New Features in ibaDaVIS v2.8.0

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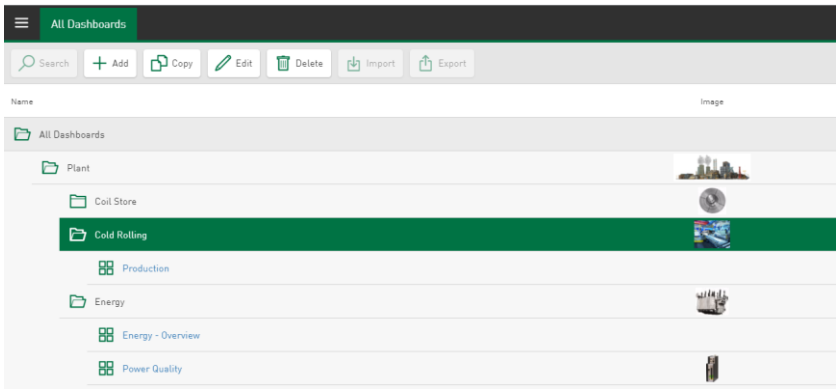
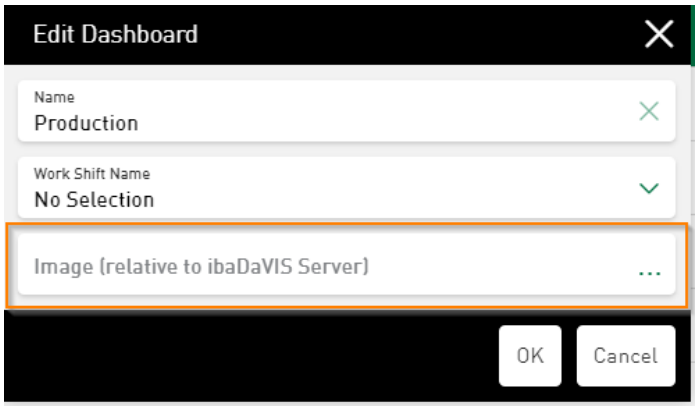
1 New Features

1.1 Custom pictures for folders or dashboards

In this version it is possible to attach images to dashboards or folders. The images can be schematic representations, photos or pictograms, which should make it easier for the user to associate the image with the content shown in the dashboard.

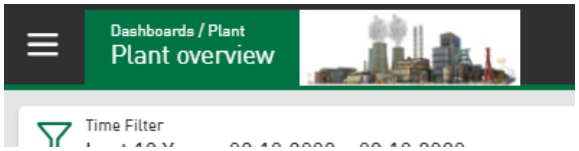


The edit dialog for a dashboard or folder provides with the field *Image* the text input field for the file path of an image. Supported are the common image formats like *png*, *bmp*, *jpg* and others.



The selected image is displayed directly in the editing dialog in a preview. After the dashboard settings have been applied by clicking the <OK> button, the image is displayed in a reduced form in the column *Image*.

The selected image will be displayed also on the dashboard page at the header of the dashboard.



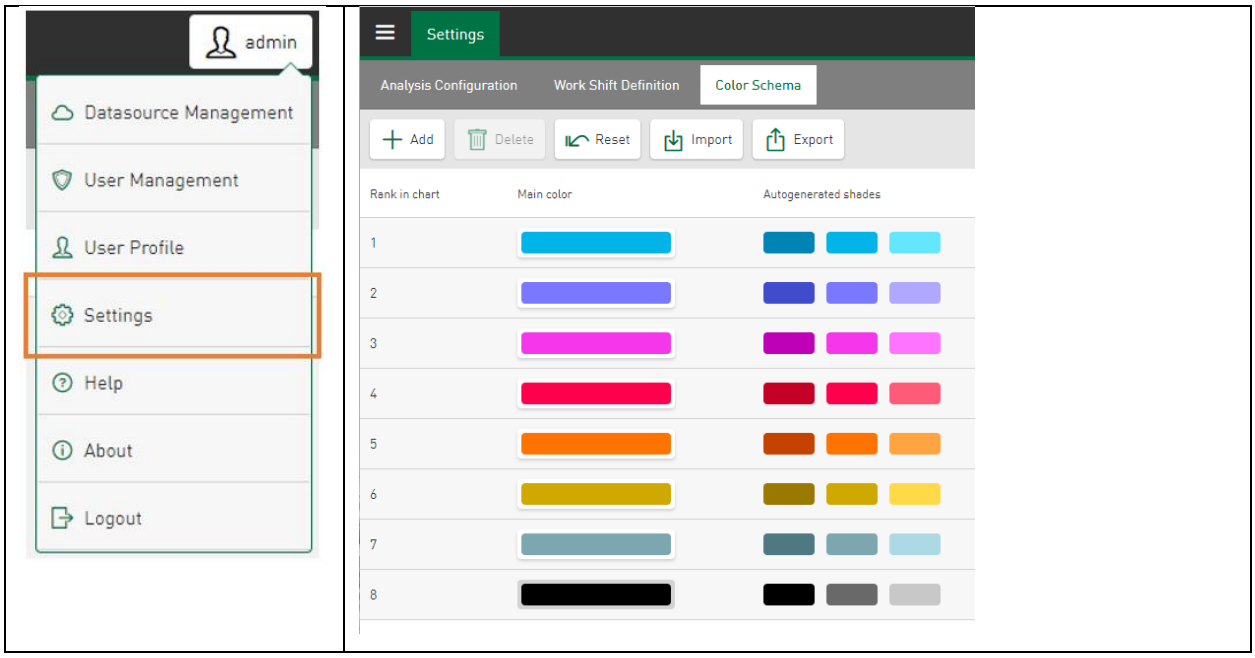
The selected image of a folder is inherited to dashboards which have no individual image.

1.2 Color schema

The standard colors in *ibaDaVIS* are listed in the section *Settings* at the paragraph *Color Schema*. The currently applied color schema can be changed manually or by an import of a new color schema by users which have the permission to access the *Settings*. The colors defined at the *Color Scheme* are used in the graphs on the dashboards on the tiles to color the selected signals in line charts or other graphs such as histograms, scatter chart, or bar charts. The *Import* and *Export* of the *Color Scheme* is based on text files in *json* format.

1.2.1 Configuration

The *Color Schema* is available for users which have the permission to access the *Settings*. It's a separate section next to the already present *Analysis Configuration* and *Work Shift Definition*.



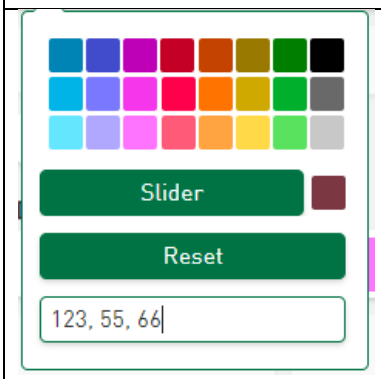
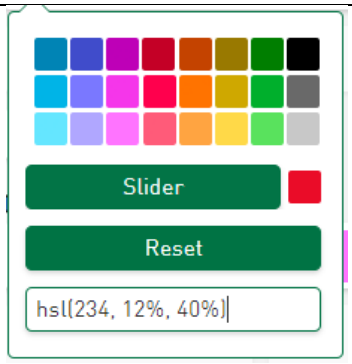
The position of the colors in the list and with it the rank of the colors in the chart can be changed by the user via drag and drop. The rank of the color corresponds to the order of the colors that are automatically assigned when new signals are added as selected signals or values to tiles.

There are 8 colors preset as *Main color*. It is possible to extend the list of *Main colors* to 24 colors. In addition to the *Main colors*, *ibaDaVIS* uses *Auto generated shades* derived from the *Main colors*. E.g. in order to display several signals with the same unit in the tile display, distinguishable from each other. Two shades for each *Main color* are added.

The Reset will reset the color to the initial color setup.

Each color can be modified individually by clicking to the color button. The occurring fly out provides an interactive color selection unit as slider and a text input box to define the color by hex code.

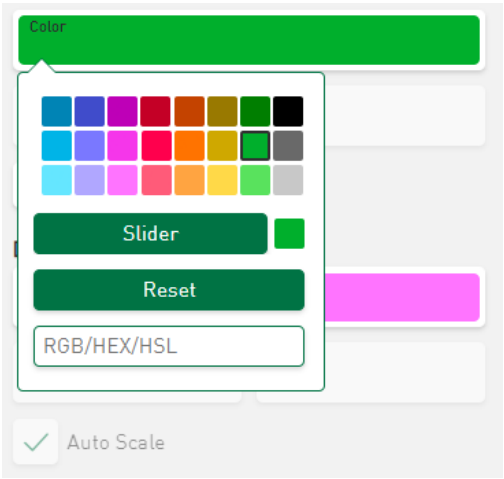
It's possible to define a color using the interactive slider which is displayed when you press the slider, or define the color by a RGB value, Hex code or using the HSL color codes

RGB	HEX	HSL
		

1.2.2 Color selection for signals in several chart types

The color of values or value trends displayed as line chart, scatter chart, histogram and bar chart can be changed manually.

At the section axis each selected column or signal provides a color selection field.



1.2.3 Color schema export and import

The export and also the import of the color schema can be realized by using the *Export* and *Import* buttons on the dashboard navigation page as part of a configuration which may include also the dashboards, datasource configuration.

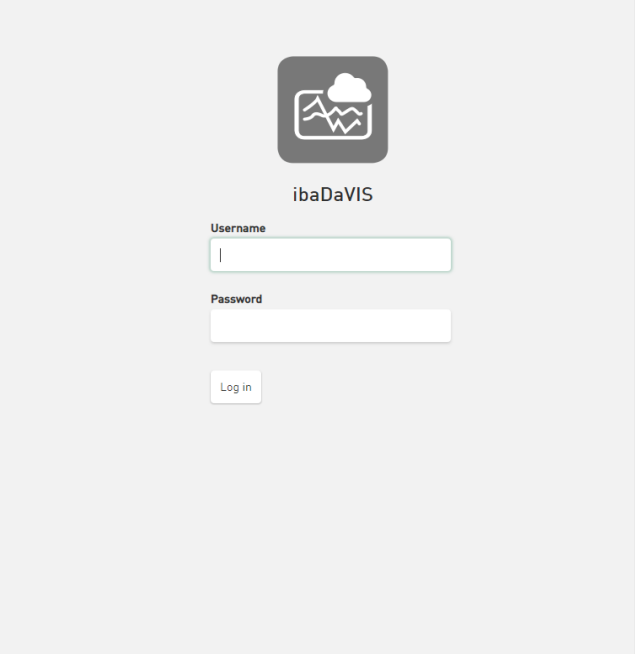
The color schema can be exported or imported directly on the page of the *Color Schema* itself. By clicking on the *Import* or *Export* button a *json* file is generated at the export or expected as input for the color schema.

1.3 Customize the login page

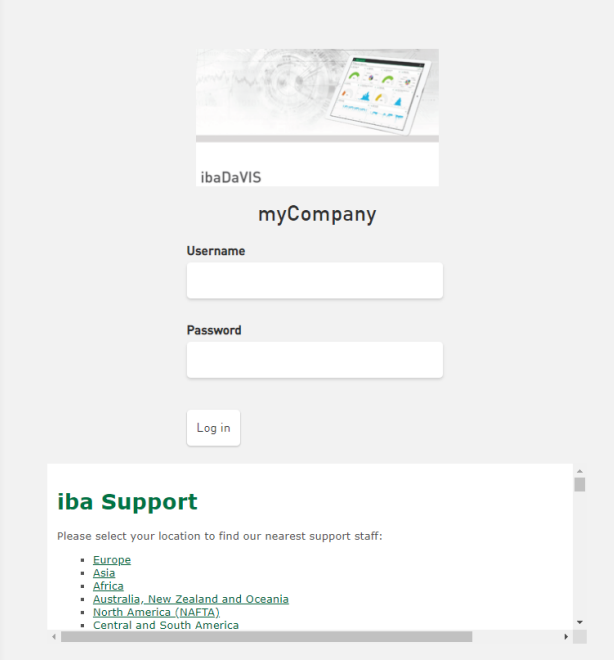
The login page of *ibaDaVIS* supports the exchange of the *ibaDaVIS* product icon and the *ibaDaVIS* product name against a custom image and a custom text line e.g. your company name. It is also possible to display below the login fields an html page which display e.g. the

contact address of your administrator or support. For security reasons only plain html pages are supported.

Usual *ibaDaVIS* login page



Customized *ibaDaVIS* login page



The optional information about the custom icon, header text and html page is optional setting which can be added to the *config.json* file.

config.json

```
{
  "Urls": "http://*:80",
  "LogLevel": "info",
  "LoginPage": {
    "IconPath": "C:\\pictures\\Captured_TopPage.PNG",
    "HeaderText": "myCompany",
    "HtmlContentPath": "C:\\HTML_TEST\\support.html",
    "HtmlContentMinHeight":"100",
    "HtmlContentMaxHeight":"150",
    "HtmlContentWidth":"450"
    }
}
```

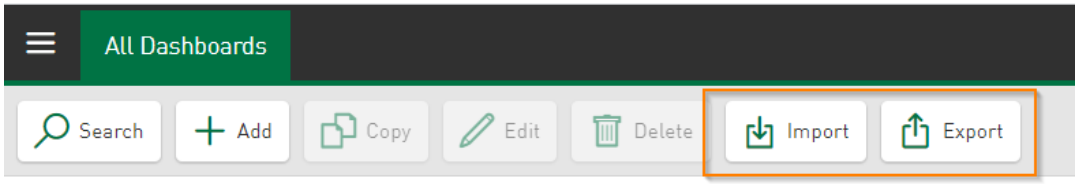
IconPath local file path to the custom image which will replace the *ibaDaVIS* product icon; size of the displayed picture is limited to keep the login input fields in the visible area. The image will be limited to the width of 300 pixels.

HeaderText Header text will replace the product name *ibaDaVIS* e.g. by the your company name

HtmlContentPath File path to html page which will be displayed below the login input fields; *HtmlContentMinHeitgth*, *HtmlContentMaxHeight, HtmlContentWidth* limit the visible area of the html page on the longing page as numerical value in pixel.

1.4 Export and Import for Dashboards and others settings

The navigation page support the export and import of the designed dashboards, the configured datasources, the color schema and the work shift filter settings as text file in *json* format.



1.4.1 Export

You start the export of the configuration as *json* file when you push the *Export* button. A modal dialog provides selection of the content which can be included to the export.

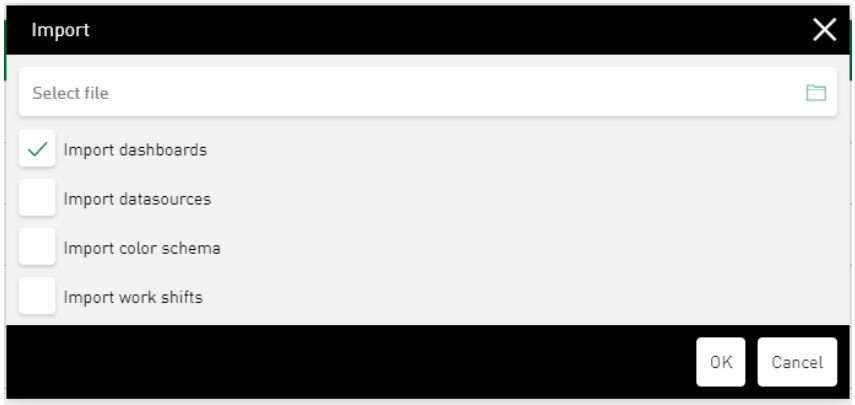
The provided exported content depend on the permissions of the user which triggers the export. The export can include only the dashboards and folders which are accessible for the user which triggers the export. The export will include based on the current selection in the dashboard tree one individual dashboard or if the current selection is a folder the folder related content such as all dashboards and subfolders.

The option to export the datasources will include the configured datasource connections to the *json* file. When the color schema is selected the color schema is included to the export file.

The option to export the work shifts will include the current defiled shift models to the export *json* file.

1.4.2 Import

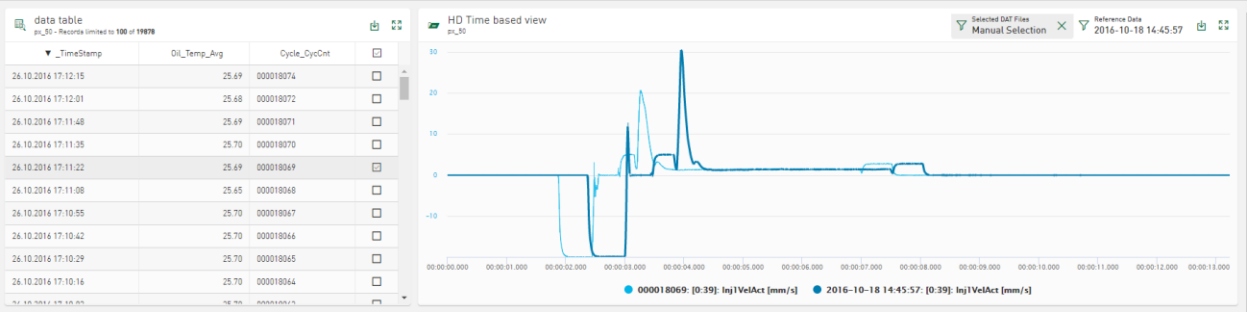
You can import *json* files which were created by an *ibaDaVIS* export.



Before the import is started the content of the file is scanned and you get the option to import the contained dashboard, the included datasources and also the potentially included color schema. The imported of the dashboards and folders will be added to the current configured dashboards and folders. The import does not start and return an error when the imported dashboard tiles will exceed the number of licensed tiles.
The import of datasources will add the imported datasources as new datasources to your project.
The imported color schema will replace the existing color schema.
The import of manually edited *json* file may corrupt the current configuration.
The import of the work shifts will overwrite the current configured work shifts.

1.5 Display process signals with signals from reference dat files

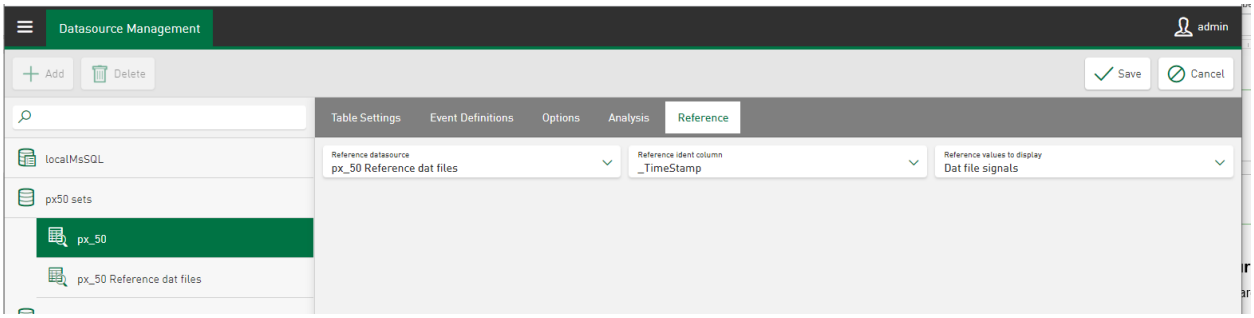
Using this feature enables you to compare signals from dat files with signals from a selected reference dat files. The signals can be compared visually in one tile on the dashboard.



1.5.1 Configuration of the reference datasource

You can add a reference source to each data source of the type *ibaFile table*. You can use each datasource of the type *ibaFile table* as reference datasource.

Go to the *Datasource Management* page in *ibaDaVIS* and select the datasource that you have created with the *ibaAnalyzer DB Extractor*. The configurable setting for adding a reference datasource can be found on the *Reference* tab of the datasource of type *ibaFile table*.



Reference Datasource Datasource of the type *ibaFile table* can be selected as datasource

Reference ident column Values of the selected column are the selectable fields on the dashboard to switch between different reference dat files on the dashboard.

Reference values to display

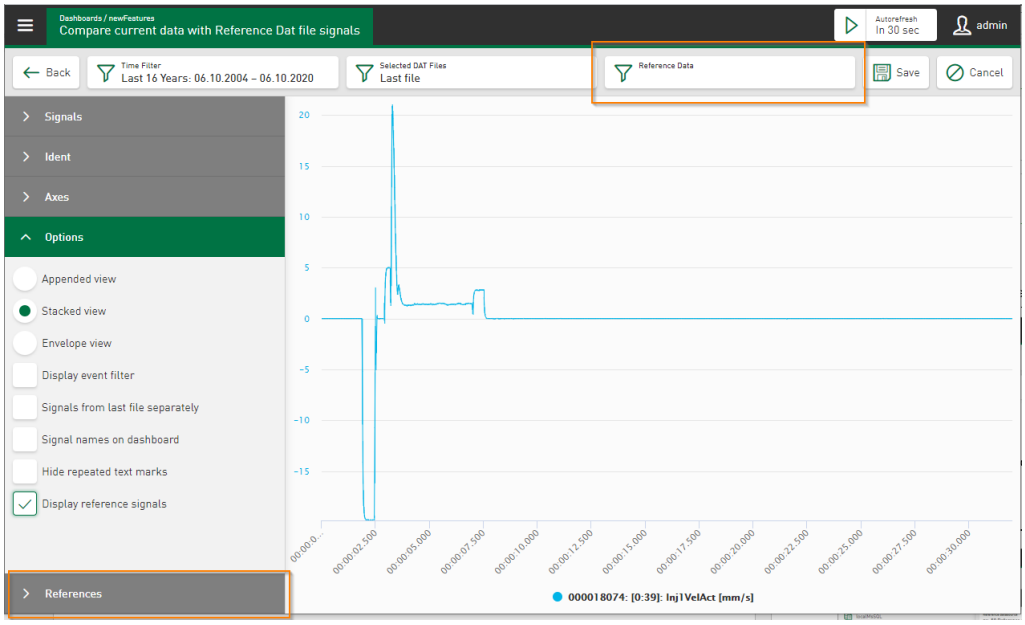
dat file signals the displayed reference signals are read from the linked dat file

Segment table values the displayed reference signals are read from the segment and channel table of the reference data source – learn more about the channel and segment table extraction at the *ibaAnalyzer DB Extraction* manual.

1.5.2 Enable the usage of the reference dat file signals

The option to visualize the signals together with signals from reference dat files is integrated at the line chart. Line charts which display signals from dat files or segment tables are providing the option enable the feature of the reference signal visualization.

You enable the components to visualize the signals from the reference dat files by checking the option *Display reference signals*.



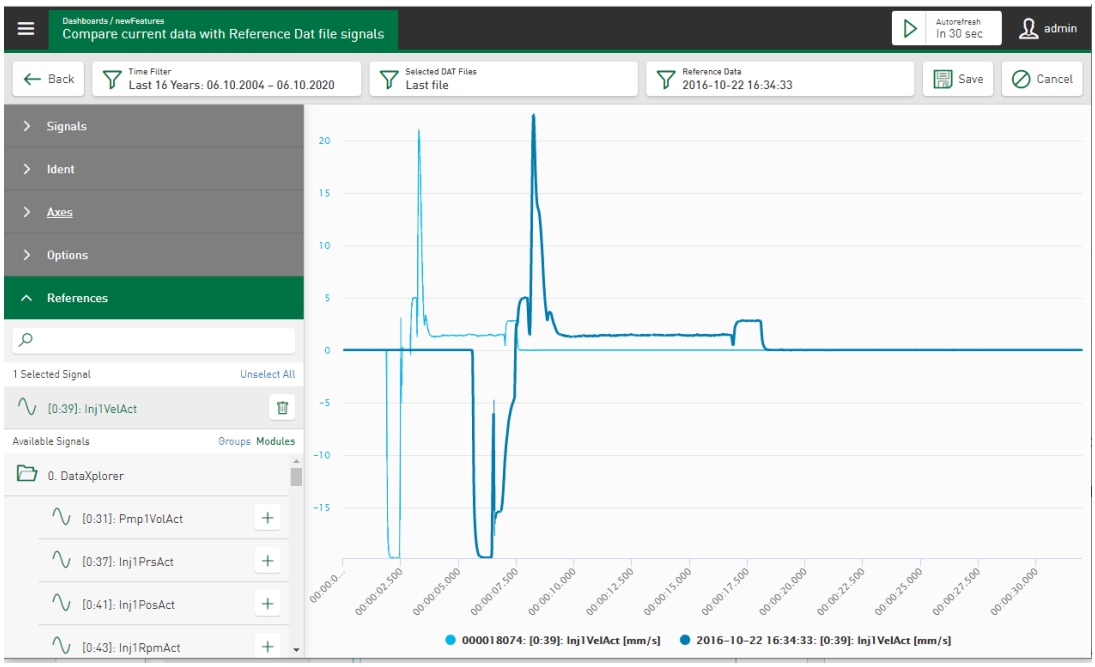
References the tab *Reference* will appear only when the option to display references is configured and enabled at the tab *Option*. The signal tree of the current reference dat file is displayed and offers the selection of signals for the visual comparison.

Tile filter Reference Data the filter for the current used reference dat file based on the selected Ident from the column which you selected as *Reference ident* column – see **1.5.1 *Configuration of the reference datasource***.

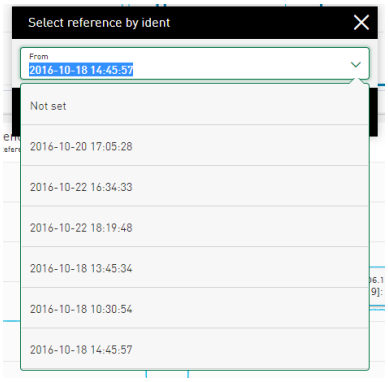
1.5.3 Visualize the reference signal data

Select the process relevant reference signals from the signal tree in the tab *References*. The signals of the current selected reference file are displayed in a highlighted manner together with the signals of the current last N or manual picked dat file signals.

The visualization rules for the axis related visualization of the reference files are applied. E.g. signals with the same unit are visualized in the same main color and the same y axis.



Click to the filter *Reference Data* to select another dat file as source for the reference signals.



In the given example the time stamp was selected as *Ident column*. It's also possible to select another column from the reference datasource as *Ident column*. See the previous paragraph **1.5.1 *Configuration of the reference datasource*** to get more information.

1.6 Read Access on ibaHD-Server Data stores

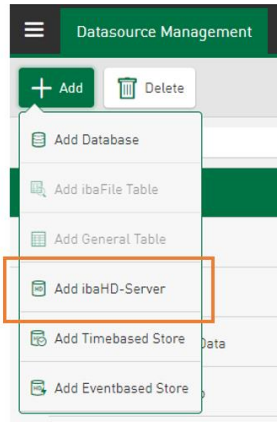
Data from time-based and event-based HD stores from an *ibaHD-Server* can be visualized on the dashboard. The licensed feature *ibaHD-Server-API-Read* is required to access the ibaHD Data in *ibaDaVIS*. Time-based and event-based data can be visualized and filtered on dashboard tiles in *ibaDaVIS*.

1.6.1 Requirements

The licensed *ibaHD-Server-API-Read*[1] is enabled on your *ibaHD-Server* v2.5.0 or higher.

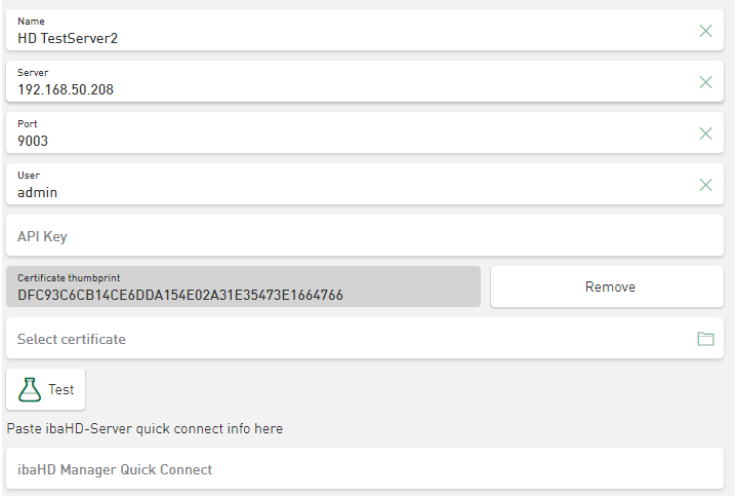
1.6.2 Configuration of the ibaHD-Server-API-Read connection

You add the *ibaHD-Server* as connection at the *Datasource Management*.



1.6.2.1 Manual ibaHD-Server connection setup

You can enter the *ibaHD-Server-API-Read* connection parameter manually on the displayed connection info page. The *API Key* and certificate entered directly to the given input fields. The *API Key* and also the certificate are provided at the *ibaHD manager GUI*. Press *Test* when all required info is entered and you want to check if your connection info is correct.



Name host name or IP of the *ibaHD-Server*

Port communication port of the *ibaHD-API* (standard value 9003)

[1] Order number of the Product **ibaHD-Server-API-Read: 30.800001**

User *ibaHD-Server* user name which has access to any HD data store

API Key user dependent *API-Key* for higher security levels which is used only when the user management on *ibaHD-Server* side is activated

Certificate Thumbprint read only fields which displays the thumbprint of the currently applied certificate

Remove clears the currently used certificate from the datasource connection parameters

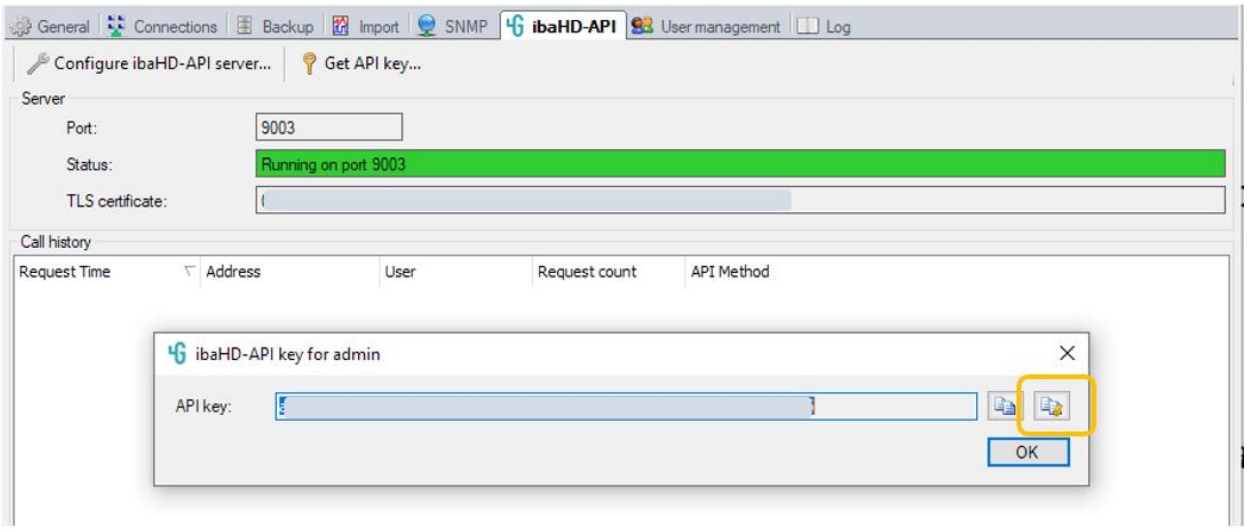
Select Certificate input field for the certificate file.

Test the list of HD stores is requested when you push the button. The connection test is successfully, if the number of accessible stores is 1 or higher.

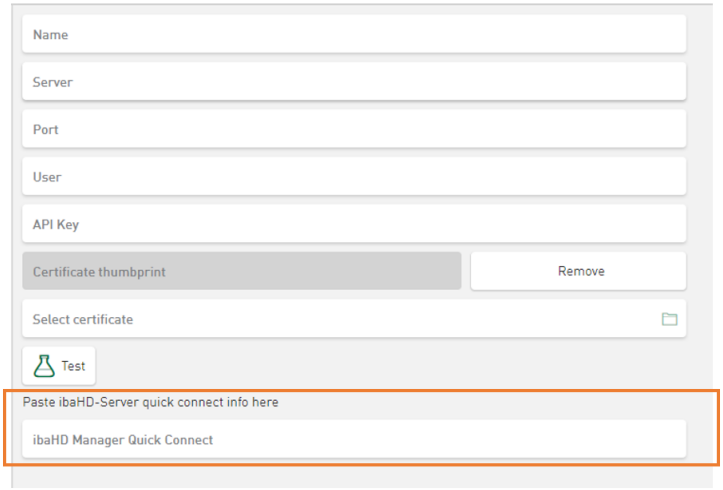
You find the requested *ibaHD-API* connection settings at the *ibaHD manager GUI* at the tab page *ibaHD-API*.

1.6.2.2 Quick connection

At the *ibaHD-API* tab page you can copy the *ibaHD-Server-API* connection info as string into your clipboard by pushing the quick connection button.



To use the connection info string it's recommended to open the browser on the PC which runs the *ibaHD-Server*, login to *ibaDaVIS* and go to the *ibaDaVIS* datasource configuration page. Paste the connection info string into the input field *ibaHD Manager Quick Connect* in *ibaDaVIS* at the *ibaHD-Server* connection page.

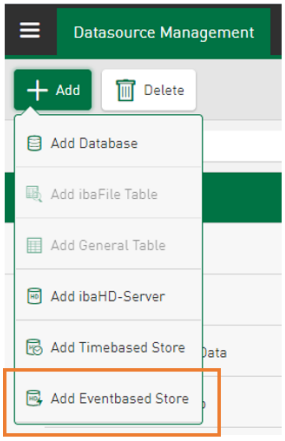


The connection content is automatically distributed to the *ibaHD-Server* connection input fields.

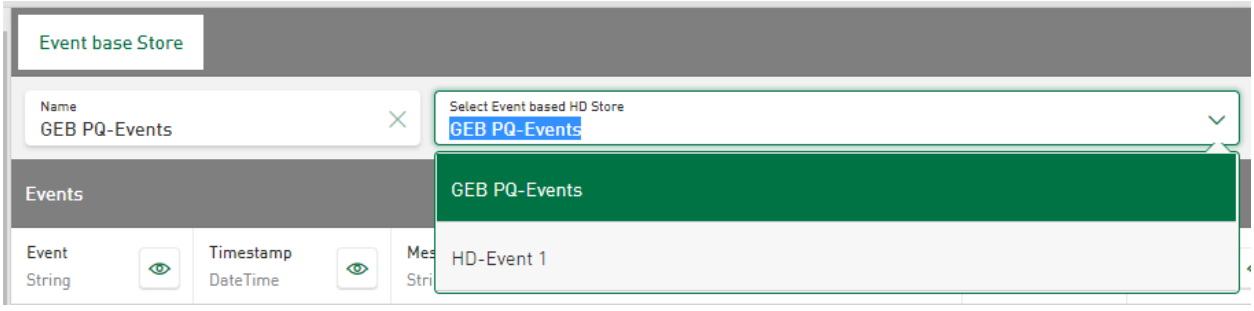
Push the *Test* button to verify the connection. Before saving the current settings you need to enter a name for your *ibaHD-Server* connection.
In case the connection test fails try the IP address instead of the DNS name of the *ibaHD-Server* PC at the input field *Server* or contact the iba Support.

1.6.3 Configuration of ibaHD event-based store as datasource

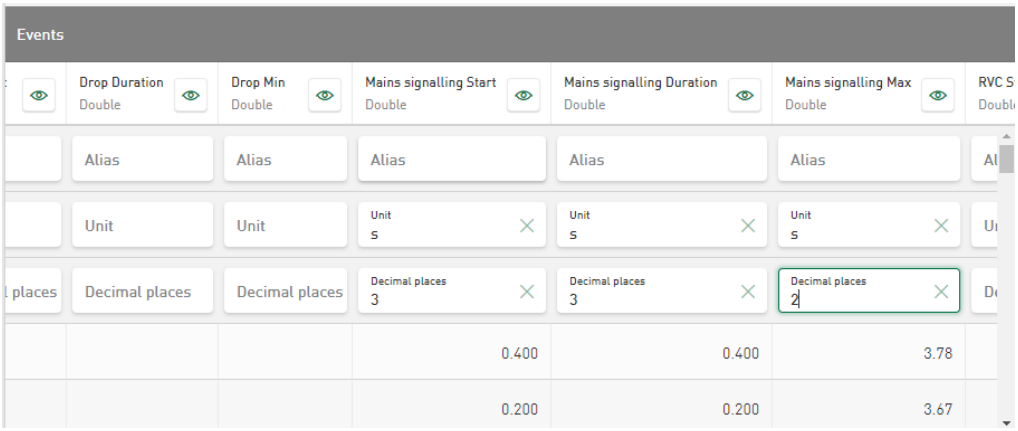
Add an Event-based Store to the saved *ibaHD-Server* connection.



The configuration page for an event based store is displayed and allows you to select one of the event-based HD stores as datasource. You can enter a name or simply take over the given suggestion based on current selected HD store name.



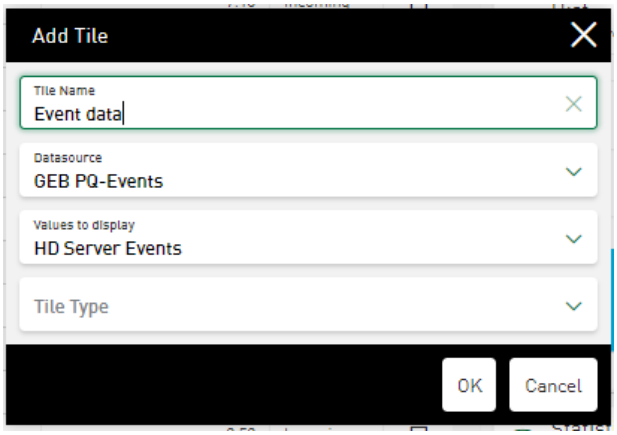
At the section *Events* a number of recently added events is displayed. No further action is required to finish the setup. You can make use of the option to enter *Alias* names, add a *Unit* or change the number *Decimal places* which is used to format the numerical values before they are displayed on tiles of the dashboard.



Your configuration will be saved to the project and applied immediately when you *Save* the current settings.

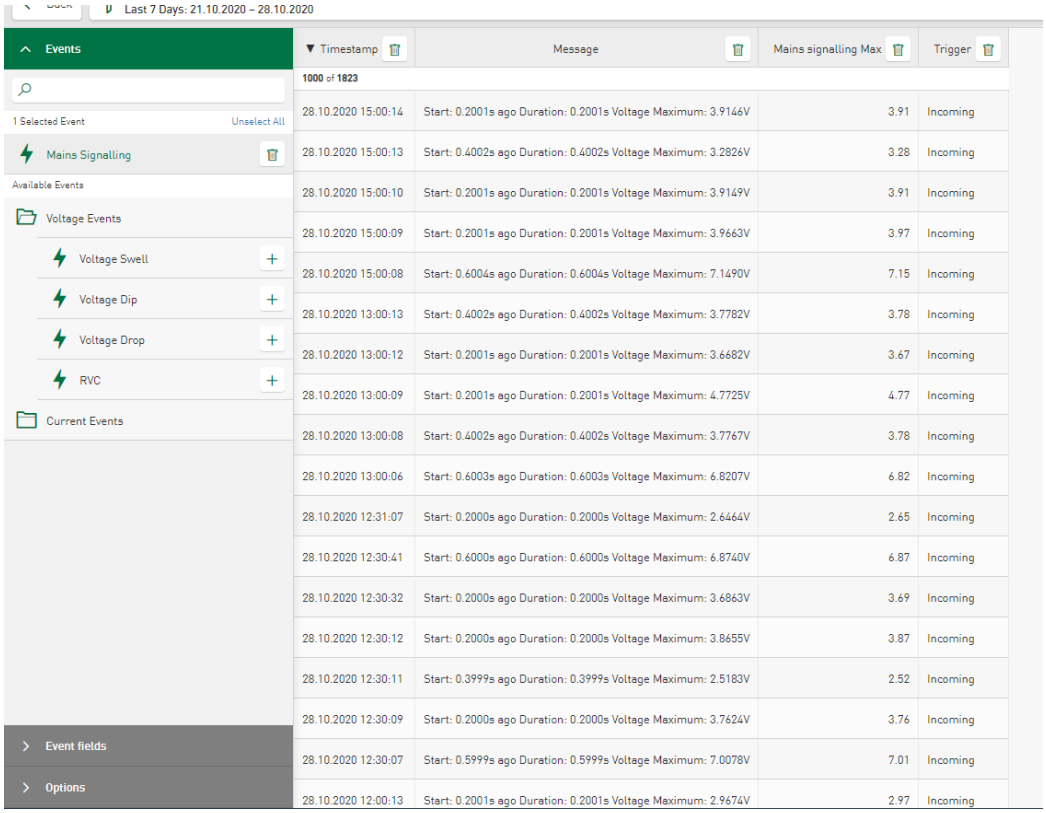
1.6.4 Visualize ibaHD event-based data on the dashboard

When you add a tile and select the configured event-based HD data store as *Datasource* the option *ibaHD-Server Events* will automatically be applied as property for the field *Values to display*.

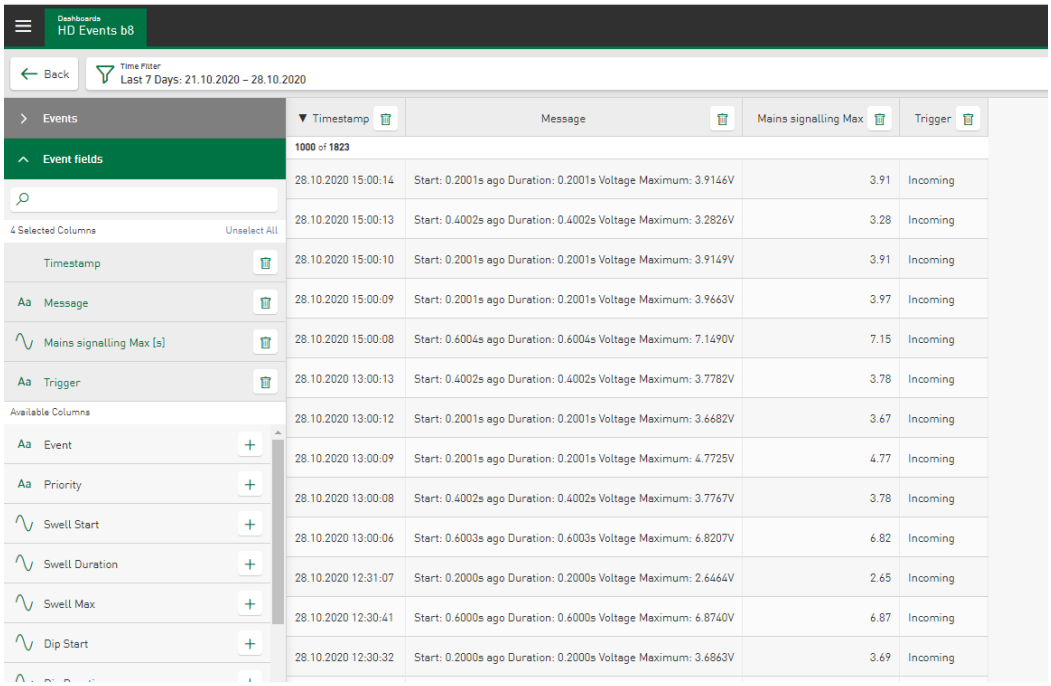


Enter a name and select one of the given chart types e.g. Table to finish the setup and press <OK>.

The available events are displayed at the area where usually the signal tree is positioned. Select the events which you're interested in and the related event fields e.g. Message and Time or other application related numerical or text fields of the events for the visualization.



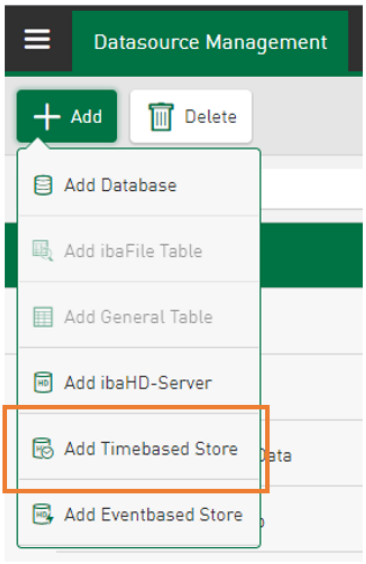
Configuration of a tile type *Table* displaying available and selected events as tree.



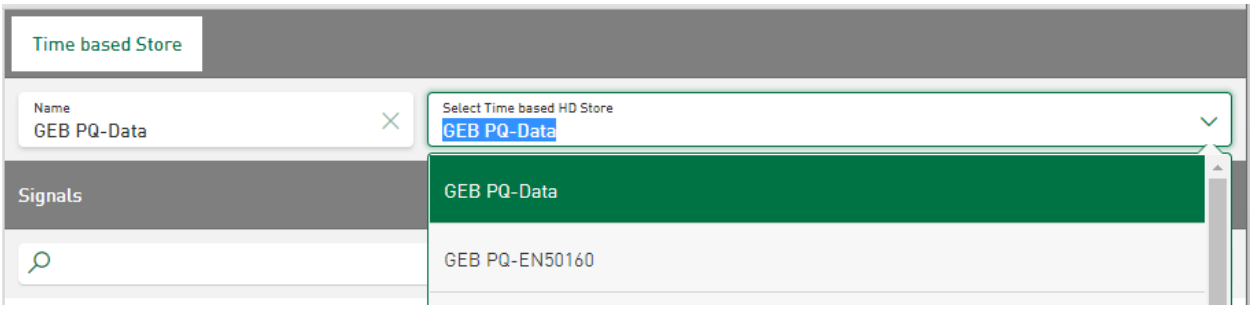
Configuration of a tile type *Table* displaying available numerical and text fields of the selected events.

1.6.5 Configuration of ibaHD time-based stores as datasource

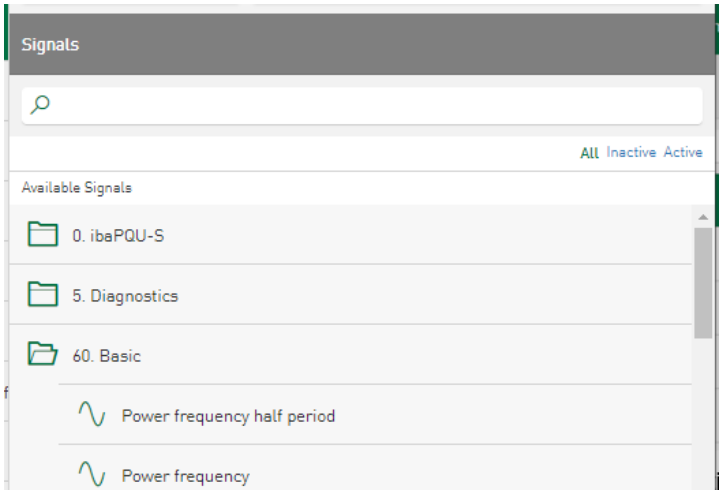
Add a Time-based Store to the saved *ibaHD-Server* connection.



Select one of the given time-based HD stores as input and press *Save*. No further action is required to finish the setup of the Time-based HD store as datasource.



At the section *Signals* the signal tree of the selected HD store is displayed.

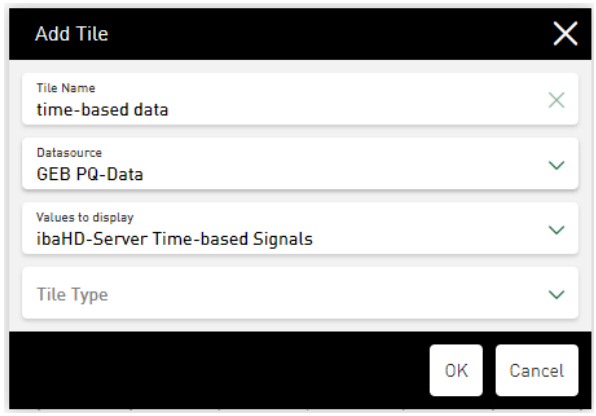


As in other iba tools you can switch the HD related signal tree to the modus to display all signals (*All*), the currently inactive signals (*Inactive*) and active signals (*Active*).

The signal tree is updated in the moment you switch to any of the given modes.

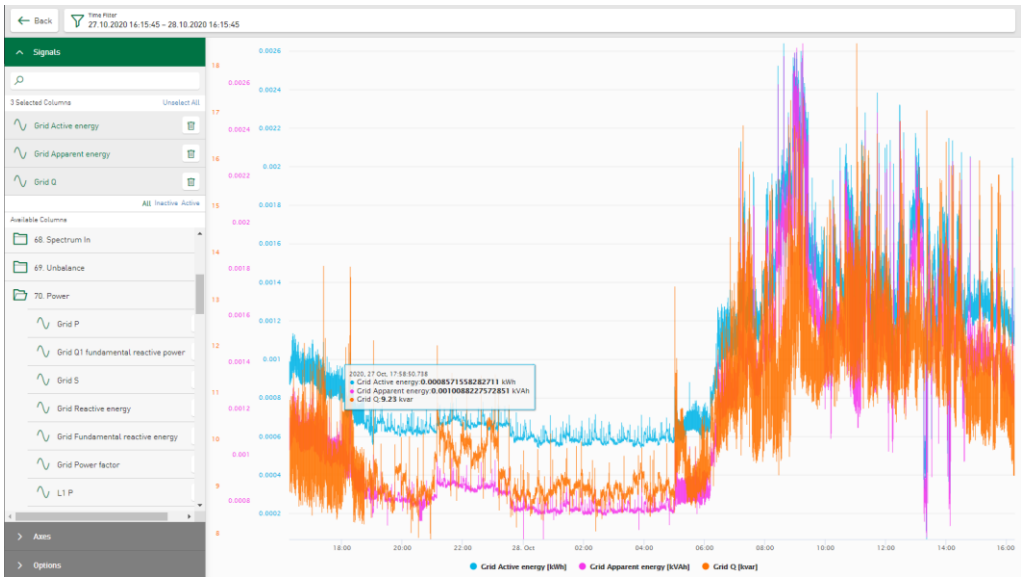
1.6.6 Using time-based HD signals on the dashboard

When you add a tile and select the configured time-based HD data store as *Datasource* the option *ibaHD-Server Time-bases Signals* will automatically be applied as property for the field *Values to display*.



Enter a name and select one of the given chart types e.g. Line chart to finish the setup and press <OK>.

The HD store related signal tree is displayed and any of the given analog, digital or text channels can be selected and are instantaneously visualized on the chart.



The following chart types are supported for time-based data

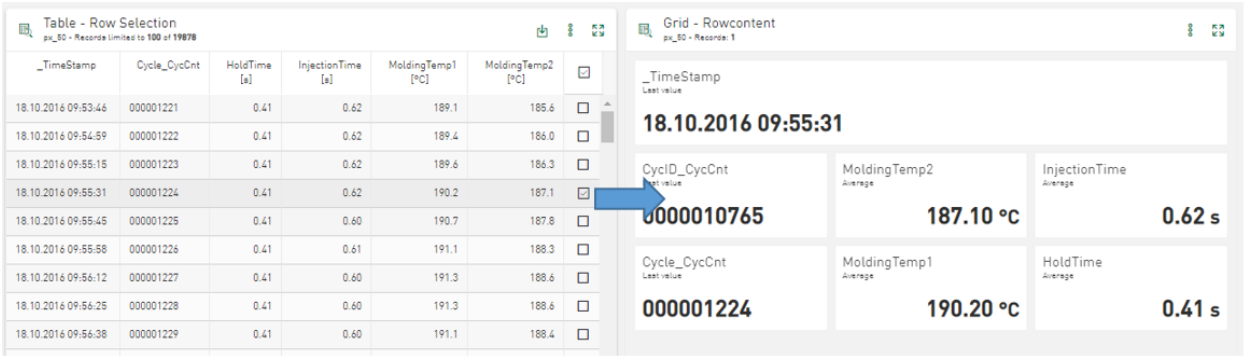
- Line chart
- Histogram
- Gauge
- Bar chart
- Bullet graph

The zoom interaction on charts which visualize HD time-based data are adding a time range filter as dashboard filter for all tiles on the dashboard

1.7 Row selection effects content of other tiles

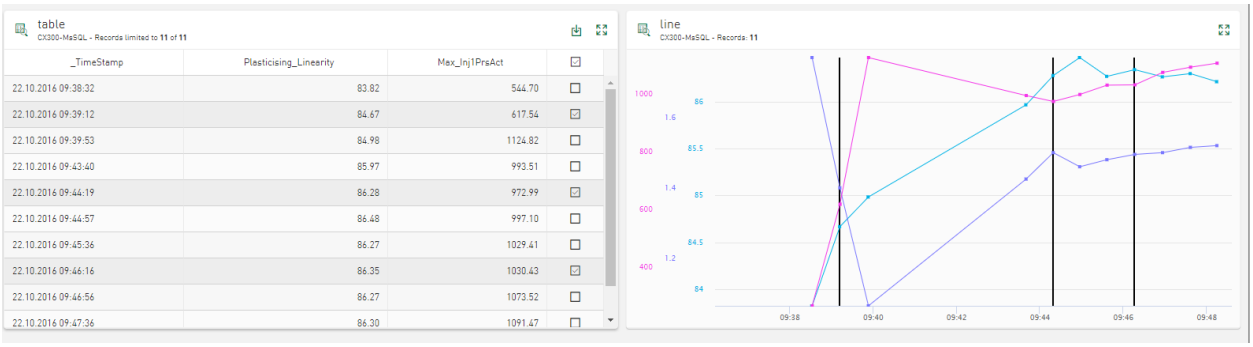
1.7.1 Grid

Selecting a row in the table tile will bring up related content of the selected row index to any *Grid* which displays content of the same datasource. Multi line selection on the table tile is supported.



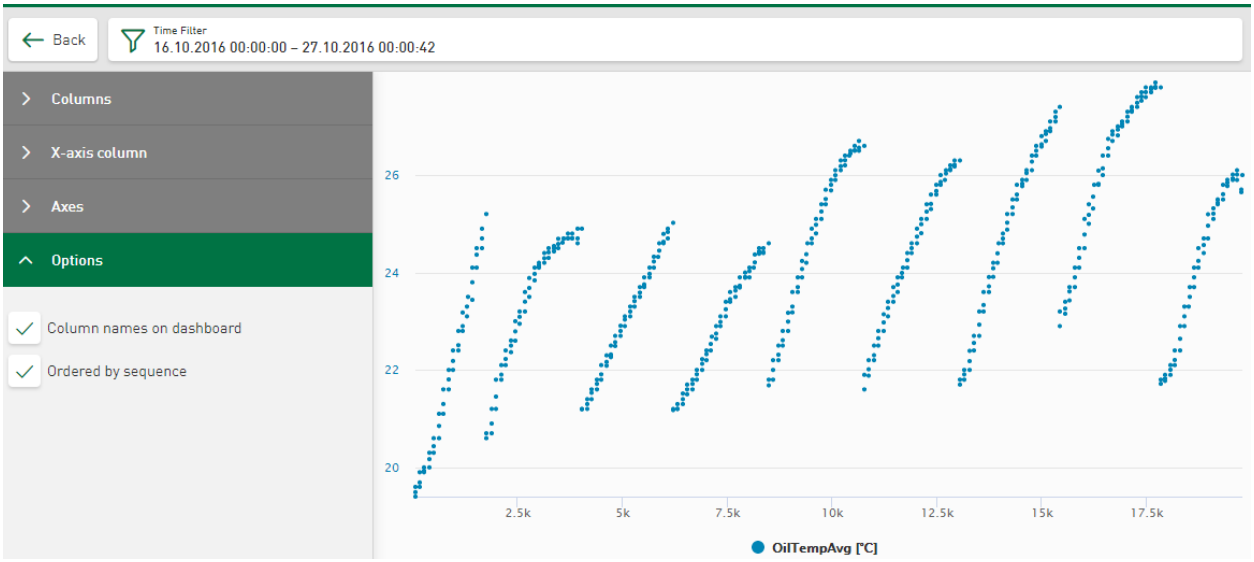
1.7.2 Markers in time based charts

Selecting a row in the table tile will take the timestamp of the selected row and place a marker on all time based charts for the selected point in time. Multi line selection on the table tile is supported.

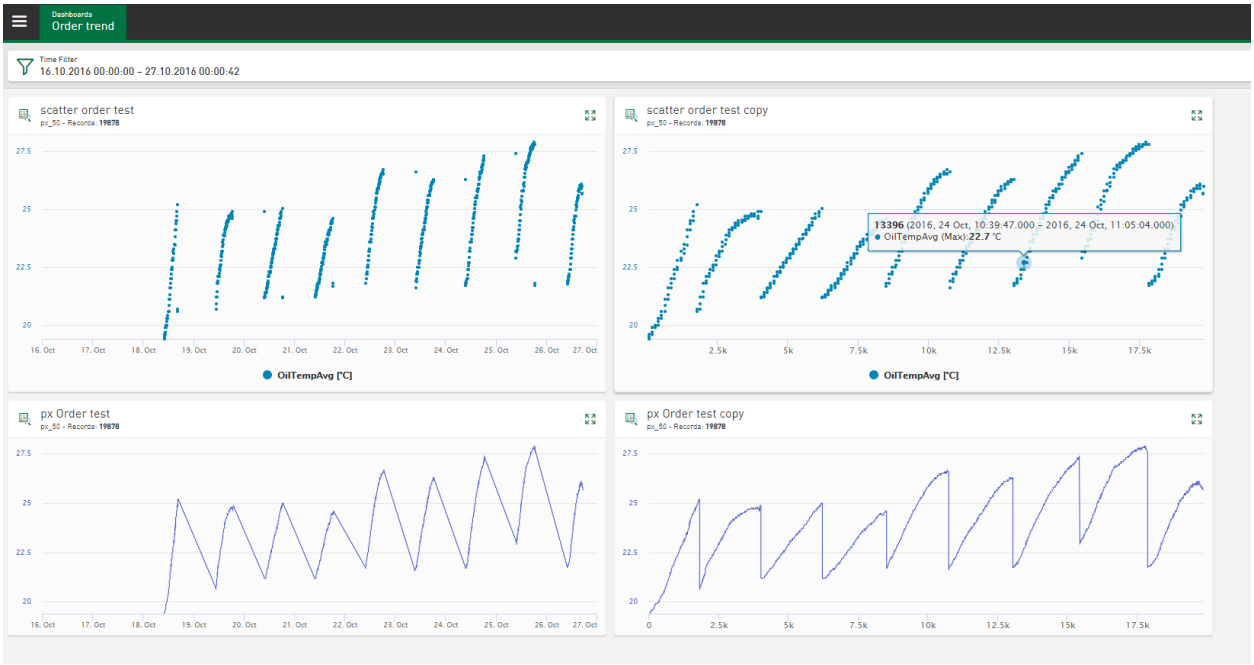


1.8 Order values in line chart or scatter chart by sequence

The line chart and the scatter chart support the visualization of data ordered by sequence. When the option to display the trend *Ordered by sequence* is checked your value trend is ascending ordered over time by sequence.



The x-position of the result values in the trend corresponds to the consecutive number in the query result.



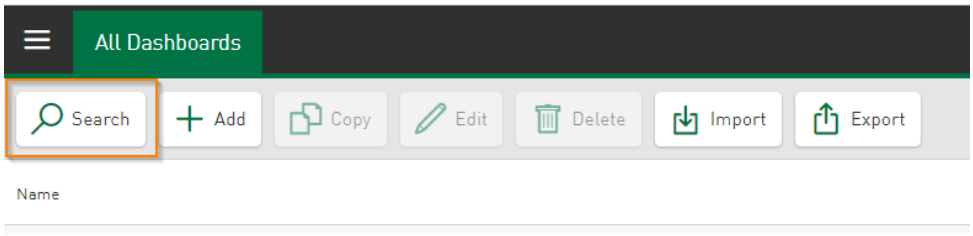
Ordered by time and ***Ordered by sequence***

2 Improvements

2.1 Search bar for folders or dashboards

A search bar on top of the dashboard tree is available.

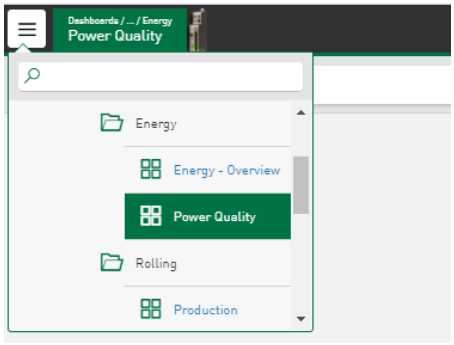
The *Search* text field will be displayed when you click or tip on the search button on top of the dashboard tree. The search for names or part of the names of folders and dashboards is supported.



The dashboard tree is reduced to the dashboards and folders which match to the current search tag.

2.2 Highlight the current dashboard at the dashboard selection menu

When you click to the burger icon at the top left position on a dashboard page you open the fly out menu which displays the configured folders and dashboards. The dashboard tree will expand autonomous and highlighted the current displayed dashboard.



2.3 Table and Pie chart on the dashboard support data from General table

Data from any *General table* can be visualized on the dashboard as table and pie Chart. The columns filter of the table tile is applied as usual dashboard filter to all tiles on the dashboard.

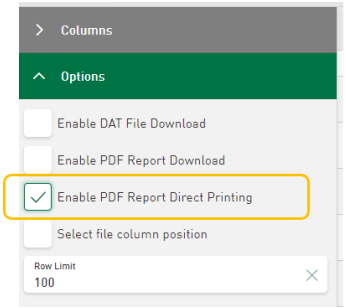
The Pie chart filter is currently not enabled.

2.4 Print pdf reports directly

The table supports the option to print dat file related existing pdf reports directly.

The requirement for this feature is the existence of a pdf report which is named as the dat file and accessible in ibaDaVIS.

When the Option Enable PDF Report Direct Printing is checked an additional column is displayed.

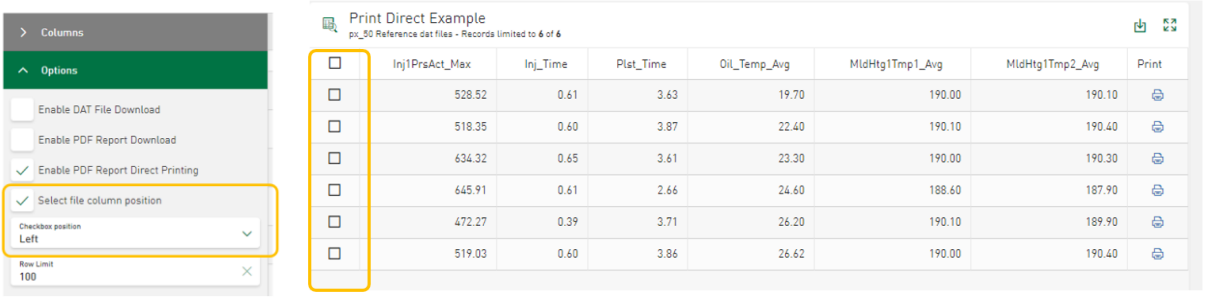


The printer symbol is displayed in each row of the table. The printing of the referenced pdf document can be started by clicking on the printer symbol.

Inj1PrsAct_Max	Inj_Time	Plst_Time	Oil_Temp_Avg	MldHtg1Tmp1_Avg	MldHtg1Tmp2_Avg	Print
528.52	0.61	3.63	19.70	190.00	190.10	
518.35	0.60	3.87	22.40	190.10	190.40	
634.32	0.65	3.61	23.30	190.00	190.30	
645.91	0.61	2.66	24.60	188.60	187.90	
472.27	0.39	3.71	26.20	190.10	189.90	
519.03	0.60	3.86	26.62	190.00	190.40	

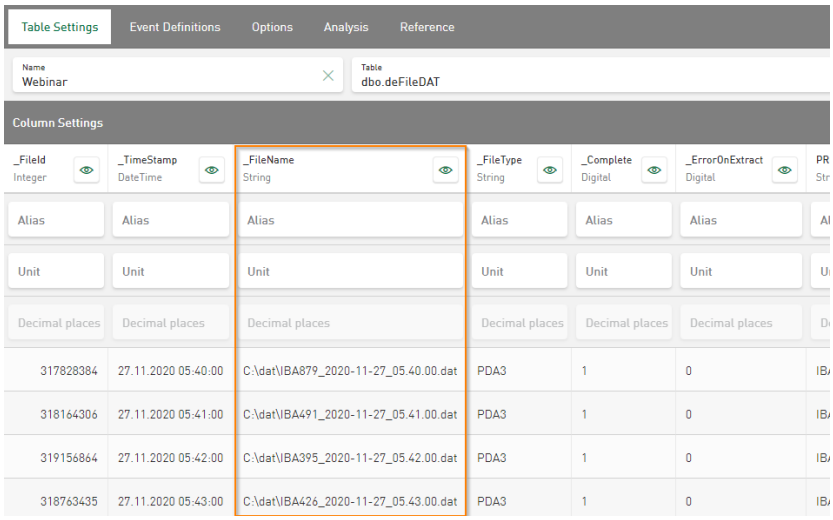
2.5 Change alignment of the row selection column

The table displays the row selection column by default as last column on the most right position. You can make the checkbox column the most left column at the options of the table.

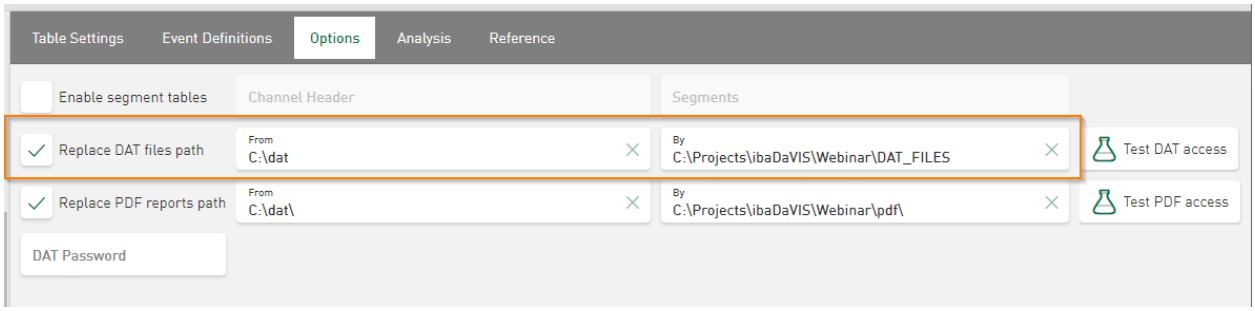


2.6 The replacement file path is displayed on the fly in table content on dashboard tile

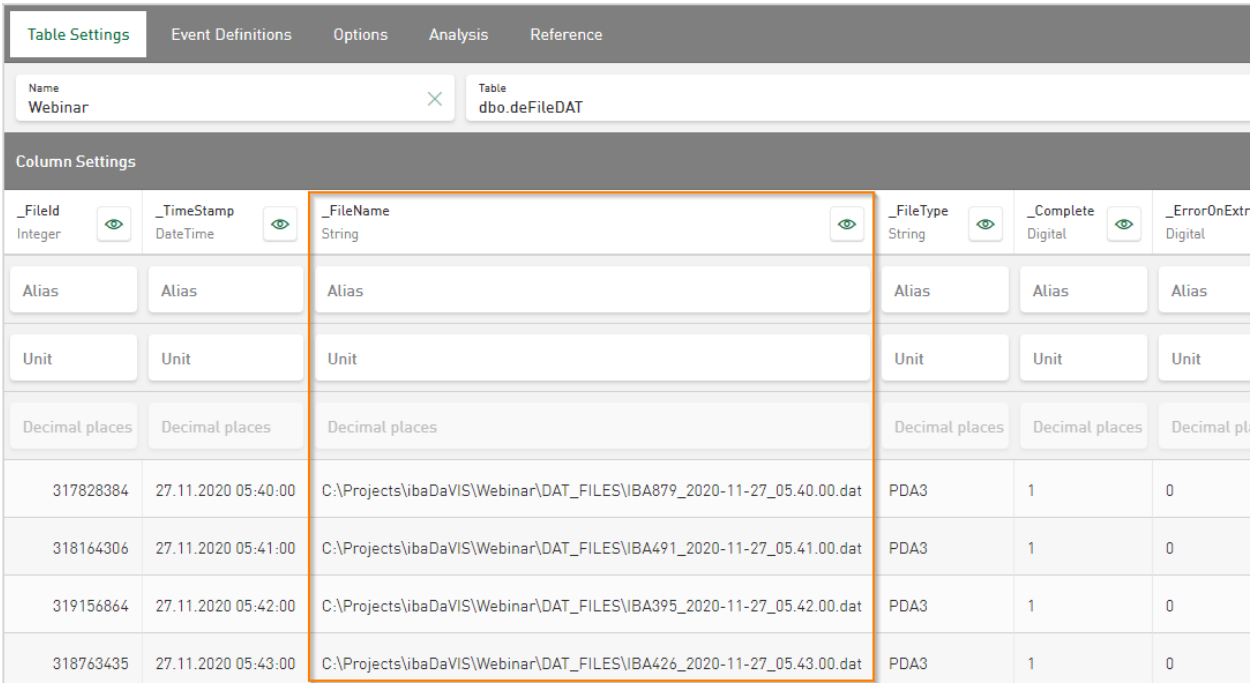
The activated replacement file path is directly visualized on the *ibaFile Table* content.



- No activated path replacement



Activating the file path replacement for DAT files



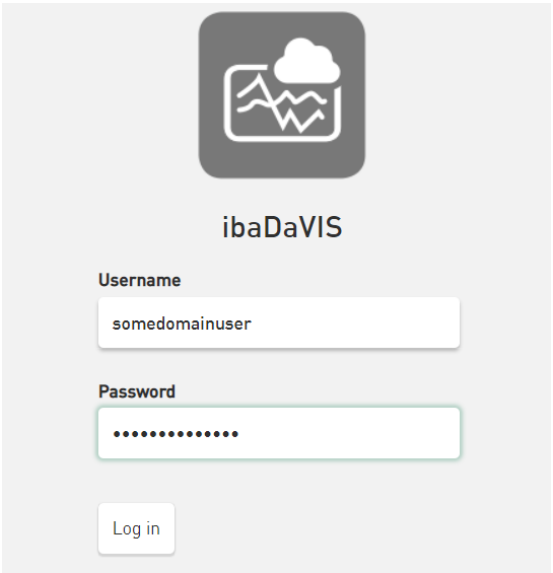
Automatic visualization of the file with replaced file path on the preview and also on the dashboard table tile.

2.7 Active Directory users can login with user name only

Active Directory users login in *ibaDaVIS* with full qualified name consisting of user name and domain name.

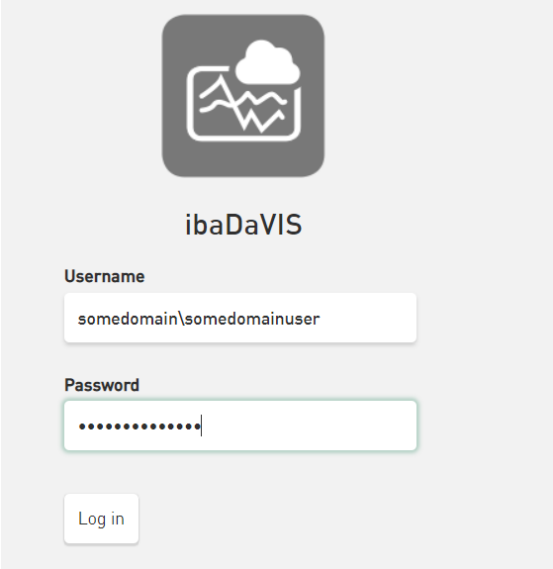
Many customers have only one Active Directory and it is inconvenient to type in every time the domain name before the user name.

In this version this was simplified and the users could login using only the user name. The domain name will be automatically detected from the domain *ibaDaVIS* service runs on.



<Login on domain without domain name at input field Username>

If *ibaDaVIS* runs in an environment with many Active Directory domains in a trusted relationship, the user name should still be prefixed by the domain name.



<Login on domain with domain name at input field Username to enter trusted domain >

In most scenarios, ibaDaVIS runs under the system account. If the system account is very limited in terms of domain permissions, it is recommended to run the ibaDaVIS service under a dedicated account with domain access.

2.7.1 Login with E-Mail address

Users which are registered as domain users in *ibaDaVIS* can also use the E-Mail address as user name to login. To achieve this the user must once login with the domain name in *ibaDaVIS*.

3 CodeMeter Runtime included in ibaDaVIS installer

Together with ibaDaVIS the latest version of *CodeMeter Runtime* is installed. Older versions of *CodeMeter Runtime* which are installed on your system already will be updated when you install ibaDaVIS v2.8.0 or later versions.