3065OSI8 - How to delete data in PI archives? How to delete snapshot or archive values?

Product:	PI Server
Version(s):	3.3 and higher
Platform:	Windows

Question

How to delete unwanted or unneeded data?
How to delete one or many snapshot or archive values?
How to delete large or bulk amounts of data from the archive with piconfig?

Answer

There are a couple of ways to delete snapshot or archive events.

For small amounts of data:

Use the **PI System Management Tools** (PI SMT) **Archive Editor plug-in**.

To delete larger amounts of data:

Use the **piconfig** utility installed with the PI Server.

You can also write your own utility to delete data. PI Delete sample code is available from the Tech Support Download Center (http://techsupport.osisoft.com/downloadcenter.aspx) under Content "Sample Code - VB" and "Sample Code - C++." .

OSIsoft strongly recommends that you practice deleting small amounts of data on a test system before deleting real data.

ALWAYS BACKUP YOUR DATA BEFORE DELETING. There is no way to "undo" a delete with any utility.
Note also that deleting large amounts of data may affect availability of an online PI Server. If this is necessary on a periodic basis it may be best to understand root cause and consider alternatives. For example, use appropriate exception/compression settings, increase the available disk space, move older archives to a second tier storage and so on, instead of deleting data in bulk.

I. Using the PI SMT Archive Editor plug-in to delete an archived event

1. Run PI System Management Tools.
2. Select the Server from where you want to remove data.
3. Open Data> Archive Editor.
4. Locate the value you want to delete, right-click on it and choose "Delete."
5. Click the **Save changes** icon (floppy disk) for those deletes to be saved.

NOTE: There is no prompt to confirm deleting values.

II. Using piconfig to delete the current Snapshot event

Below are steps to find, then delete the snapshot value for the tag you specify. Note that when the current snapshot is deleted, the snapshot is immediately replaced with the previous archived value. Also, if you plan to delete a lot of data, it's best to delete from the past to the present, so delete the oldest data first.

1. At a command prompt, change to the pi\adm directory.

2. Type "piconfig" and press Enter.

3. First, verify the time of the snapshot value that you want to delete. To do this, type the following command lines and press Enter after each. Substitute TAGNAME with the name of the tag whose value you want to delete:

```
@table pisnap
@mode list
@ostr tag, time, value
@select tag = TAGNAME
@ends
```

The output displays the tag name, time stamp, and value of the tag you specified. For example:

```
TAGNAME,23-Apr-04 09:22:10, 2.3452
```

4. Delete the value using the PIARC table. Type the following piconfig commands and press Enter after each. Substitute "TAGNAME,23-Apr-04 09:22:10" with the name of the tag and time stamp of value you want to delete.

```
@table piarc
@mode edit
@istru tag, time, mode
TAGNAME,23-Apr-04 09:22:10, remove
@ends
@bye
```

You will not receive any verification that the snapshot is removed.

5. In order to verify that the value is deleted, you can repeat Step 3 or run APISNAP to see the current snapshot for the tag.

You should see a new snapshot event.

III. Using piconfig to find, then delete data from the PI Archive in two steps

Below are two separate piconfig scripts, the first which will find events (FINDEVENTS.TXT) which generates an output file (OUTPUT.TXT) which you then edit and rename DELEVENTS.TXT. You then redirect the DELEVENTS.TXT into piconfig to delete the found events. You will need to edit these files as instructed below. (See Section III for a single script that does both in one script).

Note that this example is set up so that you will have, at the end, a record of all the events (value and time stamp) of what you removed; however, if you do not need this, you can simplify this script by just specifying tag, time and not specify the value.

Instructions for use:

1. Copy the FINDEVENTS.TXT commands to a text file.

FINDEVENTS.TXT

*Input file to find events

```
@table piarc
@mode list
@output output.txt
@timf 9
@sigd 9
@istru tag, starttime, endtime
@ostru tag, time, value
@ostru ...
, ,
@ends
```

2. Replace ", , " with the actual tag name, start time, and end time of the data you want to delete. For example:

```
Sinusoid, *-10m, *
```

Data from multiple points can be deleted. Instead of replacing ", , " with one point and the start and end time, specify each point and time range on a different line:

```
Sinusoid, *-10m, *
cdt158, *-10m, *
SinusoidU, *-10m, *
```

3. Save the file as FINDEVENTS.TXT to the pi\adm directory.

4. Open a command window, change to the pi\adm directory and run piconfig with the following syntax.

```
C:\PI\adm>piconfig < findevents.txt
```

This generates an output file called "output.txt."

5. Open the OUTPUT.TXT file in a text editor. (To open in Notepad, type, "notepad output.txt" and press Enter.)

Here is an example of OUTPUT.TXT file of events found for given time period:

```
*> Sinusoid, *-10m, *
Sinusoid,8-Dec-05 11:39:05,40.923717499
Sinusoid,8-Dec-05 11:40:35,41.568099976
* End Repeat...
```

6. Add the following piconfig commands on separate lines before the data (no empty lines):

```
@table piarc
@mode delete
@istructure tag, time, value
```

7. Then add the "@ends" command after the data. Note that lines with asterisks will be ignored. After you are done, your file looks something like this:

```
*> Sinusoid, *-10m, *

      @table piarc
      @mode delete
      @istructure tag, time, value
      Sinusoid,8-Dec-05 11:39:05,40.923717499
      Sinusoid,8-Dec-05 11:40:35,41.568099976
      @ends
```

8. Save the modified file as DELEVENTS.TXT and then redirect this DELEVENTS.TXT file back into piconfig using the following syntax to delete all the events in the file:

```
C:\PI\adm>piconfig < delevents.txt
```

Your events should now be deleted. You can verify that the data is deleted by repeating step 1 to find events for a given start and end time. You can also use PI DataLink, Processbook, and other tools to verify that the data is deleted.

IV. Using piconfig to find and delete archived events in one script.

This example applies only to piconfig 3.3.362.47 and higher. Earlier versions of PI 3.3 do not accept the place holder parameters (%1%,%2%,%3%), so you can do the same thing as below, but hard code the parameters.

This example finds *and* deletes data all in one script, taking the parameters you specify when you input the file. Because you do not have time to review the data before you delete it, use this script with caution and ALWAYS KEEP CURRENT BACKUPS OF YOUR DATA.

1. Copy these commands into a text file and save the file as DELEVENTS.TXT to the pi\adm directory (check to make sure you don't lose any hard returns when copying and pasting this text).

*DELEVENTS.TXT

```
      @table piarc
      @mode list
      @istructure tag, starttime, endtime, count
      @ostructure tag, time
      @ostructure ...
      @timf 9
      @sigd 9
      @output tmpdelevents.dat
      %1%,%2%,%3%,10000
      @output
      *@exit - uncomment this to exit and review before deleting
      @mode ed,t
      @modify mode=remove
      @istructure tag, time
      @input tmpdelevents.dat
      @exit
```

2. Open a command window, change to the pi\adm directory and run piconfig with the following syntax, replacing with the name of the tag, and with the start time and end time between which you want to delete events:

```
piconfig input delevents.txt,,, exit
```

Example: Deleting the last ten minutes of data from Sinusoid:

```
C:\PI\adm>piconfig input delevents.txt,Sinusoid,*-10m,* exit
```

NOTE: There must be no spaces between the parameters. If there are spaces, the script will not work. Also note, that the redirection symbol ("<") does not work in this case, so be sure to use the "input" command.

V. Using piconfig for deleting data for more than one tag at a time.

1. Copy these commands into a text file.

*DELEVENTS.TXT

```
      @table piarc
      @mode list
      @istructure tag, starttime, endtime, count
      @ostructure tag, time, value
      @ostructure ...
```

```
@timf 9
@sigd 9
@output tmpdelevents.dat
,,,
,,,
,,,
*@exit - uncomment this to exit and review before deleting
@mode edit
@modify mode=remove
@istructure tag, time, value
@input tmpdelevents.dat
@exit
```

2. Replace each ",,," with the actual tag name, start time, end time, and count of the data you want to delete. You can add as many lines as you wish, each with the same structure as defined above. For example:

sinusoid,y,t,10000
cdt158,y,t,10000
cdm158,y,t,10000
sinusoidu,y,t,10000
BA:Active,y,t,10000

3. Save the file as DELEVENTS.TXT to the pi\adm directory (check to make sure you don't lose any hard returns when copying and pasting this text).

4. Open a command window, change to the pi\adm directory and run piconfig with DELEVENTS.TXT redirected back into piconfig using the following syntax to delete all the events as defined in the file.

C:\PI\adm>piconfig < delevents.txt

Notes

For more information on using piconfig and deleting values from the PI Archive table (piarc), see the *PI Server System Management Guide* chapter on the "Piconfig Commands and Tables."

You can also delete small amounts of data using PI Manual Logger. See the section Archived Values in the PI Manual Logger User Guide,

Tips:

Problem with subsecond information:
See Support Solution # 2987OSI8 for information on how to retrieve subsecond time stamps.

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