TECHNICAL BULLETIN - 0002

ISSUE WITH ARCHIVE RETENTION TIME

An issue with historical data archives has been identified that may result in erroneous flow computer behavior.

⚠️ We advise to implement one of the resolutions for this issue wherever applicable.

Issue: Archive with too short a retention time

Symptom
The Flow-X has an abnormal high CPU usage up to 100%. In rare cases the issue may result in in a reboot.

Applies to
Applies to devices with a particular Flow-Xpress and application version in which a monthly archive is combined with a 30 day retention time. Only the versions listed in the table below are affected bu this issue.

Software / application	Affected versions
Flow-Xpress software	1.6.5 up to 1.7.4
Gas Metric application	1.2.3 up to 1.4.3
Gas US Customary application	1.0.0 up to 1.0.1
Liquid Metric application	None (*)
Liquid US Customary application	None (*)

✓ *(*) Refer to section 'Retention setting for batch archives'*
✓ *The issue only applies when using both an affected Flow-X press version and an affected application version.*
✓ *The Flow-Xpress and application version can be checked on the Flow-X display (refer to Figure 4).*

Resolution
There are 3 possible resolutions to this issue. Each resolution will solve the issue, there is no need to apply more than one.

Resolution 1.1: Upgrade to Flow-Xpress version 1.7.6 or newer
The first possible resolution is to upgrade of the Flow-X device to Flow-Xpress version 1.7.6 or newer.

Resolution 2.2: Change the monthly period

The second possible resolution is the easiest to implement and only requires a change in the configuration of the Flow-X. However this resolution can only be applied when the monthly period data is not actually used. The change is to change the monthly period into a period that is **shorter** than the archive retention time of 30 days (see Figure 2), e.g. to 28 days as shown in Figure 1.

Figure 1: Changing the monthly period

Note: this basically invalidates all the Period B data.

Resolution 2.3: Change the archive retention time

The third possible resolution is to make a change to the Fl*ow-X application. The change is to increase the retention time of the monthly archives to a number larger than 31, e.g. 100 days (see Figue 2).*

> *Changing archive definitions requires the* <u>Flow-Xpress Professional</u> *license. If you do not have the Professional license and you don't want to upgrade to a new Flow-Xpress version, then we advise you to send the application file to* <u>techsupport@spiritit.com</u> *with reference to this 'Technical Bulletin – 0002'. We will then make the necessary changes and send the updated application back to you.*

✓ *Archive retention can only be changed in the application and needs an update of the application in the device. If updating is not an option, then a (temporary) workaround may be to change period A and B to an interval shorther than their archive retention time, e.g. 28 days instead of 1 month.*
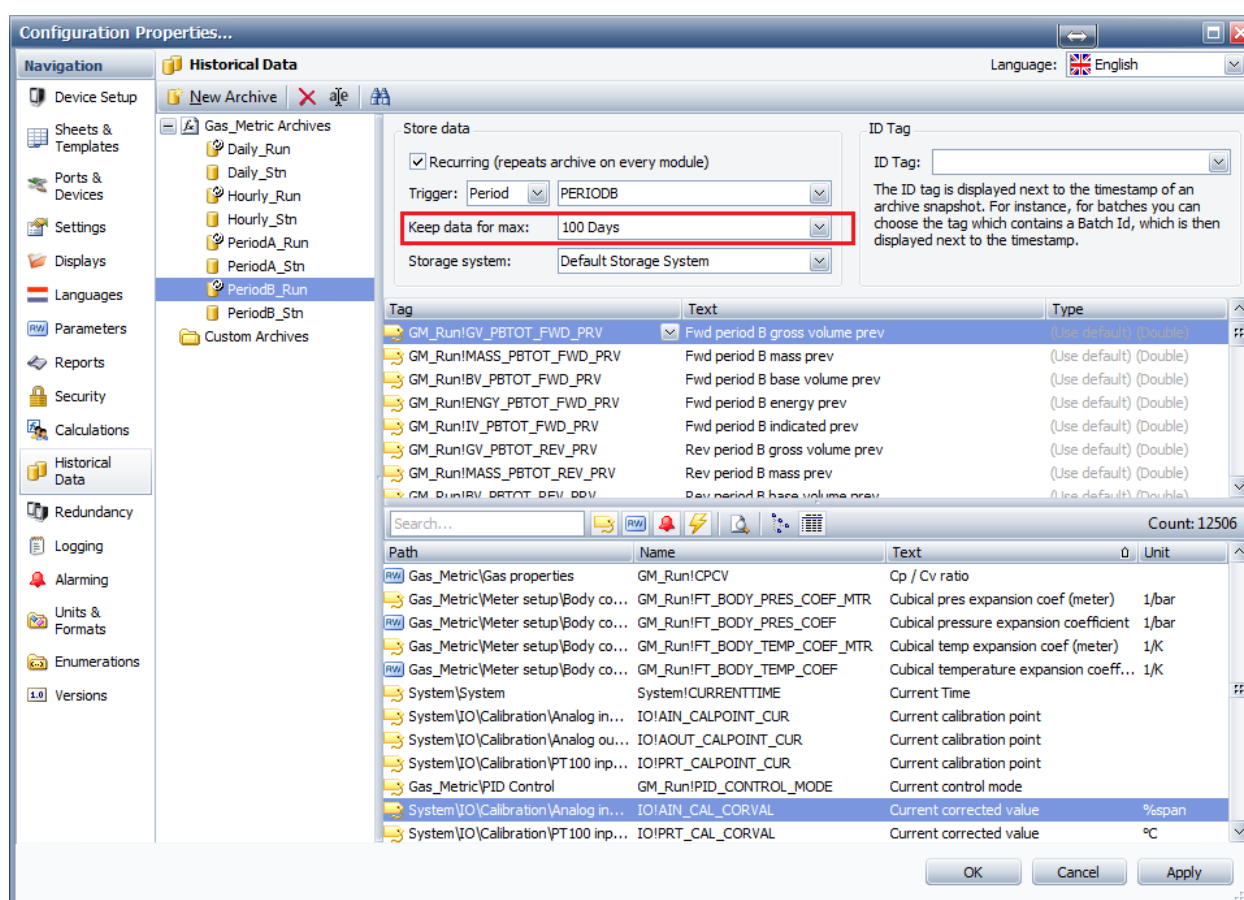

Figure 2: Changing the retention time

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Retention time for batch archives (applies for liquid only)

Our liquid applications, as opposed to gas applications, do not have the issue with the monthly archives. However, in very rare cases a liquid application running Flow-Xpress version 1.7.4 or older may suffer from issue 2 as well. This may happen when no batches are generated for a period longer than the retention time of the batch archives. This retention time is typically set to a value between 35 to 365 days, so the issue is highly unlikely to occur.
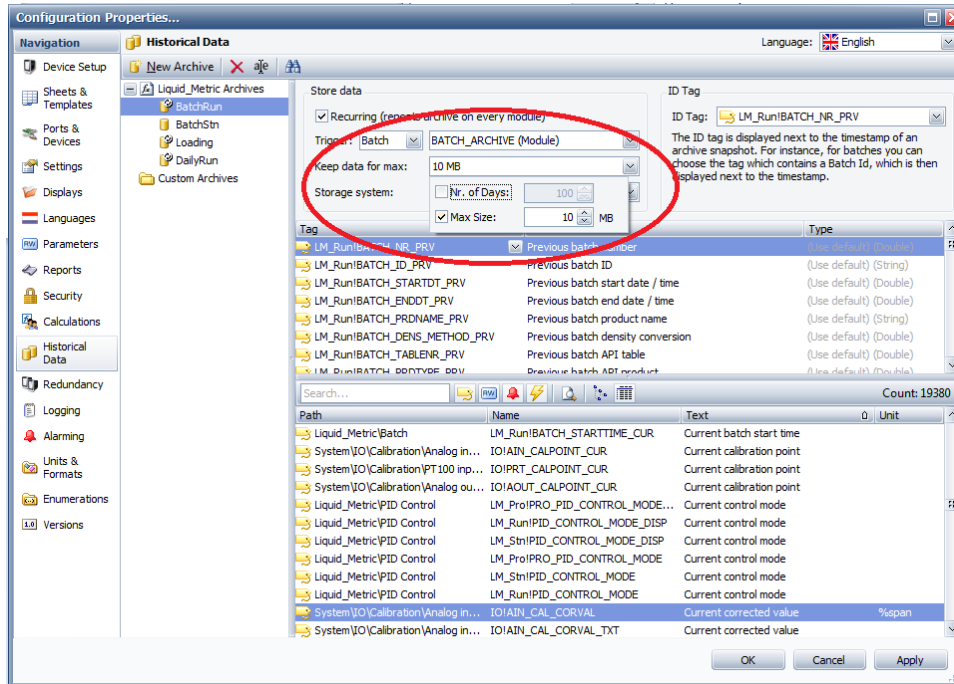

Figure 3: Defining the retention size

Nevertheless our advise is to either redefine the retention time for batch archives to a size in MB instead of a number of days (see Figure 3) or to upgrade to Flow-Xpress version 1.7.5.

CHECK THE FLOW-XPRESS AND APPLICATION VERSIONS

The actual Flow-Xpress and application version can be checked on the 'Systems, Versions' display of the Flow-X user interface.
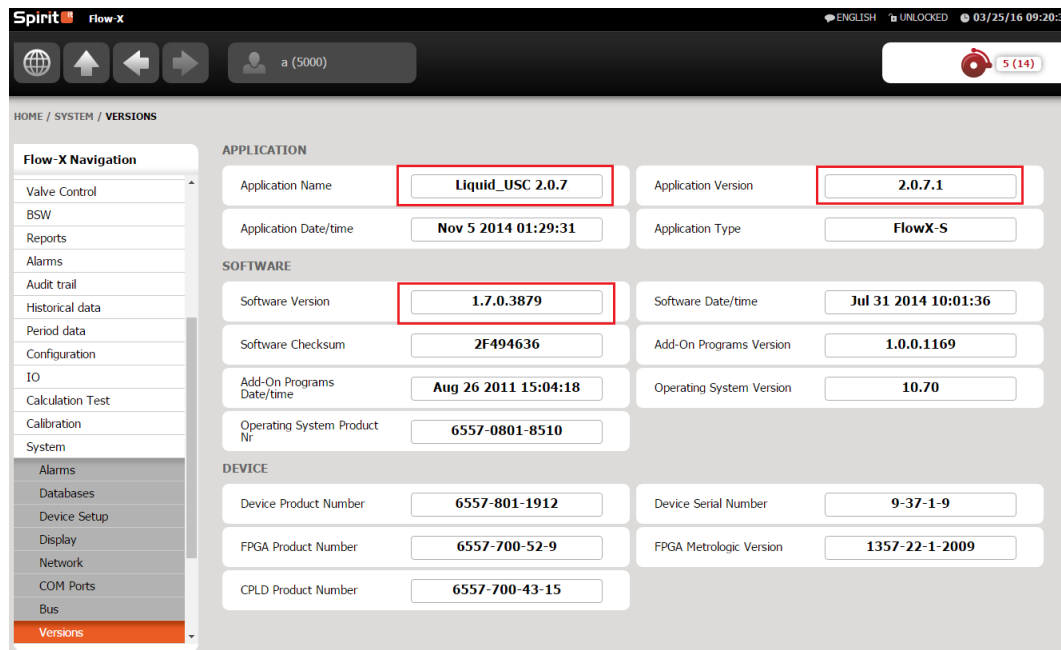

Figure 4: Checking the version

CHANGE LOG

Date	Version	By	Description
8 oct 2015	1.0	Marcel Payens	Initial release
11 oct 2015	1.1	Marcel Payens	Added version information
31 mar 2016	1.2	Han van Dal	Moved the weekly period issue to Bulletin 0005