precisely

MapInfo Pro

Version 2021.1

MapInfo Pro Release Notes

Contents:

Introduction

This document gives you a list of the new and enhanced features introduced in this release. For details on these features, see What's New in MapInfo Pro chapter in the MapInfo Pro *Help System*. It also provides information about resolved issues and known issues that are important to MapInfo® Pro users.

Notes about this Release

What's New in MapInfo Pro

Thank you for upgrading to the most advanced computer mapping product in the Precisely software family! As the field of computer mapping continues to expand, Precisely leads the way with new products that are designed to fulfill your computer mapping needs from the most basic to the most specialized. This is a list of the most important features and enhancements scheduled to be released with MapInfo Pro 2021.1.

Here are the highlights:

New Features

MapInfo Pro version 2021.1

Choose Projection

You can now use the new and enhanced **Choose Projection** dialog box (Coordinate System picker) to select the projection for the data you are opening. This dialog is resizable and searchable. You can search for a specific projection using a part of the projection name, category, datum, or the EPSG code. You can also:

1. Set **Favorites** by clicking on the gray star icon at the beginning of each projection entry. The star icon becomes yellow and gets added to the **Favorites** section pinned at the top of the list. There is no limit on the number of favorite projections you can set.
2. Use the **Recents** section pinned on top that shows a list of up to ten recently used projections.
3. You can also toggle the **Recents**, **Favorites**, and **Projections** lists.
4. Use shortcuts:

a. Shift+F to open the **Favorites** list.
b. Shift+R to open the **Recents** list.
c. Alt+S to go to the Search box.

> **Note:** **Favorites** and **Recents** are stored in :
> `%APPDATA%\MapInfo\MapInfo\Preferences.xml`.

About Choose Projection

What is the purpose of Choose Projection?

To select the projection for the data you are opening.

How do I access Choose Projection?

You can access the Choose Projection dialog from the status bar, from the Layers list and using Map Options.

You can also use the Shift+C shortcut to open the Choose Projection dialog from the Map window.

Using the Run Menu Command 865.

Reverting to the legacy Choose Projection dialog?

Use the following MapBasic command:

```
Set CoordSys Dialog Version version_number
```

where

version_number value of 2100 or less will make MapInfo Pro use the legacy **Choose Projection** dialog and setting 2101 and later will use the new **Choose Projection** dialog.

MapInfo Pro version 2021

Time Series

You can now create a Time Series on a map in MapInfo Pro. A MapInfo Pro Time Series enables you to visualize data and trends from a table or a map over a period of time. You can add a Time Series to a map in MapInfo Pro provided that map has a layer with the date, time, or the datetime attribute.

Select By Attribute

You can now use the **Select By Attribute** window to create a selection using the conditions and attributes from the table directly without using any SQL queries.

Smart Text Adornment

You can now add a smart text adornment to a map. A **Smart Text Adornment** is a map adornment that displays a configurable text label over a map.

Embed Theme Legend

If you have a Theme Legend present, you can add it as an embedded Legend into a map window.

Enhancements and Updates

MapInfo Pro version 2021.1

Updates to the Layer Time Options

New option "Expression" in the Column drop-down

The **Column** drop-down in the **Layer Time Options** dialog now contains an option **Expression...** which allows you to construct your own expressions instead of just picking an existing column. This enables you to do things such as:

• Convert a string or numeric column into a Date or DateTime value

```
StringToDateTime(DateStrCol,"dd.MM.yyyy h:mm:ss tt", "en-US")
```

• Extract a time value from the table name or path

```
StringToDate(Mid$(LayerInfo(CurContext(4), CurContext(5),
LAYER_INFO_NAME), 14, 10), "yyyy_MM_dd")
```

• Extract a time value from the layer name

```
StringToDate(Mid$(LayerInfo(CurContext(4), CurContext(5),
LAYER_INFO_ALIAS), 14, 10), "yyyy_MM_dd")
```

• Extract a time value from the table meta-data

```
StringToDate(GetMetadata$(LayerInfo(CurContext(4), CurContext(5),
    LAYER_INFO_NAME), "\Time\Start"), "yyyy_MM_dd")
        begin_metadata
            "\Time\Start" = "2004-01-01"
            "\Time\End" = "2004-01-31"
        end_metadata
```

• Enter a 'hard coded' time value

```
NumberToDate(20041201)
```

There can be performance implications to evaluating these expressions, so use carefully.

Time Series using Visibility Expression for Raster and Vector Layers

Use the **Visibility Expression** option in the **Layer Time Options** dialog to create a time series on a raster or vector layer where the time is represented in the row data. In some cases, you may have an entire table with the same time value either in a vector table or a raster table.

The **Visibility Expression** option lets you enter a MapBasic expression for the start, end, and duration, depending on the chosen configuration. These expressions are then combined into a more complex expression for a time period that is set as the layer visibility expression for the layer. The expression determines if the layer is visible for that current time period or not. Refer to the topic above, **New option "Expression" in the Column drop-down** for examples of how to create a time expression using the **Expression...** option in the **Column** drop-down.

Time Series support for WMS layers

Support for Time-Enabled WMS Layers

Use the **Wms** option in the **Layer Time Options** dialog to create a Time Series for a time-enabled WMS layer. For a WMS layer, by default, the **Wms** option is selected, **Row Filter** is disabled, and **Visibility Expression** is enabled.

Select the **Time configuration** option in the **Configuration** drop-down. **Extents** and **Period** are pre-filled based on the GetCapabilities response. You can change the **Extents** and **Period** values from this dialog.

For a time enabled WMS layer, the `Dimension` tag is present in the `GetCapabilties` response. Based on this MapInfo Pro sets the icon for each layer. For example:

```
<Dimension name="time" units="ISO8601" default="2022-02-01T00:00:00"

nearestValue="0">2011-01-01T00:00:00/2022-02-01T00:00:00/PT24H</Dimension>
```

You can also create a Time Series for time enabled WMS Layers using the following MapBasic statement:

```
Set Map Window <window_id> Layer <layer_id> Time Type wms Extents Begin

    "<start datetime>" End "<End Datetime>" Interval <IntervalCount>
"<IntervalUnit>"
```

For example,

```
Set Map Window 3008 layer 1 Time Type wms Extents Begin
    "19950101000000000" End "20221231000000000" Interval 5 "year"
```

The following WMS Servers supports the time dimension)

1. http://globalfloods-ows.ecmwf.int/glofas-ows/ows.%20py?service=WMS&version=1.3.0&request=GetCapabilities
2. http://mesonet.agron.iastate.edu/cgi-bin/wms/nexrad/n0r-t.cgi?SERVICE=WMS&request=GetCapabilities

Support for non Time Enabled WMS Layers

Use **Visibility Expression** to create a Time Series for a WMS Layer, which is not time enabled. Depending on the **Configuration** chosen, you can enter a MapBasic expression for start time, end time, and duration.. These expressions are then combined into a more complex expression for a time period that is set as the layer visibility expression for the layer. The expression determines if the layer is visible for that current time period or not. Refer to the topic above, **New option "Expression" in the Column drop-down** for examples of creating a time expression using the **Expression...** option in the **Column** drop-down.

Clear Time Series

To clear/remove a Time Series from a WMS Layer:

1. Open the **Layer Time Options** dialog.
2. Select **No Time configuration** from the **Configuration** drop-down and click **OK**.

You can also use the following MapBasic statement to clear a Time Series:

```
Set Map Window <window_id> Layer <layer_id> Time Clear
```

Updates to the Layer Properties

The **Filter** tab on the **Layer Properties** dialog now contains a functionality called **Visibility Expression**. **Visibility Expression** is a Boolean (logical) MapBasic expression that determines if a Layer will be visible or not when a Map is being drawn. It is similar to Zoom Layering, but the expression is more flexible. The expression can be based on a Map, a Layer or a Table properties by using the `CurContext()` function along with `MapperInfo()`, `LayerInfo()` or `TableInfo()` functions in the expression.

An example use case is showing a layer only within a certain scale range. Another could be showing the layer only during certain time periods in a time series.

Visibility Expression is used by the **Time Series** feature to do this. For example:

```
Show layer below certain map scale
    Int(MapperInfo(CurContext(CONTEXT_MAPWINDOWID), MAPPER_INFO_SCALE))
 < 2000
```

New Coordinate Systems and Projections

New Datum DB_REF #1030 for Germany

Using this datum in Workspaces and exporting it to MIF\MID will create a version 2101 *.WOR file and *.MIF file.

> **Note:** SAFE FME does not have this datum definition, so saving to *. GPKG, or opening *.SHP files to TAB, where MapInfo Pro uses FME to do CoordSys look-ups, will not find this datum and will assign it to WGS84 by default. SAFE software should add this datum to their next FME release.

Datum (DB_REF) #1030 parameters:

- Datum Name: DB_REF
- Ellipsoid: Bessell #10
- Delta X: 584.9636
- Delta Y: 107.7175
- Delta Z: 413.8067
- Rotation X: -1.1155214628
- Rotation Y: -0.2824339890
- Rotation Z: 3.1384490633
- Scale (ppm): 7.992235
- Prime Meridian: 0.0

New Projection entries added to MapInfo Projection list for Germany

"--- German Coordinate Systems ---"

"ETRS89 UTM Zone 30 North\p25830", 8, 115, 7, -3, 0, 0.9996, 500000, 0

"ETRS89 UTM Zone 31 North\p25831", 8, 115, 7, 3, 0, 0.9996, 500000, 0

"ETRS89 UTM Zone 32 North\p25832", 8, 115, 7, 9, 0, 0.9996, 500000, 0

"ETRS89 UTM Zone 33 North\p25833", 8, 115, 7, 15, 0, 0.9996, 500000, 0

"ETRS89 UTM Zone 34 North\p25834", 8, 115, 7, 21, 0, 0.9996, 500000, 0

"ETRS89 UTM Zone 35 North\p25835", 8, 115, 7, 27, 0, 0.9996, 500000, 0

"ETRS89 UTM Zone 32 North (zE-N)\p4647", 8, 115, 7, 9, 0, 0.9996, 32500000, 0

"ETRS89 UTM zone 33N (zE-N)\p5650", 8, 115, 7, 15, 0, 0.9996, 33500000, 0

"Cassini-Soldner Berlin\p3068", 30, 1000, 7, 13.62720367, 52.41864828, 40000, 10000

"DB_REF 3-degree GK Zone 2 (E-N)\p5682", 8, 1030, 7, 6, 0, 1, 2500000, 0

"DB_REF 3-degree GK Zone 3 (E-N)\p5683", 8, 1030, 7, 9, 0, 1, 3500000, 0

"DB_REF 3-degree GK Zone 4 (E-N)\p5684", 8, 1030, 7, 12, 0, 1, 4500000, 0

"DB_REF 3-degree GK Zone 5 (E-N)\p5685", 8, 1030, 7, 15, 0, 1, 5500000, 0

"DHDN 3-degree GK Zone 2\p5676", 8, 1000, 7, 6, 0, 1, 2500000, 0

"DHDN 3-degree GK Zone 3\p5677", 8, 1000, 7, 9, 0, 1, 3500000, 0

"DHDN 3-degree GK Zone 4\p5678", 8, 1000, 7, 12, 0, 1, 4500000, 0

"DHDN 3-degree GK Zone 5\p5679", 8, 1000, 7, 15, 0, 1, 5500000, 0

"GK Zone 2 (DHDN)\p31466", 8, 1000, 7, 6, 0, 1, 2500000, 0

"GK Zone 3 (DHDN)\p31467", 8, 1000, 7, 9, 0, 1, 3500000, 0

"GK Zone 4 (DHDN)\p31468", 8, 1000, 7, 12, 0, 1, 4500000, 0

"GK Zone 5 (DHDN)\p31469", 8, 1000, 7, 15, 0, 1, 5500000, 0

"PD/83 3-degree Gauss-Kruger Zone 3\p3396", 8, 1000, 7, 9, 0, 1, 3500000, 0

"PD/83 3-degree Gauss-Kruger Zone 4\p3397", 8, 1000, 7, 12, 0, 1, 4500000, 0

"RD/83 3-degree Gauss-Kruger Zone 4\p3398", 8, 1000, 7, 12, 0, 1, 4500000, 0

"RD/83 3-degree Gauss-Kruger Zone 5\p3399", 8, 1000, 7, 15, 0, 1, 5500000, 0

"PD/83 3-degree Gauss-Kruger zone 3 (E-N)\p5666", 8, 1000, 7, 9, 0, 1, 3500000, 0

"PD/83 3-degree Gauss-Kruger zone 4 (E-N)\p5667", 8, 1000, 7, 12, 0, 1, 4500000, 0

"RD/83 3-degree Gauss-Kruger Zone 5 (E-N)\p5669", 8, 1000, 7, 15, 0, 1, 5500000, 0

"ETRS89 Gauss-Kruger CM 9E\p8395", 8, 115, 7, 9, 0, 1, 500000, 0

"Longitude / Latitude (DHDN)\p4314", 1, 1000

"Longitude / Latitude (PD/83)\p4746", 1, 1000

New Datum PRS92 #1031 for Philippines

Using this datum in Workspaces and exporting it to MIF\MID will create a version 2101 *.WOR file and *.MIF file.

> **Note:** SAFE FME does not have this datum definition, so saving to *. GPKG, or opening *.SHP files to TAB, where MapInfo Pro uses FME to do CoordSys look-ups will not find this datum and will assign it to WGS84 by default. SAFE software should add this datum to their next FME release.

Datum (PRS92) #1031 parameters:

- Datum Name: PRS92
- Ellipsoid: Clarke 1866 #7
- Delta X: -127.62
- Delta Y: -67.24
- Delta Z: -47.04
- Rotation X: -3.068
- Rotation Y: 4.903
- Rotation Z: 1.578
- Scale (ppm): -1.06
- Prime Meridian: 0.0

New Projection entries added to MapInfo Projection list for Philippines

"--- Philippines Projections ---"

"Longitude / Latitude (PRS92)\p4683", 1, 1031

"PRS 92 Philippines Zone 1/p3121", 8, 1031, 7, 117, 0, 0.99995, 500000, 0

"PRS 92 Philippines Zone 2/p3122", 8, 1031, 7, 119, 0, 0.99995, 500000, 0

"PRS 92 Philippines Zone 3/p3123", 8, 1031, 7, 121, 0, 0.99995, 500000, 0

"PRS 92 Philippines Zone 4/p3124", 8, 1031, 7, 123, 0, 0.99995, 500000, 0

"PRS 92 Philippines Zone 5/p3125", 8, 1031, 7, 125, 0, 0.99995, 500000, 0

Refresh Query Option in the SQL Dialogs

You can now refresh specific queries instead of closing and recreating a query table, thus allowing any existing layers based on the query table to remain on the map and the themes based on them. The Browser windows would also not be closed. For a query to be refreshable, it must have a non-empty WHERE clause and have a query INTO table name other than Selection. The query must not have a GROUP BY clause.

The **SQL Select** dialog has a new check-box **Update Existing** enabled when the query is refreshable. If selected, the column list, group by, and order by text boxes are disabled as you cannot change them. You can only update the WHERE clause.

The **Select By Location** and **Select By Attribute** each have a new **Refresh** toggle button enabled when the query is refreshable.

WFS: Temporary Cache Support for Centralized Workspaces

If you are using Centralized Workspaces, select the **Temporary cache** option in the **WFS Properties** dialog to create or update the data files in a temporary folder on the local machine instead of a centralized location. This way each user will have his/her own data files at his/her machine while these will be updated from the server.

Object Model Support for WMS Time Series

ILayer.SetTimeExpressions Method

Object model of WMS Time Series is supported on a Layer. All methods related to Vector Time Series are the same. Only the SetTimeExpressions() method in ILayer interface is modified to support object model of WMS Time Series.

Used to set the expressions used to construct a layer time query.

Namespace: MapInfo.Types.Data

Assembly: MapInfo.Types (in MapInfo.Types.dll)

Syntax:

```
void SetTimeExpressions (
    string beginExpr = null,
    string beginExpr2 = null,
```

```
    string endExpr = null,
    string endExpr2 = null,
    bool isDuration = false,
    DateTimeUnit durationUnit = DateTimeUnit.None,
    LayerTimeConfigType configType = LayerTimeConfigType.RowFilter
)
```

Remarks:

For a WMS Layer, the only required parameter is `configType` as `LayerTimeConfigType`. WMS and REST parameters are the default values. This function will set Time Series with server default values for extent time, duration etc.

Example:

```
Void Set_WMS_TimeSeries(ILayer layer)
{
    layer.SetTimeExpressions(
        None,
        None,
        None,
        None,
        False,
        DateTimeUnit.None,
        LayerTimeConfigType.Wms
    );
}
```

Object Model Support for Smart Text Adornment

Object model for Smart Text Adornment is supported on a Map for creating and editing smart text Adornment. To Support this Object Model, the interface `IMap` type exposes the following members for Smart Text Adornment.

IMAP.CreateSmartTextAdornment Method

Create SmartText Adornment on a Map.

Namespace: MapInfo.Types.Data

Assembly: MapInfo.Types (in MapInfo.Types.dll)

Syntax:

```
//Python
Void CreateSmartTextAdornment(
    string smartText,
    AdornmentRelativePosition relativePos =
AdornmentRelativePosition.TopCenter,
    bool border = true,
    string fontClause = "Font (\"Arial\",0,10,0)"
)
```

Parameters:

smartText:

Type: SystemString

smartText could be a simple text expression or, a MapBasic expression to evaluate a value and display it as text on a map.

relativePos (Optional)

Type: AdornmentRelativePosition

Adornment Relative Position on a Map.

border (Optional)

Type: SystemBoolean

If true, then the border rect area will be drawn.

fontClause (Optional)

Type: SystemString

Specifies the Font clause in string to set the font style on text.

Remarks:

Font clause is same as MapBasic Font clause Expression:

```
Font (fontname, style, size, fgcolor, bgcolor)
```

Example:

```
void MapInfoPro_CreateSmartTextAdornment(IMap map)
{
    map.CreateSmartTextAdornment("$mb{\"Title: \" +
WindowInfo(CurContext(4),
    WIN_INFO_NAME)}",
    AdornmentRelativePosition.TopCenter,
    True,
    "Font(\"Tahoma\", 0, 12, BLUE, WHITE)"
    );
}
```

IMAP.SetSmartTextAdornmentText Method

Set text of SmartText Adornment on a Map.

Namespace: MapInfo.Types.Data

Assembly: MapInfo.Types (in MapInfo.Types.dll)

Syntax:

```
//Python
void SetSmartTextAdornmentText(int windowID, string smartText)
```

Parameters:

windowID

Type: Int32

Adornment's Window Id.

smartText

Type: SystemString

smartText could be a simple text expression or, a MapBasic expression to evaluate a value and display it as text on a map.

Example:

```
//Show how to Set text of Smart Text Adornment on a Map
void MapInfoPro_SetSmartTextAdornmentText(IMap map)
{
        map.SetSmartTextAdornmentText(map.WindowInfo.WindowId +1,
            "$mb{FormatDate$(CurDate())}"
        );
}
```

IMAP.SetSmartTextAdornmentPosition Method

Set Position of SmartText Adornment on a Map.

Namespace: MapInfo.Types.Data

Assembly: MapInfo.Types (in MapInfo.Types.dll)

Syntax:

```
//Python
void SetSmartTextAdornmentPosition(int windowID, AdornmentRelativePosition
 relativePos)
```

Parameters:

windowID

Type: Int32

Adornment's Window Id.

relativePos

Type: AdornmentRelativePosition

Adornment Relative Position on a Map

Example:

```
//Show how to Set Position of Smart Text Adornment on a Map
void MapInfoPro_SetSmartTextAdornmentPosition(IMap map)
{
    map.SetSmartTextAdornmentPosition(map.WindowInfo.WindowId +1,
                          AdornmentRelativePosition.TopLeft);
}
```

IMAP.SetSmartTextAdornmentBorder Method

Set Border of SmartText Adornment on a Map.

Namespace: MapInfo.Types.Data

Assembly: MapInfo.Types (in MapInfo.Types.dll)

Syntax:

```
//Python
void SetSmartTextAdornmentBorder(int windowID, bool border)
```

Parameters:

windowID

Type: Int32

Adornment's Window Id.

border

Type: SystemBoolean

If true, then the border rect area will be drawn.

Example:

```
//Show how to Set Border of Smart Text Adornment on a Map
void MapInfoPro_SetSmartTextAdornmentBorder(IMap map)
{
    map.SetSmartTextAdornmentBorder(map.WindowInfo.WindowId +1, true);
}
```

IMAP.SetSmartTextAdornmentFont Method

Set Font on text of SmartText Adornment on a Map.

Namespace: MapInfo.Types.Data

Assembly: MapInfo.Types (in MapInfo.Types.dll)

Syntax:

```
//Python
void SetSmartTextAdornmentFont(int windowID, string fontClause)
```

Parameters:

windowID

Type: Int32 Adornment's Window Id.

fontClause

Type: SystemString

Specifies Font clause in string to set the font style on text.

Example:

```
//Show how to Set Font on text of Smart Text Adornment on a Map
void MapInfoPro_SetSmartTextAdornmentFont(IMap map)
{
    map.SetSmartTextAdornmentFont(map.WindowInfo.WindowId +1,
                                     "Font(\"Tahoma\", 0, 12, BLACK)");
}
```

SQLite FDO Updates

If SQLite FDO is not installed, or FDO.dll is not found in MapInfo Pro Program Directory, then **Save Copy As** dialog will not list SQLite FDO (*.tab) as an available format.

Select By Attribute Updates

The **Add New Condition** dialog now supports selecting multiple conditions. You can also use the search box to type and search for columns.

File Versions and TAB, MIF/MID, and WOR Support

Version 2021.1

- WOR - Boolean Layer Visibility with an Expression: (For example, Set Map Window <window id> Layer <layer id> Visibility [Where expr] [On | Off | None])
- WOR - Support for WMS Time Series layers
- WOR\MIF - DB_REF Datum #1030 in Workspace or exporting to MIF\MID format.
- WOR\MIF - PRS92 Datum #1031 in Workspace or exporting to MIF\MID format.

Version 2021

- TAB\MIF Geopackage 1.2 support
- TAB\MIF OGR Vector File support

- WOR - New Layer and Map Properties for Time Series layers in Maps
- WOR - Set Map <id> Layer <id> Filter Where
- WOR - Playback speed for Time Series
- WOR\MIF - New datum #1029 (Luxembourg LUREF)
- WOR IsNull() function in Browser Filter
- WOR - Smart Text Adornment in Map Window

MapInfo Pro version 2021 Localized Release (Build 189)

OGR Driver Support

The DXF, GML and OSM file types now always force open as a .TAB files.

MapInfo Pro version 2021

SQL Cross Join Support

The SQL Select statement now support cross joins. You can now create joins between more than two dynamic query tables. Earlier, this was restricted to only joins between two dynamic query tables.

New OGR Table Type

MapInfo Pro now supports a new type of .TAB file that uses the GDAL OGR Vector File library to read and write many file types.

Updated Export Table command

The **Export Table** dialog has been updated and enhanced to include export to GDAL OGR formats.

Table List Updates

New items added to the context menu for the Tables Window.

Layer Display Expression Filter

You can now set the layer filter expression using the **Expression** builder dialog in the layer properties of a map.

WFS Paging Support

Use the new **SQL** window to build and execute SQL queries and statements. The SQL window is essentially a script editor wherein you can write and execute one or more SQL statements along with pre and post script processing snippets. The scripts are run using the *immediate* mode interpreted MapBasic and are not compiled.

WFS Auto-Update Support

You can now enable auto update of data and features from a WFS server into a table whenever you zoom-in, zoom-out or Pan a map.

Quick Access Toolbar Support for MapInfo Pro Add-Ins

MapInfo Pro Add-Ins can now add menus to the Quick Access Toolbar.

Updated Web Content Renderer (Webview2)

The Login window for MapInfo Pro Services has been updated to use a new web content (HTML/Javascript) renderer, WebView2 runtime from Microsoft for the login page and login process. Previously MapInfo Pro had relied on a web renderer that was based off of Internet Explorer 11 and this library has seen a significant lack of updates and support. The change moves the process to utilize the WebView2 runtime from Microsoft that uses a shared renderer from the latest version of Microsoft's Edge Browser which is now based on the open source Chromium project. This is the same rendering engine that is used in Google's Chrome browsers. This renderer supports the latest updates to Javascript, HTML, CSS and other newer web technologies.

Save Copy as in Background

You can now **Save Copy of Table As** as a back ground operation.

You can also select multiple tables from the **Save Copy As** dialog and execute the Save Copy As MapBasic Command.

New Coordinate Systems, Projections and Datums

New Croatia Projections added.

New Datum 1029 for Luxemburg (LURES) added.

Smart Text Aliases

Layout Smart Text Aliases are now visible on the layout ribbon. Click on the **Text** icon on the Layout Ribbon to display a list of all Layout Smart Text Aliases under the **Smart Text** group.

Save and Rename in SQL Recent List

The **SQL** List Drop-down (accessed by clicking on **SQL**, On the **MAP** tab > **Selection** group) also contains a list of the most recent SQL scripts created using the SQL window.

Selectable WMS Layer

The WMS layer is now selectable by default. You can toggle it from the WMS layer in the Explorer window.

Set Map Projection from Layer

You can now set your map coordinate system to the coordinate system of a table/layer from the Layer window. You can also quickly change the map projection using the status bar for a map window.

New Version of FME - 2021.1

Quick Translator tool and Open Universal Data feature were updated to use latest FME version 2021.1.

Support for GeoPackage 1.2

MapInfo Pro now supports GeoPackage specification version 1.2. we have also added support for non-mappable GeoPackage tables as per the 1.2 GeoPackage specifications.

MapCad Update

Use the new **SQL** window to build and execute SQL queries and statements. The SQL window is essentially a script editor wherein you can write and execute one or more SQL statements along with pre and post script processing snippets. The scripts are run using the *immediate* mode interpreted MapBasic and are not compiled.

Known Issues and Workarounds

- Precisely MapInfo Pro closes unexpectedly after installing the Office 2016 hotfix update KB5002160.

  Scenario 1 - MapInfo Pro 32-bit after installing the Microsoft Office 2016 (32-bit) update KB5002160:

  - MapInfo Pro 32-bit closes unexpectedly on systems having the 32-bit version of the Access Driver Engine 2016 and the KB5002160 (32-bit) update.
  - MapInfo Pro 32-bit works as expected on systems having the 64-bit version of the Access Driver Engine and the KB5002160 (64-bit) update.

  Scenario 2 - MapInfo Pro 64-bit after installing the Microsoft Office 2016 (64-bit) update KB5002160:

  - MapInfo Pro 64-bit closes unexpectedly on systems having the 64-bit version of the Access Driver Engine 2016 and the KB5002160 (64-bit) update.

  - MapInfo Pro 64-bit works as expected on systems having the 32-bit version of the Access Driver Engine and the KB5002160 (32-bit) update.

- In MapInfo Pro, the SQL cross-join support is not available by default, and join conditions are evaluated from left to right. To allow cross-joins, use the **Cross Join** keyword explicitly in the SQL Select statement. This would also change the order of evaluation of join conditions from right to left for the particular SQL Select statement.

  > **Note:** You can control the behavior of the join condition evaluation order and support for cross-joins in a session using the `Set SQL Version statement`. For details, see `Set SQL Version statement` under **Function and Statement Description** in the **MapBasic Reference Guide**.

Examples

```
//SQL Cross join with
"Select A.Capital, B.State_Name From statecap as ""A"",
states as ""B"" Cross Join Where ObjectDistance(A.OBJ, B.OBJ, ""m"") >
 100
into Query1" , 2,2550,"col1","col2","Capital","State_Name"

//SQL Cross join with AND
"Select A.Capital, B.State_Name From statecap as ""A"",
states as ""B"" Cross Join Where ObjectDistance(A.OBJ, B.OBJ, ""mi"")
 > 200
And ObjectDistance(A.OBJ, B.OBJ, ""mi"")  < 400 into Query1" ,
2,333,"col1","col2","Capital","State_Name"

//SQL Cross join with Spatial operator
"select statecap.Capital, States.State_Name from statecap,
states Cross Join where CentroidX(statecap.obj) < CentroidX(states.obj)

into Query1" , 2,1297,"col1","col2","Capital","State_Name"
```

- While opening a KML file using Vector Files (OGR type) using the Keyhole Markup Language - KML (OGR) (*.kml) library, you will not be able to view any Extended Data within the KML data.

  Workaround: You must use the Keyhole Markup Language -LIBKML (OGR) library to open the KML file to view extended data. This library is also the default KML driver used in MapInfo Pro.

- Column names in GEOMPOSSIBLE_NAMES field of OGR CSV driver option cannot have white spaces. The Default GEOMPOSSIBLE_NAMES is WKT, but GEOMETRY is also a common column used for geometries. You can also add both to the GEOMPOSSIBLE_NAMES edit box like: WKT,GEOMETRY. There can be no white space after the comma.
- When you open an OGR table, it is shown as a browser table type in the Table List even though the table may be mappable. This is because the mappable state of an OGR table type is returned as **unknown** when MapInfo Pro tries to query that state from GDAL.

Progress and Resolution of Outstanding Issues

MapInfo Pro 2021.1

Issue Number	Description and Resolution
MIPRO-111741	Opening a Japanese Coordsys TAB file using the File Explorer results in the following error: `table j_g_d_2_0_0_0 is not open`. **Resolution:** Fixed.

Issue Number	Description and Resolution
MIPRO-122678	AGIS: Saving a table to an SQLite database results in the following error: `Error: Operation Cancelled`. **Resolution:** Fixed.
MIPRO-122684	In MapInfo Pro, a Workspace does not open if you select a record with a quotation mark in a query. **Resolution:** Fixed.
MIPRO-122910	A MapBasic script results in an error when assigning a new value to a Variable. **Resolution:** Fixed.
MIPRO-122933	Issue with Smart Text Adornments when switching from one map window to another. **Resolution:** Fixed.
MIPRO-122934	The SQL Statement in the Select by Location dialog does not show the Cross Join keywords. **Resolution:** Fixed.
MIPRO-123201	MapInfo Pro unexpectedly closes if you delete all but one row in a browser of a region table and then try to delete the last row without saving the table. **Resolution:** Fixed.
MIPRO-124689	While using Save Copy As in background sets the TAB file metadata key names to lowercase. **Resolution:** Fixed.
MIPRO-124694	Column Alias gets dropped in a query based on a query. **Resolution:** Fixed.
MIPRO-124782	The Proportional Overlap Tool uses the Current Directory (which may be read-only) to write temporary tables. **Resolution:** Fixed.

MapInfo Pro 2021 Localized Release (Build 189)

This release includes all languages in MapInfo Pro 2021 Localized Build 183 along with the Finnish, Swedish and Danish languages.

Issue Number	Description and Resolution
MIPRO-122792	Exporting a Time Series after setting a suffix to the Time Range results in error. **Resolution:** Fixed.
MIPRO-122788	Incorrect default encoding when exporting shapefiles using the OGR library in the MapInfo Pro Japanese IDE. **Resolution:** Fixed.
MIPRO-122785	MapInfo Pro Japanese IDE closes when you load a shapefile using the OGR library, select Windows Japanese as an option, and toggle the selection. **Resolution:** Fixed.
MIPRO-122685	In the MapInfo Pro Japanese IDE, the time display format is incorrect while using Smart Text in Layout. **Resolution:** Fixed.

MapInfo Pro 2021 Localized Release (Build 183)

This release includes all languages in MapInfo Pro 2021 along with the French, German and Japanese languages.

Issue Number	Description and Resolution
MIPRO-122795	MapInfo Pro throws an internal service 500 error and then closes while opening the MapInfo WFS server. **Resolution:** Fixed.
MIPRO-122686	In the MapInfo Pro Japanese IDE, the time display format is incorrect while using Smart Text in Layout. **Resolution:** Fixed.
MIPRO-122665	In the MapInfo Pro Japanese IDE, the pre-filled <filename> has an error. **Resolution:** Fixed.

Issue Number	Description and Resolution
MIPRO-122662	MapInfo Pro Japanese IDE closes unexpectedly if you change the table structure with [Change Structure] after adding a thematic map and setting the time series. **Resolution:** Fixed.
MIPRO-122629	Cannot configure a time layer in a group layer. **Resolution:** Fixed.
MIPRO-121744	Unable to save an AggregateMBR table in the background. **Resolution:** Fixed.
MIPRO-121682	In the MapBASIC.def file, TableInfo(<table-ref>, TAB_INFO_DOMINANT_OBJECT_TYPE) is missing return types. **Resolution:** Fixed.
MIPRO-121652	Exporting images in Time Series produces distorted images on a machine with a 4K monitor if the resolution is less than the monitor resolution. **Resolution:** Fixed.
MIPRO-121649	In Select By Attribute, clearing a condition does not restore the "=" operator. **Resolution:** Fixed.
MIPRO-121648	StringToDate, StringToTime, and StringToDateTime functions are not listed in the Expression Dialog. **Resolution:** Fixed.
MIPRO-121621	Opening an ESRI GDB file containing DateTime data via Open Universal data produces empty results tables. **Resolution:** Fixed.
MIPRO-121613	In Select By Attribute, scripts are not being version-ed correctly. **Resolution:** Fixed.
MIPRO-121601	MapInfo Pro closes unexpectedly if you open a browser window with an incomplete dataset. **Resolution:** Fixed.

Issue Number	Description and Resolution
MIPRO-120635	A server exception occurs when attempting to print maps. **Resolution:** Fixed.
MIPRO-114555	Cannot Link a MapBasic Project that works in the English MapBasic IDE in the MapBasic Russian IDE. **Resolution:** Fixed.
L3REQ-27576	Record count in the status bar ignores regional setting. **Resolution:** Fixed.

MapInfo Pro 2021

Issue Number	Description and Resolution
MIPRO-90546	MapInfo Pro intermittently locks the directory containing a .TAB file even after the file is closed. **Resolution:** Fixed.
MIPRO-121537	Open Universal Data Styles are grayed out in the Select dialog for all formats. **Resolution:** Fixed.
MIPRO-121303	Loss of data while working in a cosmetic layer. **Resolution:** Fixed.
MIPRO-120807	GPKG Datetime and Date field editing error. **Resolution:** Fixed.
MIPRO-120654	Refreshing a WFS layer after closing the mapper window results in an error. **Resolution:** Fixed.
MIPRO-120556	The data bounds in the GPKG 'gpkg_contents' tables are not updated when new map objects are created outside the existing data bounds. **Resolution:** Fixed.

Issue Number	Description and Resolution
MIPRO-120537	Tables are not being deleted from a GPKG database in case of a mix of spatial and non-spatial tables. **Resolution:** Fixed.
MIPRO-120481	Issues with custom variables in the SQL Script Window and workspaces. **Resolution:** Fixed.
MIPRO-120480	An error occurs while using a Symbol variable through the SQL Window. **Resolution:** Fixed.
MIPRO-120313	Cannot save a geopackage table if another geopackage table with the same name is already open in MapInfo Pro. **Resolution:** Fixed.
MIPRO-120261	The `Set Window MapInfo SysMenuClose Off` command in MapBasic does not work in the 64-bit version of MapInfo Pro. **Resolution:** Fixed.
MIPRO-120180	Hidden Mapper is not available in a Layer Control **Resolution:** Fixed.
MIPRO-120011	A NativeX table transaction file error occurs while committing UTF-16 table inserts. **Resolution:** Fixed.
MIPRO-119937	In SQL Variables, the Values type does not select the default value. **Resolution:** Fixed.
MIPRO-119867	SQL Select statements do not work as expected. **Resolution:** Fixed.
MIPRO-119864	Records with points inserted into a GPKG table are created. But after a commit of these table changes, the points would not persist. **Resolution:** Fixed.

Issue Number	Description and Resolution
MIPRO-119784	FrontWindow() does not return an ID. **Resolution:** Fixed.
MIPRO-119765	A WFS server refresh does not work from a table list as well as from a Web Services WFS Table Refresh. **Resolution:** Fixed.
MIPRO-119758	Insert issue with GeoPackage files. **Resolution:** Fixed.
MIPRO-119683	A MapBasic program results in an error while inserting records in the cosmetic layer. **Resolution:** Fixed.
MIPRO-119522	Unable to connect to a WMS server in MapInfo Pro version 2019.3 with the Discover bundle. **Resolution:** Fixed.
MIPRO-119495	Deleting tables from a geopackage file in MapInfo Pro (Delete Table) does not delete them from the geopackage file itself. **Resolution:** Fixed.
MIPRO-119298	Performance issues with queries creating derived spatial objects. **Resolution:** Fixed.
MIPRO-119231	WMS 1.3.0 swaps the bounds between X and Y. **Resolution:** Fixed.
MIPRO-118978	The Universal Translator CoordSys dialog does not open in the Integrated Mapping application. **Resolution:** Fixed.
MIPRO-118943	Cannot add the Universal Translator tool to the Quick Access Toolbar. **Resolution:** Fixed.
MIPRO-118928	MapInfo Pro closes unexpectedly while using the Proportional Overlap tool. **Resolution:** Fixed.

Issue Number	Description and Resolution
MIPRO-118847	Issue with a MapBasic Dialog when displaying numbers in EditText control. **Resolution:** Fixed.
MIPRO-118707	While using 3D maps, CTRL+F3 does not toggle the 3D view. **Resolution:** Fixed.
MIPRO-118693	If you change the color of a label and then right-click on the map whilst the label is highlighted, the label color is reset to black. **Resolution:** Fixed.
MIPRO-113335	Drivetime Regions fail while using tables with Danish characters. **Resolution:** Fixed.
MIPRO-113232	If both the original TAB file and a newly imported gepackage file are open within the same map window, several points are not displayed in the geopackage file. **Resolution:** Fixed.

What's New in MapInfo Pro Advanced

The following sections provide a brief description of important features and enhancements made to MapInfo Pro Advanced.

Enhancements and Updates in MapInfo Pro Advanced

This section summarizes enhancements made to the existing raster features.

MapInfo Pro Advanced version 2021.1

Transparency Handling Improvements

We have improved how the pixels are rendered transparent; for example, rendering a null pixel as transparent.

Earlier, whatever color you used as the transparent color, all pixels with the same color value were rendered transparent. This approach had side effects. For example, if we set white as the transparent color, all the white pixels in an image will become transparent, which is undesirable in many conditions.

Now, pixel transparency is strictly handled through a separate alpha channel, and we do not need to remove a specific color to make pixels transparent.

MapInfo Pro Advanced version 2021

MapInfo Virtual Raster Support

In this version, we have added support for creating a MapInfo Virtual Raster for the following processing tools:

1. Resample
2. Reproject
3. Merge

Usability Improvements

Point Inspect Tool

- If you select the **Specify null-cell value** or the **Specify no-cell value** check-boxes, the respective columns for entering these values in the table are enabled. The maximum character limit for these values has been increased from 50 to 254.
- If you select Create a new TAB file as the Output Mode, you can manually populate the Column name column for each record. The maximum character limit for this column has been limited to 32 as MapInfo Pro supports column names only till 32 characters.

Statistics Tool

- A new column Area has been added to the histogram table to display the total area for each record.

Advanced Color Tool

You can now enable smooth interpolation of color gradients between user-defined color breaks.

Adding Raster Tools to QAT (Quick Access Toolbar)

You can now add the various Raster Add-ins to the QAT.

Known Issues and Workarounds

You may sometimes notice a white border around the Raster file created using earlier versions of MapInfo Pro. In earlier versions, white was used as a transparent color, so setting NullColor as visible/invisible in a GHX file had no effect, and the white color was always transparent. Now, the NullColor flag works for the white color as well. If you have an older GHX file with NullColor visible, you may see Null pixels rendered with white color. To correct this, you will need to open the **Advanced Color** tool and toggle the **Override Null Color** check box under **More Options**. This operation will fix the white color issue and make it transparent.

Note: This will not impact the rendering of the new raster file in the older versions of MapInfo Pro.

Progress and Resolution of Outstanding Issues

MapInfo Pro Advanced 2021.1

Issue Number	Description and Resolution
L3REQ-20312	The Convert operation is not generating valid output for some TIFF files (single row strip compressed TIFFs). **Resolution:** Fixed.
L3REQ-23387	The Band mapping for NRGB files is not working correctly. **Resolution:** Fixed.
L3REQ-29208	In the Line of Sight tool, increasing the Source or Destination height is not reflected in the Line of Sight graph. **Resolution:** Fixed.
L3REQ-30022	JP2 files are not rendered correctly. **Resolution:** Fixed.
MIRCS-429	Custom symbols are not rendered correctly through the Raster handler. **Resolution:** Fixed.
MIRCS-434	For imagery files, the pure black color is coming as transparent. **Resolution:** Fixed.
MIRCS-442	for image palette files, the white color is coming as transparent . **Resolution:** Fixed.

MapInfo Pro Advanced 2021

Issue Number	Description and Resolution
L3REQ-17879	While using the Cell Value function (under the Raster tab), there are multiple areas where the CellValue function shows `NO CELL` or `No Value`. **Resolution:** Fixed.
L3REQ-19494	While using the **Create a new TAB file** option in the Point Inspection tool, the new column headings are NOT unique. **Resolution:** Fixed.
MIRAST-18466	The **Copy Raster** function does not copy the main .GRD file. **Resolution:** Fixed.
MIPRO-118978	Incorrect error while generating a Heatmap output on a read-only location. **Resolution:** Fixed.

System Requirements

This product is tested on the following Microsoft Windows Desktop Operating Systems:

- Windows 10 64-bit
- Windows 11 64-bit
- Windows 2019 Server
- Windows 2019 Server 64-bit with XenApp 7.9
- Windows 2019 Server 64-bit with Citrix Virtual Apps 1912
- Windows 2022 Server 64-bit

Dependencies and Prerequisites

We recommend ensuring that your machine has the latest updates before installing Pro.

The install wizard checks for the following and prompts you if not already on your system; you can choose to have the install wizard install these requirements, or cancel the installation if you do not want to proceed.

• Microsoft Visual C++ 2015 Update3 Redistributable (x64)

• Microsoft Visual C++ 2017 Redistributable (x64)

• Microsoft Visual C++ 2019 Redistributable (x64)

  Microsoft Edge WebView2 Runtime Installer (x64)

• Microsoft office Access database Engine 2010 (x64) - for 32-bit Microsoft Office

• Microsoft office Access database Engine 2016 (x64) - For 64-bit Microsoft Office

• Microsoft .NET Framework 4.7.2

• Windows fixes and updates:

Operating System	Required Update
Windows 10 *	Cumulative Update KB3156387

* On Windows 10, the install wizard does not install the Cumulative Update. Ensure this update is installed before installing this release.

MapInfo Pro installs a file from the Microsoft Windows Presentation Foundation (WPF) toolkit, WPFToolkit.dll file version 3.5, which is necessary for the Meta-Data Catalog Browser feature.

Installing Microsoft Access Driver Engine on 32-bit and 64-bit Office

MapInfo Pro installs different versions of Microsoft Access Driver Engine based on the Microsoft Office Architecture present on the system:

1. If Microsoft office 32-bit is present on the system, MapInfo Pro will Install Microsoft Access Driver Engine 2010 (64-bit).

2. If Microsoft office 64-bit is present on the system, MapInfo Pro will Install Microsoft Access Driver Engine 2016 (64-bit).

3. If no Microsoft office is present on the system, MapInfo Pro will Install Microsoft Access Driver Engine 2016 (64-bit).

Opening Office 2013 32-bit Excel and Access Files

There is a potential issue when both 32-bit and 64-bit versions of MapInfo Pro are installed on the same machine along with the 32-bit version of Microsoft Office 2013. The 32-bit version of MapInfo Pro can close unexpectedly when opening tables generated in the 32-bit version of Excel 2013 or Access 2013.

The section *Installing 32-bit and 64-bit Microsoft Office Drivers* in the *MapInfo Pro Install Guide* describes how to install the Microsoft Office 32- and 64-bit drivers on the same system. If after following these steps your 32-bit version of MapInfo Pro closes unexpectedly when opening Excel 2013 and Access 2013 tables, then follow the steps outlined below.

1. Uninstall both of the Microsoft Access database engine 2016 drivers.
   a) From the **Start** menu, select **Control Panel**.
   b) On the **Control Panel**, select **Programs and Features**.
   c) Scroll through the list to locate and select **Microsoft Access database engine 2016**. There will be two instances of this application in the list.
   d) Select **Uninstall** and follow the instructions that the uninstall procedure provides.
   e) Select the second **Microsoft Access database engine 2016** and uninstall it.

2. Download and install the 32-bit version of Microsoft Access Runtime 2013 (called `AccessRuntime_x86_en-us.exe`) from **https://www.microsoft.com/en-us/download/details.aspx?id=39358**.

3. Download the 64-bit version of Microsoft Access Database Engine 2016 (called `AccessDatabaseEngine_x64.exe`) from **https://www.microsoft.com/en-us/download/details.aspx?id=54920**. Make note of the download location, such as `C:\Users\myname\Downloads`.

   CAUTION: Do not run (install) from your internet browser window, download it first.

4. Install the 64-bit version of Microsoft Access Database Engine 2016 (called `AccessDatabaseEngine_x64.exe`).
   a) Open a command prompt window with Administrator privileges. In the system folder `C:\Windows\System32`, right-click on `cmd.exe` and select **Run as Administrator**.
   b) At the command prompt, change directories to the `AccessDatabaseEngine_x64.exe` file (type `cd C:\Users\myname\Downloads` and press **Enter**).
   c) At the command prompt, type `AccessDatabaseEngine_x64.exe /quiet /norestart` and press **Enter**.

5. If you have a 32-bit version of Microsoft Office 2007, 2010, 2013, or 2016 installed, then delete or rename its `mso.dll` registry key.

    a) Open the **Registry Editor** window. On the Microsoft **Start** menu, type `regedit` in the **Search** field, and then click **regedit.exe**.

    b) In the **Registry Editor** window, navigate to `HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Office\16.0\Common\FilesPaths`.

    c) If there is a `mso.dll` value, either delete it or rename it.

        If you do not delete or rename the file, then may see a reconfigure message when you open a Microsoft Office application.

Both 32-bit and 64-bit drivers are now installed on your system, and you can open Access 2013 and Excel 2013 files in both 32-bit and 64-bit versions of MapInfo Pro.

MapInfo Pro Database Connectivity and Support

MapInfo Pro supports the following spatial database servers:

• Microsoft SQL Server 2019
• Microsoft SQL Server 2017
• Microsoft SQL Server 2016 SP1 (also called SQL Server Spatial)
• PostGIS 3.1 using PostgresSQL 13.2
• PostGIS 2.5 using PostGreSQL 10.1
• PostGIS client is 13.01 x64
• SQLite v3.8 / FDO 3.8
• Oracle 19c msp19c
• Oracle 18c msp18c
• Oracle Spatial 12C r2 msp12cr2
• Oracle11gr2

In order for MapInfo Pro to access a remote database, you must install a client or driver. The following are ODBC drivers that MapInfo Pro supports:

• Microsoft Access ODBC (64-bit)
• Microsoft SQL Server 2019
• Microsoft SQL Server 2017
• Microsoft SQL Server 2016
• Microsoft SQL Server 2012 QFE Native Client v11 (64-bit)
• PostgreSQL Unicode and ANSI ODBC driver 13.01 (64 bit)
• FDO toolkit 3.8 (used by SQLite and installed with MapInfo Pro)

- Oracle Instant Client 19.11 (64-bit)
- Microsoft ODBC Driver for SQL Server 17.8

You can also open tables of data from the following and make them mappable, but only for point data:

- Microsoft Access 2013, 2016, and 2019 (64-bit)

For more about working with remote database information, see *Accessing Remote Data* and *Setting your Database Connection Preferences* in the *Help System.*

PostgreSQL ODBC Driver Requires the Use Declare/Fetch Option

To avoid an error when using the PostgreSQL Unicode ODBC driver, you must enable the **Use Declare/Fetch** option. When enabled, the driver automatically uses declare cursor/fetch to handle SELECT statements and keeps 100 rows in a cache. When disabled, which is the default setting, the driver buffers the entire result set. For large tables this could use all the Windows memory resources. For details, see the *MapInfo Pro Install Guide*.

Microsoft Office Support

MapInfo Pro supports Microsoft Excel (*.xls , *.xlsx) and Microsoft Access (*.mdb, *.accdb) formats for versions 2010, 2013 and 2016.

For details, see **Installing Microsoft Access Driver Engine on 32-bit and 64-bit Office** on page 29

MapInfo Pro Web Server Support

MapInfo Pro supports the following web servers:

- GML (Geospatial data in XML format) 2.1.2
- FME Quick Translator) supports versions up to 3.2.1
- Web Feature Service (WFS) 1.0, 1.1, and 2.0
- Web Feature Service with transactions (WFS-T) using WFS 1.0
- Web Map Service (WMS) 1.3
- Web Map Tile Service (WMTS) 1.0

MapInfo Pro also supports the mapping tile servers:

- Microsoft Bing Tile server

- MapXtreme.NET v9.3 tile server

- OpenStreetMap tile server

- Spatial Server v18.2

- WMTS including Spatial Server

- GeoMap

Installing MapInfo Pro

When MapInfo Pro starts it checks the operating system directory location
`C:\Users\`*`username`*`\AppData\Roaming\MapInfo\MapInfo` for the following files:

- `MapInfoPro.WOR`
- `STARTUP.WOR`
- `MapInfoPro.wox`
- `MapInfoPro.pref`

If these files exist, then MapInfo Pro uses them at startup. If these files do not exist in the location, then MapInfo Pro creates them all except for the `STARTUP.WOR`.

Application data (AppData) files are the non-executable data files that MapInfo Pro uses during operation.

We recommend you to make sure of the following before starting the process to install / upgrade:

- You must have Administrator rights to run the Installer.
- The Installer requires that your TEMP variable be set to a valid directory.
- You must exit from all Windows programs before beginning the installation process.

The installer for MapInfo Pro will install all the files necessary to run Pro in multiple languages. During the installation process the first question will be what language would you like to run Pro in. This will be the default language of the Pro Application. The list of available languages to choose from will depend on what is available in the installer. Eventually all languages will be available as the localization process finishes up.

MapInfo Pro users who register with a Precisely online account are able to run MapInfo Pro in a connected **Viewer** Only (subscription) mode. The MapInfo Pro installer adds a shortcut (Icon) to the Windows Start Menu to start MapInfo Pro in Viewer (subscription) mode. This icon is located next to the regular MapInfo Pro Start Menu shortcut.

Advanced users may wish to run Pro in a different language than was chosen at installation time. This will now be possible by copying the MapInfoPro.exe.config from a language sub-folder (such as fr, de, ja, zh-CN) under the MapInfo Pro installation location on top of the MapInfoPro.exe.config in the MapInfo Pro installation location. Most users will never need to do this, but if you do try it, be sure to make a copy of the file first! Be aware that many Pro settings such as ribbon customization are locale-specific.

These are the language versions of Pro and the sub folders used (Changing AppLocale or System Charset via .config file is for advanced users only).

UI Locale and Sub Folder Name	AppLocale Name	AppLocale code	Language Country/Region	CodePage	SystemCharset Name
zh-CN	zh-cN	2052	Chinese (Simplified)	936	WindowsSimpChinese
cs	cs-CZ	1029	Czech - Czech Republic	1250	WindowsLatin2
da	da-DK	1030	Danish - Denmark	1252	WindowsLatin1
nl	nl-NL	1043	Dutch - The Netherlands	1252	WindowsLatin1
en	en-US	1033	English - United States	1252	WindowsLatin1
fi	fi-FI	1035	Finnish - Finland	1252	WindowsLatin1
fr	fr-FR	1036	French - France	1252	WindowsLatin1
de	de-DE	1031	German - Germany	1252	WindowsLatin1
he	he-IL	1037	Hebrew - Israel	1252	WindowsHebrew
it	it-IT	1040	Italian - Italy	1252	WindowsLatin1
ja	ja-JP	1041	Japanese - Japan	932	WindowsJapanese
pl	pl-PL	1045	Polish - Poland	1250	WindowsLatin2
pt	pt-BR	1046	Portuguese - Brazil	1252	WindowsLatin1
ru	ru-RU	1049	Russian - Russia	1251	WindowsCyrillic
es	es-ES	1034	Spanish - Spain	1252	WindowsLatin1

UI Locale and Sub Folder Name	AppLocale Name	AppLocale code	Language Country/Region	CodePage	SystemCharset Name
sv	sv-SE	1053	Swedish - Sweden	1252	WindowsLatin1
tr	tr-TR	1055	Turkish - Turkey	1254	WindowsTurkish

You can install or upgrade MapInfo Pro using the Interactive Installation Wizard or silently through the command line.

> **Note:** For detailed instructions on installing MapInfo Pro, see the *MapInfo Pro Install Guide*. To access the *MapInfo Pro Install Guide* and other documents, launch the MapInfo Pro DVD auto-start presentation by double clicking the `autostart.exe` in the root folder of the DVD and then clicking **Online Reference** and **MapInfo Pro Install Guide**.

Installing MapInfo Pro Interactively

You must have Administrator rights to run the Installer, and the Installer requires that your TEMP variable be set to a valid directory.

CAUTION: We strongly recommend that you exit from all Windows programs before beginning the installation process. If you are upgrading from an earlier version of MapInfo Pro, we recommend that you uninstall before upgrading.

MapInfo Pro provides its application data files to each user. Called a Per-User install, this functionality runs the first time you run MapInfo Pro or MapInfo Pro client on a machine, and each time the MapInfo Pro Installer is run thereafter. The application data files include, among others, the Pen Styles file, Custom Symbols files, and Thematic Legend templates. These files allow different users to have custom settings.

To install MapInfo Pro:

1. If installing from a DVD, the Installer automatically launches. If the Installer does not automatically launch, then go to the DVD drive and click on `autostart.exe`. If installing from a download, go to the directory into which you downloaded MapInfo Pro and right-click the `setup.exe` file, select **Run as Administrator** from the pop-up menu to install using elevated privileges.

    If you see a prompt for permission to continue. Click **Allow** or **Yes** to proceed.

    The wizard begins to lead you through the installation process.

2. On the **Launcher** menu, choose **Install Products**.
3. Choose **MapInfo Pro** and then choose **MapInfo Pro Installer**.

    You may see a prompt for permission to continue. Click **Allow** or **Yes** to proceed (if you do not respond and the message times-out, the install is unsuccessful).

4. Select the language in which you want to install MapInfo Pro.

    In version 2021.1, you have the option of installing MapInfo Pro in sixteen different languages other than English. You can choose between Brazilian, Chinese, Czech, German, Danish, Spanish, Finnish, French (Standard), Hebrew, Italian, Japanese, Dutch, Polish, Russian, Swedish and Turkish.

5. If any of the prerequisites listed under **Dependencies and Prerequisites** are not already installed on your system, a display will prompt users to install the missing prerequisites. Click **Install**. Installing the prerequisites takes several minutes—the status of each prerequisite updates as it installs.

6. If you see a message that MapInfo Pro requires a reboot, click **Yes**. You must reboot to continue with the installation.

7. Click **Next** to continue the process.

8. On the **License Information** dialog box, review the license. Click **Next** to continue.

9. On the **Customer Information** dialog box, do one of the following:

    • Select the **MapInfo Pro - Licensed or Trial version** check-box, type your user name, organization, serial number, and access code in the corresponding fields and click **Next** to continue.

      The user name and organization fields are mandatory. If you also enter the serial number and access code, MapInfo Pro Licensed version is installed. If no credentials are entered, the trial version of MapInfo Pro is installed.

      This installs MapInfo Pro Licensed or Trial version based on the information provided and creates a shortcut to MapInfo Pro in the **Start** menu.

    • Select the **MapInfo Viewer Subscription** check-box, type your user name and organization and click **Next** to continue.

      This installs MapInfo Pro in the subscription mode and creates a shortcut to MapInfo Viewer in the **Start** menu.

    • Select both the check-boxes and click **Next** to continue. Shortcuts to both MapInfo Pro and MapInfo Viewer are created in the **Start** menu.

        Note: If you choose to select both **MapInfo Pro - Licensed or Trial version** and **MapInfo Viewer Subscription** check boxes, MapInfo Pro would be the default application associated with MapInfo Pro registered file types such as workspace (*.wor) or table (*.tab).

    The serial number and access code are listed on the Product Activation Information Card or emailed with your license details, and are used to activate your product.

10. Do one of the following:

    • If your organization purchased node-locked licenses, the third character of your serial number is "**N**". Skip this step and go to **step 12**.

- If your organization purchased concurrent licenses, the third character of your serial number is "**S**" or a distributable license, the third character of your serial number is "**D**". In this case, the **License Server Name** and **License Server Port Number** fields display on the dialog box.

    > **Note:** For more information about node-locked, concurrent and distributable licenses, see **Starting and Activating MapInfo Pro** under Chapter 3 of the MapInfo Pro Install Guide.

    If you know the license server name and port number, type them here. If you do not, you can continue with the installation without filling in the license server name and port number. You will have another opportunity to supply this information when you start MapInfo Pro.

11. Click **Next** to continue.
12. Select one of the following options and then click **Next** to continue:

    - **Typical** – Choose this option if you will be using MapInfo Pro as a desktop application including remote database access and connectivity.
    - **Custom** – Choose this option to restrict the components that are installed by the installation program. For example, you can prevent the installer from adding the documentation and tools.

13. Select the destination folder where you want to install MapInfo Pro and click **Next**.
14. Click **Install** to finish the installation process.

For detailed instructions on installing MapInfo Pro interactively, see **Chapter 2: Installing MapInfo Pro** from the **MapInfo Pro Install Guide**.

Installing MapInfo Pro Silently

You can only perform a completely silent install of MapInfo Pro when your install process has elevated administrative privileges.

The command-line options `/q` and `/qn` do not work when the User Access Control (UAC) is turned on and your install process does not run with elevated administrative privileges. These options turn off the user interface during the installation, which suppresses the Windows UAC. Users must interact with the UAC to provide the necessary credentials to run the installation as an administrator. If the user interface is turned off, the installation is terminated without warning because the UAC cannot gather the appropriate credentials.

To work around the problem, use the `/qb` option in the command line when you run the silent install. This option gives the installation a basic user interface and allows the UAC to display on the dialog box.

To perform a silent install using the `/qb` option:

1. From the command prompt, go to the MapInfo Pro setup directory. The MapInfo Pro installation `setup.exe` indicated in the steps below can be found on the installation DVD (D:\) in this directory: `\Install\MI_PRO\DISK1`.

2. Type the following command:

```
setup.exe /L#### /s /v"/qb USERNAME=\"MyUser\"
COMPANYNAME=\"MyCompanyName\"
PIDKEY=M###############" ACCD=######" MPRO=#### MVWR=####
ADDLOCAL=ProgramFiles,Python310,FME,Documentation,Tools,FDODriver,CatalogBrowser"
```

where:

> `/L####` is the 4 digit language code identifier. For example, for English type `setup.exe /L1033`, for French type `setup.exe /L1036`, for German type `setup.exe /L1031`. and for Japanese type `setup.exe /L1041`. DO NOT leave a space between the `/L` and the 4 digit language code.
>
> `PIDKEY=M###############` is the product serial number.
>
> `ACCD=######` is the access code.
>
> `MPRO=True` creates the MapInfo Pro shortcut in the **Start** menu and sets the default file association of registered MapInfo Pro file types such as workspace (*.wor) or table (*.tab) with MapInfo Pro.
>
> `MVWR=True` creates the MapInfo Viewer shortcut in the **Start** menu. It also sets the default file association of registered MapInfo Pro file types such as workspace (*.wor) or table (*.tab) with the new MapInfo Viewer (subscription) if the `MPRO` parameter above is not set to `True`. For details of this new feature, see **MapInfo Pro Viewer**.
>
> If both the `MPRO` and `MVWR` parameters above are set to `True`, `MPRO` takes precedence and MapInfo Pro would be the default application associated with MapInfo Pro registered file types such as workspace (*.wor) or table (*.tab).
>
> `ADDLOCAL=ProgramFiles,Python310,FME,Documentation,Tools,FDODriver,CatalogBrowser`. From version 2019.1 **FDODriver** and **CatalogBrowser** are not installed as default components. Use the `ADDLOCAL` parameters to enable the MapInfo Pro silent installer to install these components. Please note that the `ProgramFiles`, `Documentation` and `Tools` parameters are required for a proper MapInfo Pro installation. You can omit other components like `Python37`, `FME`, `FDODriver` and `CatalogBrowser` if you do not want to install them.

3. When User Access Control displays on the dialog box, click **Allow** or **Yes**.

    For concurrent licenses, the license server name and port number parameters must be included:

    ```
    SNAME="LicenseServerName"
    LSPN="LicenseServerPortNumber"
    ```

    Substitute the appropriate license server name and port number when you perform the silent install.

    For detailed instructions on installing MapInfo Pro silently, see **Chapter 5: Silent Installation Procedures** from the **MapInfo Pro Install Guide**.

Installing from a DVD Requires a Drive Letter

The Installer must be run from a drive with a letter such as "G" and not from an explicit uniform naming convention (UNC) path. For example, you might have the MapInfo Pro DVD in your computer as USERSPC. Other users may share this device as USERSPC; however, it would not contain a drive letter. The MapInfo Pro Installation program requires a drive letter. To remedy this situation, map your network drive to a specific drive letter:

1. In Windows Explorer, right-click the shared directory or DVD drive that contains the MapInfo Pro SETUP.EXE and select Map Network Drive.
2. Choose a drive letter to map.
3. Run the Installation Program again from the newly mapped drive letter.

License Server Utility

If you have a previous version of the License Server Utility (LSU) installed to manage distributable licenses, then you must upgrade to the latest License Server Utility version 5.4. Using a previous version of the License Server Utility with MapInfo Pro 2021.1 will cause MapInfo Pro to become unresponsive.

Using an incompatible version of the License Server Utility might result in the following issues while fetching licenses for MapInfo Pro:

• MapInfo Pro is unable to borrow a license.
• MapInfo Pro is unable to activate a distributed license from the License Server.

If this occurs, contact your License Server administrator and have them upgrade the latest License Server version.

After successfully borrowing or activating a license, if you again roll back to an older version of License Server Utility, you cannot transfer the borrowed/activated license back to the License Server Utility. You will not see an error message as the operation simply hangs.

Repairing MapInfo Pro from the .MSI file

The repair process fails using the .msi file when the Microsoft User Account Control (UAC) is turned on. Depending on the installation conditions the repair stops with the following error message:

> You have MapInfo Pro running, please close it and run setup again.

- Shut off the UAC (User Account Control), this requires System Administrative privileges, reboot the machine, and rerun the repair.
- Run the original `setup.exe` file and then run the repair from maintenance mode.
- Run the installed copy of the MapInfo Pro 2021.1 .msi file as an administrator. Go to `C:\Windows\Installer` and search for the MapInfo Pro 2021.1 .msi file. It will have a name similar to `8e95f1.msi`, where the name is different for each machine. Go to `C:\Windows\System32` and find the `cmd.exe` file. Right click this file and select **Run as Administrator** (this may require an administrator password). Run the command `C:\Windows\Installer\nameofMiPro2021.1.msi` and select **Repair** from maintenance mode.

Disabling User Account Control (UAC) on Windows 7 or Server 2008 R2

To disable UAC on Windows 7 or Server 2008 R2:

1. Launch **MSCONFIG** by from the **Run** menu.
2. In the **System Configuration** dialog box, click the **Tools** tab.
3. Click **Change UAC Settings**.
4. Click **Launch**.
5. Move the slider to **Never Notify**.
6. Click **OK** to close the dialog box.
7. Reboot the machine to have this change take effect.

Disabling User Account Control (UAC) on Windows 8.1 or Windows Server 2012 R2

To disable UAC on Windows 8.1 or Windows Server 2012 R2:

1. • On Windows 8.1, go to the **Search Charm** and type `Change User Account Control settings`.
   • On Windows 2012 R2, on the **Control Panel**, select **User Accounts**, and click on **Change User Account Control Settings**.

2. In the **User Account Control Settings** console, move the slider to **Never Notify**.
3. Click **OK**.

   You may see a prompt to confirm your selection or to enter an administrator password.

4. Reboot the machine to have this change take effect.

Disabling User Account Control (UAC) on Windows 10

To disable UAC on Windows 10:

1. On the **Control Panel**, select **User Accounts**, and click on **Change User Account Control Settings**.
2. In the **User Account Control Settings** console, move the slider to **Never Notify**.
3. Click **OK**.

Support Notices

Bing Maps Expiration Date

Bing Maps has a limited license period, which is specific to each version of MapInfo Pro. Bing Maps and the **Add Bing Roads to Map** and the **Move Map to** features cease working after this date:

• MapInfo Pro 2019 on January 1st, 2021
• MapInfo Pro 17.0 on January 1st, 2019
• MapInfo Pro 16.0 on January 1st, 2018
• MapInfo Pro 15.0 and 15.2 on January 1st, 2017

For details, contact your account representative.

Downloading Tools and Applications

The following web sites give access to MapInfo Pro documents, trials, and supporting materials:

• The MapInfo Pro page: **http://www.precisely.com/product/precisely-mapinfo/mapinfo-pro**
• The MapInfo Pro support page: **http://support.precisely.com**

Locating Your Documentation

MapInfo Pro documentation, in the form of PDF files, installs with MapInfo Pro in to the `Documentation` sub folder (for example, `C:\Program Files\MapInfo\Professional\Documentation`). You must have the Adobe Acrobat reader installed to view PDF files. To download a free copy of the Adobe Acrobat Reader, go to **http://www.adobe.com**.

For instructions on installing MapInfo Pro, see the *MapInfo Pro Install Guide*. To access the *MapInfo Pro Install Guide* and other documents, launch the MapInfo Pro DVD autostart presentation by double clicking the `autostart.exe` in the root folder of the DVD and clicking **Online Reference** and **MapInfo Pro Install Guide**.

Documentation is also available on our website from **http://support.precisely.com**.

Installation Instructions are Available in the Install Guide

For system requirements, installation instructions, and System Administrator notes for performing a work group installation, see the *MapInfo Pro Install Guide*. From the software installer, click **Online Reference** and then **MapInfo Pro Install Guide**.

Instructions for Activating your License are in the Install Guide

Instructions for activating your MapInfo Pro license are in the *MapInfo Pro Install Guide*. The same information is also in the *Activating Your Product*. From the software installer, click **Online Reference** and then **MapInfo Pro Install Guide** or **Activating Your Product**.

The MapInfo Pro Data Directory Document

MapInfo Pro's sample data comes with the *MapInfo Pro Data Directory* document, which describes the sample data. From the software installer, click **Online Reference** and then **MapInfo Pro Data Directory**.

Sample Data Enhancements

To help you get started, Precisely provides you with some United States-based and world-wide maps you can use as a background to your data. To install the free data provided with MapInfo Pro see

the section titled *Installing Data* in the *MapInfo Pro Install Guide*. For a description of the sample data supplied with this product, see the *MapInfo Pro Data Directory* document.

Open Source Attribution

This product contains GeoJSON.NET, which is licensed under the MIT license. The license can be downloaded from **https://github.com/GeoJSON-Net/GeoJSON.Net/blob/master/LICENSE.md**. The source code for this software is available from **https://github.com/GeoJSON-Net/GeoJSON.Net**.

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