How to move or merge data for specific PI points from one PI Server to another

SOLUTION VERIFIED - Updated on July 09, 2019 - English

Issue

Content originally from KB00744.

How do I move, copy, or merge data from one PI Server to another PI Server and only include data from a subset of PI points (PI tags)?

Is it possible to transfer data between two servers in a one time procedure ?

Environment

All PI Server versions.

Solution

The target PI server must be **at least of the same** or of a newer version.
Before you begin, make sure you have **backups** of the archives from both the source and target PI Servers that you are using in this process.

On the source server

Make a list of your wanted PI points and extract their data into temporary archives:

1. Make a list of the points that you want to move from the source PI Server with the following format: pointid, recno, tag.

   This can be done with the PI SMT Add-In for Excel, or with *piconfig* like the following:

   a. Create a pipoint_script.txt file with the following content:

   ```
   @table pipoint
   @ostr pointid, recno, tag
   @select tag=*<filter>*
   @ends
   @exit
   ```

   b. Launch the following command that will extract your list of points (once created, do not forget to **delete** the header and the summary at the end of the file):

   ```
   C:\PI\adm> piconfig < pipoint_script.txt > points_outputfile.txt
   ```

2. Run the following command to create a binary conversion file of the tags list

   ```
   piarchss -idci points_outputfile.txt -idco binary_conversion_file.bin
   ```

- **Note:** For PI Server versions 3.4.375.99 and earlier, the *-idci* and *-idco* switches should be used with the piartool utility instead of piarchss.

3. Create an intermediate archive(s) that will only include the data you want to move:

   ```
   piarchss -id binary_conversion_file.bin -if <source_archive_to_copy> -of <new_filtered_intermediate_archive>
   ```

   Example:

   ```
   piarchss -id binary_conversion_file.bin -if C:\PI\arc\piarch.001 -of C:\PI\MoveTags\Intermediate_piarch.001
   ```

   Repeat this step for every archive that overlaps the time range of data to be transferred.

- **Note:**
  - This operation will unregister the archives in question. Make sure to reregister them afterwards.
  - In the case of numerous archives, it is recommended to extract the list of archives in Excel via PI SMT, build the commands in Excel and run them from a batch file.

On the target server

Create/Check the specific PI tags and transfer their corresponding data from the temporary archives to the target ones:

1. Create the points you intend to move on the target PI Server using the point definitions from the source PI Server. This can be done easily with the PI SMT Add-In for Excel.

   - **Note:** If the PI points already exist on the target PI Server they should have the same names. If not, modify the *points_outputfile.txt* to control the transferred data's mapping to the target tags.

2. Copy the *points_outputfile.txt* file from the source PI Server.
3. Run the following command to create a binary conversion file of the pointid and recno list:

```
piarchss -idci points_outputfile.txt -idco binary_conversion_file.bin
```

- **Note:** For PI Server versions 3.4.375.99 and earlier, the -idci and -idco switches should be used with the piartool utility instead of piarchss.

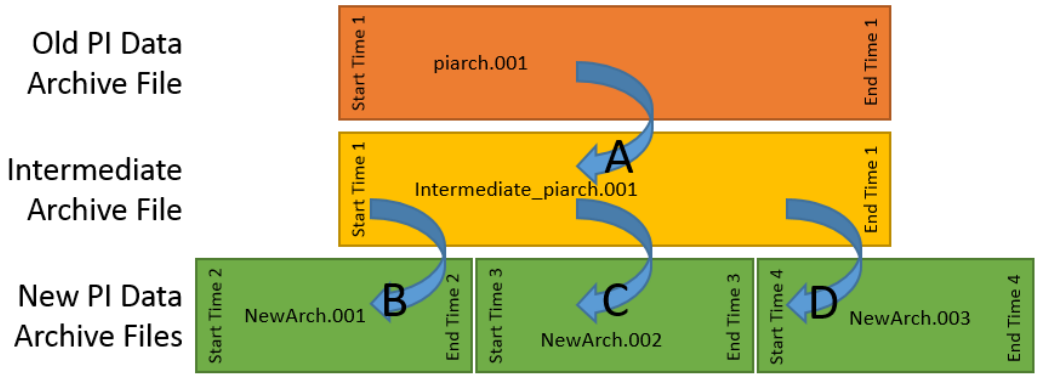
4. Copy the intermediate filtered archive(s) containing the data to transfer.
5. Merge filtered source archive(s) with the archives on the target:

```
piarchss -id binary_conversion_file.bin -if <new_filtered_intermediate_archive>
 -of <target_archive> -ost <target archive start time> -oet <target archive end time>
```

Or/and add the option

```
-filter <target archive start time> <target archive end time>
```

Repeat this step for each intermediate archive into **all** the target archives that **cover the time range** of the data to transfer. This may take a few passes, as shown in this example:



A: piarchss -id binary_conversion_file.bin -if piarch.001 -of Intermediate_piarch.001 (Step 3 on Source Server)
B: piarchss -id binary_conversion_file.bin -if Intermediate_piarch.001 -of NewArch.001 -filter “StartTime2” “EndTime2” (Step 5 on Target Server)
C: piarchss -id binary_conversion_file.bin -if Intermediate_piarch.001 -of NewArch.002 -filter “StartTime3” “EndTime3” (Step 5 on Target Server)
D: piarchss -id binary_conversion_file.bin -if Intermediate_piarch.001 -of NewArch.003 -filter “StartTime4” “EndTime4” (Step 5 on Target Server)

- **Notes**:
  - In the case of numerous archives, it is recommended to extract the list of archives in Excel via PI SMT, build the commands in Excel and launch them via a batch file.
  - Note that if the target server's archives are old, you may need to reprocess them prior to the merge.
  - An old archive file will not have primary records for PI Points newer than the end time of the archive.
  - If you see **"[-102] Record not found"** in the output logs of the archive merge, you will need to do a reprocess of the target archive prior to the merge.
  - **If you the target data archive doesn't contain archives**, you can create new empty ones from PI SMT (single archives (https://livelibrary.osisoft.com/LiveLibrary/content/en/server-v12/GUID-0C47CF6D-329F-415E-9F51-CCB53A123A92) OR Multiple archives for backfilling (https://livelibrary.osisoft.com/LiveLibrary/content/en/server-v12/GUID-E668F28B-35BB-4BE7-B169-2A7148D4BEB8) . Use the latter in the case of the need of numerous archives) without leaving any archive gaps (https://livelibrary.osisoft.com/LiveLibrary/content/en/server-v12/GUID-D6E66849-D7AF-4E9F-954E-FD3BF037570A) .

4. **Optional:** Delete the points you moved from the source PI Server. For instructions on how to delete PI points, see How to delete a PI Point or Tag (https://customers.osisoft.com/s/knowledgearticle?knowledgeArticleUrl=KB00080). (If you wish to keep a copy of the points on the source PI Server then you can skip this step.

Workaround

Note: This workaround does not apply if you are using annotations!

Another way to accomplish this (if you have access to PItoPI Interface) is to perform history recovery with PItoPI for the points on the target PI Server and then change the point configurations so that the correct interface (such as OPC or RDBMS) loads the points for snapshot data collection.

Cause