

PSYTEAnalyzer 1.1

For MapInfo Pro

January 2024

Installation

PSYTEAnalyzer is to be downloaded from the MapInfo Marketplace.

This distribution is automated so that you only need to click a button to get the add-in installed and loaded into MapInfo Pro.

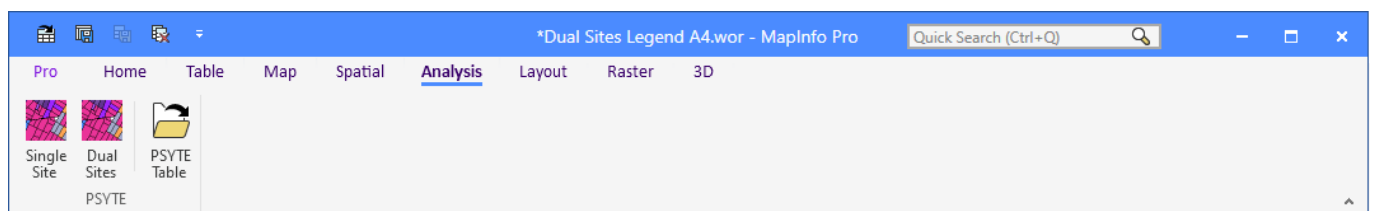
If any updates to the tool gets published, you will see the small **Notification** symbol in the lower right corner of the MapInfo Pro window turn red. Double-click on the symbol to open the **Notification** window and from here access the updates from the MapInfo Marketplace where you easily can install the updates.

Please note that PSYTEAnalyzer requires MapInfo Pro v2021 or newer to work.

Configuration

Currently, the configuration is very basic.

Use the command **PSYTE Table** to select the table containing the PSYTE data. You may also get prompted to select this table the first time you start PSYTEAnalyzer.



The configurations are stored in a configuration file in the users APPDATA folder:

%appdata%\MapInfo\MapInfo\PSYTEAnalyzer.ini. Currently, you will need to modify this file manually to add additional layout templates.

The layout templates are stored in the Layout subfolder in the installation folder of PSYTEAnalyzer.

You can also open these templates as workspaces in MapInfo Pro to modify them and then save the changes back to the template. Make sure you don't have any other tables open when you open the templates.

Use

PSYTEAnalyzer currently has two use cases: analyze a single site/catchment and compare two sites/catchment areas.

Both work by first selecting the catchment area(s) to analyze and then clicking on the analysis you want to perform.

You will now be prompted to share some details and select what layout template to use for your analysis.

Create Single Site Analysis

Input: Query1

Records: 1

Name Column:

NAME

Use Layout Template:

Single Site Legend A4.wor

☐ Add Benchmark to Output:

OK

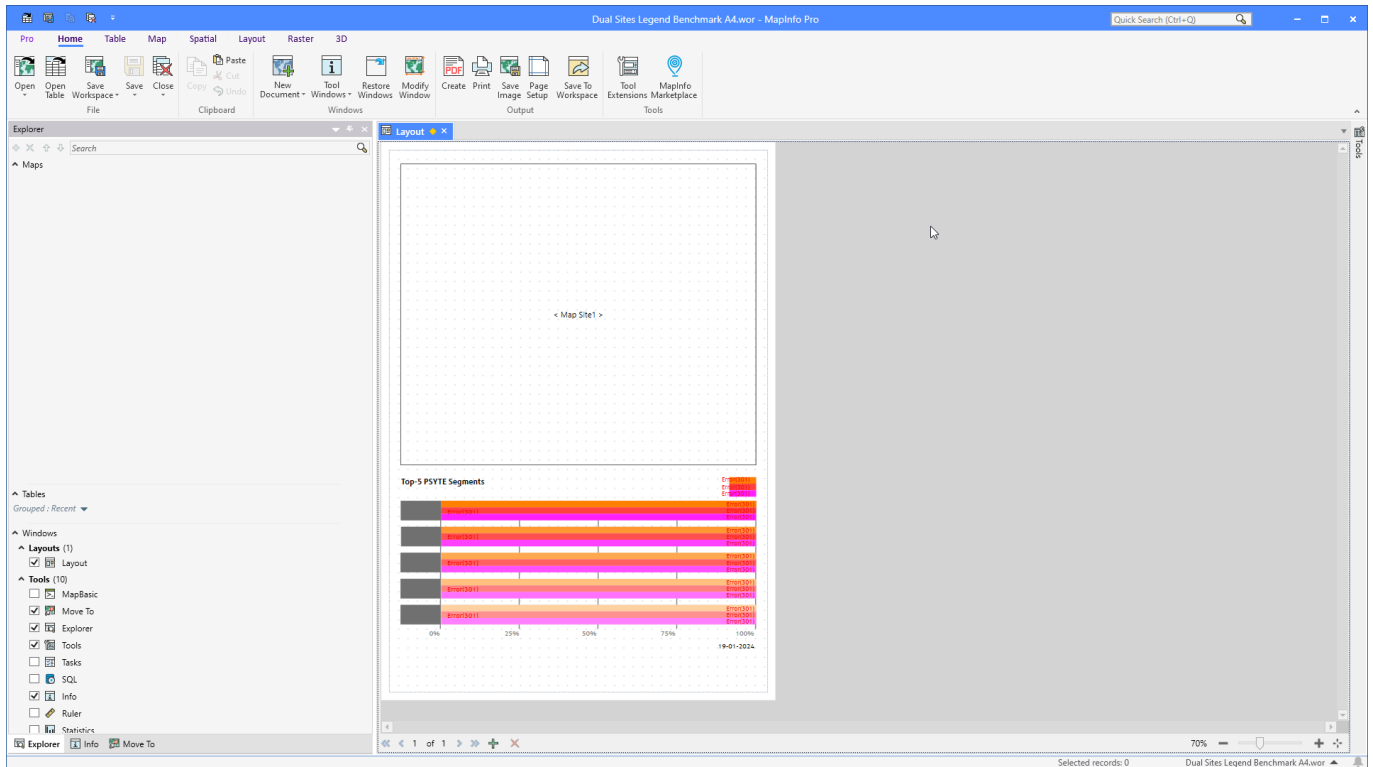
Cancel

The tool will then run some processing and finally it will create a new layout using the template that you selected.



Layout Templates

Behind the reports created, you will find some layout templates. Currently, the tool comes with several predefined layouts. More can be added but that is a manual process, see Configuration.



Above you can see an example of a layout template. You can open these as workspaces into MapInfo Pro. Make sure you close all tables and windows, before opening the layout template. This is to avoid saving data tables and other window to the layout template.

One important frame in the template is the map frame. PSYTEAnalyzer looks for a frame with the name Map Site1.

You can set the **Name** of the frame via the **Frame Properties dialog** which you access via the content menu of a selected frame.

This frame will hold a copy of the front window when you use one of the site analysis options. The site(s) will be zoom to and centred in the map.

Frame Properties

Name : Map Site1

Top-Left X : 1,053 cm

Y : 1,177 cm

Width : 18,895 cm

Height : 15,995 cm

Style :

Rotate Frame : 0 deg

OK

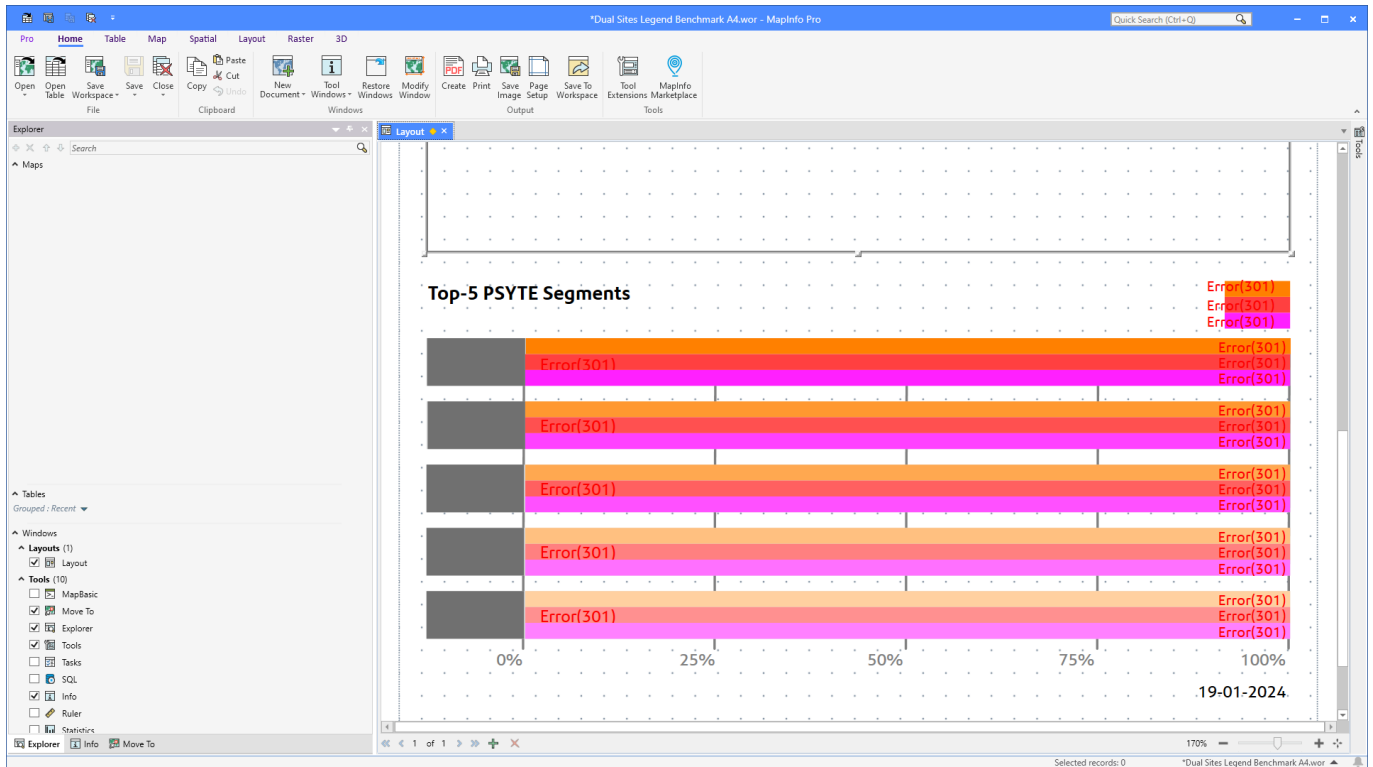
Cancel

Help

Another important part of the layout template is the bar that will reflect the percentage for the segments inside your sites. In the image below, the bars are the orange, red and purple rectangular frames. You can see 5 longer set of rectangles and 1 set of shorter rectangles. >The current length of the long rectangles depicts 100%. At runtime their length will be changed to reflect the percentage calculated by the PSYTEAnalyzer inside the sites.

You see three in each set because there is two for the two selected sites and one for the benchmark which allows you to compare the values to the benchmark for a county, state or all of the USA.

The grey rectangles to the left of the longer rectangles are legends which at runtime will match the thematic colour of the segments.



Again, it's the name of the rectangles that determines how they will get changed.

The name looks like this: `GraphBar(Site1Top[1].hh_pct)`.

Let's decipher that string:

- `GraphBar`: Tells PSYTEAnalyzer that this is a graph element.
- `Site1Top[1]`: Refers to what site and top segment you want to display. The values here can be `Site1Top[]`, `Site2Top[]` or `BenchmarkTop[]`. The value inside `[]` refers to the specific top value: 1, 2, 3, or similar. There basically isn't a limit but normally you would restrict this value to 5 or 10 to show the top 5 or top 10 segments.
- `hh_pct`: refers to the column you want to use in the graph. It is most common to use `hh_pct` or `pop_pct`. These are the only percentage values calculated currently. If you are using a benchmark value too, stick to `hh_pct` as the benchmark values are based on the number of households and not the population.

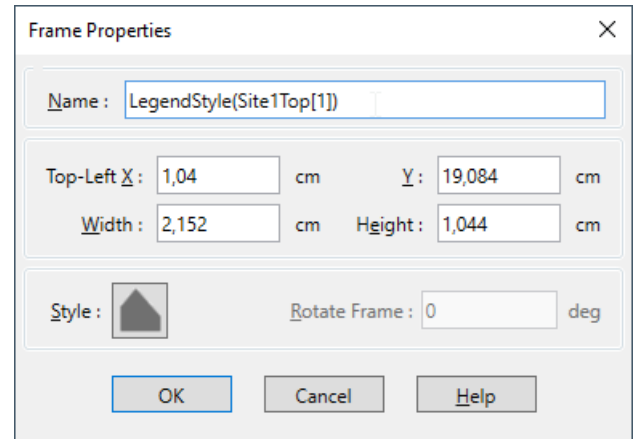
PSYTEAnalyzer will only change the length of the rectangle to match the actual percentage for the top segment. If the value is 50%, the length will be half of the original length. The starting position of the rectangle will stay the same.

The grey rectangles, that will match the thematic legend style for the segments, have names like this:

`LegendStyle(Site1Top[1]).`

Again, there is a meaning to this structure:

- **LegendStyle:** Tells PSYTEAnalyzer to change the style of the rectangle to match it to a segment thematic style.
- **Site1Top[1]:** Refers to what site and top segment you want to display. The values here can be `Site1Top[]`. The value inside `[]` refers to the specific top value: 1, 2, 3, or similar. There basically isn't a limit but normally you would restrict this value to 5 or 10 to show the top 5 or top 10 segments.



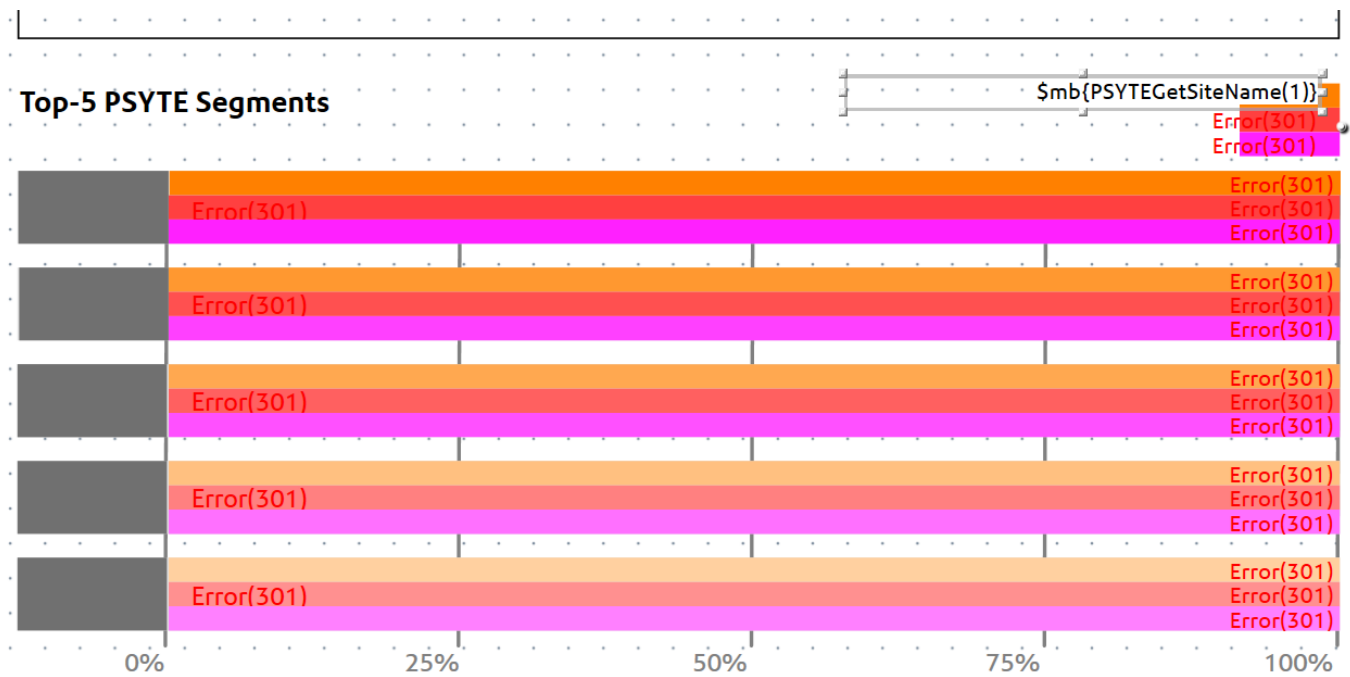
SmartText

PSYTEAnalyzer comes with several functions that can be used in SmartTexts in the layout for extracting values from the sites you are analyzing.

If you don't have PSYTEAnalyzer running, the text will show an error as you can see in the image below. If you double-click on the text, it will show the Smart Text expression.

The SmartText is built up by an outer expression `$mb{ }` which tells MapInfo Pro to treat this as a Smart Text and evaluate the expression inside the curly brackets `{ }`.

It's the value inside the curly brackets that can be PSYTEAnalyzer specific functions to help you get to site names, segment labels and calculated values.



Here is a list of possible PSYTEAnalyzer specific functions:

- `PSYTEGetTop`: Returns the value from a the topmost PSYTE segments for site1. Specify the top no and column name as parameters: `PSYTEGetTop(1, "Name")`. See `PSYTEGetTopExt` for a list of possible column names.
- `PSYTEGetTopExt`: Returns the value from a the topmost PSYTE segments for site1, site2, or benchmark. Specify the site, top no and column name as parameters: `PSYTEGetTop("1", 1, "Name")`. Here's a list of possible names:
 - `name`: Name of site or benchmark area
 - `title`: Title of benchmark area which is the code and name put together.
 - `type`: Type of benchmark, county, state or USA.
 - `psyte_seg` or `psyte_code`: the segment code
- `PSYTEGetSiteName`: Returns the name of the sites. Use 1 for first site and 2 for second site: `PSYTEGetSiteName(1)`
- `PSYTEGetBenchmarkTitle`: Returns the title (code and name) of the benchmark area. This functions takes no parameters: `PSYTEGetBenchmarkTitle()`.
- `PSYTEGetBenchmarkName`: Returns the name of the benchmark area. This functions takes no parameters: `PSYTEGetBenchmarkName()`.
- `PSYTEGetBenchmarkCode`: Returns the code of the benchmark area. This functions takes no parameters: `PSYTEGetBenchmarkCode()`.
- `PSYTEGetSiteValue`: Returns the value from a specified column of the first record in the site table. It takes one parameter, the column name: `PSYTEGetSiteValue("Location")`.
- `PSYTEGetSiteValueErr`: Similar to `PSYTEGetSiteValue` but shows any potential errors.
- `PSYTEGetColumnValue`: Returns the value from a specified column of a single record in the site table. It takes 3 parameters: the column name, the ROWID and if it should return any errors (1: yes, 0: no): `PSYTEGetColumnValue("Location", 1, 1)`.