

EVOLUTION OF MAPBASIC :

part 1

MapBasic Language

from version 3.0 to version 6.5

for the Windows environment

A compilation by

Jacques Paris

jakesp@total.net

11/02/2002

Presentation and warning

This document is a compilation of all the changes (additions and modifications) that I was able to discover in the various versions of MapBasic since the original Windows v.3.0. It deals only with the basic elements of the language, note with its syntax and rules of use. The elements I considered are the functions, statements, clauses and procedures listed in the various MI/MB documents printed and electronic.

Functions, clauses and procedures are identified by a single word. Changes to such elements will be mostly modifications to the number of parameters that are attached to the elements (e.g. the various syntaxes of the Symbol clause) or to the range of values compatible with the parameters (e.g. the width parameter in the Pen clause).

Most of the statements are composed of more than one word. These identifiers that are of course required can also be accompanied by key words; some are themselves required and could be considered as part of the identifier, others are optional or exist as alternatives. Changes to statements will mainly deal with the addition of options reflected by new key words and with the ranges of the parameters associated with certain key words. Modifications in the clauses are not reflected in the description of the statements history to avoid cumbersome repetitions.

I have composed this document on the basis of the MapBasic.hlp for every version from 3.0 to 6.0 (4.0, 4.1, 4.12, 4.5, 5.0, 5.5) and of the MapBasic.def version 6.0 for the numeric codes. I started from the 6.0 definitions, compared them with the original version

and traced the differences to the intermediate versions. I also used various documents pointing at changes that have occurred in different versions.

To show the continuity with the earliest versions, I have also included the references to an add-on to version 3.0 called SQL DataLink, even if most of the related statements and functions will not work without the presence of the add-on.

The quality of the information contained in this document is as good (dismissing the transcription and interpretation errors I have certainly made) as the information in these files is good. There are some cases where it is obvious that there are some discrepancies between Hlp and Def files, - where some options may have been available earlier than their appearance in the Help files leave one to think, - where changes in some part of the Help have not been reflected onto other parts.

There are also instances where the explanatory texts have been modified since their original version. I have not taken these variations into account if they did not correspond to known changes.

In short, if I am confident in the quality of my work, I would recommend to use it with a certain caution, mainly in the absence of any official endorsement by MapInfo. Any correction, precision, addition should be notified to the author who counts on such contributions to enhance the quality of the document.

Jacques Paris

Contents

Alphabetical list of MapBasic language elements	1
Clauses	6
Procedures	10
Functions, standard	11
Functions with attributes	14
Statements	37

MapBasic language elements

The element name is in **bold** if it was added since version 3.0. It is in *italics*, if it was modified since its creation.

The details on the creation or the changes are given under the element name in the section for its type. **Consult the section headings for details about the codification used in each section.**

A function returns a value; some use special codes called to return MI attributes.

A statement initiates an action.

A clause is used repeatedly as part of a statement.

A procedure is a reserved name for a subroutine that reacts to certain MI events.

Abs	function, standard
Acos	function, standard
Add Cartographic Frame	statement
Add Column	statement
Add Map	statement
AEEecute	function, standard
AEInitiate	function, standard
Alter Button	statement
<i>Alter ButtonPad</i>	statement
Alter Cartographic Frame	statement
Alter Control	statement
Alter MapinfoDialog	statement
Alter Menu	statement
Alter Menu Bar	statement
Alter Menu Item	statement
Alter Object	statement
<i>Alter Table</i>	statement
ApplicationDirectory\$	function, standard
Area	function, standard
AreaOverlap	function, standard
Asc	function, standard
Asin	function, standard
Ask	function, standard
Atn	function, standard
AutoLabel	statement
Beep	statement
Browse	statement
<i>Brush</i>	clause, style
Buffer	function, standard
ButtonPadInfo	function with attributes
Call	statement
CartesianArea	function, standard
CartesianBuffer	function, standard

CartesianDistance	function, standard
CartesianObjectLen	function, standard
CartesianPerimeter	function, standard
Centroid	function, standard
CentroidX	function, standard
CentroidY	function, standard
CharSet	clause
ChooseProjection\$	function, standard
Chr\$	function, standard
Close All	statement
Close File	statement
Close Table	statement
<i>Close Window</i>	statement
ColumnInfo	function with attributes
Combine	function, standard
<i>CommandInfo</i>	function with attributes
<i>Commit Table</i>	statement
Continue	statement
Control [Brush Font Pen Symbol]Picker	clause, control
Control Button/OKButton/CancelButton	clause, control
Control CheckBox	clause, control
Control EditText	clause, control
Control GroupBox	clause, control
Control ListBox/MultiListBox	clause, control
Control PopUpMenu	clause, control
Control RadioGroup	clause, control
Control StaticText	clause, control
ConvertToPline	function, standard
ConvertToRegion	function, standard
ConvexHull	function, standard
<i>CoordSys</i>	clause
Cos	function, standard
Create Arc	statement

Create ButtonPad	statement
Create ButtonPad as Default	statement
Create Cartographic Legend	statement
Create Collection	statement
Create Ellipse	statement
Create Frame	statement
Create Grid	statement
Create Index On	statement
Create Legend	statement
Create Line	statement
Create Map	statement
Create Map3D	statement
Create Menu	statement
Create Menu Bar	statement
Create MultiPoint	statement
Create Object	statement
Create Pline	statement
Create Point	statement
Create PrismMap	statement
Create Ranges	statement
Create Rect	statement
Create Redistricter	statement
Create Region	statement
Create Report from Table	statement
Create RoundRect	statement
Create Styles	statement
Create Table	statement
Create Text	statement
CreateCircle	function, standard
CreateLine	function, standard
CreatePoint	function, standard
CreateText	function, standard
CurDate	function, standard
CurrentBrush	function, standard
CurrentFont	function, standard
CurrentPen	function, standard
CurrentSymbol	function, standard
DateWidow	function with attributes
Day	function, standard
DDEExecute	statement
DDEInitiate	function, standard
DDEPoke	statement
DDERequest\$	function, standard
DDETerminate	statement

DDETerminateAll	statement
Declare Function	statement
Declare Sub	statement
Define	statement
DeformatNumber\$	function, standard
Delete	statement
Dialog	statement
Dialog Preserve	statement
Dialog Remove	statement
Dim	statement
Distance	function, standard
Do Case...End Case	statement
Do...Loop	statement
Drop Index	statement
Drop Map	statement
Drop Table	statement
End MapInfo	statement
End Program	statement
EndHandler	procedure
EOF	function, standard
EOT	function, standard
Erase	function, standard
Err	function, standard
Error	statement
Error\$	function, standard
Exit Do	statement
Exit For	statement
Exit Function	statement
Exit Sub	statement
Exp	function, standard
Export	statement
ExtractNodes	function, standard
Fetch	statement
FileAttr	function with attributes
FileExists	function, standard
FileOpenDlg	function, standard
FileSaveAsDlg	function, standard
Find	statement
Find Using	statement
Fix	function, standard
Font	clause, style
For...Next	statement
ForegroundTaskSwitchHandler	procedure
Format\$	function, standard

FormatDate\$	function, standard
FormatNumber\$	function, standard
FrontWindow	function, standard
Function...End Function	statement
Get	statement
GetFolderPath\$	function with attributes
GetMetadata\$	function, standard
GetSeamlessSheet	function, standard
Global	statement
Goto	statement
<i>Graph</i>	statement
HomeDirectory\$	function, standard
If...Then...End If	statement
<i>Import</i>	statement
Include	statement
Input #	statement
Insert	statement
InStr	function, standard
Int	function, standard
IntersectNodes	function with attributes
IsPenWidthPixels	function, standard
Kill	statement
LabelFindByID	function, standard
LabelFindFirst	function, standard
LabelFindNext	function, standard
LabelInfo	function with attributes
<i>LayerInfo</i>	function with attributes
Layout	statement
LCase\$	function, standard
Left\$	function, standard
LegendFrameInfo	function with attributes
LegendInfo	function with attributes
LegendStyleInfo	function with attributes
Len	function, standard
Like	function, standard
Line Input	statement
LocateFiles\$	function with attributes
LOF	function, standard
Log	function, standard
LTrim\$	function, standard
<i>MakeBrush</i>	function, standard
MakeCustomSymbol	function, standard
MakeFont	function, standard
MakeFontSymbol	function, standard

MakePen	function, standard
MakeSymbol	function, standard
Map	statement
Map3dInfo	function with attributes
<i>MapperInfo</i>	function with attributes
Maximum	function, standard
MBR	function, standard
Menu Bar	statement
MenuItemInfoByHandler	function with attributes
MenuItemInfoById	function with attributes
Metadata	statement
Mid\$	function, standard
MidByte\$	function, standard
Minimum	function, standard
Month	function, standard
Note	statement
NumAllWindows	function, standard
NumberToDate	function, standard
NumCols	function, standard
NumTables	function, standard
NumWindows	function, standard
<i>ObjectGeography</i>	function with attributes
<i>ObjectInfo</i>	function with attributes
ObjectLen	function, standard
ObjectNodeX	function, standard
ObjectNodeY	function, standard
Objects Check	statement
Objects Clean	statement
Objects Combine	statement
Objects Diaggregate	statement
Objects Enclose	statement
Objects Erase	statement
Objects Intersect	statement
Objects Overlay	statement
Objects Snap	statement
Objects Split	statement
OnError	statement
Open File	statement
Open Report	statement
<i>Open Table</i>	statement
Open Window	statement
Overlap	function, standard
OverlayNodes	function, standard
<i>Pack Table</i>	statement

PathToDirectory\$	function, standard
PathToFileName\$	function, standard
PathToTableName\$	function, standard
<i>Pen</i>	clause, style
PenPattern	function, standard
PenWidthToPoints	function, standard
Perimeter	function, standard
PointsToPenWidth	function, standard
Print	statement
Print #	statement
PrintWin	statement
PrismMapInfo	function with attributes
ProgramDirectory\$	function, standard
ProgressBar	statement
Proper\$	function, standard
ProportionOverlap	function, standard
Put	statement
Randomize	statement
ReadControlValue	function, standard
ReDim	statement
<i>Register Table</i>	statement
Relief Shade	statement
<i>Reload Symbols</i>	statement
RemoteMapGenHandler	procedure
RemoteMsgHandler	procedure
RemoteQueryHandler	function, standard
Remove Cartographic Frame	statement
<i>Remove Map Layer</i>	statement
Rename File	statement
Rename Table	statement
Reproject	statement
Resume	statement
RGB	function, standard
Right\$	function, standard
Rnd	function, standard
RollBack	statement
Round	function, standard
RTrim\$	function, standard
Run Application	statement
Run Command	statement
<i>Run Menu Command</i>	statement
Run program	statement
Save File	statement
<i>Save Window</i>	statement

Save Workspace As	statement
SearchInfo	function with attributes
SearchPoint	function, standard
SearchRect	function, standard
Seek	function, standard
Seek	statement
SelChangedHandler	procedure
<i>Select</i>	statement
SelectionInfo	function with attributes
Server Begin Transaction	statement
Server Bind Column	statement
Server Close	statement
Server Commit	statement
Server Create Map	statement
Server Create Style	statement
Server Disconnect	statement
Server Fetch	statement
Server Link Table	statement
Server Refresh	statement
Server RollBack	statement
Server Set Map	statement
Server_ColumnInfo	function with attributes
Server_Connect	function, standard
Server_ConnectInfo	function with attributes
Server_DriverInfo	function with attributes
Server_EOT	function, standard
Server_Execute	function, standard
Server_GetODBCHConn	function, standard
Server_GetODBCHStmt	function, standard
Server_GetQEHConn	function, standard
Server_GetQEHStmt	function, standard
Server_NumCols	function, standard
Server_NumDrivers	function, standard
Set Application Window	statement
Set Area Units	statement
Set Browse	statement
Set Cartographic Legend	statement
Set Command Info	statement
Set CoordSys	statement
Set Date Window	statement
<i>Set Digitizer</i>	statement
Set Distance Units	statement
Set Drag Threshold	statement
Set Event Processing	statement

Set File Timeout	statement
Set Format	statement
<i>Set Graph</i>	statement
Set Handler	statement
Set Layout	statement
<i>Set Legend</i>	statement
Set Map	statement
Set Map3D	statement
Set Next Document	statement
Set Paper Units	statement
Set PrismMap	statement
Set ProgressBars	statement
Set Redistricter	statement
Set Resolution	statement
Set Shade	statement
Set Style	statement
<i>Set Table</i>	statement
Set Target	statement
Set Window	statement
Sgn	function, standard
Shade	statement
Sin	function, standard
Space\$	function, standard
SphericalArea	function, standard
SphericalDistance	function, standard
SphericalObjectLen	function, standard
SphericalPerimeter	function, standard
Sqr	function, standard
<i>Status Bar</i>	statement
Stop	statement
<i>Str\$</i>	function, standard
String\$	function, standard
StringCompare	function, standard
StringCompareIntl	function, standard
<i>StringToDate</i>	function, standard
<i>StyleAttr</i>	function with attributes
Sub...End Sub	statement
<i>Symbol</i>	clause, style
<i>SystemInfo</i>	function with attributes
<i>TableInfo</i>	function with attributes
Tan	function, standard
TempFileName\$	function, standard
Terminate Application	statement
Time	function, standard

Timer	function, standard
ToolHandler	procedure
TriggerControl	function, standard
TrueFileName\$	function, standard
Type	statement
UBound	function, standard
UCase\$	function, standard
UnDim	statement
UnitAbbr\$	function, standard
UnitName\$	function, standard
Unlink	statement
Update Set	statement
Update Window	statement
Val	function, standard
Weekday	function, standard
While...Wend	statement
WinChangedHandler	procedure
WinClosedHandler	procedure
WindowID	function, standard
<i>WindowInfo</i>	function with attributes
WinFocusChangedHandler	procedure
Write #	statement
<i>Year</i>	function, standard

CLAUSES

Clause and Key word: Plain : present in version3.0 Bold : created since v3.0 Italics : modified since creation
Version: +nn added in nn nn modified in nn (nil) present in 3.0
< (to the left) applies to clause or syntax > (to the right) applies to key word or details

Style clauses	version	key words	details
<i>Brush</i>		pattern fgcolor bgcolor	1-8, 12-71
	+4.0	<i>transparency</i>	with pattern >2, omit bgcolor. With makebrush() use -1
<i>Font</i>		fontname <i>style</i>	1-7
	4.0	size fgcolor bgcolor	0-1847 (by adding basic style codes)
	+4.0	<i>transparent bg</i>	Omit bgcolor. With makebrush() use -1
<i>Pen</i>		width	1-7
	4.5		1-7 (pixels) & 10-2048 (points= 1/10 of a point +10)
		pattern	1-77
	4.5		1-117(overlapped) & 129-245(interleaved =overlapped +128) n.b. not all overlapped patterns can be interleaved
		<i>4.5 changes not explained in Help under Pen in any version =>4.5</i>	
		color	
		<i>"null" linestyle=1</i>	
<i>Symbol</i>			
3.0 Syntax		shape	31(blank) and up (originally 67)

		color	
		size	1-48
TTF Syntax	+4.0	shape	31(blank) and up (TTF code)
		color	
		size	1-48
		fontname	
		fontstyle	0-305 (by adding basic style codes)
		rotation	
Bitmap Syntax	+4.0	filename	
		color	
		size	1-48
		customstyle	0-3 (by adding basic style codes)
CharSet clause		no change in character set list in Help from 3.0 to 6.0	
CoordSys clause			
<i>CoordSys Earth Projection</i>			
	+4.12	Affine Units	
		Bounds	
<i>CoordSys Nonearth <u>Units</u> <u>Bounds</u></i>			
	+4.12	Affine Units	
CoordSys Layout Units			
Coordsys Table			
Coordsys Window			

Control clauses

Control Button/OKButton/CancelButton	position width height ID calling Title Disable Hide		eight Title Hide
Control CheckBox	position width ID calling Title value into Disable Hide		position width ID calling Title from variable value into Disable Hide
Control EditText	position width eight ID Title value into Disable Hide Password		position width height ID calling value into Disable Hide
Control GroupBox	position width		position width ID calling title from variable value into
		Control ListBox/MultiListBox	
		Control [Brush Font Pen Symbol]Picker	
		Control PopUpMenu	

Control RadioGroup			Disable
			position
			ID
			calling
			title
			from variable
			value
			into
			Disable
			Hide
Control StaticText			position
			+4.0 width
			+4.0 height
			+4.1 ID
			Title
			Hide

PROCEDURES

	version
EndHandler	+3.0
ForegroundTaskSwitchHandler	+4.0
RemoteMapGenHandler	+4.1
RemoteMsgHandler	+3.0
SelChangedHandler	+3.0
ToolHandler	+3.0
WinChangedHandler	+3.0
WinClosedHandler	+3.0
WinFocusChangedHandle	+3.0

FUNCTIONS, standard

Column 1 Function name Plain : present in version 3.0 Bold : created since v3.0 Italics : modified since creation
 Column 2 Version +nn added in nn nn modified in nn (nil) present in 3.0
 Column 3 Details < (to the left) applies to function > (to the right) applies to details
 SQL-DL = exists in the SQL DataLink add=on to version 3.0

Abs		CreatePoint		
Acos		CreateText	+4.1	
AEEExecute		<i>CurDate</i>		4.5 changed date format
AEInitiate		CurrentBrush		
ApplicationDirectory\$		CurrentFont		
Area		CurrentPen		
AreaOverlap		CurrentSymbol		
Asc		Day		
Asin		DDEInitiate		
Ask		DDERequest\$		
Atn		DeformatNumber\$	+4.0	
Buffer		Distance		
CartesianArea	+5.5	EOF		
CartesianBuffer	+5.5	EOT		
CartesianDistance	+5.5	Erase		
CartesianObjectLen	+5.5	Err		
CartesianPerimeter	+5.5	Error\$		
Centroid		Exp		
CentroidX		ExtractNodes		
CentroidY		FileExists		
ChooseProjection\$	+4.5	FileOpenDlg		
Chr\$		FileSaveAsDlg		
Combine		Fix		
ConvertToPline		<i>Format\$</i>		4.0 supports non-US date format
ConvertToRegion		FormatDate\$	+4.5	
ConvexHull	+6.0	FormatNumber\$	+4.0	
Cos		FrontWindow		
CreateCircle		GetMetadata\$	+4.0	
CreateLine		GetSeamlessSheet	+4.0	

HomeDirectory\$			PathToDirectory\$		
InStr			PathToFileName\$		
Int			PathToTableName\$		
IsPenWidthPixels	+4.5		PenPattern	+4.5	
LabelFindByID	+4.1		PenWidthToPoints	+4.5	
LabelFindFirst	+4.1		Perimeter		
LabelFindNext	+4.1		PointsToPenWidth	+4.5	
LCase\$			ProgramDirectory\$		
Left\$			Proper\$		
Len			ProportionOverlap		
Like			ReadControlValue		
LOF			RemoteQueryHandler		
Log			RGB		
LTrim\$			Right\$		
<i>MakeBrush</i>		4.0 supports transparent fill	Rnd		
MakeCustomSymbol	+4.0		Round		
MakeFont			RTrim\$		
MakeFontSymbol	+4.0		SearchPoint	+4.0	
MakePen			SearchRect	+4.0	
MakeSymbol			Seek		
Maximum			Server_Connect	+4.0,4.5,5.5	new connect_strings
MBR				+6.5	
Mid\$			Server_EOT	+4.0	SQL-DL
MidByte\$			Server_Execute	+4.0	SQL-DL
Minimum			Server_GetODBCHConn	+4.5	Not 4.1
Month			Server_GetODBCHStmt	+4.5	
NumAllWindows	+4.0		Server_GetQEHCConn	+4.0	disappears in 4.5
NumberToDate	+4.0		Server_GetQEHCStmt	+4.0	disappears in 4.5
NumCols			Server_NumCols	+4.0	SQL-DL
NumTables			Server_NumDrivers	+4.0	SQL-DL
NumWindows			Sgn		
ObjectLen			Sin		
ObjectNodeX			Space\$		
ObjectNodeY			SphericalArea	+5.5	
Overlap			SphericalDistance	+5.5	
OverlayNodes			SphericalObjectLen	+5.5	

SphericalPerimeter	+5.5		TriggerControl		
Sqr			TrueFileName\$		
Str\$		4.0	UBound		
String\$			UCase\$		
StringCompare			UnitAbbr\$		
StringCompareIntl			UnitName\$		
<i>StringToDate</i>			Val		
Tan		4.0,5.5	Weekday		
TempFileName\$			WindowID		
Time	+4.12		Year		5.5
Timer					changed behaviour with date window

FUNCTIONS WITH ATTRIBUTES

Attribute code	Plain : present in original version	Bold : created since original	Italics : modified since creation
Version	+nn added in nn	nn modified in nn	(nil) present in original
Code	< (to the left) applies to attribute	> (to the right) applies to code / return value	
Return value	numerical value (defined in mapbasic.def); to be used in MapBasicWindow or requesters	< (to the left) applies to attribute	> (to the right) applies to return value

BUTTONPADINFO()

original version= **4.0**

attribute code	version	code	ButtonPadInfo() Return Value
BTNPAD_INFO_FLOATING		1	TRUE means the pad is floating, FALSE the pad is docked.
BTNPAD_INFO_NBTNS		3	number of buttons on the pad.
BTNPAD_INFO_WIDTH		2	The width of the pad, expressed as a number of buttons (not including separators).
BTNPAD_INFO_WINID		6	window ID of the specified pad.
BTNPAD_INFO_X		4	A number indicating the x-position of the upper-left corner of the pad. If pad is docked, this is an Integer, zero or greater; if pad is floating, this is a Float value, in paper units such as inches.
BTNPAD_INFO_Y		5	A number indicating the y-position of the upper-left corner of the pad.

COLUMNINFO()

original version= **3.0**

attribute code	version	code	ColumnInfo() Return Value
COL_INFO_NAME		1	String identifying the column name
COL_INFO_NUM		2	SmallInt indicating the number of the column
COL_INFO_TYPE		3	SmallInt indicating the column type (see table below)
		1	COL_TYPE_CHAR Character
		2	COL_TYPE_DECIMAL Fixed-point decimal
		8	COL_TYPE_FLOAT Floating-point decimal
		3	COL_TYPE_INTEGER Integer (4-byte)
		4	COL_TYPE_SMALLINT Small Integer (2-byte)

		5	COL_TYPE_DATE Date
		6	COL_TYPE_LOGICAL Logical (TRUE or FALSE)
		7	COL_TYPE_GRAPHIC special column type Obj; this represents the graphical objects attached to the table
COL_INFO_WIDTH	4		SmallInt indicating the column width; applies to Character or Decimal columns only
COL_INFO_DECPLACES	5		SmallInt indicating the number of decimal places in a Decimal column
COL_INFO_INDEXED	5		Logical value indicating if column is indexed
COL_INFO_EDITABLE	7		Logical value indicating if column is editable

COMMANDINFO()

original version= 3.0

attribute code	version	code	CommandInfo() Return Value
<i>After displaying a custom dialog box,</i> CMD_INFO_DLG_OK		1	Logical value: TRUE if the user dismissed a custom dialog box by clicking OK; FALSE if user Cancelled by clicking Cancel, pressing Esc, etc. (This call is only valid following a Dialog statement.)
CMD_INFO_STATUS		1	Logical value: TRUE if the user allowed a progress-bar operation to complete, or FALSE if the user pressed the Cancel button to halt.
<i>Within a Custom Menu or Dialog Handler</i> CMD_INFO_MENUITEM		8	Integer value, representing the ID of the menu item the user chose. This call is only valid within the handler procedure of a custom menu item.
CMD_INFO_DLG_DBL		1	Logical value: TRUE if the user double-clicked on a ListBox or MultiListBox control within a custom dialog. This call is only valid within the handler procedure of a custom dialog box.
<i>Within SelChanged Handler</i> CMD_INFO_SELTYPE		1	1 if one row was added to the selection; 2 if one row was removed from the selection; 3 if multiple rows were added to the selection; 4 if multiple rows were de-selected.
CMD_INFO_ROWID		2	Integer value: The number of the row that was selected or de-selected (only applies if a single row was selected or de-selected).
CMD_INFO_INTERRUPT	+4.0	3	Logical value: TRUE if the user interrupted a selection by pressing Esc, FALSE otherwise.

From within RemoteMsgHandler, RemoteQueryHandler(), or RemoteMapGenHandler:

CMD_INFO_MSG		1000	String value, representing the execute string or the item name sent to MapInfo by a client program. For details, see RemoteMsgHandler, RemoteQueryHandler(), or RemoteMapGenHandler.
<i>From within WinChangedHandler or WinClosedHandler:</i>			
CMD_INFO_WIN		1	Integer value, representing the ID of the window that changed or the window that closed. For details, see WinChangedHandler or WinClosedHandler.
<i>From within ForegroundTaskSwitchHandler:</i>			
CMD_INFO_TASK_SWITCH	+4.0	1	Integer value, indicating whether MapInfo just became the active application or just stopped being the active application. The return value matches one of these codes: 1 SWITCHING_INTO_MAPINFO (if MapInfo received the focus) 0 SWITCHING_OUT_OF_MAPINFO (if MapInfo lost the focus).
<i>After a Find Operation</i>			
CMD_INFO_FIND_RC	+4.0	3	Integer value, indicating whether the Find statement found a match.
CMD_INFO_FIND_ROWID	+4.0	4	Integer value, indicating the Row ID number of the row that was found.
CMD_INFO_X or CMD_INFO_Y	+4.0	1 or 2	Floating-point number, indicating x- or y-coordinates of the location that was found.
<i>Within a Custom ToolButton's Handler Procedure</i>			
CMD_INFO_X		1	x coordinate of the spot where the user clicked: If the user clicked on a Map, the return value represents a map coordinate (e.g. longitude), in the current coordinate system unit. If the user clicked on a Browser, the value represents the number of a column in the Browser (e.g. one for the leftmost column, or zero for the select-box column). If the user clicked in a Layout, the value represents the distance from the left edge of the Layout (e.g. zero represents the left edge), in MapBasic's current paper units.
CMD_INFO_Y		2	y-coordinate of the spot where the user clicked: If the user clicked on a map, the value represents a map coordinate (e.g. Latitude). If the user clicked on a Browser, the value represents a row number; a value of one represents the top row, and a value of zero represents the row of column headers at the top of the window. If the user clicked on a Layout, the value represents the distance from the top edge of the Layout.
CMD_INFO_X2		5	x-coordinate of the spot where the user released the mouse button. This only applies if the toolbutton was defined with a draw mode that allows dragging, e.g. DM_CUSTOM_LINE.
CMD_INFO_Y2		6	y-coordinate of the spot where the user released the mouse button.
CMD_INFO_SHIFT		3	Logical value: TRUE if the user held down the Shift key while clicking.

CMD_INFO_CTRL		4	Logical value: TRUE if the user held down the Ctrl key while clicking.
CMD_INFO_TOOLBTN		7	Integer value, representing the ID of the button the user clicked.
CMD_INFO_CUSTOM_OBJ	+4.0	1	Object value: a polyline or polygon drawn by the user. Applies to drawing modes DM_CUSTOM_POLYLINE or DM_CUSTOM_POLYGON.
<i>After a Macintosh XCMD</i>			
CMD_INFO_XCMD	+4.0	1	String value, indicating whether an error occurred during the execution of the XCMD. For details, see the MapBasic User's Guide, Chapter 12.
<i>HotLink Support</i>			
CMD_INFO_HL_WINDOW_ID	+6.0	17	Id of map or browser window.
CMD_INFO_HL_TABLE_NAME	+6.0	18	Name of table associated with the map layer or browser window.
CMD_INFO_HL_ROWID	+6.0	19	Id of the table row corresponding to the map object or browser row.
CMD_INFO_HL_LAYER_ID	+6.0	20	Layer id, if the program was launched from a map window.
CMD_INFO_HL_FILENAME	+6.0	21	Name of file launched.
<i>Define CMD_INFO_EDIT_TABLE</i>	1		no definition in hlp
<i>Define CMD_INFO_EDIT_STATUS</i>	2		no definition in hlp
<i>Define CMD_INFO_EDIT_ASK</i>	1		no definition in hlp
<i>Define CMD_INFO_EDIT_SAVE</i>	2		no definition in hlp
<i>Define CMD_INFO_EDIT_DISCARD</i>	3		no definition in hlp

DATEWINDOW()

original version= 5.5

attribute code	version	code	DateWindow() Return Value
DATE_WIN_SESSION		1	the current session setting in effect is returned
DATE_WIN_CURPROG		2	the current MapBasic program's local setting is returned, if a program is not running the session setting is returned

FILEATTR()

original version= 3.0

attribute code	version	code	File Attr() Return Value
FILE_ATTR_MODE		1	Small Integer, indicating the mode in which the file was opened. Return value will be one of these: 0 MODE_INPUT 1 MODE_OUTPUT 2 MODE_APPEND 3 MODE_RANDOM 4 MODE_BINARY
FILE_ATTR_FILESIZE	+4.0	0	Integer, indicating the file size in bytes.

FOLDERPATH\$()

original version= 6.5

attribute code	version	code	File Attr() Return Value
FOLDER_ID		-1	FOLDER_MI_APPDATA
		-2	FOLDER_MI_LOCAL_APPDATA
		-3	FOLDER_MI_PREFERENCE
		26	FOLDER_APPDATA
		28	FOLDER_LOCAL_APPDATA
		35	FOLDER_COMMON_APPDATA
		46	FOLDER_COMMON_DOCS
		5	FOLDER_MYDOCS
		39	FOLDER_MYPICS

INTERSECTNODES()

original version= 3.0

attribute code	version	code	IntersectNodes() Return Value
INCL_CROSSINGS		1	returns points where segments cross
INCL_COMMON		6	returns end-points of segments that overlap
INCL_ALL		7	returns points where segments cross and points where segments overlap

LABELINFO()

original version= 4.1

attribute code	version	code	Labelinfo() Return Value
LABEL_INFO_ANCHORX		3	Float value, indicating the x-coordinate of the label's anchor location.
LABEL_INFO_ANCHORY		4	Float value, indicating the y-coordinate of the label's anchor location.
LABEL_INFO_DRAWN		20	Logical value; TRUE if label is currently visible.
LABEL_INFO_EDIT		8	Logical value; TRUE if label has been edited.
LABEL_INFO_EDIT_ANCHOR		10	Logical value; TRUE if label has been moved.
LABEL_INFO_EDIT_ANGLE		16	Logical value; TRUE if label's rotation angle has been modified.
LABEL_INFO_EDIT_FONT		12	Logical value; TRUE if label's font has been modified.
LABEL_INFO_EDIT_OFFSET		11	Logical value; TRUE if label's offset has been modified.
LABEL_INFO_EDIT_PEN		13	Logical value; TRUE if callout line's Pen style has been modified.
LABEL_INFO_EDIT_POSITION		17	Logical value; TRUE if label's position (relative to anchor) has been modified
LABEL_INFO_EDIT_TEXT		14	Logical value; TRUE if label's text has been modified.
LABEL_INFO_EDIT_TEXTARROW		15	Logical value; TRUE if label's text arrow setting has been modified.
LABEL_INFO_EDIT_TEXTLINE		18	Logical value; TRUE if callout line has been moved.
LABEL_INFO_EDIT_VISIBILITY		9	Logical value; TRUE if label Visibility has been set to OFF.
LABEL_INFO_OBJECT		1	Text object is returned, which is an approximation of the label. This feature allows you to convert a label into a text object, which you can save in a permanent table.
LABEL_INFO_OFFSET		5	Integer value between 0 and 50, indicating the distance (in points) the label is offset from its anchor location.
LABEL_INFO_POSITION		2	Integer value between 0 and 8, indicating the label's position relative to its anchor location. The return value will match one of these codes: (For example, if the label is Below and to the Right of the anchor, its position is 8; if the label is Centered horizontally and vertically over its anchor, its position is zero.)
		0	LAYER_INFO_LBL_POS_CC
		1	LAYER_INFO_LBL_POS_TL
		2	LAYER_INFO_LBL_POS_TC
		3	LAYER_INFO_LBL_POS_TR
		4	LAYER_INFO_LBL_POS_CL
		5	LAYER_INFO_LBL_POS_CR
		6	LAYER_INFO_LBL_POS_BL
		7	LAYER_INFO_LBL_POS_BC
		8	LAYER_INFO_LBL_POS_BR
LABEL_INFO_ROWID		6	Integer value, representing the ID number of the row that owns this label.
LABEL_INFO_SELECT		19	Logical value; TRUE if label is selected.

LABEL_INFO_TABLE	7	String value, representing the name of the table that owns this label. Useful if you are using seamless tables and you need to know which member table owns the label.
------------------	---	--

LAYERINFO()

original version= 3.0

attribute code	version	code	LayerInfo() Return Value
LAYER_INFO_NAME		1	String indicating the name of the table associated with this map layer. If the specified layer is the map's Cosmetic layer, the string will be a table name such as "Cosmetic1"; this table name can be used with other statements (e.g. Select).
LAYER_INFO_EDITABLE		2	Logical value; TRUE if the layer is editable.
LAYER_INFO_SELECTABLE		3	Logical value; TRUE if the layer is selectable.
LAYER_INFO_PATH		8	String value representing the full directory path of the table associated with the map layer.
LAYER_INFO_ZOOM_LAYERED		4	Logical; TRUE if zoom-layering is enabled.
LAYER_INFO_ZOOM_MIN		5	Float value, indicating the minimum zoom value (in MapBasic's current distance units) at which the layer displays. (To set MapBasic's distance units, use Set Distance Units.)
LAYER_INFO_ZOOM_MAX		6	Float value, indicating the maximum zoom value at which the layer displays.
LAYER_INFO_COSMETIC		7	Logical; TRUE if this is the Cosmetic layer.
LAYER_INFO_DISPLAY		9	SmallInt, indicating how and whether this layer is displayed; return value will be one of these values:
		0	LAYER_INFO_DISPLAY_OFF (the layer is not displayed);
		1	LAYER_INFO_DISPLAY_GRAPHIC (objects in this layer appear in their "default" style-the style saved in the table);
		2	LAYER_INFO_DISPLAY_GLOBAL (objects in this layer are displayed with a "style override" specified in Layer Control);
		3	LAYER_INFO_DISPLAY_VALUE (objects in this layer appear as thematic shading)
LAYER_INFO_OVR_LINE		10	Pen style used for displaying linear objects.
LAYER_INFO_OVR_PEN		11	Pen style used for displaying the borders of filled objects.
LAYER_INFO_OVR_BRUSH		12	Brush style used for displaying filled objects.
LAYER_INFO_OVR_SYMBOL		13	Symbol style used for displaying point objects.
LAYER_INFO_OVR_FONT		14	Font style used for displaying text objects.
LAYER_INFO_LBL_CURFONT		17	For applications compiled with MapBasic 4.0, this query always returns false. For applications compiled with MapBasic 3.x, this query returns

			the following values: Logical value: TRUE if layer is set to use the current font, or FALSE if layer is set to use the custom font (see LAYER_INFO_LBL_FONT).
LAYER_INFO_LBL_FONT		18	Font style used in labels.
LAYER_INFO_LBL_EXPR		15	String value: the expression used in labels.
LAYER_INFO_LBL_LT		16	Smallint value indicating what type of line, if any, connects a label to its original location after you move the label. The return value will match one of these values: 0 LAYER_INFO_LBL_LT_NONE (no line) 1 LAYER_INFO_LBL_LT_SIMPLE (simple line) 2 LAYER_INFO_LBL_LT_ARROW (line with an arrowhead)
LAYER_INFO_LBL_PARALLEL		19	Logical value: TRUE if layer is set for parallel labels.
LAYER_INFO_LBL_POS		20	Smallint value, indicating label position. Return value will match one of these values (T=Top, B=Bottom, C=Center, R=Right, L=Left): 1 LAYER_INFO_LBL_POS_TL 2 LAYER_INFO_LBL_POS_TC 3 LAYER_INFO_LBL_POS_TR 4 LAYER_INFO_LBL_POS_CL 0 LAYER_INFO_LBL_POS_CC 5 LAYER_INFO_LBL_POS_CR 6 LAYER_INFO_LBL_POS_BL 7 LAYER_INFO_LBL_POS_BC 8 LAYER_INFO_LBL_POS_BR
LAYER_INFO_LBL_VISIBILITY	+4.0	25	Smallint value, indicating whether labels are visible; see the Visibility clause of the Set Map statement. Return value will be one of these values: 3 LAYER_INFO_LBL_VIS_ON (labels always visible) 1 LAYER_INFO_LBL_VIS_OFF (labels never visible) 2 LAYER_INFO_LBL_VIS_ZOOM (labels visible when in zoom range)
LAYER_INFO_LBL_ZOOM_MIN	+4.0	26	Float value, indicating the minimum zoom distance for this layer's labels.
LAYER_INFO_LBL_ZOOM_MAX	+4.0	27	Float value, indicating the maximum zoom distance for this layer's labels.
LAYER_INFO_LBL_AUTODISPLAY	+4.0	28	Logical value: TRUE if this layer is set to display labels automatically. See the Auto clause of the Set Map statement.
LAYER_INFO_LBL_OVERLAP	+4.0	29	Logical value; TRUE if overlapping labels are allowed.
LAYER_INFO_LBL_DUPLICATES	+4.0	30	Logical value; TRUE if duplicate labels are allowed.
LAYER_INFO_LBL_OFFSET	+4.0	31	Smallint value from 0 to 50, indicating how far the labels are offset from

LAYER_INFO_LBL_MAX	+4.0	32	object centroids. The offset value represents a distance, in points. Integer value, indicating the maximum number of labels allowed for this layer. If no maximum has been set, return value is 2,147,483,647.
LAYER_INFO_LBL_PARTIALSEGS	+4.1	33	Logical value; TRUE if the Label Partial Segments check box is checked for this layer.
LAYER_INFO_ARROWS		21	Logical value; TRUE if layer displays direction arrows on linear objects.
LAYER_INFO_NODES		22	Logical value; TRUE if layer displays object nodes.
LAYER_INFO_CENTROIDS		23	Logical value; TRUE if layer displays object centroids.
LAYER_INFO_TYPE		24	SmallInt value, indicating this layer's file type: 0 LAYER_INFO_TYPE_NORMAL for a normal layer; 1 LAYER_INFO_TYPE_COSMETIC for the Cosmetic layer; 2 LAYER_INFO_TYPE_IMAGE for a raster image layer; 3 LAYER_INFO_TYPE_THEMATIC for a thematic layer.
	+5.5	4	LAYER_INFO_TYPE_GRID for a grid image layer
LAYER_HOTLINK_EXPR	+6.0	34	Returns the layer's HotLink filename expression.
LAYER_HOTLINK_MODE	+6.0	35	Returns the layer's HotLink mode, one of the following predefined values: HOTLINK_MODE_LABEL HOTLINK_MODE_OBJ HOTLINK_MODE_BOTH
LAYER_HOTLINK_RELATIVE	+6.0	36	Returns True if the relative path options is on, False otherwise.

LEGENDFRAMEINFO()

original version= **5.0**

attribute code	version	code	LegendFrameInfo() Return Value
FRAME_INFO_TYPE		1	Returns one of the following predefined constant indicating frame type: 1 FRAME_TYPE_STYLE 2 FRAME_TYPE_THEME
FRAME_INFO_MAP_LAYER_ID		2	Returns the id of the layer to which the frame corresponds.
FRAME_INFO_REFRESHABLE		3	Returns true if the frame was created without the Norefresh keyword. Always returns true for theme frames.
FRAME_INFO_POS_X		4	Returns the distance of the frames upper left corner from the left edge of the legend canvas (in paper units).
FRAME_INFO_POS_Y		5	Returns the distance of the frame's upper left corner from the top edge of the legend canvas (in paper units).

FRAME_INFO_WIDTH		6	Returns the width of the frame (in paper units).
FRAME_INFO_HEIGHT		7	Returns the height of the frame (in paper units).
FRAME_INFO_TITLE		8	Returns the title of a style frame or theme frame.
FRAME_INFO_TITLE_FONT		9	Returns the font of a style frame title. Returns the default title font if the frame has no title or if it is a theme frame.
FRAME_INFO_SUBTITLE		10	Returns the subtitle of a style frame or theme frame.
FRAME_INFO_SUBTITLE_FONT		11	Same as title font.
FRAME_INFO_BORDER_PEN		12	Returns the pen used to draw the border.
FRAME_INFO_NUM_STYLES		13	Returns the number of styles in a frame. Zero if theme frame.
FRAME_INFO_VISIBLE		14	Returns true if the frame is visible (theme frames can be invisible).
FRAME_INFO_COLUMN	+5.5	15	Returns the legend attribute column name as a string if there is one. Returns an empty string for a theme frame.
FRAME_INFO_LABEL	+5.5	16	Returns the label expression as a string if there is one. Returns an empty string for a theme frame.

LEGENDINFO()

original version= 5.0

attribute code	version	code	LegendInfo() Return Value
LEGEND_INFO_MAP_ID		1	Return the id of the parent map window (can also get this value by issuing WindowInfo() with the WIN_INFO_TABLE code).
LEGEND_INFO_ORIENTATION		2	Returns predefined value to indicate the layout of the legend: 1 ORIENTATION_PORTRAIT 2 ORIENTATION_LANDSCAPE 3 ORIENTATION_CUSTOM
LEGEND_INFO_NUM_FRAMES		3	Returns the number of frames in the legend.

LEGENDSTYLEINFO()

original version= 5.0

attribute code	version	code	LegendStyleInfo() Return Value
LEGEND_STYLE_INFO_TEXT		1	Returns the text of the style.
LEGEND_STYLE_INFO_FONT		2	Returns the font of the style.
LEGEND_STYLE_INFO_OBJ		3	Returns the object of the style.

LOCATEFILE\$()

original version= 6.5

attribute code	version	code	LegendStyleInfo() Return Value
FILE_ID		0	LOCATE_PREF_FILE
		1	LOCATE_DEF_WOR
		2	LOCATE_CLR_FILE
		3	LOCATE_PEN_FILE
		4	LOCATE_FNT_FILE
		5	LOCATE_ABB_FILE
		6	LOCATE_PRJ_FILE
		7	LOCATE_MNU_FILE
		8	LOCATE_CUSTSYMB_DIR
		9	LOCATE_THMTMPLT_DIR
		10	LOCATE_GRAPH_DIR

MAP3DINFO()

original version= 6.5

attribute code	version	code	LegendStyleInfo() Return Value
MAP3D_INFO_SCALE		1	Float result representing the 3DMaps scale factor.
MAP3D_INFO_RESOLUTION_X		2	Integer result representing the X resolution of the grid(s) in the 3DMap window.
MAP3D_INFO_RESOLUTION_Y		3	Integer result representing the Y resolution of the grid(s) in the 3DMap window.
MAP3D_INFO_BACKGROUND		4	Integer result representing the background color, see the RGB function.
MAP3D_INFO_UNITS		5	String representing the map's abbreviated area unit name, e.g. "mi" for miles.
MAP3D_INFO_LIGHT_X		6	Float result representing the X coordinate of the Light in the scene.
MAP3D_INFO_LIGHT_Y		7	Float result representing the Y coordinate of the Light in the scene.
MAP3D_INFO_LIGHT_Z		8	Float result representing the Z coordinate of the Light in the scene.
MAP3D_INFO_LIGHT_COLOR		9	Integer result representing the Light color, see the RGB function.
MAP3D_INFO_CAMERA_X		10	Float result representing the X coordinate of the Camera in the scene.
MAP3D_INFO_CAMERA_Y		11	Float result representing the Y coordinate of the Camera in the scene.
MAP3D_INFO_CAMERA_Z		12	Float result representing the Z coordinate of the Camera in the scene.
MAP3D_INFO_CAMERA_FOCAL_X		13	Float result representing the X coordinate of the Cameras FocalPoint in the scene.
MAP3D_INFO_CAMERA_FOCAL_Y		14	Float result representing the Y coordinate of the Cameras FocalPoint in the scene.
MAP3D_INFO_CAMERA_FOCAL_Z		15	Float result representing the Z coordinate of the Cameras FocalPoint in the scene.

MAP3D_INFO_CAMERA_VU_1	16	Float result representing the first value of the ViewUp Unit Normal Vector.
MAP3D_INFO_CAMERA_VU_2	17	Float result representing the second value of the ViewUp Unit Normal Vector.
MAP3D_INFO_CAMERA_VU_3	18	Float result representing the third value of the ViewUp Unit Normal Vector.
MAP3D_INFO_CAMERA_VPN_1	19	Float result representing the first value of the ViewPlane Unit Normal Vector.
MAP3D_INFO_CAMERA_VPN_2	20	Float result representing the second value of the ViewPlane Unit Normal Vector.
MAP3D_INFO_CAMERA_VPN_3	21	Float result representing the third value of the ViewPlane Unit Normal Vector.
MAP3D_INFO_CAMERA_CLIP_NEAR	22	Float result representing the cameras near clipping plane.
MAP3D_INFO_CAMERA_CLIP_FAR	23	Float result representing the cameras far clipping plane.

MAPPERINFO()

original version= 3.0

attribute setting	version	code	MapperInfo() Return Value
MAPPER_INFO_AREAUNITS		13	String representing the map's abbreviated area unit name, e.g. "sq mi" for square miles.
MAPPER_INFO_CENTERX		3	The x-coordinate of the Map window's center.
MAPPER_INFO_CENTERY		4	The y-coordinate of the Map window's center.
MAPPER_INFO_COORDSYS_ CLAUSE	+4.0	17	String result, indicating the window's CoordSys clause.
MAPPER_INFO_COORDSYS_CLAUSE_ WITH_BOUNDS	+5.5	22	String result, indicating the window's CoordSys clause including the bounds.
MAPPER_INFO_DISPLAY_DMS	+5.5	21	Returns True or False to indicate whether the map displays coordinates in degrees, minutes, seconds or degrees decimal.
MAPPER_INFO_COORDSYS_ NAME	+4.0	18	String result, representing the name of the map's CoordSys as listed in MAPINFOW.PRJ (but without the optional "\p..." suffix that appears in MAPINFOW.PRJ). Returns empty string if CoordSys is not found in MAPINFOW.PRJ.
MAPPER_INFO_DISPLAY	+4.0	15	Small integer, indicating what aspect of the map is displayed on the status bar. Corresponds to Set Map Display. Return value will be one of these:
		0	MAPPER_INFO_DISPLAY_SCALE
		1	MAPPER_INFO_DISPLAY_ZOOM
		2	MAPPER_INFO_DISPLAY_POSITION
MAPPER_INFO_DISTUNITS		12	String representing the map's abbreviated distance unit name, e.g. "mi" for miles.
MAPPER_INFO_EDIT_LAYER		10	A SmallInt indicating the number of the currently-editable layer. A value of zero means that the Cosmetic layer is editable. A value of -1 means that no layer is editable.
MAPPER_INFO_LAYERS		9	Returns number of layers in the Map window as a SmallInt (excludes the cosmetic layer).
MAPPER_INFO_MAXX		7	The largest x-coordinate shown in the window.

MAPPER_INFO_MAXY		8	The largest y-coordinate shown in the window.
MAPPER_INFO_MINX		5	The smallest x-coordinate shown in the window.
MAPPER_INFO_MINY		6	The smallest y-coordinate shown in the window.
MAPPER_INFO_NUM_THEMATIC	+4.0	16	Small integer, indicating the number of thematic layers in this Map window.
MAPPER_INFO_MOVE_DUPLICATE_NODES	+5.5	19	Small integer, indicating whether duplicate nodes should be moved when reshaping objects in this Map window. If the value is 0, duplicate nodes are not moved. If the value is 1, any duplicate nodes within the same layer will be move. To return to using the default from the map preferences, "Move Nodes Default" can be specified.
MAPPER_INFO_SCALE		2	The Map window's current scale, defined in terms of the number of map distance units (e.g. Miles) per paper unit (e.g. Inches) displayed in the window. This returns a value in MapBasic's current distance units.
MAPPER_INFO_SCROLLBARS		14	Logical value indicating whether the Map window shows scrollbars.
MAPPER_INFO_XYUNITS		11	String representing the map's abbreviated coordinate unit name, e.g. "degree".
MAPPER_INFO_ZOOM		1	The Map window's current zoom value (i.e. the East-West distance currently displayed in the Map window), specified in MapBasic's current distance units; see Set Distance Units.
MAPPER_INFO_DIST_CALC_TYPE	+5.5	20	Small integer, indicating type of calculation to use for distance, length, perimeter, and area calculations for a mapper. Corresponds to Set Map Distance Type. Return values include: 0 MAPPER_INFO_DIST_SPHERICAL 1 MAPPER_INFO_DIST_CARTESIAN
MAPPER_INFO_CLIP_REGION	+6.0	24	Returns a string to indicate if a clip region is enabled. Returns the string "on" if a clip region is enabled in the Mapper window. Otherwise, it returns the string "off".
MAPPER_INFO_CLIP_TYPE	+6.0	23	The type of clipping being implemented. Choices include: 0 MAPPER_INFO_CLIP_DISPLAY_ALL 1 MAPPER_INFO_CLIP_DISPLAY_POLYOBJ 2 MAPPER_INFO_CLIP_OVERLAY

MENUITEMINFOBYHandler() original version= 4.0 **MENUITEMINFOBYID()**

attribute setting	version	code	MenuitemInfoByHandler() MenuitemInfoById() Return Value
MENUITEM_INFO_ACCELERATOR		5	String: The code sequence for the menu item's accelerator (e.g. "/W^Z" or "/W#%119") or an empty string if the menu item has no accelerator. For details on menu accelerators, see the Create Menu statement.

MENUITEM_INFO_CHECKABLE	3	Logical: TRUE if this menu item is checkable (specified by the "!" prefix in the menu text)
MENUITEM_INFO_CHECKED	2	Logical: TRUE if the menu item is checkable and currently checked; also return TRUE if the menu item has alternate menu text (e.g. if the menu item toggles between Show... and Hide...), and the menu item is in its "show" state. Otherwise, return FALSE.
MENUITEM_INFO_ENABLED	1	Logical: TRUE if the menu item is enabled
MENUITEM_INFO_HANDLER	8	Integer: The menu item's handler number. If the menu item's Calling clause specified a numeric constant (e.g. Calling M_FILE_SAVE), this call returns the value of the constant. If the Calling clause specified "OLE", "DDE", or the name of a procedure, this call returns a unique Integer (an internal handler number) which can be used in subsequent calls to MenuItemInfoByHandler() or in the Run Menu Command statement.
MENUITEM_INFO_HELPMSG	7	String: the menu item's help message (as specified in the HelpMsg clause in Create Menu) or empty string if the menu item has no help message.
MENUITEM_INFO_ID	9	Integer: The menu ID number (specified in the optional ID clause in a Create Menu statement), or 0 if the menu item has no ID.
MENUITEM_INFO_SHOWHIDEABLE	4	Logical: TRUE if this menu item has alternate menu text (i.e. if the menu item toggles between Show... and Hide...). An item has alternate text if it was created with "!" at the beginning of the menu item text (in Create Menu or Alter Menu) and it has a caret (^) in the string.
MENUITEM_INFO_TEXT	6	String: the full text used (e.g. in a Create Menu statement) to create the menu item.

OBJECTGEOGRAPHY()

original version= 3.0

attribute setting	version	code	ObjectGeography() Return Value (Float)
	6.5		1-4 applies to collection or multipoint objects
OBJ_GEO_MINX		1	minimum x coordinate of an object's minimum bounding rectangle (MBR), unless object is a line; if object is a line, returns same value as OBJ_GEO_LINEBEGX.
OBJ_GEO_MINY		2	minimum y coordinate of object's MBR. For lines, returns OBJ_GEO_LINEBEGY value.
OBJ_GEO_MAXX		3	maximum x coordinate of object's MBR. Does not apply to Point objects. For lines, returns OBJ_GEO_LINEENDX value.
OBJ_GEO_MAXY		4	maximum y coordinate of the object's MBR. Does not apply to Point objects. For lines, returns OBJ_GEO_LINEENDY value.
OBJ_GEO_ARCBEGANGLE		5	beginning angle of an Arc object.
OBJ_GEO_ARCENDANGLE		6	ending angle of an Arc object.
OBJ_GEO_LINEBEGX		1	x coordinate of the starting node of a Line object.
OBJ_GEO_LINEBEGY		2	y coordinate of the starting node of a Line object.

OBJ_GEO_LINEENDX		3	x coordinate of the ending node of a Line object.
OBJ_GEO_LINEENDY		4	y coordinate of the ending node of a Line object.
OBJ_GEO_POINTX		1	x coordinate of a Point object.
OBJ_GEO_POINTY		2	y coordinate of a Point object.
OBJ_GEO_ROUNDRAIUS		5	diameter of the circle that defines the rounded corner of a Rounded Rectangle object, expressed in terms of coordinate units (e.g. degrees).
OBJ_GEO_TEXTLINEX		5	x coordinate of the end of a Text object's label line.
OBJ_GEO_TEXTLINEY		6	y coordinate of the end of a Text object's label line.
OBJ_GEO_TEXTANGLE		7	Rotation angle of a Text object
Define OBJ_GEO_CENTROID	5		Defined, not used?

OBJECTINFO()

original version= 3.0

attribute setting	version	code	ObjectInfo() Return Value
OBJ_INFO_TYPE		1	SmallInt, representing the object type; the return value is one of the values listed in the table below (e.g. OBJ_TYPE_LINE).
		1	OBJ_TYPE_ARC Arc object
		2	OBJ_TYPE_ELLIPSE Ellipse / circle objects
		3	OBJ_TYPE_LINE Line object
		4	OBJ_TYPE_PLINE Polyline object
		5	OBJ_TYPE_POINT Point object
		6	OBJ_TYPE_FRAME Layout window Frame object
		7	OBJ_TYPE_REGION Region object
		8	OBJ_TYPE_RECT Rectangle object
		9	OBJ_TYPE_ROUNDRECT Rounded rectangle object
		10	OBJ_TYPE_TEXT Text object
	+6.5	11	OBJ_TYPE_MPOINT
	+6.5	12	OBJ_TYPE_COLLECTION
OBJ_INFO_PEN		2	Pen style is returned; this query is only valid for the following object types: Arc, Ellipse, Line, Polyline, Frame, Regions, Rectangle, Rounded Rectangle.
OBJ_INFO_BRUSH		3	Brush style is returned; this query is only valid for the following object types: Ellipse, Frame, Region, Rectangle, Rounded Rectangle.
OBJ_INFO_TEXTFONT		2	Font style is returned; this query is only valid for Text objects. Note: If the Text object is contained in a mappable table (as opposed to a Layout window), the Font specifies a

OBJ_INFO_SYMBOL		2	point size of zero, and the text height is controlled by the Map window's zoom distance.
OBJ_INFO_NPNTS		20	Symbol style; this query is only valid for Point and MultiPoint objects.
	4.5		Integer, indicating the total number of nodes in a polyline or region object.
	6.5		number of nodes went from 32K to over one million
OBJ_INFO_SMOOTH		4	Applies to a MultiPoint object
OBJ_INFO_FRAMEWIN		4	Logical, indicating whether the specified Polyline object is smoothed.
OBJ_INFO_FRAMETITLE		6	Integer, indicating the window id of the window attached to a Frame object.
OBJ_INFO_NPOLYGONS		21	String, indicating a Frame object's title.
OBJ_INFO_NPOLYGONS+N		21 + N	SmallInt, indicating the number of polygons (in the case of a region) or sections (in the case of a polyline) which make up an object.
			Integer, indicating the number of nodes in the Nth polygon of a region or the Nth section of a polyline. Note: With region objects, MapInfo counts the starting node twice (once as the start node and once as the end node). For example, ObjectInfo returns a value of 4 for a triangle-shaped region.
OBJ_INFO_TEXTSTRING		3	String, representing the body of a Text object; if the object has multiple lines of text, the string includes embedded line-feeds (Chr\$(10) values).
OBJ_INFO_TEXTSPACING		4	Float value of 1, 1.5, or 2, representing a Text object's line spacing.
OBJ_INFO_TEXTJUSTIFY		5	SmallInt, representing justification of a Text object: 0 = left, 1 = center, 2 = right.
OBJ_INFO_TEXTARROW		6	SmallInt, representing the line style associated with a Text object: 0 = no line, 1 = simple line, 2 = arrow line.
OBJ_INFO_FILLFRAME	+4.0	7	Logical: TRUE if the object is a frame that contains a Map window, and the frame's "Fill Frame With Map" setting is checked.
OBJ_INFO_REGION	+6.5	8	Object value representing region part of a collection object. If collection object does not have a region, it returns empty region. This query is valid only for collection objects
OBJ_INFO_PLINE	+6.5	9	Object value representing polyline part of a collection object. If collection object does not have a polyline, it returns empty polyline object. This query is valid only for collection objects
OBJ_INFO_MPOINT	+6.5	10	Object value representing Multipoint part of a collection object. If collection object does not have a Multipoint, it returns empty Multipoint object. This query is valid only for collection objects
OBJ_INFO_NONEMPTY	+6.5	11	Logical, returns TRUE if a Multipoint or Collection object has nodes, FALSE - if object is empty

PRISMMAPINFO()

original version= 6.5

attribute setting	version	code	SearchInfo() returns:
PRISMMAP_INFO_SCALE		1	Float result representing the PrismMaps scale factor.
PRISMMAP_INFO_BACKGROUND		4	Integer result representing the background color, see the RGB function.
PRISMMAP_INFO_LIGHT_X		6	Float result representing the X coordinate of the light in the scene.
PRISMMAP_INFO_LIGHT_Y		7	Float result representing the Y coordinate of theLight in the scene.
PRISMMAP_INFO_LIGHT_Z		8	Float result representing the Z coordinate of the Light in the scene.
PRISMMAP_INFO_LIGHT_COLOR		9	Integer result representing the Light color, see the RGB function.
PRISMMAP_INFO_CAMERA_X		10	Float result representing the X coordinate of the Camera in the scene.
PRISMMAP_INFO_CAMERA_Y		11	Float result representing the Y coordinate of the Camera in the scene.
PRISMMAP_INFO_CAMERA_Z		12	Float result representing the Z coordinate of the Camera in the scene.
PRISMMAP_INFO_CAMERA_FOCAL_X		13	Float result representing the X coordinate of the Cameras FocalPoint in the scene.
PRISMMAP_INFO_CAMERA_FOCAL_Y		14	Float result representing the Y coordinate of the Cameras FocalPoint in the scene.
PRISMMAP_INFO_CAMERA_FOCAL_Z		15	Float result representing the Z coordinate of the Camera's FocalPoint in the scene.
PRISMMAP_INFO_CAMERA_VU_1		16	Float result representing the first value of theViewUp Unit Normal Vector.
PRISMMAP_INFO_CAMERA_VU_2		17	Float result representing the second value of the ViewUp Unit Normal Vector.
PRISMMAP_INFO_CAMERA_VU_3		18	Float result representing the third value of the ViewUp Unit Normal Vector.
PRISMMAP_INFO_CAMERA_VPN_1		19	Float result representing the first value of the View Plane Unit Normal Vector.
PRISMMAP_INFO_CAMERA_VPN_2		20	Float result representing the second value of theViewPlane Unit Normal Vector.
PRISMMAP_INFO_CAMERA_VPN_3		21	Float result representing the third value of the ViewPlane Unit Normal Vector.
PRISMMAP_INFO_CAMERA_CLIP_NEAR		22	Float result representing the cameras near clipping plane.
PRISMMAP_INFO_CAMERA_CLIP_FAR		23	Float result representing the cameras far clipping plane..
PRISMMAP_INFO_INFOTIP_EXPR		24	<i>Defined, not explained in Help file</i>

SEARCHINFO()

original version= 4.0

attribute setting	version	code	SearchInfo() returns:
SEARCH_INFO_TABLE		1	String value: the name of the table containing this object. If an object is from a Cosmetic layer, this string has the form "CosmeticN" (where N is a number, 1 or larger).
SEARCH_INFO_ROW		2	Integer value: this row's RowId number. You can use this RowId number in a Fetch statement or in a Select statement's Where clause.

SELECTIONINFO()

original version= 3.0

attribute setting	version	code	SelectionInfo() Return Value
SEL_INFO_TABLENAME		1	String: The name of the table the selection was based on. Returns an empty string if no data currently selected.
SEL_INFO_SELNAME		2	String: The name of the temporary table (e.g. "Query1") representing the query. Returns an empty string if no data currently selected.
SEL_INFO_NROWS		3	Integer: The number of selected rows. Returns zero if no data currently selected.

SERVER_COLUMNINFO()

original version= 4.0 SQL-DataLink add-on for version 3.0

attribute setting	version	code	Server_ColumnInfo() returns:
SRV_COL_INFO_NAME		1	String result, the name identifying the column
SRV_COL_INFO_TYPE		2	Integer result, a code indicating the column type: 0 SRV_COL_TYPE_NONE 1 SRV_COL_TYPE_CHAR 2 SRV_COL_TYPE_DECIMAL 3 SRV_COL_TYPE_INTEGER 4 SRV_COL_TYPE_SMALLINT 5 SRV_COL_TYPE_DATE 6 SRV_COL_TYPE_LOGICAL 8 SRV_COL_TYPE_FLOAT 16 SRV_COL_TYPE_FIXED_LEN_STRING 17 SRV_COL_TYPE_BIN_STRING
SRV_COL_INFO_SCALE		5	Integer result, indicating the number of digits to the right of the decimal for a SRV_COL_TYPE_DECIMAL column, or -1 for any other column type.
SRV_COL_INFO_PRECISION		4	Integer result, indicating the total number of digits for a SRV_COL_TYPE_DECIMAL column, or -1 for any other column type.
SRV_COL_INFO_WIDTH		3	Integer result, indicating maximum number of characters in a column of type SRV_COL_TYPE_CHAR or SRV_COL_TYPE_FIXED_LEN_CHAR
SRV_COL_INFO_VALUE		6	Result type varies. Returns the actual data value from the column of the current row. Long character column values greater than 32,766 will be truncated. Binary column values are returned as a double length string of hexadecimal characters.
SRV_COL_INFO_STATUS		7	Integer result, indicating the status of the column value: -1 SRV_NULL_DATA - Returned when the column has no data for that row.

		-2	SRV_TRUNCATED_DATA - Returned when there is more data in the column than can be stored in the MapBasic variable.
SRV_COL_INFO_ALIAS		8	Positive Integer Value - Number of bytes returned by the server. Column alias returned if an alias was used for the column in the query.

SERVER_CONNECTINFO() original version= 5.5

attribute setting	version	code	Server_ConnectInfo() returns:
SRV_CONNECT_INFO_DRIVER_NAME		1	String result, the name identifying the toolkit drivename associated with this connection.
SRV_CONNECT_INFO_DB_NAME		2	String result, returning the database name.
SRV_CONNECT_INFO_SQL_USER_ID		3	String result, returning the name of the SQL user ID.
SRV_CONNECT_INFO_DS_NAME		4	String result, returning the data source name.
SRV_CONNECT_INFO_QUOTE_CHAR		5	String result, returning the quote character.

SERVER_DRIVERINFO() original version= 4.0 SQL-DataLink add-on for version 3.0

attribute setting	version	code	Server_DriverInfo() returns:
SRV_DRV_INFO_NAME		1	String result, the name identifying the toolkit. "ODBC" indicates an ODBC data source. "ORAINET" indicates an Oracle8i connection.
SRV_DRV_INFO_NAME_LIST		2	String result, returns all the toolkit names, separated by semicolons, i.e. "ODBC;ORAINET". The DriverNo parameter is ignored
SRV_DRV_DATA_SOURCE		3	String result, returning the name of the data sources supported by the toolkit. Repeated calls will fetch each name. After the last name for a particular toolkit, the function will return an empty string. Calling the function again for that toolkit will cause it to start with the first name on the list again.

STYLEATTR() original version= 3.0

attribute setting	version	code	StyleAttr() returns:
BRUSH_PATTERN		1	Integer, indicating the Brush style's pattern.

BRUSH_FORECOLOR		2	Integer, indicating the Brush style's foreground color, as an RGB value.
BRUSH_BACKCOLOR		3	Integer, indicating the Brush style's background color as an RGB value, or -1 if the brush has a transparent background.
FONT_NAME		1	String, indicating the Font name.
FONT_STYLE		2	Integer value, indicating the Font style (0 = Plain, 1 = Bold, etc.); see Font clause for details.
FONT_POINTSIZE		3	Integer indicating the Font size, in points. Note: If the Text object is in a mappable table (as opposed to a Layout window), the point size is returned as zero, and the text height is dictated by the Map window's current zoom.
FONT_FORECOLOR		4	Integer value representing the RGB color of the Font foreground.
FONT_BACKCOLOR		5	Integer value representing the RGB color of the Font background, or -1 if the font has a transparent background. If the font style includes a halo, the RGB color represents the halo color.
PEN_WIDTH		1	Integer, indicating the the Pen style's line width, in pixels or points. SEE PEN CLAUSE
PEN_PATTERN		2	Integer, indicating the Pen style's pattern. SEE PEN CLAUSE
PEN_COLOR		4	Integer, indicating the Pen style's RGB color value.
PEN_INTERLEAVED	+4.5	6	Logical, TRUE if line style is interleaved.
PEN_INDEX	+4.5	5	Integer, representing the pen index number from the pen pattern. SEE PEN CLAUSE
SYMBOL_KIND	+4.0	7	Integer, indicating the type of symbol: 1 for MapInfo 3.0 symbols; 2 for TrueType symbols; 3 for bitmap file symbols. 1 SYMBOL_KIND_VECTOR 2 SYMBOL_KIND_FONT 3 SYMBOL_KIND_CUSTOM
SYMBOL_CODE		1	Integer, indicating the Symbol style's shape code. Applies to MapInfo 3.0 symbols and to TrueType symbols.
SYMBOL_COLOR		2	Integer, indicating the Symbol style's color as an RGB value.
SYMBOL_POINTSIZE		3	Integer from 1 to 48, indicating the Symbol's size, in points.
SYMBOL_FONT_NAME	+4.0	5	String, indicating the name of the font used by a TrueType symbol.
SYMBOL_FONT_STYLE	+4.0	6	Integer, indicating the style attributes of a TrueType symbol (0 = plain, 1 = Bold, etc.). See Symbol clause for a listing of possible values.
SYMBOL_ANGLE	+4.0	4	Float number, indicating the rotation angle of a TrueType symbol.
SYMBOL_CUSTOM_NAME	+4.0	8	String, indicating the file name used by a bitmap file symbol.
SYMBOL_CUSTOM_STYLE	+4.0	9	Integer, indicating the style attributes of a bitmap file symbol (0 = plain, 1 = show background, etc.). See Symbol clause for a listing of possible values.

SYSTEMINFO()original version= **3.0**

attribute setting	version	code	SystemInfo() Return Value
SYS_INFO_APPLICATIONWND	+4.0	7	Integer, representing the Windows HWND specified by the Set Application Window statement (or zero if no such HWND has been set).
SYS_INFO_APPDISPATCH	+5.5	17	Integer, representing the Idispach OLE Automation pointer for the MapInfo Application.
SYS_INFO_APPVERSION		2	Integer value: the version number with which the application was compiled, multiplied by 100.
SYS_INFO_CHARSET		5	String value: the name of the native character set.
SYS_INFO_COPYPROTECTED	+4.0	6	Logical value: TRUE means the user is running a copy-protected version of MapInfo.
SYS_INFO_DATE_FORMAT	+4.0	11	String: "US" or "Local" depending on the date formatting in effect; for details, see Set Format.
SYS_INFO_DDESTATUS	+4.0	8	Integer value, representing the number of elements in the DDE execute queue. If the queue is empty, SystemInfo() returns zero (if an incoming execute would be enqueued) or -1 (if an execute would be executed immediately).
SYS_INFO_DIG_INSTALLED	+4.0	12	Logical value: TRUE if a digitizer is installed, along with a compatible driver.
SYS_INFO_DIG_MODE	+4.0	13	Logical value: TRUE if Digitizer Mode is on.
SYS_INFO_MAPINFOWND	+4.0	9	Integer, representing a Windows HWND of the MapInfo frame window, or zero on non-Windows platforms.
SYS_INFO_MDICLIENTWND	+4.0	15	Integer, representing a Windows HWND of the MapInfo MDICLIENT window, or 0 on non-Windows platforms.
SYS_INFO_MIPLATFORM	+4.0	14	Integer value, indicating the type of MapInfo software that is running. The return value will be one of these: 1 MIPLATFORM_WIN16 (16-bit Windows) 2 MIPLATFORM_WIN32 (32-bit Windows) 4 MIPLATFORM_MAC68K (680x0 Macintosh) 3 MIPLATFORM_POWERMAC (Power Macintosh) 5 MIPLATFORM_HP (HP UNIX workstation) 6 MIPLATFORM_SUN (Sun UNIX workstation) 0 MIPLATFORM_SPECIAL
SYS_INFO_MIVERSION		3	Integer value, indicating the version of MapInfo that is currently running, multiplied by 100.
SYS_INFO_NUMBER_FORMAT	+4.0	10	String: "9,999.9" or "Local" depending on the number formatting in effect; for details, see Set Format.
SYS_INFO_PLATFORM		1	Integer value, indicating the hardware platform on which the application is running. The return value will be one of these: 0 PLATFORM_SPECIAL

			1 PLATFORM_WIN
			2 PLATFORM_MAC
			3 PLATFORM_MOTIF
			4 PLATFORM_X11
			5 PLATFORM_XOL
			DWT in 3.0 dropped
SYS_INFO_PRODUCTLEVEL	+4.0	16	Integer value, indicating the product level of the version of MapInfo that is running (e.g. 200 for MapInfo Professional).
SYS_INFO_RUNTIME		4	Logical value: TRUE if invoked within a run-time version of MapInfo, FALSE otherwise

TABLEINFO()

original version=3.0

attribute setting	version	code	TableInfo() returns
TAB_INFO_COORDSYS_CLAUSE	+4.0	29	String result, indicating the table's CoordSys clause, such as "CoordSys Earth Projection 1, 0". Returns empty string if table is not mappable.
TAB_INFO_COORDSYS_MINX	+4.0	25	Float results, indicating the minimum or maximum x or y map coordinates that the table is able to store; if table is not mappable, returns zero.
TAB_INFO_COORDSYS_MINY	+4.0	26	
TAB_INFO_COORDSYS_MAXX	+4.0	27	
TAB_INFO_COORDSYS_MAXY	+4.0	28	
TAB_INFO_COORDSYS_NAME	+4.0	30	String result, representing the name of the CoordSys as listed in MAPINFOW.PRJ (but without the optional "\p..." suffix that appears in MAPINFOW.PRJ). Returns empty string if table is not mappable, or if CoordSys is not found in MAPINFOW.PRJ.
TAB_INFO_EDITED		9	Logical result; TRUE if table has unsaved edits.
TAB_INFO_FASTEDIT		10	Logical result; TRUE if the table has FastEdit mode turned on, FALSE otherwise. (See Set Table for information on FastEdit mode.)
TAB_INFO_MAPPABLE		5	Logical result; TRUE if the table is mappable.
TAB_INFO_MAPPABLE_TABLE	+4.0	12	String result indicating the name of the table containing graphical objects. Use this code when you are working with a table that is actually a relational join of two other tables, and you need to know the name of the base table that contains the graphical objects.
TAB_INFO_MINX	+4.0	20	Float results, indicating the minimum and maximum x- and y-coordinates of all objects in the table.
TAB_INFO_MINY	+4.0	21	
TAB_INFO_MAXX	+4.0	22	
TAB_INFO_MAXY	+4.0	23	

TAB_INFO_NAME		1	String result, indicating the name of the table.
TAB_INFO_NCOLS		4	SmallInt, indicating the number of columns.
TAB_INFO_NREFS	+4.0	31	SmallInt, indicating the number of other base tables that reference this table. (Returns zero for most tables, or non-zero in cases where a table is defined as a join of two other tables, such as a StreetInfo table.) May only be used with base tables (TAB_TYPE_BASE).
TAB_INFO_NROWS		8	Integer, indicating the number of rows.
TAB_INFO_NUM		2	SmallInt result, indicating the number of the table.
TAB_INFO_READONLY		6	Logical result; TRUE if the table is read-only.
TAB_INFO_SEAMLESS	+4.0	24	Logical result; TRUE if seamless behavior is on for this table.
TAB_INFO_TABFILE	+4.0	19	String result, representing the table's full directory path. Returns an empty string if the table is a query table.
TAB_INFO_TEMP		7	Logical result; TRUE if the table is temporary (e.g. QUERY1).
TAB_INFO_TYPE		3	SmallInt result, indicating the type of table. The returned value will match one of these values: 1 TAB_TYPE_BASE (if a normal or seamless table) 2 TAB_TYPE_RESULT (if results of a query) 4 TAB_TYPE_IMAGE (if table is a raster image) 3 TAB_TYPE_VIEW (if table is actually a view; for example, StreetInfo tables are actually views) 5 TAB_TYPE_LINKED (if this table is linked).
TAB_INFO_UNDO		11	Logical result; TRUE if the undo system is being used with the specified table, or FALSE if the undo system has been turned off for the table through the Set Table statement.
TAB_INFO_USERBROWSE	+4.0	14	Logical result: FALSE if a Set Table statement has set the UserBrowse option to Off.
TAB_INFO_USERCLOSE	+4.0	15	Logical result: FALSE if a Set Table statement has set the UserClose option to Off.
TAB_INFO_USERDISPLAYMAP	+4.0	18	Logical result: FALSE if a Set Table statement has set the UserDisplayMap option to Off.
TAB_INFO_USEREDITABLE	+4.0	16	Logical result: FALSE if a Set Table statement has set the UserEdit option to Off.
TAB_INFO_USERMAP	+4.0	13	Logical result: FALSE if a Set Table statement has set the UserMap option to Off.
TAB_INFO_USERREMOVEMAP	+4.0	17	Logical result: FALSE if a Set Table statement has set the UserRemoveMap option to Off.

WINDOWINFO()

original version= 3.0

attribute setting	version	code	WindowInfo(attribute) returns:
WIN_INFO_AUTOSCROLL	+4.0	17	Logical value: TRUE if the autoscroll feature is on for this window, allowing the user to scroll the window by dragging to the window's edge. To turn autoscroll on or off, see Set Window.
WIN_INFO_CLONEWINDOW	+4.0	15	String value: a string of MapBasic statements that can be used in a Run Command statement to duplicate a window. See Run Command.
WIN_INFO_HEIGHT		5	Float value: window height (in paper units).
WIN_INFO_LEGENDS_MAP	+4.0	10	Integer value: when you query a Legend window created using the Create Legend statement, this code returns the Integer window ID of the Map or Graph window that owns the legend. When you query the standard Legend window, returns 0.
WIN_INFO_NAME		1	String value: the name of the window.
WIN_INFO_OPEN		11	Logical value: TRUE if the window is open (used with special windows such as the Info window).
WIN_INFO_SMARTPAN	+4.12	18	Logical value: TRUE if SmartPan has been set on.
WIN_INFO_STATE		9	SmallInt value: 0 WIN_STATE_NORMAL if at normal size 1 WIN_STATE_MINIMIZED if minimized, 2 WIN_STATE_MAXIMIZED if maximized
WIN_INFO_SYSMENUCLOSE	+4.0	16	Logical value: FALSE indicates that a Set Window statement has disabled the Close command on the window's system menu.
WIN_INFO_TABLE		10	String value: For Map windows, the name of the window's "CosmeticN" table. For Layout windows, the name of the window's "LayoutN" table. For Browser or Graph windows, the name of the table displayed in the window.
WIN_INFO_TOPMOST		8	Logical value: TRUE if this is the active window.
WIN_INFO_TYPE		3	SmallInt value: window type: 1 WIN_MAPPER Map window 2 WIN_BROWSER Browse window 3 WIN_LAYOUT Layout window 4 WIN_GRAPH Graph window 1001 WIN_HELP The Help window 1002 WIN_MAPBASIC The MapBasic window 1003 WIN_MESSAGE The Message window (used with the MapBasic Print statement) 1007 WIN_RULER The Ruler window (displays the distances measured by the Ruler tool) 1008 WIN_INFO The Info window (displays data when the user clicks with the Info tool) 1009 WIN_LEGEND The Legend window

		1010	WIN_STATISTICS The Statistics window
		1011	WIN_MAPINFO The MapInfo application window
	+4.0	19	WIN_BUTTONPAD A ButtonPad window
	?	25	WIN_TOOLBAR (in Define, not in Help)
	?	27	WIN_CART_LEGEND (in Define, not in Help)
	?	28	WIN_3DMAP (in Define, not in Help)
WIN_INFO_WIDTH		4	Float value: window width (in paper units).
WIN_INFO_WINDOWID	+4.0	13	Integer value, representing the window's ID; identical to the value returned by WindowID(). This is useful if you pass zero as the window_spec.
WIN_INFO_WND	+4.0	12	Integer value. On Windows, the value represents a Windows HWND for the window you are querying. On the Macintosh, the value represents a WindowPtr. On other platforms, returns zero.
WIN_INFO_WORKSPACE	+4.0	14	String value: the string of MapBasic statements that a Save Workspace operation would write to a workspace to record the settings for this map. Differs from WIN_INFO_CLONEWINDOW in that the results include Open Table statements, etc.
WIN_INFO_X, WIN_INFO_Y		6, 7	Float value: the window's distance from the left (top) edge of the MapInfo work area (in paper units).
WIN_INFO_PRINTER_NAME	+5.5	21	Returns string value with printer identifier (e.g. DISCOVERY\HP4_DEVEL)
WIN_INFO_PRINTER_ORIENT	+5.5	22	Returns 1 WIN_PRINTER_PORTRAIT 2 WIN_PRINTER_LANDSCAPE
WIN_INFO_PRINTER_COPIES	+5.5	23	Returns integer number of copies.
WIN_INFO_SNAPMODE	+5.5	19	Returns a logical value. TRUE if snap mode is on. FALSE if snap mode is off. The value for WIN_INFO_SNAPMODE is 19.
WIN_INFO_SNAPTHRESHOLD	+5.5	20	Returns a SmallInt value representing the pixel tolerance. The value for WIN_INFO_SNAPTHRESHOLD is 20.
WIN_INFO_PRINTER_PAPERSIZE	+6.0	24	Integer value: Refer to Papersize.def file for the meaning of the return value..
WIN_INFO_PRINTER_LEFT_MARGIN	+6.0	25	Float value: left printer margin value in current units.
WIN_INFO_PRINTER_RIGHT_MARGIN	+6.0	26	Float value: right printer margin value in current units.
WIN_INFO_PRINTER_TOP_MARGIN	+6.0	27	Float value: top margin value in current units.
WIN_INFO_PRINTER_BOTTOM_MARGIN	+6.0	28	Float value: bottom printer margin value in current units
.			
WIN_INFO_PRINTER_BORDER	+6.0	29	String value: ON if a black border will be on the printer output, OFF otherwise.
WIN_INFO_PRINTER_TRUECOLOR	+6.0	30	String value: ON if use 24-bit true color to print raster and grid images. This is possible when the image is 24 bit and the printer supports more than 256 colors, OFF otherwise.
WIN_INFO_PRINTER_DITHER	+6.0	31	String value: return dithering method, which is used when it is necessary to convert a 24-bit image to 256 colors. Possible return values are HALFTONE and ERRORDIFFUSION. This option is used when printing raster and grid images.

			Dithering will occur if WIN_INFO_PRINTER_TRUECOLOR is disabled or if the printer color depth is 256 colors or less.
WIN_INFO_PRINTER_METHOD	+6.0	32	String value: possible return values are DEVICE and EMF.
WIN_INFO_PRINTER_TRANSPRASTER	+6.0	33	String value: possible return values are DEVICE and INTERNAL.
WIN_INFO_PRINTER TRANSPVECTOR	+6.0	34	String value: possible return values are DEVICE and INTERNAL.
WIN_INFO_EXPORT_BORDER	+6.0	35	String value: possible return values are ON and OFF.
WIN_INFO_EXPORT_TRUECOLOR	+6.0	36	String value: possible return values are ON and OFF.
WIN_INFO_EXPORT_DITHER	+6.0	37	String value: possible return values are HALFTONE and ERRORDIFFUSION.
WIN_INFO_EXPORT_TRANSPRASTER	+6.0	38	String value: possible return values are DEVICE and INTERNAL.
WIN_INFO_EXPORT TRANSPVECTOR	+6.0	39	String value: possible return values are DEVICE and INTERNAL.

STATEMENTS

Column 1	Statement “name” plus required key words (<u>underlined</u>) or “internal” clause (repetitive parts) in italics right aligned		
Column 2	Version:	+nn added in nn	nn modified in nn (nil) present in 3.0
		SQL-DL existed in the SQL-DatatLik add-on to version 3.0	
		< (to the left) applies to statement	> (to the right) applies to key word or details
Column 3	Key words		
Column 4	Secondary key words or details		
Statement name and Key word: Plain : present in version3.0 Bold : created since v3.0 Italics : modified since creation			

Add Cartographic Frame	+5.0	Window		Add Map <u>Layer</u>		Window		
		Custom		+4.0	Auto			
		Default Frame Title			Animate			
		Default Frame Subtitle						
Frame definition		Default Frame Style		Alter Button		ID		
	Default Frame Border Pen		Enable		Disable			
	Font		Check	Uncheck				
	Frame From Layer		Alter ButtonPad					
	+5.5	Using		button definition		ID		
	+5.5	Column			Add			
	+5.5	Label			Remove			
		Position			Title			
		Units			Width			
		Title			Position			
		SubTitle			Units			
		Border Pen			Show			
		Style			Hide			
		NoRefresh			Destroy			
	Text		+4.0		ToolbarPosition			
	Line Pen		+4.0		Fixed			
	Region Pen		+4.0		Float			
	Brush.					Separator, PushButton, ToggleButton, ToolButton		
	Symbol					+OLE, DDE		
Add Column From Set To		Values	Within, Contains, Intersects			4.0	Calling	
	Where			ID				
	Dynamic			Icon				
						File		
						Cursor		
						4.0	DrawMode	+2 modes
						HelpMsg		

		ModifierKeys Enable Disable Check Uncheck	On, Off	Alter Menu <u>Remove</u>		ID <i>remove</i> ID	
Alter Cartographic Frame <u>ID</u>	+5.0	Window Position Units Title SubTitle Font Border Pen Style ID Text Line Pen Region Pen Brush. Symbol		Alter Menu Bar		Add Remove ID	
				Alter Menu Item		ID Check Uncheck Enable Disable Text Calling As	
Alter Control		Title From Variable Value Enable Disable Show Hide Active		Alter Object	6.5 <i>Node</i>	Note: extensions to deal with MultiPoint and Collection objects see obj_info_code values see obj_geo_code values Info Geography Node Add Position Set Position Remove Position	
Alter MapInfoDialog <u>Control</u>				Alter Table		Add Modify Drop Rename Order Interactive	
Alter MapInfoDialog <u>Default</u>					4.0		
Alter Menu <u>Add</u>		ID ID HelpMsg Calling As		AutoLabel		Window Selection Layer Overlap Duplicates	On, Off On, Off
<i>menu defintion</i>				Beep	+4.0		
				Browse <u>From</u>		Position Width Height	

		Units Row Column Min Max				4.0 Fixed			
						4.0 Float			
						Show		Hide	
Call					<i>button definition</i>				Separator, PushButton, ToggleButton, ToolButton +OLE, DDE
Close All		Interactive				4.0 <i>Calling</i> ID Icon Cursor File			
Close File		#				4.0 DrawMode HelpMsg ModifierKeys Enable		+2 modes On, Off	
Close Table		Interactive				Check		Disable	
<i>Close Window</i>	4.0	Interactive				Uncheck			
<i>Commit Table</i>		As 5.0 Type Native Type DBF +4.1 Type Access Database +5.0 Type Query +4.1 Table +4.1 Password Charset CoordSys Version +4.1 Interactive +4.1 Automatic			Create ButtonPads As Default				
					<i>Create Cartographic Legend</i>	+5.0			
							From Window Behind Position Width Height Units Window Title ScrollBars Portrait Landscape Custom Default Frame Title Default Frame Subtitle Default Frame Style Default Frame Border Pen Frame From Layer		On, Off
Continue						+5.5 Using			
Create Arc		Into Window Variable Pen				+5.5 Column			
<i>Create ButtonPad As</i>		ID Title Width Position Units 4.0 ToolbarPosition			<i>frame definition</i>	+5.5 Label Position			

		Color Resolution Scale Background Units			+6.5	Multiple Pen Smooth	
Create Menu <u>As</u> <i>menuitem</i>		ID ID HelpMsg Calling As		Create Point		Into Window Variable Symbol	
Create Menu <u>As Default</u>				Create PrismMap MapString With	+6.5	From Window Camera Pitch Roll Yaw Elevation Position FocalPoint Orientation Light Color Scale Background	
Create Menu Bar <u>As</u>		ID		Create Ranges <u>From With</u> <u>Into Variable</u>		Use Quantile Using Number Round	Equal Count, Equal ranges, Natural Break, StDev
Create Menu Bar <u>As Default</u>				Create Rect		Into Window Variable Pen Brush	
Create MultiPoint	+6.5	Into Window Variable Symbol		Create Redistricter <u>By</u> <u>With</u>		Count Brush Symbol Pen Sum Order	Percent MRU, Alpha, Unordered
<i>Create Object As <u>From</u></i>		Buffer Union Intersect Merge +6.0 ConvexHull Into Table Variable Width +5.5 Type Units Resolution Data Group By RowID	Spherical, Cartesian				
<i>Create Pline</i>		Into Window Variable Multiple -4.0	In v4.5, the number of nodes went from 32K to over one million				

Create Region		Into Window Variable Pen Brush Center	In v4.5, the number of nodes went from 32K to over one million			Justify Angle	Left, Center, Right
				DDEExecute			
				DDEPoke			
				DDETerminate			
Create Report From Table	+5.0	Into Interactive		DDETerminateAll			
Create RoundRect		Into Window Variable Pen Brush		Declare Function <u>As</u>		ByVal As	
				Declare Function <u>Lib As</u>		Alias ByVal As	
Create Styles <u>From To</u> <u>Vary Into Variable</u>		Pen Brush Symbol Color By Background By Size By Number Inflect At <u>With</u>	RGB, HSV RGB, HSV Log, Sqrt, Constant	Declare Sub		ByVal As	
				Declare Sub <u>Lib</u>		Alias ByVal As	
				Define			
Create Table		File Type Native Type DBF CharSet 4.1 Type Access 4.1 Database 4.1 Table 4.1 Password Version		Delete <u>From</u>		Object Where Rowid=+6.5	
				Dialog		Title Width Height Position Calling Control ...	
				<i>At least one control clause</i>			
Create Text		Into Window Variable Font Label Line Spacing	Simple, Arrow 1.0, 1.5, 2.0	Dialog preserve			
				Dialog Remove			
				Dim <u>As</u>			
				Do Case <u>End Case Case</u>		Case Else	

Do <u>Loop</u>		Until While		Find		Interactive	
Drop Index				Find Using		Refine Using Options Abbrs ClosestAddr OtherBdy Symbol +6.0 Inset +6.0 Percent +6.0 Distance Units +6.0 Offset	On, Off On, Off On, Off
Drop Map							
Drop Table							
<i>End MapInfo</i>	+4.0	Interactive		For <u>Next To</u>		Step	
End Program				Function <u>End Function As</u>		ByVal As	
Error				Get		#	
Exit Do				Global <u>As</u>			
Exit For				GoTo			
Exit Function				<i>Graph <u>From</u></i>		Position Width Height Units Min Max +5.5 Using +5.5 Restore +5.5 Series in Columns	
Exit Sub				If <u>End If Then</u>		Else Elseif	
<i>Export <u>Into</u></i>	+4.0	Type CharSet Delimiter Titles Overwrite	MIF, DBF, ASCII	<i>Import</i>		Type Into +4.0 Overwrite	MIF, MBI, MMI, IMG, PICT
<i>Export <u>Into</u></i>	+4.0 +4.0 +4.0 +4.0 +4.0 +4.0 +4.0 +4.0 +4.0	Type Overwrite Preserve AttributeData MultiPolygonRgns As Blocks Binary ASCII DecimalPlaces Version Transform	DXF 12, 13	<i>Import</i>		Type Into	DXF
Fetch <u>From</u>		First, Last, Next, Prev, Rec					

layer definition	+4.0	Overwrite	On, Off
	+4.0	Warnings	
	+4.0	Preserve	
	+4.0	AttributeData	
	+4.0	Blocks As	
		MultipolygonRgns	
	+4.0	CoordSys	
	+4.0	AutoFlip	
	+4.0	Transform	
	+4.0	Read	
	+4.0	Integer As Decimal	
	+4.0	Float As Decimal	
	+4.0	Store	
	+4.0	Handles	
	+4.0	Elevation	
	+4.0	VisibleOnly	
	+4.0	Layer	
	+4.0	Into	
	+4.0	Preserve	
	+4.0	AttributeData	
	+4.0	Blocks As	
		MultipolygonRgns	
Include			
Input #			
Insert <u>Into</u>		Values Select From	
Kill			
Layout		Position Width Height Units Min Max	
Line Input		#	
Map <u>From</u>		Position Width	
		Height Units Min Max	
Menu Bar		Hide Show	
Metadata <u>Table</u>	+4.0	SetKey To DropKey Hierarchical SetTraverse Into ID	
Metadata <u>Traverse</u>	+4.0	Next Into Key Into Value Destroy	
Note			
Objects <u>Check From</u>	+6.0 +6.5 +6.5 +6.5	Into Table SelfInt Symbol Overlap Pen Brush Gap Units	
Objects <u>Clean From</u>	+6.5	Overlap Gap Units	
Objects Combine		Into Target Data	
Objects <u>Disaggregate</u>	+6.5	IntoTable All Collection Data	
Objects <u>Enclose</u>	+6.0		
	+6.5	Into Table Region	

Objects Erase <u>Into Target</u>		Data				Graphic Data	
Objects Intersect <u>Into Target</u>					+4.0	Graphic Data	
		Data			+4.0	Interactive	
Objects Overlay <u>Into Target</u>					Print		
					Print #		
Objects Snap From	+6.5	Tolerance Node Vector Units Thein Bend Distance Cull Area			PrintWin	Window Interactive	
Objects Split <u>Into Target</u>		Data			ProgressBar <u>Calling</u>	Range	
OnError <u>GoTo</u>					Put	#	
Open File <u>As</u>		For Access # Len= ByteOrder Charset Filetype	Input, Output, Append, Random, Binary Read, Write, Read Write		Randomize	With	
			Lowhigh, Highlow		ReDim		
Open Report	+5.0				<i>Register Table</i>	<i>Type</i>	Native, DBF, Ascii, WKS, XLS
<i>Open Table</i>		As Hide ReadOnly Interactive				+4.1 +5.0 +5.5	Access ODBC Grid, Raster
	+4.1 +4.1 +6.0 +6.0	Password NoIndex View Automatic DenyWrite				CharSet Delimiter Titles Range Into	
Open Window					+4.1 +4.1 +5.0 +5.0 +5.0 +5.5 +6.5 +6.5 +6.5	Table Password Cache Connection Handle Toolkit controlPoints Coordsys Interactive	On, Off
<i>Pack Table</i>					Relief Shade	+5.5	Grid Horizontal Vertical Scale

Server Fetch	+4.0 SQL-DL	Next, Prev, First, Last, Rec				Window	
Server Fetch <u>Into</u>	+4.0 SQL-DL	File				Table Window	
Server Link Table <u>Using</u> <u>Into</u>	+4.0 +5.5	Toolkit File ReadOnly				Off	
Server Link Table <u>Into</u>	+4.1 +5.5	Toolkit File ReadOnly				Label Units Width Height Resolution Button Mode	On, Off
Server Refresh	+4.0						
Server RollBack	+4.0 SQL-DL						
Server Set Map	+4.1	ObjectType Symbol Linestyle Pen Regionstyle Pen Brush	Point, Line, Region				
Set Application Window	+4.1						
Set Area Units							
Set Browse		Window Grid Row Column	On, Off				
Set Cartographic Legend	+5.0 +6.0	Window Refresh Portrait Landscape Frame Order Align					
Set Cartographic Legend <u>Redraw</u>	+5.0	On Off					
Set Command Info <u>To</u>	+4.0						
Set CoordSys							
Set Date Window	+5.5						
Set Digitizer <u>Coordsys</u>							
Set Digitizer Mode	+4.0					On Off	
Set Distance Units							
Set Drag Threshold	+4.0						
Set Event Processing						On Off	
Set File Timeout							
Set Format Date	+4.0 +4.0						US, Local
Set Format Number	+4.0 +4.0						9,999.9, Local
Set Graph (pre 5.5)						Window Type Stacked Overlapped Droplines Rotated Show3d Overlapped Gutter Angle Title	Area, Bar, Line, Pie, XY On, Off On, Off On, Off On, Off On, Off

Series definition		Font					Extents	To Fit
		Pagebreaks					On, Off	
		Frame Contents					Active, On, Off	
		Brush					Ruler	On, Off
		Line					To Fit	
		Symbol						
		Title						
		Wedge						
		Axis						
Axis definition		Tick						
							Label, Value	
							Major, Minor	
								Cross, Inside, None, Outside
		Grid					Major, Minor	
							On, Off	
		Pen						
		Labels					None, At Axis	
		Font						
		Min						
		Max						
		Cross						
		Auto						
		Unit					Major, Minor	
		Pen						
Legend		Title						
		Font						
		Legend						
		Title						
		Font						
		Subtitle						
		Range						
Set Graph (5.5 on)	+5.5	Window					Window	
		Title					Center	
		SubTitle						
		TitleSeries						
		TitleGroup					+4.0 Smart Redraw	
		TitleAxisY1						
		TitleAxisY2						
Set Handler	+4.0	On					+4.0 Clipping	Object, On Off
							+6.0 Using Display	All, PolyObj
							+6.0 Using Overlay	
							Zoom	
							Units	
							Entire	
							Layer	
							Preserve	Scale, Zoom
							Display	Scale, Position, Zoom
							Order	
							Pan	North, South, East, Wesr
							CoordSys	
							Area Units	
							Distance Units	
							+5.5 Distance Type	Spherical, Cartesian
							XY Units	
							+5.5 Display Decimal	On, Off
							+6.5 Display Grid	
							Scale For	
							Redraw	On, Off

layer definition	+5.0	Inflect at		object definition	+4.1	PartialSegments	On, Off	
	+5.5	by percent			+4.0	Duplicates	On, Off	
	+5.5	Round			+4.0	Max		
	+5.0	Contrast			+4.0	Offset		
	+5.0	Brightness			+4.1	Default		
	+6.5	Alpha			+4.0	Object		
	+6.5	Translucency			+4.0	Table		
	+6.5	Transparency	On, Off		+4.0	Visibility	On, Off	
	+6.5	Color			+4.0	Anchor		
	+5.0	GrayScale	On, Off		+4.0	Text		
	+5.5	Relief	On, Off		+4.0	Line	Simple, Arrow, None	
	+5.5	Move Nodes	Default		+4.0	Position	Center, Above,,Below	
		Layer					Left, Right	
		+6.0	Activate			+4.0	Angle	
labels in layer		+6.0	Using		+4.0	Offset		
		+6.0	On		+4.0	Callout		
		+6.0	Labels	Set Map3D	+6.0	Window Camera Pitch Roll Yaw Elevation Position FocalPoint Light Color Resolution Scale Background Refresh		
		+6.0	Objects					
		+6.0	Relative Path					On, Off
			Display					Off, Graphic, Value, Global
			Global Line					
			Global Pen					
			Global Brush					
			Global Symbol					
			Global Font					
			Editable					On, Off
			Selectable					On, Off
			Zoom					On, Off
			Units					
			Arrows					On, Off
			Centroids	On, Off				
			Default Zoom					
			Nodes	On, Off				
			Label					
		Line	Simple, Arrow, None					
		Position	Center, Above,,Below					
			Left, Right					
		Font		Set Next Document	+4.0	Parent Style		
		Pen						
		With						
	+4.0	Parallel	On, Off	Set Paper Units				
	+4.0	Visibility	On, Off, Zoom					
	+4.0	Auto	On, Off					
	+4.0	Overlap	On, Off					
				Set PrismMap	+6.5	Window Camera Zoom Pitch Roll Yaw Elevation		

		Position FocalPoint Light Position Color Background Label With Refresh					Off
Set ProgressBars		On					Min, Max, Restore
Set Redistricter		Off					Default
		Change To Add Remove Pen Brush Symbol					
Set Redistricter <u>Order</u>				<i>order</i>	Alpha, MRU, Unordered		
Set Resolution							
Set Shade		Window					
Set Style		Brush Font Pen Symbol					
Set Table		FastEdit Undo ReadOnly +4.0 Seamless +4.0 UserMap +4.0 UserBrowse +4.0 UserClose +4.0 UserEdit +4.0 UserRemoveMap +4.0 UserDisplayMap +4.0 Preserve	On, Off On, Off On, Off On, Off On, Off On, Off On, Off On, Off				
Set Target		On					

Set Window		Position Width Height Units Font					
		Front Title Help File					
		+4.0 File default +4.0 Off +4.0 Permanent Contents ID					
		+4.0 Show +4.0 Hide					
		ScrollBars				On, Off	
		+4.0 AutoScroll +4.0 Parent +4.0 ReadOnly +4.0 Default Access +4.0 Table Rec				On, Off	
		SysMenuClose				On, Off	
		+5.5 Printer +5.5 Name +5.5 Orientation +5.5 Copies +6.0 Papersize +6.0 Border +6.0 TrueColor +6.0 Dither +6.0 Method +6.0 Transparency +6.0 Raster +6.0 Vector +6.0 Margins +6.0 Export +6.0 Default +5.5 Snap +5.5 Smart Pan				Portrait, Landscape On, Off On, Off Halftone, ErrorDiffusion Device, Emf Device, Internal Device, Internal Left, Right, Top, Bottom, Units On, Off On, Off	

	+5.5	Threshold	Default	Shade <u>With</u>			
Shade <u>With Ranges</u>		Window Ignore Apply Use From Variable Style Variable Default Pen Line Brush Symbol	Color, Size, All Color, Size, All			Bar Stacked Bar Window Selection Normalized Fixed Max Size Units At Value Vary Size by Border Pen Frame Brush Width Position Style Brush	Log, Sqrt, Const Left, Right, Center Above, Below, Center
Shade <u>With Values</u>		Window Ignore Default Pen Line Brush Symbol		Status Bar		Show Hide Message +4.5 ViewDisplayPopUp +4.5 EditLayerPopUp	On, Off On, Off
Shade <u>With Density</u>		Window Color		Stop			
Shade <u>With Graduated</u>		Window Symbol Inflect Symbol Vary Size by	Log, Sqrt, Const	Sub <u>End Sub</u>		ByVal As	
Shade <u>With Pie</u>		Window Selection Half Angle Counter Fixed Max Size Units At Value Vary Size by Border Pen Position Style Brush	Log, Sqrt, Const Left, Right, Center Above, Below, Center	Terminate Application			
				Type <u>End Type As</u>			
				UnDim	+4.0		
				Unlink	+4.0		
				Update <u>Set</u>		Where RowID =	
				Update Window			
				While <u>Wend</u>			
				Write #			

