New Features in ibaHD v1.5.0

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Date: 19/11/2014

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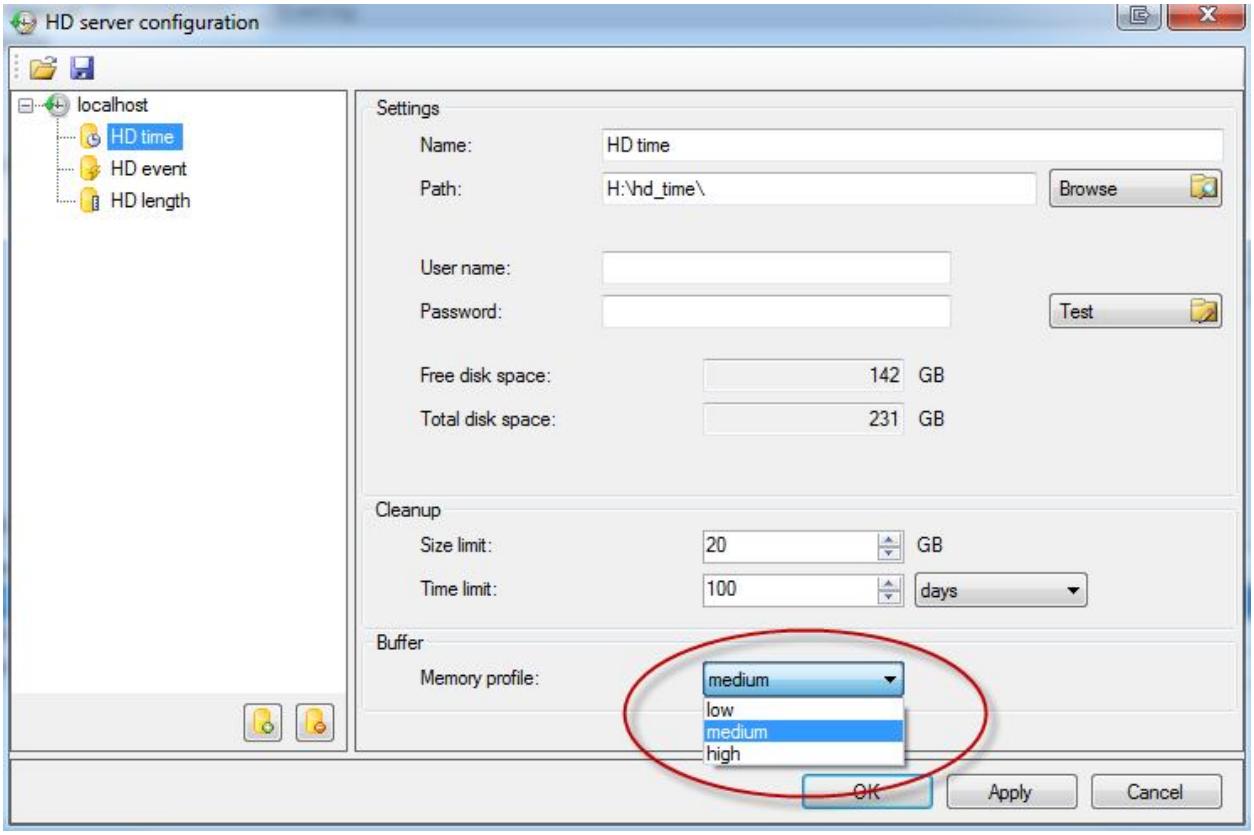
1 64-bit support

The HD server will run in a 64-bit process on a 64-bit operating system. This allows the HD server to utilize more virtual and physical memory. It reduces OS swapping and ultimately enables the HD server to handle larger data loads.

If a previous 32-bit version has been installed, the installer will, by default, automatically transfer all data in the x86 install directory to the x64 install directory.

2 Memory profiles

A new option has been added to the HD store configuration dialog. It is now possible to select the memory profile for time and length based HD stores.



The memory profile determines the amount of memory that is allocated as buffer for a data acquisition. The buffer size is directly proportional to the amount of IO operations that are required to write data from the buffer into to store. The performance when reading data from a store (using e.g. ibaAnalyzer or ibaPDA client) is also influenced.

- If the memory profile is **decreased**, the acquisition buffer size will **decrease**. This causes the data stream to HDD to occur in **smaller** but **more** frequent IO bursts.
- If the memory profile is **increased**, the acquisition buffer size will **increase**. This causes the data stream to HDD to occur in **larger** and **less** frequent IO bursts.

In some cases a memory profile is forced:

- If the server is installed on a 32-bit system, the memory profile for all HD stores will be forced to 'low'
- If the server is installed on a 64-bit system with less than or equal to 2GB RAM, the memory profile will be forced to 'low'
- If the server is installed on a 64-bit system with less than or equal to 4GB RAM and the memory profile is set to 'high', the memory profile will be forced to 'medium'

As a general guideline it can be advised to:

- Increase the memory profile in case a few thousand signals are recorded at high sampling frequency (e.g. 1000 to 250 Hz)
- Decrease the memory profile in case tens of thousand signals are recorded at low sampling frequency (e.g. 50 Hz or lower)

Note

There are many variables that influence HD server performance which makes it hard to provide strict guidelines:

- System hardware
- Number of simultaneous acquisitions
- Number of signals in the acquisitions
- Sampling rate of signals in the acquisitions
- Compression of signal data in the acquisitions
- Number of read clients