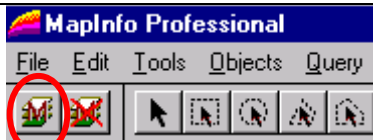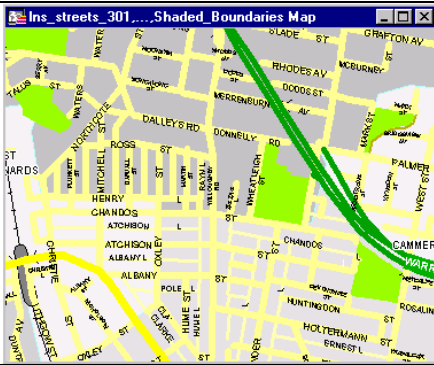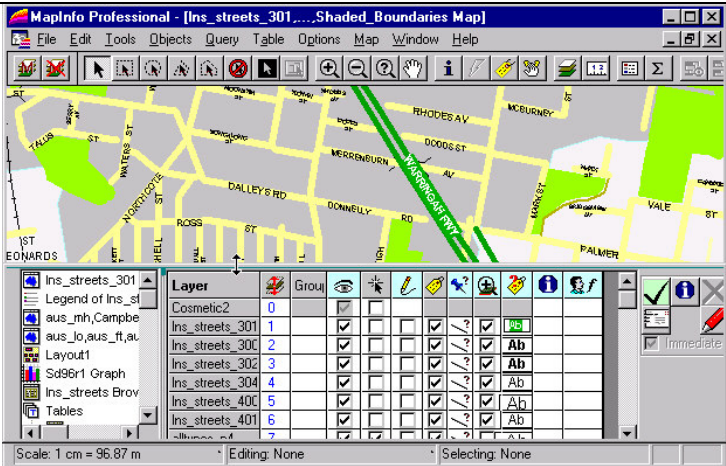**LayMan – Layer, Layout, Table and Workspace Management for your MapInfo Professional environment**

LayMan version 3.00 is a major release. It is now a Microsoft .NET client application and an OLE client of MapInfo Professional. It is designed to facilitate navigation between windows and enhance the traditional window, table, map, layout and workspace functions within MapInfo. Attached to an edge of your MapInfo work area, LayMan responds dynamically to your normal MapInfo window interaction. Quick find functions allow selected rows to be located in the corresponding map or layout. Fully synchronised operation means that MapInfo and Layman focus and select operations show simultaneously. There have been major improvements to the user interface and the functions since the previous version. LayMan version 3 supports MapInfo Professional versions 5.5 to 8. It will most likely run without problems on earlier versions back to version 4.0 (the first version supporting Integrated Mapping – or OLE automation). Supported Windows platforms are all .NET supported platforms (xp/2k/nt/me/98).
MapX is not supported in version 3. The previous versions support MapX.

See www.spatialprojects.htm/layman.htm for the most up-to-date information on the latest versions.

Summary of operation in MapInfo Professional**.**

Invoke LayMan at the start of a session	
MapInfo Professional maps, layouts and tables	
LayMan – Layer and layout changes, table display and edit, catalog lookup, workspace select, run and correct. Symbol catalog allows rapid selection and assignment to your symbol layer.	

LayMan System Information

- Setup package is about 6.2 Mb.
- LayMan must be installed on a user PC. There is not a network install option.
- You must uninstall a previous version of LayMan before running this installation. Existing version 3 and later preferences and registration will be retained.
- LayMan is an application written for the .NET framework. The Microsoft redistributable installer dotnetfx.exe must be run prior to LayMan install. The LayMan installer automatically prompts and initiates this installation if it hasn't previously been run.
- MapInfo Professional versions 5.5 to 8.0 supported. Should function on earlier versions back to 4.0
- Run as a tool from the MapInfo tools menu. You should manually add LayMan.mbx to your tools menu.
- Windows operating systems: Win98, Win/NT, Win 2000, Windows XP.
- Initial disk space requirement: 10 Mb
- A preferences file accumulates accessed map information in the installation directory (which must be writeable).

LayMan Pricing

Single CPU License.

US$ 49
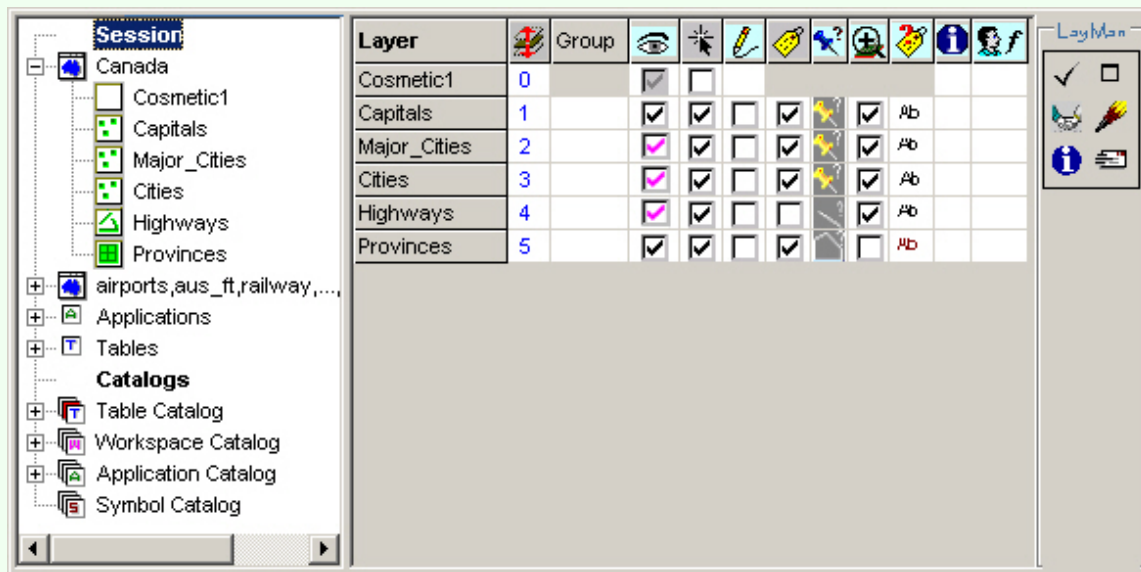
Other Licenses

Details on application

LayMan

Features and Benefits.

Here is a brief summary of the benefits you will see in using LayMan in conjunction with your standard MapInfo Professional user interface and applications.

Feature	Benefit
Interface	
Resides on any edge of your MapInfo work area. Drag the top of the LayMan window to your preferred size. Minimise to a button pad. Adjusts to MapInfo minimise, maximise, restore window states.	**Improved productivity -** Instant access to layer control, table, workspace and layout data. See and navigate to any of your MapInfo windows in a single click. Change display and edit properties with instant effect on your map or layout.
Runs alongside MapInfo and other applications.	**Removes some restrictions on normal user operation -** LayMan will co-exist with your other MapInfo applications and tools. Most features of the MapInfo interface are disabled when a user or MapInfo dialogue is active. LayMan allows a limited set of functions during this activity such as window focus change.
Icons indicate tables with unsaved edits, query tables. Grayed cells indicate read-only data.	**Improved productivity -** More information to the user.
Layers	
All selected layers may have any attributes changed simultaneously	**Improved productivity -** The same style override on 3 layers takes 7 clicks compared to 21 in MapInfo layer control.
A rich set of layer and table information displayed in the grid. See feature counts, table paths, coordinate systems, style override settings. Run a Mapbasic script or program on a selected layer to display a key result.	**Better information to the user -** No need to generate specialist SQLs to display particular attributes.
Select and unselect a layer to quickly distinguish from other layers.	**Better information and productivity. -** No more select and info clicks just to identify a layer on your map amongst all the others.

Show the bounds of selected layers, open tables, or tables in the catalog	**Better information -** Some layers are unselectable and unidentifiable in MapInfo (images). Showing bounds helps determine the scope of particular layers or determine the next tile name in a sequence.
Group layers with common display and other attributes and manipulate as a single group	**Improved productivity -** Reduce the amount of time needed in layer control performing repetitive operations.
Layouts	
A brand new view of your layout! See object type and all layout object properties.	**Improved productivity and easier to do layouts -** Locate a frame or object by clicking on the grid. Change one or more object' properties in a single click.
Sort your layout grid by one or more columns to allow easier identification of common frames or objects	**Improved ease of editing layouts -** Quickly see frames or objects that are not aligned correctly.
Tables	
View Entire Selected Objects	**New Functionality! -** Resize mapper to see one or more selected objects. Resize to see one or more layers including the cosmetic layer. Run the MapInfo *Find Selection* command on selected rows.
Table grid features complement MapInfo browser.	**Better Interface and Improved Productivity -** The table column widths adjust on first display to suit the largest data item. *Rowid* and *object type* display as columns. Do a quick sort on one or more columns to quickly find that point in your region objects table or locate data readily.
Workspace	
Run problem workspaces with errors resolved automatically or with user prompting.	**New functionality** . The table catalog is used as a lookup for lost tables. Other errors are handled with a skip/correct/ignore approach.

What's New in LayMan version 3.00.

Layer		Group	👁	✳	✏	🖌	🔍	🔍	🎨	ℹ	🔧	
Cosmetic1	0		☑	☐								
Capitals	1		☑	☑	☐	☑		☑	Ab			
Major_Cities	2		☑	☑	☐	☑		☑	Ab			
Cities	3		☑	☑	☐	☑		☑	Ab			
Highways	4		☑	☑	☐	☐		☑	Ab			
Provinces	5		☑	☑	☐	☑		☐	Ab			

Session
- Canada
  - Cosmetic1
  - Capitals
  - Major_Cities
  - Cities
  - Highways
  - Provinces
- airports,aus_ft,railway,...,
- Applications
- Tables
- **Catalogs**
- Table Catalog
- Workspace Catalog
- Application Catalog
- Symbol Catalog

▶ Overview

LayMan version 3.00 is a major release. It is now a Microsoft .NET client application and an OLE client of MapInfo Professional. It is designed to facilitate navigation between windows and enhance the traditional window, table, map, layout and workspace functions within MapInfo. Attached to an edge of your MapInfo work area, LayMan responds dynamically to your normal MapInfo window interaction. There have been major improvements to the user interface and the functions since the previous version. LayMan version 3 supports MapInfo Professional versions 5.5 to 8. It will most likely run without problems on earlier versions back to version 4.0 (the first version supporting Integrated Mapping â€" or OLE automation). Supported Windows platforms are all .NET supported platforms (xp/2k/nt/me/98).

MapX is not supported in version 3. The previous versions support MapX.

▶ Licensing and Registration

LayMan is licensed per CPU for US$49. LayManâ€™s basic functions are free use. Advanced functions are provided as a 30 session evaluation. Support LayMan development by purchase and registration. Advanced functions include:

1. The symbol catalog.
2. Workspace *safe mode*.
3. Map *Optimal Layer Order.*
4. Table *metadata* edit.
5. Application functions.
6. Table catalog filter.
7. Show table bounds on a mapper.

▶ New and Enhanced Features

▶ Recent Changes (v3.02, 8 Feb 06)

1. The registration dialogue has been updated to the Spatial Projects standard, including check for updates support and transfer registration to another PC.
2. The table catalogue loads significantly faster than the previous version (40 secs for 6000 items).
3. Show selected table bounds has been added to the tables, layers, table catalog item menus. This will add the MBR of chosen tables to the front map if they intersect or a new map if they don't.
4. Table catalog filter provides the ability to quickly filter the catalog to a subset of types shown on the menu. The types include base, seamless, unmappable, image, link, query, view, WFS, WMS. Also filtered by object type: symbol, line, polygon, text, mixed. The filter also has a *Show only tables intersecting map* option.
5. *Map selected tables* now checks the current map to see if the table bounds intersect. In this case, the table is added to the

6. Info and registration dialogue button clicks now minimizes the LayMan window. The window is restored when the dialogues are closed.

7. *Optimal Layer Order* improvements in the ordering of image layers. Images are place on top of solid fill contiguous region layers and underneath transparent region layers.

8. A number of corrections and enhancements to workspace *safe mode* and *step execute*. *Approximate table name* matches now provided against the catalog.

Version v3.01, 28 Sep 05))

1. Buttons have been upgraded to a buttonpad style. A minimize and restore button allows LayMan to switch between a minimum size showing just the buttonpad and the user-specified window size.

2. MapInfo handshaking mode has been improved to reduce the amount of interaction with Mapinfo while still responding to window state changes.

3. Previously, workspace catalog, *Show by Workspace Path* was not sorting the list.

4. In the layer grid, the label override style was displaying in the feature override style column.

5. The symbol catalog did not support symbol changes in the cosmetic layer.

6. User functions in the layer grid were sometimes not saved and were not copied to multiple selected rows properly.

7. View entire layer on raster layers now functions correctly.

8. Seamless layers were dropping from mappers on window focus change or on selecting objects in the map window. This was apparently due to a MapInfo bug in that â€œa query table**close** for a query derived from a seamless layer causes the layer to be dropped from any mappersâ€•. Query table operations on seamless tables in LM have been restricted.

9. Remove layer function wasn't updating the layer grid.

10. Workspace catalog display is refreshed after a build.

11. Optimal layer order wasn't supporting image layers correctly.

12. Navigation tree <-> data grid select response improved for layouts and layers.

13. Refresh LayMan button may have caused LM to remain behind MI.

14. Mapper object select with the layer grid displayed was scrolling the navigation node in to view but not the layer grid row. Similarly, navigation layer node selection wasnâ€™t scrolling the layer grid into view. Fixed.

▶ **Summary**
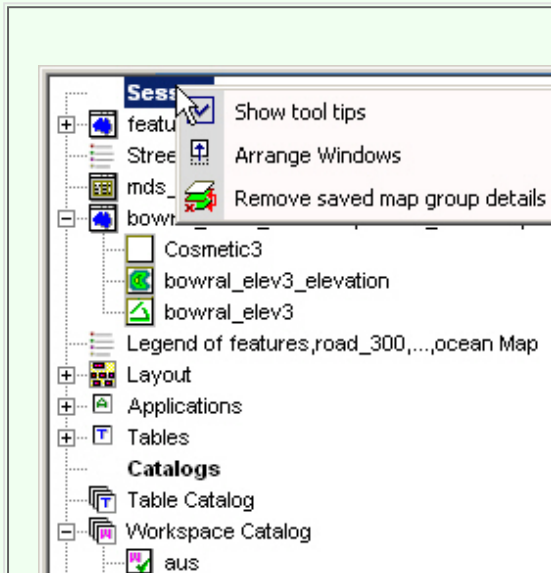
❍ Icons for objects
❍ Drag and Dock to any edge of the MapInfo work area
❍ Resizes on MapInfo size change
❍ Minimizes/restores with MI
❍ Improved data grid operation
❍ Auto arrange MI windows to fit LM position
❍ MI statusbar and scrollbar position detected
❍ Improved context menus
❍ Catalog build progress displays in the LM data grid panel.
❍ *Applications* shows running apps
❍ *Tables* has open tables.
❍ *Table catalog* provides the ability to open and map any registered table on your network. Filter the list by table type and intersecting current map window.
❍ *Workspace catalog* shows registered workspaces on the network. Edit or run from the list.
❍ *Application catalog* has registered applications. Run from the list.

▶ **Docking and MapInfo Interaction**
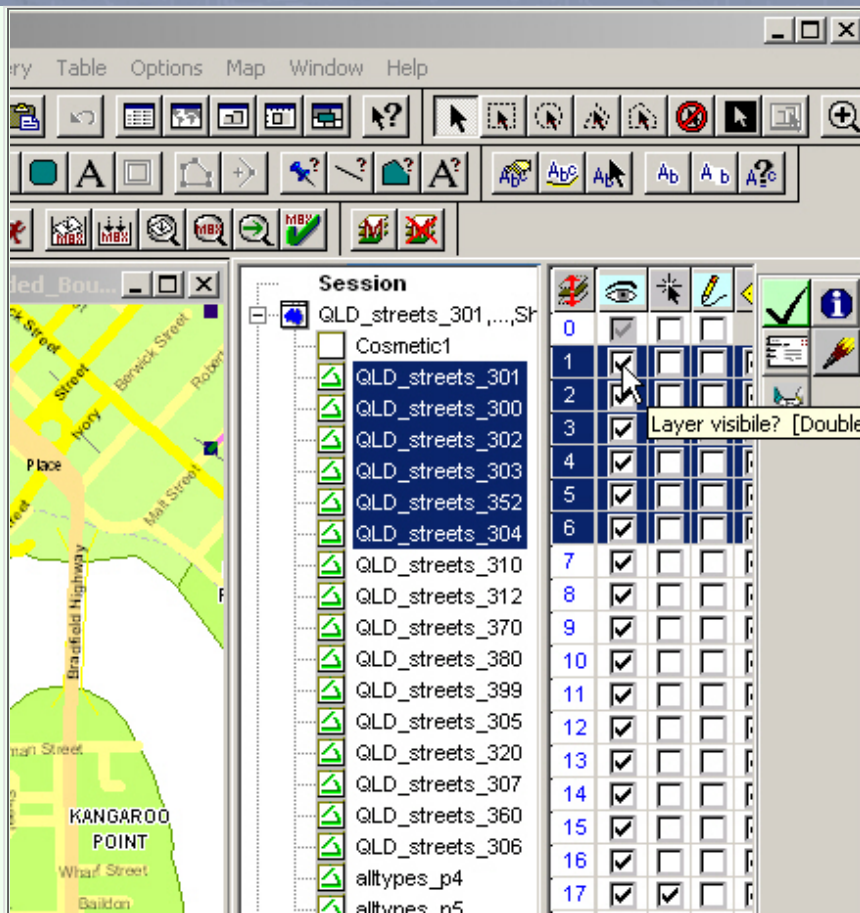
Docking and MapInfo Interaction

Dock with any edge of the MapInfo workarea. Adjust panel widths to suit and make adjustments to layer properties with immediate changes in MapInfo.
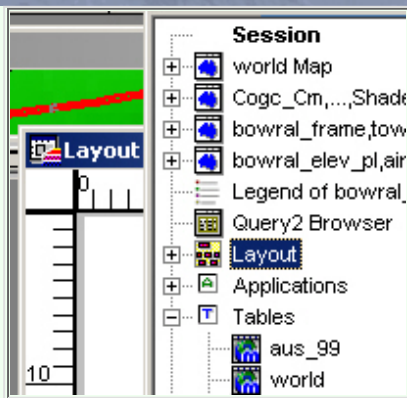
Your previous dock status will be restored on subsequent sessions.
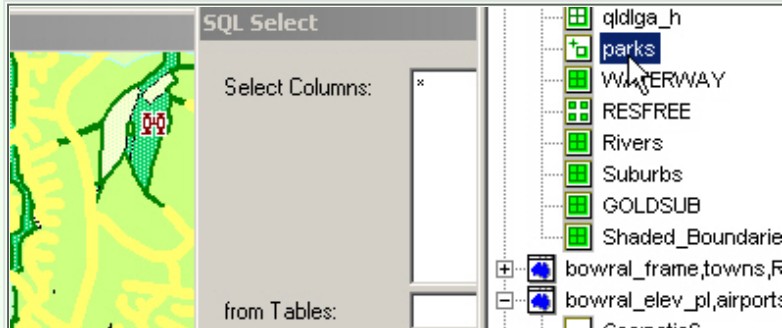
▶ **Window Positioning**

While editing map objects, the data grid is best displayed at the top or bottom of the MapInfo window.

▶ **Window Navigation**

Bring selected MapInfo windows to the front and then select frames within a *layout* or layers within a *Mapper*.

Concurrent Operation

During a MapInfo operation, or at a MapBasic application statement that pauses operation, LayMan navigation panel may be used to bring windows to the front or browse for names.

MapInfo Handshaking

▬ Normal mode is full interaction with MapInfo ▬ Click "*Ignore MapInfo*" if you are about to run intensive window or object select /edit functions. This will remove a small CPU load from your processing and avoid unnecessary updates	LM Responds to single feature selections when a table or layer grid is displayed; window focus changes; windows contents changes in Map window.

Layer and Table Icons

When layers and tables are shown, icons indicate the layer type and contents. A catalog summary of table characteristics is a cornerstone for LayMan operations. Their simplest function is to provide quick user feedback as to table contents.

▬	Symbols only layer
▬	Symbol/polyline only layer
▬	Region only layer (unclassified in table
▬	Contiguous, transparent region layer
▬	Contiguous, filled region layer
▬	Contiguous, semi-transparent region layer ..
▬	Disjoint, transparent region layer ...
▬	Thematic layer
▬	Grid layer
▬	View, Seamless or Query layer
▬	Image layer
▬	Linked DBMS layer
▬	WFS table
▬	WMS table ...
aus_mh / query2 Q	Icons alongside the layername indicate if the layer has **unsaved edits** and if it is a **query table.**

▶ **Layer and Table Functions**

– Right click a layer or table icon to see a context menu of available functions.

▶ **Table Catalog Functions (applied to the whole catalog)**

Build table catalog from network	
Empty Table Catalog	
Apply Filter	
Clear/show all	
Show by table path	
☑ Remove duplicate references	
☑ Show only tables Intersecting map	
☑ Show base tables	
☑ Show seamless tables	
Show unmappable tables	
☑ Show image tables	
☑ Show link tables	
☑ Show query tables	
☑ Show view tables	
☑ Show WFS tables	
☑ Show WMS tables	
☑ Show Symbol tables	
☑ Show Line tables	
☑ Show Polygon tables	
☑ Show Text tables	
☑ Show Mixed tables	

Build catalog builds or refreshes tables from a starting directory (eg. "C:\")

Apply the selected **filter** changes to the catalog view.

Show the catalog by **table** name or **path**. This is a quick view change.

Remove duplicates removes consecutive references in *by name view* if the name and row count are the same.

Show only tables intersecting.. removes tables from the list if their MBR does not intersect the front mapper MBR. Click on another *mapper* and click **Apply Filter** to quickly see the tables that would contribute to that map.

Show base .. WMS tables removes tables from the list that are not shown checked.

▶ **Table Item Functions (applied to a selection of tables in the open or catalog list)**

Show selected table grid	
Show selected table bounds	
Map selected tables	
Show metadata on selected table	
✕ Close selected tables	
Save Table	
Pack Table	
Pack Table Definition	
Add selected tables to catalog	
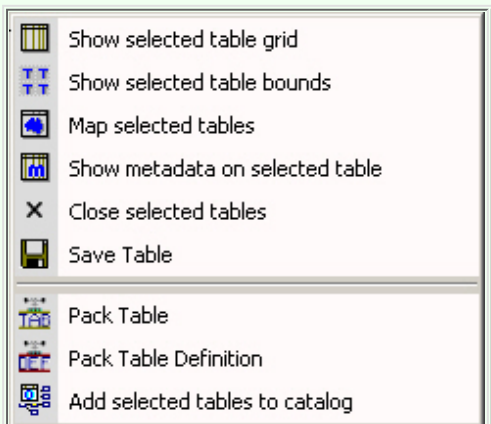
Show selected table.. loads the table for view and edit.

Show bounds shows the selected table bounds and name on the front mapper. A display layer is created and inserted into the map.

Pack Table Definition compacts string fields to the maximum length required to hold all data.

▶ **Workspace Functions**

– Validated workspace (runs without error)	Workspace Catalog
Un-validated (never run or checked)	Build catalog from network and run each workspace in *safe mode* to check validity.
Checked and runs with an error.	

Workspace Functions

Safe mode detects and corrects for:
. already open tables
. non-existant paths but with catalog entries
. opened but unused tables
. Dim statement errors (already dimensioned)
. Any MapInfo error (traps for user correction)

Safe mode can be run on all catalog entries without user interaction to check for errors.

As each line executes, an icon indicates the status of that line as:

- run successfully
- currently running this line
- run and edited
- skipped (at user command)
- exited at this line (in safe mode) due to error
- exited at this line due to user command

Workspace Safe and Step Modes

Icons give a clear indication of the status of each statement as it runs. Provides for auto or manual correction of problems.

Rowid	Flg	WorLine
1	✓	Works
2	✓	!Versio
3	✓	!Charse
4	✓	Open T
5	↺	Open T
6	↺	Open T
7	→	Open Table "QLD_streets_p6" As alltypes_p6 Interactive
8		Open Table "QLD_streets_p5" As alltypes_p5 Interactive

Step thru Workspace

'alltypes_p6' is already open. Run this line (or skip)?

[Yes] [No] [Cancel]
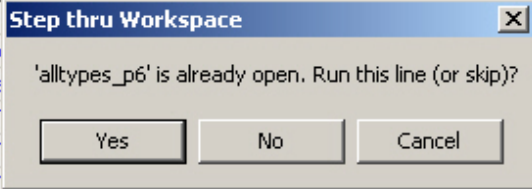
Step execute a workspace, repairing broken table references .

▶ **Application Functions**

Application Functions

Uses *RemoteMsgHandler* to interrupt, pause, message or end an application. Sample MBX and MB provided.

▶ **Symbol QuickPick**

- Applications
- Tables
- Table Catalog
- Workspace Cata
- Application Cata
- Symbol Catalog

Rowid	Symfont	Symgroup	Sym1	Sym2	Sym3	Sy
5	Custom Symbols	SitesRec1				
6	Custom Symbols	StreetFurn1				
7	Custom Symbols	Office1				
8	MapInfo Arrows	Arrows				

Symbol QuickPick
(a version 2.3 feature)

A customisable, well organised and fast symbol picker for existing map symbol objects.Catalog builds from standard MI fonts. Edit class table and add your own fonts.
Click on mapper point object and click catalog symbol to change.

▶ **Table View and Edit**
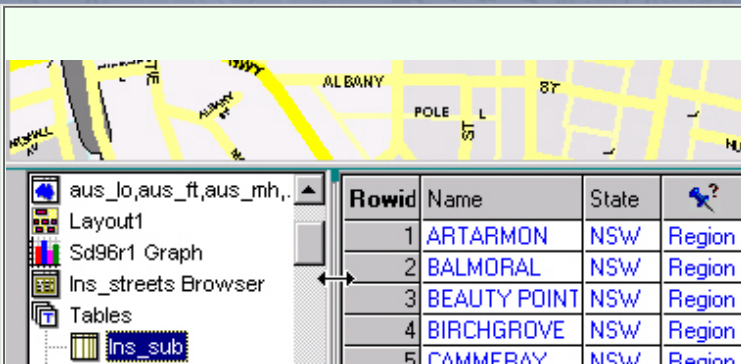
Table View / Edit
Navigation window provides a 2-level tree view of windows, layers and tables. List is updated dynamically as MapInfo windows gain focus, open and close.

Click to set focus. Double click to activate the table, mapper or layout in the edit grid on the right.
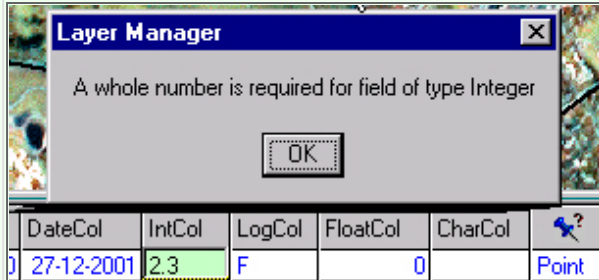
Table grid edits include data checking with warning messages. The object column is exposed allowing object properties to be changed with the other attributes.

The initial display of table grid data is formatted such that column widths adjust to the largest data item.

▶ **Layout Grid - View and Edit**
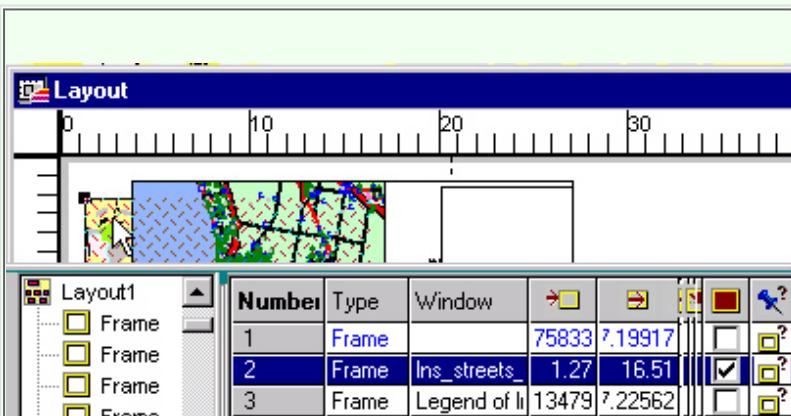
Layout grid provides layout object properties for select and editing. Easy to find and select small or hidden frames and objects. Click the object type cell to quickly adjust properties.

LayMan Solutions.

▶ **Overview**
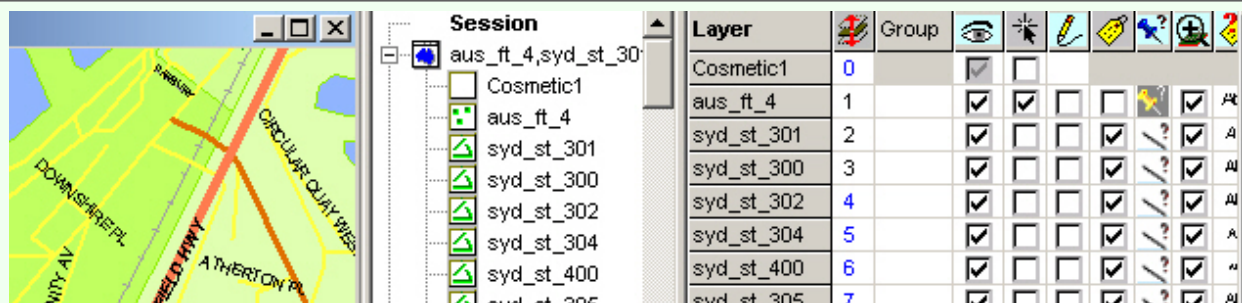
LayMan has been designed as a companion for MapInfo Professional. It will assist with simple operations in most aspects of your MapInfo usage. This assistance is in the form of additional functions which have no equivalent in the current MapInfo interface or single functions that string together a number of primitives to improve productivity. The presentation of information is in a more intuitive form, with icons representing the state of the object of interest.

This page illustrates a number of solutions to issues facing MapInfo users.

▶ **Map and Layer Control Solutions**

  ▶ **Dynamic layer control**
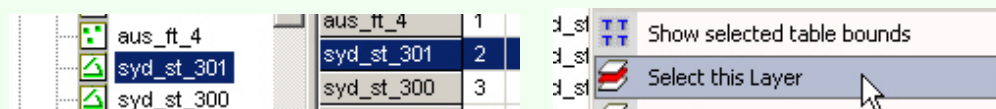
I need to configure a map with multiple style and label changes, but see the changes as they are made, rather than resolving conflicts with multiple *layer control* sessions.	Use the LayMan map grid
	Set up your map and load the LM map grid.
	Confirm a layer for changing
Layer override style Click the grid cell to change an attribute...	Confirm the change and continue..

  ▶ **Changing attributes for multiple layers simultaneously**
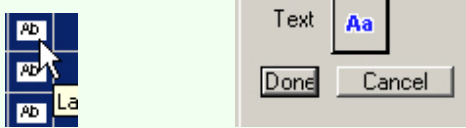
I have style changes to make to multiple layers simultaneously and would like to apply the same change to multiple layers. I would like to tune font sizes quickly for these layers.	Use the LayMan map grid
	Select the layers to be changed.

	Style Override Text Aa Done Cancel	Click a cell and make the change
ARTHUR ST WARRINGAH FWY		Confirm the change and continue..

▶ **Extended layer information**
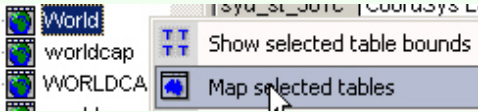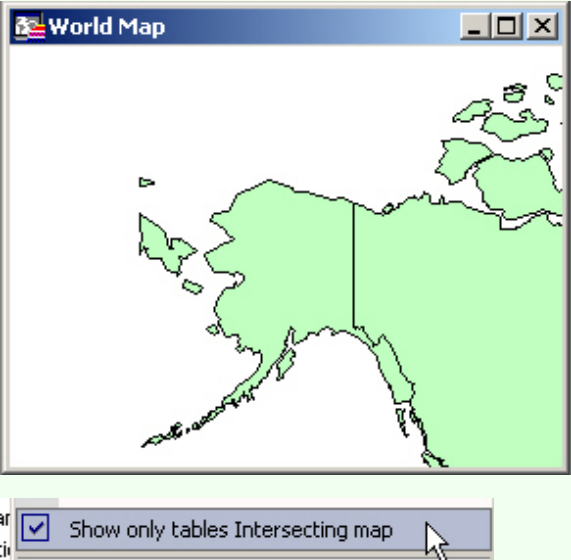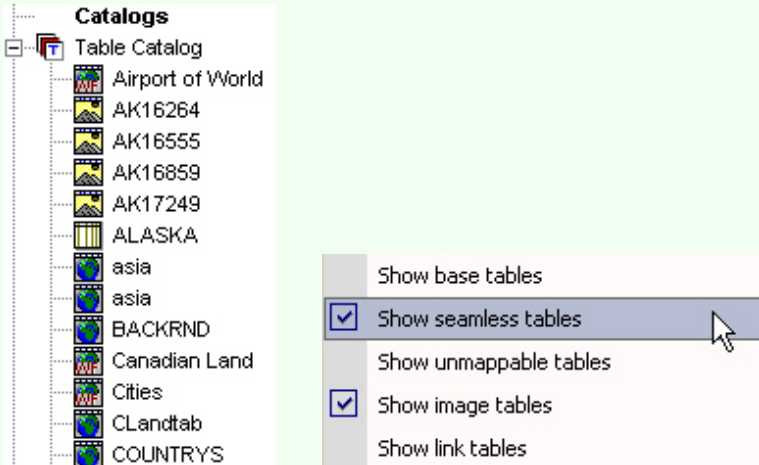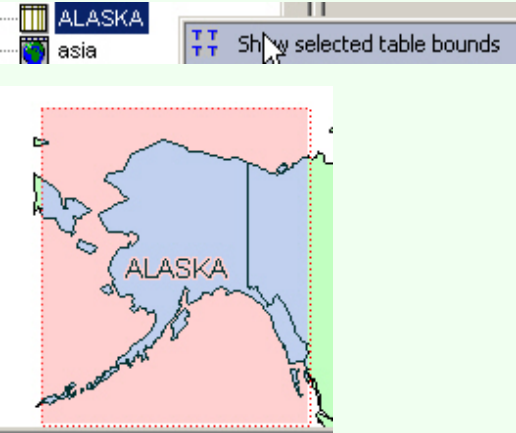
For performance and accuracy, I want to check that all layers in my current map have the same projection and datums.	Use the LayMan map grid
▬	Double click the *Info* button to expand these columns
Layer	

Layer	🌐	
Cosmetic1		No or mixed datum indicates potential problems which should be resolved.
aus_ft_4	CoordSys Earth Projection 1, 0	
syd_st_301	CoordSys Earth Projection 1, 12	
syd_st_300	CoordSys Earth Projection 1, 12	
syd_st_302	CoordSys Earth Projection 1, 12	
syd_st_304	CoordSys Earth Projection 1, 12	
syd_st_400	CoordSys Earth Projection 1, 12	
syd_st_305	CoordSys Earth Projection 1, 12	
syd_st_320	CoordSys Earth Projection 1, 12	
syd_st_401	CoordSys Earth Projection 1, 12	
alltypes_p4	CoordSys Earth Projection 1, 33	
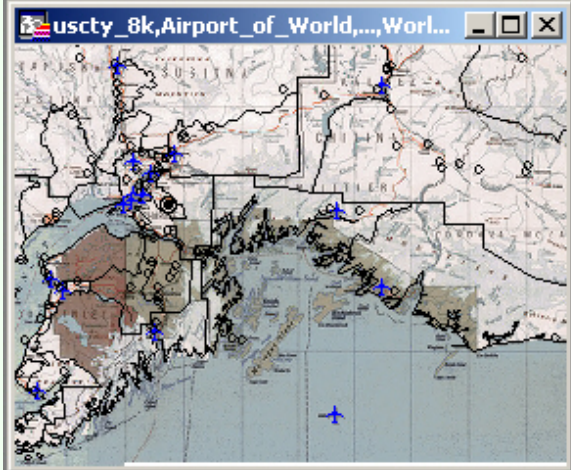
▶ **Table Catalog Solutions**

▶ **Find tables that contribute to a map**
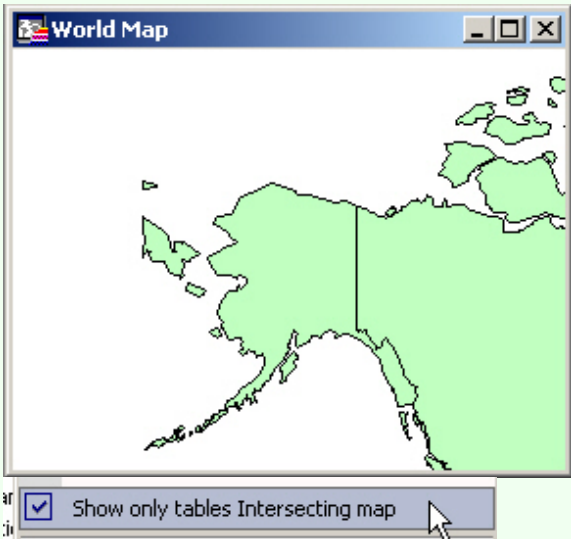
I have a new project and need to review what maps I have available in the project area. I have 5000+ TAB files on my network including seamless, linked and WFS tables.	Use the LayMan Table Catalog
Catalogs Table Catalog	Double click the catalog to load and display

World worldcap WORLDCA	⬚ Show selected table bounds 🖼 Map selected tables	Open an index map or a map known to cover the area of interest.
World Map ☑ Show only tables Intersecting map		Zoom to the project area. Filter the catalog to show all tables intersecting the map window.
Catalogs Table Catalog Airport of World AK16264 AK16555 AK16859 AK17249 ALASKA asia asia BACKRND Canadian Land Cities CLandtab COUNTRYS	Show base tables ☑ Show seamless tables Show unmappable tables ☑ Show image tables Show link tables	If necessary, filter the list further by selecting table types and contents.
ALASKA asia ⬚ Show selected table bounds ALASKA		Select a table and confirm its coverage.

Continue opening tables from the list. They will be added to your map in optimal order.

▶ **Use an index of image tiles to identify tile names**

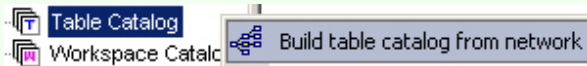|	
I have a seamless table of image tiles, but would like to identify each by name. I cant select or use the Info tool in MapInfo Pro and have to resort to toggling visiblity on each layer.	Use the LayMan Table Catalog
Catalogs Table Catalog	Double click the catalog to load and display
World Map ☑ Show only tables Intersecting map	Open an index map or a map known to cover the area of interest.
	Use the catalog filter to show intersecting, image and seamless tables. Select them all and click **Show table bounds.**

Catalogs
- Table Catalog
  - AK13554
  - AK13755
  - AK14057
  - AK14258
  - AK14859
  - AK15064
  - AK15659
  - AK16264
  - AK16555
  - AK16859
  - AK17064
  - AK17249
  - AK17254
  - AK17459
  - AK17849
  - ALASKA
  - NORWEST
  - USRASTER
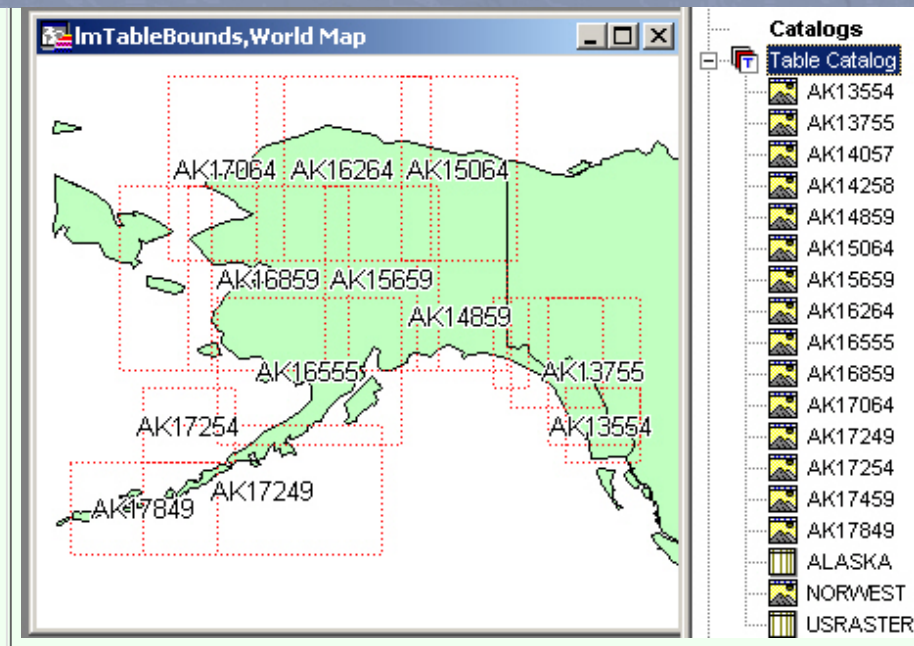
▶ **Workspace Solutions**

   ▶ **My tables have moved!**

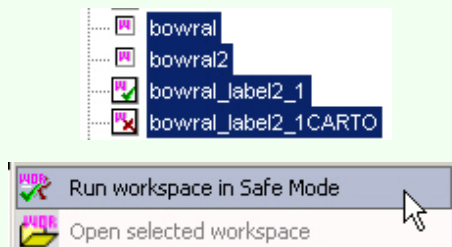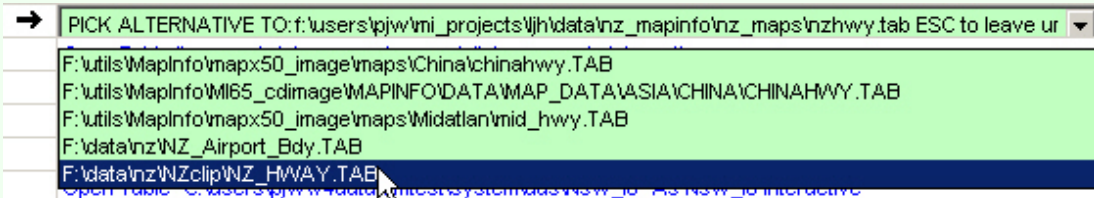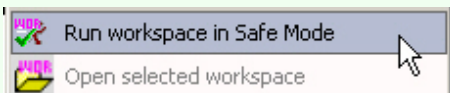|	
My TAB files have been moved to new locations on the network and workspaces now fail on open. I cant use an editor to change all my workspaces as the path changes are not consistent. There are too many directory locations to use the MapInfo Pro *search directories***.**	Use the LayMan *Table Catalog* and *Workspace Safe* mode.
Table Catalog — Build table catalog from network Workspace Catalog	Set up your map and load the LM map grid.
bowral bowral2 bowral_label2_1 bowral_label2_1CARTO Run workspace in Safe Mode Open selected workspace	The workspaces are opened, run and corrected where possible.
10 Open Table "D:\data\NSW\NSWILL\NSWILLNP.TAB" As Nswillnp Interactive 11 Open Table "D:\data\NSW\NSWILL\NSWILLPK.TAB" As Nswillpk Interactive 12 Open Table "D:\data\NSW\NSWILL\NSWILLRL.TAB" As Nswillrl Interactive 13 Open Table "D:\data\NSW\NSWILL\NSWILLRV.TAB" As Nswillrv Interactive 14 Open Table "D:\data\NSW\NSWILL\NSWILLAI.TAB" As Nswillai Interactive 15 Open Table "C:\USERS\PJW\personal\Untitled" As Untitled 16 Map From Nswillnp,Nswillnp,Nswilllo,Nswillft,Nswillai,Nswillrv, 17 Nswillrl,Nswillmr,Nswillbr,Nswillst,Nswillpk,Nswilllk Uniquely located table paths are substituted from the table catalog. Unlocatable and unused tables (not referred to elsewhere in the workspace) are commented out ...	Workspace correction.

10	Open Table "F:\data\NSW\NSWILL\NSWILLNP.TAB" As Nswillnp Interactive
11	Open Table "F:\data\NSW\NSWILL\NSWILLPK.TAB" As Nswillpk Interactive
12	Open Table "F:\data\NSW\NSWILL\NSWILLRL.TAB" As Nswillrl Interactive
13	Open Table "F:\data\NSW\NSWILL\NSWILLRV.TAB" As Nswillrv Interactive
14	Open Table "F:\data\NSW\NSWILL\NSWILLAI.TAB" As Nswillai Interactive
15	!Open Table "C:\USERS\PJW\personal\Untitled" As Untitled

▶ **Dealing with workspace errors**

A workspace fails with an error due to an unknown table.	Use the LayMan Workspace *Step Execute* or *Safe Mode* to correct.
Step Execute and *Safe Mode* pause when an error is found. If the error is a missing table, a list of exact matches in different locations or approximate matches is presented. ➡ PICK ALTERNATIVE TO:f:\users\pjw\mi_projects\ljh\data\nz_mapinfo\nz_maps\nzhwy.tab ESC to leave ur ▼ F:\utils\MapInfo\mapx50_image\maps\China\chinahwy.TAB F:\utils\MapInfo\MI65_cdimage\MAPINFO\DATA\MAP_DATA\ASIA\CHINA\CHINAHWY.TAB F:\utils\MapInfo\mapx50_image\maps\Midatlan\mid_hwy.TAB F:\data\nz\NZ_Airport_Bdy.TAB F:\data\nz\NZclip\NZ_HWAY.TAB	Select the closest table from the approximate match list.

▶ **Workspace Independence**

I have several workspaces that I need to run consecutively and combine the output maps on a layout. Any subsequent *open workspace* produces errors due to open table references to already open tables.	Use the LayMan *Workspace Catalog* and *Workspace Safe* mode
Run workspace in Safe Mode Open selected workspace Table open references to already open tables are skipped.	Run the first workspace conventionally. Locate the 2nd and 3rd in the workspace catalog and *Run Safe*.