SC11-EP

PI EP – How to perform a cold storage of PI Tags ?

1. VERSIONING AND CONTROL VALIDATION

VERSIONING HISTORY

Version	AUTHOR	REVISION	Date
1.0	Romain Castagné (CGI)	First review	21/07/2020
1.1	Florent Auberger (Total)	Some adaptations	14/08/2020

VALIDATION

Version	Name	Date
1.1	Florent AUBERGER	14/08/2020

2. DOCUMENT CONTENT

3. INTRODUCTION & CONTEXT

A PI Data Archive system requires a license per tags and per server to manage the data coming from the Indutrial Network. Each licence have a cost and must be payed to access tags, even if some of the tags are no longer updated.

In Total environment, many licenses are kept meanwhile many tags are no longer in service.

The purpose of this procedure is to be able to backup tags configuration and data, which are no longer used, in text files, and delete the tags from the server in order to free up licenses.

If for any reason, some tags needs to be reloaded in the PI Data Archive server, it is possible to re-create them and feed the system with the data saved previously in text files.

The Toolbox is composed of 5 scripts developed in PI PowerShell :

   3 of them to perform the backup and deletion actions :
   1. **PI-DA_ExtractionPS** : Extract the data from a list a tags.
   2. **PI-DA_ConfigurationPS** : Extract the configuration of a list of tags.
   3. **PI-DA_DeletionPS** : Delete the data and the tags.

   And 2 scripts to reload tags in PI Data Archive "in case of necessity" :
   1. **PI-DA_CreationPS** : Re-create tags using PI-DA_ConfigurationPS files.
   2. **PI-DA_InsertionPS** : Re-insert data using ExtractionPS files

4. INSTALLATION PROCEDURE

4.1. Retrieve the PI-Powershell-Toolbox

To obtain the latest version of the Toolbox, please contact the HQ PI support team : ep.dsi-support-pi@total.com

4.2. Pre-requisites

- Microsoft Powershell (1.0 or later) → By default on all latest Windows system (Windows 10 or 2016)
- Package PI SMT 2018 or later. → include Powershell Tools for PI System (2.2.2.44 or later).
- The list of tag that you want to extract data and delete

4.3. Install the PI-Powershell-Toolbox

As long as you have the pre-requisites installed, you can use this toolbox on any windows machine (a workstation or a server).

Just take in consideration that retrieving or loading data for many years can take many days.

You need to be sure that the machine used to launch these scripts will reamin available until the process is finished.

To install the toolbox, you just need to **unzip the file** provided by the support in a local directory (eg: <**D:\PI\Applications>** or <**C:\Local\PI\Applications>)**

5. BACKUPS AND DELETION PROCESS

5.1. *Step 1 : Extract the tags configuration*

Use **PI-DA_ConfigurationPS** to extract the configuration of the tags you want to delete.

A UserGuide is available in this directory:

> .\PI-Powershell-Toolbox\PI-DA_ConfigurationPS\documentation

Keep preciously the files generated in the output directory.

You must keep them if you want to recreate the tags in the future.

You need to copy them to a safe place in your organization (a storage with backups in place and no retention constraints).

5.2. *Step 2 : Extract the tags data*

Use **PI-DA_ExtractionPS** to extract the data of the tags you want to delete.

A UserGuide is available in this directory:

> .\PI-Powershell-Toolbox\PI-DA_ExtractionPS\documentation

Keep preciously the files generated in the output directory.

You must keep them if you want to reinsert the data in the future.

You need to copy them to a safe place in your organization (a storage with backups in place and no retention constraints).

5.3. *Step 3 : Delete the tags*

Use **PI-DA_DeletionPS** to delete the tags.

A UserGuide is available in this directory:

> .\PI-Powershell-Toolbox\PI-DA_DeletionPS\documentation

WARNING : Make sure you have saved the files in a safe location of the step 1 and step 2 before processing with the tag deletion, because there is no rollback possible after this action.

6. RESTORE PROCESS

Retrieve the PI-Powershell-Toolbox if you do not have it yet (Part 4.1).

6.1. *Step 1 : Re-create the tags*

Use **PI-DA_CreationPS** to create the tags using the configuration files extracted with ConfigurationPS.

A UserGuide is available in this directory:

> .\PI-Powershell-Toolbox\PI-DA_CreationPS\documentation

6.2. *Step 2 : Re-insert the archive data*

Use **PI-DA_InsertionPS** to provide the tags in data using the data files extracted with ExtractionPS.

A UserGuide is available in this directory:

> .\PI-Powershell-Toolbox\PI-DA_InsertionPS\documentation