; map objects (house, section, walking tracks, text etc); colour schemes; icons representing photographs, friends and client locations and contact details etc. Like all valuable files in any software application, these should be backed up from time to time. A power surge, hard disc failure and so on, can all destroy files through no fault of the application - so please exercise caution and follow the suggested backup procedure.

As you see fit, use Windows Explorer to go to the default directory (C:\Program Files\Vision Software\TUMONZ or instead to the directory you chose at installation). Within the TUMONZ folder, select all the files (except for TUMONZ.EXE) and in turn, select the three sub-folders ('Schemes' and 'UMO Comments' and Auto Route) and copy and paste into a backup directory. You will not need to backup the map data files supplied on CD - these are the .cme and .cmi files as they are large and you can copy them from the original CD at any time. From time to time you can also copy the backup files and folders to an external location (e.g. a backup CD). If you ever have problems with reading your data, then all you need do is reverse the procedure and copy these files and folders back into the above directory structure. Updates of the latest TUMONZ.exe will be available from www.tumonz.co.nz.

Another useful safety precaution for important User Icons and User Map Objects is to export these as folders (right mouse, then Export/Import from the User Defined Icons/Lines/Shapes/Text window). They can be imported again at any time.