New Features

ibaAnalyzer v7.3.0

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Date: 6th April 2021

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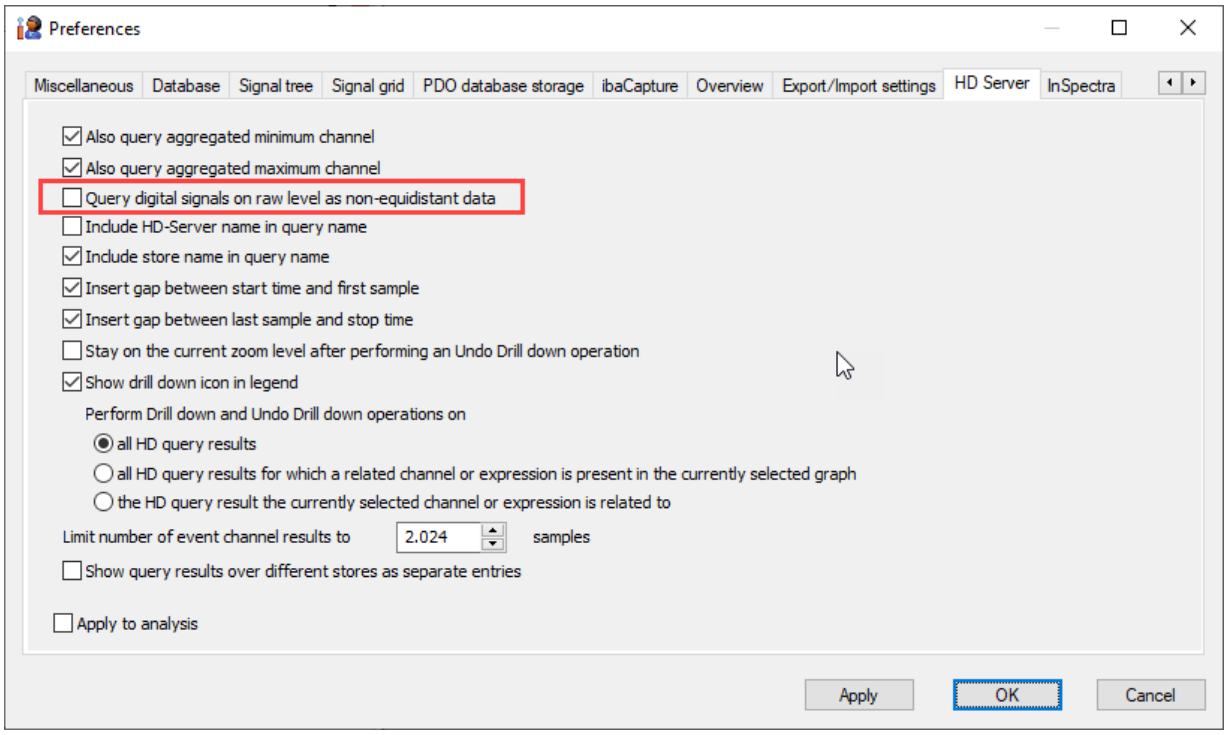
1 Always query digital signals on raw level from ibaHD-Server

With this version of ibaAnalyzer a new option “Query digital signals on raw level as non-equidistant data” has been added to the HD Server query settings. Using this option, it is possible to always query digital signals as raw data independent on the aggregation layer which is used for analog values. Especially for long-time queries this makes it possible to correctly measure duration or to evaluate time stamps of value changes without the usual errors introduced by the data aggregation on HD-Server.



If this option is enabled, ibaAnalyzer uses a different mechanism to query digital signals from any ibaHD-Server:

Instead of getting all data of the configured aggregation layer, only signal changes in the raw data level are detected and one data point is queried for every change of the signal from true to false and vice versa. The result will be a non-equidistant digital signal.

Note

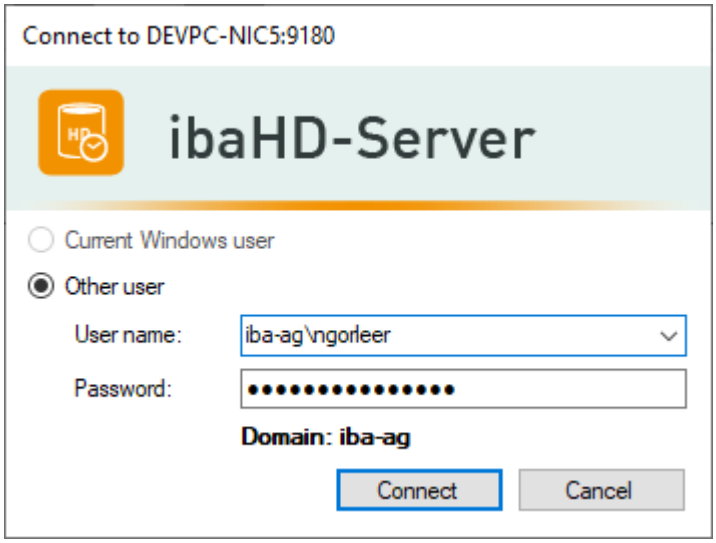
Most functions in ibaAnalyzer are able to handle non equidistant signals. In some cases there are differences (e.g. when using XBase()) and you should check your existing analysis if you enable this option. Please contact iba support if any function does not work as you expect it with those signals.

Warning

In case the digital signal has too many value changes, this option can cause ibaAnalyzer to hang. In case of doubt, disable the option, then data are queried from a suitable aggregation layer resulting in the usual performance of ibaAnalyzer.

2 Support for Active Directory in ibaHD-Server

With version 2.6.0 of ibaHD-Server or later, Active Directory users are supported in the user management. Starting from this version of ibaAnalyzer, it is possible to use Active Directory credentials when connecting to ibaHD-Server.



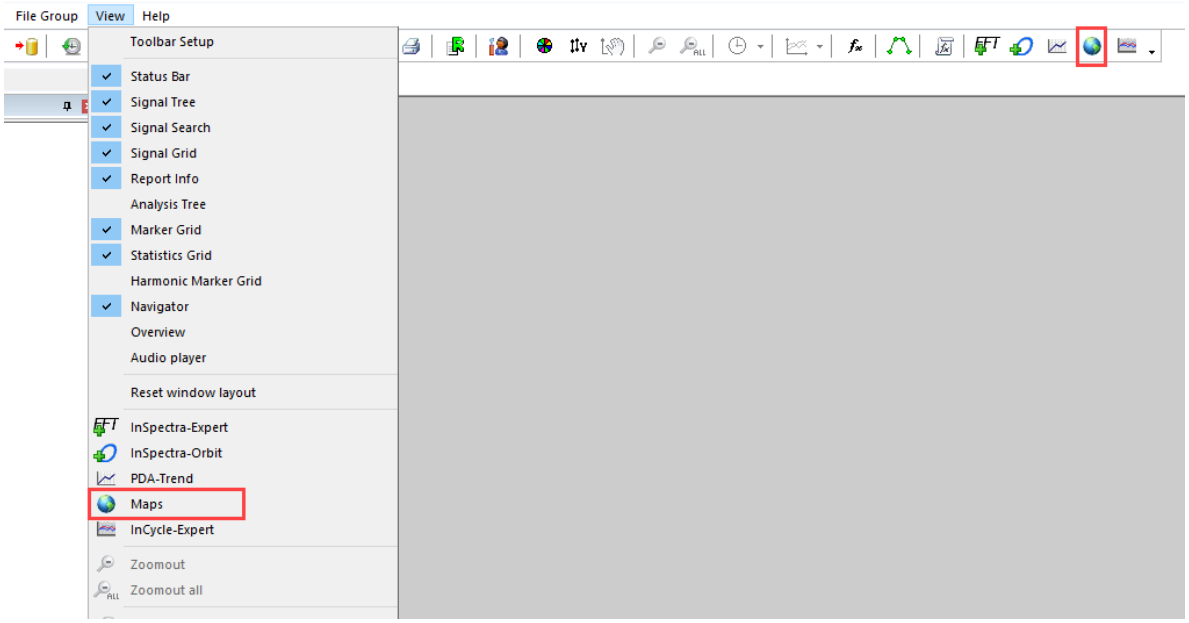
The Active Directory user name should be in the format domain\user. The domain can be the short name (e.g. iba-ag) or the fully qualified domain name (e.g. iba-ag.local). If the connect fails with the short name then try the fully qualified domain name. The user part should be the (legacy) user logon name.

3 New Product: ibaAnalyzer-Maps

The licensed add-on product “ibaAnalyzer-Maps” is included in this release. For details on prices and usage, please refer to our website and the information provided there.

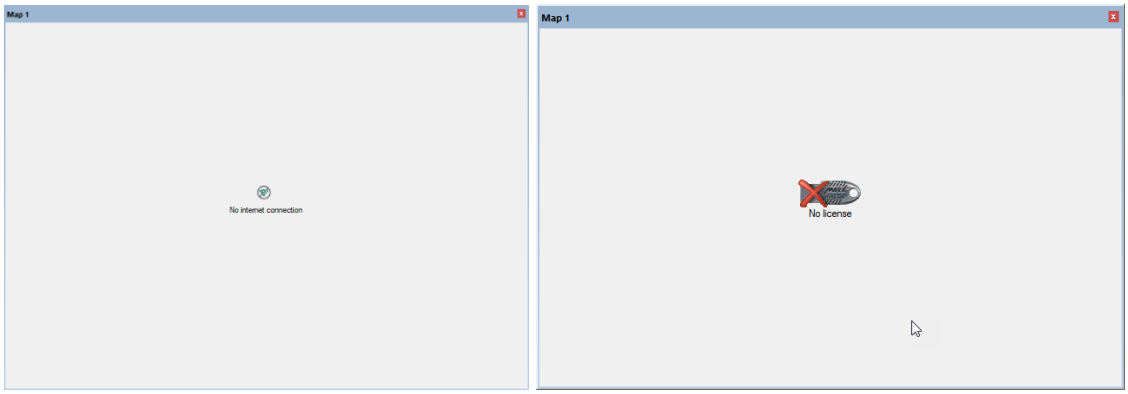
In order to use ibaAnalyzer-Maps two signals representing longitude and latitude are required. The values of the signal have to represent degrees in floating point format, i.e. decimal degrees. Additional minutes and seconds as separate signals are not supported. Expressions can be used in ibaAnalyzer to create suitable signals.

A new maps view can be opened by clicking the corresponding icon in the main toolbar or the “View” menu.



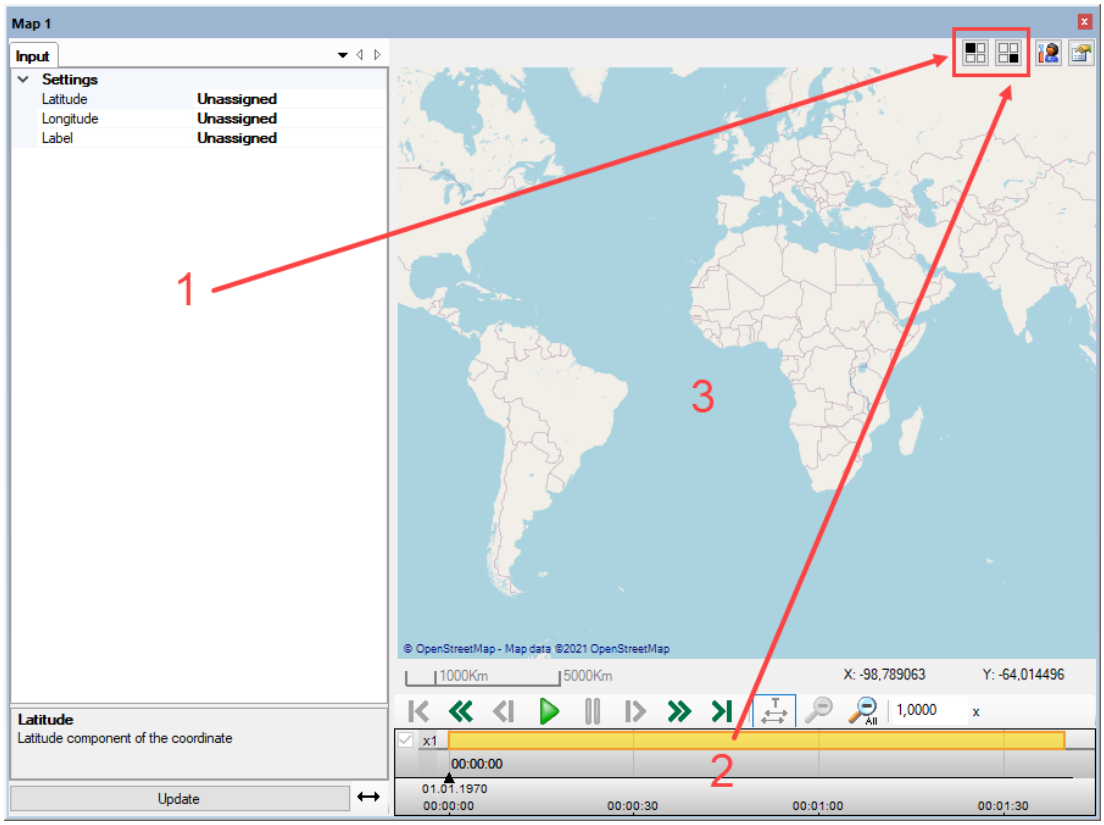
Note

An active internet connection is necessary to use ibaAnalyzer-Maps. If ibaAnalyzer cannot establish a connection, a suitable message is shown. If no valid license is present, the view can be opened but is non-functional.



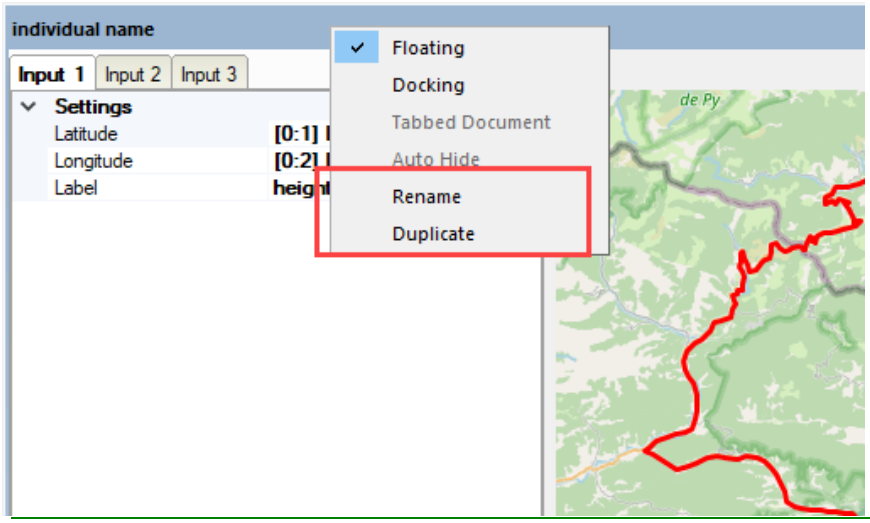
3.1 The maps view

The map view consists of three main areas. Configuration panel (1), playback panel (2), and the map itself (3). The configuration and playback panel can be hidden by using the toggle buttons in the upper right corner.



Additionally, the view settings and the global preferences for all available view types can be opened using the buttons in the upper right corner. As usual, views in ibaAnalyzer can be floating or docked. When the view is docked it can be set to “auto hide”.

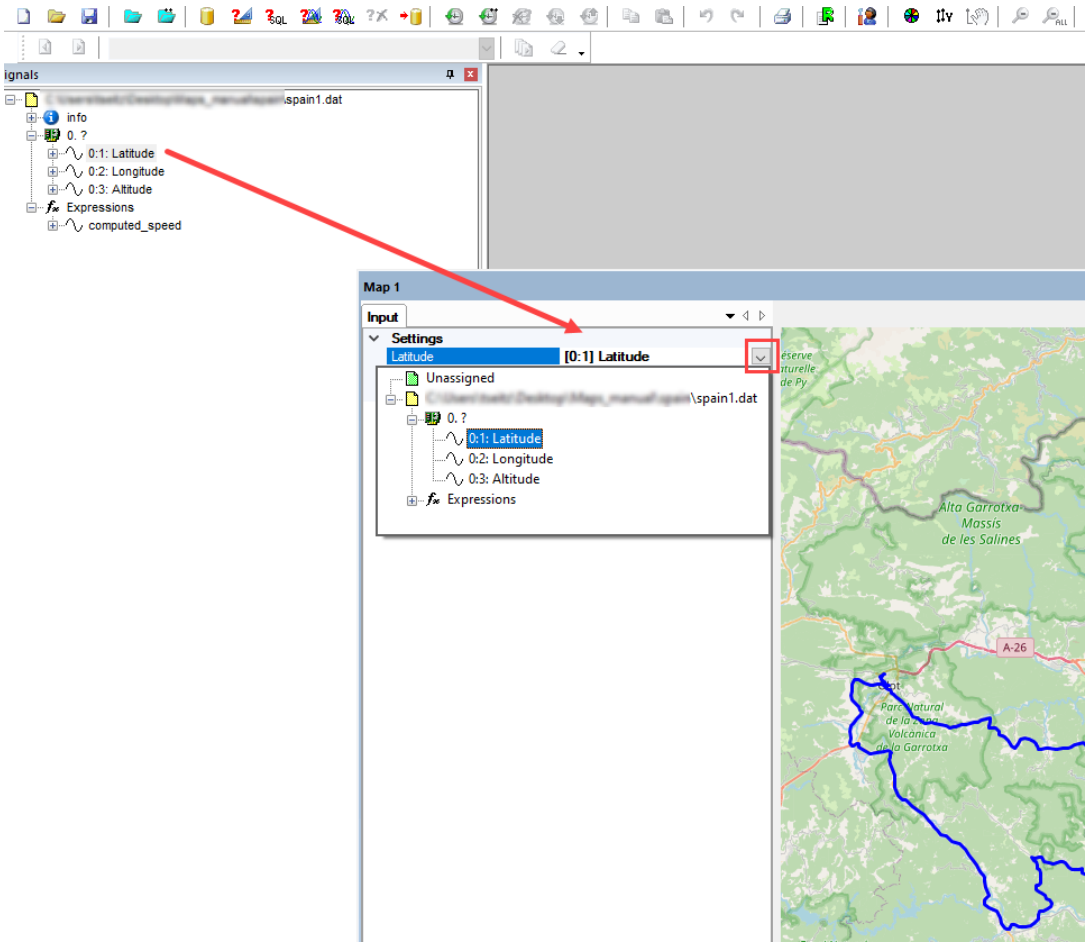
The context menu of the top bar additionally offers options to duplicate and rename the view. The duplicated view will have the same settings as the original.



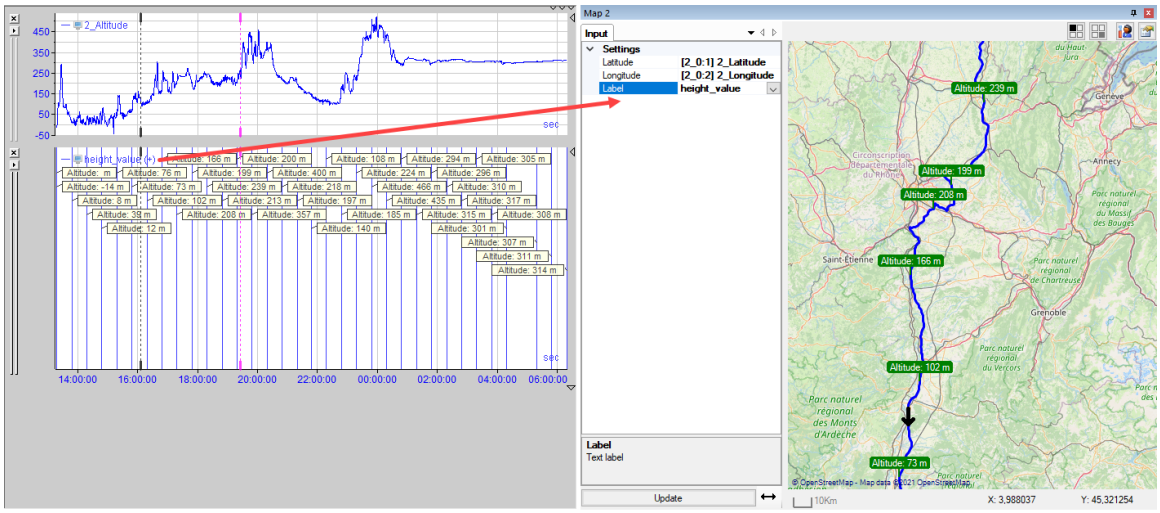
3.1.1 The configuration area

The input data can be configured here. Every route which needs to be displayed needs at least a latitude and longitude signal. Optional, a text-signal can be used as “Label”.

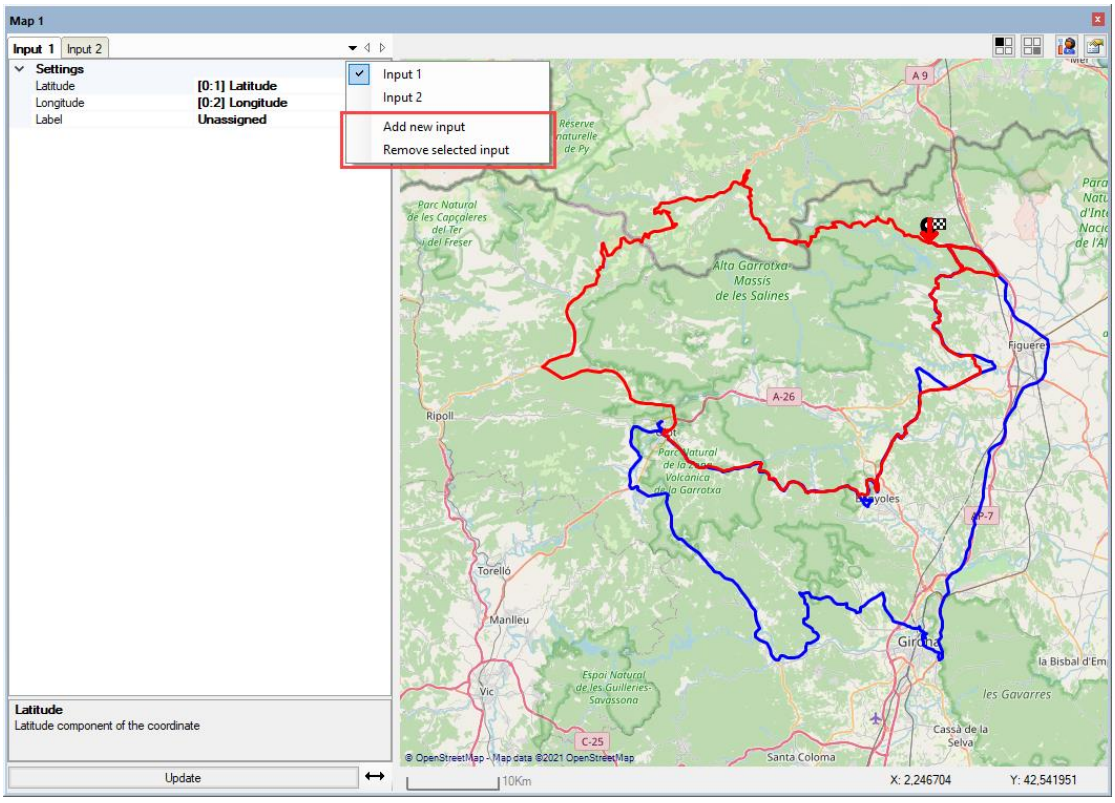
Signals can be added via drag&drop or selected from a dropdown menu.



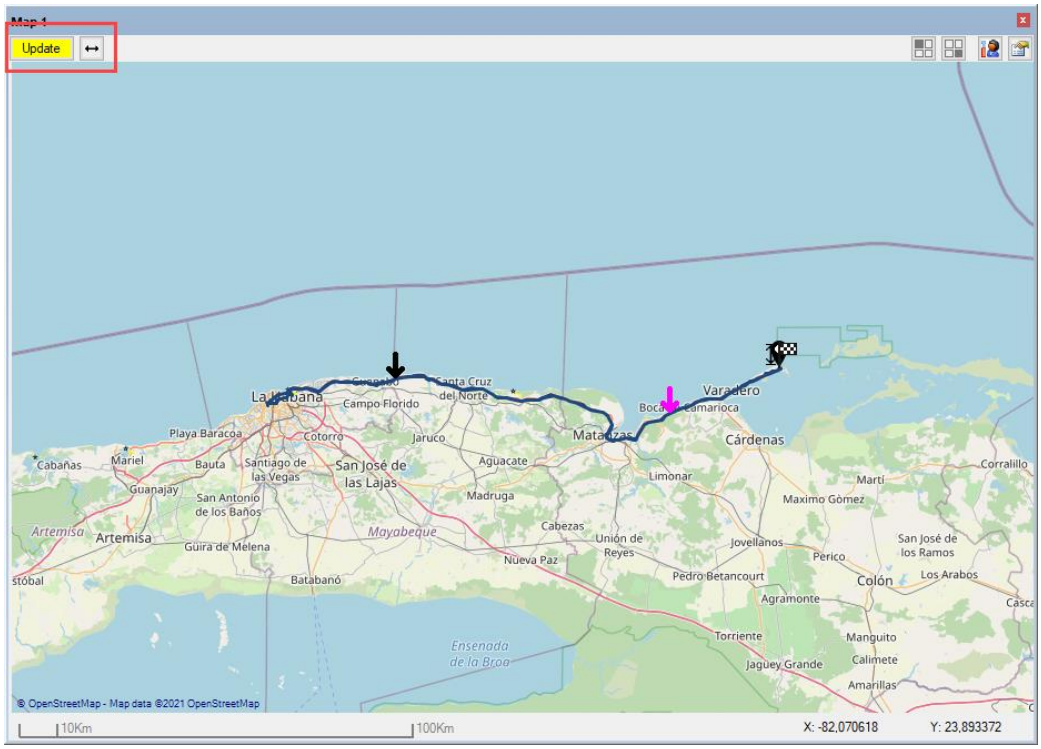
While longitude and latitude are always required, the “Label” setting can be used as an option. This setting accepts text channels which are then displayed along the route as a small flag.



Additional routes can be added and removed via the context menu or the black triangle in the top bar of the configuration area



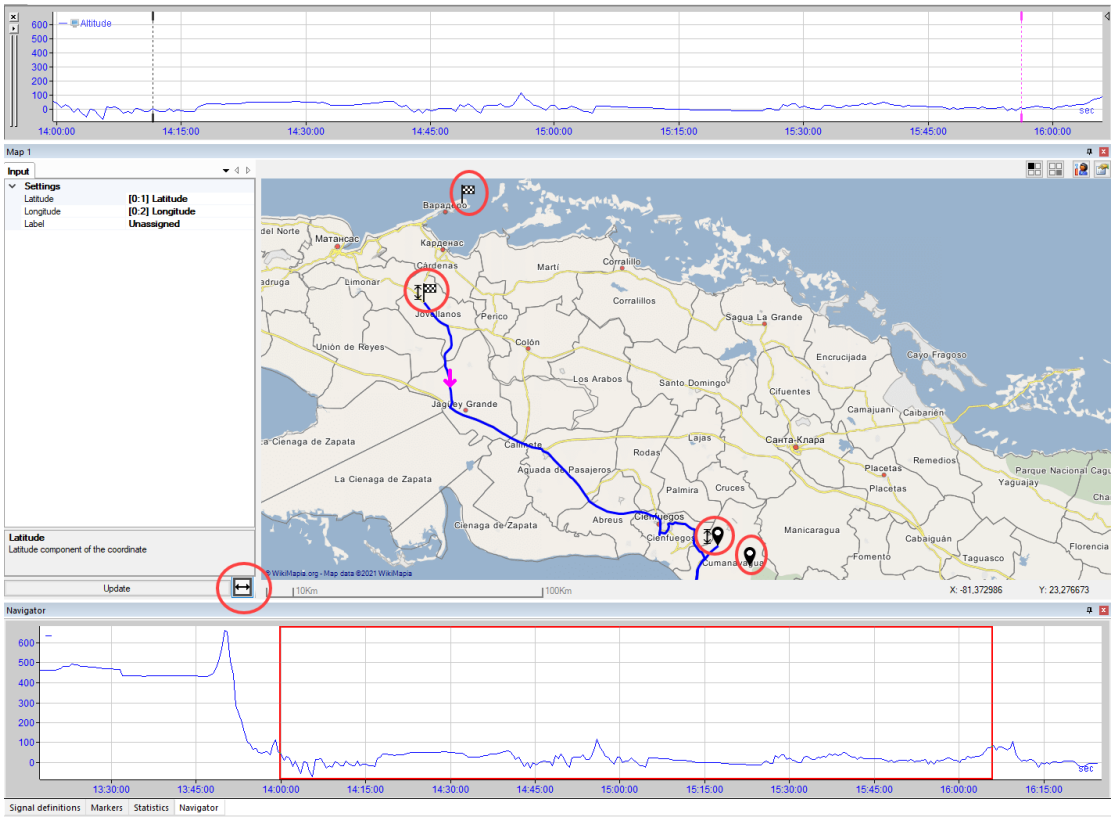
Every change made to the configuration area needs to be applied by pressing the “Update” button. The button is highlighted with yellow color to indicate that changes were made which have not yet been applied.



Note

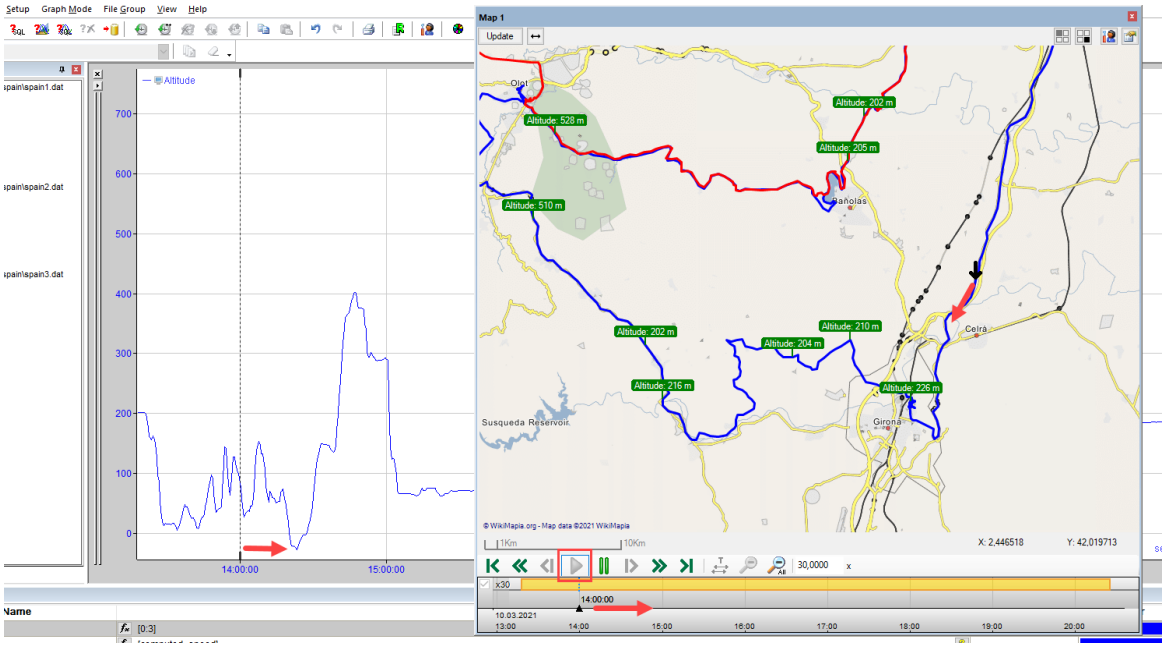
If the configuration area is hidden, the “Update” and “Use ibaAnalyzer zoom area” buttons are shown in the bar above the route view instead.

If the option “Use ibaAnalyzer zoom area” is selected, only the part of the route is shown which corresponds to the data shown in the main ibaAnalyzer trendgraph. Start and end are marked with an extra icon and start and end position of the full route are also displayed.



3.1.2 The playback area

The X1 and X2 marker in ibaAnalyzer are coupled to two corresponding markers shown on the route. It is possible to move the markers on the map or the markers in the ibaAnalyzer trendgraph as usual. Additionally, the X1 marker is coupled to the playback area.



Using the playback area, it is possible to auto-move the X1 marker forward and follow the position in real-time.

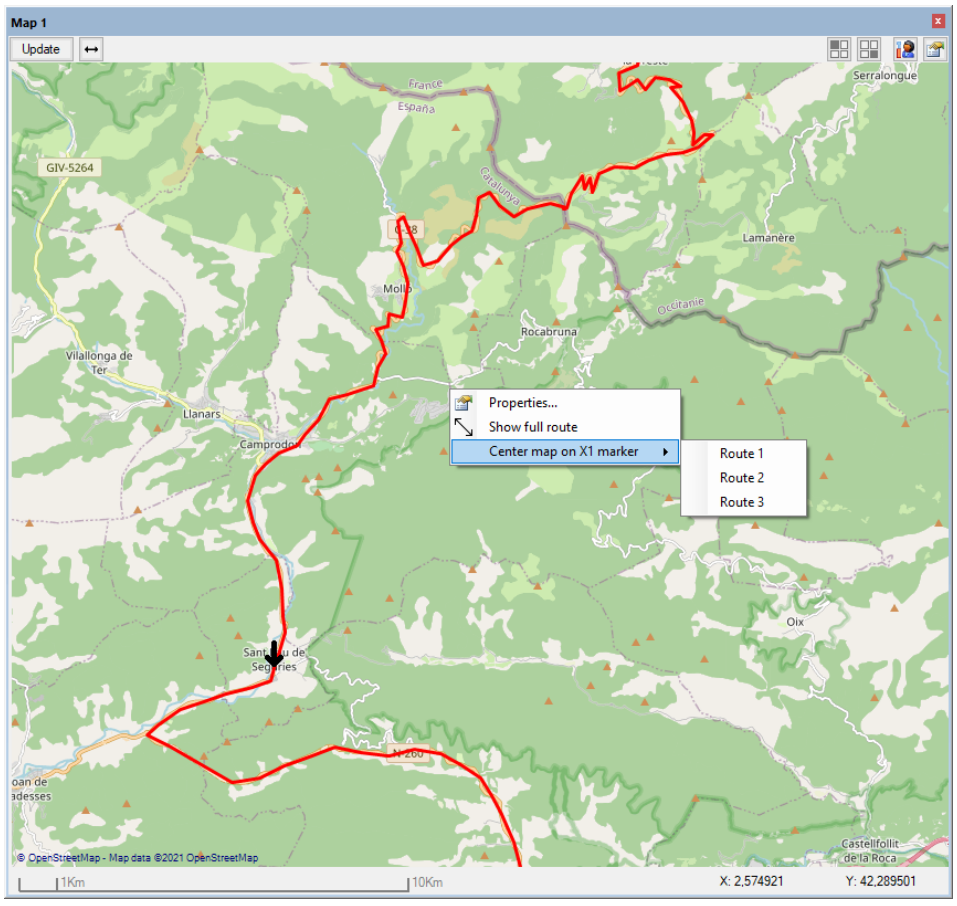
3.1.3 The map area

The main area of ibaAnalyzer-Maps shows the configured routes on the selected map type. As usual, it is possible to zoom in and out by scrolling and to move the map by drag&drop. Additionally, the X1 and X2 markers on the map can be dragged individually.

Note

In ibaAnalyzer it is possible to change the Marker colors under “Graph Setup → Colors”. The colors selected there are also used for the markers on the map view.

The context menu offers options to open the properties dialog, reset the view to show the full route (auto-zoom) and to center the map around the X1 marker.

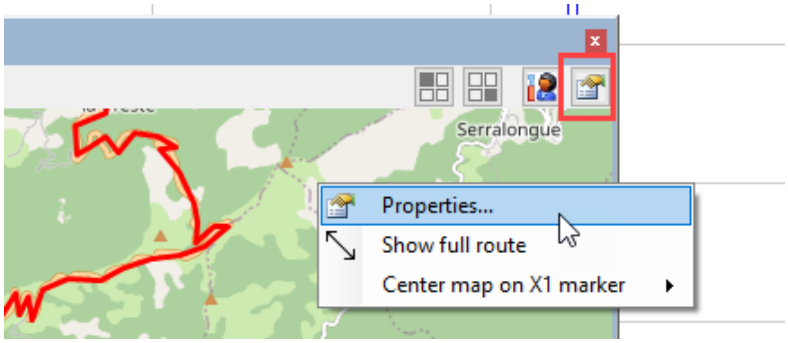


If the “Center maps on X1 marker” is activated, the map area automatically moves with the X1 marker along the selected route. The marker can be moved by the playback area or manually in the ibaAnalyzer trendgraph. Zooming in and out by scrolling is possible to adjust the size of the shown area.

If the map is shifted manually by drag&drop or the marker on the map is moved, the option is disabled again and the coupling is deactivated.

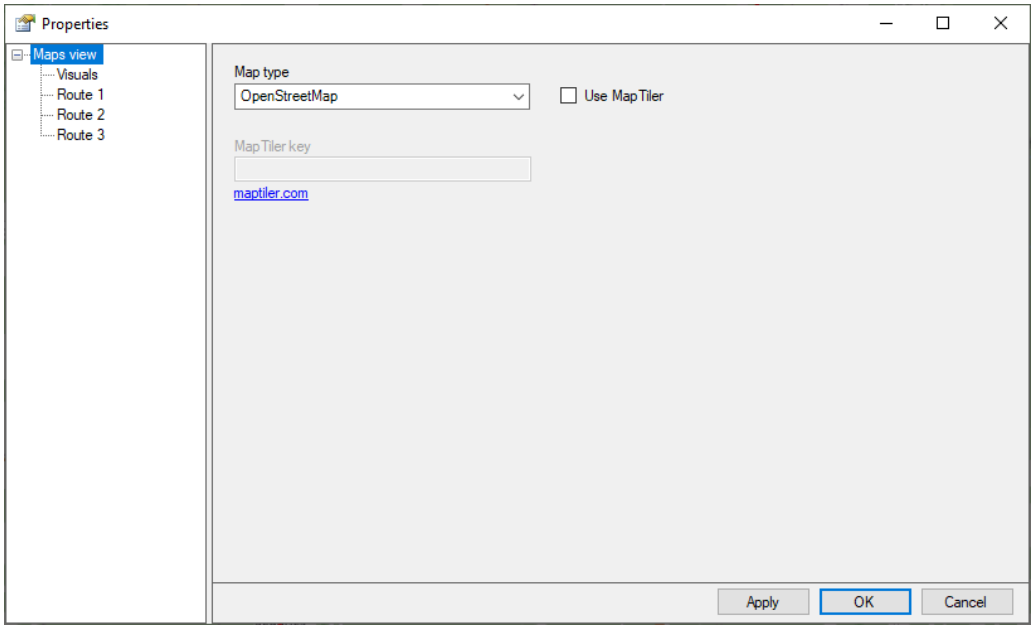
3.2 Settings and Configuration

Several options to configure how the route is presented are available in the properties dialog. The dialog can be opened via context menu of the map itself or the corresponding button in the upper right corner of the view.



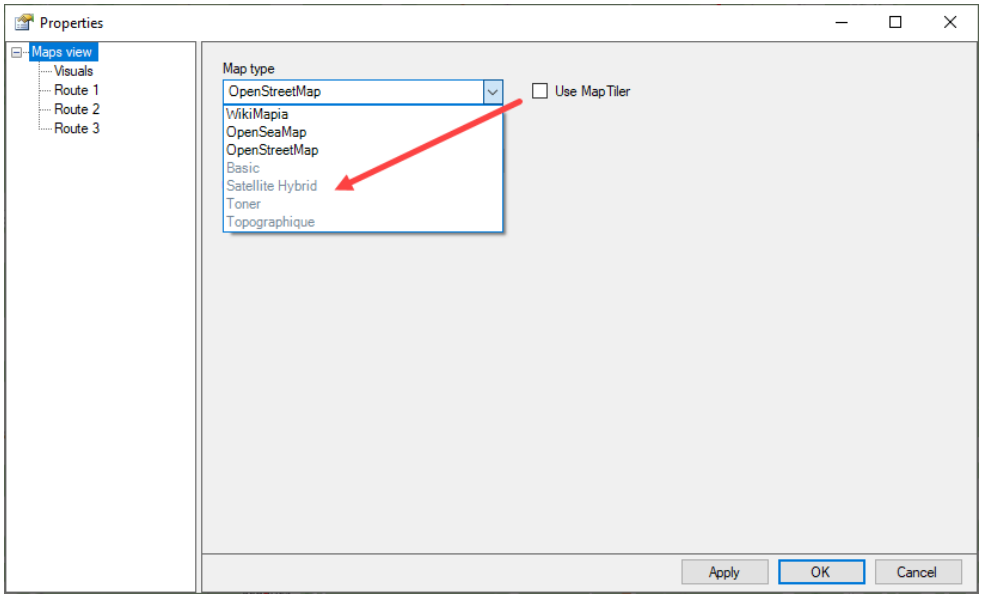
3.2.1 Main settings

Under the root node “Maps view” the map type can be selected. Several open-source map types can be selected.

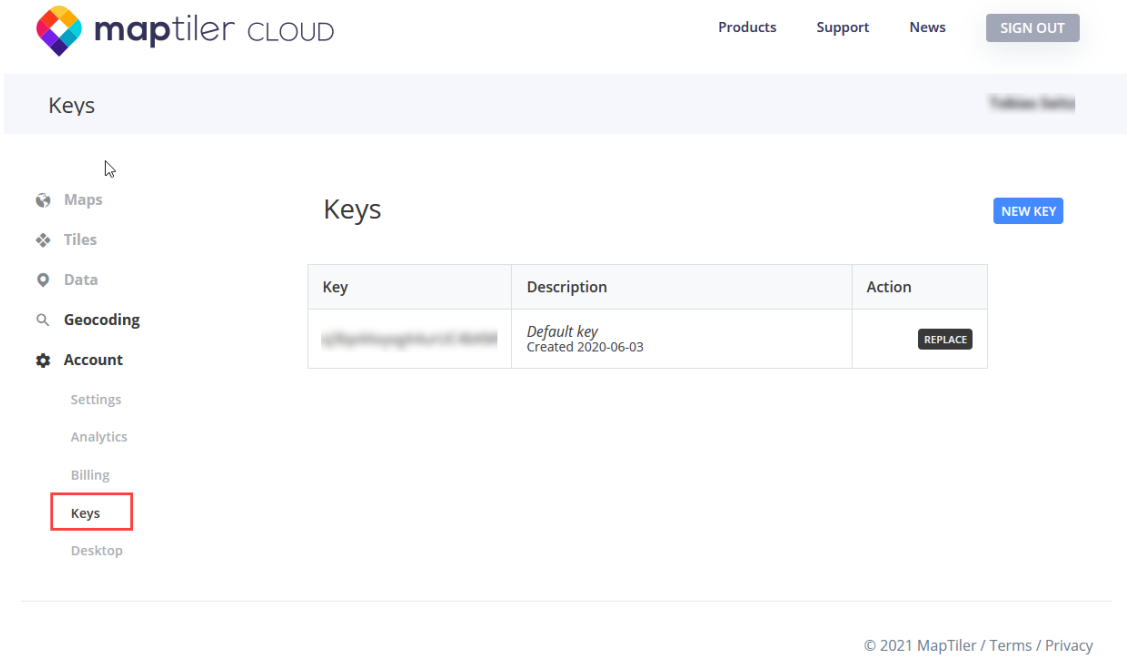


The option “Use Map Tiler” enables additional maps provided by our partner Map Tiler. To use this option, it is necessary to set up an account with Map Tiler where additional fees apply. For testing it is possible to set up a “free” account.

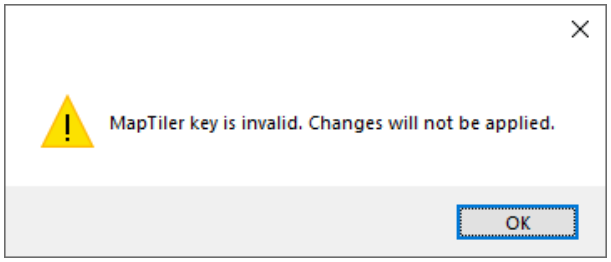
See https://www.maptiler.com/cloud/ for details.



To use the maps provided from Map Tiler, a valid API key needs to be entered. To get a valid API key, sign in to your Map Tiler account and select “Account → Keys”.



If no valid key is entered, a corresponding error is shown.

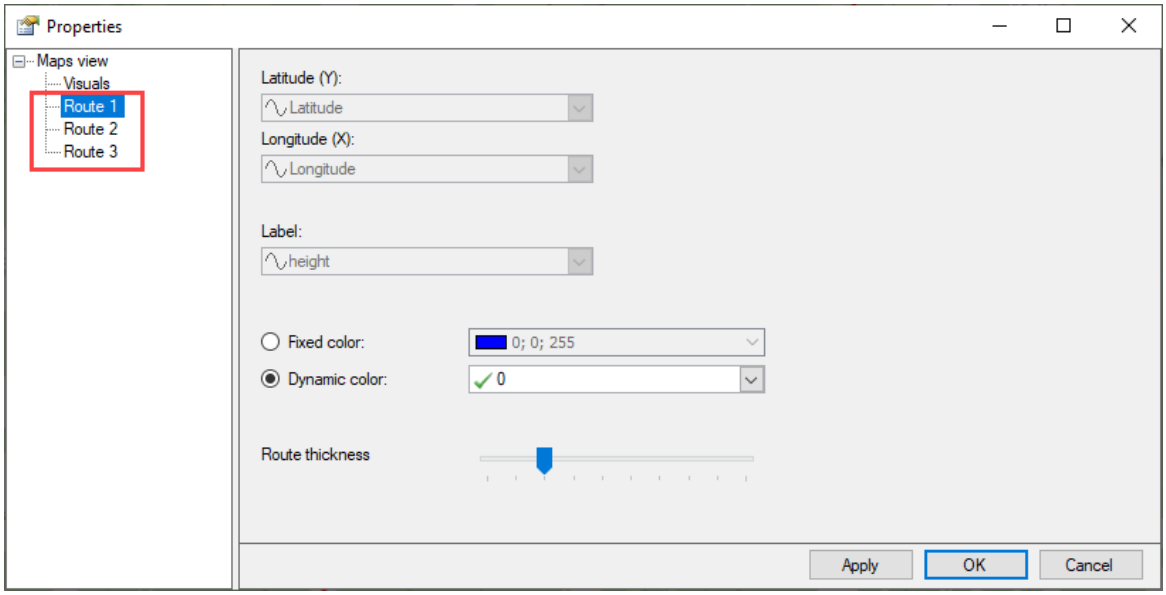


3.2.2 Visuals

In the “Visuals” node, default colors can be set which are used for new routes added to the view. Additionally, these colors are used for dynamic coloring of the view. Every integer number between 0 and 15 is assigned to the selected color.

3.2.3 Route settings

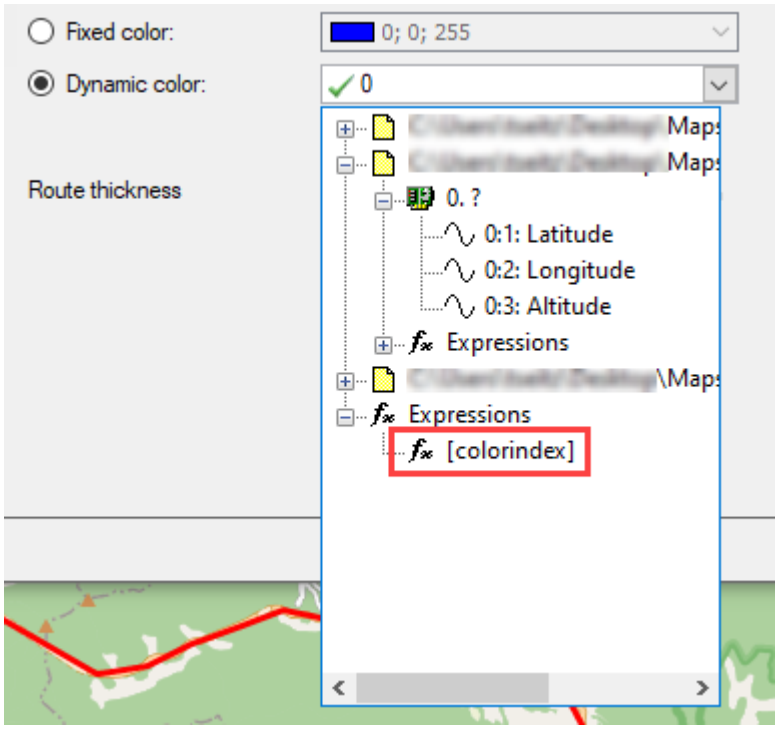
The route settings show the selected latitude, longitude, and label signal. These fields are read-only and need to be modified via the configuration area.



For each route, a separate node is available, where color and thickness can be set.

The option “Dynamic Color” works as follows:

Using a selector signal, colors are changed depending on the signal value. Only integer values are interpreted, i.e. values after the comma are simply cut off. The values correspond to the colors set in the “Visuals” node which are indexed starting from zero.


Fixed color:
0; 0; 255
Dynamic color:
0
Route thickness
Maps
Maps
0. ?
0:1: Latitude
0:2: Longitude
0:3: Altitude
Expressions
\Maps
Expressions
[colorindex]

4 New Product: ibaAnalyzer-InCycle

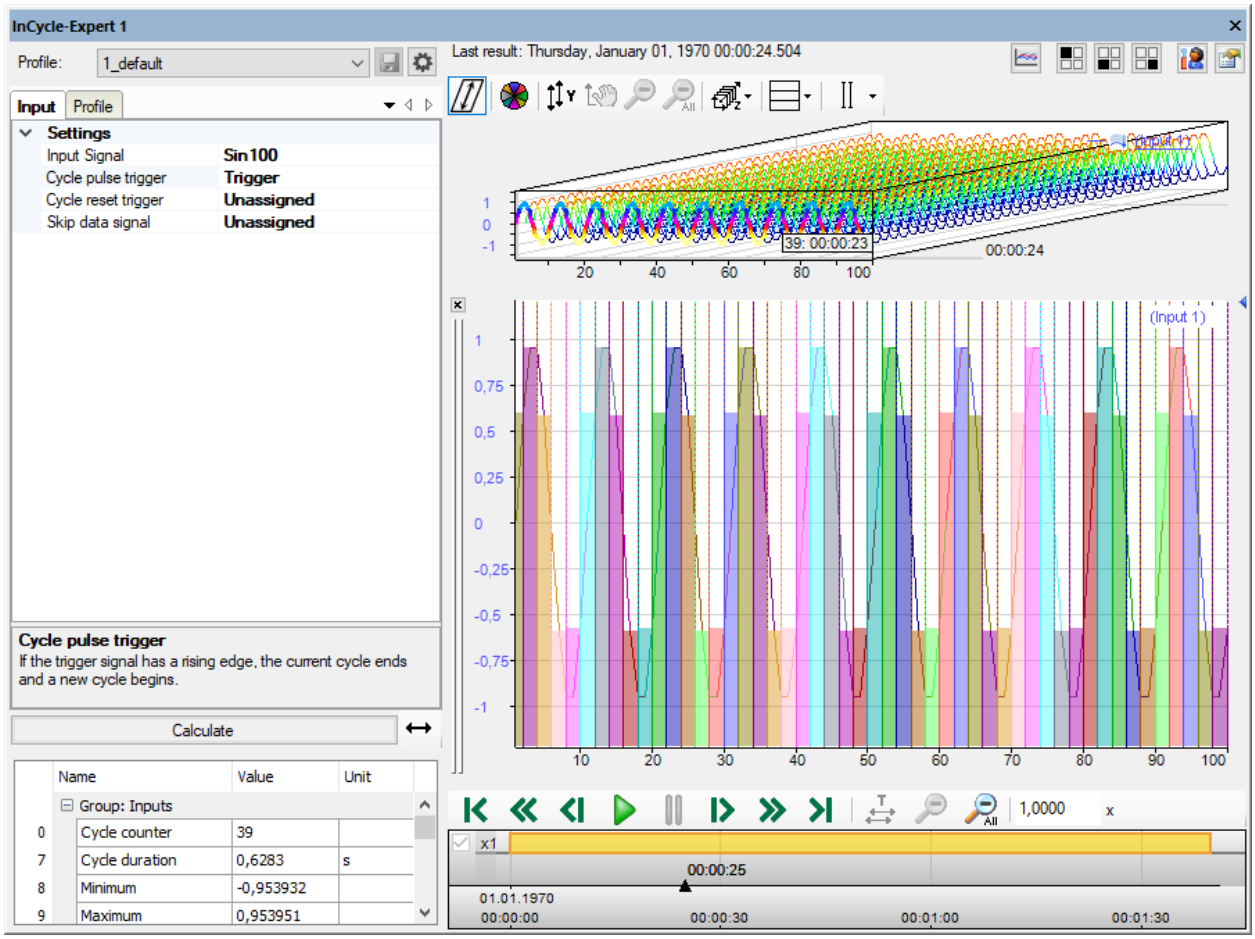
The add-on product “ibaAnalyzer-InCycle” is included in this release. Please refer to the manual “ibaAnalyzer-InCycle” for further details.

4.1 Licensing

The new ibaAnalyzer-InCycle-Expert-view is available in ibaAnalyzer without any license required. For getting results as signals for preprocessing and export the license ibaAnalyzer-InCycle+ is required.

4.2 InCycle-Expert-view

An InCycle-Expert-view can be opened with the new button in the toolbar  .



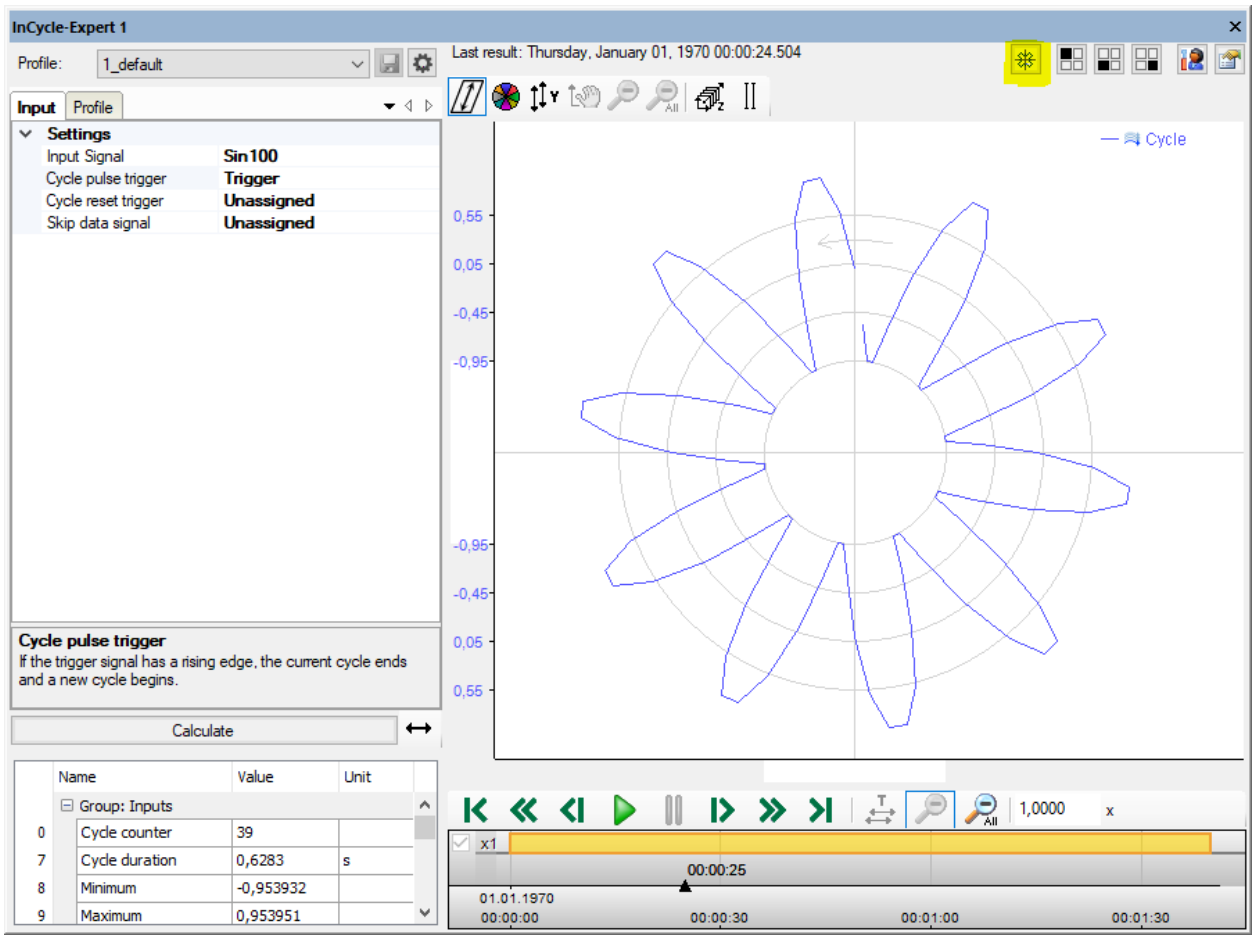
Like ibaAnalyzer-InSpectra-views the view contains of four areas:

1. Inputs and profiles: In this area the input signals and the analysis profile can be configured. Profiles can also be exported and imported. A detailed description of the profiles can be found in the manual of ibaInCycle.
2. Result area: In the area below results for the selected plain are shown. By right-clicking the results to show and the signals that are shown in the signal-area of ibaAnalyzer can be configured.

3. View-area: In this area the cycle or circle view from ibaInCycle is displayed. A detailed description of the views and the configuration can be found in the manual of ibaInCycle.
4. Playback-area: In the area below the view-area a playback of the file can be operated.

4.3 Changing views

To switch between circle and cycle view the button in the upper right corner of the view area can be used:

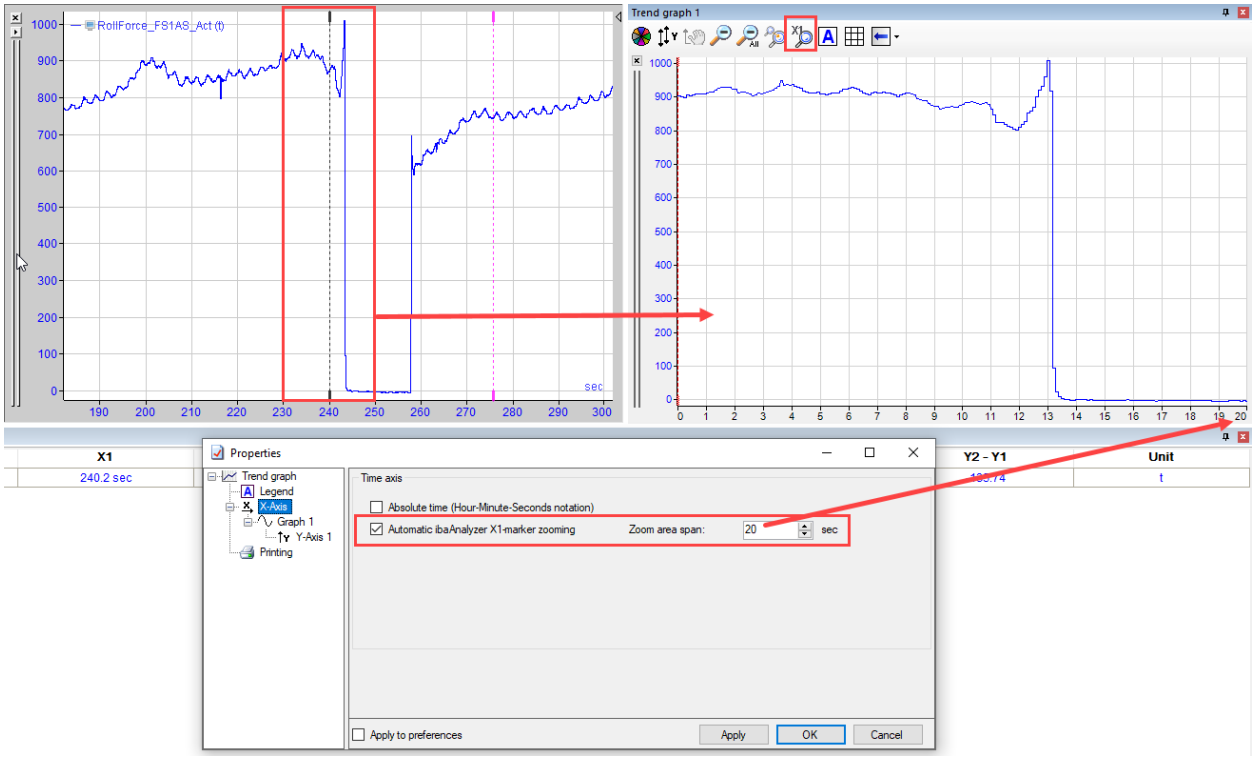


5 Further improvements

5.1 X1 marker zoom for ActiveX Trendview

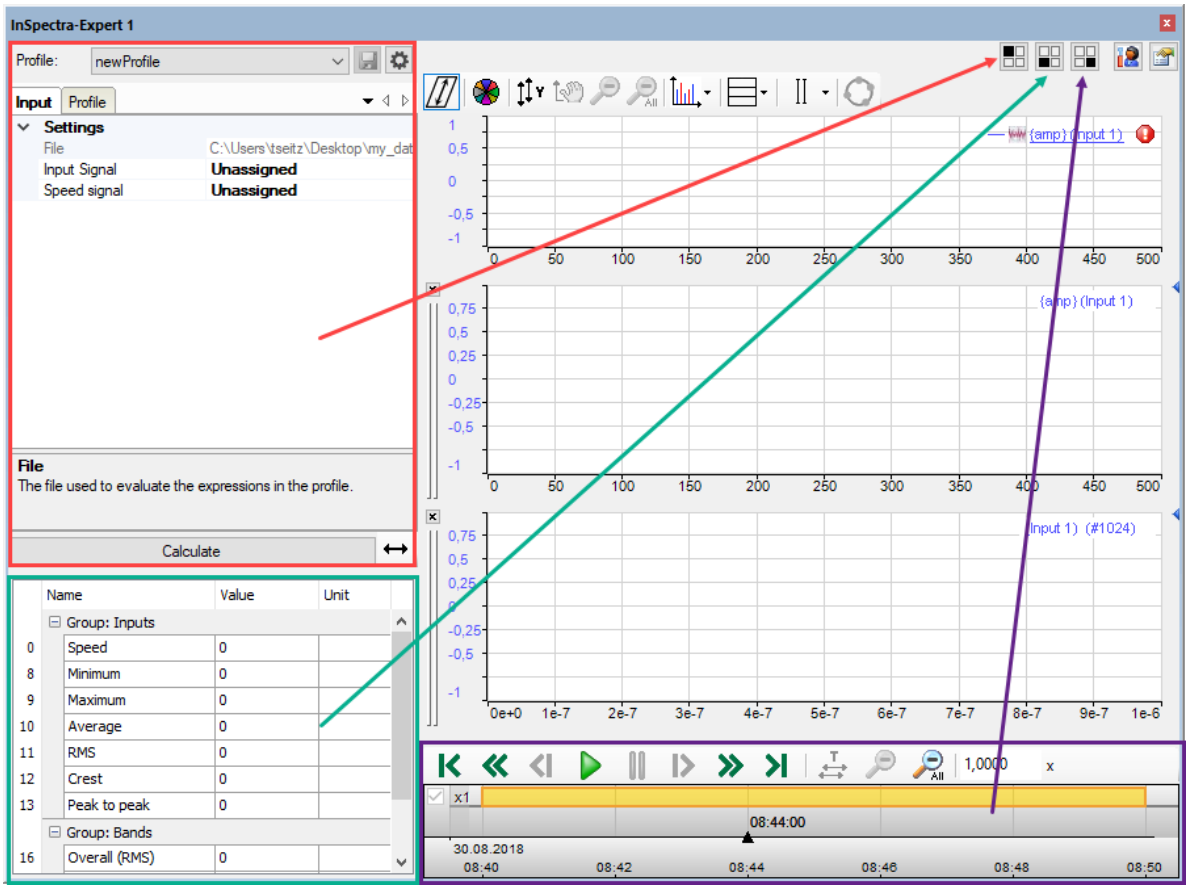
The ActiveX trendview element introduced in version 7.2.0 of ibaAnalyzer has been extended by the possibility to automatically zoom to a range relative to the X1 marker in ibaAnalyzer.

In the properties of the trendview you can set the time-range which is applied symmetrically around the position of the X1 marker. Further, automatic updates can be enabled causing the view to update everytime the marker is moved. The zoom adaption can also be manually triggered by a new symbol added to the upper bar of the view.



5.2 Toggle visibility for all active x view areas

All ActiveX view elements (where applicable) have been extended with toggle buttons to show and hide the configuration, result, or replay panel. This makes it possible to hide areas which are not needed at the moment.



5.3 Use first text channel for extract

Previously, when using the data extractor to extract values from text channels to any database, the first text entry was used, which was an empty text in most cases.

The behavior has been adapted to automatically use the first non-empty text entry (if available) for the extract. This makes a rather complicated workaround superfluous.