



# PI Replication Manager v1.0.0 User Manual



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## 1. VERSIONING AND CONTROL VALIDATION

### VERSIONING HISTORY

Version	AUTHOR	REVISION	Date
1.0	Romain Castagné (CGI)	First review	2022-06-17
1.0	Anthony Sabathier (CPY)	CPY review	2022-07-01

### VALIDATION

Version	Name	Date



## 2. DOCUMENT CONTENT

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### 3. USER GUIDE

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This document intends to provide the necessary information and specificities required to use the software “PI Replication Tool”. This application primary goal is to help replicate tags from a PI source server to a PI target server.

This document describes the replication with a known list of tag and the replication of all exhaustive tags from a site to a base. It has to be updated whenever necessary. The most frequent updates would occur when undertaking projects.



## 4. PREREQUISITE

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The following software components must be installed before application is deployed on target machine:

Component	Version
Framework .NET	4.8
PI AF Client 2018 SP3 Patch 3	2.10.9.593



## 5. INSTALLATION

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### 5.1. Download application

First, download latest release from GitHub repository.

<https://github.com/total-sa/PI-Replication-Tool/releases>

### 5.2. Deploy application

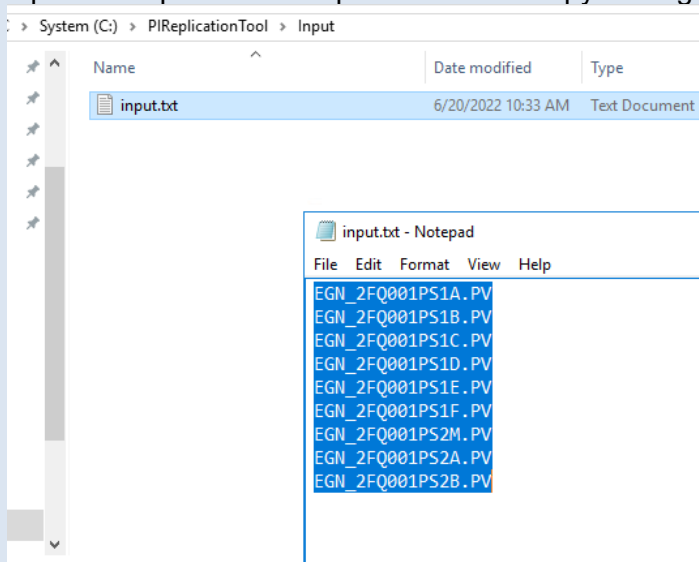
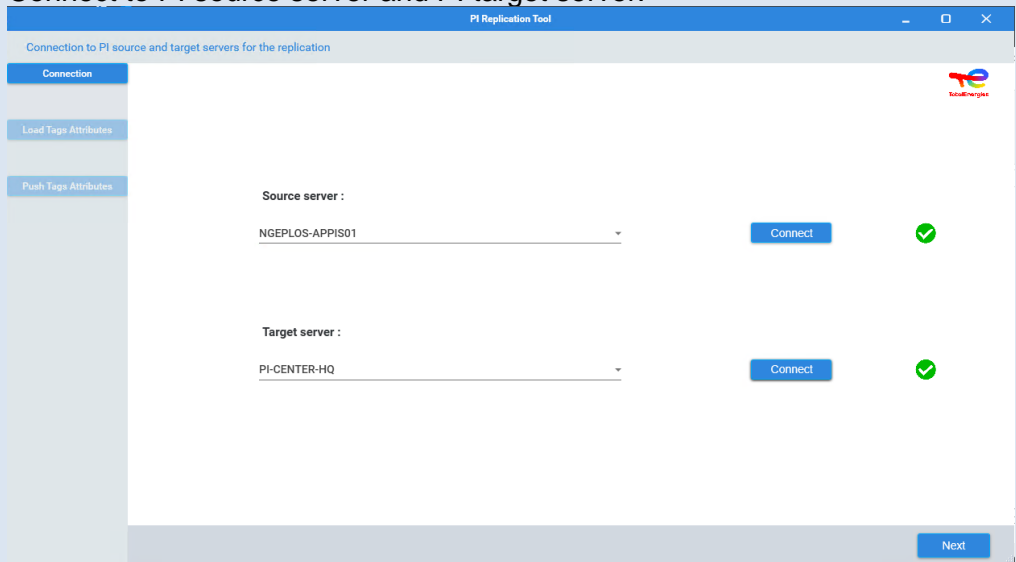
Copy archive file on the target machine (usually target PI Data Archive) in the folder you want to run the tool from and extract all files in it. (7z files to be extracted using 7-Zip software)

Edit the configuration file in .\Application\PI-Replication-Tool.exe.config, especially input/output folders to match their actual paths.

**Note: Whenever application folder is being moved, make sure you adapt the configuration file accordingly.**

## 6. USE CASE

### 6.1. Replicate tags with their name

Step	Action
1	<p>Open the input file in “.\Input” folder and copy the tag name list you want to replicate.</p> 
2	<p>Start <b>PI Replication Tool</b> by double clicking to <b>PI-Replication-Tool.exe</b></p>
3	<p>Connect to PI source server and PI target server.</p> 
4	<p>Click on Next.</p>
5	<p>Select option “Tags from local input file” and click on button “Load Tags”.</p>



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6	<p><b>Wait</b> the task bar to be at 100% : the application is loading tags from source server and it can take a moment especially if you want to replicate a lot of tags from a distant server (open logs if you want more details in realtime).</p>
7	Click on Next.
8	Click on Update button to update the tags configuration according the target server.





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Connection

Load Tags Attributes

Push Tags Attributes

Destination Server : PI-CENTER-HQ

Step 1

Update the attributes configuration of the tags to fit with the target server.

Update

Step 2

Select a mode to create the tags and push the configuration to the PI Server.

Create Only

Update Only

Create or Update

Push

Step 3

Check that the replicated tags are now well updated in data.

Refresh

Name	Current Timestamp	Current Value	InstrumentTag	PointSource	Location1	PointType	Digital Set	Zero	Ty
EGN_2FQ001PS1A.PV			2FQ001PS1A.DACA.PV	EGN_N01	11	Float64	0	5i	
EGN_2FQ001PS1B.PV			2FQ001PS1B.DACA.PV	EGN_N01	11	Float64	0	5i	
EGN_2FQ001PS1C.PV			2FQ001PS1C.DACA.PV	EGN_N01	11	Float64	0	5i	
EGN_2FQ001PS1D.PV			2FQ001PS1D.DACA.PV	EGN_N01	11	Float64	0	5i	
EGN_2FQ001PS1E.PV			2FQ001PS1E.DACA.PV	EGN_N01	11	Float64	0	5i	

Exit

9

Check the tag attribute configuration.

10

Select the mode of creation :

- **Create Only** : Create the tags. If a tag already exist, it does nothing
- **Update Only** : Update the configuration of existing tags. If a tag does not exist, it does not create the tag.
- **Create or Update** : If a tag does not exist, it create it. If a tag already exist, it update it configuration.

11

Click on Push button. The line of the tab will be coloured in **green** (tag created and provided in data), **yellow** (tag created but not updated yet) or **red** (tag not created, look at the logs to investigate).

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Step 3

Check that the replicated tags are now well updated in data.

Refresh

Name	Current Timestamp	Current Value	InstrumentTag	PointSource	Location1	PointType	Digital Set	Zero	Ty
EGN_2FQ001PS1A.PV	6/9/2022 4:37:19 PM	Pt Created	2FQ001PS1A.DACA.PV	LOS_N03	0	Float64	0	0	
EGN_2FQ001PS1B.PV	6/19/2022 5:06:08 AM	1.06528282165527	2FQ001PS1B.DACA.PV	LOS_N03	0	Float64	0	0	
EGN_2FQ001PS1C.PV	6/19/2022 5:06:08 AM	279.757781982422	2FQ001PS1C.DACA.PV	LOS_N03	0	Float64	0	0	
EGN_2FQ001PS1D.PV	6/9/2022 4:37:19 PM	Pt Created	2FQ001PS1D.DACA.PV	LOS_N03	0	Float64	0	0	
EGN_2FQ001PS1E.PV	6/9/2022 4:37:19 PM	Pt Created	2FQ001PS1E.DACA.PV	LOS_N03	0	Float64	0	0	
EGN_2FQ001PS1F.PV	6/19/2022 5:06:08 AM	236.387878417969	2FQ001PS1F.DACA.PV	LOS_N03	0	Float64	0	0	
EGN_2FQ001PS2M.PV	6/19/2022 4:36:09 AM	53.9147262573242	2FQ001PS2M.DACA.PV	LOS_N03	0	Float64	0	0	
EGN_2FQ001PS2A.PV	6/19/2022 5:06:08 AM	28.5910186767578	2FQ001PS2A.DACA.PV	LOS_N03	0	Float64	0	0	
EGN_2FQ001PS2B.PV	6/19/2022 4:36:09 AM	0	2FQ001PS2B.DACA.PV	LOS_N03	0	Float64	0	0	

Exit



12	<p>Click on refresh to update the tab until all the line are green (wait the acquisition of data).</p> <p><b><i>NB : If a tag stay in Yellow at the end despite waiting a long time, check that the PltoPI interface used for the points are running and OK (check point source to know this information). If the interface is running well, the issue can be deeper in the data acquisition : check that the point is well provided in data in the source server, and if not please contact HQ support or affiliate correspondent to resolve the issues.</i></b></p>
13	Click on Exit to close the application.

## **6.2. Replicate missings tags from a site to a base**

With PI Replication Tool, you can replicate tags which are not already replicated from a site to a base server.  
To do so, follow the steps in “6.1. Replicate tags with their name” **with the following adjustments:**

- Ignore step 1.
- Step 5 : Select option “Missing tag from site to base” instead.
- Step 10 : Always select “create only” option.