New Features in ibaHD-Server v3.5.0

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1 Supported Windows operating systems

As of *ibaHD-Server* v3.5.0, the Windows Server 2025 (x64) operating system is also supported.

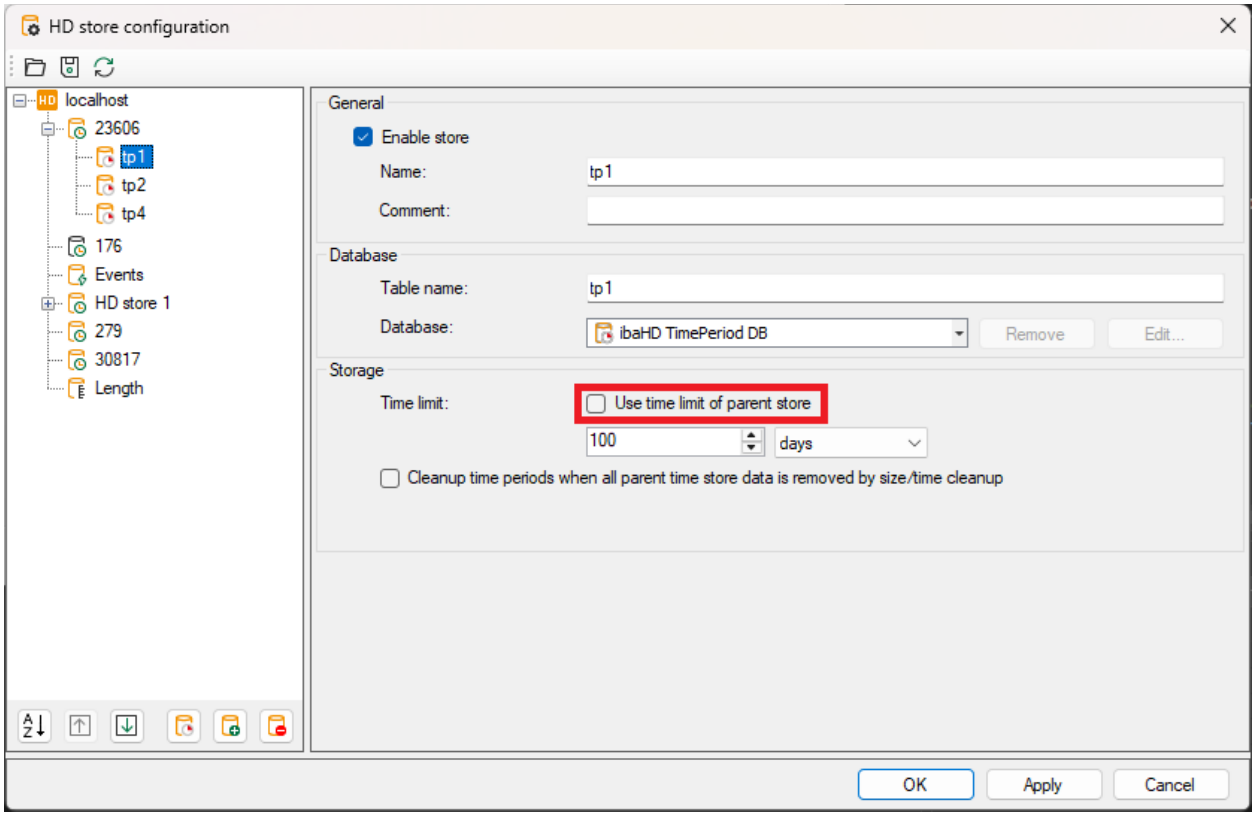
Information on other supported operating systems can be found in the version history and in the documentation of *ibaHD-Server*, chapter “System requirements".

2 Multiple writers to one HD store

To prevent problems when writing data to a time-based HD store or time period store with the same target store, it is no longer possible to connect multiple writers from the same *ibaPDA* server as of *ibaHD-Server* v3.5.0.

3 New option for time period stores to use parent store time limit

Like HD stores, time period stores also have a time limit. Time ranges that are older than this limit are deleted. Previously, you had to configure the time limit of the time period store separately from the time limit of the parent HD store. With the new *Use time limit of parent store* option, you can now choose whether a time period store should use the time limit of its parent HD store or not.



By default, the option is selected for new time period stores. The option is deselected for time period stores that were already configured, so that the behavior does not change when upgrading from ibaHD-Server to this version.

The cleanup process for time periods that are no longer included in the set time limit is triggered together with the cleanup process for the time-based HD store data. The cleanup result of the cleanup process performed is noted in the log file.

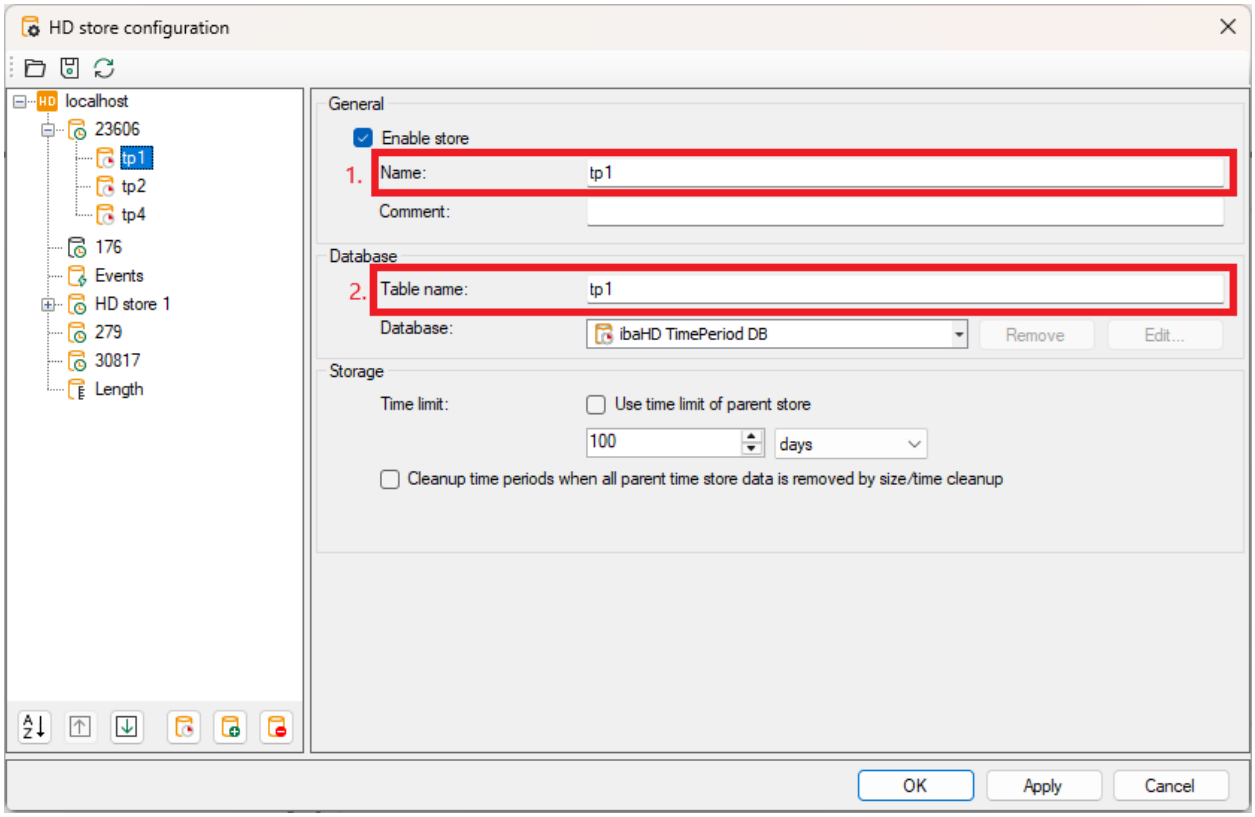
You can find further information on the configuration of time period stores in the documentation of *ibaHD-Server*, chapter “Configuring an HD store for time periods".

4 Renaming time periods stores

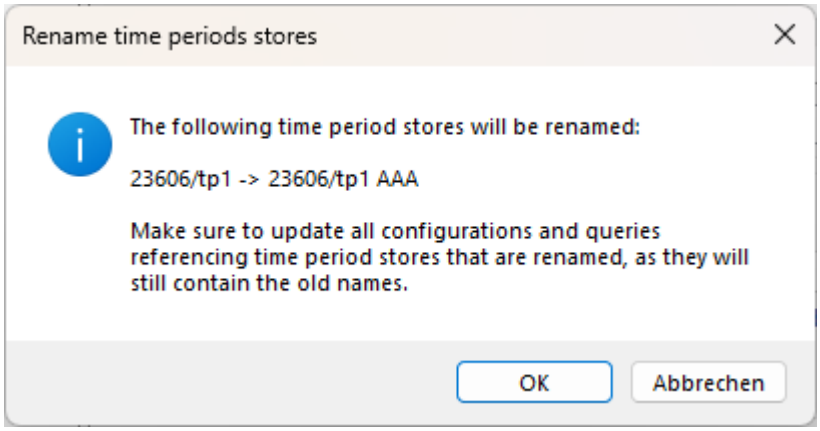
In the dialog for configuring the HD store, you can now rename time period stores and their tables.

Note

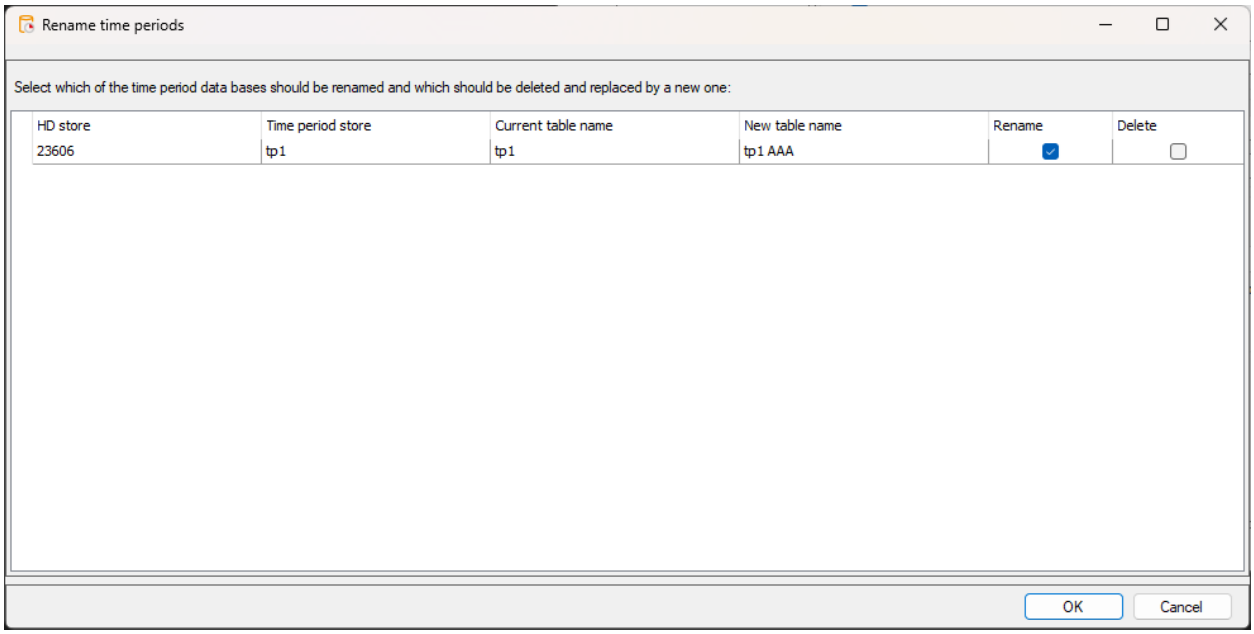
The name of the time period store is the name that queries, data store configurations, etc. use to reference a specific time period store. The table name of a time period store is the name of the database file that contains the actual time periods.



If you apply a new configuration in which the names of time period stores have been changed, a message appears. You can see which time period stores are affected and you are informed that you must update existing references to these time period stores (e.g. in queries) if you apply the new configuration.



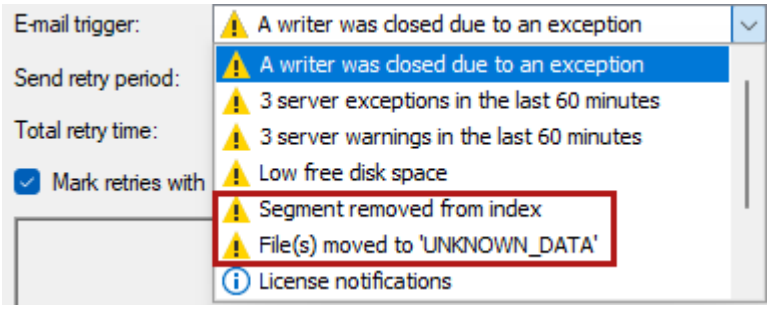
If you apply a configuration in which the table names of time period stores have been changed, another dialog appears. The dialog shows all changed table names (old and new name) as well as information on the associated HD store and time period store. For each table, you can choose whether it should only be renamed or whether the table should be deleted and a new table created with the new name.



You can find further information on the configuration of time period stores in the documentation of *ibaHD-Server*, chapter “Configuring an HD store for time periods".

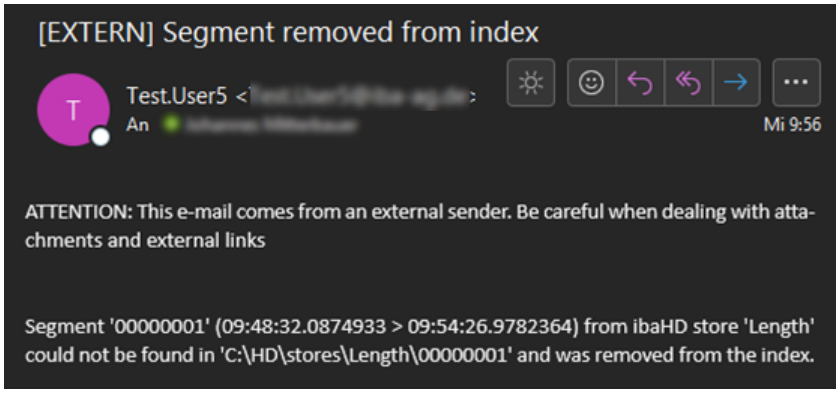
5 New E-Mail triggers

You can configure *ibaHD-Server* to send e-mails automatically when certain events or conditions occur. As of *ibaHD-Server* v3.5.0, two new e-mail triggers are available.



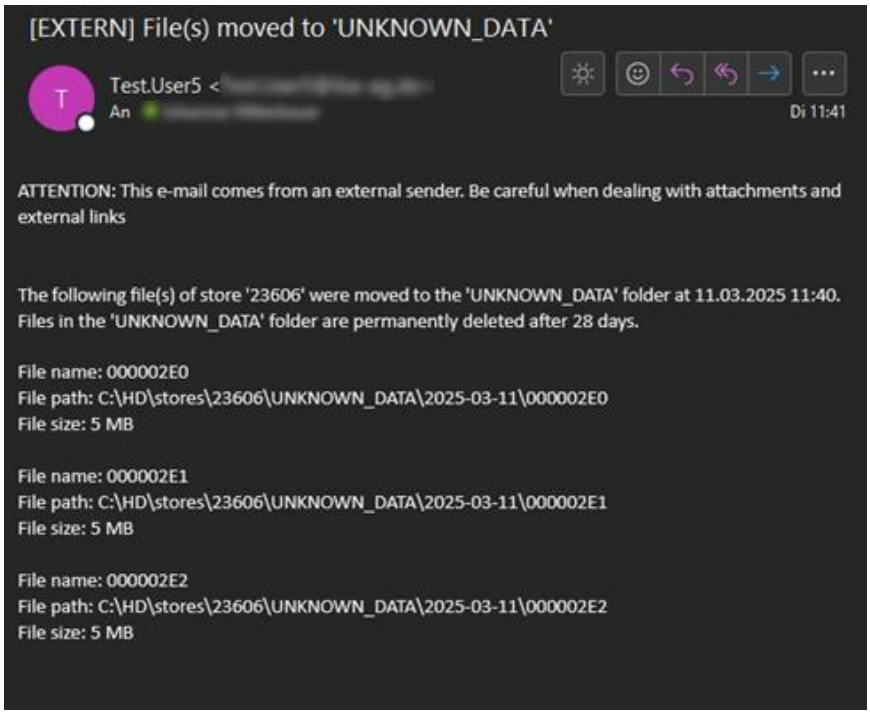
5.1 Segment removed from index

A segment is removed from the index if the segment file no longer exists. Previously, a message was written to the log file in this case, which was easy to overlook. With the new e-mail trigger "Segment removed from index", an e-mail is always sent when this occurs. The message in this e-mail contains the name of the segment that was removed from the index, the time range of the data in the segment, the store to which the segment belonged and the path where the segment file should have been located.



5.2 File(s) moved to ‘UNKNOWN_DATA’

During server start, *ibaHD-Server* checks all configured HD stores and performs a cleanup. All files that do not belong in the storage directories of the stores (e.g. segment files that are not listed in the index) are removed and moved to the ‘UNKNOWN_DATA’ folder. With the new e-mail trigger "File(s) moved to 'UNKNOWN_DATA'", you can configure *ibaHD-Server* to send an e-mail whenever the event occurs. The message of this e-mail indicates which store is affected, when the cleanup took place and a note that files in the UNKNOW_DATA folder will be permanently deleted after some time. You will also find information on the name, path and size of the moved files.



6 Access to time period data in backups

In earlier versions of *ibaHD-Server*, only the signal configuration was saved for automatic restoring or mounting after a restart of the *ibaHD-Server* service, not the configuration of the time periods. It was therefore not possible to access the time period data by mounting backups.

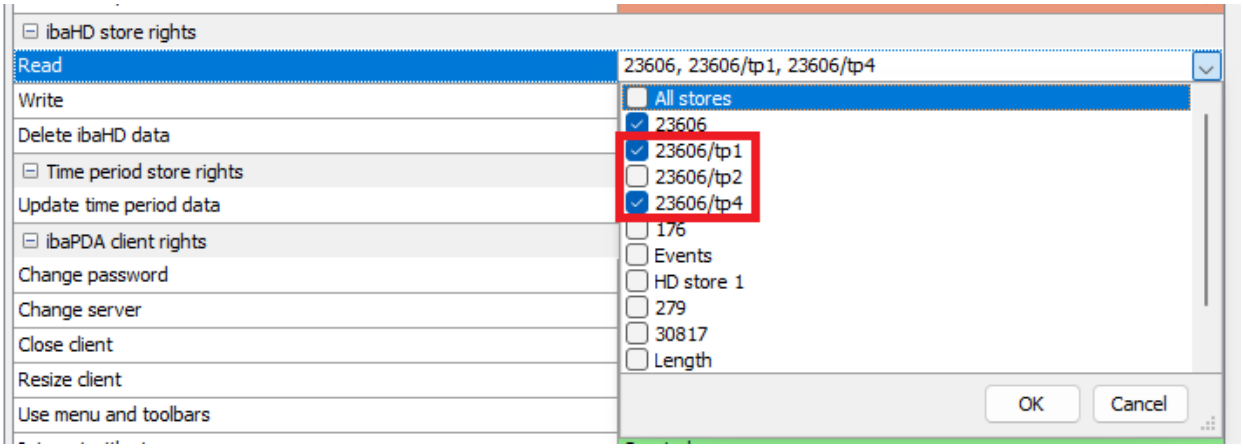
As of *ibaHD-Server* v3.5.0, you can also access the time period data of mounted and attached backups. To do this, it is necessary to dismount backups that were mounted in an earlier version of *ibaHD-Server* and then mount them again.

For further information see the documentation of *ibaHD-Server*, chapter “Mount backup".

7 New user rights for time period stores

7.1 Rights for time periods in HD stores

Previously, you could only configure the user rights for HD stores per HD store. The configured user rights were therefore also automatically applied to the contained time period stores. As of *ibaHD-Server* v3.5.0, you can also configure the user rights for the individual time period stores.



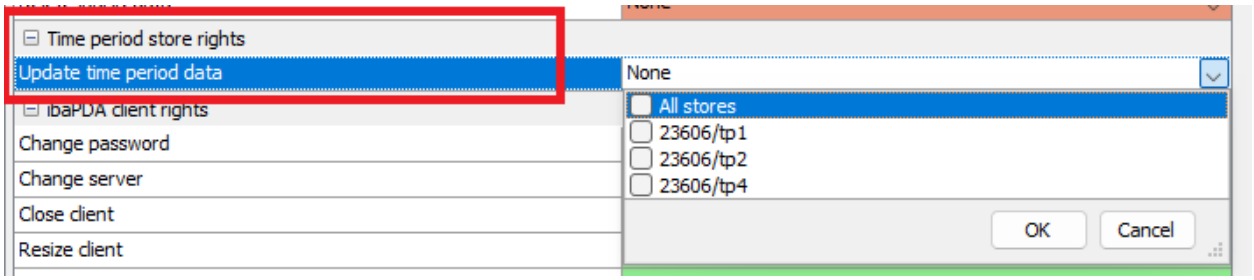
For further information see the documentation of *ibaHD-Server*, chapter “User rights".

Note

For compatibility reasons, the user rights of the parent HD store are still checked when reading, writing or deleting data from a time period store using older clients. Also when updating from an older *ibaHD-Server* version, users automatically receive user rights for the time period stores of HD stores for which they already have user rights, so that the behavior does not change after the update.

7.2 Rights for updating time period stores

ibaHD-Server offers other iba software products the possibility to change the data of an already written time period. In upcoming versions, some of them will implement functions that use this functionality (e.g. *ibaAnalyzer* and *ibaDatCoordinator*). Since not every user should be able to change time periods from all time period stores, there is a new user right *Update time period data*.



For further information see the documentation of *ibaHD-Server*, chapter “User rights".

7.3 New standard info fields "autoClosed" and "dataMissing" for time period stores

In addition to the info fields for data, time periods have standard info fields that contain meta information, e.g. name, ID, start time, etc. As of *ibaHD-Server* v3.5.0, there are the two new standard info fields "autoClosed" and "dataMissing". They can be queried like any other standard info field via the API or with current versions of *ibaAnalyzer*.


```
{
  "time_period_data": [
    {
      "double_fields": [],
      "int32_fields": [],
      "int64_fields": [],
      "text_fields": [],
      "digital_fields": [],
      "id": "1",
      "start_time": "1751435399317508",
      "end_time": "1751435404317843",
      "name": "pda0",
      "start_trigger": 0,
      "stop_trigger": 5.0003347,
      "comment": "",
      "metadata_id": 1,
      "autoClosed": false,
      "dataMissing": false
    }
  ]
}
```


In *ibaPDA*, you can also show the info fields as additional columns in the HD time period table.

For further information see the documentation of *ibaHD-Server*, chapter “Properties of the HD time period table" – "Columns".

For time periods that were already written before the upgrade to v3.5.0, these new standard info fields are also added, but with the default value "false".

Info field "autoClosed"

When configuring time periods in ibaPDA, you can define a maximum time period duration in addition to the stop trigger.

For further information see the documentation of *ibaHD-Server*, chapter “Trigger settings".

Open time periods that reach this duration are automatically closed by *ibaPDA*, even if the stop trigger has not yet occurred. The new standard info field "autoClosed" is "false" if a time period was closed by a stop trigger and "true" if the time period was closed automatically due to its maximum time period duration.

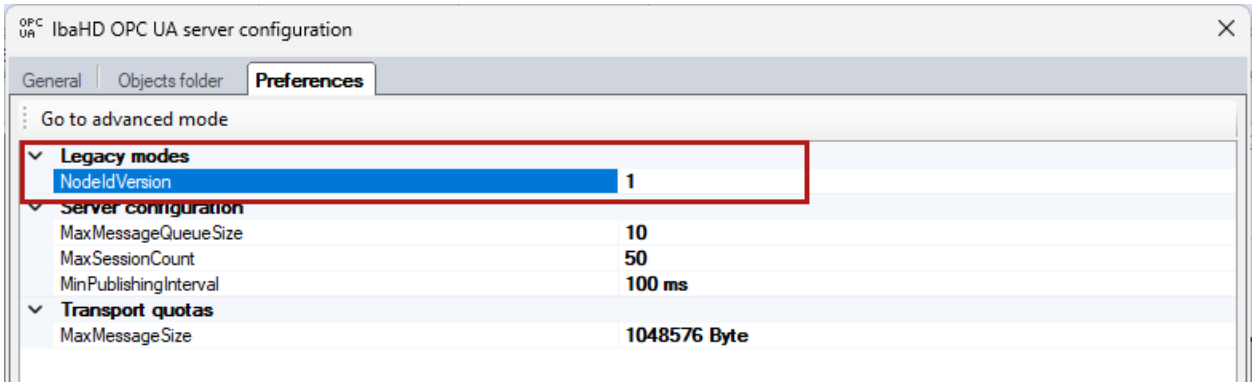
Info field "dataMissing"

The new standard info field "dataMissing" is "true" if data is missing within the time period and "false" if not. This can happen, for example, if data recording in *ibaPDA* is stopped for a while and then restarted before the stop trigger of a time period is reached. This may only happen in tracking mode.

8 Changes to the OPC UA configuration

8.1 New parameter "NodeIdVersion"

You will now find the new *NodeIdVersion* parameter under *Legacy Modes* in the OPC UA server configuration settings.



You can use this to define how the *NodeId* is created.

For further information see the documentation of *ibaHD-Server*, chapter “Preferences".

8.2 Optimized access to HD stores

You can now configure access to HD stores via an OPC UA server, regardless of whether read rights for the stores exist in the ibaHD Manager user administration. You make the settings as usual in the *Object folder* tab of the OPC UA server configuration.

For further information see the documentation of *ibaHD-Server*, chapter “Objects folder".

Access in the OPC UA client depends on the user being used.

9 Further improvements

9.1 License changes during runtime

As of *ibaHD-Server* v3.5.0, license changes are detected and applied at runtime. It is no longer necessary to restart the service.

9.2 Integrated HTML help

From *ibaHD-Server* v3.5.0, there is an HTML help available. If you press <F1>, the help opens in the standard browser and shows the correct help page for the current window in the ibaHD Manager. You can also open the HTML help by clicking on the <Open help> button on the *General* tab in the ibaHD Manager.

9.3 Saving the ibaPDA unit table in ibaHD-Server

In *ibaPDA*, you can assign units to analog signals and define different unit systems, e.g. metric or imperial. This allows you to switch between the configured unit systems in the *ibaPDA* client. Please note that the signal data is still saved in the DAT files and in *ibaHD-Server* with the original unit; the conversion is only used for visualization purposes.

Detailed information can be found in the *ibaPDA* documentation in chapter "Unit table".

The configuration of the unit tables can now be stored in *ibaHD-Server* and will be synchronized across all connected *ibaPDA* clients from *ibaPDA* v8.10.0.

9.4 Cleanup time of the 'UNKNOWN_DATA' folder

Files that have been moved to the ‘UNKNOWN_DATA’ folder have so far been permanently deleted after 14 days. As of *ibaHD-Server* v3.5.0, the data is only deleted after 28 days.

9.5 ibaHD-API changes for digital signals

Non-equidistant digital signals now offer the initial raw value for the time range next to the min, max and edge count values offered since *ibaHD-Server* v3.4.0. This initial value offers a replacement for the traditional average value offered for equidistant digital signals.

9.6 New attribute "isData" for info fields

In *ibaHD-Server* v3.4, the attribute "isData" was already added for info fields of type "bool", which are part of the responses of GetHdTimePeriodData() and GetLastHdTimePeriodOccurrence().

As of *ibaHD-Server* v3.5.0, the attribute is now also available for info fields of the types "double", "int32", "int64" and text fields, to prevent errors when converting the database values to the target data types.

Detailed information can be found in the *ibaHD-Server-API-Read* documentation.

9.7 OAuth2 support

As of ibaHD-Server v3.5.0, OAuth2 for Microsoft Exchange is supported.

For further information see the documentation of *ibaHD-Server*, chapter “E-mail accounts".

9.8 Improved Python package to query data from ibaHD-API Read

iba AG has released an improved Python package that enables third-party applications to query data from *ibaHD-Server* via ibaHD-API-Read. By using the Python package, the implementation effort is reduced. You can download the Python package together with further ibaHD-Read examples at the following link: https://github.com/iba-ag/ibaHD-API-Sample-Clients