New Features in ibaHD-Server v3.1.0

February 2023
iba AG

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1 Important Information

This document describes the new features of ibaHD-Server v3.1.0. The most important innovation in this version is the introduction of the time periods. Furthermore, this version contains some minor improvements as well as critical bug fixes.

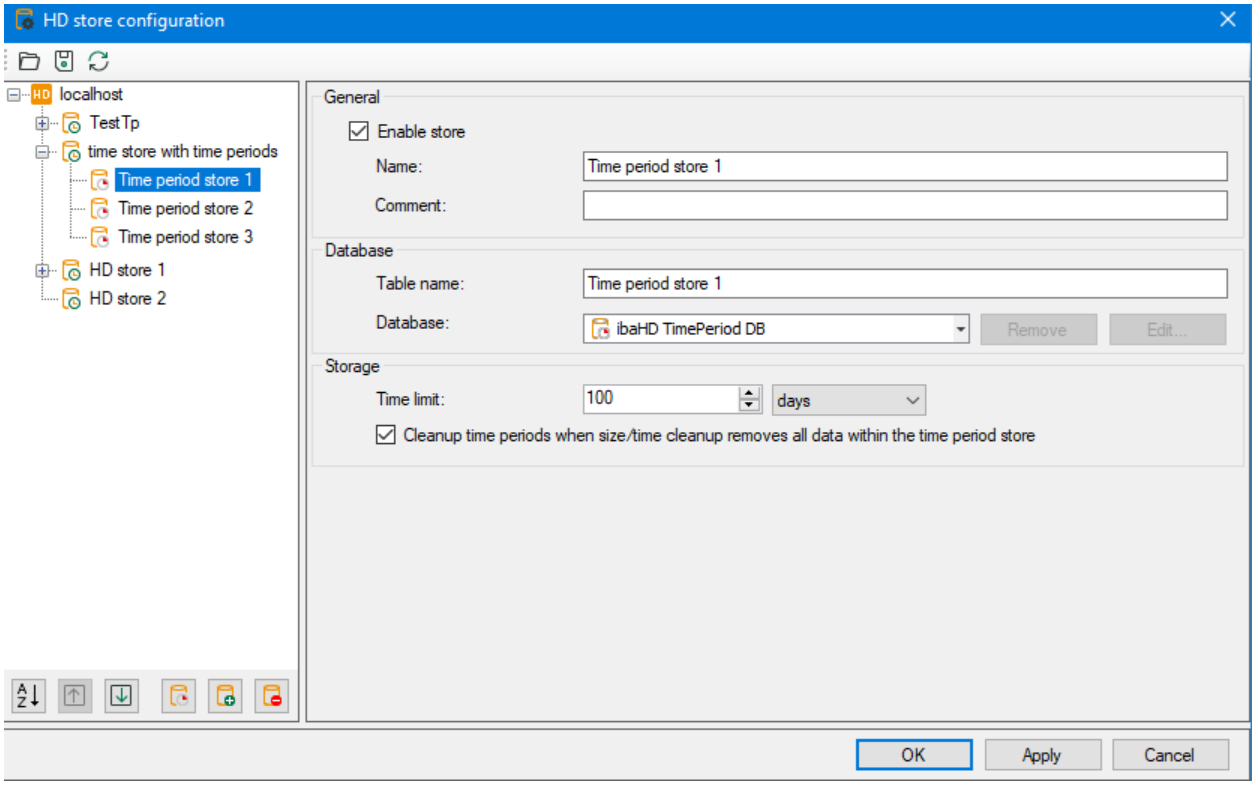
2 Time periods

A time period is defined by a start time, a stop time and a name. A time period defines a time range that belongs to a time-based HD store. A time period can also have info fields. These info fields are used to store extra information about the time range such as KPIs calculated over the time period. One can think of a time period as marked product or a process section and the associated signals are stored at one ibaHD time based store. A time period is stored in a database table. The info fields correspond to the columns of the database table. Time periods can be created from different applications. For example, time periods can be created using ibaPDA v8.2.0 or higher versions.

2.1 Time period store configuration

Time periods are stored in a time period store. This is a new type of store configurable as a sub-store of time stores.

Time period stores can be created using the ibaHD-Manager in the ibaHD store configuration dialog.



A new time period store can be created by selecting the parent time store in the store tree. Then click the  button. A new node with a time period store is added as a sub-store of the selected time based HD store.

Multiple time period stores can be added to one time bases HD store.

An existing time period store can be removed by selecting the time period store and then clicking the button.

General

Enable store

Activate the time period for data creation and reading action

Name

Unique name for the created time period store

Comment

Optional descriptive text.

Database

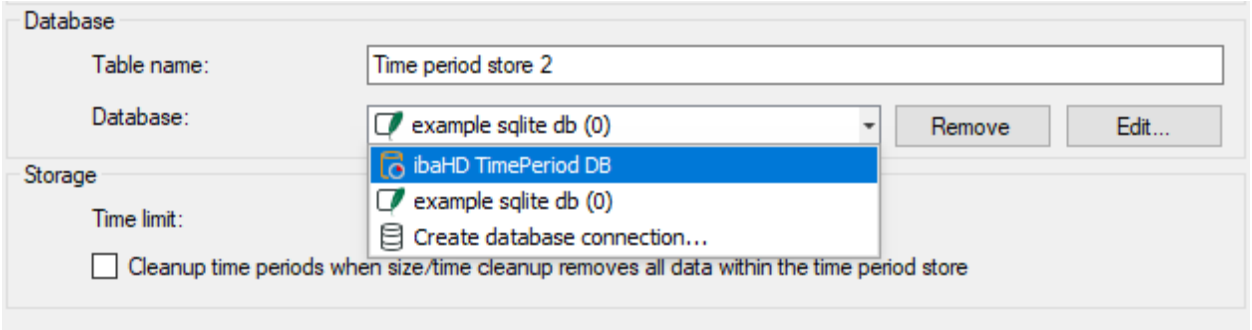
Table name

Unique Name of the time period database table

Database

Name of the selected database which contains the time period table. ibaHD-Server creates a database for time periods by default as internal SQLite database.

Use a dropdown field to select an external database. Currently only SQLite Database is supported.

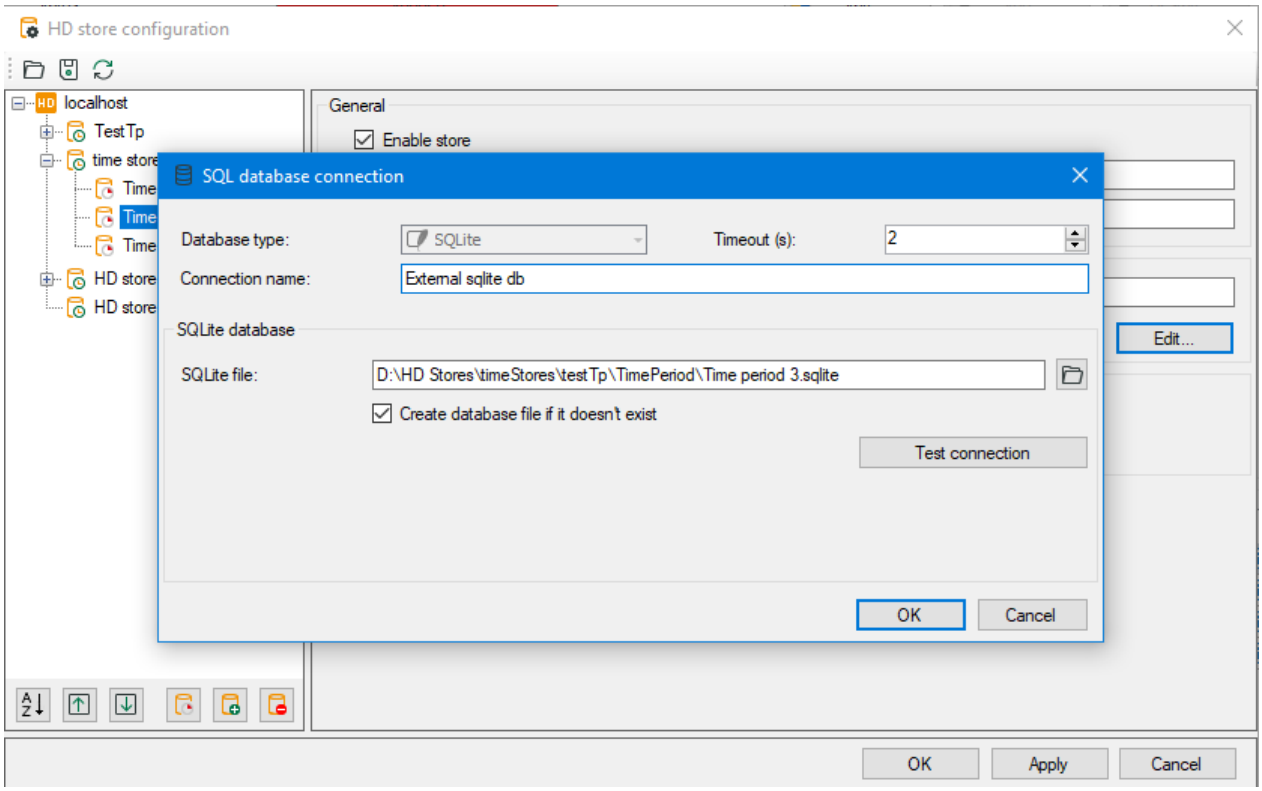


To edit or create an SQLite database connection, a connection name, SQLite file path and timeout need to be configured.

Storage

Time limit

Time periods older than the specified time limit are cleaned up automatically.

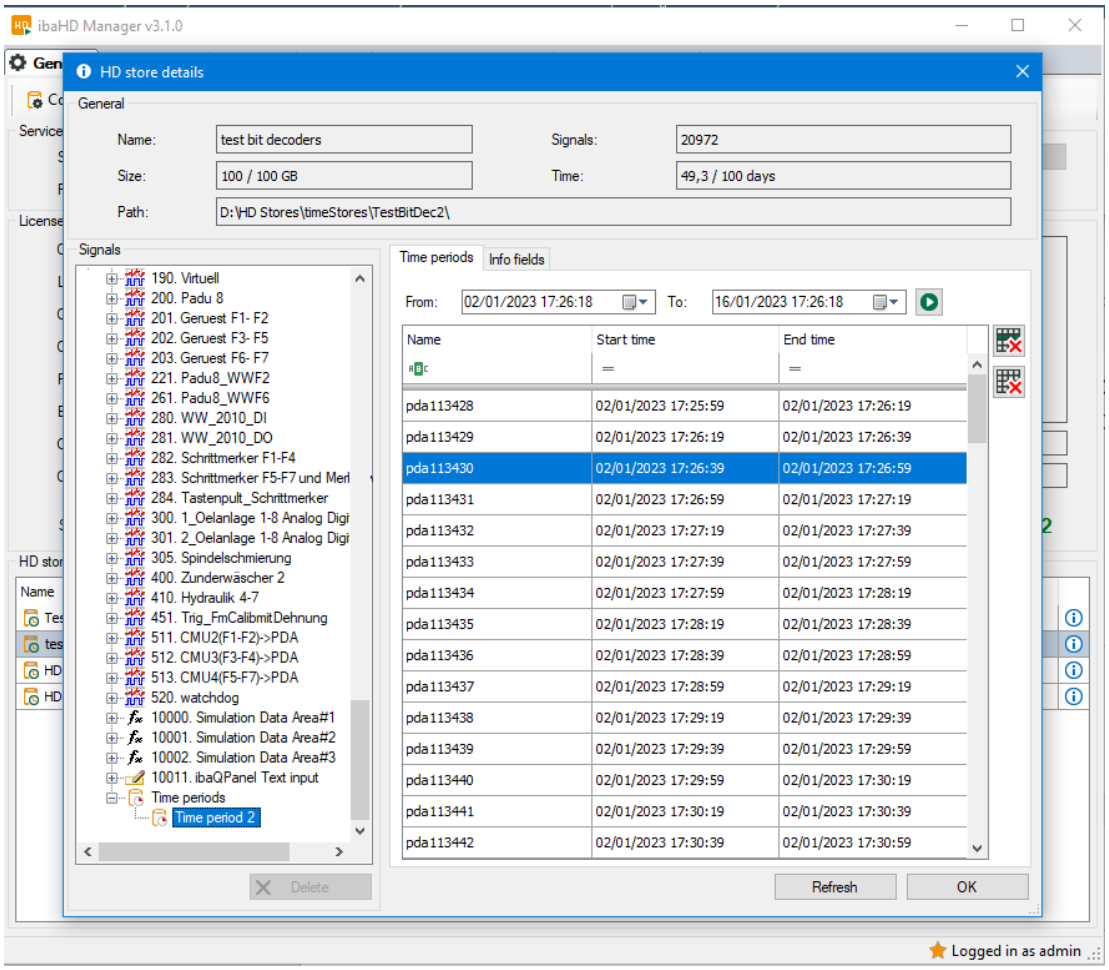


An automatic cleanup thread will clean up old time period entries similar to the ibaHD store data. This can be configured by a time limit and an option to remove time periods if the corresponding store data is removed.

2.2 Manual removing time period data

The HD store details dialog can be used to permanently remove data from the HD store and is enabled to delete time periods or time period info fields from the database.

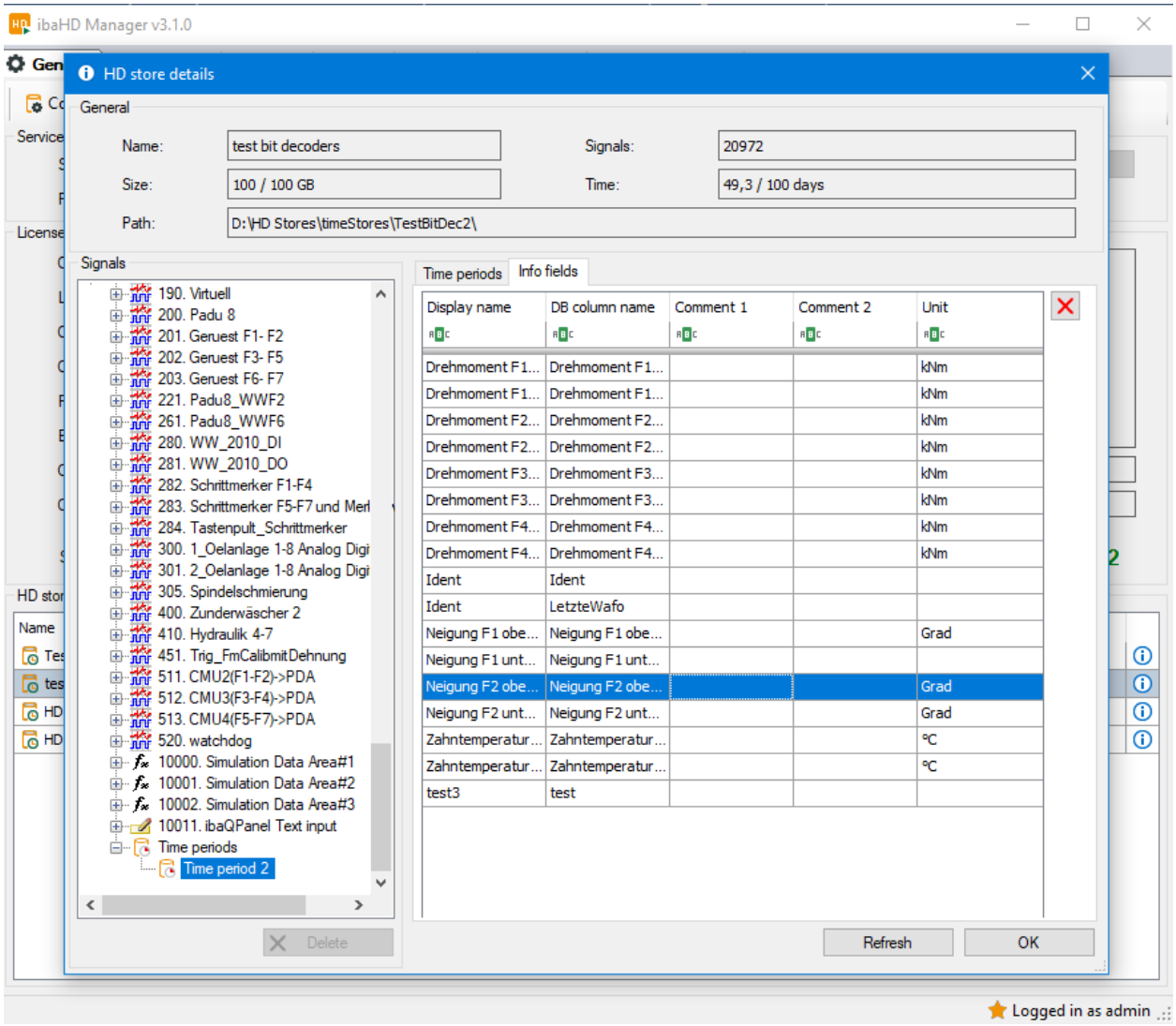
In the HD store details dialog, click the name of the time period store in the tree.



The Time periods tab allows to delete individual time periods or all time periods from an entire range. First select a time range that should contain the time periods. By clicking the button, the 100 oldest time periods from this range will be shown. It is also possible to filter these 100 entries by name, start time or end time. To delete time periods, select the entries from the list and then click the button. It is possible to select multiple time periods from the grid.

To erase all time periods from the selected time range, click the button. Deleting time periods is permanent. It is not possible to recover these deleted time periods later.

The info fields tab allows to delete time period info fields.



The grid shows all info fields of the selected time period store. To remove an info field permanently from the store you have to selecting the info field(s) at the grid and click the  button. **Stop or Deactivate writing of the info fields before deleting them**. Internally the remove action of any info field will remove the matching column and the info field values permanently from the database table. The info field can be recreated again by restarting the writing but this will not recover the old info field values.

Delete operations are expensive operations and may take a few minutes depending on the HD store and system capacity.

2.3 ibaHD-API extension for time periods

Time periods can be accessed using the ibaHD-API-Read interface. A new version of ibaHD-API.proto file is included in the installation and will replace the existing one located in ibaHD-Server installation folder usually located at *C:\Program Files\iba\ibaHD\ibaHD-API*. The ibaHD-API-Read interface is extended with time period associated read requests. All previous ibaHD-API-Read interface functions stayed untouched and are supported without drawback.

Learn more about ibaHD-API-Read interface at the related documentation *ibaHD-Server-API-Read_v1.2_en.pdf*

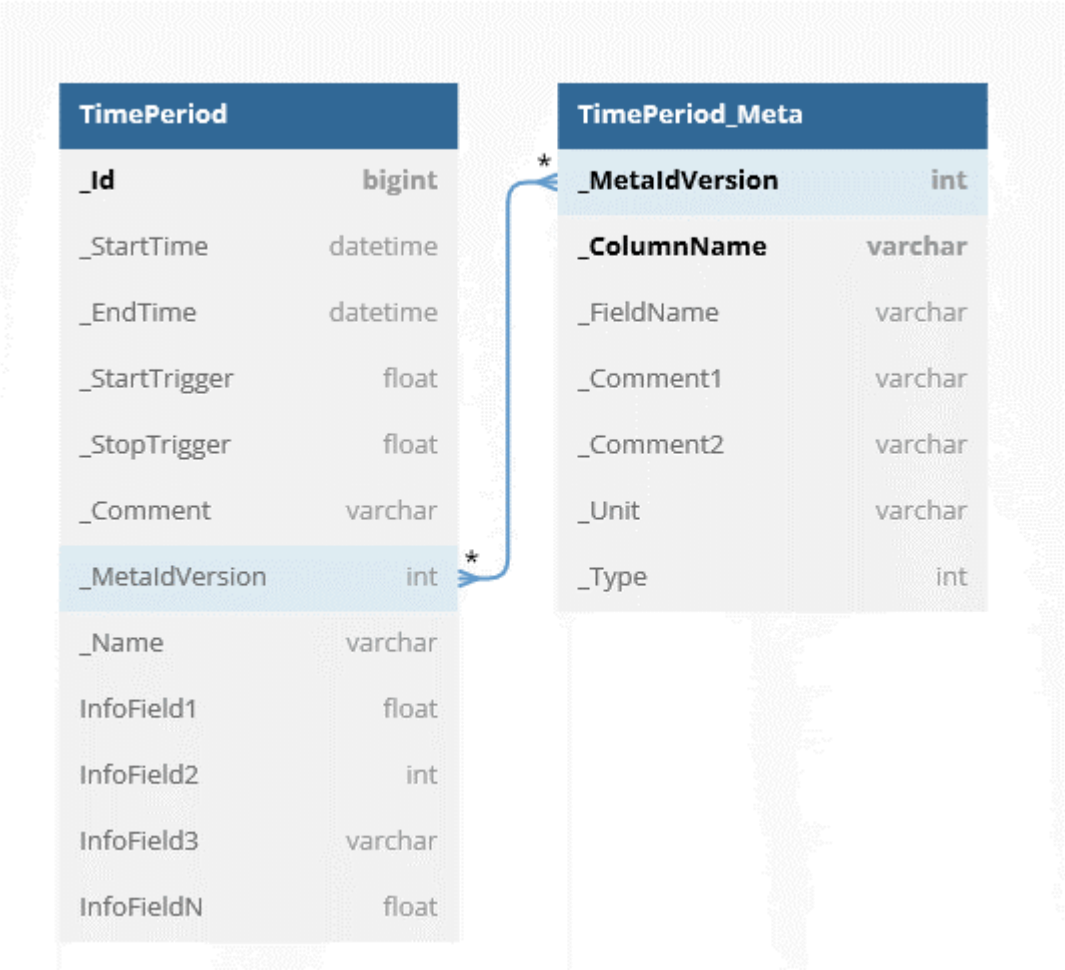
2.4 Backups of time periods

Backups of time period stores can be created automatically. A backup of time based HD stores will include also the backup of configured time period tables.

Backup creation of time period tables hosted in external databases is not supported in this version.

A restore operation of time-based HD Stores will also restore the associated time period data stores. Either the time period stores are merged or created if they do not exist during the restore operation.

2.5 Database structure



The TimePeriod table contains one row per time period. Each time period has an id that is the primary key as an auto increment column. Each time period has a start and end time. It also has a name. Furthermore, it has several info field columns. These can contain both numeric and text values. There is a MetaIdVersion column that is the key to a second table called TimePeriod_Meta. This second table contains extra information about the info field columns of the TimePeriod table. The table field name of the info field is the second link in the MetaData table (for example: field ‘Thickness’). Each row in the MetaData table corresponds to an info field column of the TimePeriod table. It contains a display name, comment and a unit for the info field column.

In addition to the StartTime and EndTime, the TimePeriod table contains two values for the pre- and post-trigger information. These values are stored as time offset relative to the start time.

3 Management studio agent integration in installer

ibaManagementStudio combability: ibaHD-Server v3.1.0 is compatible with ibaManagementStudio v1.1.0 and higher. When selected on the components page, the ibaHD-Server installer will install the ibaManagementStudio Agent. No additional ibaHD-Server configuration is required to enable the ibaManagementStudio compatibility. Consult the ibaManagementStudio manual for more information on how to set up and use the ibaManagementStudio Server and Agent.