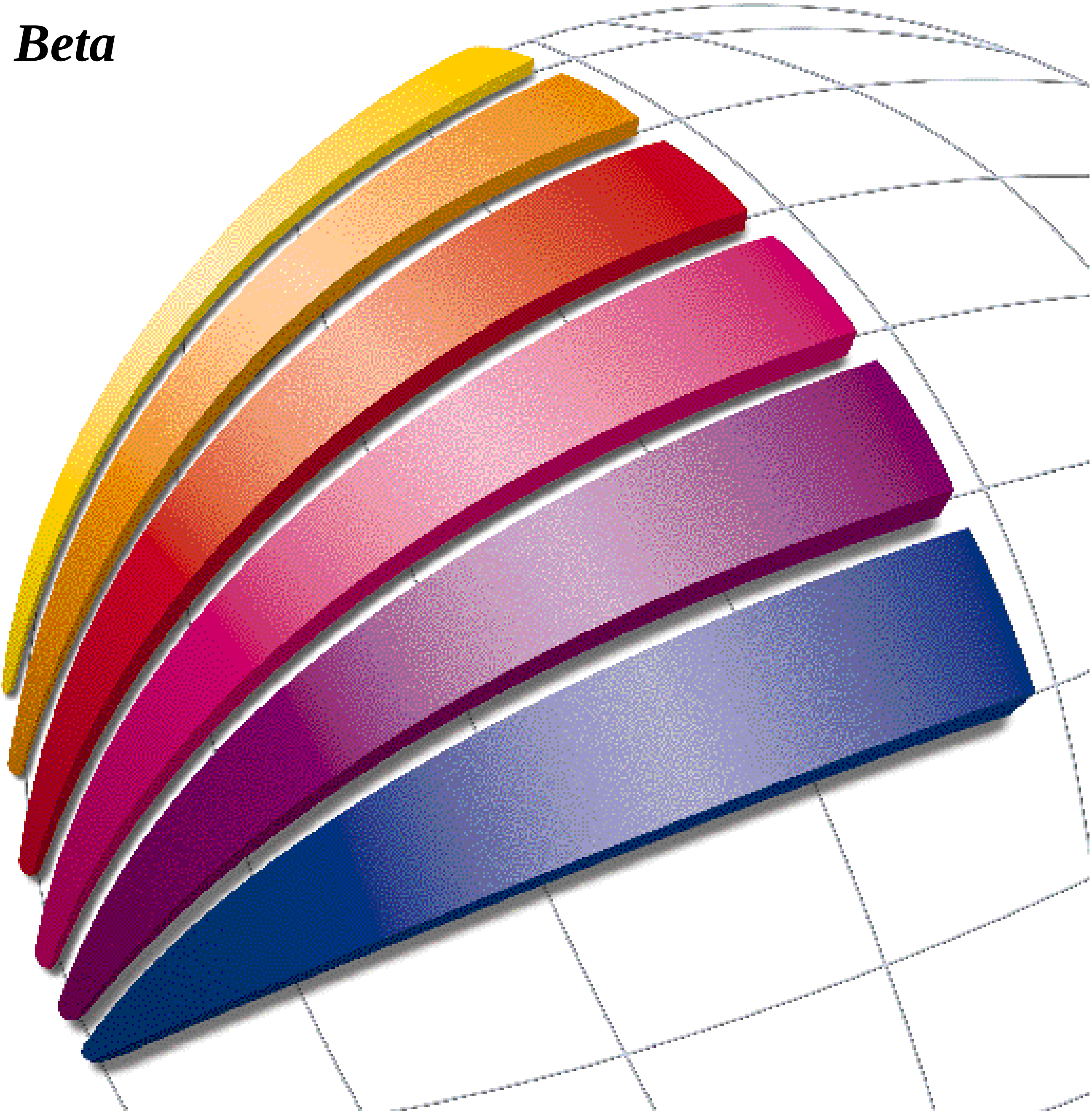
MapInfo Professional®

7.0 Beta



MapInfo Professional 7.0 Features and Enhancements

Arrow Key Enhancements

Use the arrow keys to move a selected object in an editable layer in a map or layout window.

- Press the up, down, left and right arrow keys to move the objects 1 screen pixel in the corresponding direction.
- Press the Shift key when selecting the Arrow key to move the object 10 pixels.

Controlling the Location of Application Data Files During Installation

By default, the setup program for MapInfo Professional installs application data files to locations that make sense for the typical user. After installing MapInfo Professional, the user is free to move one or more of the application data files to another predefined location and MapInfo will find that file. For example, the administrator of a machine might move mapinfow.pen from the per user area (its default location) into the install directory so all users on that machine will share the same set of pens.

For IT persons responsible for a large number of MapInfo installs it is not practical to manually move application data files to realize the desired configuration. To solve this problem we have developed a solution that allows IT persons to specify the location of application data files by modifying a setting file, call MODE.INI, prior to installing MapInfo Professional. The exact steps are:

1. Rename the MODE.INO file (found in the root directory of the installer) to MODE.INI.
2. Open MODE.INI into any text editor.
3. Edit MODE.INI, modifying the code of the application data file/group whose location you wish to change.
4. Install MapInfo Professional.

The following is a list of predefined locations for application data files supported by MapInfo Professional, and the corresponding numeric code to be used in MODE.INI.

Code	Description	Location
1	per user, roaming	<Current User>\Application Data
2	per user, not roaming	<Current User>\Local Settings\Application Data
3	per machine	<All Users>\Application Data
4	program directory	<Install Dir>

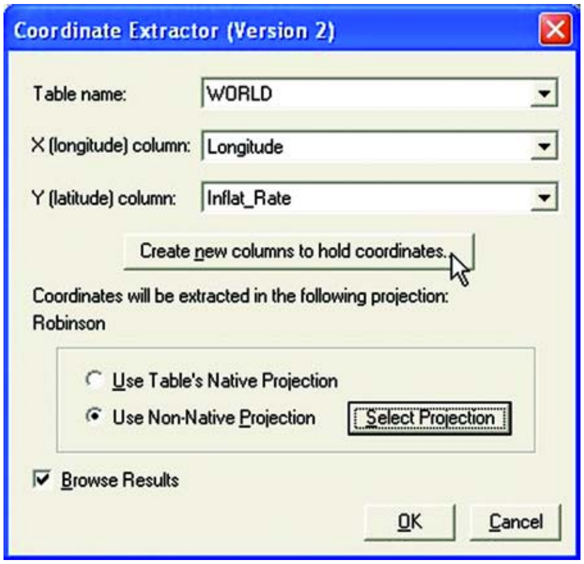
The following is a list of application data files/groups and their default location:

Filename	**Default Location**
mapinfow.clr	per user, roaming
mapinfow.pen	per user, roaming
mapinfow.fnt	per user, roaming
mapinfow.abb	program directory
mapinfow.prj	program directory
mapinfow.mnu	program directory
custsymb	per user, roaming
thmtmplt	per user, roaming
graphsupport	per machine

Coordinate Extractor Tool

The enhanced version of the Coordinate Extractor Tool allows you to extract coordinates in any projection listed in the .prj file.

In the Coordinate Extractor dialog, choose:



Coordinate Extractor (Version 2)

Table name: WORLD

X (longitude) column: Longitude

Y (latitude) column: Inflat_Rate

Coordinates will be extracted in the following projection:
Robinson

○ Use Table's Native Projection

● Use Non-Native Projection

☑ Browse Results

- Use Table's Native Projection

or

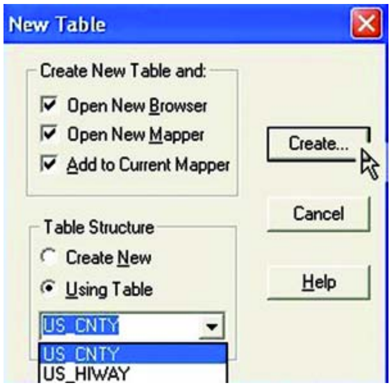
- Use Non-Native Projection: click the Select Projection button to display projection options.

Creating a New Table from an Existing Table

The Create New Table command now allows you to create a new table based on an existing table**.**

To create a new table from an existing table:

1. Choose File > New Table. The New Table dialog displays.
2. Choose Open New Mapper.



New Table

Create New Table and:

☑ Open New Browser

☑ Open New Mapper

☑ Add to Current Mapper

Table Structure

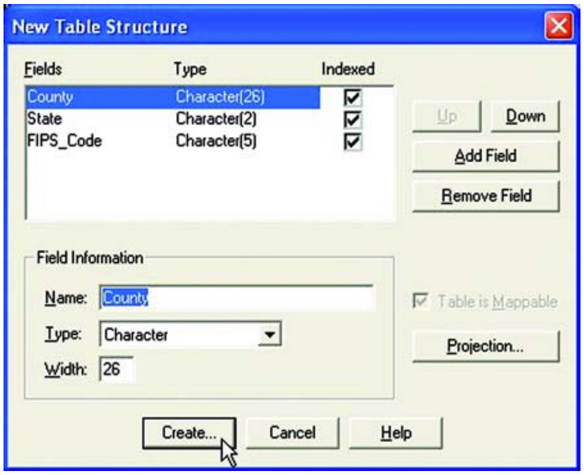
○ Create New

● Using Table

US_CNTY

US_CNTY
US_HIWAY

3. Choose Using Table: Select a table from the drop-down list. The New Table Structure dialog displays containing the information from the selected table.



New Table Structure

Fields	Type	Indexed
County	Character(26)	☑
State	Character(2)	☑
FIPS_Code	Character(5)	☑

Field Information

Name: County

Type: Character

Width: 26

☑ Table is Mappable

4. Select the information to be included in the new table.

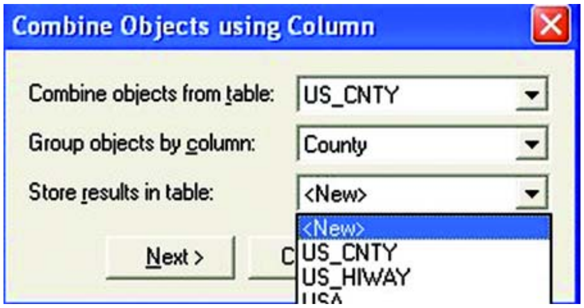
5. Choose Create. The Create New Table dialog displays.

6. Specify a location for the new table.

Creating a New Table Using the Combine Objects Feature

The Combine Objects Using Column dialog now offers the option of creating a new table for the newly combined objects.

Combine Column using Column dialog


Combine Objects using Column

Combine objects from table: US_CNTY

Group objects by column: County

Store results in table: <New>

1. In the Store results in Table drop-down, choose New. The File > New dialog displays.
2. Complete the New Table dialog, the appropriate Data Aggregation dialog displays.

   If the same table is selected as the Combine Objects from Table and store results in Table, this Data Aggregation dialog displays:

Destination

A list of column names appears in the upper half of the dialog. To select one column name from the list, click on that column name. To select a group of column names, shift-click. To select or de-select one column at a time, control-click.

Once you have selected one or more columns, click on an option in the lower half of the dialog to apply that option to all selected columns. If you want to choose the Sum or Average method, make sure that all of the selected columns are numeric columns. If any of the selected columns are not numeric, the Sum and Average options are grayed, because Sum and Average cannot be applied to non-numeric columns.

Aggregate Method

Blank

Choose Blank to store blank values in the selected column(s).

To store blank values in all columns, check the No Data checkbox. Only choose the

Blank option when you want to blank out individual columns. The Blank option is available only if you did not specify a map editing target.

Value

The Value option is a radio button with an associated text edit field.

Choose the Value option to store the value displayed in the edit field in the new row. Enter an appropriate value in the field.

Sum

Choose the Sum option to calculate a sum based on the column values from all the objects to be combined. MapInfo stores the sum in a column of the new row. The Sum option is available only if you have selected a numeric column or columns.

If you have specified a map editing target, and if the editing target is in a different table than the currently selected object(s), the Sum option adds numeric values from both tables, and stores the sum in a column of the target object.

To add values from two tables:

1. Choose a column name from the list in the upper half of the dialog. This choice designates which of the target object's columns will hold the sum value.
2. Choose a column name other than "none" from the drop-down list in the lower right part of the dialog. This drop-down list contains all numeric columns from the selected objects.
3. Choose the Sum option. MapInfo calculates the sum of values of the selected objects' numeric column (the column you chose in step 2), then adds the target object's numeric column (the column you chose in step 1), and stores the grand total in the target object's numeric column.

Average

Choose the Average option to calculate the average of the column values for all the objects to be combined. MapInfo stores the average in the new row.

If you choose the Average option, and you do not choose a Weight By column, MapInfo calculates simple averages: MapInfo sums the data values from all the objects to be combined, and divides the sum by the number of objects to be combined. If you choose a Weight By column, MapInfo calculates weighted averages. See Weight By, below.

The Average option is available if you have selected only numeric columns. Furthermore, if you have specified a map editing target, and if the editing target is in a different table than the currently selected object(s), the Average option only becomes available when you choose a column name other than "none" in the columns drop-down list.

Weight By

Choose a column from the Weight By drop-down list to perform weighted averaging. With weighted averaging, MapInfo adjusts the calculation of averages so that the values from each selected object are weighted more or less heavily. Thus, the Weight By column gives some of the selected objects more impact, or "weight" than others.

For example, your table may contain two numeric columns: a median income column, med_inc, and a net population column, net_pop. When you combine two regions in this table, you probably want to use the Average option to calculate the average of the median income values. Thus, if one region has a med_inc value of $30,000, and another region has a med_inc value of $36,000, and you combine the two regions, the resultant region might have a med_inc value of $33,000.

However, if one of the regions has a larger population than the other region, you probably want the larger region's med_inc value to be weighted more heavily when MapInfo calculates the average median income. In the Data Aggregation dialog, perform these steps:

1. Choose the med_inc column from the list in the upper part of the dialog.
2. Choose Average. MapInfo averages the med_inc values when combining objects.
3. Choose the net_pop column from the Weight By drop-down list. MapInfo weights the average median income calculations. Thus, objects with large net_pop values affect the median income averaging more than objects with small net_pop values.
4. If you are combining closed objects, the Weight By drop-down list contains a special option: Area. If you choose Area from the Weight By drop-down list, MapInfo weights the average calculations according to the relative geographic areas of the regions to be combined.

If you are combining linear objects, do not choose Area as the Weight By option. Linear objects have no width, thus they have no area.

To choose standard (non-weighted) averaging, choose "none" from the Weight By drop-down list.

The Weight By control becomes available when you select the Average option. The Weight By control is not available if the target object is in a different table than the selected objects.

No Data

Use of the No Data checkbox depends on whether you have specified a map editing target:

If you have not specified a target, check the No Data checkbox to store blank values in all columns of the new row. If you have specified a target, check No Data to leave all column values of the target object unchanged.

Creating a Theme Using Individual Categories from a Theme Template

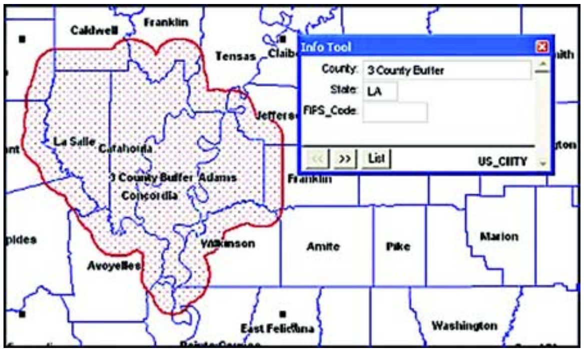
The following checkbox has been added to the Create Thematic Map - Step 1 of 3 dialog:

Use Individual Categories

Enabled only if the selected individual value template contains the names of the individual categories and their associated styles. If checked, the theme is created using the individual categories from the template. Any names of categories found in your data that are also found in the template, will receive the individual category style for the name from the template. If unchecked, the template is applied to the theme without regard for the individual category names.

Data Aggregation for Buffering

In MapInfo Professional 7.0, Data Aggregation is available for buffering. When creating a buffer, the table of buffers can be joined to data associated with the original objects buffered.


Info Tool

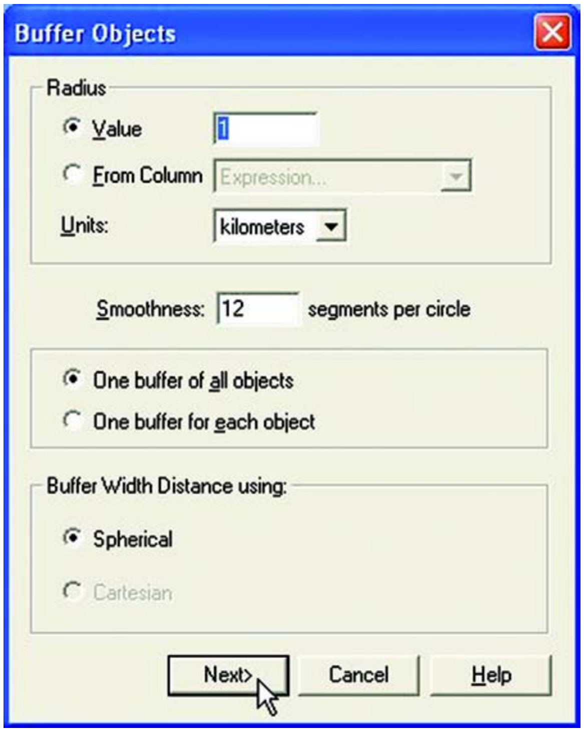
County: 3 County Buffer

State: LA

FIPS_Code:

To use data aggregation when buffering:

1. Choose Objects > Buffer. The Buffer Objects dialog displays.


Buffer Objects

Radius

● Value: 1

○ From Column: Expression...

Units: kilometers

Smoothness: 12 segments per circle

● One buffer of all objects

○ One buffer for each object

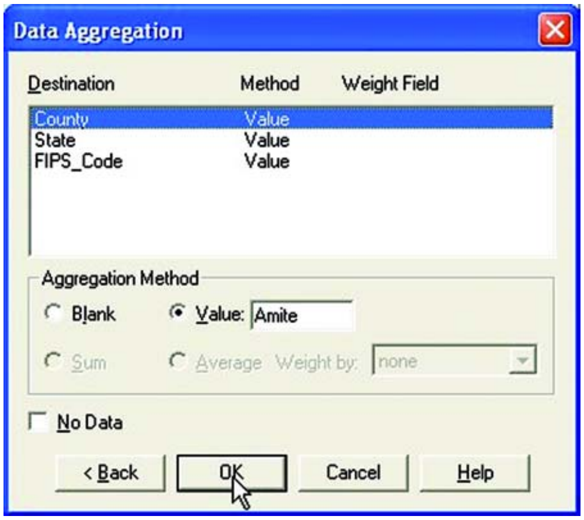
Buffer Width Distance using:

● Spherical

○ Cartesian

2. Complete the dialog. If the open file is a Browse window, the Next button displays: choose Next and complete the Aggregation Method dialog. If the open file is a Map window, choose OK.

3. The Data Aggregation dialog displays. The specific type of Data Aggregation dialog that displays depends on whether you chose to create one buffer for each object or one buffer for all objects.



Destination	Method	Weight Field
County	Value	
State	Value	
FIPS_Code	Value	

Aggregation Method

○ Blank ● Value: Amite

○ Sum ○ Average Weight by: none

□ No Data

Aggregation Method dialog

Blank

Choose Blank to store blank values in the selected column(s). To store blank values in all columns, check the No Data checkbox. Only choose the Blank option when you want to blank out individual columns. The Blank option is available only if you did not specify a map editing target.

Value

The Value option is a radio button with an associated text edit field.

Choose the Value option to store the value displayed in the edit field in the new row. Enter an appropriate value in the field.

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Choose the Sum option to calculate a sum based on the column values from all the objects to be combined. MapInfo stores the sum in a column of the new row. The Sum option is available only if you have selected a numeric column or columns. If you have specified a map editing target, and if the editing target is in a different table than the currently selected object(s), the Sum option adds numeric values from both tables, and stores the sum in a column of the target object.

To add values from two tables:

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3. Choose the Sum option. MapInfo calculates the sum of values of the selected objects' numeric column (the column you chose in step 2), then adds the target object's numeric column (the column you chose in step 1), and stores the grand total in the target object's numeric column.

Average

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The Average option is available if you have selected only numeric columns. Furthermore, if you have specified a map editing target, and if the editing target is in a different table than the currently selected object(s), the Average option only becomes available when you choose a column name other than "none" in the columns drop-down list.

Weight By

Choose a column from the Weight By drop-down list to perform weighted averaging. With weighted averaging, MapInfo adjusts the calculation of averages so that the values from each selected object are weighted more or less heavily. Thus, the Weight By column gives some of the selected objects more impact, or "weight" than others.

For example, your table may contain two numeric columns: a median income column, med_inc, and a net population column, net_pop. When you combine two regions in this table, you probably want to use the Average option to calculate the average of the median income values. Thus, if one region has a med_inc value of $30,000, and another region has a med_inc value of $36,000, and you combine the two regions, the resultant region might have a med_inc value of $33,000.

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If you are combining closed objects, the Weight By drop-down list contains a special option: Area. If you choose Area from the Weight By drop-down list, MapInfo weights the average calculations according to the relative geographic areas of the regions to be combined.

If you are combining linear objects, do not choose Area as the Weight By option. Linear objects have no width, thus they have no area.

To choose standard (non-weighted) averaging, choose "none" from the Weight By drop-down list.

The Weight By control becomes available when you select the Average option. The Weight By control is not available if the target object is in a different table than the selected objects.

No Data

The use of the No Data checkbox depends on whether you have specified a map editing target.

If you have not specified a target, check the No Data checkbox to store blank values in all columns of the new row.

If you have specified a target, check No Data to leave all column values of the target object unchanged.

DBMS Enhancements

Making a New Connection Using the Open Table Dialog

Use the Open Table dialog to select a table on a remote server.

1. Choose File > Open Table.
2. Click the New Connection button to display the Open DBMS Connection dialog to make a connection.

Open DBMS Connection Dialog

Connection Type	Lists the available driver types: ODBC and/or Oracle. If only one driver type is available the control is disabled.
Connections	Lists all open connections.
New... button	Choose to open a new connection.

Opening a DBMS Table from the Open Table Dialog

If you have established a DBMS connection, you can now choose the connection from the Files of Type drop-down list in the Open Table dialog. When you do so, DBMS specific options display in the File Open dialog:

Owner	Displays the owner list for the selected connection. This option is not available if the connection does not support owners. Only tables belonging to the selected user display in the table list.
Filter Tables...	Displays the Filter Tables dialog. Use this dialog to filter system tables, views, synonyms/alias or regular tables.
Database	Displays the name of the database corresponding to the selected connection.
Table	Lists the tables corresponding to the current connection/owner selections.

For this BETA release:

- Do not open DBMS tables through the DBMS toolbar.Access Remote tables through File > Open.
- There are known issues when accessing SQL Server tables live, please access SQL Server tables linked.

- 0 records display when downloading a table from Oracle or IUS using MapInfo drivers on an XP machine.

Close DBMS Connection

Close one or more DBMS connections using the Close DBMS dialog.

- Choose File > Close DBMS Connection. The Close DBMS dialog displays.

Close DBMS Connection Dialog

Connections	List all open connections, both ODBC and Oracle.
OK	Exit and close the selected connection(s).
Cancel	Exit and close no connections.

Open DBMS Table Options

MapInfo tab File location	Displays name and path of the.tab file that will be created. Enter a filename or click the Browse button to display the Save As dialog and choose a filename.
Browse (...)	Displays the Save As dialog: choose a MapInfo.tab file location.
Standard/Expert Mode	Use Standard Mode to filter columns and rows using the corresponding buttons. Use Expert Mode to edit a SQL statement.
Column Filter	Displays the Column Picker dialog.
Row Filter	Displays the Row Picker dialog.
SQL View	Displays the Enter SQL Query dialog.
Linked Live Cache	Cache: The cache button is enabled if the Live option is selected.If Cache is checked, MapInfo will store the database objects from the initial or current mapview in memory. This speeds up subsequent operations. If Cache is unchecked, the objects are displayed but not stored in memory. This uses less memory but subsequent operations must read the data from the database each time they execute.
Back button	Takes user back to the Open Table dialog, where the same connection/owner/table should be selected. This button is not available when in expert mode.
OK button	Initiates the opening of the selected DBMS table.

Conflicts Detection For DBMS Live Access

Because the records in a linked table are from a remote database, it is possible that other users may have changed or deleted them on the remote database since the table was downloaded into MapInfo Professional. As a result, conflicts may exist between the data residing on the remote database and the new data to be uploaded to the remote database.

When saving a linked table, if MapInfo finds conflicts between the data on the remote database and any records in the linked table since it was downloaded, the Resolve Conflicts dialog displays. Use this dialog to resolve these conflicts.

The conflict resolution dialog will appear once for each conflicting record. At any point in this process, you may choose to leave this interactive mode and have the rest of the conflicts resolved automatically. You may use all local values or all server values.

Resolve Conflicts Dialog

Column	Shows the name of the column in the record that has data which is in conflict and needs to be resolved. If the column name is too long and does not fit into the list box, a truncated representation will be shown instead.
Original DBMS	Displays the original data as it appeared when extracted from the database. If the original data is too long and does not fit into the list box, a truncated representation displays.
Current MapInfo	Shows the data as it appears in the MapInfo linked table you are trying to update. The MapInfo field will be blank if the record has been deleted from the MapInfo database. If the data from the MapInfo linked table is too long and does not fit into the list box, a truncated representation will be shown instead. Its full value can be displayed in the MapInfo field, below.
Current DBMS	Shows data as it appears in the remote database at the time of the update. (This data might have been changed by another user since it was downloaded into a MapInfo linked table.)The Current field will be blank if the record has been deleted on the remote database, after being downloaded into a MapInfo linked table. If the current data from the remote database is too long and does not fit into the list box, a truncated representation will be shown instead. Its full value can be displayed in the Current field, below.

Current MapInfo:	Check this box to update the remote database with the value from the MapInfo linked table. If the current record on the database, or the MapInfo record was deleted, then this check box is not available. Instead, you must use the MapInfo or Current button, below.
Current DBMS	Check this box to retain the current value on the remote database. If the current record on the database, or the MapInfo record was deleted, then this check box is not available. Instead, you must use the MapInfo or Current button, below.
MapInfo	This button selects all the MapInfo values. If the record you are trying to resolve was deleted from the MapInfo database, selecting the MapInfo button will delete the record from the remote database. If the record you are trying to resolve was deleted from the remote database, selecting the MapInfo button will insert the new record into the remote database.
DBMS	Choose to select all the current DBMS values. If the record you are trying to resolve was deleted from the MapInfo database, selecting the Current button will ignore the deletion and retain the current record in the remote database.If the record you are trying to resolve was deleted from the remote database, select the MapInfo to insert the new record into the remote database.
Column	Shows the full name of the column highlighted in the list box.
Original DBMS	Shows the full value of the original data highlighted in the list box.
Current MapInfo	Shows the full value of the MapInfo data highlighted in the list box.
Current DBMS	Shows the full value of the current remote database data highlighted in the list box.
OK	Use the selected values to update of this record.
Stop Commit	Terminates the entire update. A second dialog box will display to confirm this choice.
Automatic	Choose to cause the interactive conflict resolution to end. A dialog displays allowing the user to select which of the automatic conflict–resolution modes will be used for the remainder of this update. One of two automatic modes can be selected from the dialog. Accept MapInfo values, or the values currently residing on the remote database.
Close Edit Linked Table Dialog Box	Use the Close Edited Linked Table dialog to close a linked table when there are edits pending.
Save Changes to MapInfo Table	Save the edits only to the local MapInfo table.

Save Changes to DBMS Table	Save edits to DBMS table on the remote database. Edits are also saved to the local MapInfo table.
Discard Changes	Discard the changes made to the table.

In this Beta release, you cannot select points when saving a table after a conflict detection on XY databases.

Double Stereographic Projection Support

Double Stereographic Projection number is 31

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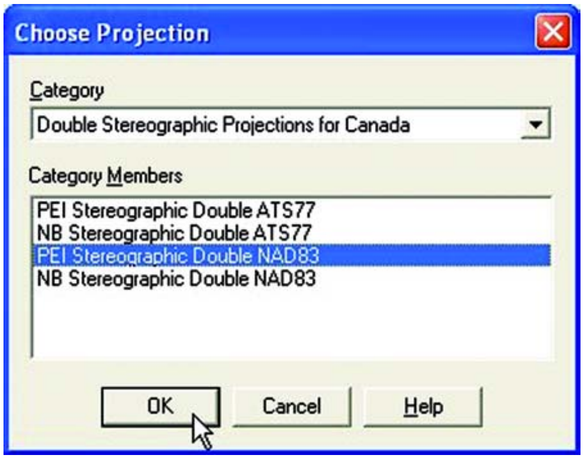


Category

Double Stereographic Projections for Canada

Category Members

PEI Stereographic Double ATS77
NB Stereographic Double ATS77
PEI Stereographic Double NAD83
NB Stereographic Double NAD83

PROJECTIONS	Double Stererographic
Datum	X
Units	X
Origin, Longitude	X
Origin, Latitude	X
Standard Parallel 1	
Standard Parallel 2	
Azimuth	
Scale Factor	X
False Easting	X
False Northing	X
Range	

Installation

MapInfo Professional 7.0 is compatible with Windows 2000. Based on our preliminary testing, your particular configuration may preclude installation. We believe this is an InstallShield issue. If you encounter installation problems, please report your experience(s) to us.

JPEG2000

MapInfo Professional 7.0 supports JPEG 2000.

Label Partial Objects

Now you can label partial objects, as well as polylines. In Map > Layer Control > Label dialog, check Label Partial Objects to activate this feature.

Merging a Theme Using Individual Categories from a Theme Template

The following checkbox has been added to the Merge Individual Value dialog:

Merge Individual Value Categories

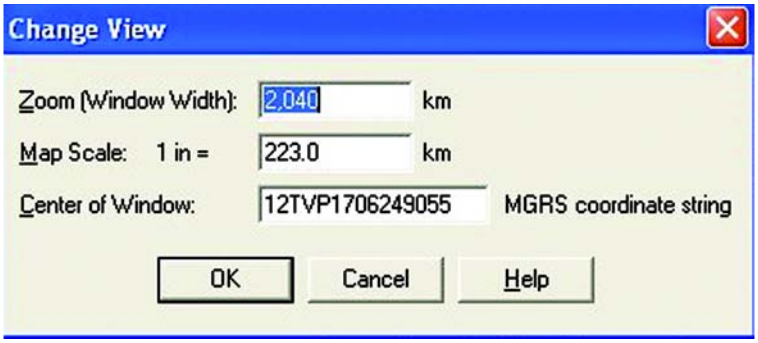
This option is enabled if the current theme is an individual value theme. When the template with categories has more categories than the table to which it is being applied, those categories are put in the theme, event though the record count on for those categories is zero. By default, they will not display in the legend unless the display of that category is explicitly turned on in the Customize Legend dialog.

When a table has categories not in the theme template being applied to it, those categories are assigned default styles in the same way they would be now when the template has fewer styles than the table has categories.

MGRS Coordinate Strings in the Change View Dialog Box

Center a map using Military Grid Reference system coordinate strings to specify the center point. This feature is activated when you select Military Grid Reference as the Display Coordinates in the Map > Options dialog box or in the Options > Preferences > Map Window option.

- Choose Map > Change View. The Change View dialog displays.


Change View

Zoom (Window Width): 2,040 km

Map Scale: 1 in = 223.0 km

Center of Window: 12TVP1706249055 MGRS coordinate string

Saving Individual Categories in a Theme Template

Center of window	Displays and allows you to change coordinates of the Map window's center in Military Grid Reference System format. If an invalid MGRS string is given, the window does not change.
OK	Applies the settings.
Cancel	Discards settings.

North Arrow

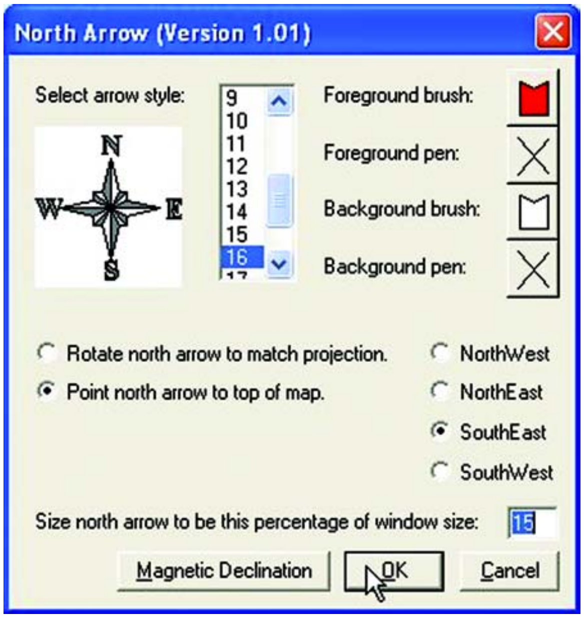
North Arrow is a new MapBasic utility added to the Tool Manager. Additionally, it can be accessed from the Tools Toolbar. It can add North Arrows of various styles and optionally add a Magnetic Declination arrow to a Map or Layout window. Use the North Arrow dialog to designate in which corner to position the North Arrow, or use the Toolbar button to drag a rectangle and place the North Arrow at the specified location.

Accessing North Arrow Using the Tool Manager

NorthArrow.mbx is found in the Tools > Tool Manager. It is not autoloaded by default. When the North Arrow is loaded, it displays as Tools > North Arrow menu option and as a button on the Tools toolbar.

Using North Arrow

1. Choose Tools > North Arrow > Draw North Arrow. The North Arrow dialog displays.



North Arrow (Version 1.01)

Select arrow style: 16

Foreground brush:

Foreground pen:

Background brush:

Background pen:

○ Rotate north arrow to match projection.

● Point north arrow to top of map.

○ NorthWest

○ NorthEast

● SouthEast

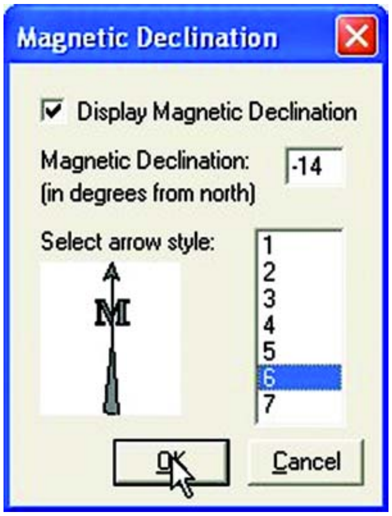
○ SouthWest

Size north arrow to be this percentage of window size: 15

2. Select arrow style: select a number; the corresponding arrow style displays.
   - Foreground brush
   - Foreground pen
   - Background brush
   - Background pen
3. If the active window is a map, these choices display:
   - Rotate north arrow to match projection.
   - Point north arrow to top of map.
   - Insertion Corner: designate the corner in which the arrow will display.
   - NorthWest
   - NorthEast
   - SouthEast
   - SouthWest
   - Size north arrow to be this percentage of window size:
   - Magnetic Declination: Choose to display the Magnetic Declination Dialog.

Magnetic Declination Dialog

Display Magnetic Declination: check to display a Magnetic Declination arrow in addition to the north arrow.



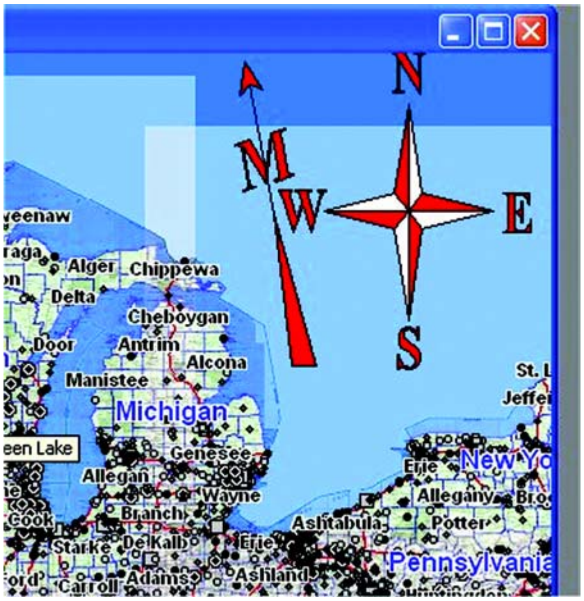
Magnetic Declination

☑ Display Magnetic Declination

Magnetic Declination: -14
(in degrees from north)

Select arrow style: 6

Magnetic Declination: (in degrees from north): Specify the declination angle. Select arrow style: Select a number; the corresponding arrow style displays.



Accessing the North Arrow Tool on the Tools Toolbar

1. Click the North Arrow button to click and drag a rectangle to a map or layout window. The North Arrow dialog displays.
2. Select arrow style: Select a number; the corresponding arrow style displays.
   - Foreground brush
   - Foreground pen
   - Background brush
   - Background pen

If the active window is a map, these choices display:

- Rotate north arrow to match projection.
- Point north arrow to top of map.

In both map and layout windows, these options display:

Use aspect ratio of the rectangle you draw: stretch the north arrow to fit the contents of the drawn arrow.

Use aspect ratio of selected north arrow: draw the arrow at original aspect ratio.

Magnetic Declination: Display the Magnetic Declination dialog.

Places Bar

MapInfo 7.0 includes the Places Bar control in the File Open and Save dialogs. There are four MapInfo Professional Places options: Table; Workspaces; MBX; Remote Table. Click to display the directory associated with the selected option. Designate each directory in Options > Preferences > Directories.

Windows 2000: Choose either MapInfo Places or Standard Places to display Places specific to MapInfo or Places specific to Windows 2000.

Preferences

Autoscroll

You can now set the default mode of this feature as a preference. (The default for this option is set to ‘on.’) To automatically enable Autoscroll for all newly created map and layout windows activate the Autoscroll option.

- Choose Options > Preferences > Map Window > Autoscroll.

The setting can be overwritten on a per window basis using the Map > Options dialog.

Default Projection

To designate a default table projection for creating new tables, importing MIF, MBI, and IMG files and for Choose Projection options in dialogs, use the Default Projection Preference > Table Projection option. The setting can be overwritten on a per window basis by selecting a different projection using the Choose Projection option.

This feature is not available for the Universal Translator, ArcLink, or Table > Import > DXF.

To designate a default table projection:

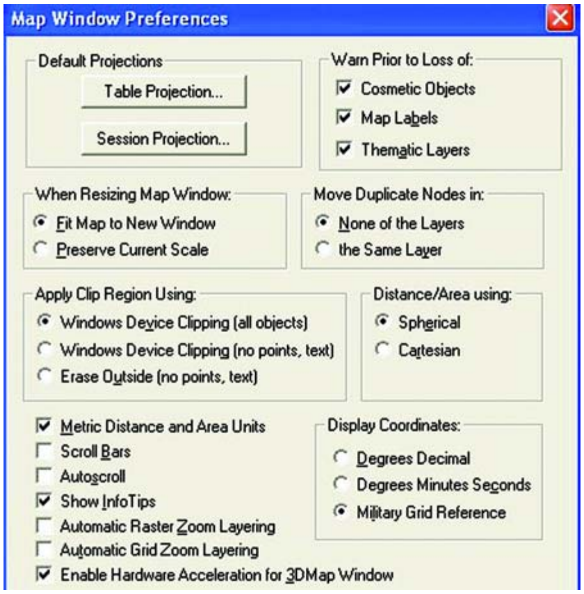
- Choose Options > Preferences > Map Window Preferences > Table Projection. The Choose Projection dialog displays.

To designate a default MapBasic projection for returning coordinate values using a MapBasic window or Update Column, use the Default Projection Preference> Session Projection option. Compiled MapBasic applications are not affected by this MapBasic session preference.

To designate a default session projection:

- Choose Options > Preferences > Map Window Preferences > Session Projection.

The Choose Projection dialog displays.



Map Window Preferences

Default Projections

Warn Prior to Loss of:
☑ Cosmetic Objects
☑ Map Labels
☑ Thematic Layers

When Resizing Map Window:
● Fit Map to New Window
○ Preserve Current Scale

Move Duplicate Nodes in:
● None of the Layers
○ the Same Layer

Apply Clip Region Using:
● Windows Device Clipping (all objects)
○ Windows Device Clipping (no points, text)
○ Erase Outside (no points, text)

Distance/Area using:
● Spherical
○ Cartesian

☑ Metric Distance and Area Units
□ Scroll Bars
□ Autoscroll
☑ Show InfoTips
□ Automatic Raster Zoom Layering
□ Automatic Grid Zoom Layering
☑ Enable Hardware Acceleration for 3DMap Window

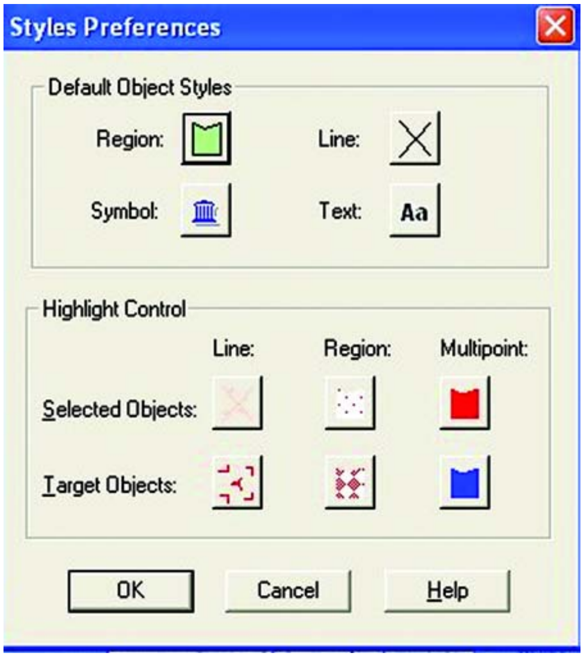
Display Coordinates:
○ Degrees Decimal
○ Degrees Minutes Seconds
● Military Grid Reference

Default Styles

Designate defaults for Line, Region, Symbol, and Text styles. Additionally, designate highlight controls for selected and target objects.

To designate a Default Style:

- Choose Options > Preferences > Styles. The Styles Preferences dialog displays.



The setting can be overwritten on a per window basis using the Map > Options dialog.

Places Bar Directory

MapInfo 7.0 includes a Places Bar in the File Open and Save dialogs. Use this option to quickly access the specified directory. There are four MapInfo Professional Places options: Table; Workspaces; MBX; Remote Table. Designate each directory in Options > Preferences > Directories.

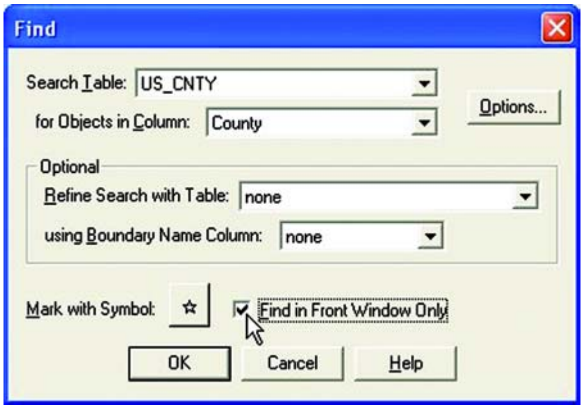
To designate Places Bar directories:

- Choose Options > Preferences > Directories.

  The Directories Preferences displays. Use the Initial Directories for File Dialogs to designate the directory paths.

Query Find in Front Window Only

Check the ‘Find in Front Window only’ option from the Find Dialog to perform the Find Option only in the front window of a Map, Redistrict or Browse window.



Find

Search Table: US_CNTY

for Objects in Column: County

Optional

Refine Search with Table: none

using Boundary Name Column: none

Mark with Symbol: ☆

☑ Find in Front Window Only

If features are found, they will be marked with a symbol in a Map window. The Browser window will be scrolled so that the record appears in the browser view.

Raster Handlers

MapInfo Professional 7.0 includes two raster handlers that support the 5 raster formats frequently used by government agencies:

ADRGASRP.rhl supports ADRG and ASRP formats. The default file extension is *.gen.

CADRGCIB.rhl supports CADRG, CIB, and NITF. The default extension is *.ntf.

The ADRG format default file extension: *.gen.

The ASRP format default file extension: *.gen.

CADRG format can have any file extension, but the handler does not list *.*; this would make filtering useless. Type *.* in the File Open dialog, if necessary.

CIB format can have any file extension, but the handler does not list *.*; this would make filtering useless. Type *.* in the File Open dialog, if necessary.

The NITF format default file extension: *.ntf.

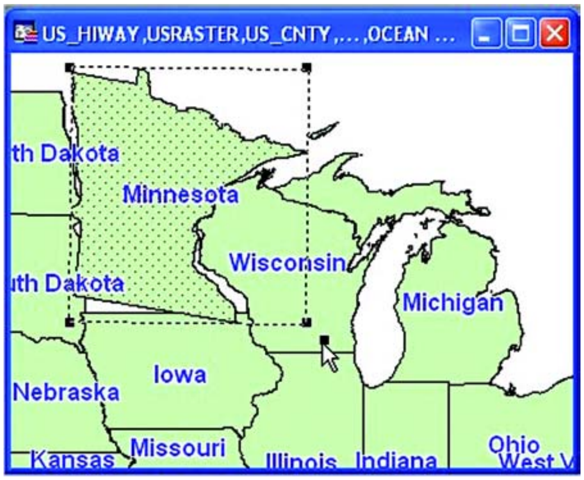
Sample files can be found at http://164.214.2.51/ntb/baseline/software/testfile/nitfv1.1/scen_1_1.html.

Rotate Objects

Rotate graphical objects, in addition to text and labels. These objects can be rotated: lines, polylines, polygon, multipoint, collection, arc, ellipse, rectangle, rounded rectangle. An arc, ellipse, rectangle and rounded rectangle are converted to a polyline or polygon so the nodes can be rotated. Points cannot be rotated.

To rotate an object:

- Select an object from an editable layer. A rotation handle displays to the right and below the lower right corner of the MBR of the selected object.



Saving Individual Themes

For individual value themes, you now can save the actual categories in a theme template. For example: If you choose to build an individual value theme on a table to show land usage, you can assign a different region style to each type of land usage (commercial, forest, residential, farm land, etc). You may then want to take those same assignments and apply them to another table. In previous versions, unless the second table had the same categories as the first table upon which the theme was built, the categories and their associated region styles would not be the same. If you you store the category in the template, it will be associated appropriately when the template is applied to that second table.

The following checkbox has been added to the Save Theme to Template dialog:

Save Individual Value Categories

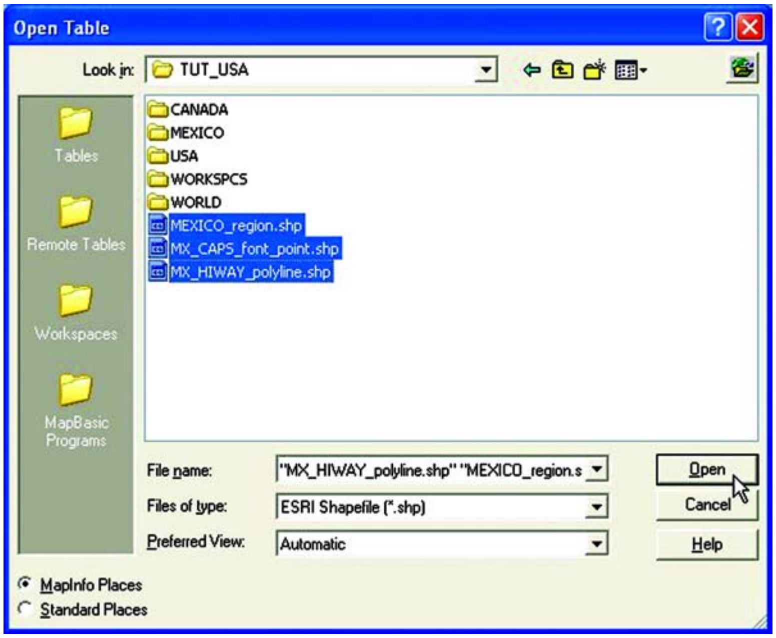
Enabled only if the current theme is an individual value theme. Allows you to save the individual category names with their corresponding styles in the selected theme template.

Shapefile Support

Open Shapefiles directly using the Open File dialog.

To open a Shapefile:

1. Choose File > Open Table.



Open Table

Look in: TUT_USA

CANADA
MEXICO
USA
WORKSPCS
WORLD
MEXICO_region.shp
MX_CAPS_font_point.shp
MX_HIWAY_polyline.shp

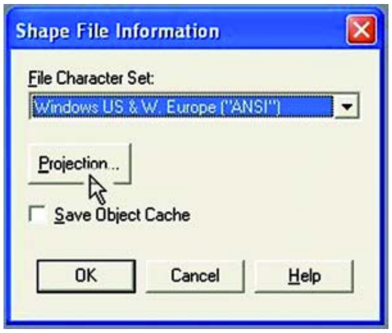
File name: "MX_HIWAY_polyline.shp" "MEXICO_region.s

Files of type: ESRI Shapefile (*.shp)

Preferred View: Automatic

● MapInfo Places
○ Standard Places

2. In the Files of Type drop down, choose Shapefile. The Shapefile Information dialog displays.



Shape File Information

File Character Set: Windows US & W. Europe ("ANSI")

□ Save Object Cache

This information is necessary only when you register a Shapefile the first time.

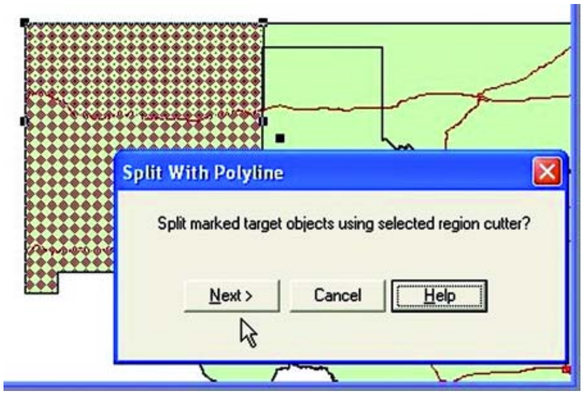
Shapefile Information Dialog.

File Character Set:	Specify the character set used by the file; different platforms use different character sets.
Projection	The default projection is designated in Options > Preferences > Map Window.
Style	Display the appropriate Style dialog.
Save Object Cache	Check to create a map file. Leave unchecked to recreate the map file each time the file is opened.

Split by Polyline

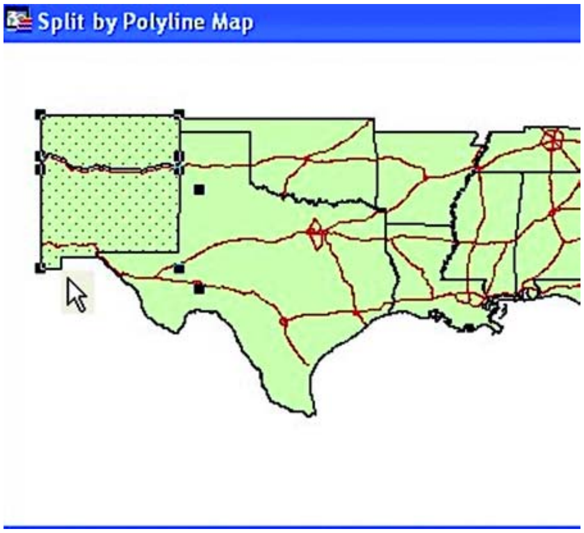
Split by polyline is enabled when there is an editable target and polyline objects selected as cutters. Target objects include points, multipoints, polylines, arcs, regions, and other closed objects. The objects selected as cutters must be contiguous, non-branching polyline objects.

- Choose Objects > Split by Polyline.



Split With Polyline

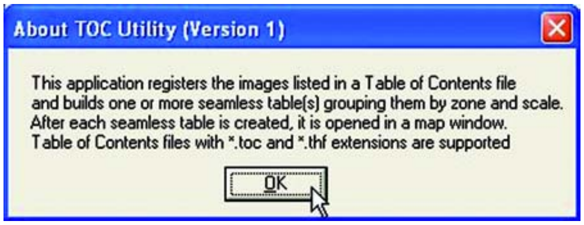
Split marked target objects using selected region cutter?



TOC Utility

Use the TOC utility to build a seamless table of all the files listed in a TOC file. This utility will create one or more seamless tables, grouped by zone and resolution.

- Choose Tools > TOC Utility. The Table of Contents Utility dialog displays.



This application registers the images listed in a Table of Contents file and builds one or more seamless table(s) grouping them by zone and scale. After each seamless table is created, it is opened in a map window. Table of Contents files with *.toc and *.thf extensions are supported

TOC Filename and location

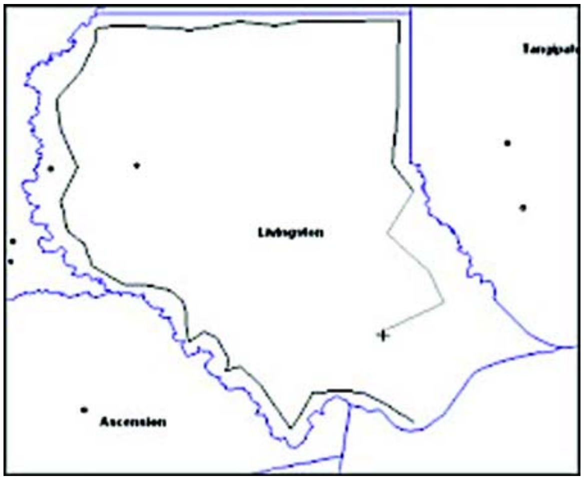
Destination directory for Raster Tab files

Destination directory for seamless tables

Choose Browse to display a list of available destinations.

Undo Nodes During Interactive Polyline/Polygon Creation

Use the backspace key to undo the last node when using these tools: add polyline, add polygon, custom polyline, custom polygon, polygon search, ruler tool. If only one node remains, it will not be deleted.



Universal Translator

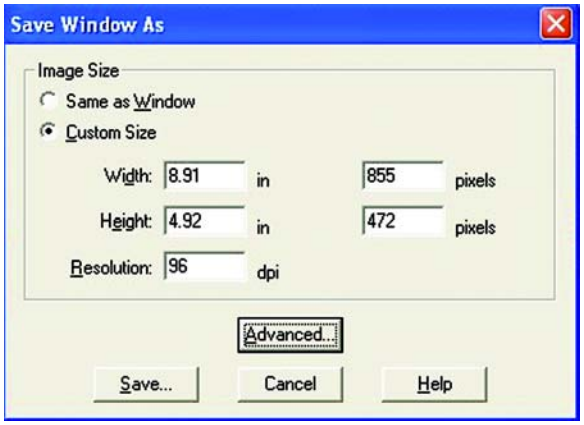
The Universal Translator now supports bounded, affined, and affine and bounded projections. This ability significantly increases the precision of files brought into MapInfo using the Universal Translator.

Translating VPF (Vector Product Format) files is not working in the BETA release.

User Defined Resolution

Specify resolution when exporting images to raster formats using Save Window As.

- Choose File > Save Window As. The Save Window As dialog displays.



Save Window As

Image Size

○ Same as Window

● Custom Size

Width: 8.91 in 855 pixels

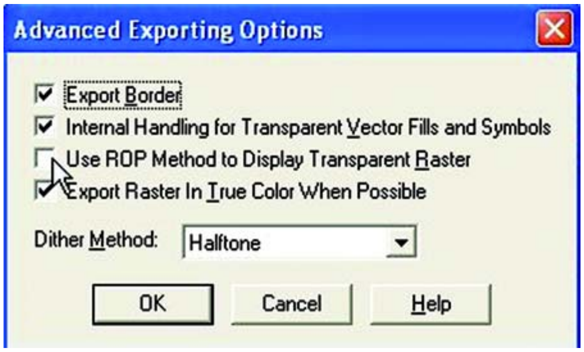
Height: 4.92 in 472 pixels

Resolution: 96 dpi

Designate Height and Width in pixels.

Designate Resolution in DPI (dots per inch).

Do not enter invalid (out of range) values for height/width in pixels, an error will occur producing an infinite loop.



Advanced Exporting Options

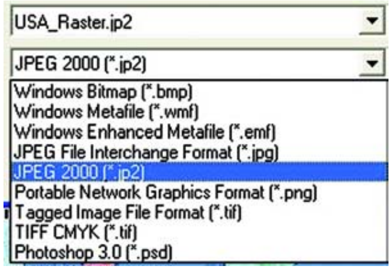
☑ Export Border

☑ Internal Handling for Transparent Vector Fills and Symbols

□ Use ROP Method to Display Transparent Raster

☑ Export Raster In True Color When Possible

Dither Method: Halftone



USA_Raster.jp2

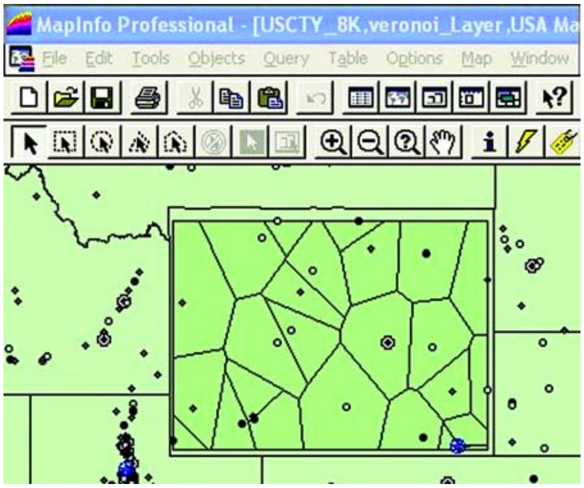
JPEG 2000 (*.jp2)

Windows Bitmap (*.bmp)
Windows Metafile (*.wmf)
Windows Enhanced Metafile (*.emf)
JPEG File Interchange Format (*.jpg)
JPEG 2000 (*.jp2)
Portable Network Graphics Format (*.png)
Tagged Image File Format (*.tif)
TIFF CMYK (*.tif)
Photoshop 3.0 (*.psd)

For the BETA version, some JPEG 2000 compressed images do not open correctly.

Voronoi Polygons

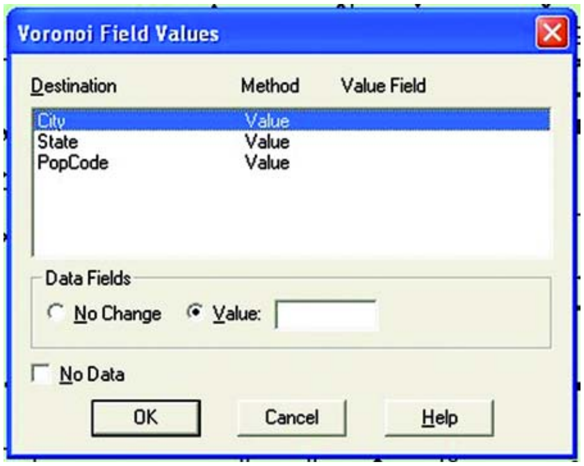
The Voronoi diagram is a partition of space into cells, each is an area in which the contained points are closer to the enclosed site than to any others. Use MapInfo Professional 7.0 to generate these polygons from an input set of points.



The Voronoi option is active when there is a current selection which contains at least three point objects. The selection may contain other objects, but these objects will be ignored.

To create a Voronoi polygon:

- Choose Objects > Voronoi. The Voronoi Field Values dialog displays.



Voronoi Field Values

Destination	Method	Value Field
City	Value	
State	Value	
PopCode	Value	

Data Fields

○ No Change ● Value:

□ No Data

Destination:

A list of column names appears in the upper half of the dialog. To select one column name from the list, click on that column name. To select a group of column names, shift-click. To select or de-select one column at a time, control-click.

Method:

No Change: Leave the selected columns unchanged.

Blank: Choose Blank to store blank values in the selected column(s).

To store blank values in all columns, check the No Data checkbox. Only choose the Blank option when you want to blank out individual columns.

Value:

The Value option is a radio button with an associated text edit field.

Choose the Value option to store the value displayed in the edit field in the new row. Enter an appropriate value in the field.

No Change

Leave the selected column unchanged.

No Data: Specify No Data to show blank values in the table of the newly created regions.

MapBasic 7.0 Features and Enhancements

Create Cutter statement (new)

Purpose

Use the **Create Cutter** statement to create a Region object from Polyline object that is then suitable to be used for an **Objects Split** operation.

Given a set of Target objects, and a set of polylines as a selection object, this statement will produce a Region object that can be used as a cutter for an **Object Split** operation, as well as a new set of Target objects which may be a subset of the original set of Target objects.

Syntax

Create Cutter Into Target

Description

Before using **Create Cutter**, one or more Polyline objects must be selected, and an editable target must exist. The editing target may have been set by the user choosing Objects > Set Target, or it may have been set by the MapBasic statement **Set Target**. The Polyline objects contained in the selection must represent a single, contiguous section. If the Polyline selection objects were to be combined into a single object, that object should consist of a single section contiguous Polyline, containing no breaks or self intersections.

Each Target object is evaluated to determine if it would be a valid object to Split with the Polyline. This is done by determining if the Polyline intersects the MBR of the Target. The Polyline need not intersect the Target object itself, as the Target object could be a series of islands (e.g., Hawaii), and the Polyline could be used to divide the islands into 2 sets without actually intersecting any of the islands. If the MBR of a Target does not intersect the Polyline, then that Target will be removed from the Target list.

Given this revised set of Target objects, a cumulative MBR of all of these objects is calculated. This represents the overall space to be split. The polyline is then extended, if necessary, such that it covers the MBR. This is done by taking the direction of the last 2 points on each end of the polyline and extending the polyline in that cartesian direction until it intersects with the MBR. The extended Polyline should divide the Target space into 2 portions. One Region object will be created and returned which represents one of these 2 portions.

This statement will return the revised set of Target objects (still set as the Target), as well as this new Region cutter object. This Region object will be inserted into the Target table (which has to be an editable table). The original Polyline object(s) will remain, but will no longer be selected. The new Region object will now be the selected object.

If the resulting Region object is suitable, then this operation can be immediately followed by an Objects Split operation, as appropriate Target objects are set, and a suitable Region cutter object is selected.

Note: The cutter object still remains in the target layer. You will have to delete the cutter object manually from your editable layer

Create Map Statement (Enhancement)

This enhancement to the Using clause provides an easy method to completely clone the structure of a table.

Purpose

Modifies the structure of a table, making the table mappable.

Syntax

Create Map

For *table*

[**CoordSys...** | **Using** *from_table*]

table is the name of an open table

CoordSys... is a CoordSys clause

Description

The **Create Map** statement makes an open table mappable, so that it can be displayed in a Map window.

This statement does not open a new Map window. To open a new Map window, use the **Map** statement

You should not perform a **Create Map** statement on a table that is already mappable; doing so will delete all map objects from the table. If a table already has a map attached, and you wish to permanently change the projection of the map, use a **Commit Table As** statement. Alternately, if you wish to temporarily change the projection in which a map is displayed, issue a **Set Map** statement with a **CoordSys** clause.

The **Create Map** statement does not work on linked tables. To make a linked table mappable, use the **Server Create Map** statement.

Specifying the Coordinate System

Use one of the following two methods to specify the coordinate system:

Provide the name of an already open mappable table as the *from_table* portion of the **Using** clause. In this case, the coordinate system used will be identical to that used in the *from_table.* The *from_table* must be a currently open table, and must be mappable or an error will occur.

Explicitly supply the coordinate system information through a **CoordSys** clause.

If you omit both the **CoordSys** clause and the **Using** clause, the table will use the default coordinate system (as set in preferences)

Create Object Statement for Voronoi Polygons

Purpose

Creates one or more regions by performing a Buffer, Merge, Intersect, Union, Convex Hull, or Voronoi operation.

Syntax

Create Object As { **Buffer** | **Union** | **Intersect** | **Merge** | **ConvexHull** | **Voronoi** }

From fromtable

[**Into** { **Table** intotable | **Variable** varname }]

[**Width** bufferwidth [**Units** unitname]] [**Type** { **Spherical** | **Cartesian** }]]

[**Resolution** smoothness]

[**Data** column = expression [, column = expression . . .]]

[**Group By** { column | **RowID** }]

Description

The Create Object statement creates one or more new region objects, by performing a geographic operation (Buffer, Merge, Intersect, Union or ConvexHull) on one or more existing objects.

The Into clause specifies where results are stored. To store the results in a table, specify Into Table. To store the results in an Object variable, specify Into Variable. If you omit the Into clause, results are stored in the source table. Note: if you specify a Group By clause to perform data aggregation, you must store the results to a table rather than a variable.

The keyword which follows the As keyword dictates what type of objects will be created.

Specify Voronoi to create regions that represent the Voronoi solutions of the input points. The data values from the original input points can be assigned to the resultant polygon for that point by specifying data clauses.

Create Table Statement Enhancements

Combine Objects Using Column Enhancement

In this version, you will now be able to create a new table as part of the "Combine Objects Using Column" functionality. An existing table will be created based on an existing table by expanding the Create Table statement to include a Using clause.

Table Creation for DBMS Servers

The ability to create new tables on DBMS Servers had been included in version 7.0 from the ODBC Type clause in the Create Table statement.

Create Table Statement

Purpose

Creates a new table.

Syntax

Create Table *table*
{ **(** *column columntype [, . . .]* **)** | **Using** *from_table* }
[**File** *filespec*]
[{ **Type NATIVE** |
Type DBF [**CharSet** *char_set*] |
Type { **Access** | **ODBC** } **Database** *database_filespec* [**Version** *version*] **Table** *tablename*
[**Password** *pwd*] [**CharSet** *char_set*]
}]
[**Version** *version*]

table is the name of the table as you want it to appear in MapInfo.

column is the name of a column to create. Column names can be up to 31 characters long, and can contain letters, numbers, and the underscore (_) character. Column names cannot begin with numbers.

from_table is the name of a currently open table. The *from_table* must be a base table, and must contain column data. Query tables and raster tables can't be used and will produce an error. The column structure of the new table being created will be identical to this table.

CurrentBorderPen() function (new)

Purpose

Returns the current border pen style currently in use.

Syntax

CurrentBorderPen( )

Return Value

Pen

Description

The CurrentBorderPen( ) function returns the current Border Pen style. MapInfo assigns the current style to the border of any region objects drawn by the user. If a MapBasic program creates an object through a statement such as Create Region, but the statement does not include a Pen clause, the object uses the current BorderPen style.

The return value can be assigned to a Pen variable, or may be used as a parameter within a statement that takes a Pen setting as a parameter (such as Set Map).

To extract specific attributes of the Pen style (such as the color), call the StyleAttr( ) function.

For more information about Pen settings, see the Pen clause.

Example

```
  Dim p_user_pen As Pen   p_user_pen = CurrentBorderPen( )
```

See Also

Working with styles (pen, brush, symbol, font)

CurrentLinePen( ) function (new)

Purpose

Returns the Pen (line) style currently in use.

Syntax

CurrentLinePen( )

Return Value

Pen

Description

The CurrentLinePen( ) function returns the current Pen style. MapInfo assigns the current style to any line or polyline objects drawn by the user. If a MapBasic program creates an object through a statement such as Create Line, but the statement does not include a Pen clause, the object uses the current Pen style. The return value can be assigned to a Pen variable, or may be used as a parameter within a statement that takes a Pen setting as a parameter (such as Set Map).

To extract specific attributes of the Pen style (such as the color), call the StyleAttr( ) function.

For more information about Pen settings, see the Pen clause.

Example

```
Dim p_user_pen As Pen   p_user_pen = CurrentPen( )
```

See Also

Working with styles (pen, brush, symbol, font)

CurrentPen( ) function Enhancement

In version 7.0, CurrentPen() will also set the border pen to the same as the line pen. If the user just wants the current line pen without re-setting the border pen, they should use CurrentLine.

New DBMS function

Server <connection handle> Create Table <table>

Creates a table on a DBMS server using SQL syntax Pro currently uses for tables, making this server independent. This functionality may also be achieved using the databases native syntax through the Server Execute statement.

DocumentWindow Control in MapBasic Dialog

Allows a MapBasic programmer to add a window in a MapBasic dialog that can display a map, legend, etc. The DocumentWindow control in a dialog will be used in conjunction with the Set Next Document statement in Integrated Mapping.

Control DocumentWindow statement (new)

Purpose

Part of a Dialog statement; adds a document window control to a dialog which can be reparented for integrated mapping.

Syntax

Control DocumentWindow
[**Position** *x* , *y*]
  Width *w*] [**Height** *h*]

[*ID control_ID*]

[Disable] [Hide]

x , y specifies the control's position in dialog units

w specifies the width of the control in dialog units; default width is 100

h specifies the height of the control in dialog units; default height is 100

control_ID is an Integer; cannot be the same as the ID of another control in the dialog

Disable grays out the control initially

Hide initially hides the control

Description

If a Dialog statement includes a Control DocumentWindow clause, the dialog includes a document window control that can be reparented using Set Next Document.

Example

The following example draws a legend in a dialog:

```
Control DocumentWindow
  ID ID_LEGENDWINDOW
   Position 160, 20
   Width 120 Height 150
```

The dialog handler will need to reparent the window. Here's an example:

```
Sub DialogHandler
  OnError Goto HandleError
  Dim iHwnd As Integer
  Alter Control ID_LEGENDWINDOW Enable Show
  ' draw the legend
  iHwnd = ReadControlValue(ID_LEGENDWINDOW)
  Set Next Document Parent iHwnd Style WIN_STYLE_CHILD
  Create Legend
  Exit Sub
HandleError:
  Note "DialogHandler: " + Error$()
End Sub
```

New GetFolderPath$() function

Purpose

Return the path of a special MapInfo or Windows folder.

Syntax

GetFolderPath$(*folder_id*)

folder_id is one of the following values

FOLDER_MI_APPDATA

FOLDER_MI_LOCAL_APPDATA

FOLDER_MI_PREFERENCE

FOLDER_MI_COMMON_APPDATA (new to version 7.0)

FOLDER_APPDATA
FOLDER_LOCAL_APPDATA
FOLDER_COMMON_APPDATA
FOLDER_COMMON_DOCS
FOLDER_MYDOCS
FOLDER_MYPICS

Return Value

String

Description

Given the id of a "special" MapInfo or Windows folder, the GetFolderPath$() function returns the path of the folder. An example of a special Windows folder is the My Documents folder. An example of a special MapInfo folder is the preference folder; the default location to which MapInfo write out the preference file.

Note that the location of many of these folders varies between versions of Windows. They can also vary depending on which user is logged in.

Note that ids beginning in FOLDER_MI return the path for MapInfo specific folders. The rest of the ids return the path for Windows folders and correspond to the ids defined for WIN32 API function SHGetFolderPath. The most common of these ids have been defined for easy use in MapBasic applications. Any id valid to SHGetFolderPath will work with GetFolderPath$().

Labeling Partial Objects

Currently, Labeling Partial Segments can be set in MapBasic using the Set Map command Layerclause, Labelclause Partial Segments option and the LayerInfo function. For MapInfo Professional Version 7.0, there are changes to the Partial Segment functionality.

PartialSegments. Controls whether MapInfo labels an object when the object's centroid is not in the visible portion of the map. If you specify **PartialSegments On** (which corresponds to checking the Label Partial Objects check box), MapInfo labels the visible portion of the object. If you specify **PartialSegments Off,** an object will only be labeled if its centroid appears in the Map window. For MapInfo Professional 7.0, this feature has been expanded to all object types. For versions prior to 7.0, only linear objects where effected.

LayerInfo( ) function

attribute code	LayerInfo( ) Return Value
LAYER_INFO_LBL_PARTIALSEGS	Logical value; TRUE if the Label Partial Objects check box is checked for this layer.

New LocateFile$() function

Purpose

Return the path to one of MapInfo application data files.

Syntax

LocateFile$(*file_id*)

file_id is one of the following values

LOCATE_PREF_FILE	preference file (mapinfow.prf)
LOCATE_DEF_WOR	default workspace file (mapinfow.wor)
LOCATE_CLR_FILE	color file (mapinfow.clr)
LOCATE_PEN_FILE	pen file (mapinfow.pen)
LOCATE_FNT_FILE	symbol file (mapinfow.fnt)
LOCATE_ABB_FILE	abbreviation file (mapinfow.abb)
LOCATE_PRJ_FILE	projection file (mapinfow.prj)
LOCATE_MNU_FILE	menu file (mapinfow.mnu)
LOCATE_CUSTSYMB_DIR	custom symbol directory (custsymb)
LOCATE_THMTMPLT_DIR	theme template directory (thmtmpl)
LOCATE_GRAPH_DIR	graph support directory (GraphSupport)

Return Value

String

Description

Given the id of a MapInfo application data file, returns the location where MapInfo found that file. In versions prior to 6.5 these files where, for the most part, installed into the progra mdirectory (same directory as mapinfow.exe). As of 6.5, MapInfo installs these files under the user's Application Data directory, but there are several valid locations for these files, including the program directory. MapBasic applications should not assume the location of these files, instead LocateFile$() should be used to determine the actual location.

New SessionInfo( ) function

Purpose

Returns various pieces of information about a running session of MapInfo.

Syntax

SessionInfo(*attribute*)

attribute is an Integer code indicating which session attribute to query.

Return Value

String

Description

The SessionInfo( ) function returns information about MapInfo's session status. The attribute can be any of the codes listed in the table below. The codes are defined in MAPBASIC.DEF.

attribute code	**SystemInfo( ) Return Value**
SESSION_INFO_COORDSYS_CLAUSE	String result, indicates a session's CoordSys clause.
SESSION_INFO_DISTANCE_UNITS	String result, indicates a session's distance units.
SESSION_INFO_AREA_UNITS	String result, indicates a session's area units.
SESSION_INFO_PAPER_UNITS	String result, indicates a session's paper units.

Error Conditions

ERR_FCN_ARG_RANGE error generated if an argument is outside of the valid range

Example

```
Include "mapbasic.def"
print SessionInfo(SESSION_INFO_COORDSYS_CLAUSE)
```

Raster Transparency Updates in the Set Window Statement

The Set Window statement now accommodates new methods for handling transparency in raster (and grid) images.

Internal Handling for Transparent Raster has been replaced with Use ROP Method to Display Transparent Raster. The Transparency Raster Internal option has been removed for 7.0. However, this option will be processed without error to allow for backwards compatibility with workspaces created in versions prior to 7.0.

```
[ Transparency
          [ Raster { Device | ROP } ]
          [ Vector { Device | ROP }] ]
```

Transparency Raster. Determines how transparent pixels should be rendered. Selection of Device or ROP is dependent upon your printer driver or export file format. Sometimes the selection is made on a trial basis. You need to see which option produces the best output for you.

Transparency Raster ROP. Corresponds to the "Use ROP Method to Display Transparent Raster" option being enabled in the user interface (Preferences > Output, File > Print > Advanced button and File > Save Window As > Advanced button). When the ROP method is selected, the transparent image is rendered using a raster operation (ROP) to handle the transparent pixels. This method is used to draw transparent (non-translucent) images on-screen. This method does not always work well when printing. Some print drivers do handle the ROP method correctly though. You will need to determine if your particular print driver handles ROPs correctly. When exporting using Save Window As, it can be beneficial to use this option if the output format is a metafile (EMF or WMF). Using the ROP method allows any underlying data to be rendered in the original form. For example, vector data that is under transparent pixels will not be rasterized. In metafiles, using ROP method will not draw any data in the areas of the raster pixels, allowing the background to be truly transparent.

Transparency Raster Device. Corresponds to the "Use ROP Method to Display Transparent Raster" option disabled in the user interface (i.e. Preferences > Output, File > Print > Advanced button and File > Save Window As > Advanced button). This option rasterizes any data contained within the transparent pixel areas. It also fills in transparent pixels with the appropriate color values depending upon what is underneath the raster image. If exporting to a metafile and there is no data under transparent pixels, they will be converted to white pixels.

Transparency Vector Internal. Perform special handling when outputting transparent fill patterns or transparent bitmap symbols.

Transparency Vector Device. Turns off special handling when outputting transparent fill patterns or transparent bitmap symbols. This may cause some problems with the generated output.

ReadControlValue() function Additional Types

DocumentWindow:

Control type: ReadControlValue( ) Return Value

DocumentWindow Integer, representing the HWND for the window control. This HWND should be passed as the parent window handle in the Set Next Document Parent statement.

Rotating Objects

An object can also be rotated using MapBasic by using the new functions Rotate( ) and RotateAtPoint( ).

Rotate( ) function

Purpose:

Allows an object to be rotated about the rotation anchor point.

Syntax:

Rotate(*object*, *angle*)

Return Value:

A rotated object.

object represents an object that can be rotated. This may not be a text object. To rotate text objects, Alter Object OBJ_GEO_TEXTANGLE should be used. Rotate() and RotateAtPoint() do not rotate text objects. This source object is not altered.

angle is a float value that represents the angle (in degrees) to rotate the object.

If an arc, ellipse, rectangle or round rectangle is rotated, the resultant object will be converted to a polyline/polygon so that the nodes can be rotated.

RotateAtPoint( ) function

Purpose:

Rotates an object around a specified anchor point.

Syntax:

RotateAtPoint(*object*, *angle*, *anchor_point_object*)

Return Value:

A rotated object.

object represents an object that can be rotated. This may not be a text object. To rotate text objects, Alter Object OBJ_GEO_TEXTANGLE should be used. Rotate() and RotateAtPoint() do not rotate text objects. This source object is not altered.

angle is a float value that represents the angle (in degrees) to rotate the object.

anchor_point_object is an object representing the anchor point which the object nodes are rotated about.

If an arc, ellipse, rectangle or round rectangle is rotated, the resultant object will be converted to a polyline/polygon so that the nodes can be rotated.

Server Create Table statement (new)

Purpose

Create a new table on a specified remote database.

Sytax

Server *ConnectionNumber* **Create Table** *TableName*(*ColumnName ColumnType* [,…])
[KeyColumn *ColumnName*]

[**ObjectColumn** *ColumnName*]

[**StyleColumn** *ColumnName*]

[**CoordSys...]**

ConnectionNumber is an integer value that identifies the specifc connection to a database.

TableName is the name of the table as you want to appear in database.

ColumnName is the name of a column to create. Column names can be up to 31 characters long, and can contain letters, numbers, and the underscore(_) character. Column names can not begin with numbers.

ColumnType is the data type associated with the column.

KeyColumn clause specifies key column of the table.

ObjectColumn clause specifies spatial geometry/object column of the table.

StyleColumn clause specifies the Per Row Style column which allows the use of different object styles for each row on the table.

CoordSys... clause specifies the coordinate system and projection to be used.

Description

The **Server Create Table** statement create a new empty table on the given database up to 250 columns.

The length of *TableName* varies with databases. It is recomended to use 14 or fewer charracters for a table name in oerder to work correctly for all databases although the statement will limit the length of the tablename to maximum 31characters.

ColumnType uses the same data types defined and provided in **Create Table Statement**. Some types may be converted to the database-supported types accordingly once the table is created on the database.

If the optional **KeyColumn** clause is specified, an unique index will be created on this column. It is recommended to specify this clause and is also needed for MI Pro to open it alive.

The optional **ObjectColumn** clause indicate the user want to create a table with spatial geometry/object column. If it is specified, an spatial index will also be created on this column. However, if the server does not have the ability to handle spatial geometry/object, the table will not be created. If the server is SQL Server with SpatialWare, the table is also sptialized once the table is created. If the Server is Oracle Spatial, spatial metadata is also updated once the table is created.

The optional **CoordSys...** clause becomes mandatory only if the table is created with spatial object/geometry on Oracle Spatial(Oracle8i or later with spatial option). If the server is Oracle9i, a default datum, World Geodetic System 1984(WGS 84), will be signed to the Lat/Long coordinate system if the user provides it as Lat/Long, but does not specify the datum because a datum is required by Oracle9i if the coordinate system is Lat/Long. The Coordinate System must also be the same as the one specified in **Server Create Map Statement** when making it mappable. For other DBMS, this clause has no effect on table creation.

The supported databases include Oracle, SQL Server, IDS, and Microsoft Access. However, to create a table with spatial geometry/object, SpatialWare/Blade is required for SQL Server and IDS, and spatial option for Oracle.

Examples

The following examples shows how to create a table named ALLTYPES, containing 7 columns which cover all the data types supported by MI Pro, plus Key, SpatialObject, and Style columns, a total 10 columns.

For SQL Server with SpatialWare or IDS with SpatialWare Blade:

```
   dim hodbc as integer
   hodbc = server_connect("ODBC", "dlg=1")
   Server hodbc Create Table ALLTYPES( Field1 char(10),Field2 
integer,Field3 smallint,Field4 float,Field5 decimal(10,4),Field6 
date,Field7                            logical)
   KeyColumn SW_MEMBER
   ObjectColumn  SW_GEOMETRY
   StyleColumn    MI_STYLE
```

For Oracle Spatial:

```
   dim hodbc as integer
   hodbc = server_connect("ORAINET", 
"SRVR=cygnus;UID=mipro;PWD=mipro")
   Server hodbc Create Table ALLTYPES( Field1 char(10),Field2 
integer,Field3 smallint,Field4 float,Field5 decimal(10,4),Field6 
date,Field7                                logical)
   KeyColumn MI_PRINX
   ObjectColumnGEOLOC
   StyleColumnMI_STYLE
   CoordsysEarth Projection 1, 0
```

See also

Create Table, Server Create Map .

Beta Issues with Server Create Table

1. Cannot insert date format into table created with the Server Create Table Function on Oracle XY databases
2. MapInfo will crash when inserting records into a LIVE table that is created with the Server Create Table Function on Oracle databases
3. Primary Key Column not created correctly on databases that do not support autoincrimention when using the Server Create Table Function
4. Cannot insert objects into an Oracle table that was created using the Server Create Table Function without manually making the table mappable and entering the correct Projection that was inserted into the USER_SDO_GEOM_METADATA.

Set Style statement (New)

Purpose

Resets the current Pen, Brush, Symbol or Font style.

Syntax

Set Style { Brush ... | Font ... | Pen ... | BorderPen… | LinePen…
| Symbol ... }

Brush clause specifies a fill style

Font clause specifies a text style

Pen clause specifies a line style

BorderPen takes a Pen clause which specifies a border line style

LinePen takes a Pen clause which specifies a line style

Symbol clause specifies a point style

Description

The Set Style statement resets the Pen, Brush, Symbol or Font style currently in use.

The Pen clause sets both the line and border pen. To set them individually, use the LinePen clause to set the line and the BorderPen clause to set the border.

When the user draws a new graphical object to a Map or Layout window, MapInfo creates the object using whatever Font, Pen, Brush, and/or Symbol styles are currently in use.

For more information about Pen, Brush, Symbol, and Font parameters, see the discussions of the Pen, Brush, Font and Symbol clauses.

Example of Brush, Symbol and Font

```
Include "mapbasic.def"
Set Style Brush MakeBrush(64, CYAN, BLUE)
Set Style Symbol MakeSymbol( 9, BLUE, 14)
Set Style Font MakeFont("Helv", 1, 14, BLACK,WHITE)
```

Example of Pen

In this example the line pen is red and the border pen is red.

```
Include "mapbasic.def"
Set Style Pen MakePen(3, 9, RED)
```

Example of LinePen and BorderPen

In this example the line pen is red and the border pen is green.

```
Include "mapbasic.def"
Set Style LinePen MakePen(6, 77, RED)
Set Style BorderPen MakePen(6, 77, GREEN)
```

User Defined Resolution and JPEG 2000 support

Additions to the Save Window command allows users to width/height using pixels and the resolution (DPI) when exporting images to raster formats using Save Window As. Also, The Resolution setting will allow the Save Window command to support a new format - JPEG 2000

```
Save  Window  window_id
   As  filespec
   Type  filetype
   [ Width  image_width   [ Units paper_units ]  ]
   [ Height  image_height [ Units paper_units ]  ]
     [ RESOLUTION output_dpi ]
   [ Copyright notice   [ Font ... ]  ]
```

window_id is an Integer Window ID representing a Map, Layout, Graph, Legend, Statistics, Info, or Ruler window; to obtain a window ID, call a function such as FrontWindow( ) or WindowID( )

filespec is a String representing the name of the file to create

filetype is a String representing a file format:

- BMP specifies Bitmap format;
- EMF specifies Windows Enhanced Metafile format.
- J2K specifies JPEG 2000 format;
- JPEG specifies JPEG format;
- PNG specifies Portable Network Graphics format;
- PSD specifies Photoshop 3.0 format;
- TIFF specifies TIFF format;
- TIFFCMYK specifies TIFF CMYK format;
- WMF specifies Windows Metafile format;

image_width is a number that specifies the desired image width

image_height is a number that specifies the desired image height

output_dpi is a number that specifies the output resolution in DPI (dots per inch)

paper_units is a string representing a paper unit name (e.g. "cm" for centimeters)

notice is a string that represents a copyright notice; it will appear at the bottom of the image

The **Font clause** specifies a text style

Final Release Information

While not included in this Beta version, we plan to include the following in the shipping version of MapInfo Professional 7.0:

- Updated reporting engine, Crystal Reports 8.5 – With Crystal 8.5 a new set of functionality will be provided. Some of the new functions are: Microsoft Access back end database system, publish to the html, Export to XML and PDF, OLE 2 embedding and much more
- Support for import and export of GML v2 file format
- Smart Update: an easy way to check for product upgrades
- Designed for Microsoft Windows XP, including XP Professional and XP Home
- Certified for Microsoft Windows 2000
- Support for Windows 98 SR2 and NT 4.0 SP 6