# File converter for EcoAdviser(GEN64 Ver)

User’s Manual

- Before operating the instrument, you should first read thoroughly this operation manual for safe operation and optimized performance of the product.
  Deliver this user’s manual to the end user.

# Introduction

Thank you for your continued patronage of Mitsubishi Electric's energy saving support application, EcoAdviser.
This instruction manual explains how to use the file converter for EcoAdviser (GEN64 Ver.) (hereinafter referred to as "this/the software").
Please read this instruction manual before use, and use the software correctly.

## Disclaimer and Precautions

- Please read through the Software License Agreement at the back of this manual when using this software.
- Please note that Mitsubishi Electric is not liable for any damages incurred by you or a third party due to system trouble, legal issues, or malfunctions or defects occurring due to the misuse of this software, or during use.
- When importing a pre-converted file to a PC running this software, follow the instructions provided in the instruction manual for the conversion source product. Please note that Mitsubishi Electric is not liable for any defects that occur when converting a pre-converted file to a PC (including corrupted files, PC or conversion source product malfunction or failure, system trouble when using the conversion source product).
- You may notice differences in the screenshots and operation procedures described in this instruction manual depending on the OS type and version in use.
- This instruction manual uses screenshots from the energy saving analysis and diagnostic application (model: MES3-EAP1-AI) when describing EcoAdviser operation procedures.

## Related Documents

| Related documents | Document No. |
|---|---|
| Mitsubishi Electric Energy Saving Support Application EcoAdviser<br>Energy Saving Analysis Application/Energy Saving Analysis and Diagnostic Application<br>Model: MES3-EAP1-DA/MES3-EAP1-AI<br>Instruction Manual | IB63E57 |

## Terms

Unless explicitly stated otherwise, this instruction manual uses the following terms.

| Term | Description |
|---|---|
| Conversion source | The unit used for grouping and converting GENESIS64 tags with this software.<br>Registered to EcoAdviser as the collection source. |
| Pre-conversion file | A file with measurement data output from GENESIS64 in CSV or TXT format.<br>These files can be converted to data files using the software. |
| Data file | The data file converted using the software.<br>These files are collected by EcoAdviser.<br>These files are treated as historical data files in EcoAdviser. |
| Data type file | The definition file used to convert the data file.<br>This is also needed when registering the collection source in EcoAdviser.<br>These files are treated as historical data type files in EcoAdviser. |
| Tag | Tags include data collected and stored in GENESIS64.<br>This software distinguishes between tags defined in AssetWorX and tags defined in Hyper Historian. |
| Hyper Historian | This is an optional feature in GENESIS64.<br>This enables the collection and storing of data in large volumes at high speed. |
| AssetWorX | This shows the asset configuration as a hierarchy. |
| Data Exporter | This function outputs data stored in Hyper Historian.<br>Only Hyper Historian tags are output. |
| History Reader | This function outputs data stored in Hyper Historian.<br>The software can convert Hyper Historian and AssetWorX tag data output using this function. |

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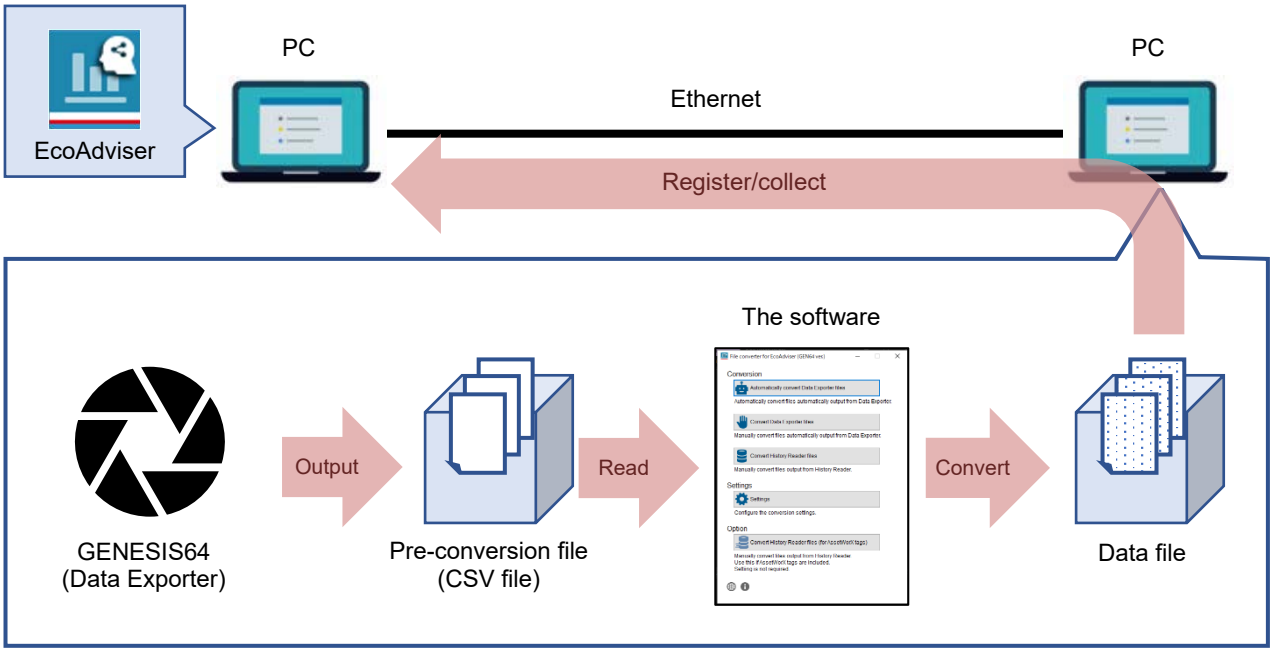
# 1. Features

This software is a tool used to convert data measured and output in GENESIS64 into a format that can be collected in EcoAdviser.
Converted data can be automatically or manually collected in EcoAdviser to be used in graphs and forms.

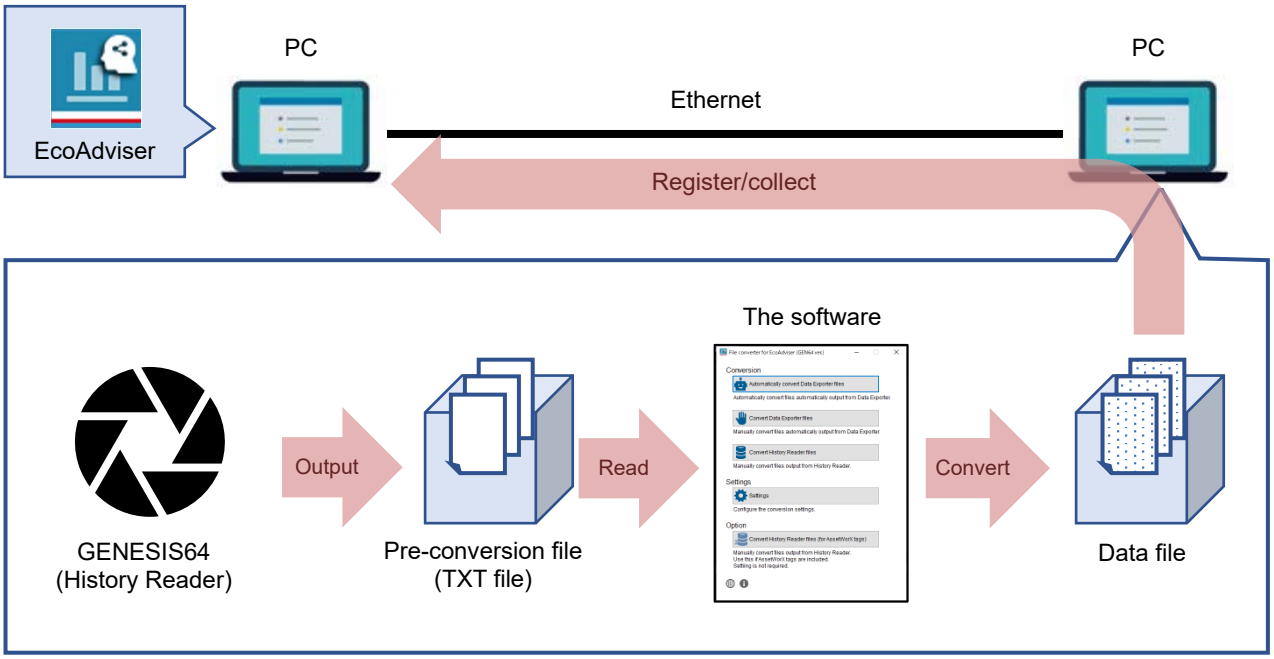
## Overview of automatic conversion (converting the latest measurement data)

This software converts the latest measurement data output from GENESIS64 into a format that can be collected in EcoAdviser.
Data is output from GENESIS64 and converted using this software automatically. No user input is required.




## Overview of manual conversion (converting past measurement data)

This software converts past measurement data output from GENESIS64 into a format that can be collected in EcoAdviser.



# 2. System Configuration

## 2.1 Operating environment

The operating environment for this software is described below.

| Item | Description |
|---|---|
| OS | Microsoft Windows 11 Pro (64 bit)<br>Microsoft Windows 10 Pro (64 bit) |
| .NET Framework | Microsoft .NET Framework 4.6.2 |

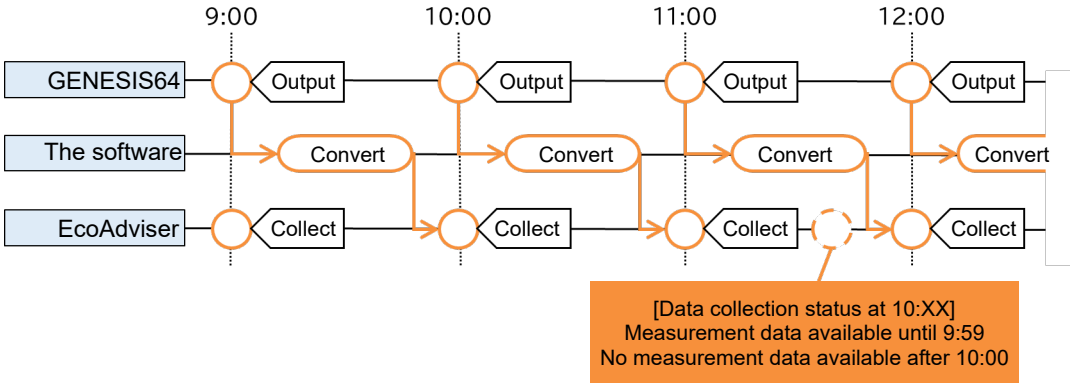
## 2.2 GENESIS64

The output method for pre-conversion files is as follows.

| Pre-conversion file output method | | Software availability | | Data collection in EcoAdviser | |
|---|---|---|---|---|---|
| | | Automatic conversion | Manual conversion | Automatic collection | Manual collection |
| Data Exporter | Hyper Historian tags | ● | ● | ● | ● |
| History Reader | Hyper Historian tags | — | ● | — | ● |
| | AssetWorX tags | — | ● | — | ● |

## 2.3 Automatic collection

The measurement data and chronology of automatic data conversion using this software is as follows.
* In this example, the Edgecross automatic file collection cycle in EcoAdviser is 60 minutes.



## 2.4 Restrictions

This section describes restrictions on GENESIS64.

■ GENESIS64

| Item | Restriction | Remarks |
|---|---|---|
| License | GENESIS64 Advanced | The license must be GENESIS64 Advanced to be able to use the conversion tool so as to make it data collection available. |

This section describes restrictions that apply to pre-conversion files.

■ Data Exporter

| Item | Restriction | Remarks |
|---|---|---|
| Output data and sorting order | PointName, TimeStamp, Status, Value order | Data cannot be converted when the data and the sorting order are different. |
| Data type | Only the following data types can be converted:<br>BOOL, INT,<br>UINT, DINT,<br>UDINT, REAL,<br>LREAL | Data types that cannot be converted are output without conversion. These data types cannot be registered as measurement points in EcoAdviser. |
| Tag name | Max. 30 characters | Although tag names with 31 characters or more can be converted, they cannot be registered as measurement points in EcoAdviser. |
| | Not duplicate | In case the names of measuring points are duplicate, it will unable to collect data on EcoAdviser. |

■ History Reader

| Item | Restriction | Remarks |
|---|---|---|
| Data type | Only the following data types can be converted:<br>BOOL, INT,<br>UINT, DINT,<br>UDINT, REAL,<br>LREAL | Data types that cannot be converted are output without conversion. These data types cannot be registered as measurement points in EcoAdviser. |
| Tag name | Max. 30 characters | Although tag names with 31 characters or more can be converted, they cannot be registered as measurement points in EcoAdviser. |
| | Not duplicate | In case the names of measuring points are duplicate, it will unable to collect data on EcoAdviser. |

# 3. Before Use

## 3.1 Downloading the software

Unpack the downloaded zip file and copy it to a directory on your computer (the C: \Mitsubishi folder, for example) to use it.
Installation is not required.

- ✓ Do not copy it to the programs folder (C: \Program Files folder, or C:\Program Files(x86) folder). Doing so may prevent the software from running properly.
- ✓ The software will create the necessary files and folders in the application folder, depending on use. Do not restrict writing and reading privileges for the application folder, and files and folders in the application folder. Doing so will prevent the software from running properly.
- ✓ Do not rename or delete files and folders. Doing so will prevent the software from running properly.
- ✓ If you no longer need this software, delete the entire application folder copied (EapConverterGen folder).

### Folder configuration

If you copied the software to the C: \Mitsubishi folder, the folder will be configured as follows.

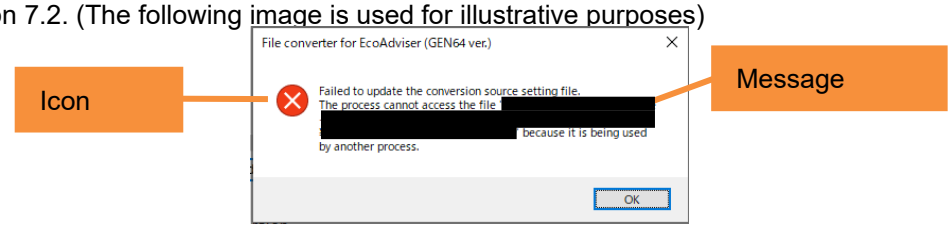
```
C:Mitsubishi\
  EapConverterGen\                          → Application folder
    en\
      Splash.png
    ja\
      EapConverterGen.resources.dll
      Splash.png
    EapConverterGen.exe                     → Executable file for the software
    EapConverterGen.exe.config
```

The necessary files and folders will be created under the application folder, depending on use.
Some of the files and folders created are as follows.

```
EapConverterGen\                            → Application folder
  Config\
    Source.csv
    Collection Source\                      → Collection source folder (file name is the name registered in the software)
      Tag.csv                               → Tag file
  Log\
    Log_yyyy_mm_dd.csv                      → Log file (yyyy-mm-dd format)
  Language.set
```

## 3.2 Error messages

If an error message appears while using the software, perform troubleshooting to address the error message while referring to Section 7.2. (The following image is used for illustrative purposes)



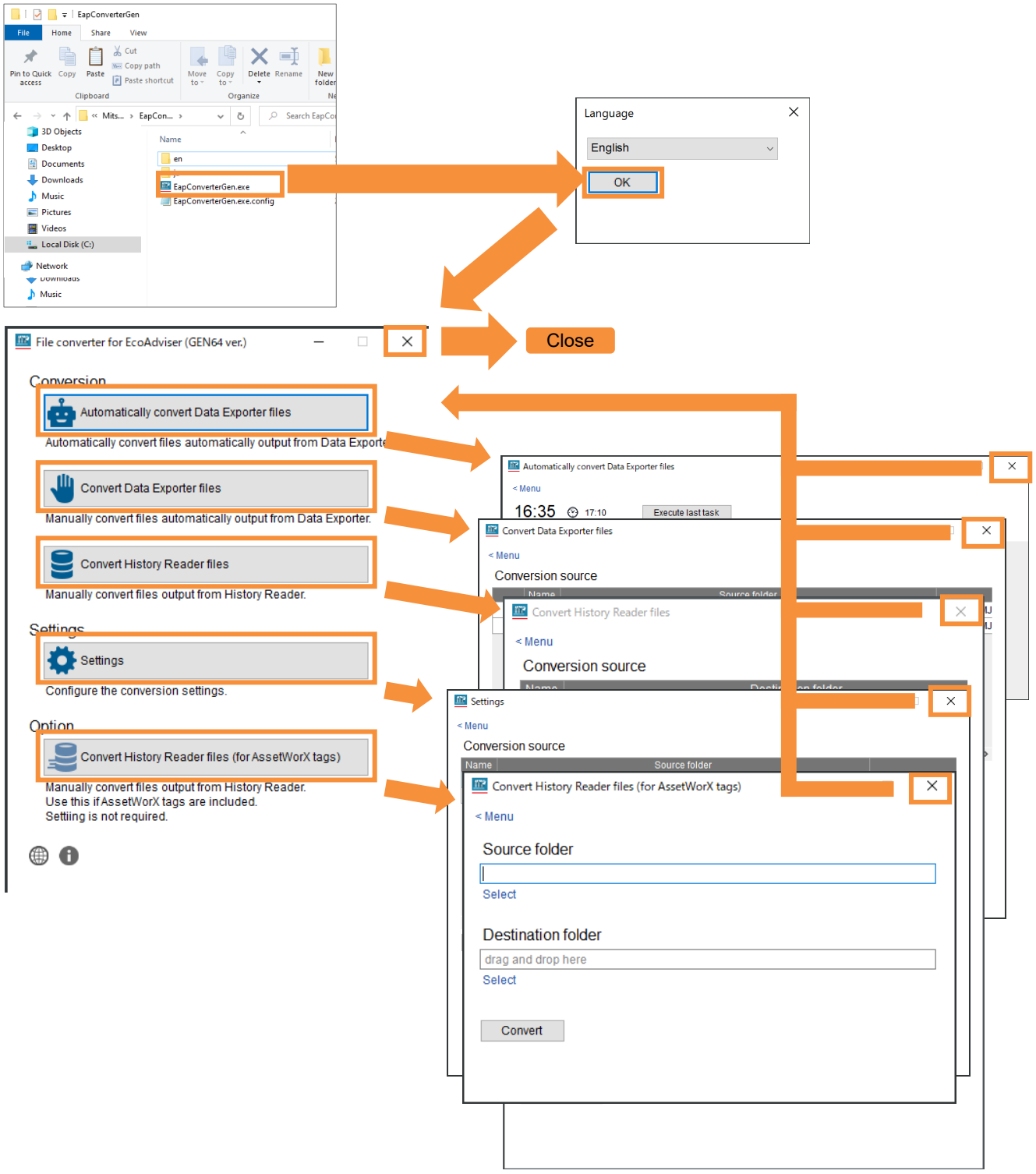
# 4. Basic Operations

## 4.1 Starting and exiting the software

### When starting the software for the first time

Double-click the executable file for the software (EapConverterGen.exe) to start it.
When starting the software for the first time, you will be prompted to select a language.
Click the [x] button on the Menu screen to close it.

✓ You can change the language setting at any time from the Menu screen.

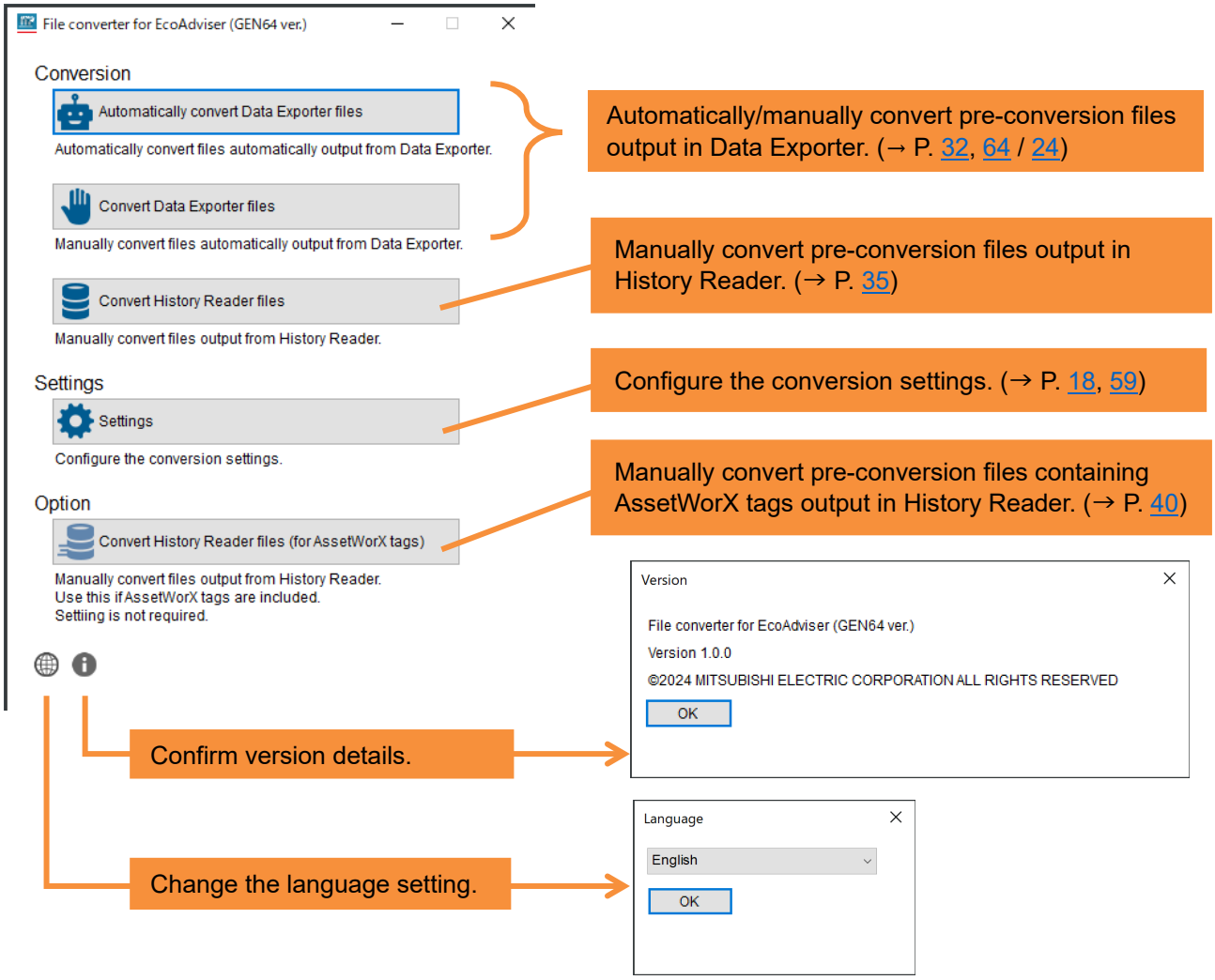


**When starting the software for the second time or later**

When starting the software for the second time or later, the Menu screen will appear while skipping the Language screen prompt.
Click the [x] button on the Conversion screen to close it.

## 4.2 Performing each function

You can perform each function from the Menu screen.



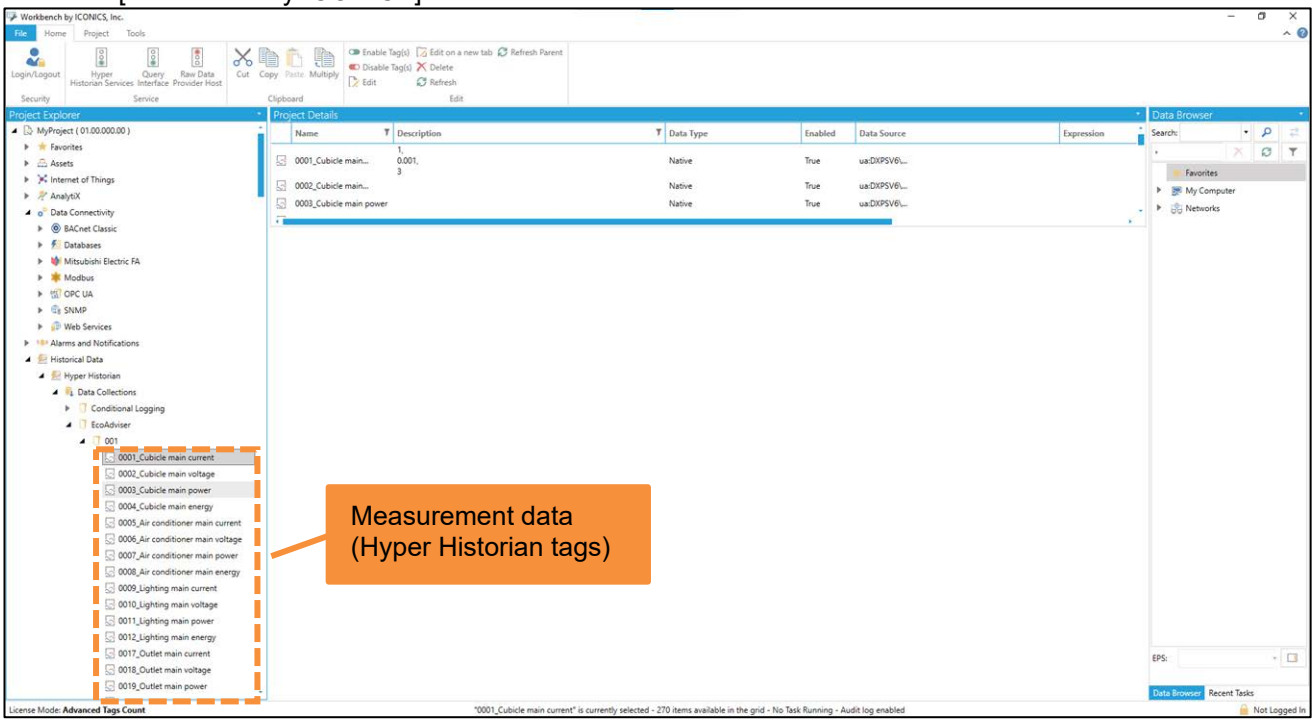
# 5. Using Hyper Historian Tag Data

This section describes the procedure used to convert GENESIS64 (Hyper Historian tag) data and collect it in EcoAdviser.

## 5.1 Preparing a pre-conversion file

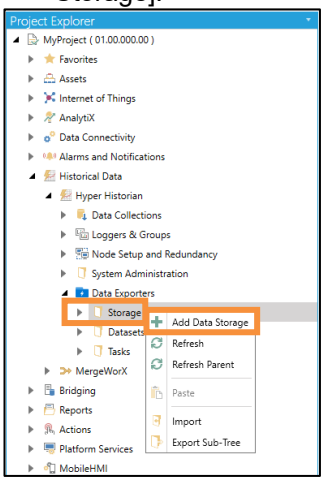
Output collected data from GENESIS64 in CSV format.
To output data, use Data Exporter.
When outputting multiple pre-conversion files, repeat the procedure described in this section (Section 5.1).
Additionally, change the output destination to avoid mixing up pre-conversion files.
*1: After being created for the first time, pre-conversion files are created every hour on the hour, and data is output to the file in one-minute cycles.
*2: The file name and timestamp in the file display the current time converted to UTC format.
The time is adjusted to the time setting on the PC when converting with the conversion tool.

1. Start [Workbench by ICONICS].

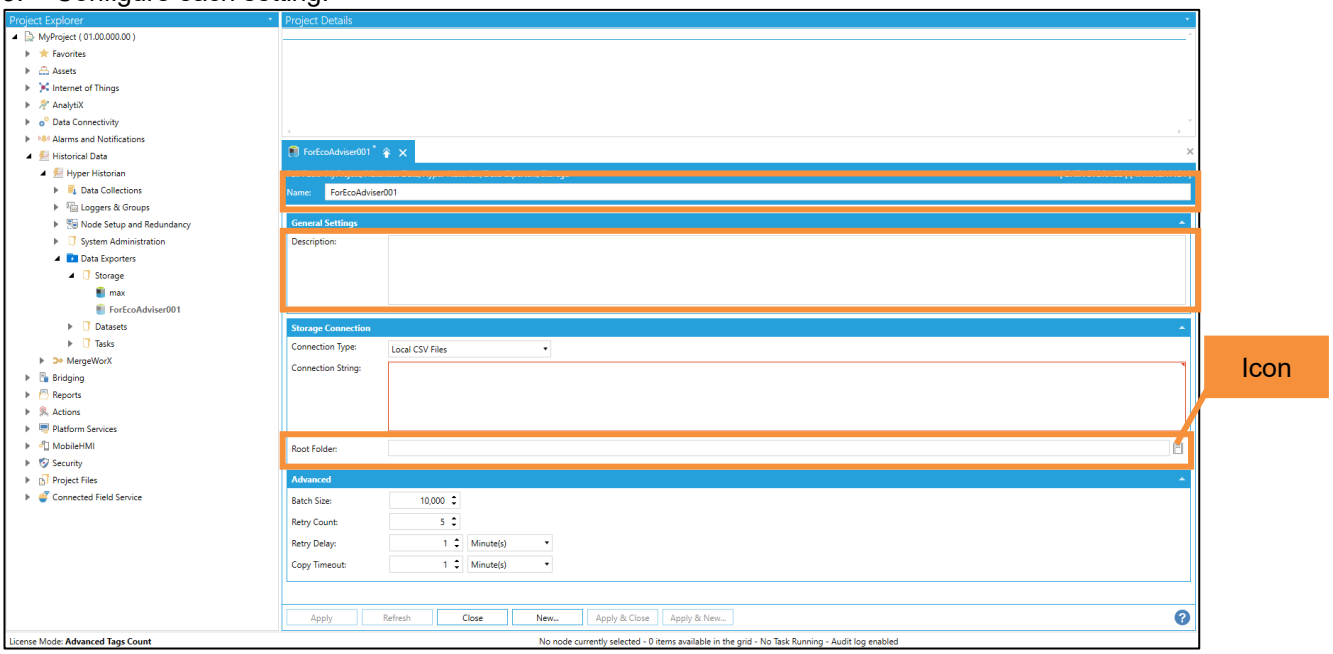



* Tags of output measurement data must be located under [Historical Data > Hyper Historian > Data Collections].

2. Under [Historical Data > Hyper Historian > Data Exporters], right-click [Storage], and then click [Add Data Storage].

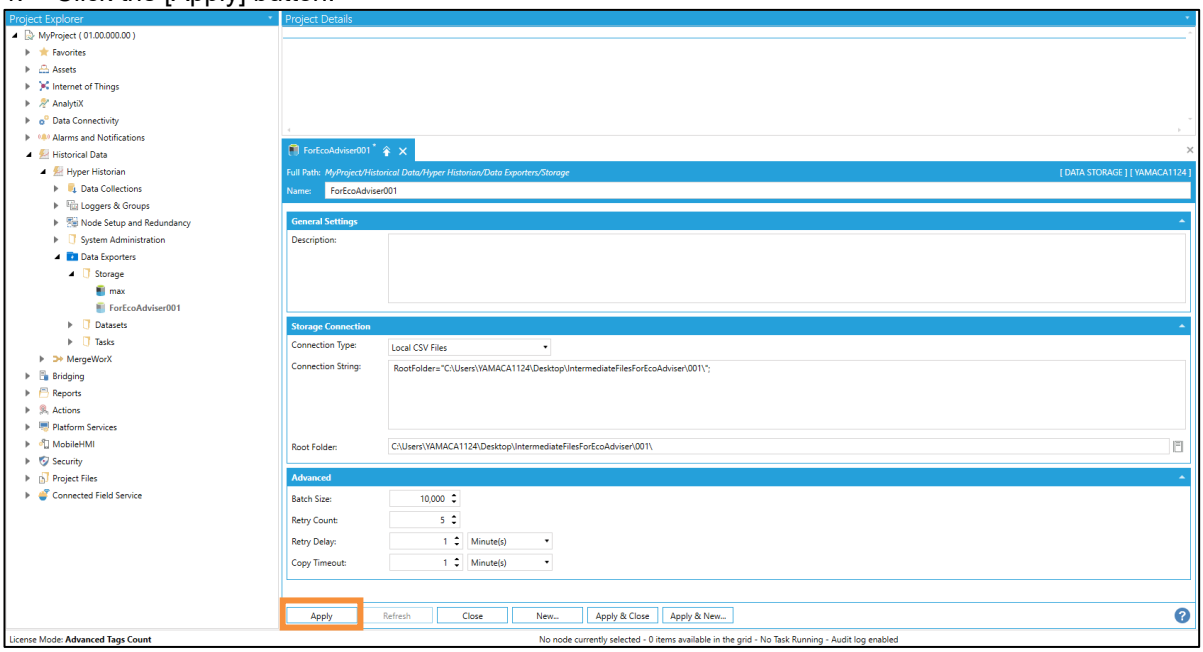


3. Configure each setting.

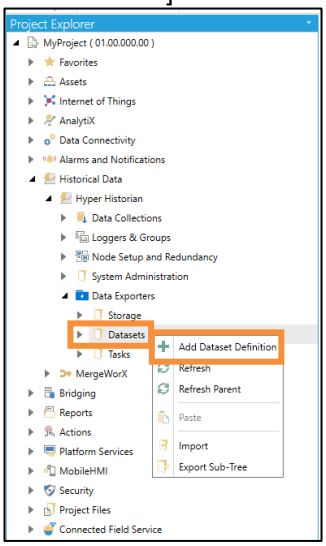



| No. | Item | | Setting |
|---|---|---|---|
| (1) | Name | | The Storage name.<br>Enter any name. |
| (2) | Storage Connection | Connection Type | The destination file format.<br>Select [Local CSV Files]. |
| (3) | | Root Folder | The output destination of pre-conversion files.<br>Click the icon, and then select any folder. |

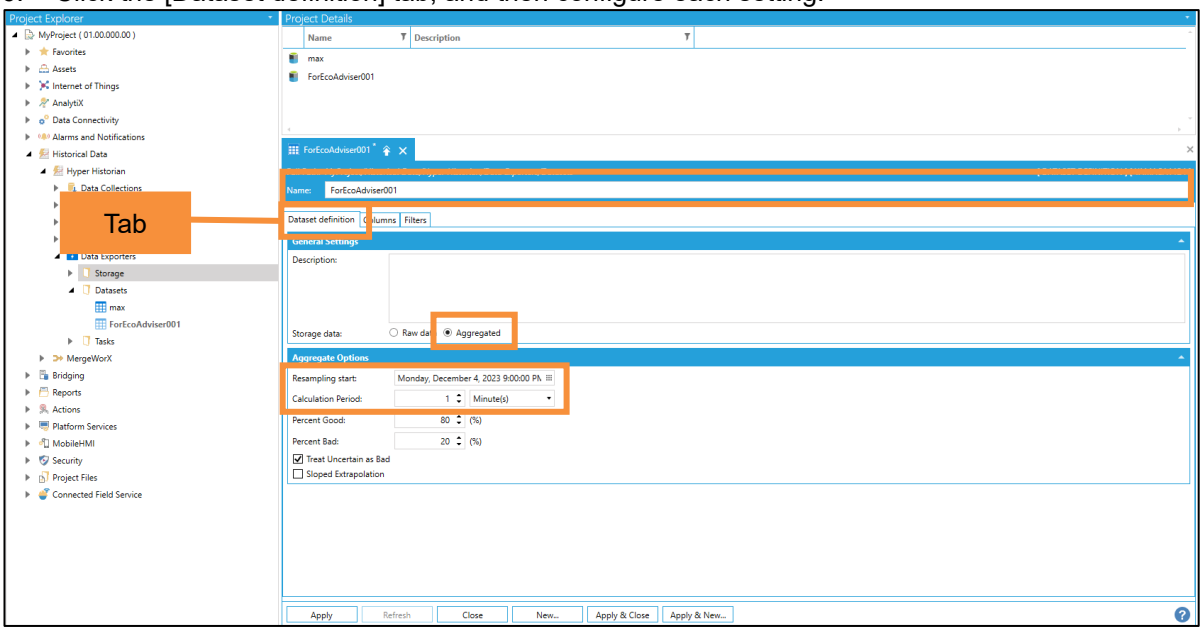
4. Click the [Apply] button.



5. Under [Historical Data > Hyper Historian > Data Exporters], right-click [Datasets], and then click [Add Dataset Definition].

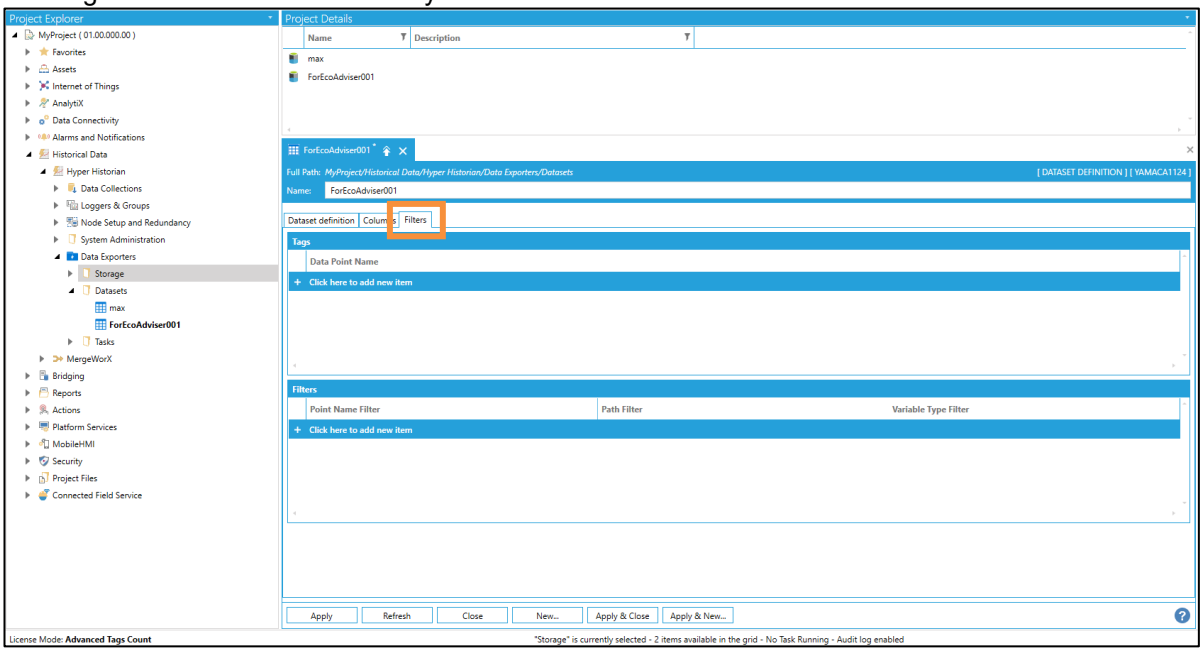



6. Click the [Dataset definition] tab, and then configure each setting.



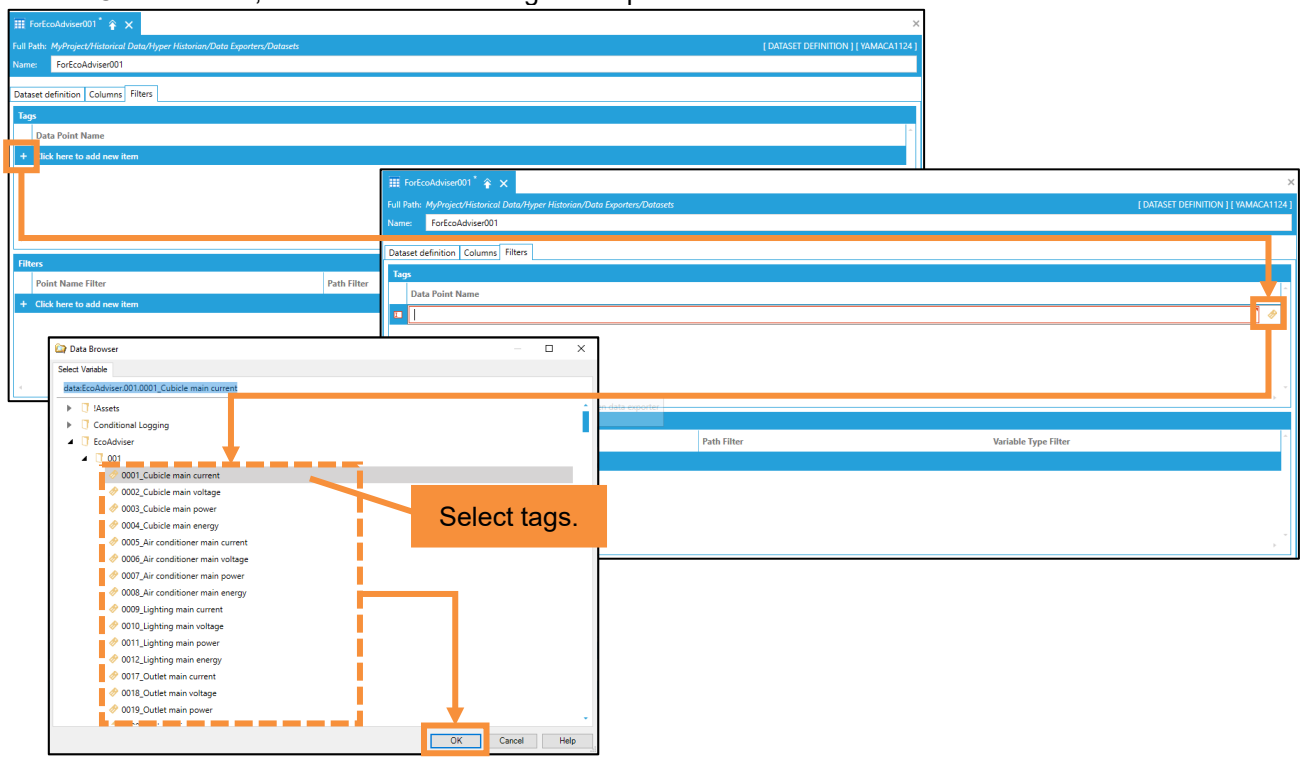

| No. | Item | | Setting |
|---|---|---|---|
| (1) | Name | | The Dataset name.<br>Enter any name. |
| (2) | General Settings | Storage data | The output data setting.<br>Select [Aggregated]. |
| (3) | Aggregate Options | Resampling start | The output data start time.<br>Select one hour before file output starts, on the hour.<br>(Example) If file output starts at 10:00, select 9:00. |
| (4) | | Calculation Period | The data output cycle.<br>Select [1 Minute(s)]. |

7. Click the [Filters] tab, and then set the tags to output.
   Tags can be selected in two ways.

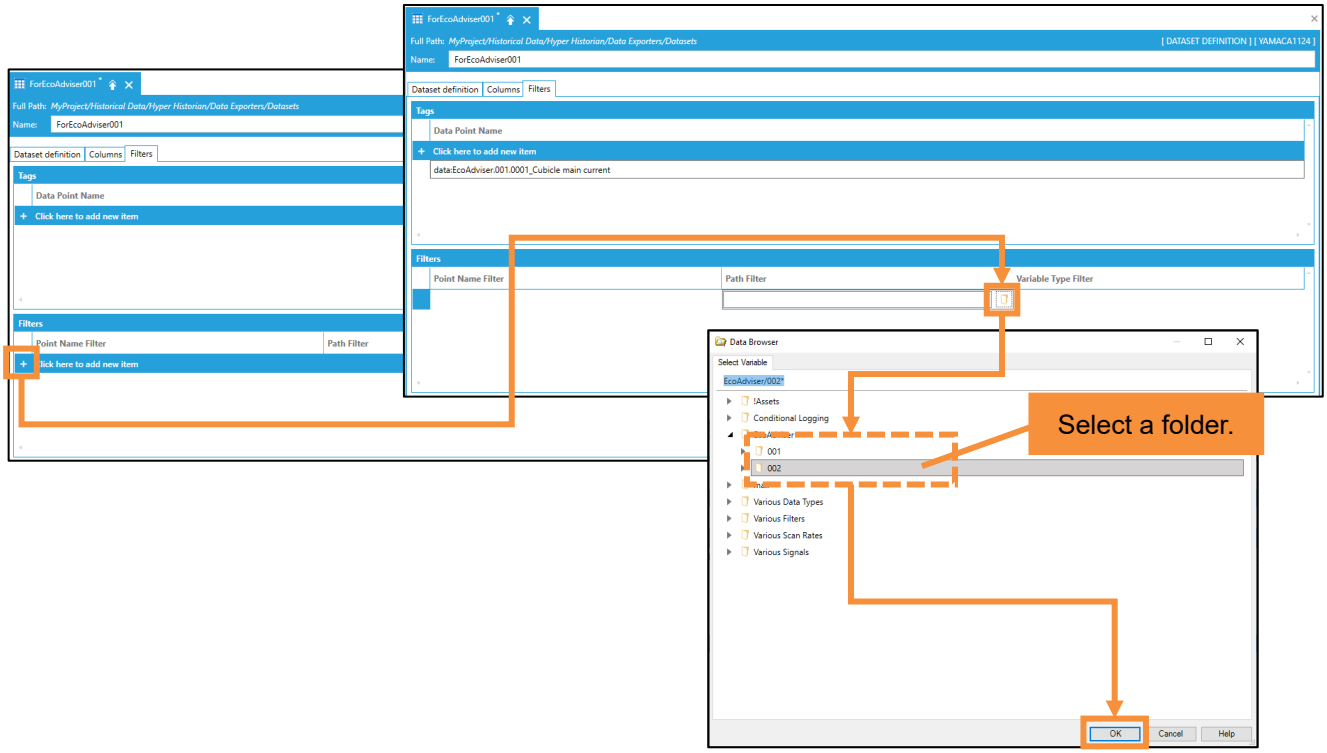



✓ Up to 256 tags can be output.
  To output more than 256 tags, split the pre-conversion file when outputting.
✓ Output tags are registered as the conversion source by pre-conversion file unit.
✓ Mind that tag names are not duplicate in Dataset as it would unable to collect data on EcoAdviser.
  The tag name is set as the converted measurement point name by default.
  Note that tags of different hierarchies will be converted to the same name.

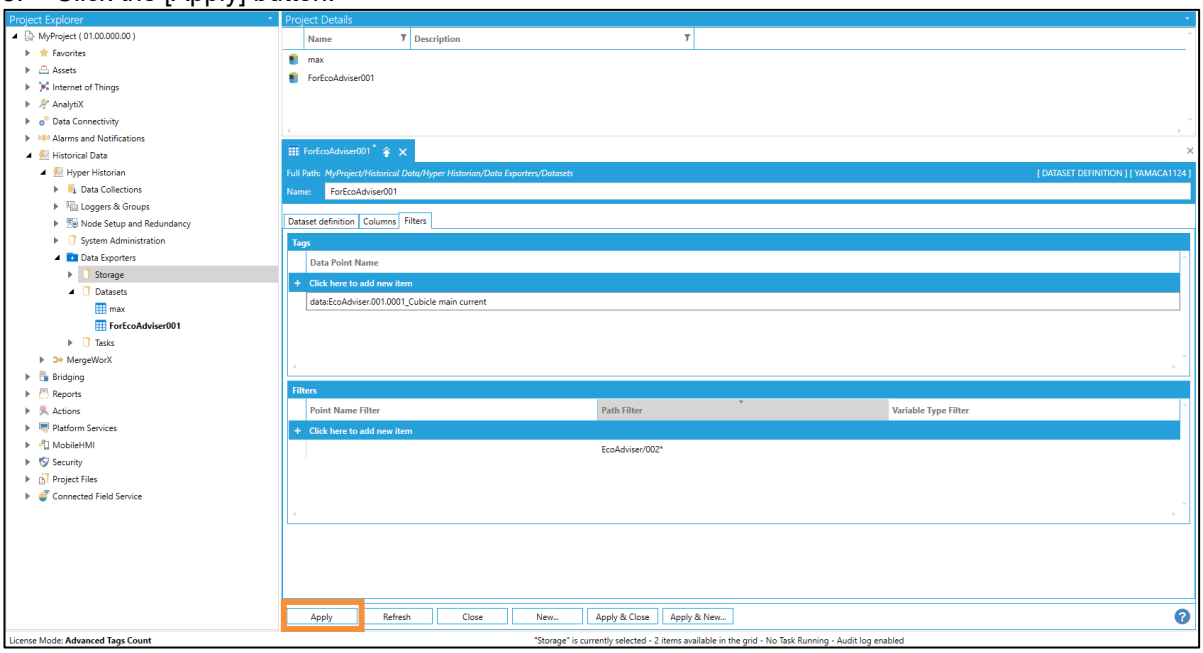
(1) Selecting one tag at a time
Under [Tags], click [+].
Click the icon, and then select the tags to output.



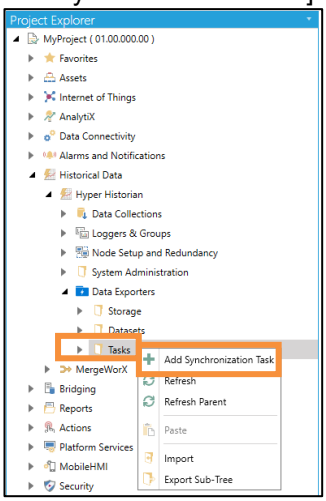

(2) Batch selecting tags contained in a hierarchy
Under [Filters], click [+].
Click the icon, and then select the hierarchy.



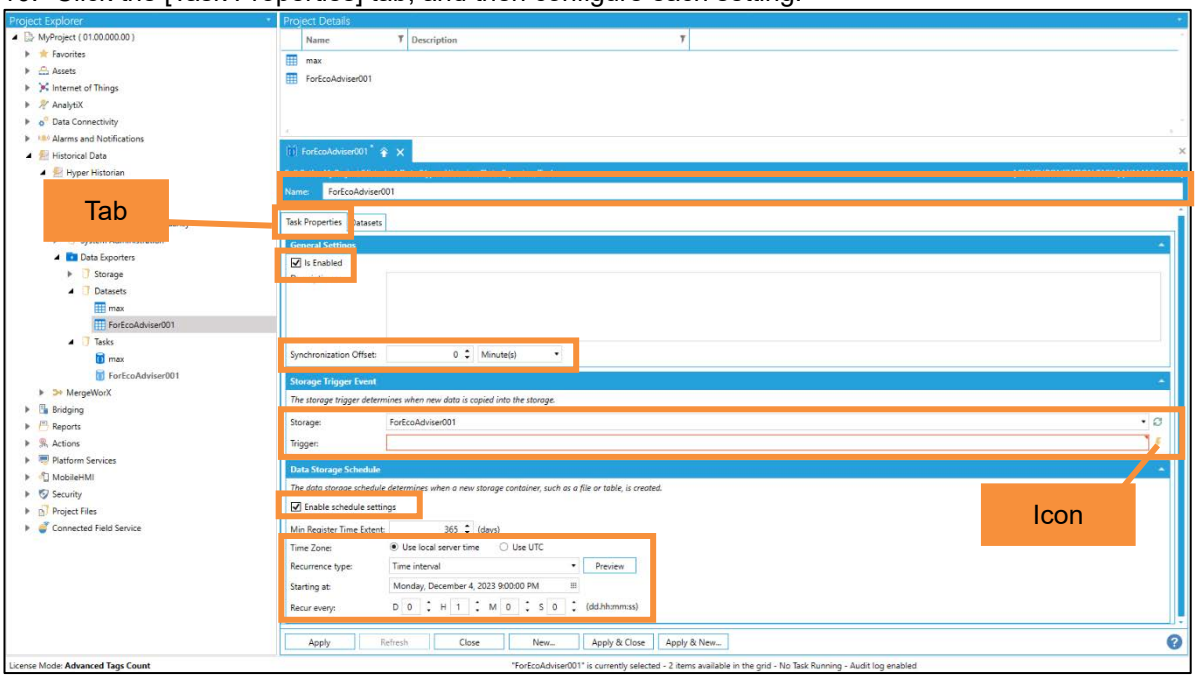
8. Click the [Apply] button.




9. Under [Historical Data > Hyper Historian > Data Exporters], right-click [Tasks], and then click [Add Synchronization Task].

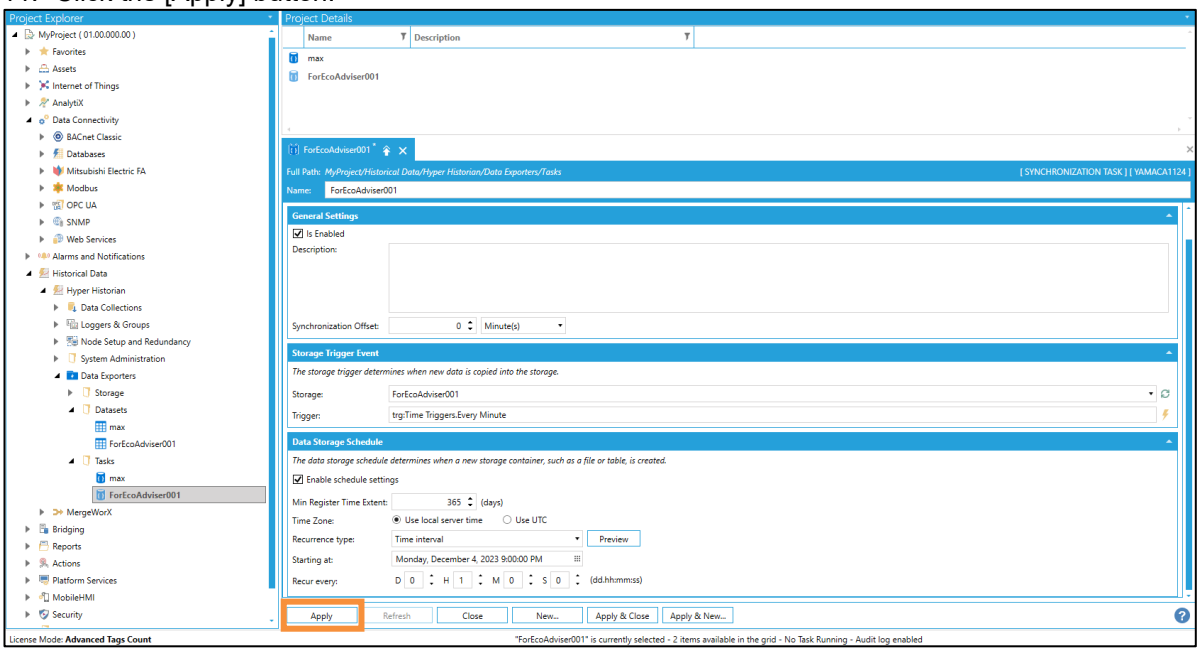


10. Click the [Task Properties] tab, and then configure each setting.

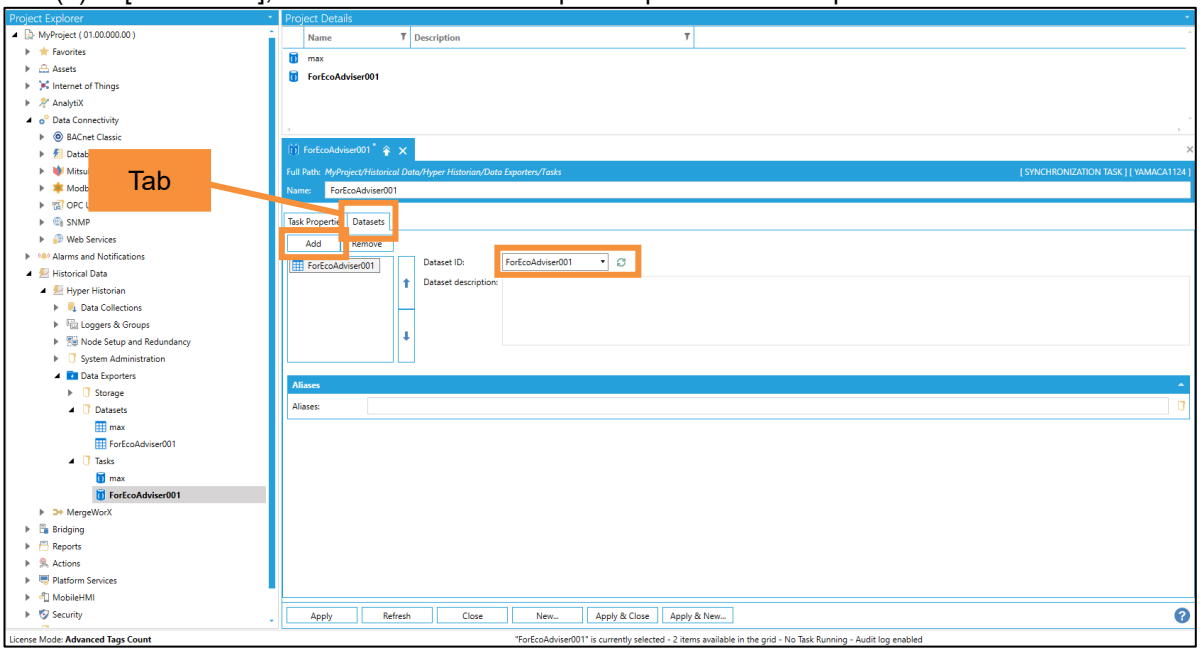



| No. | Item | | Setting |
|---|---|---|---|
| (1) | Name | | The Task name. Enter any name. |
| (2) | General Settings | Is Enabled | The setting to enable/disable the Task. Select this check box. |
| (3) | | Synchronization Offset | The synchronization offset from the current time. Select [0 Minute(s)]. |
| (4) | Storage Trigger Event | Storage | The target Storage.<br>Select the Storage set up in steps 2 to 4 of this procedure. |
| (5) | | Trigger | The time at which data is copied to Storage.<br>Click the icon, and then navigate from [My computer > Actions > Triggers > Date/Time Triggers] to select [Every Minute]. |
| (6) | Data Storage Schedule | Enable schedule settings | The setting to enable/disable the schedule. Select this check box. |
| (7) | | Time Zone | The time zone. Select [Use local server time]. |
| (8) | | Recurrence type | The recurrence setting. Select [Time interval]. |
| (9) | | Starting at | The Task start time.<br>Select one hour before file output starts, on the hour.<br>(Example) If file output starts at 10:00, select 9:00. |
| (10) | | Recur every | The Task recurrence cycle.<br>Select [0.1:00:00(D:0 H:1 M:0 S:0)]. |

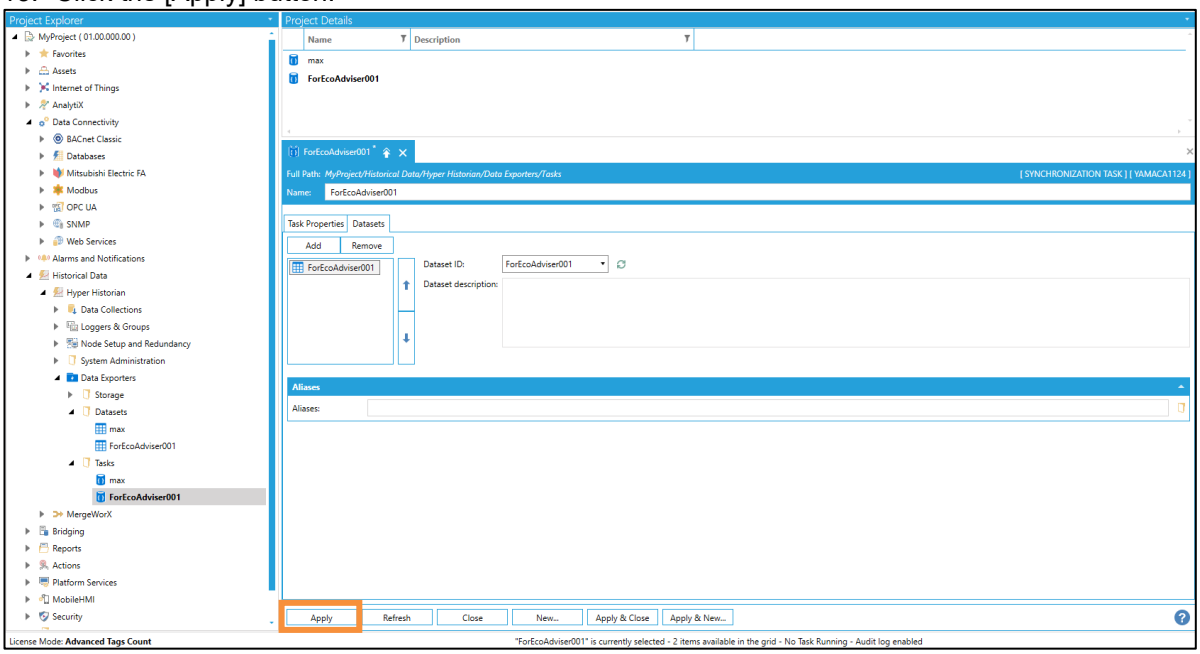
11. Click the [Apply] button.



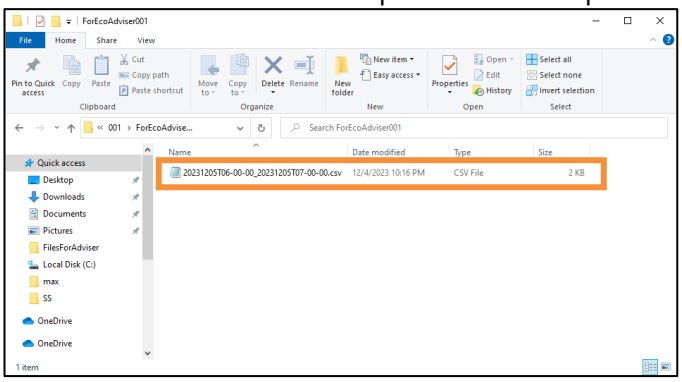

12. Click the [Datasets] tab, and then configure the target Dataset.
    (1) Click the [Add] button.
    (2) In [Dataset ID], select the Dataset set up in steps 5 to 8 of this procedure.



13. Click the [Apply] button.



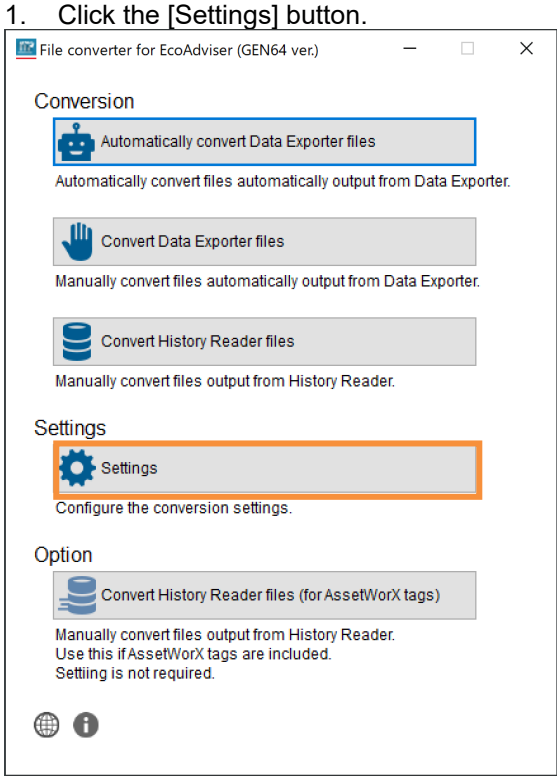

14. Confirm that the pre-conversion file is output one minute later.
    Pre-conversion files are output to the folder specified in step 3 (3) of this procedure.



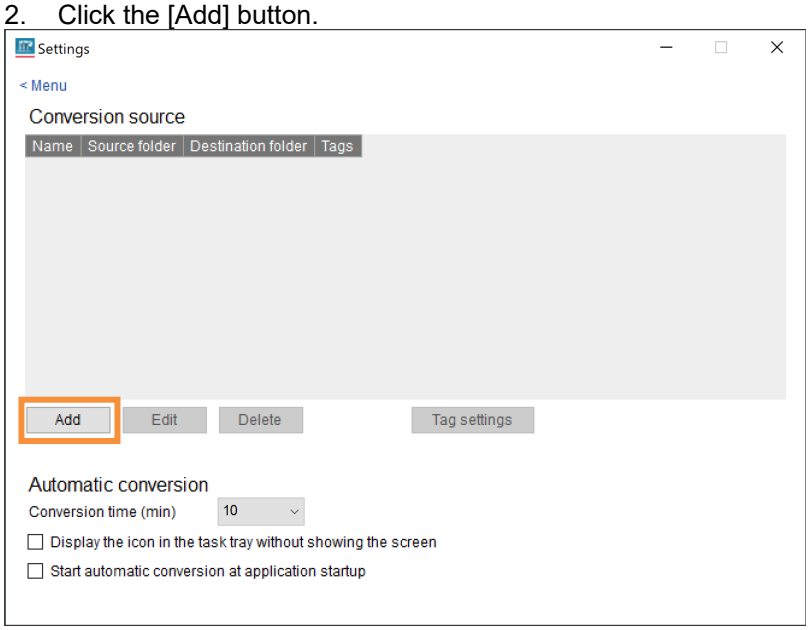
## 5.2 Setting the conversion source

Register the conversion source with the software.

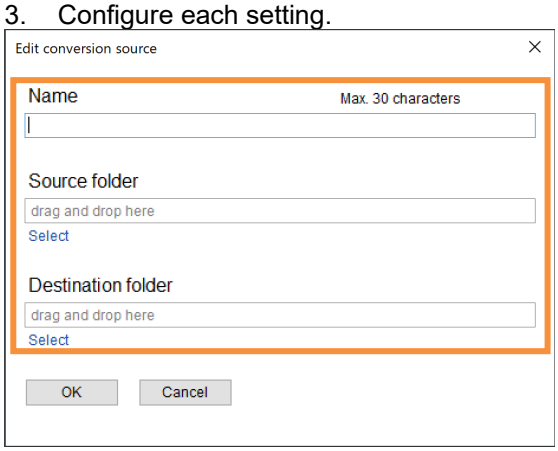
1. Click the [Settings] button.




2. Click the [Add] button.

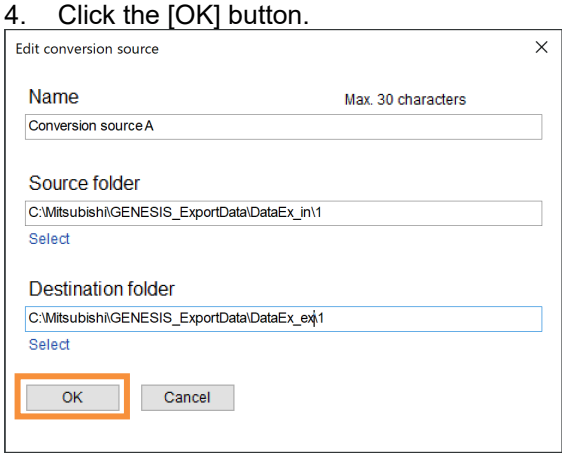


3. Configure each setting.




| Item | Setting |
|---|---|
| Name | Enter the name of the conversion source to manage in the software.<br>Max. character length: 30 characters<br>Prohibited characters: Single-byte symbols (\ / : * ? “ < > \|) |
| Source folder | Select a folder to save the pre-conversion file to.<br>Click [Select], and then select the folder.<br>You can also drag and drop the folder from Explorer to select it. |
| Destination folder | Select a folder to save the converted data file to.<br>This is data folder path selected when registering the collection source in EcoAdviser.<br>Click [Select], and then select the folder.<br>You can also drag and drop the folder from Explorer to select it. |

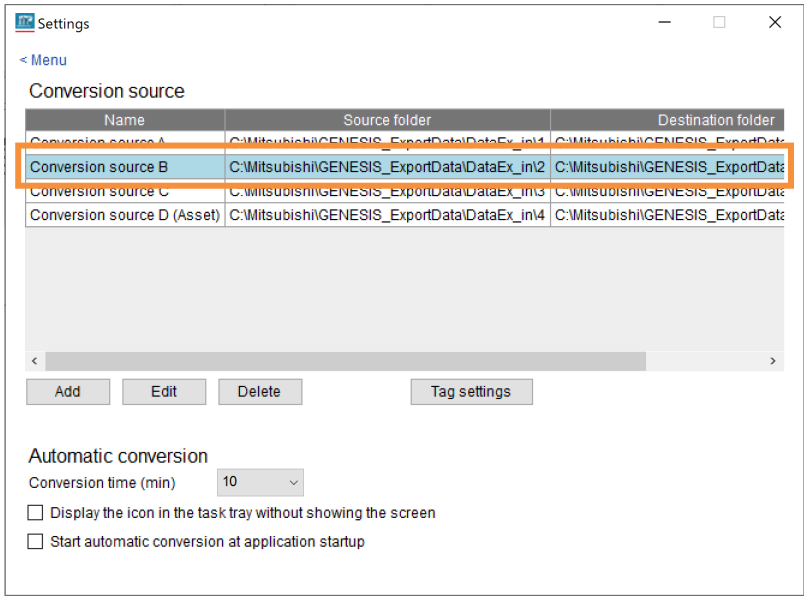
4. Click the [OK] button.



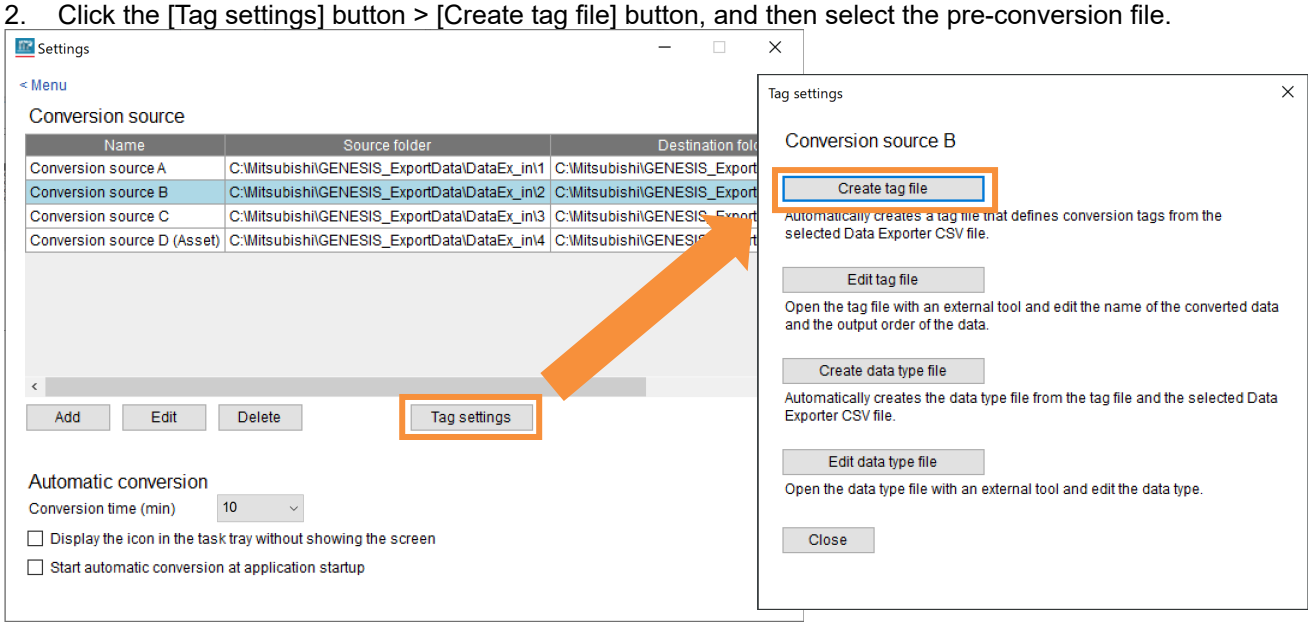
## 5.3 Creating a tag file

This creates a file that records the correspondence between the pre-conversion name (the GENESIS64 tag name) and the post-conversion name (the name of the measurement point registered in EcoAdviser).
This is required when converting data files.

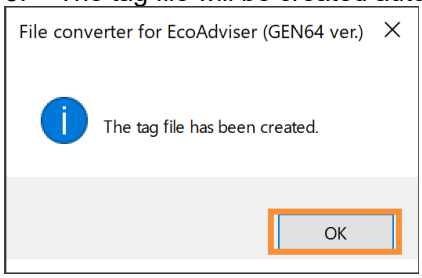
1. Select conversion source



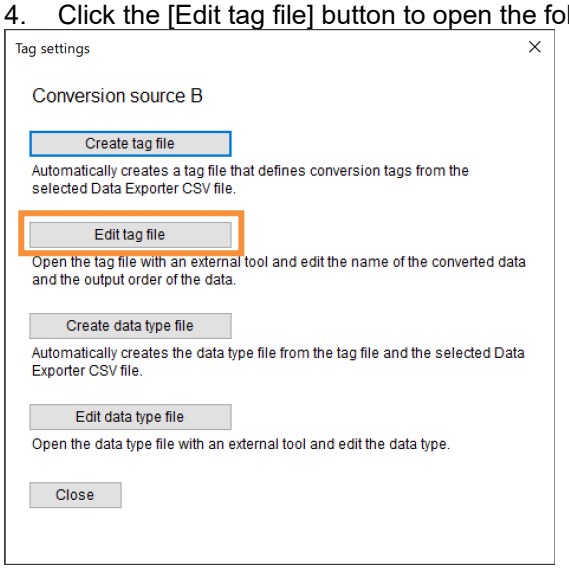

2. Click the [Tag settings] button > [Create tag file] button, and then select the pre-conversion file.




3. The tag file will be created automatically. Click the [OK] button to close the message.

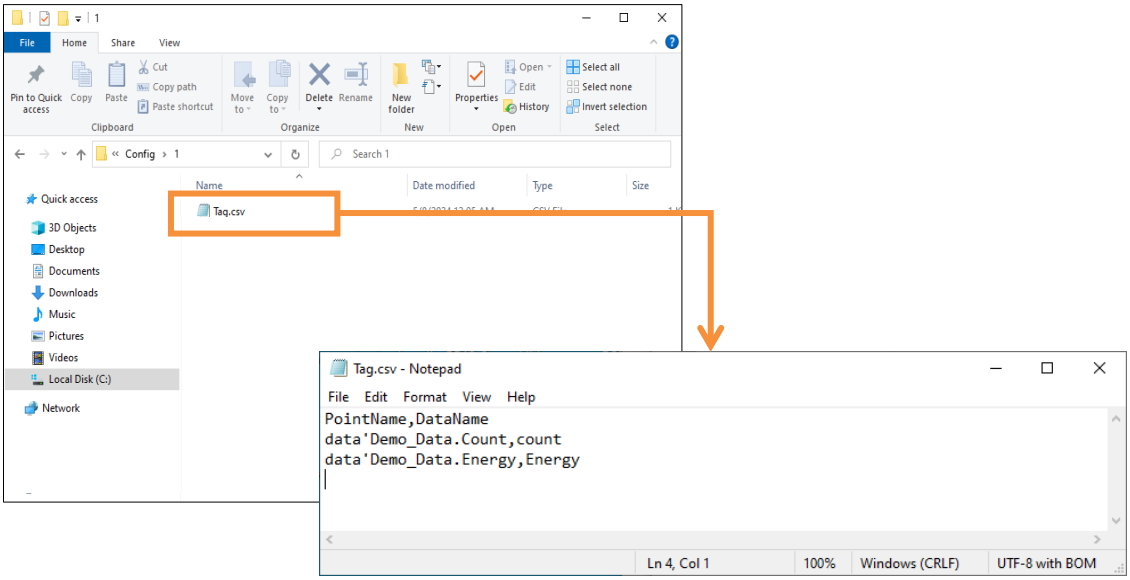


4. Click the [Edit tag file] button to open the folder where the tag file is located.




5. Open the tag file in a text editor (e.g. Notepad), and edit it as described in the table below.

✓ Enter in CSV format. (Enter “,” (comma) between columns.)
✓ Enter text in single-byte alphanumeric characters. Do not use “,” (commas) in column entries.
✓ The tag name will be used for the post-conversion name by default.
✓ “n” is used to represent the number of measurement data items to be converted. Up to 256 data items can be converted.



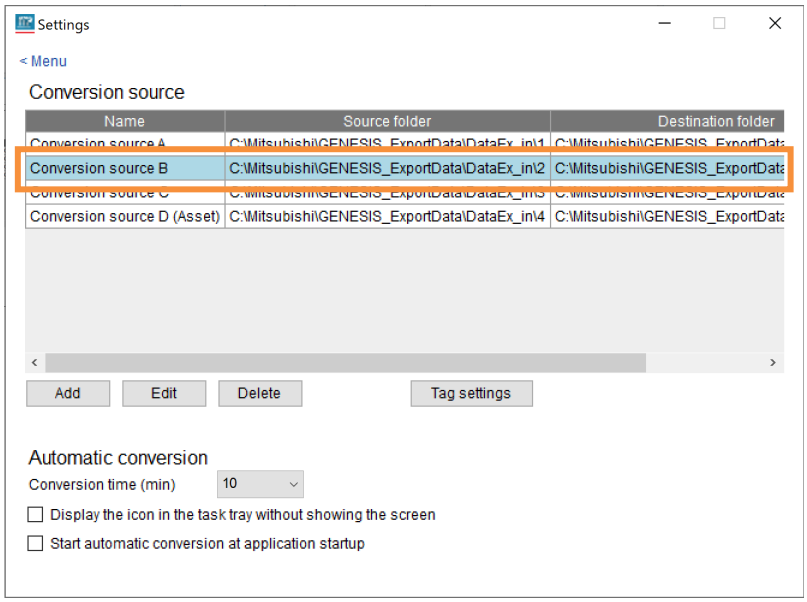

| | | Column 1 | Column 2 |
|---|---|---|---|
| Row 1 | Example | PointName | DataName |
| | Remarks | Do not change. | |
| Row 2 | Example | Data: Trend1-Pen1 | Name1 |
| | Remarks | Do not change. | Enter the name of the converted data for measurement data 1. *1 |
| Row 3 | Example | Data: Trend1-Pen2 | Name2 |
| | Remarks | Do not change. | Enter the name of the converted data for measurement data 2. *1 |
| ⋮ | | | |
| Row n+1 | Example | Data: Trend1-Pen n | Name n |
| | Remarks | Do not change. | Enter the name of the converted data for measurement data n. *1 |

*1: Registered as the name of the measurement point in EcoAdviser. The maximum character length is 30 characters.
If the tag names of GENESIS64 are duplicate, change DataName so it will avoid duplication in measuring point names on EcoAdviser.

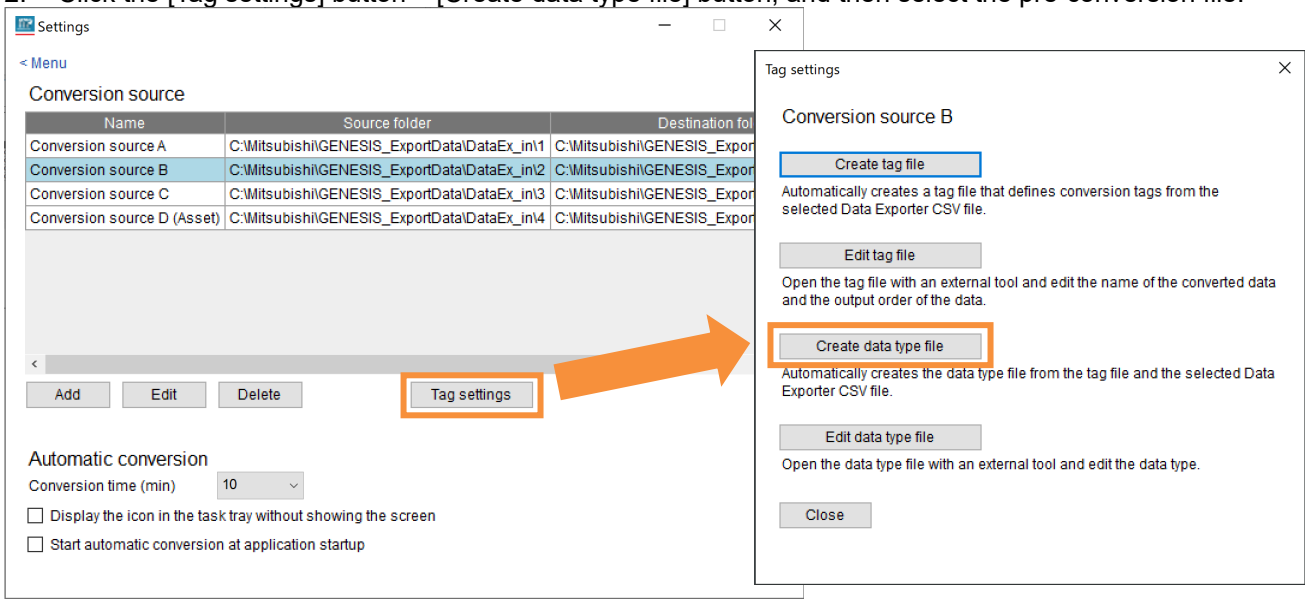
## 5.4 Creating a data type file

Create a data type file using Notepad or another text editor.

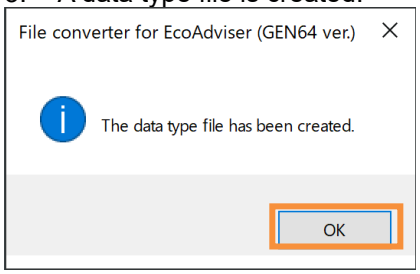
1. Select conversion source



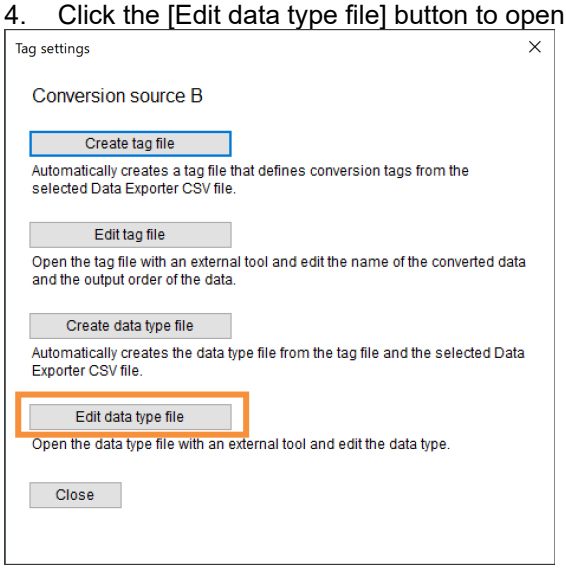

2. Click the [Tag settings] button > [Create data type file] button, and then select the pre-conversion file.




3. A data type file is created.

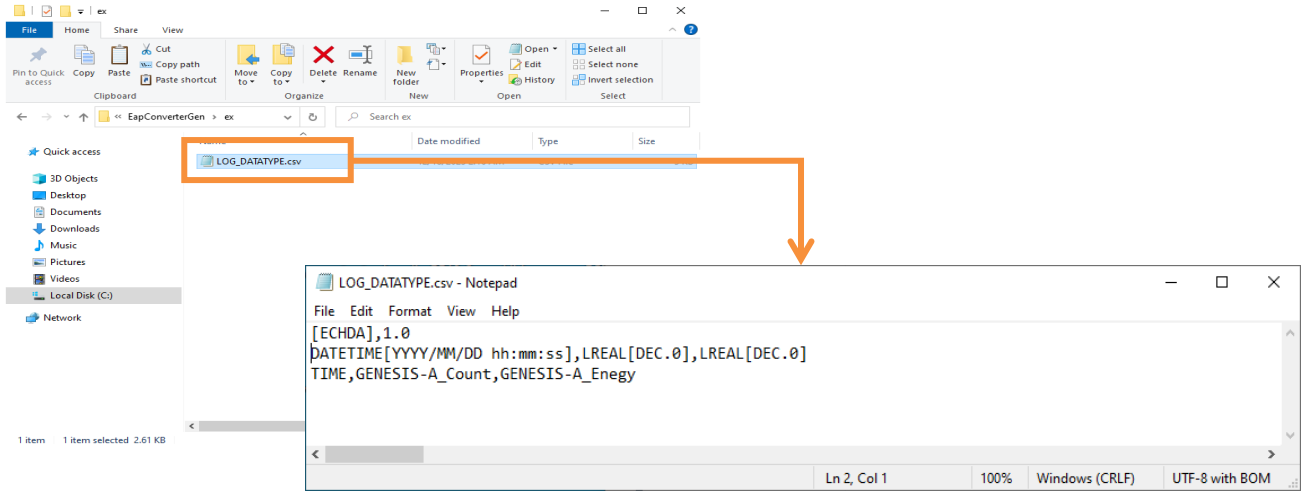


4. Click the [Edit data type file] button to open the save destination for the data type file.




5. Open the data type file in a text editor (e.g. Notepad), and edit the data type of each measurement point as necessary.

✓ Enter text in single-byte alphanumeric characters. Do not use "," (commas) in column entries.
✓ [LREAL] will be entered for the data type by default.
✓ "n" is used to represent the number of measurement points to be converted. Up to 256 points can be converted.



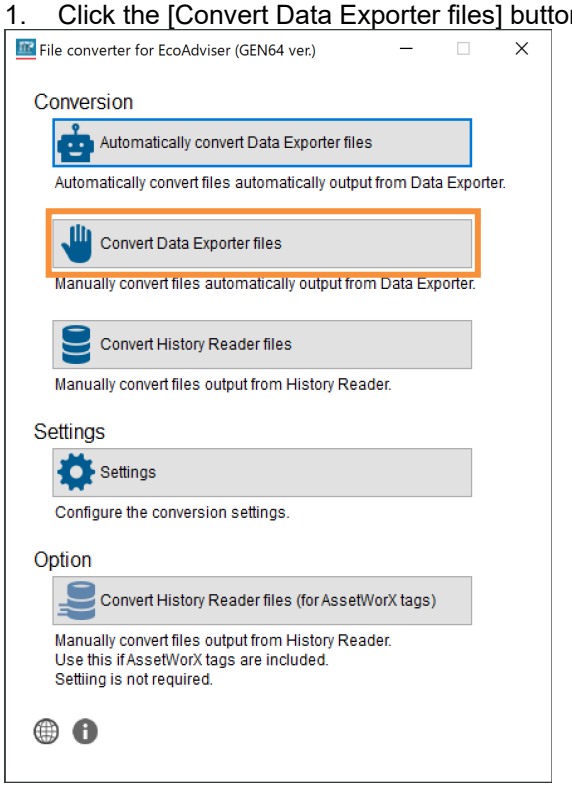

| | | | Column 1 | Column 2 | Column 3 | ... | Column n+1 |
|---|---|---|---|---|---|---|---|
| Row 1 | Example | | [ECHDA] | 1.0 | | ... | |
| | Remarks | | Do not change. | | | | |
| Row 2 | Example | | DATETIME [YYYY/MM/DD_hh:mm:ss] | LREAL [DEC.0] | LREAL [DEC.0] | | LREAL [DEC.0] |
| | Remarks | | Do not change. | The data type of measurement point 1. Edit this to match the actual data type. | The data type of measurement point 2. Edit this to match the actual data type. | ... | The data type of measurement point n. Edit this to match the actual data type. |
| Row 3 | Example | | TIME(+09:00) | Name1 | Name2 | | Name n |
| | Remarks | | Do not change. | Do not edit. *1 | Do not edit. *1 | | Do not edit. *1 |

*1: The name of each measurement point. This is automatically set to the name entered in the tag file.

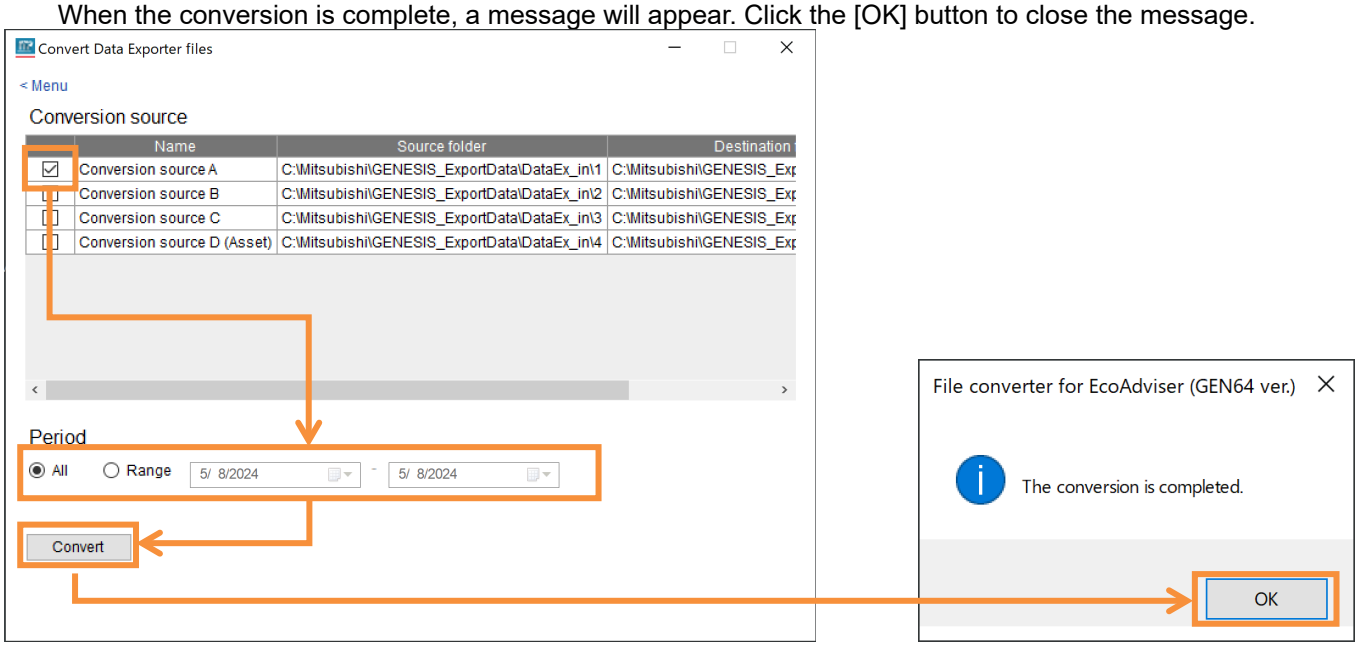
## 5.5 Manual conversion (conversion test)

Perform a manual conversion, and confirm that data is converted properly.

1. Click the [Convert Data Exporter files] button.




2. Select the conversion source, and the period for converting the pre-conversion files, and then click the [Convert] button.
   When the conversion is complete, a message will appear. Click the [OK] button to close the message.

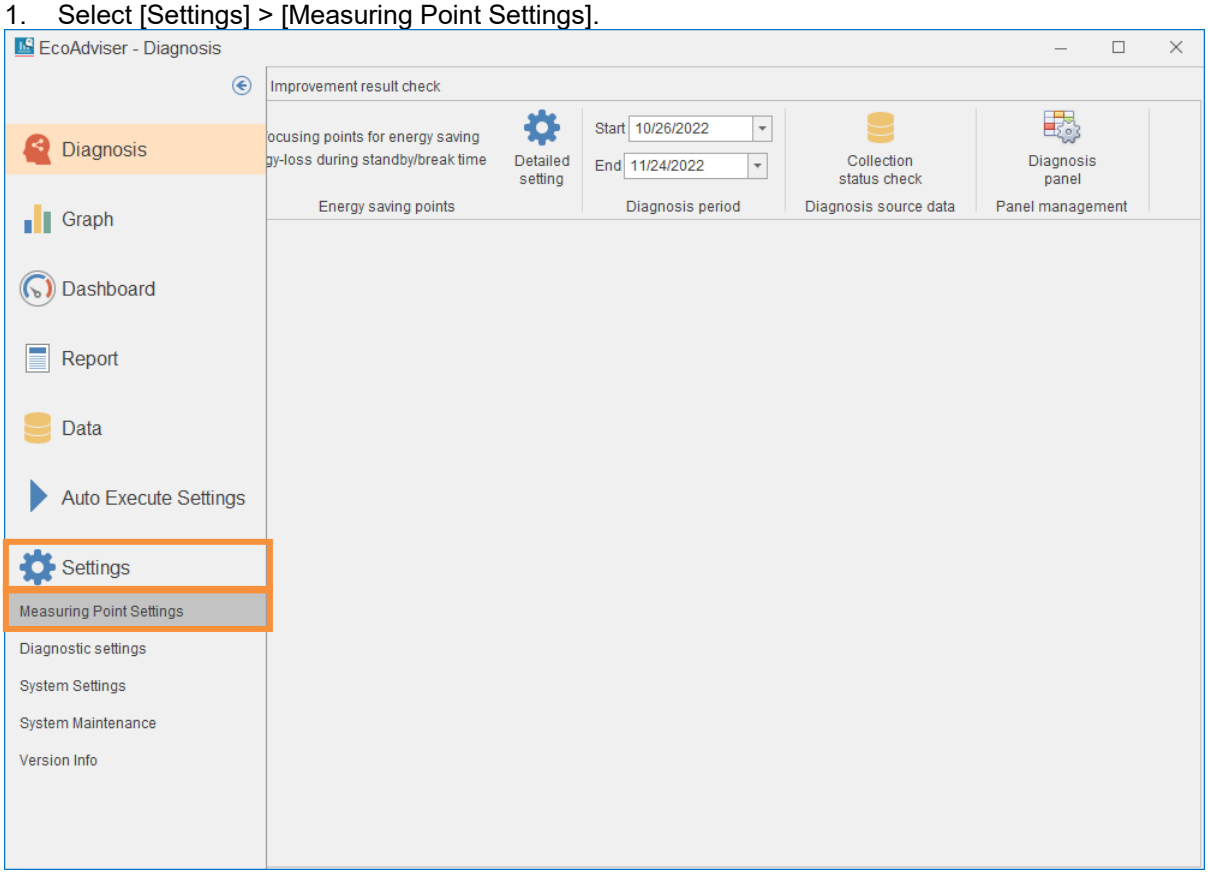



3. Open the output file, and confirm that it has been converted properly.
   If data to be converted is added, or if measurement points are misnamed, or if there are other conversion errors, edit the tag file and the data type file.
   Correctly converted files are required when registering with EcoAdviser.
   When editing a tag file, perform the manual conversion (conversion test) process again.

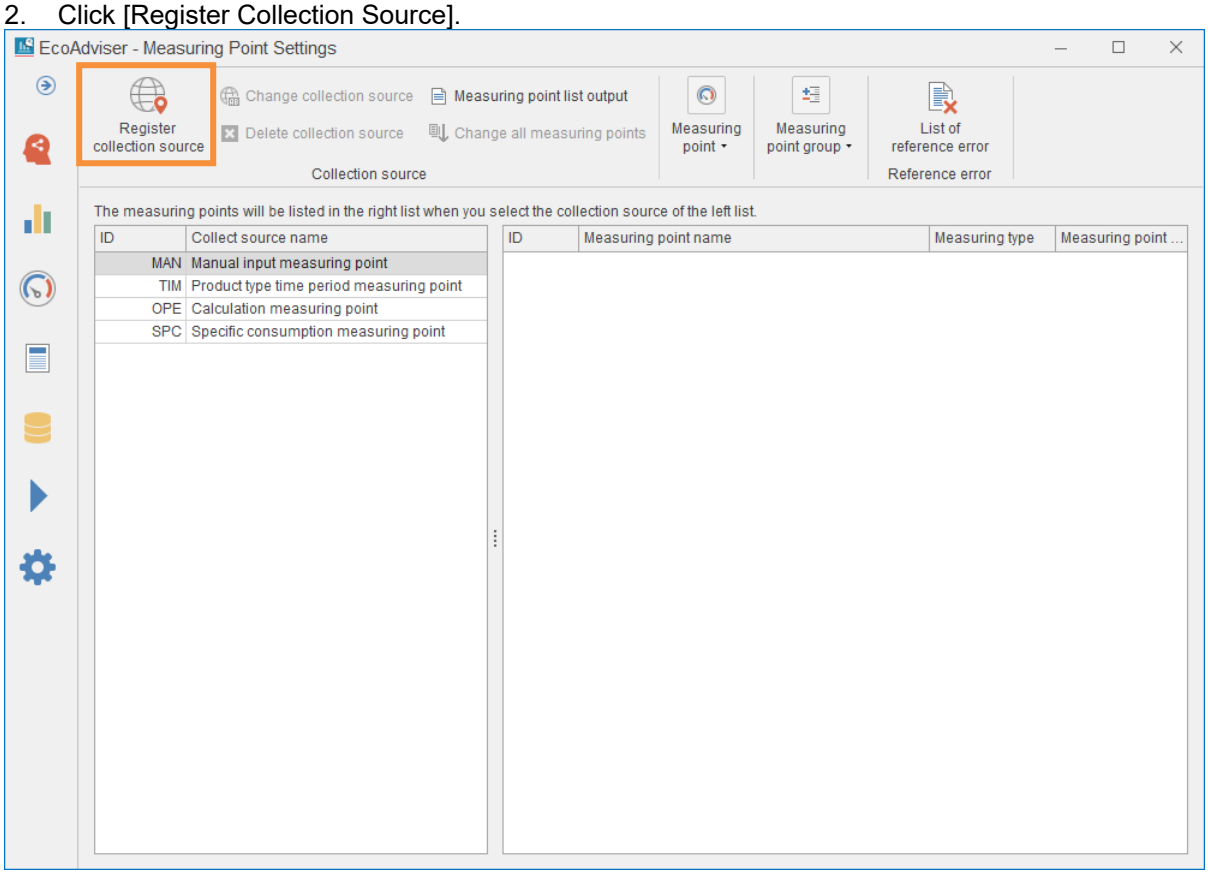
## 5.6 Registering with EcoAdviser

This section describes an EcoAdviser operating procedure.
Register the collection source and measurement points with EcoAdviser.

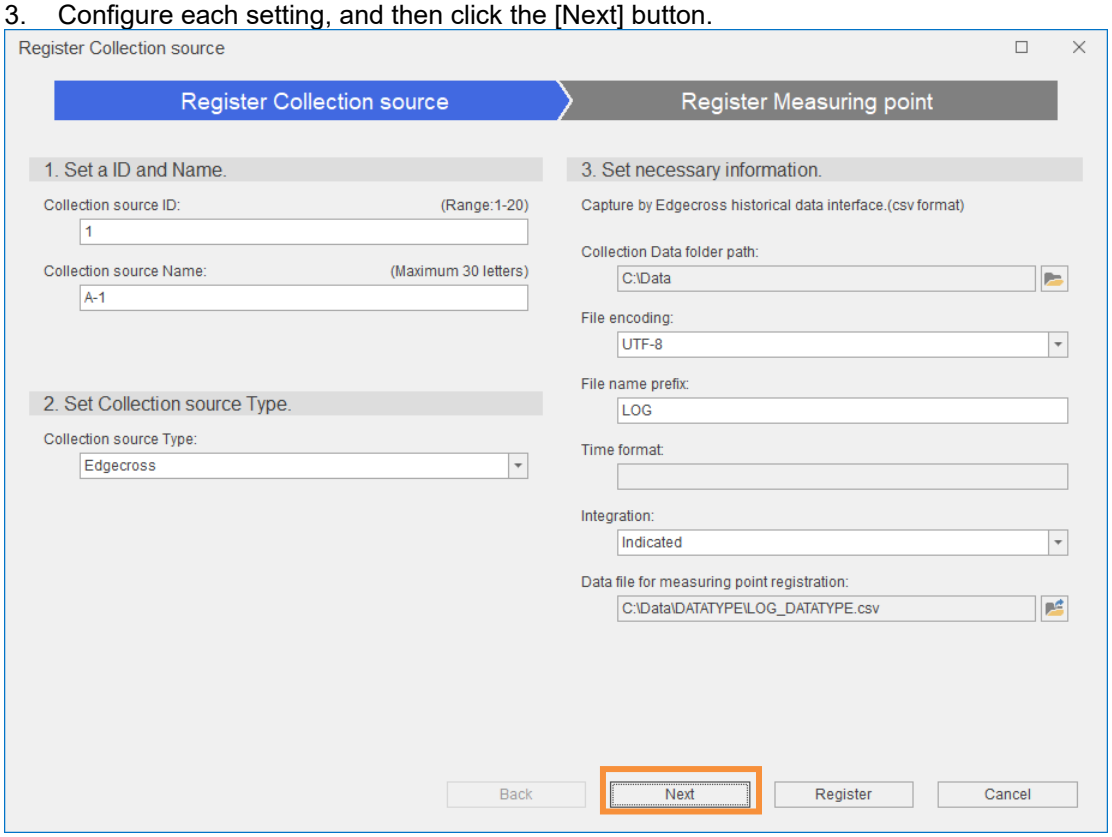
1. Select [Settings] > [Measuring Point Settings].




2. Click [Register Collection Source].

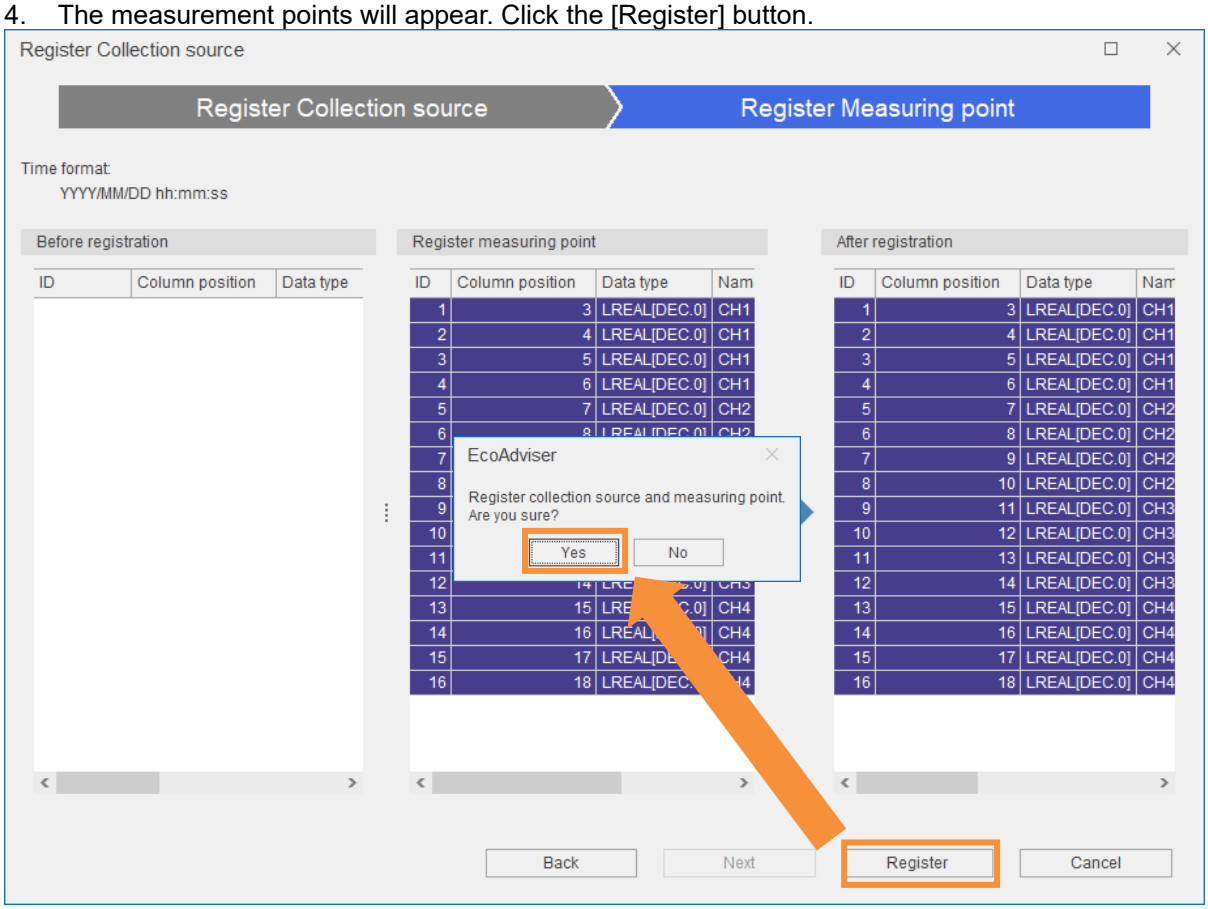


3. Configure each setting, and then click the [Next] button.

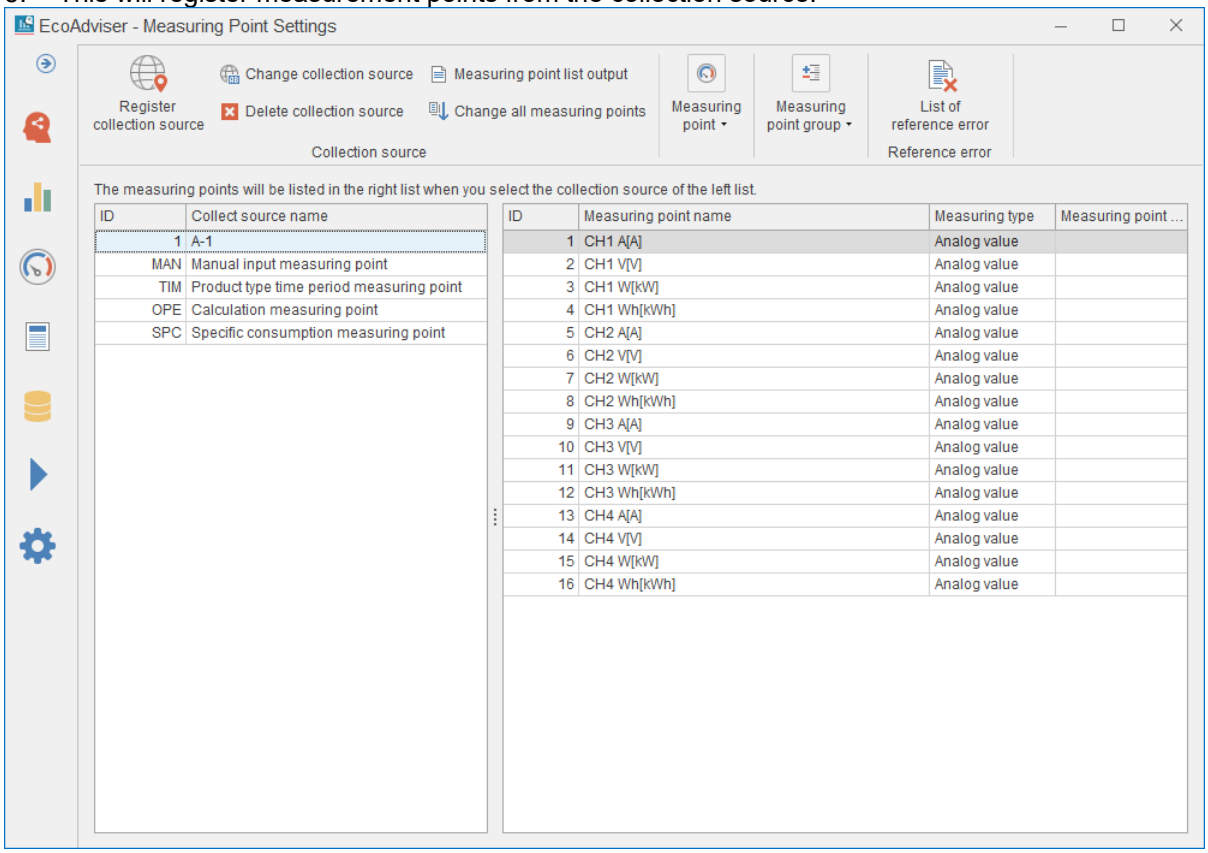



| Item | Settings |
|---|---|
| Collection source ID | Enter any ID. |
| Collection source Name | Enter any name. |
| Collection source Type | Select “Edgecross”. |
| Collection Data folder path | Select the destination folder of the File converter. |
| File encoding | Select “UTF-8”. |
| File name prefix | Enter “LOG”. |
| Integration | Select “Indicated”. |
| Data file for measuring point registration | Automatically set from [Collection Data folder path] and [File name prefix]. |

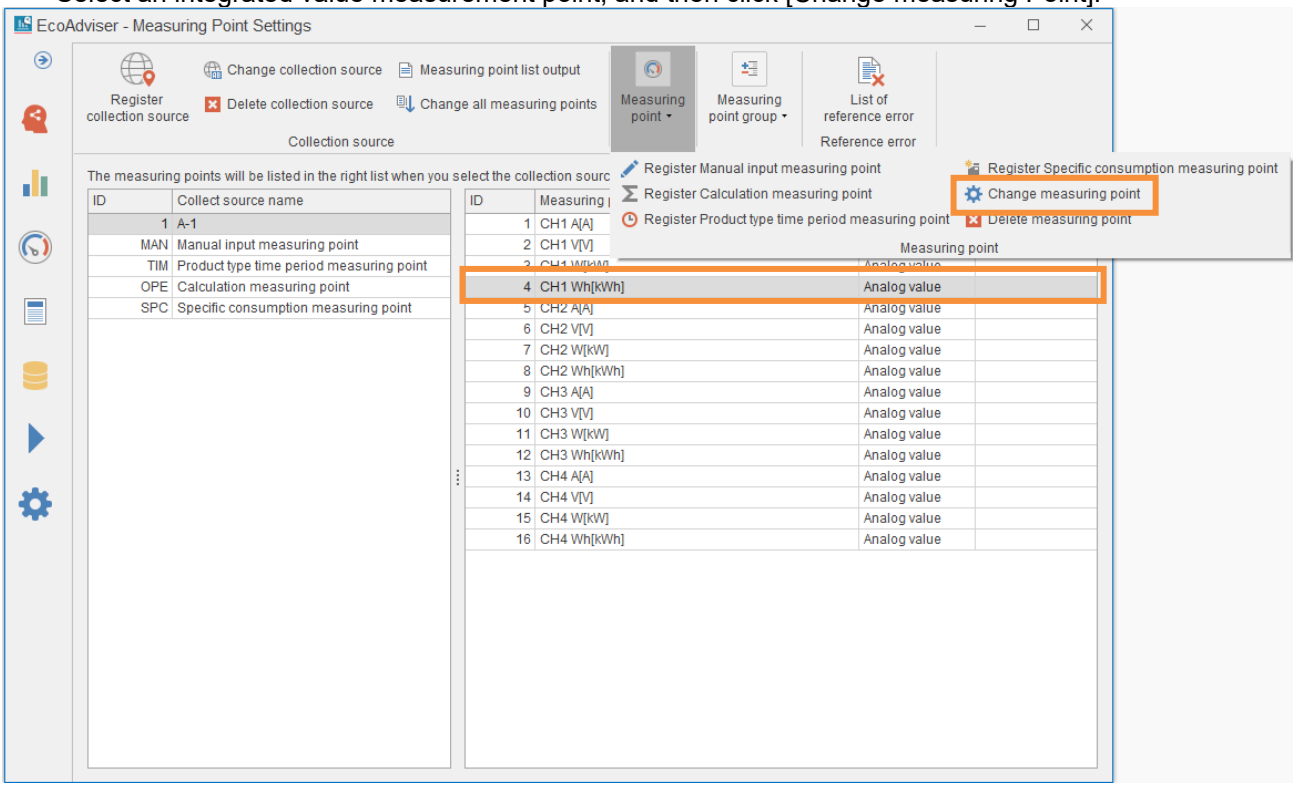
4. The measurement points will appear. Click the [Register] button.



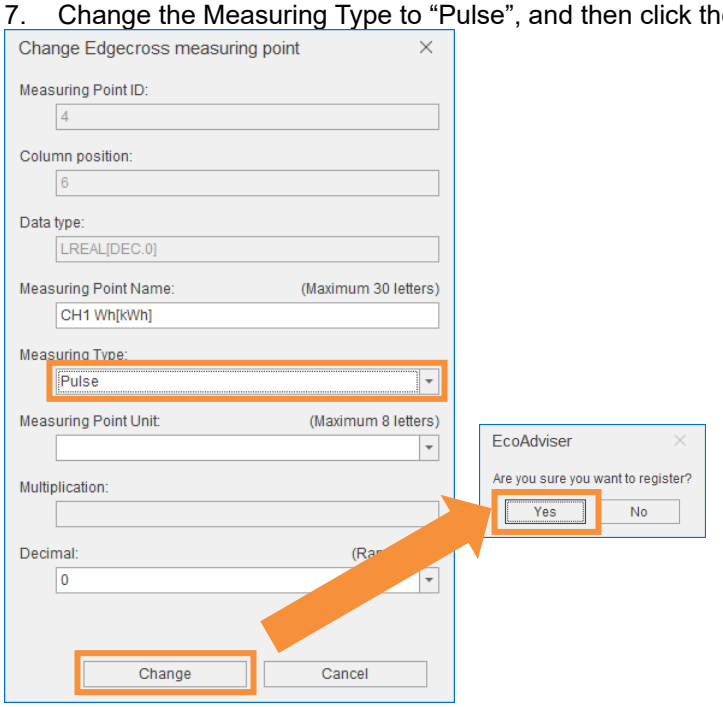

5. This will register measurement points from the collection source.



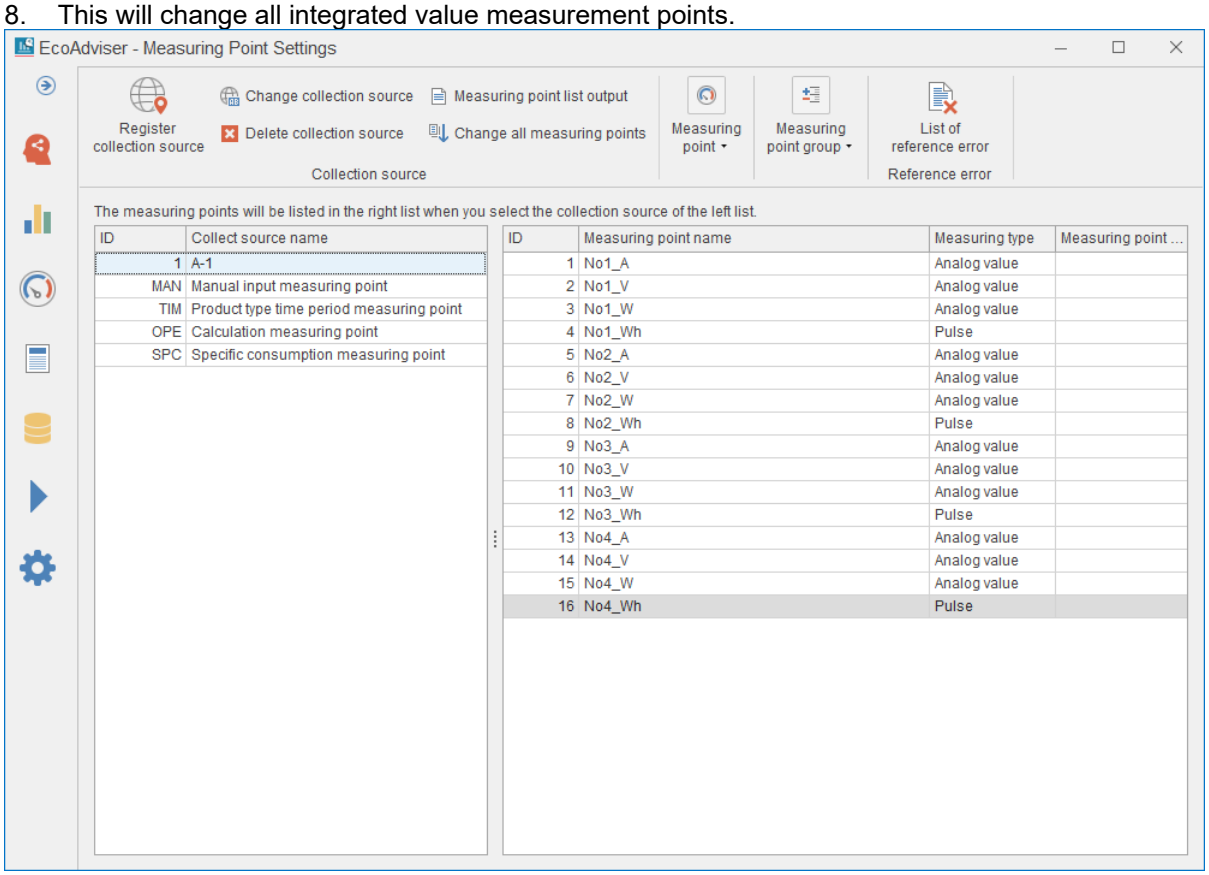
6. The measurement type will be registered as “Analog value”. Therefore, change the measurement type of integrated value measurement points to “Pulse”.
   Select an integrated value measurement point, and then click [Change measuring Point].




7. Change the Measuring Type to “Pulse”, and then click the [Change] button.



8. This will change all integrated value measurement points.




**Change of all measurement points**

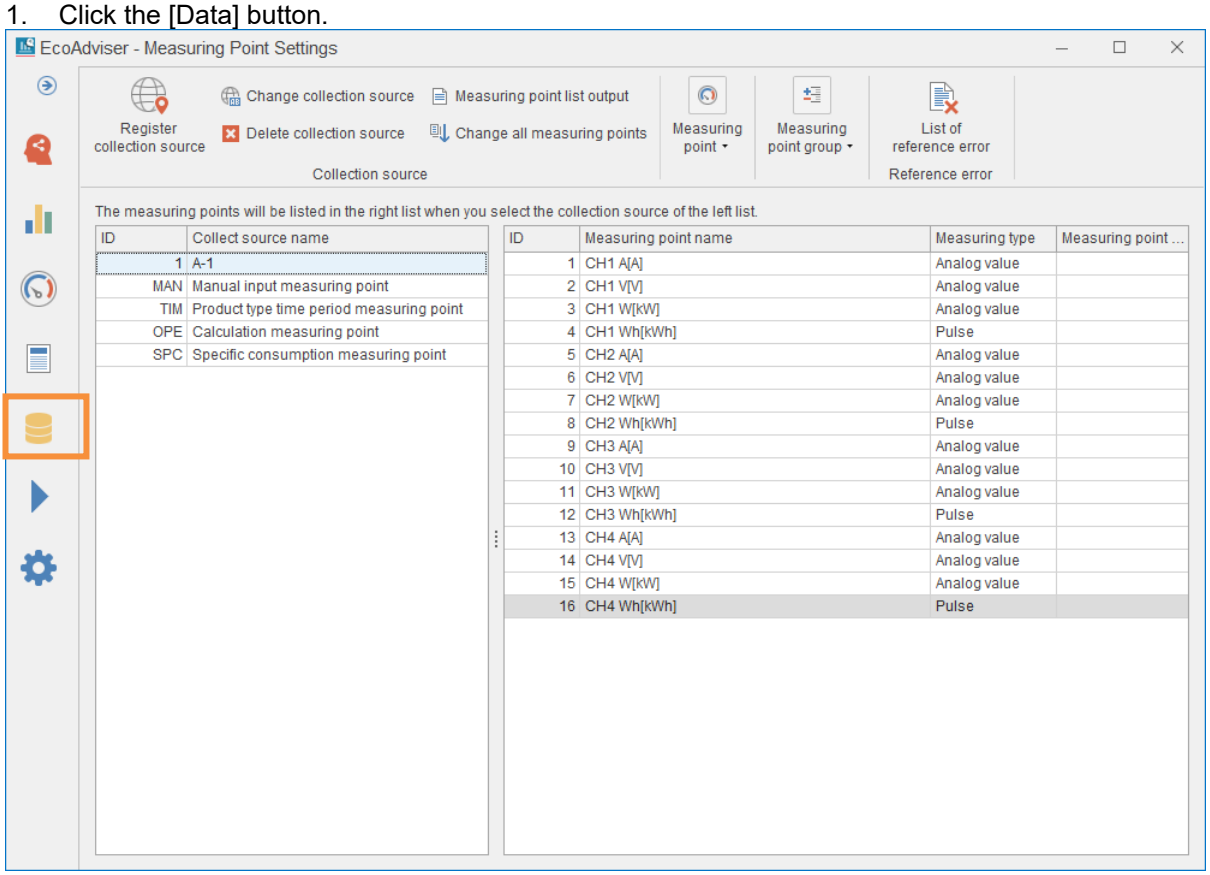
If there are a large number of integrated value measurement points, you can make changes to them all at once using the procedure below.

1) Click the [Measuring point list output] button to output the measurement point list file.
2) Open the measurement point list file, and then change the measurement type from 2 (Analog value) to 1 (Pulse) for integrated value measurement points.
3) This will overwrite the measurement point list file.
4) Click the [Change all measuring points] button, and then specify the edited measurement point list file.

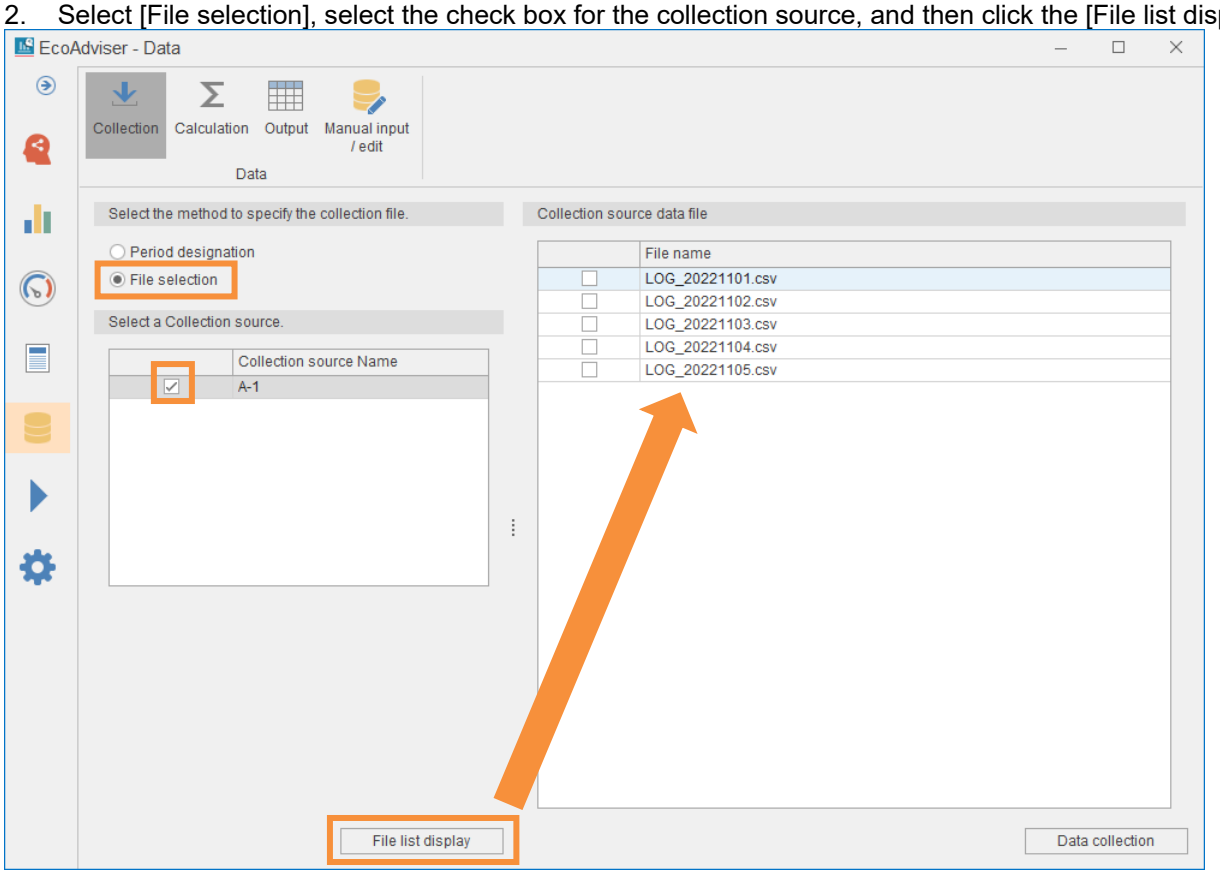
## 5.7 Manual collection (Collection test)

This section describes an EcoAdviser operating procedure.
Before collecting data automatically, confirm whether data is collected properly in EcoAdviser.

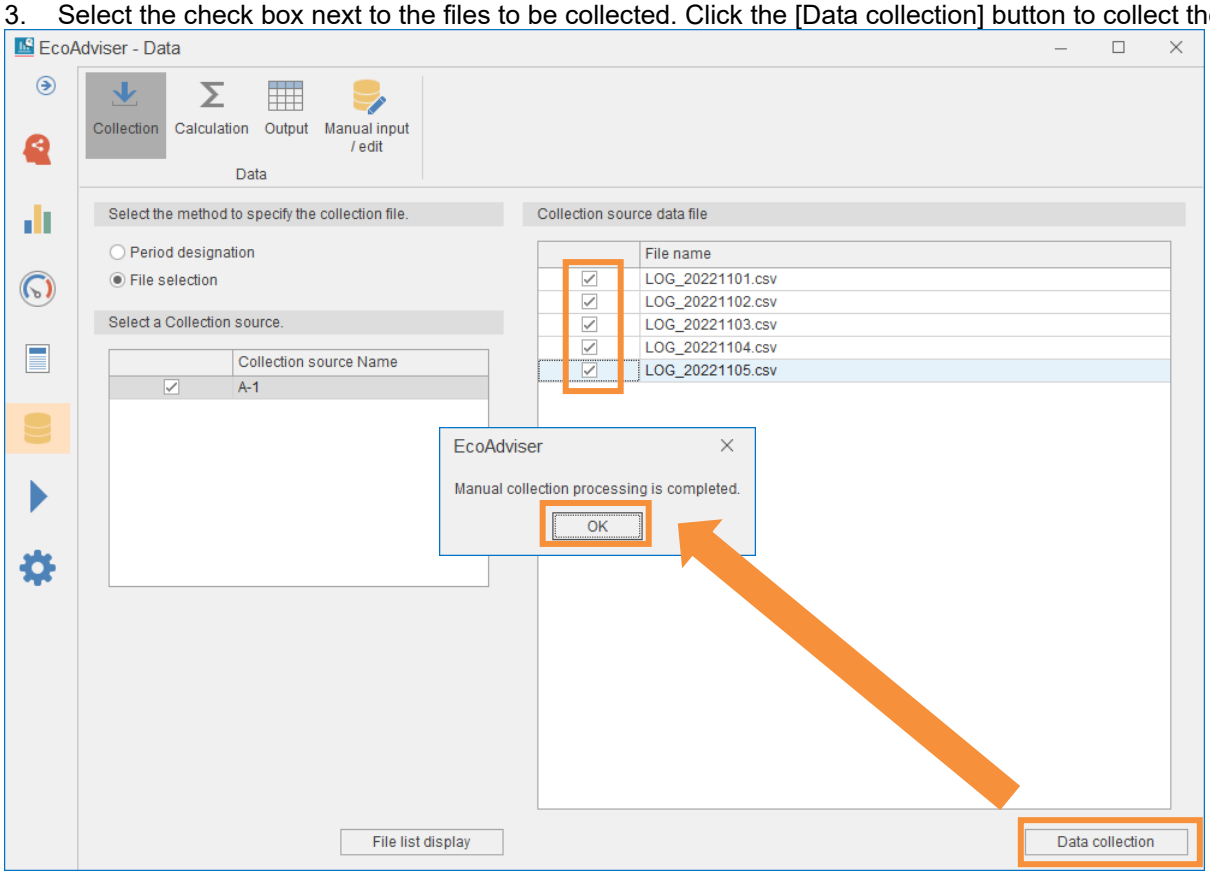
1. Click the [Data] button.




2. Select [File selection], select the check box for the collection source, and then click the [File list display] button.

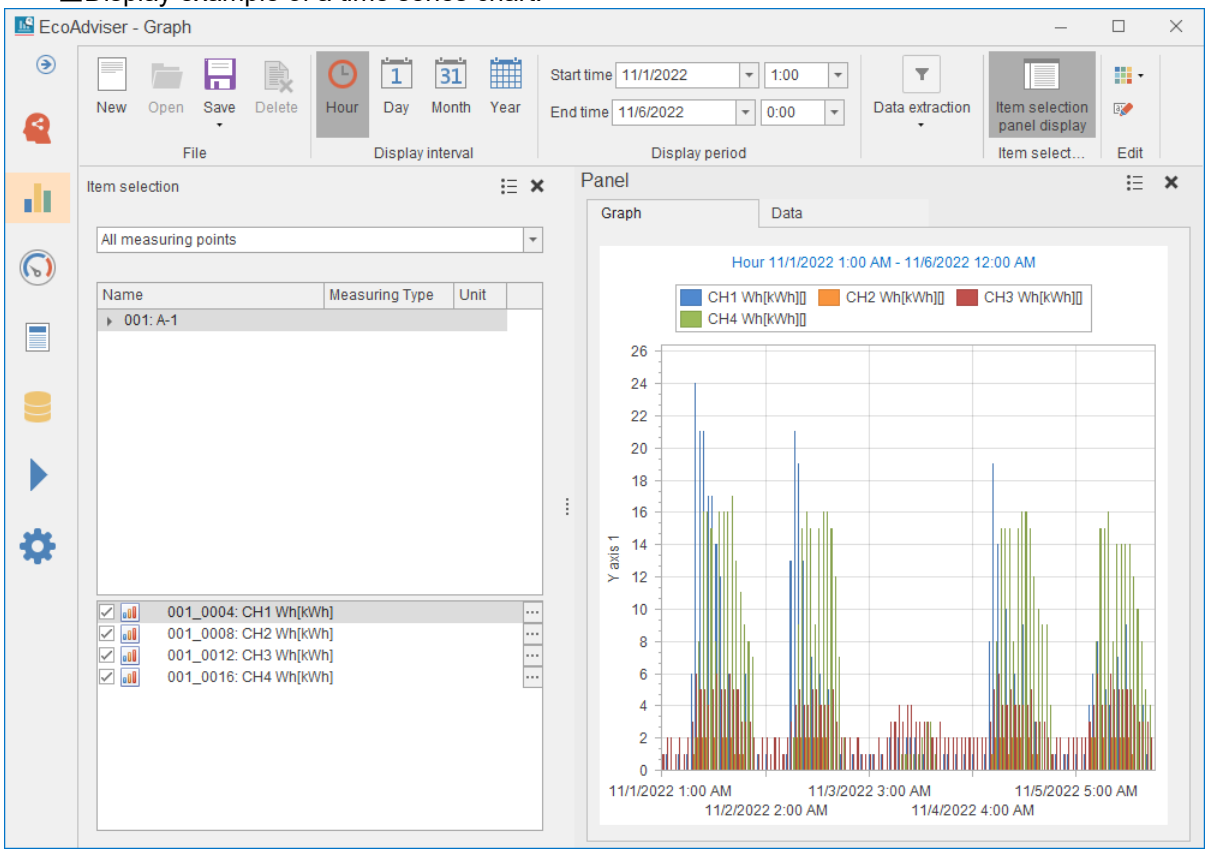


3. Select the check box next to the files to be collected. Click the [Data collection] button to collect the data.




4. Confirm the data collected in a graph, or by other means.

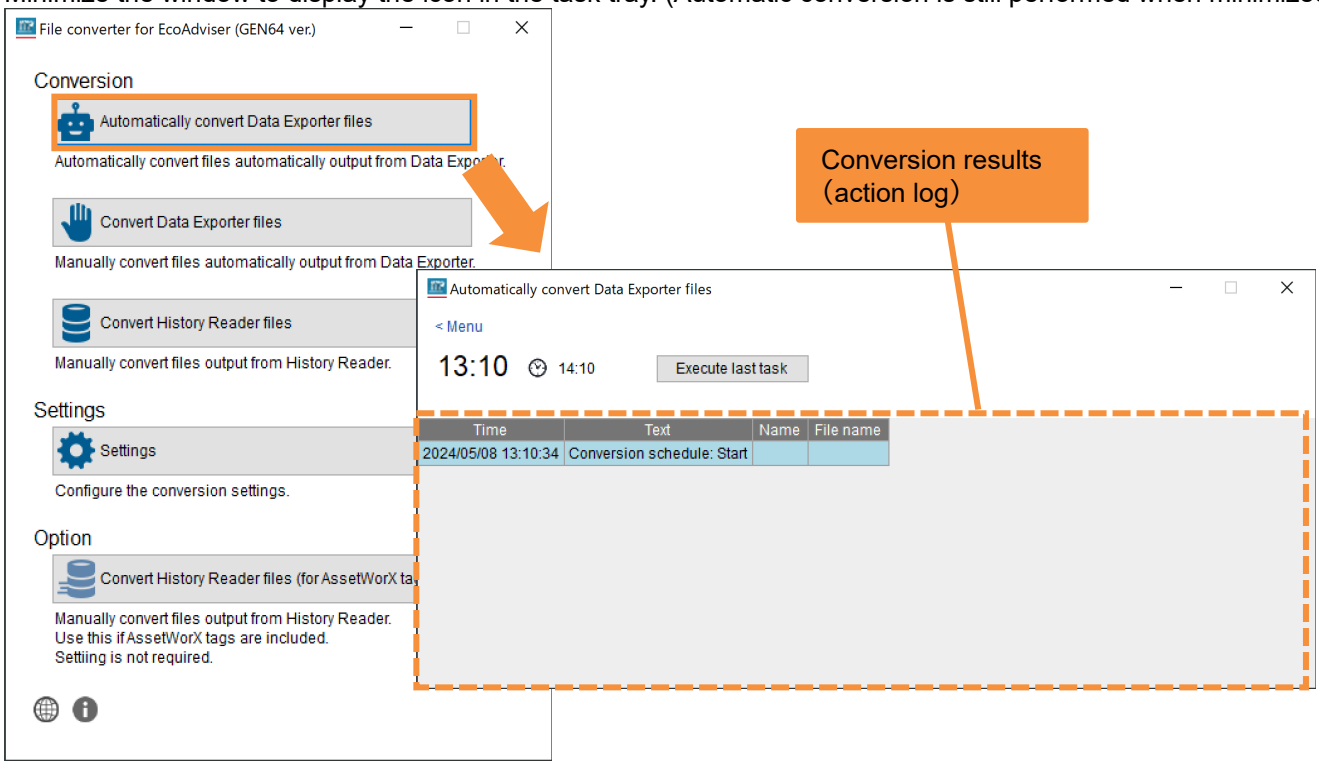
■Display example of a time series chart.



## 5.8 Automatic conversion

Perform an automatic conversion to automatically collect data in EcoAdviser.

Click the [Automatically convert Data Exporter files] button.
Automatically convert data from each conversion source to display the conversion results (action log) in a window.
Minimize the window to display the icon in the task tray. (Automatic conversion is still performed when minimized)




To finish automatic conversion, click the [x] button.
To run the most recent automatic conversion process again, click the [Execute last task] button.

If an error message appears in the action log, refer to Section 8.1 to identify the cause and perform troubleshooting.

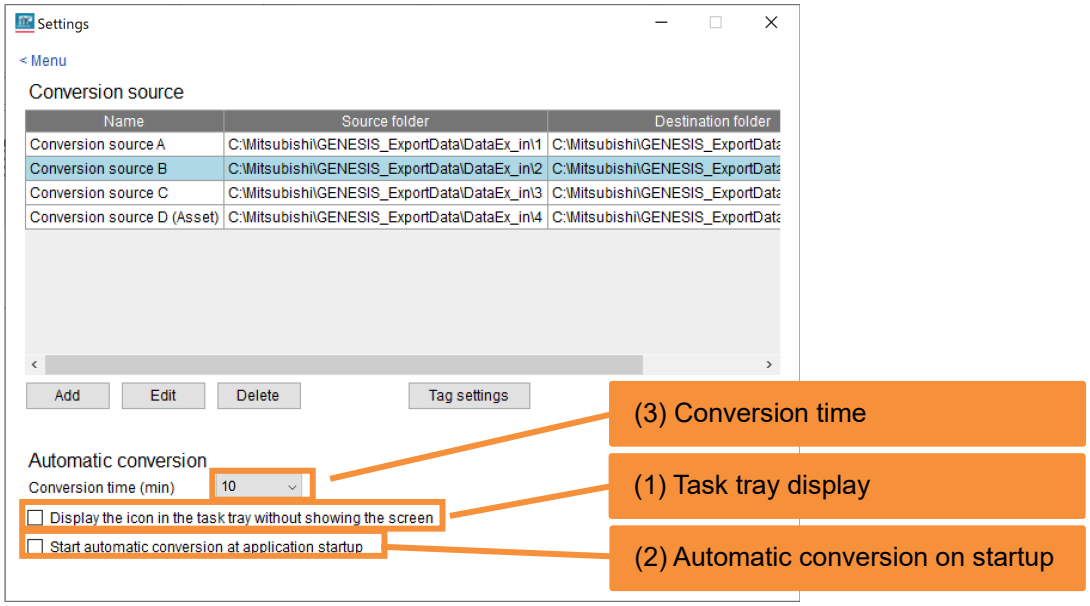
## Helpful settings for automatic conversion

You can opt to enable or disable the following functions from the Settings screen.

(1) Display the icon in the task tray without showing the screen
This displays the icon in the task tray without showing the Automatic conversion screen when clicking the [Automatically convert Data Exporter files] button.

(2) Start automatic conversion at application startup
This starts automatic conversion (displays the Automatic conversion screen) when starting up the software.
If the function described in (1) is enabled, the icon will appear in the task tray without showing the screen.

(3) Change the conversion time
The automatic conversion time can be set in 10-minute increments from 10 to 50 minutes each hour.



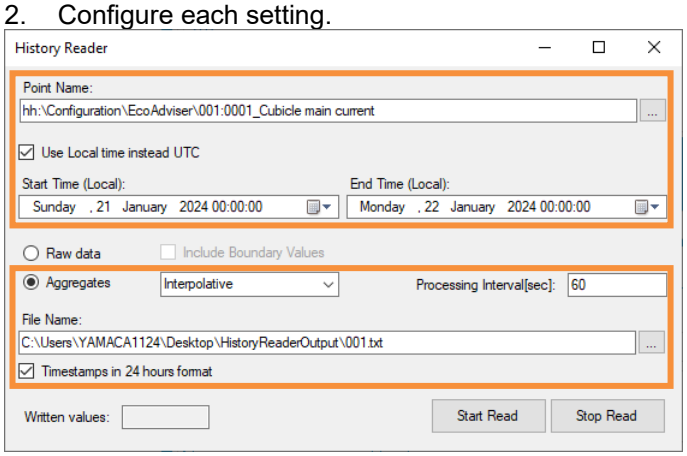
## 5.9 Manual conversion of past data

This section describes the procedure used to convert past measurement data collected with GENESIS64 (Hyper Historian tags) and manually collect it in EcoAdviser.

### 5.9.1 Preparing a pre-conversion file (past data)

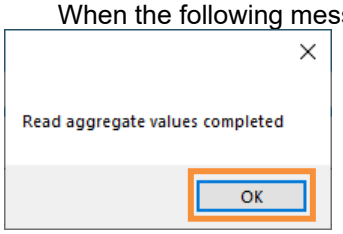
Output collected data from GENESIS64 in TXT format.
To output data, use the History Reader function.

1. Navigate from [Start Menu > ICONICS Tools > Historian Reader] to start History Reader.
2. Configure each setting.




| No. | Item | Setting |
|---|---|---|
| (1) | Point Name | The output tag setting.<br>Click [...], and then select the Hyper Historian tags to output. |
| (2) | Use Local time instead UTC | The time setting for the data. Select this check box. |
| (3) | Start Time / End Time | The data output period.<br>Click the icon, and then select a period to output data.<br>When doing so, set the Start Time and End Time to a time on the hour (00 minutes 00 seconds). |
| (4) | Aggregates | The output data setting.<br>Select [Interpolative] or [Average] to output values every 60 seconds.<br>(The recommended setting is [Interpolative].) |
| (5) | Processing Interval | The data output cycle.<br>Enter [60]. |
| (6) | File Name | The destination file setting.<br>Click [...], and then select an output destination.<br>If a file that does not exist is set, a new file will be created. |
| (7) | Timestamps in 24 hours format | The file timestamp setting.<br>Select this check box. |

3. Click [Start Read].
   When the following message appears, click the [OK] button.

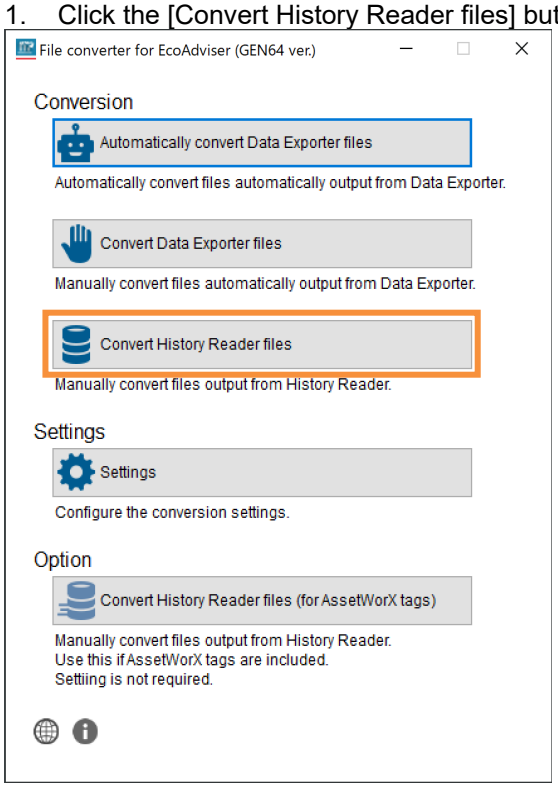



4. When outputting multiple tags, repeat the procedure described in steps 2 and 3.
   You can output using the same settings simply by changing [Point Name] and [File Name].
   Additionally, when using manual conversion (Section 5.9.2), pre-conversion files are selected for each folder.
   (Files are converted with the folder recognized as the conversion source)
   Split the destination folder based on the tags output in Section 5.6.
   Example: If tags A to N and M to Z are output in two files in Data Exporter,
   split the destination folder for tag A to N data and tag M to Z data.

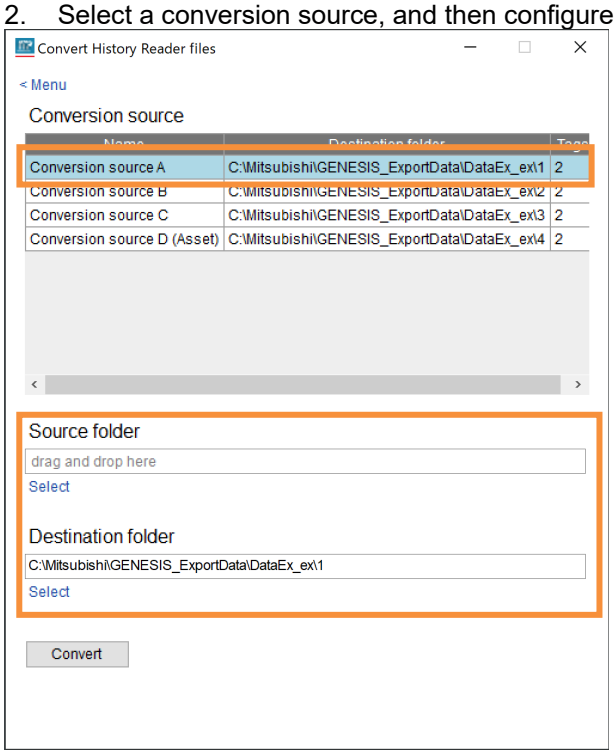
### 5.9.2 Manual conversion

Perform a manual conversion.

1. Click the [Convert History Reader files] button.

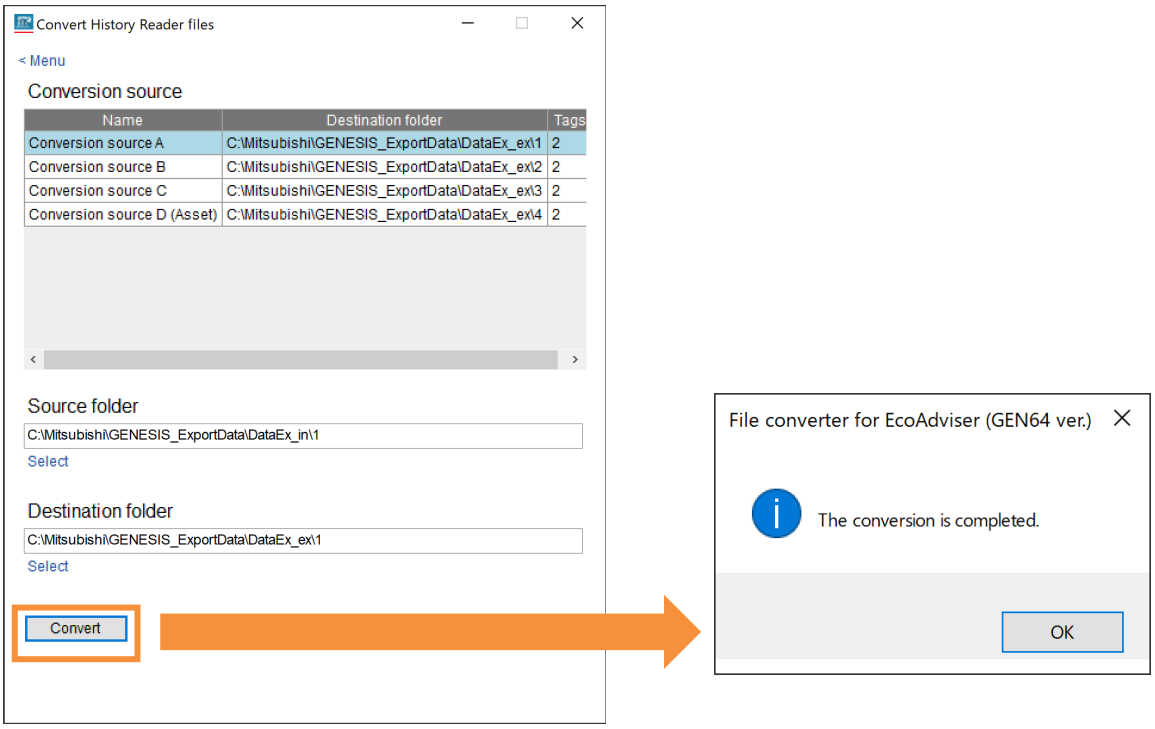



2. Select a conversion source, and then configure each setting.




| Item | Setting |
|---|---|
| Source folder | Select a folder to save the pre-conversion file to.<br>Click [Select], and then select the folder.<br>You can also drag and drop the folder from Explorer to select it. |
| Destination folder | Select a folder to save the converted data file to.<br>The destination folder of the conversion source is set by default.<br>Click [Select], and then select the folder.<br>You can also drag and drop the folder from Explorer to select it. |

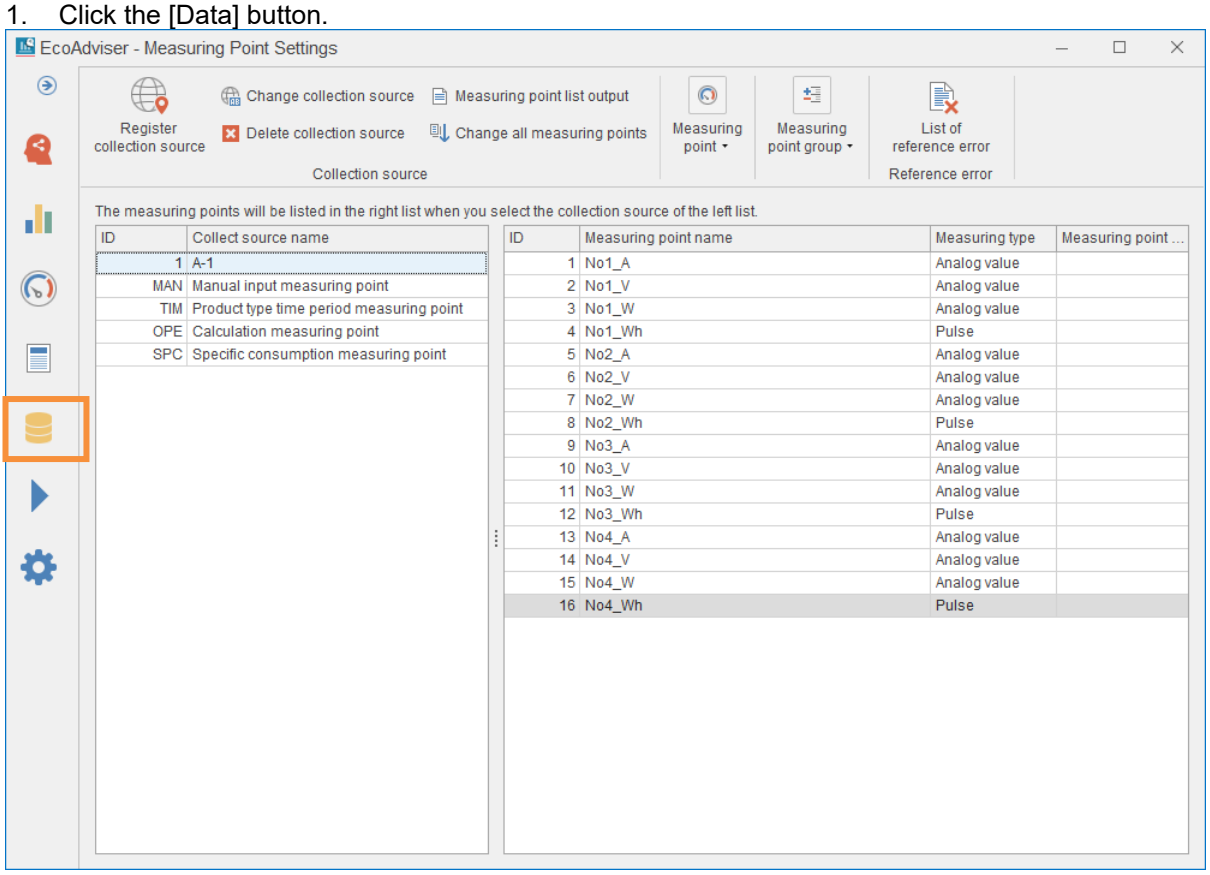
3. Click the [Convert] button



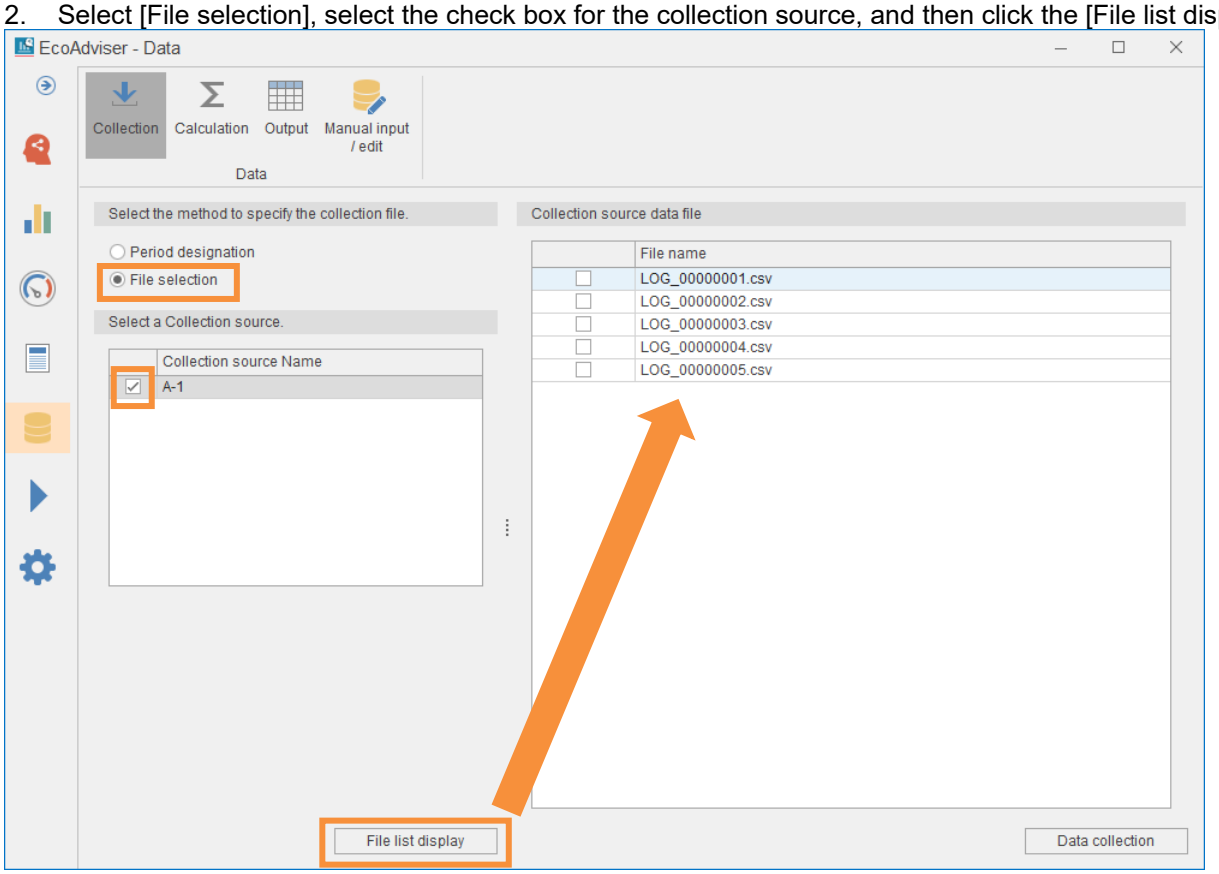
### 5.9.3 Manual collection

This section describes an EcoAdviser operating procedure.

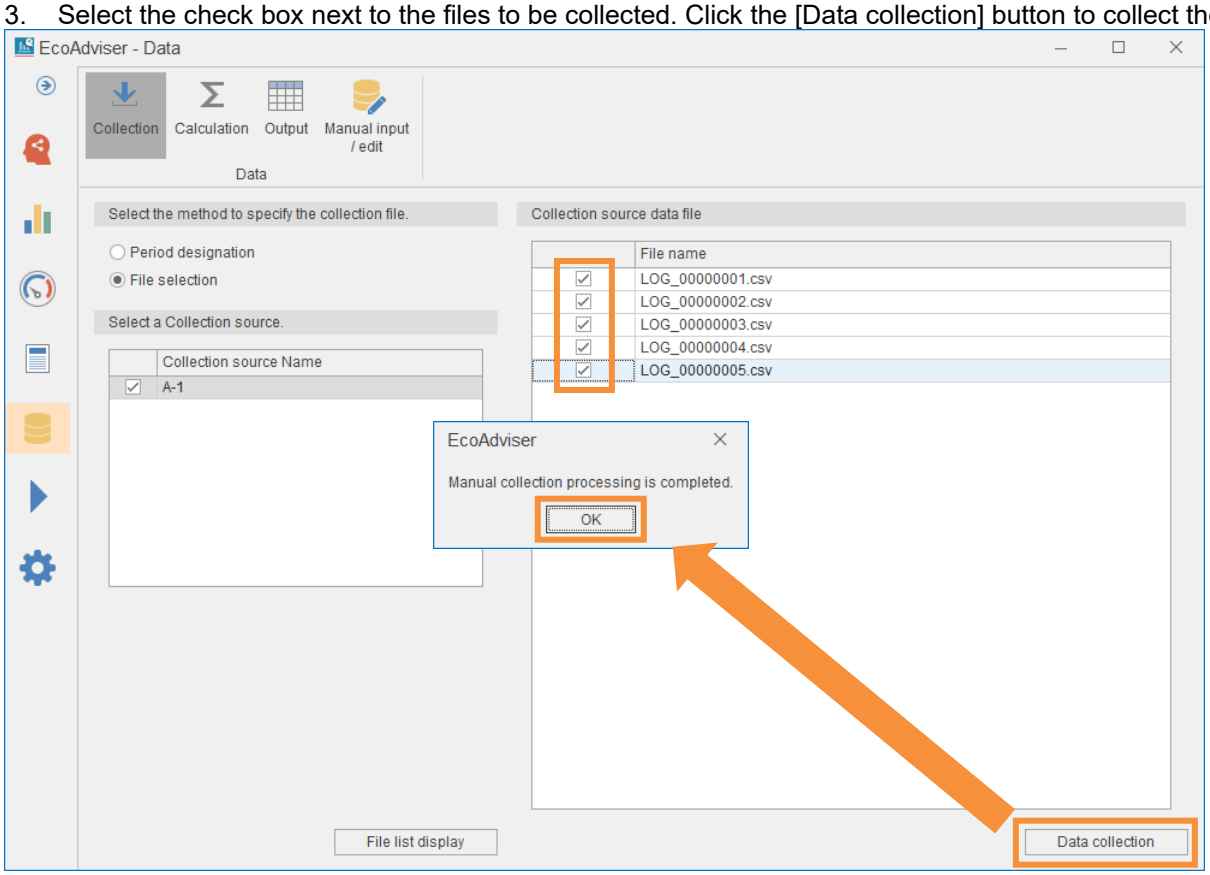
1. Click the [Data] button.




2. Select [File selection], select the check box for the collection source, and then click the [File list display] button.

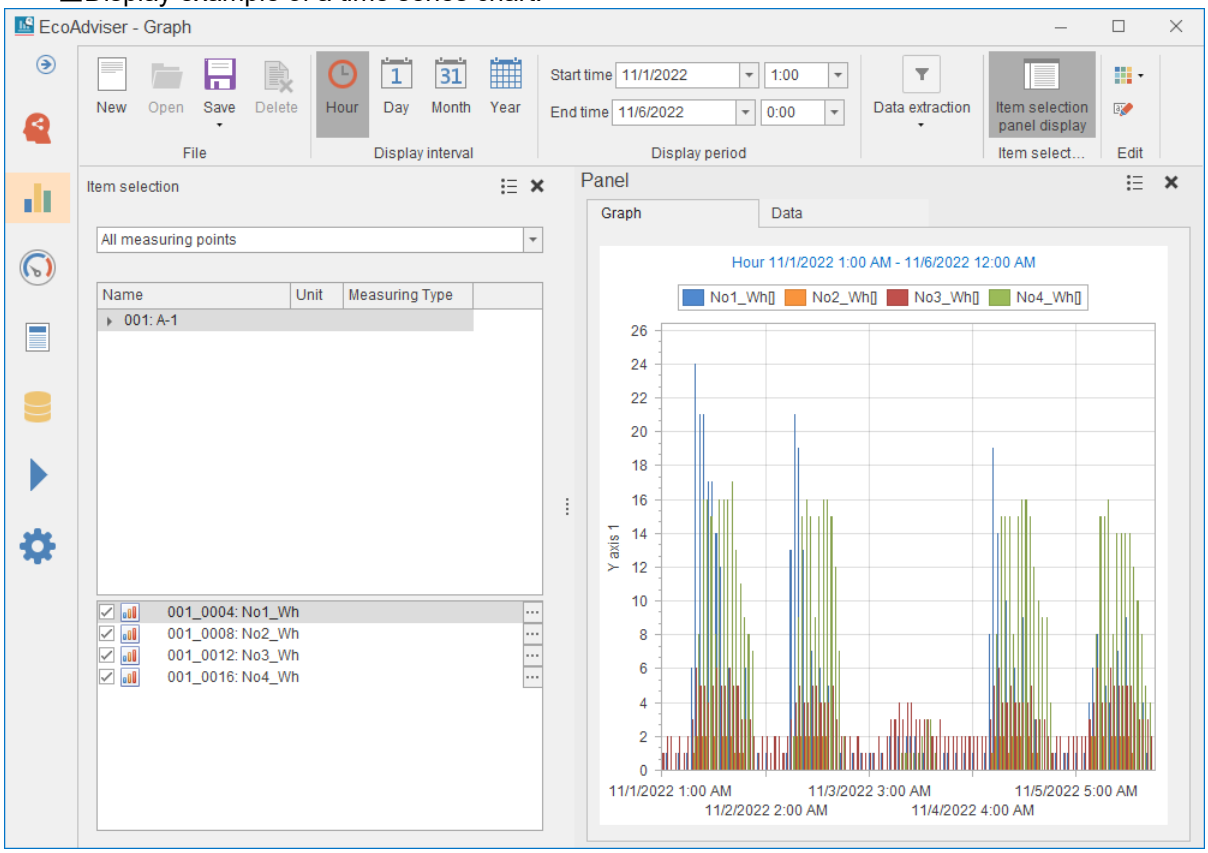


3. Select the check box next to the files to be collected. Click the [Data collection] button to collect the data.




4. Confirm the data collected in a graph, or by other means.

■Display example of a time series chart.



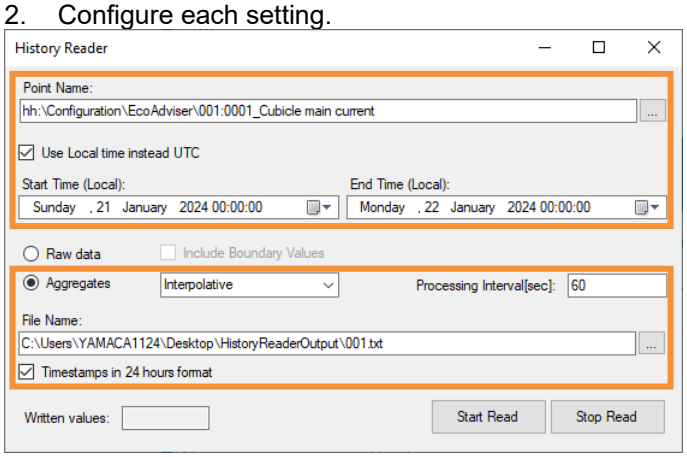
# 6. Using Past AssetWorX Tag Data

This section describes the procedure used to convert GENESIS64 (AssetWorX tag, Hyper Historian tag) data and collect it in EcoAdviser.
In this procedure, past AssetWorX tag data is manually converted, and current Hyper Historian tag data is automatically converted.

## 6.1 Preparing a pre-conversion file (AssetWorX tags)

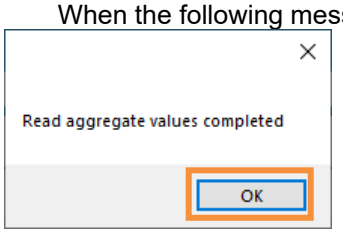
To convert data manually, output the collected data from GENESIS64 in TXT format.
To output data, use the History Reader function.

1. Navigate from [Start Menu > ICONICS Tools > Historian Reader] to start History Reader.
2. Configure each setting.




| No. | Item | Setting |
|---|---|---|
| (1) | Point Name | The output tag setting.<br>Click [...], and then select the AssetWorX tags to output. |
| (2) | Use Local time instead UTC | The time setting for the data. Select this check box. |
| (3) | Start Time / End Time | The data output period.<br>Click the icon, and then select a period to output data.<br>When doing so, set the Start Time and End Time to a time on the hour (00 minutes 00 seconds). |
| (4) | Aggregates | The output data setting.<br>Select [Interpolative] or [Average] to output values every 60 seconds.<br>(The recommended setting is [Interpolative].) |
| (5) | Processing Interval | The data output cycle.<br>Enter [60]. |
| (6) | File Name | The destination file setting.<br>Click [...], and then select an output destination.<br>If a file that does not exist is set, a new file will be created. |
| (7) | Timestamps in 24 hours format | The file timestamp setting.<br>Select this check box. |

3. Click [Start Read].
   When the following message appears, click the [OK] button.

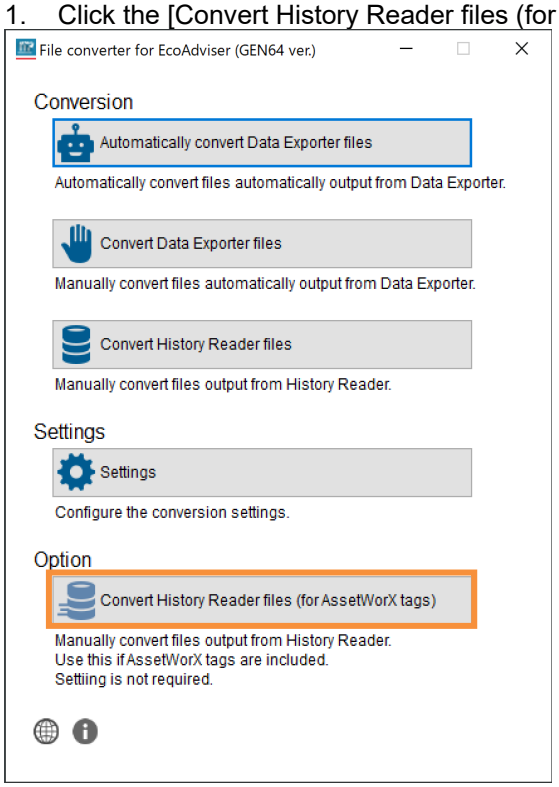



4. When outputting multiple tags, repeat the procedure described in steps 2 and 3.
   You can output using the same settings simply by changing [Point Name] and [File Name].
   Additionally, when using manual conversion (Section 6.2), pre-conversion files are selected for each folder.
   (Files are converted with the folder recognized as the conversion source)
   Ensure that no more than 256 tags are stored to a single folder.

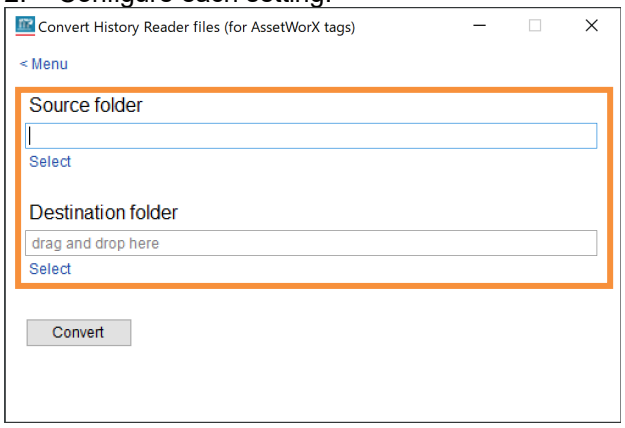
## 6.2 Manual conversion

Manually convert the pre-conversion file.
A data type file will be created when converting.

1. Click the [Convert History Reader files (for AssetWorX tags)] button.

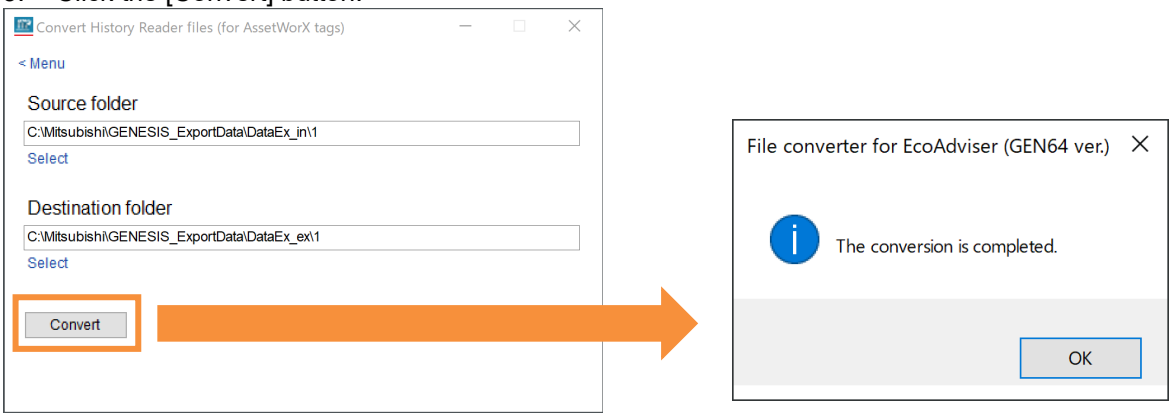



2. Configure each setting.




| Item | Setting |
|---|---|
| Source folder | Select a folder to save the pre-conversion file to.<br>Click [Select], and then select the folder.<br>You can also drag and drop the folder from Explorer to select it. |
| Destination folder | Select a folder to save the data file and data type file to.<br>This is data folder path selected when registering the collection source in EcoAdviser.<br>Click [Select], and then select the folder.<br>You can also drag and drop the folder from Explorer to select it.<br>* The converted data type file will be output to the [Destination folder\DATATYPE] folder. |

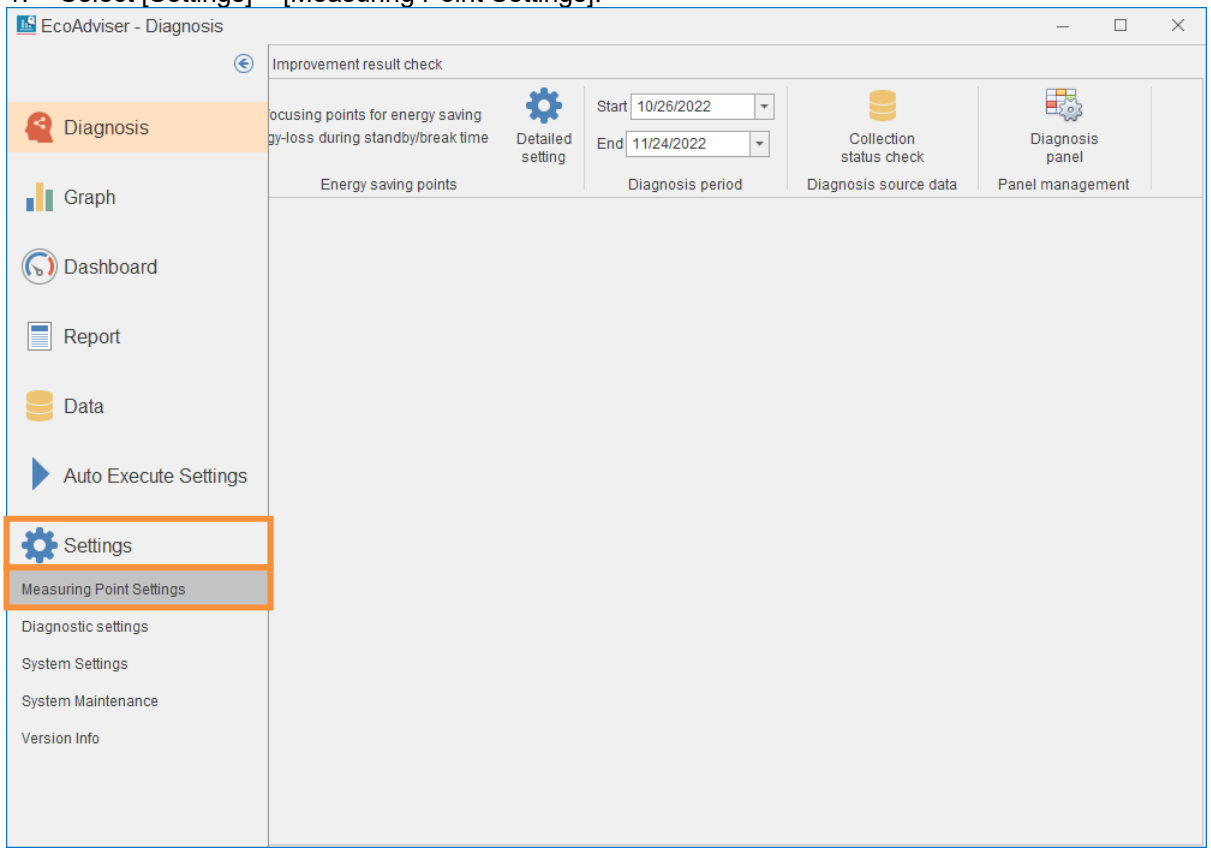
3. Click the [Convert] button.



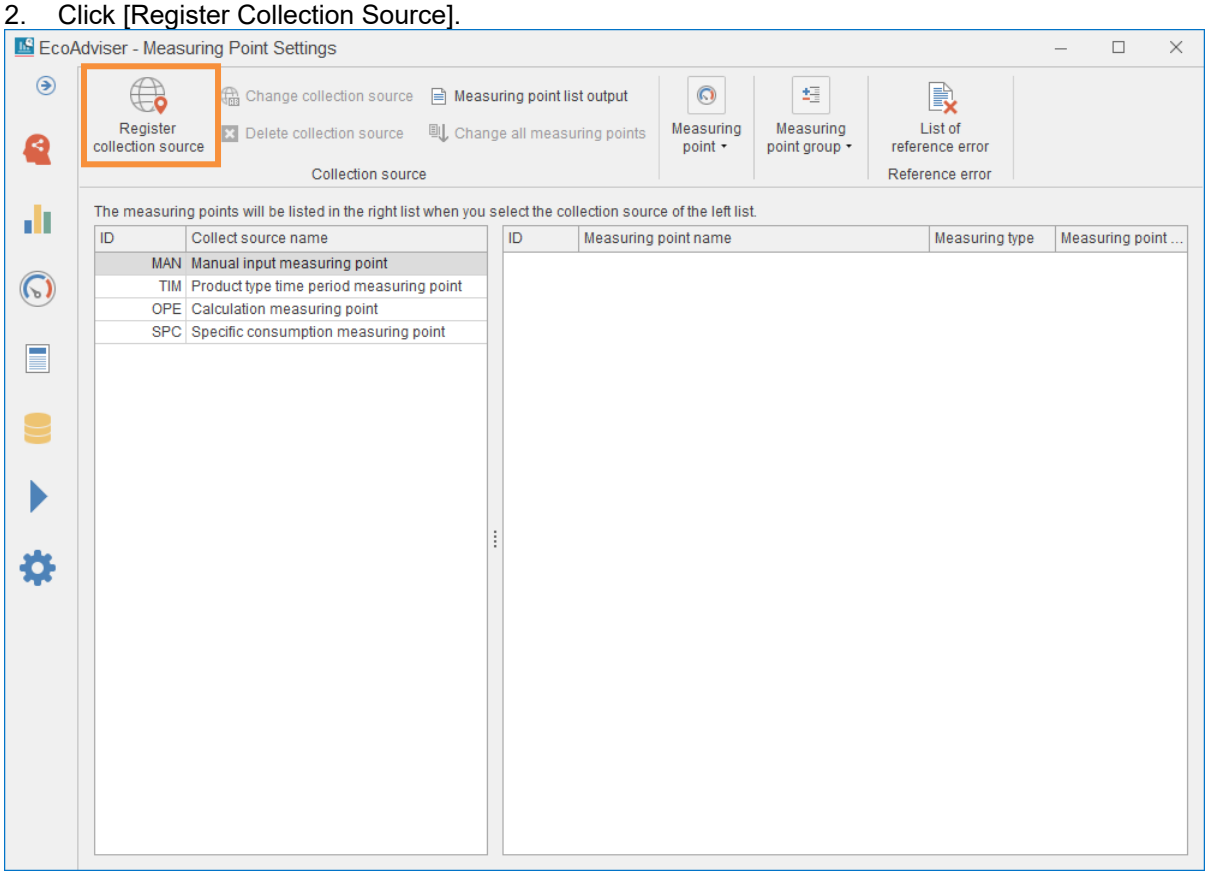

## 6.3 Registering with EcoAdviser

This section describes an EcoAdviser operating procedure.
Register the collection source and measurement data with EcoAdviser.

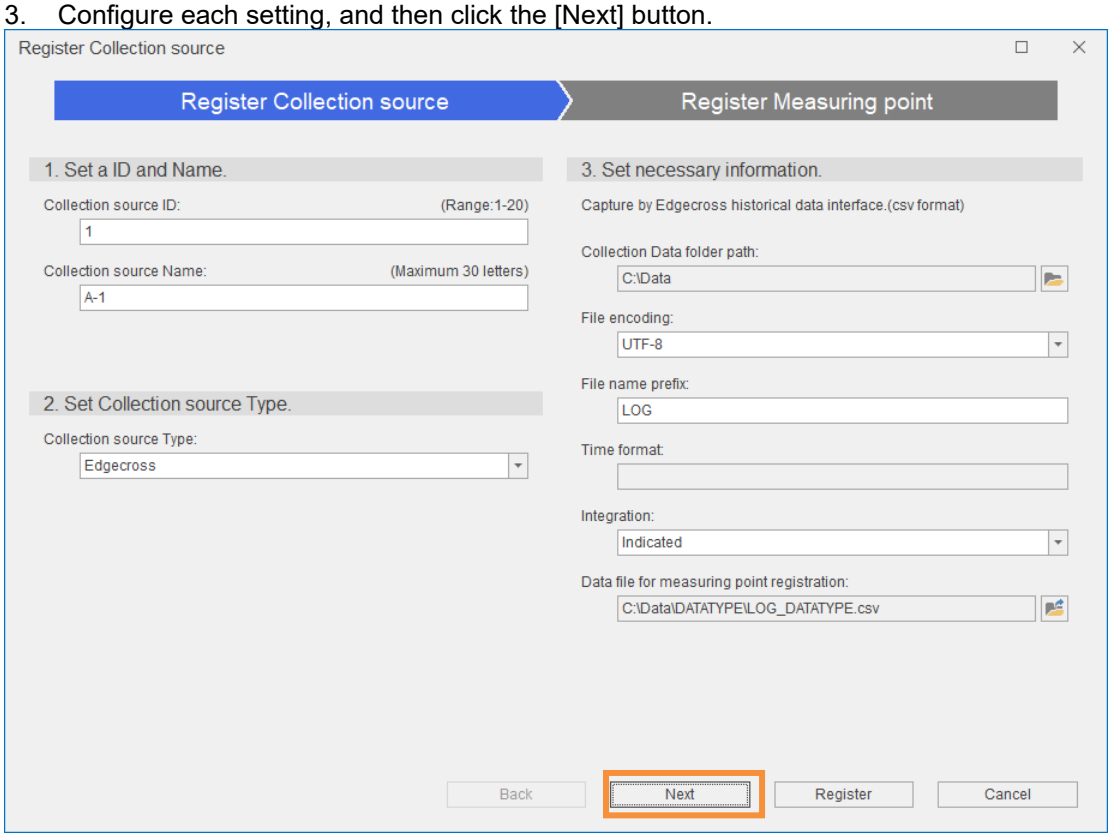
1. Select [Settings] > [Measuring Point Settings].



2. Click [Register Collection Source].

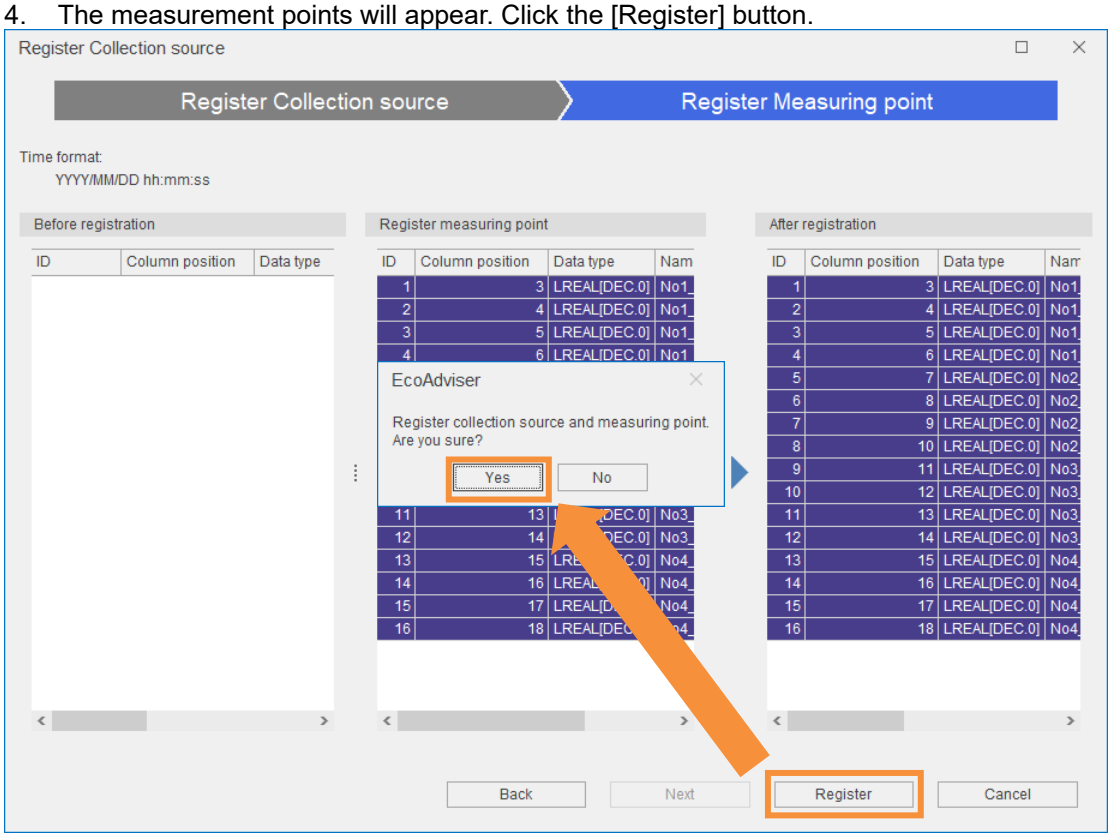


3. Configure each setting, and then click the [Next] button.

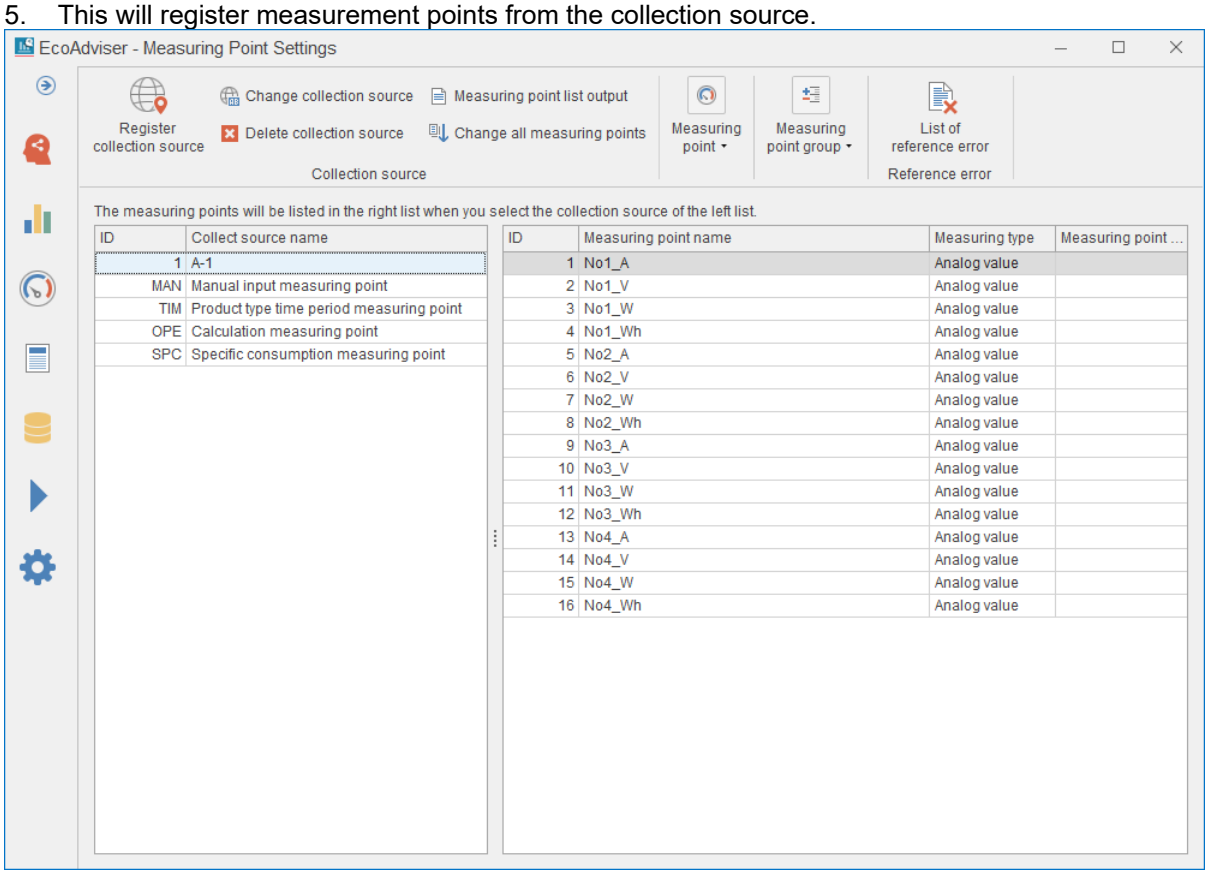



| Item | Settings |
|---|---|
| Collection source ID | Enter any ID. |
| Collection source Name | Enter any name. |
| Collection source Type | Select “Edgecross”. |
| Collection Data folder path | Select the destination folder of the File converter. |
| File encoding | Select “UTF-8”. |
| File name prefix | Enter “LOG”. |
| Integration | Select “Indicated”. |
| Data file for measuring point registration | Automatically set from [Collection Data folder path] and [File name prefix]. |

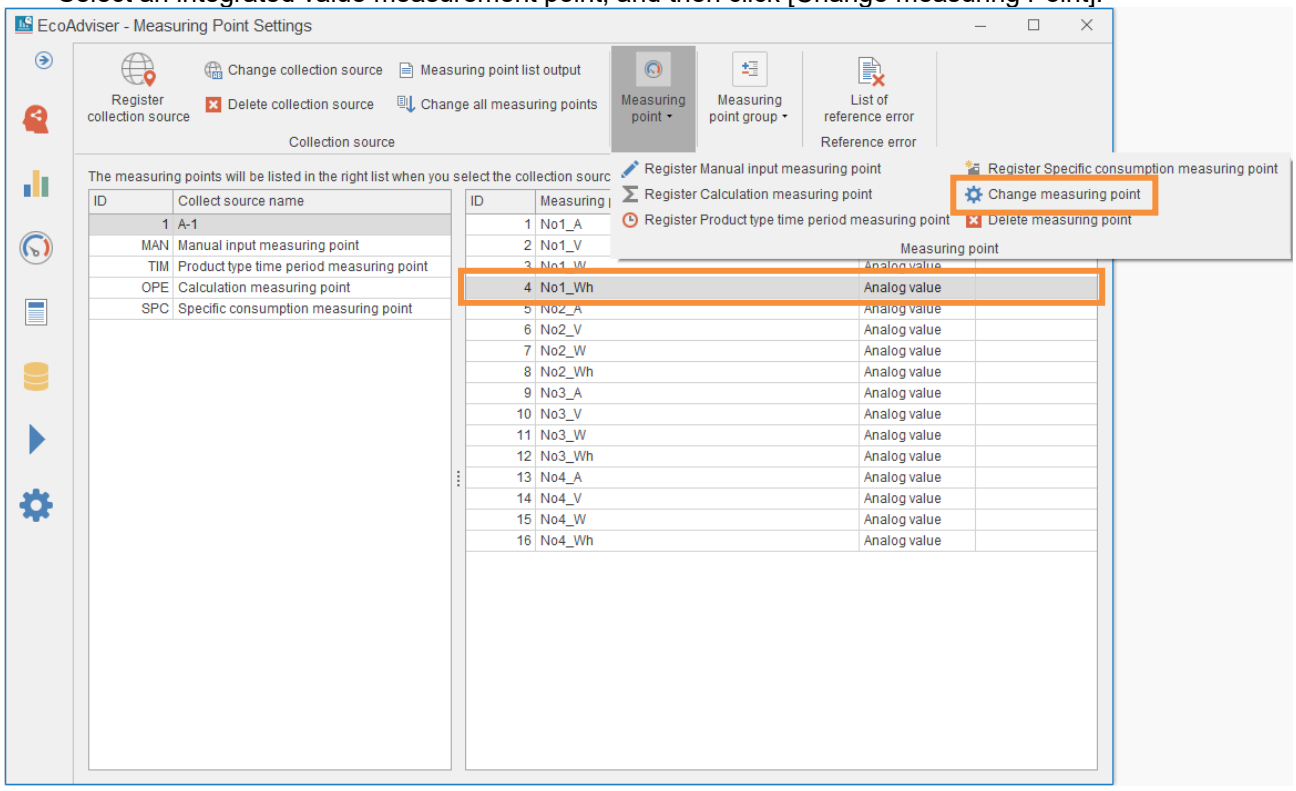
4. The measurement points will appear. Click the [Register] button.



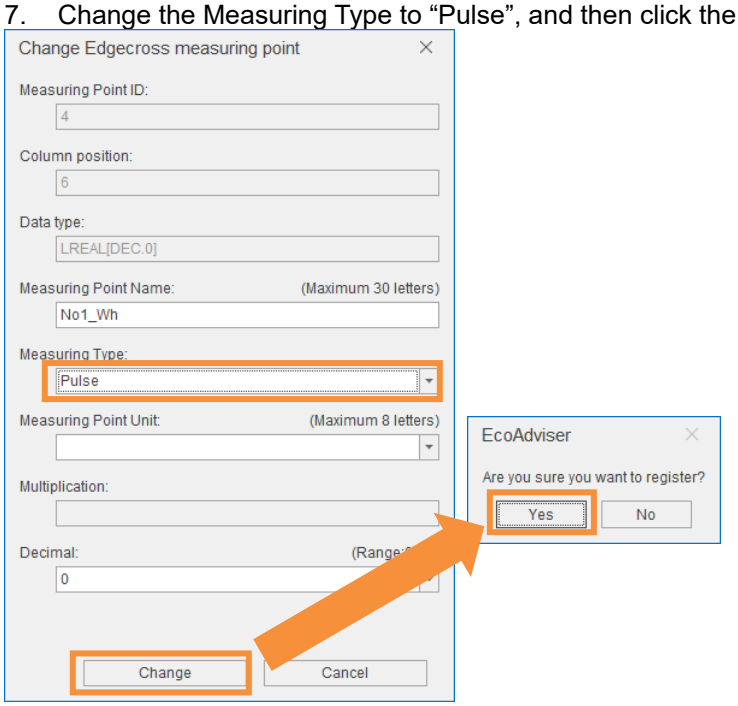

5. This will register measurement points from the collection source.



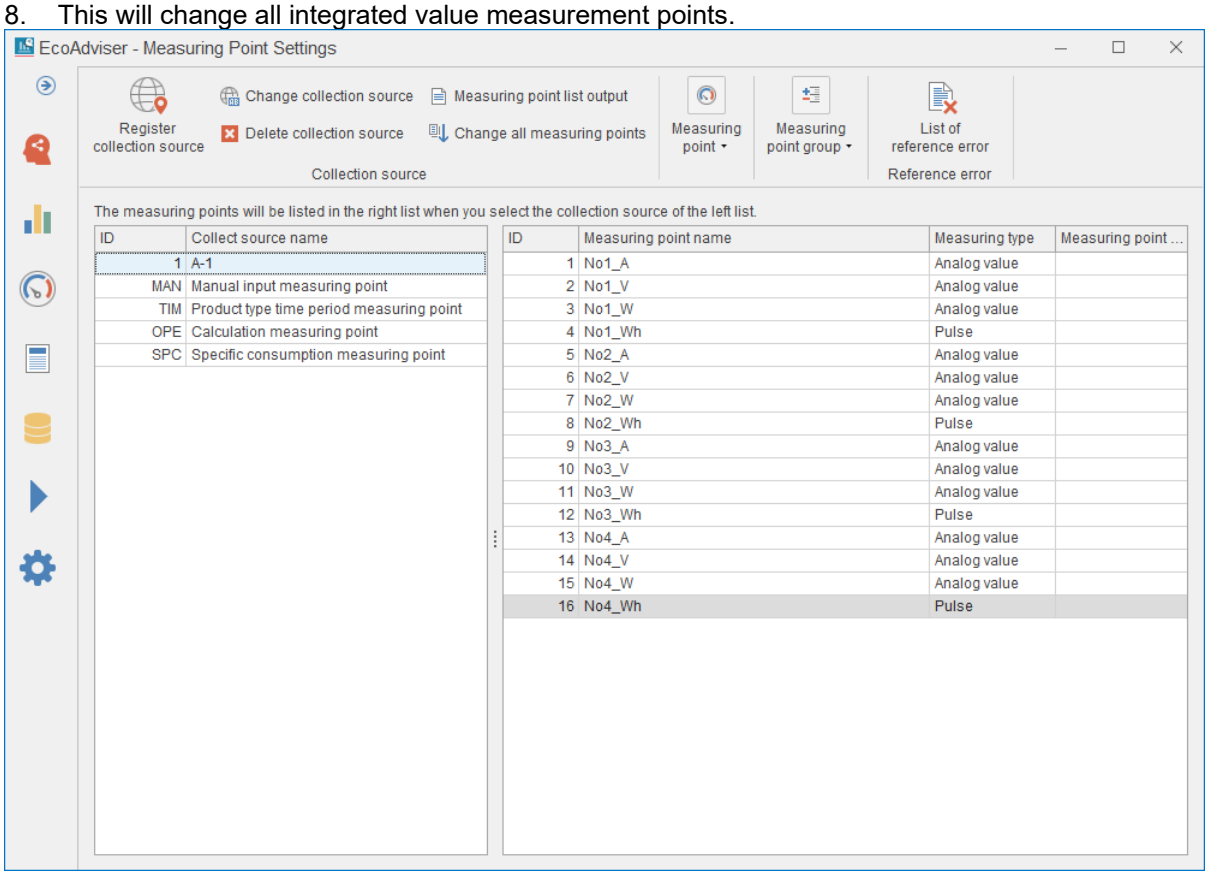
6. The measurement type will be registered as “Analog value”. Therefore, change the measurement type of integrated value measurement points to “Pulse”.
   Select an integrated value measurement point, and then click [Change measuring Point].




7. Change the Measuring Type to “Pulse”, and then click the [Change] button.



8. This will change all integrated value measurement points.




## Change of all measurement points

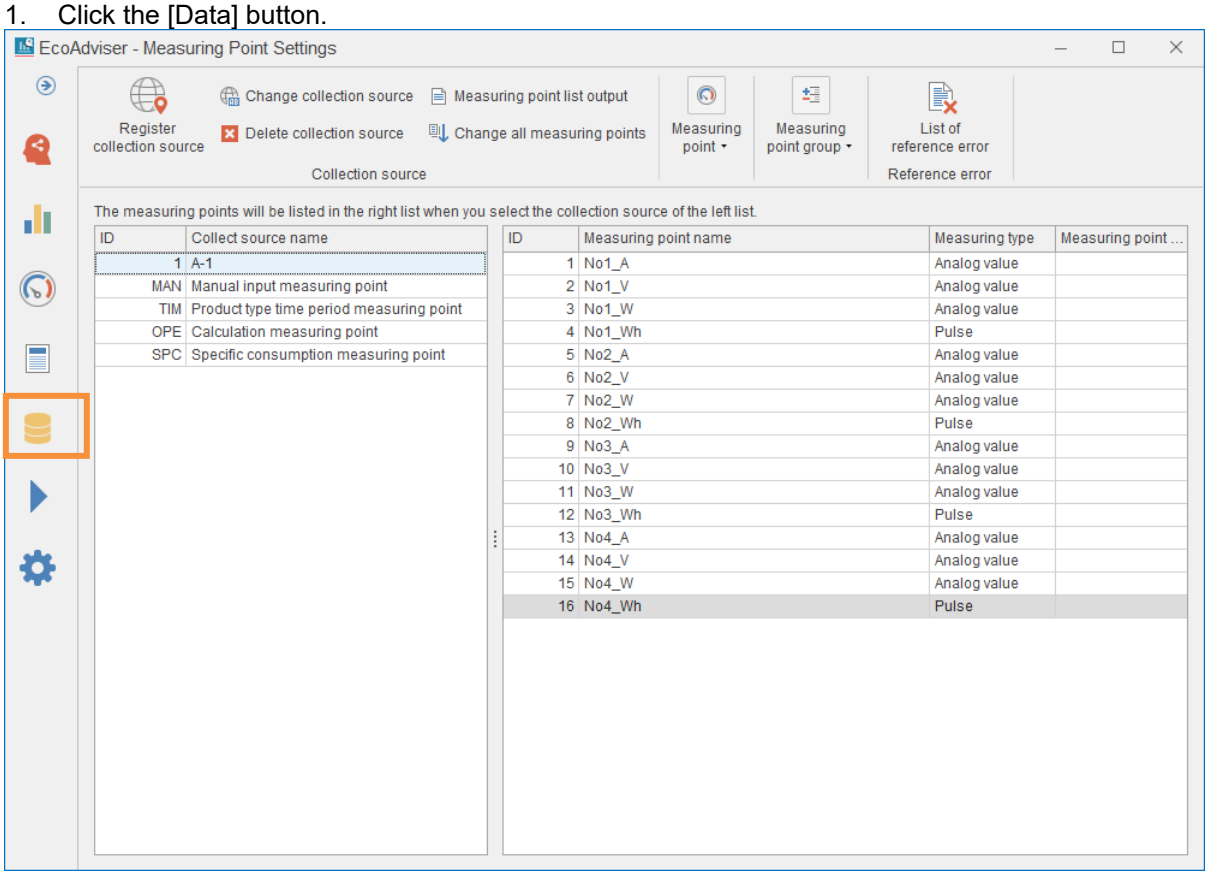
If there are a large number of integrated value measurement points, you can make changes to them all at once using the procedure below.

1) Click the [Measuring point list output] button to output the measurement point list file.
2) Open the measurement point list file, and then change the measurement type from 2 (Analog value) to 1 (Pulse) for integrated value measurement points.
3) This will overwrite the measurement point list file.
4) Click the [Change all measuring points] button, and then specify the edited measurement point list file.

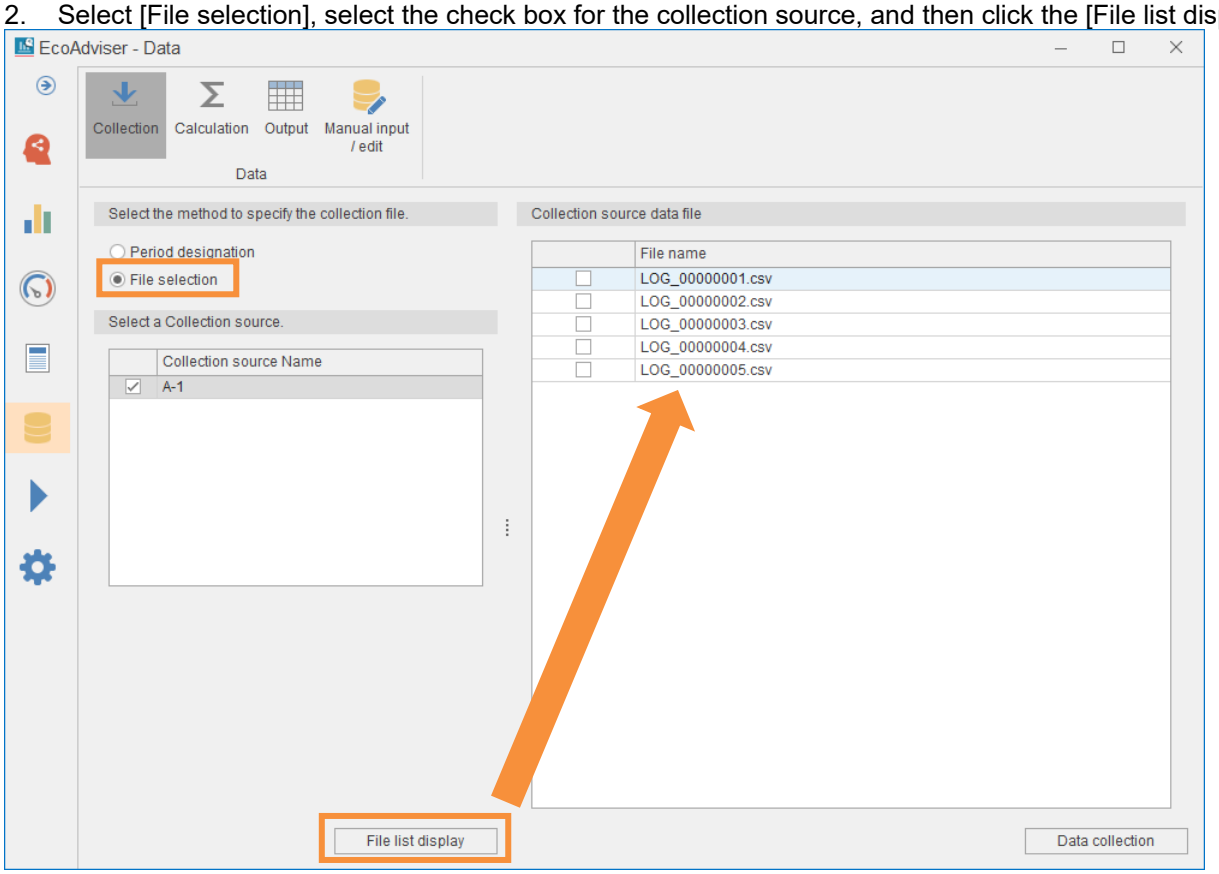
## 6.4 Manual collection

This section describes an EcoAdviser operating procedure.

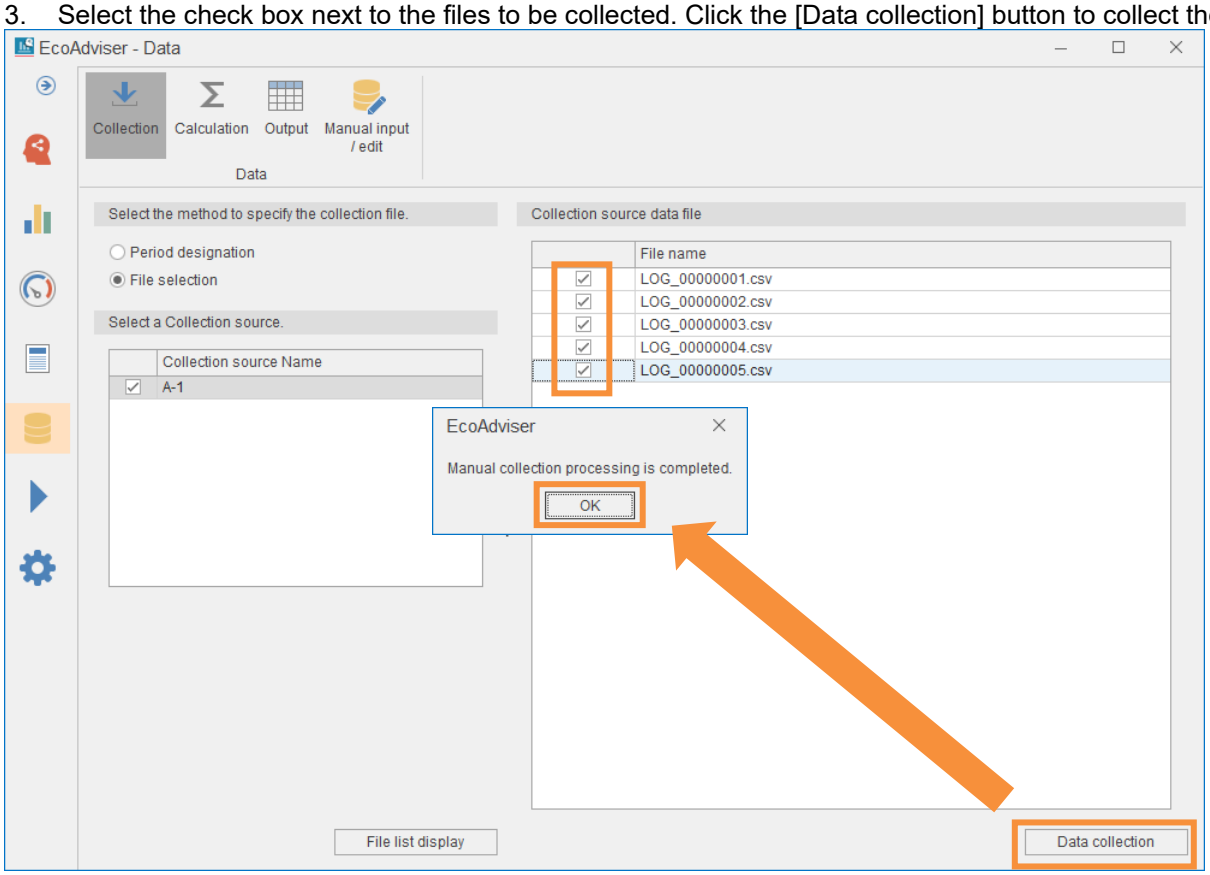
1. Click the [Data] button.




2. Select [File selection], select the check box for the collection source, and then click the [File list display] button.

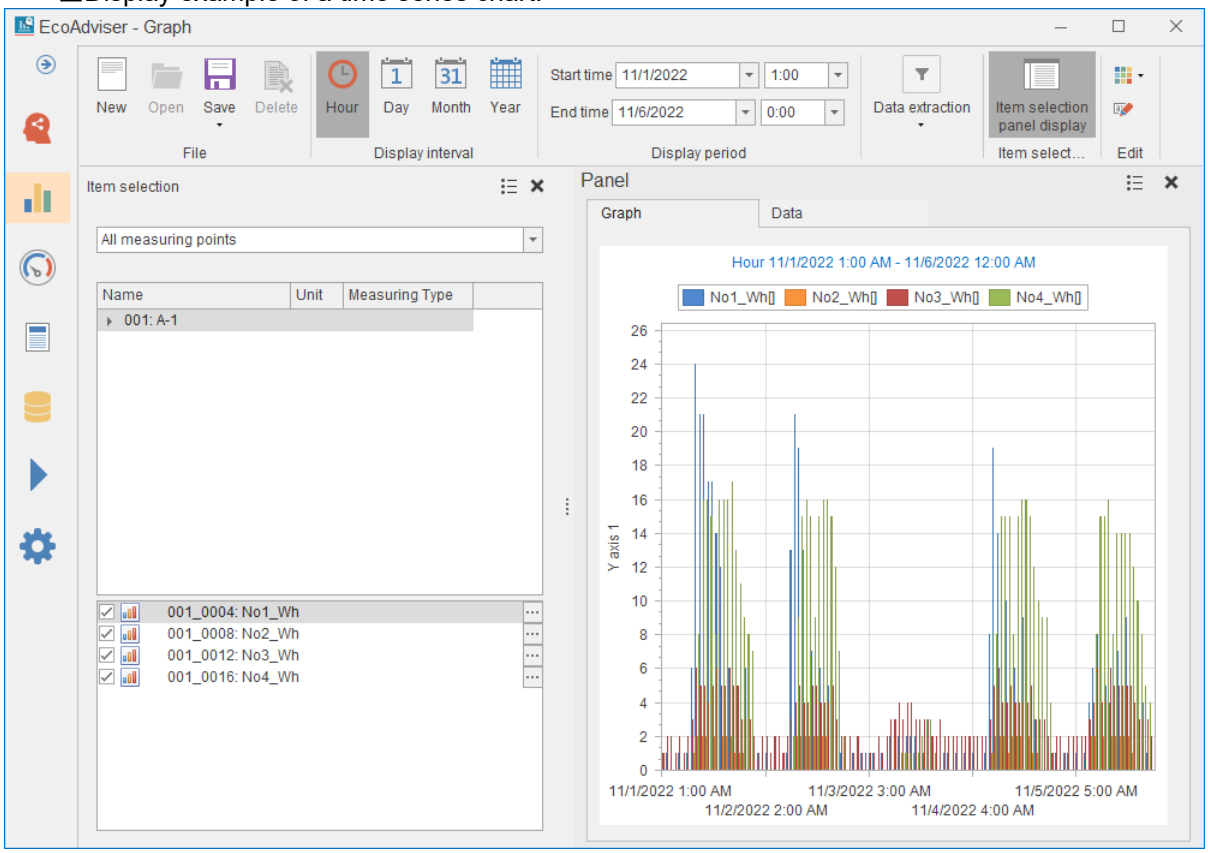


3. Select the check box next to the files to be collected. Click the [Data collection] button to collect the data.




4. Confirm the data collected in a graph, or by other means.

■Display example of a time series chart.

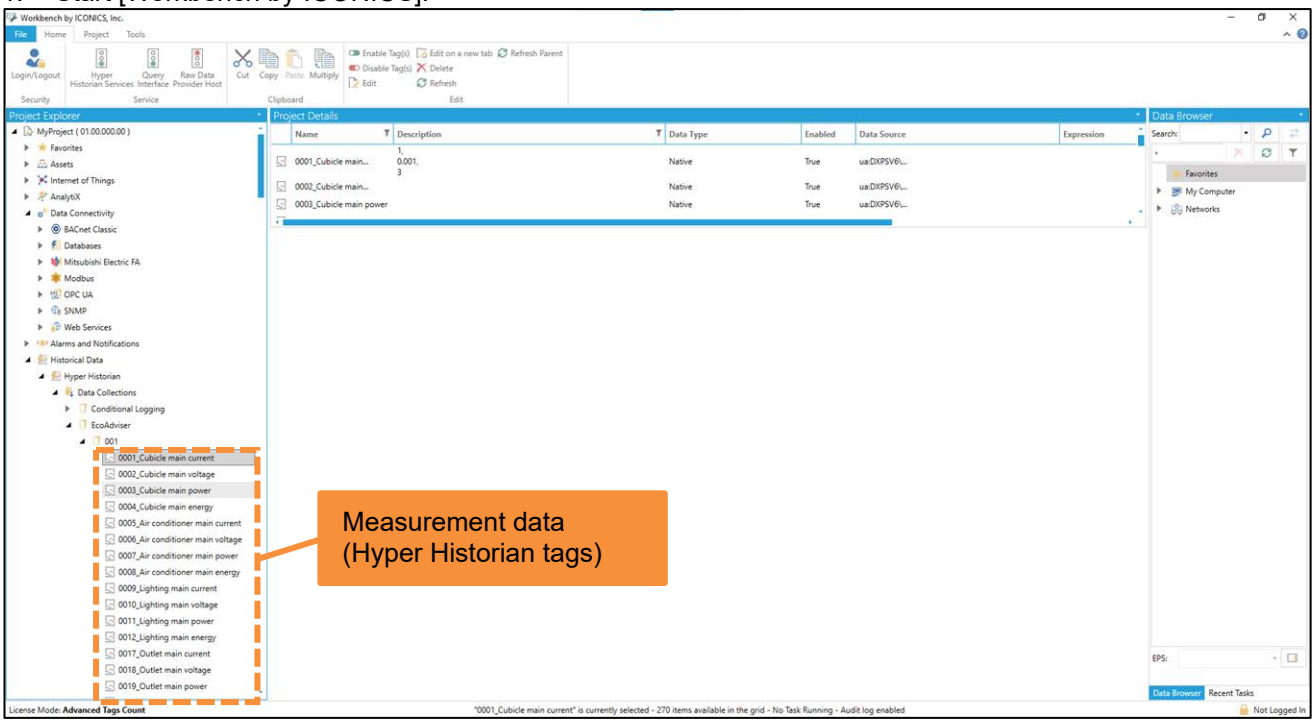


## 6.5 Preparing a pre-conversion file (Hyper Historian tags)

To convert data automatically, output the collected data from GENESIS64 in CSV format.
To output data, use Data Exporter.
When outputting multiple pre-conversion files, repeat the procedure described in this section (Section 6.5).
Additionally, change the output destination to avoid mixing up pre-conversion files.

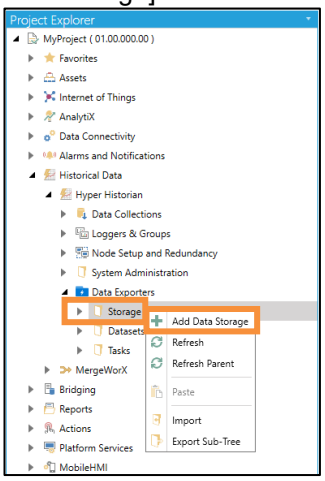
* After being created for the first time, pre-conversion files are created every hour on the hour, and data is output to the file in one-minute cycles.

1. Start [Workbench by ICONICS].

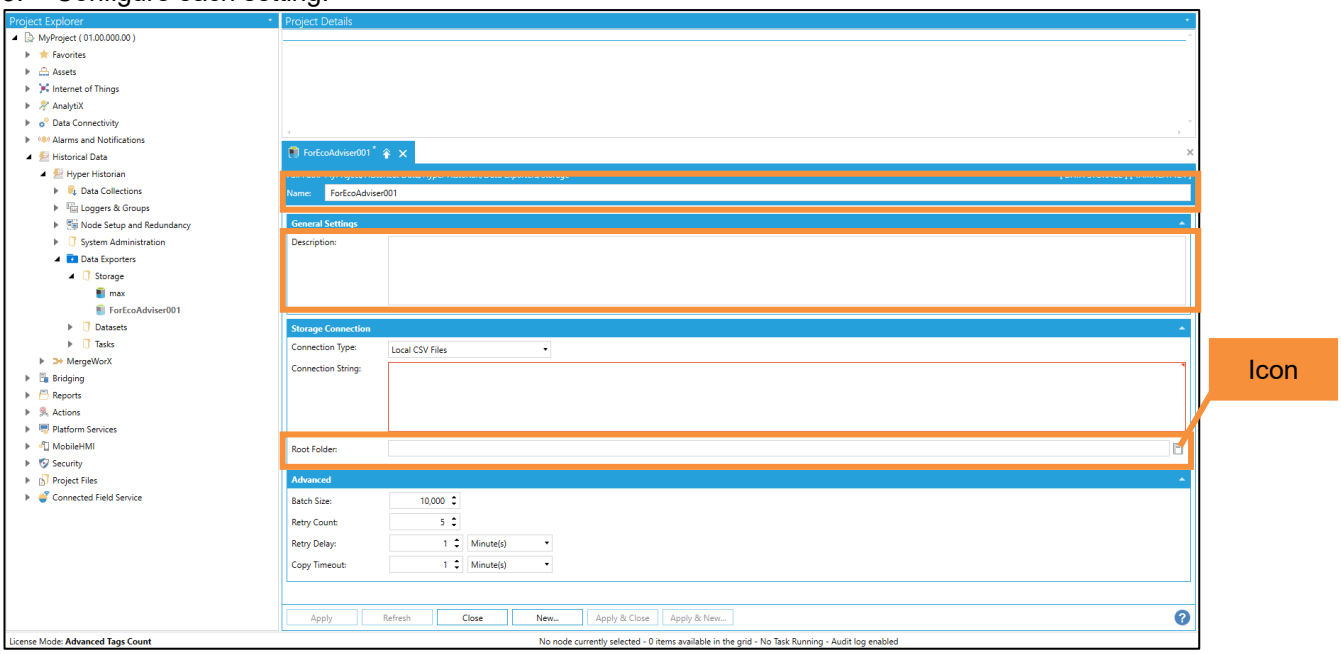



* Tags of output measurement data must be located under [Historical Data > Hyper Historian > Data Collections].

2. Under [Historical Data > Hyper Historian > Data Exporters], right-click [Storage], and then click [Add Data Storage].

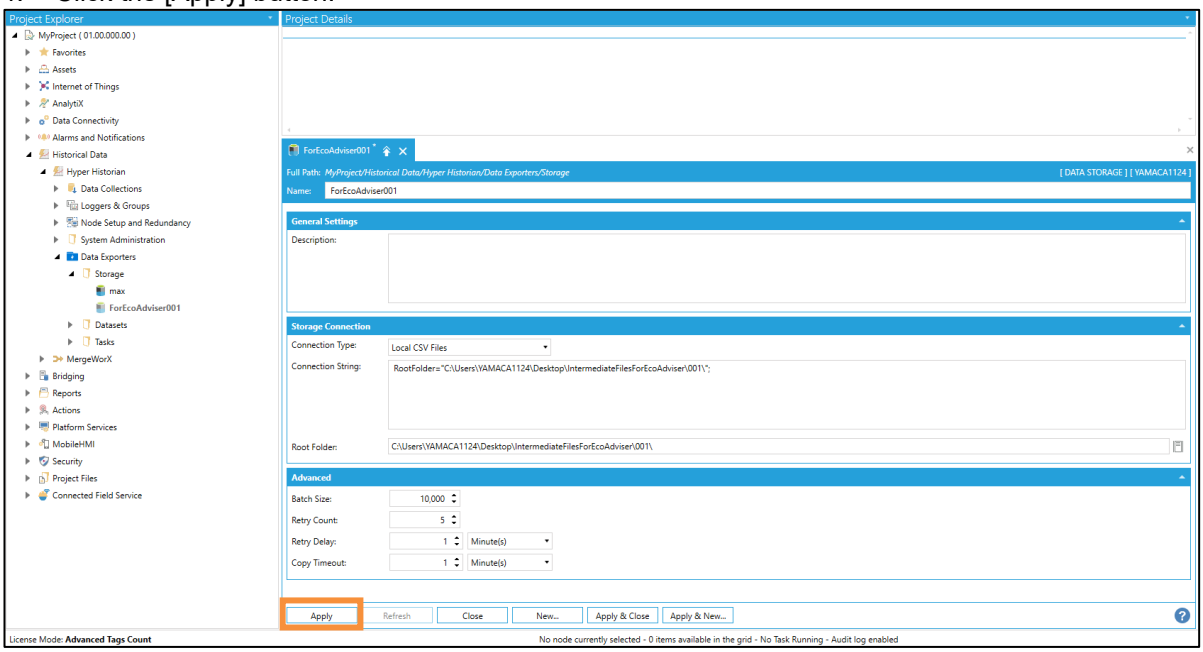



3. Configure each setting.

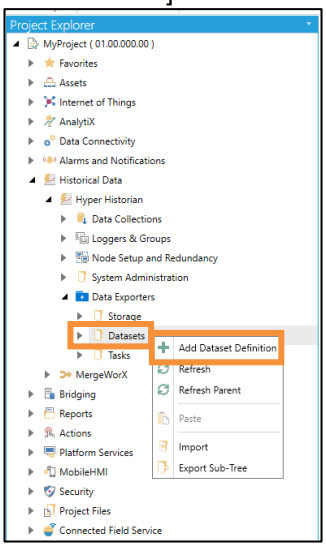



| No. | Item | | Setting |
|---|---|---|---|
| (1) | Name | | The Storage name.<br>Enter any name. |
| (2) | Storage Connection | Connection Type | The destination file format.<br>Select [Local CSV Files]. |
| (3) | | Root Folder | The output destination of pre-conversion files.<br>Click the icon, and then select any folder. |

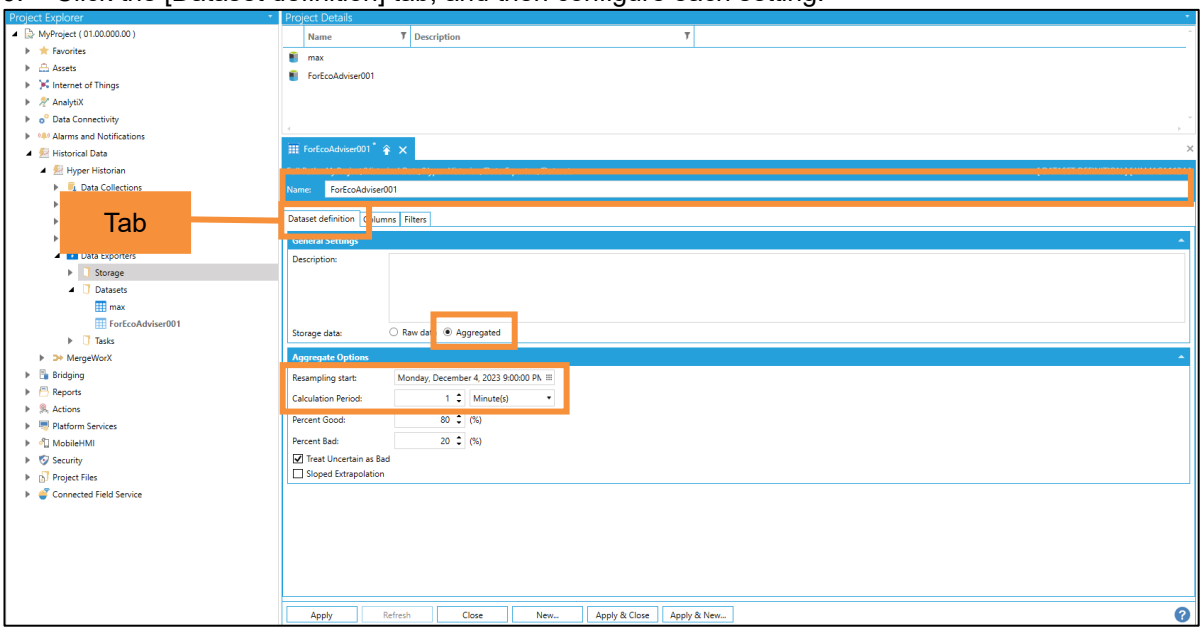
4. Click the [Apply] button.




5. Under [Historical Data > Hyper Historian > Data Exporters], right-click [Datasets], and then click [Add Dataset Definition].

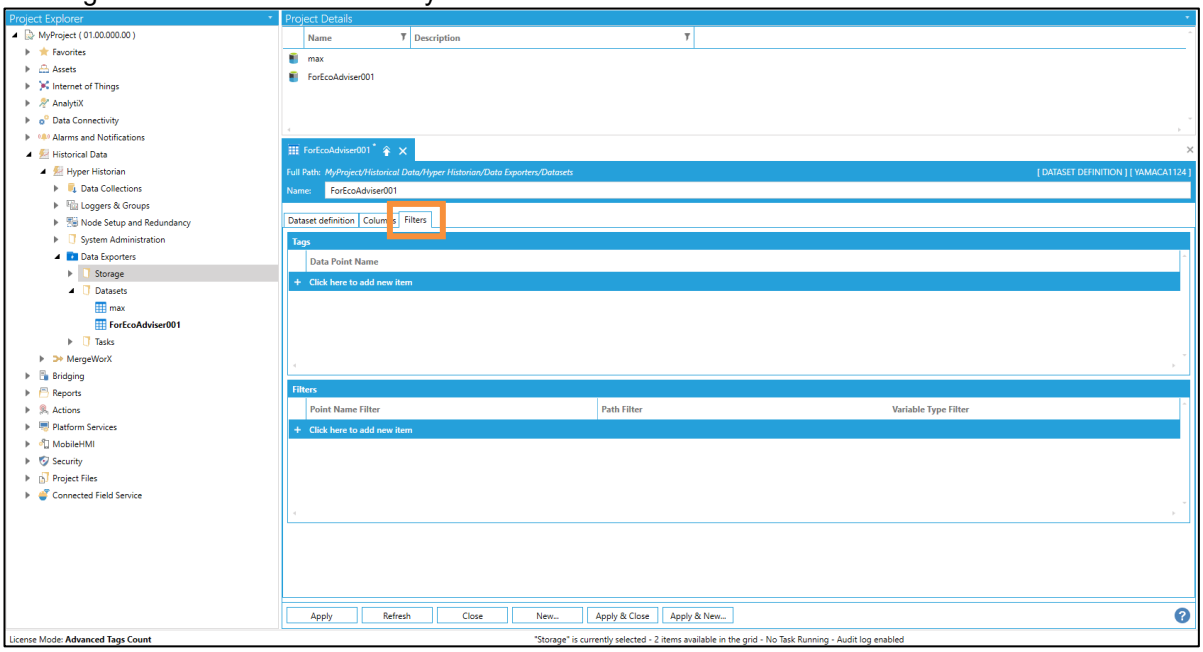


6. Click the [Dataset definition] tab, and then configure each setting.




| No. | Item | | Setting |
|---|---|---|---|
| (1) | Name | | The Dataset name.<br>Enter any name. |
| (2) | General Settings | Storage data | The output data setting.<br>Select [Aggregated]. |
| (3) | Aggregate Options | Resampling start | The output data start time.<br>Select one hour before file output starts, on the hour.<br>(Example) If file output starts at 10:00, select 9:00. |
| (4) | | Calculation Period | The data output cycle.<br>Select [1 Minute(s)]. |

7. Click the [Filters] tab, and then set the tags to output.
   Tags can be selected in two ways.

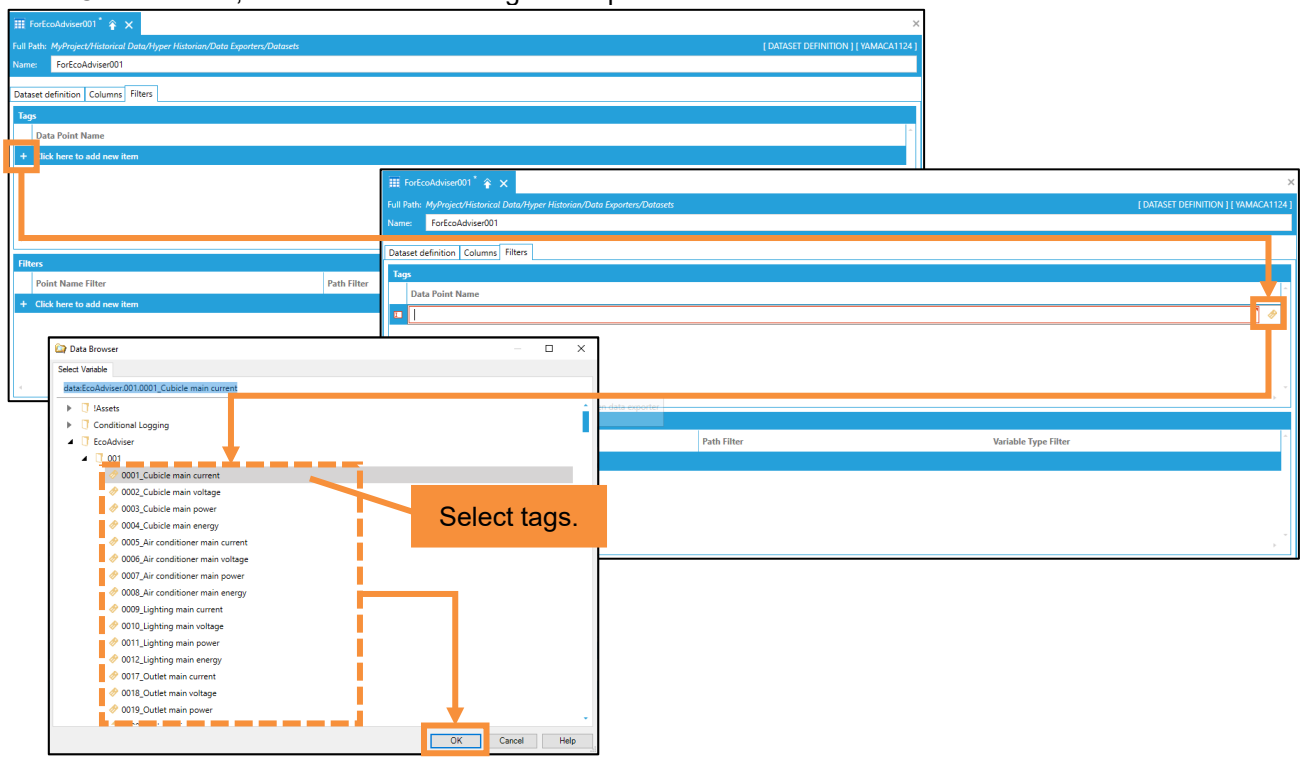



✓ Up to 256 tags can be output at once.
To output more than 256 tags, split the pre-conversion file when outputting.

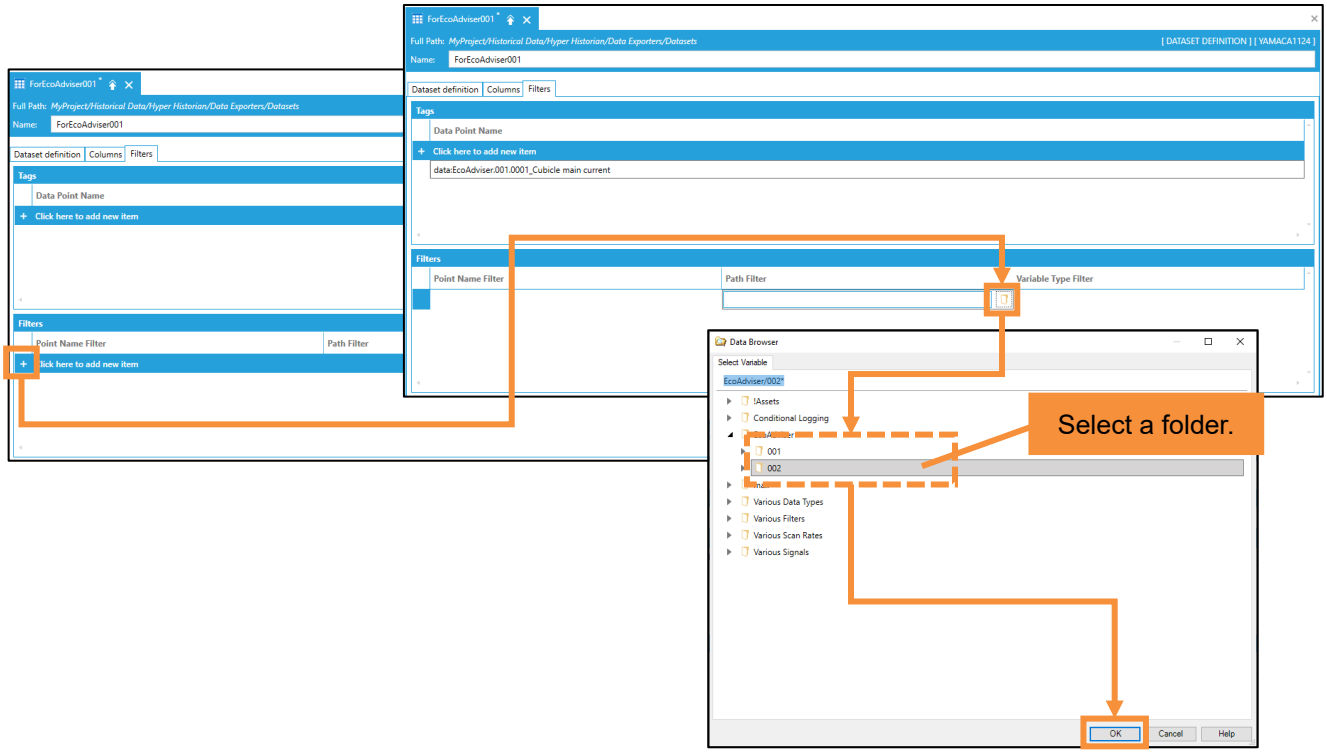
✓ Output tags are registered as the conversion source by pre-conversion file unit.
Set tags to match the folder sorting used for AssetWorX tags (Refer to 4. in Section 6.1)
Example: If tags A to N and M to Z are split by destination folder in History Reader,
tags A to N and tags M to Z are output as separate pre-conversion files.

✓ Mind that tag names are not duplicate in Dataset as it would unable to collect data on EcoAdviser.
The tag name is set as the converted measurement point name by default.
Note that tags of different hierarchies will be converted to the same name.

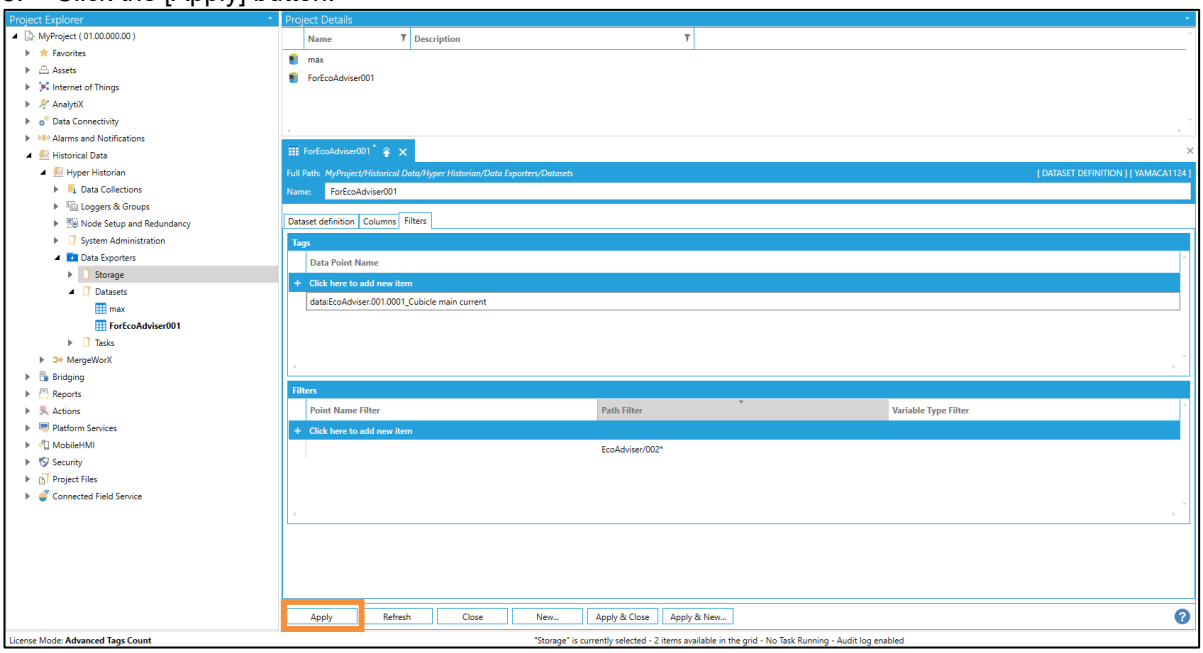
(1) Selecting one tag at a time
Under [Tags], click [+].
Click the icon, and then select the tags to output.



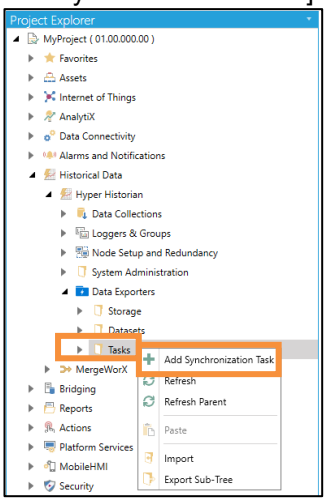

(2) Batch selecting tags contained in a hierarchy
Under [Filters], click [+].
Click the icon, and then select the hierarchy.



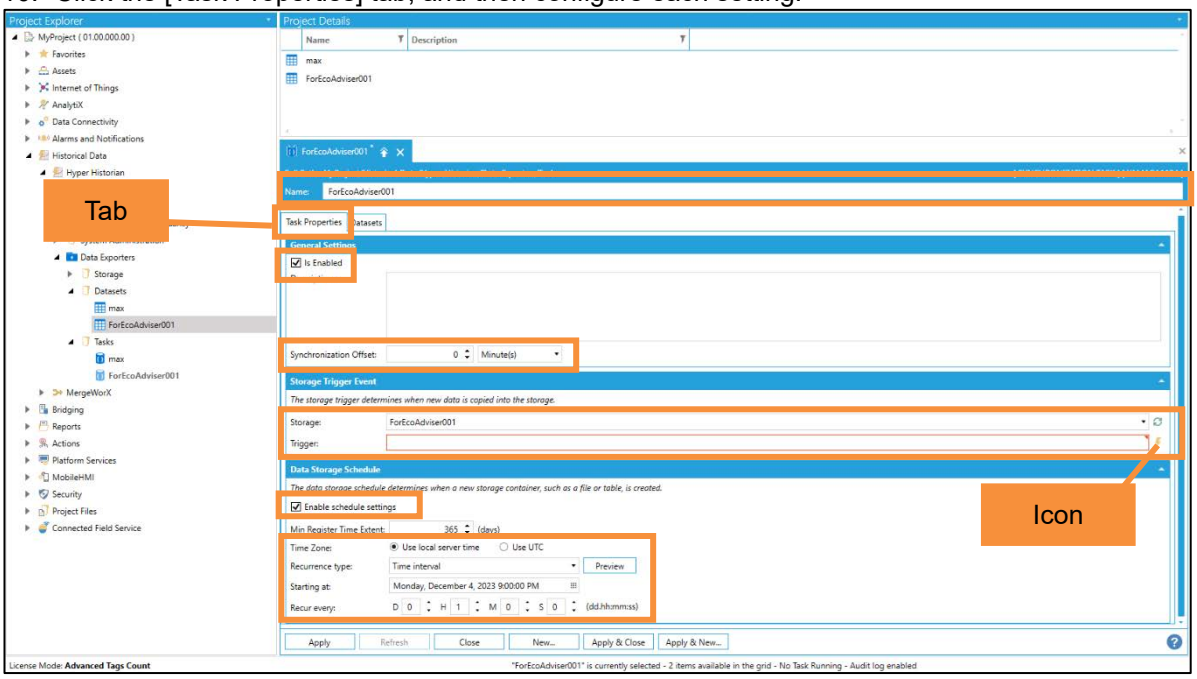
8. Click the [Apply] button.




9. Under [Historical Data > Hyper Historian > Data Exporters], right-click [Tasks], and then click [Add Synchronization Task].

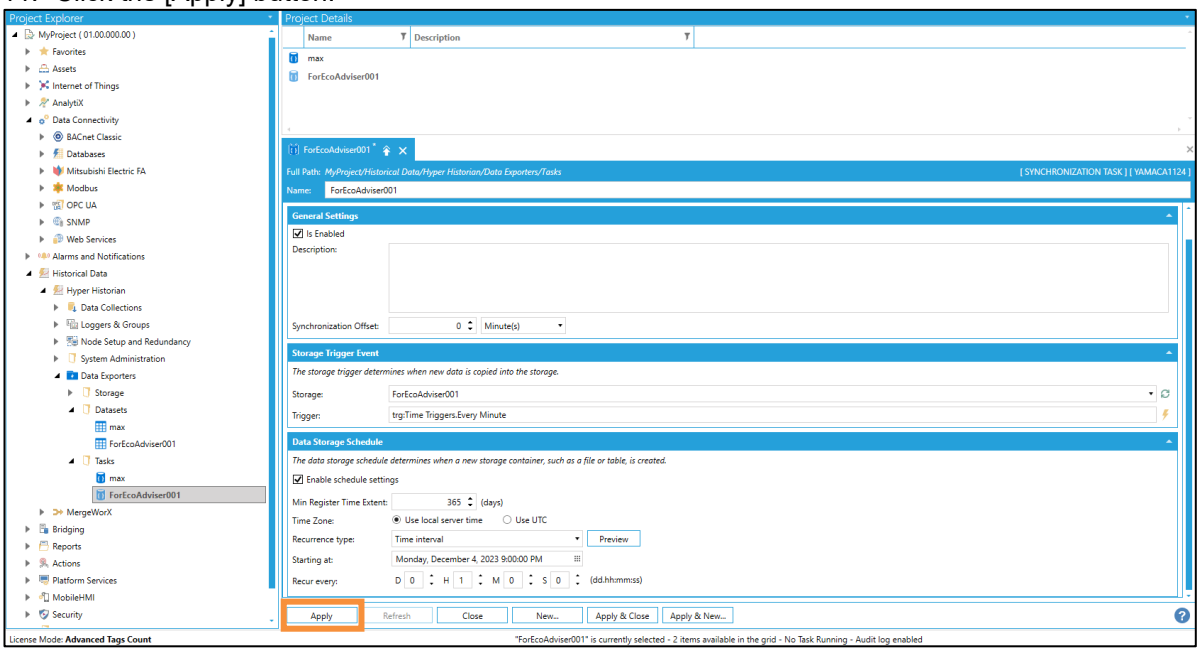


10. Click the [Task Properties] tab, and then configure each setting.

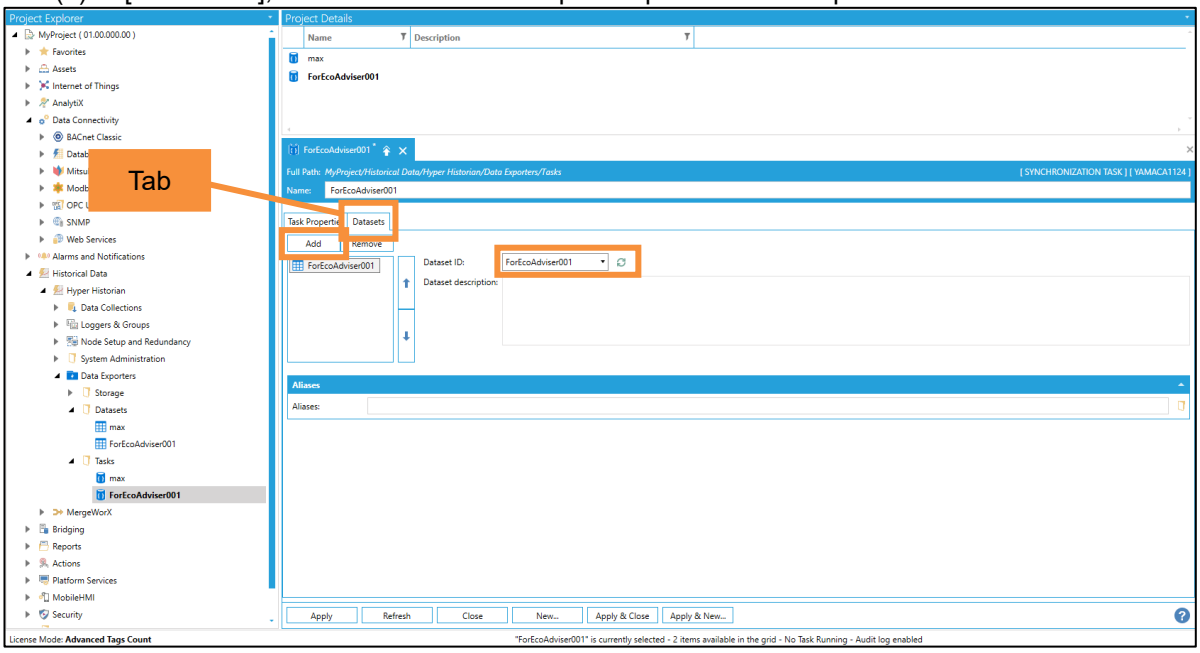



| No. | Item | | Setting |
|---|---|---|---|
| (1) | Name | | The Task name. Enter any name. |
| (2) | General Settings | Is Enabled | The setting to enable/disable the Task. Select this check box. |
| (3) | | Synchronization Offset | The synchronization offset from the current time. Select [0 Minute(s)]. |
| (4) | Storage Trigger Event | Storage | The target Storage.<br>Select the Storage set up in steps 2 to 4 of this procedure. |
| (5) | | Trigger | The time at which data is copied to Storage.<br>Click the icon, and then navigate from [My computer > Actions > Triggers > Date/Time Triggers] to select [Every Minute]. |
| (6) | Data Storage Schedule | Enable schedule settings | The setting to enable/disable the schedule. Select this check box. |
| (7) | | Time Zone | The time zone. Select [Use local server time]. |
| (8) | | Recurrence type | The recurrence setting. Select [Time interval]. |
| (9) | | Starting at | The Task start time.<br>Select one hour before file output starts, on the hour.<br>(Example) If file output starts at 10:00, select 9:00. |
| (10) | | Recur every | The Task recurrence cycle.<br>Select [0.1:00:00(D:0 H:1 M:0 S:0)]. |

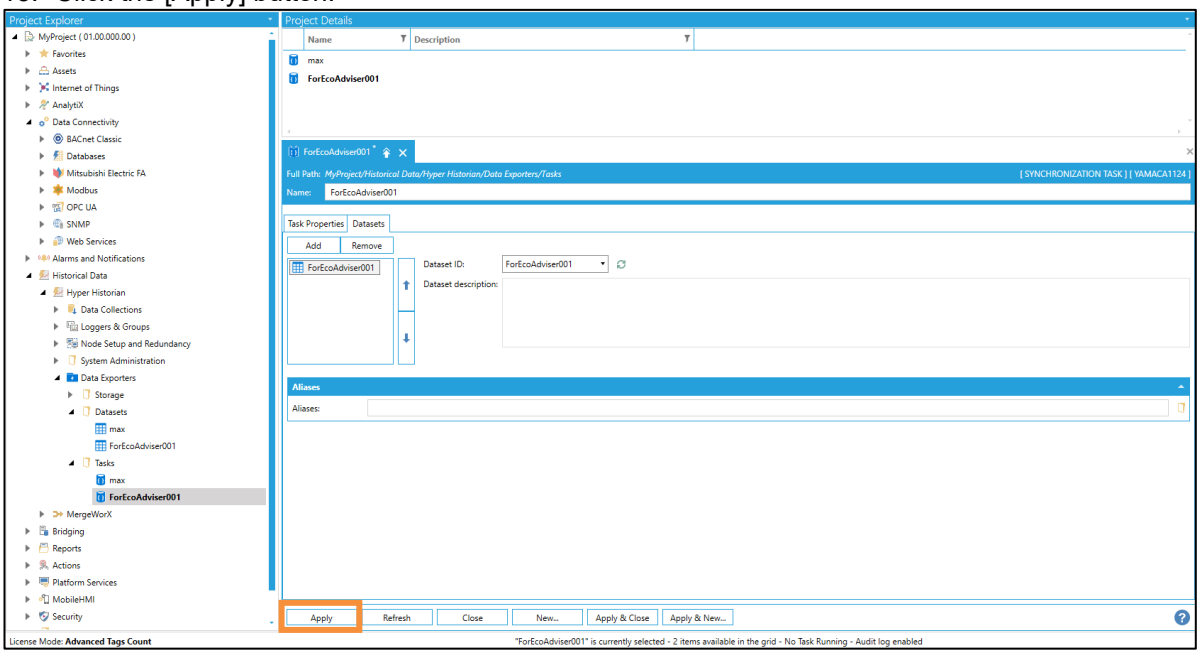
11. Click the [Apply] button.



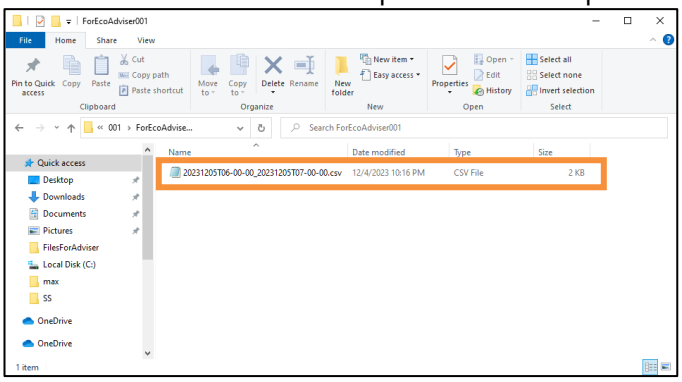

12. Click the [Datasets] tab, and then configure the target Dataset.
    (1) Click the [Add] button.
    (2) In [Dataset ID], select the Dataset set up in steps 5 to 8 of this procedure.



13. Click the [Apply] button.



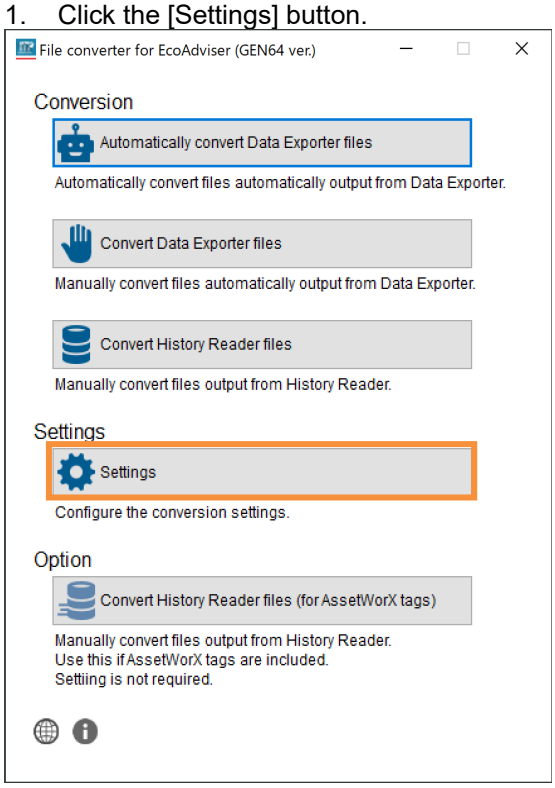

14. Confirm that the pre-conversion file is output one minute later.
    Pre-conversion files are output to the folder specified in step 3 (3) of this procedure.



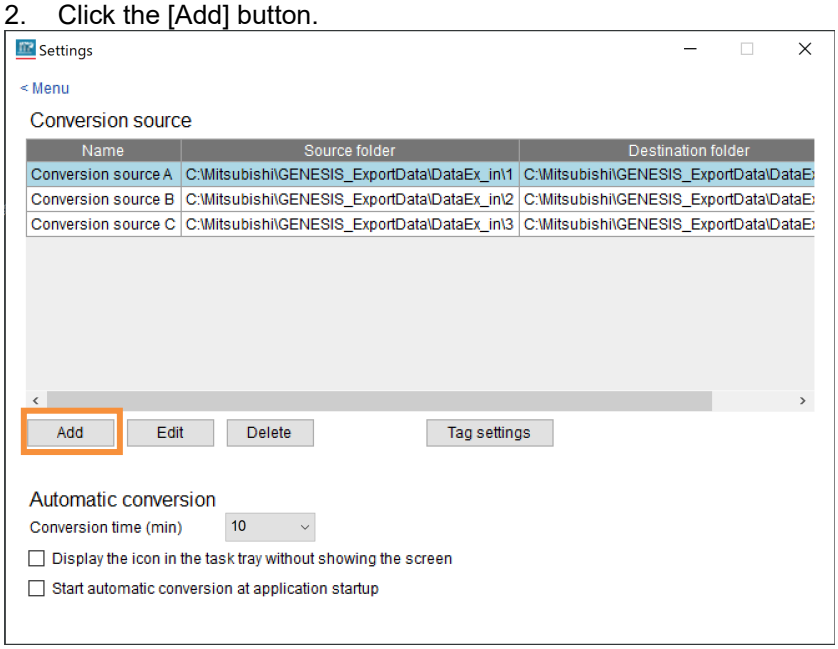
## 6.6 Setting the conversion source

Register the conversion source with the software.

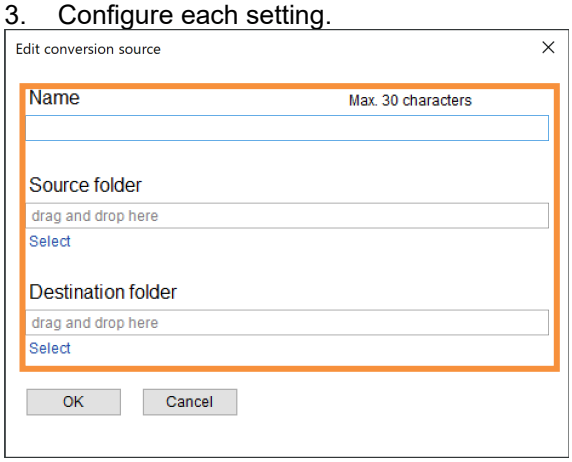
1. Click the [Settings] button.




2. Click the [Add] button.

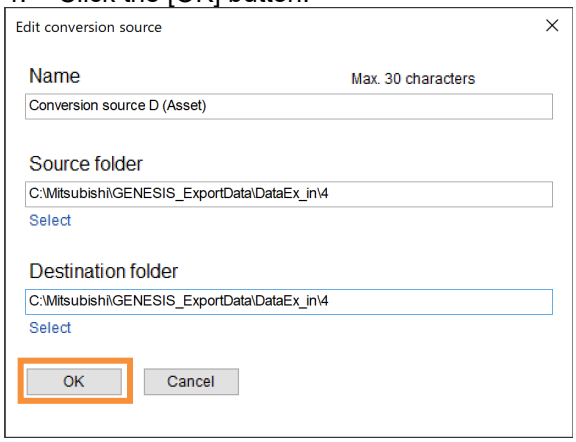


3. Configure each setting.




| Item | Setting |
|---|---|
| Name | Enter the name of the conversion source to manage in the software.<br>Max. character length: 30 characters<br>Prohibited characters: Single-byte symbols (\ / : * ? “ < > \|) |
| Source folder | Select a folder to save the pre-conversion file to.<br>Click [Select], and then select the folder.<br>You can also drag and drop the folder from Explorer to select it. |
| Destination folder | Select a folder to save the converted data file to.<br>This is data folder path selected when registering the collection source in EcoAdviser.<br>Click [Select], and then select the folder.<br>You can also drag and drop the folder from Explorer to select it. |

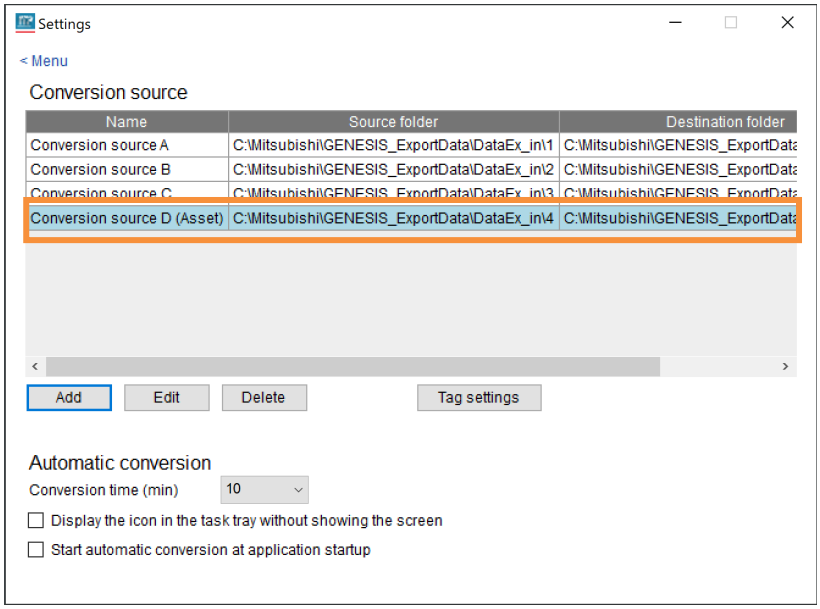
4. Click the [OK] button.



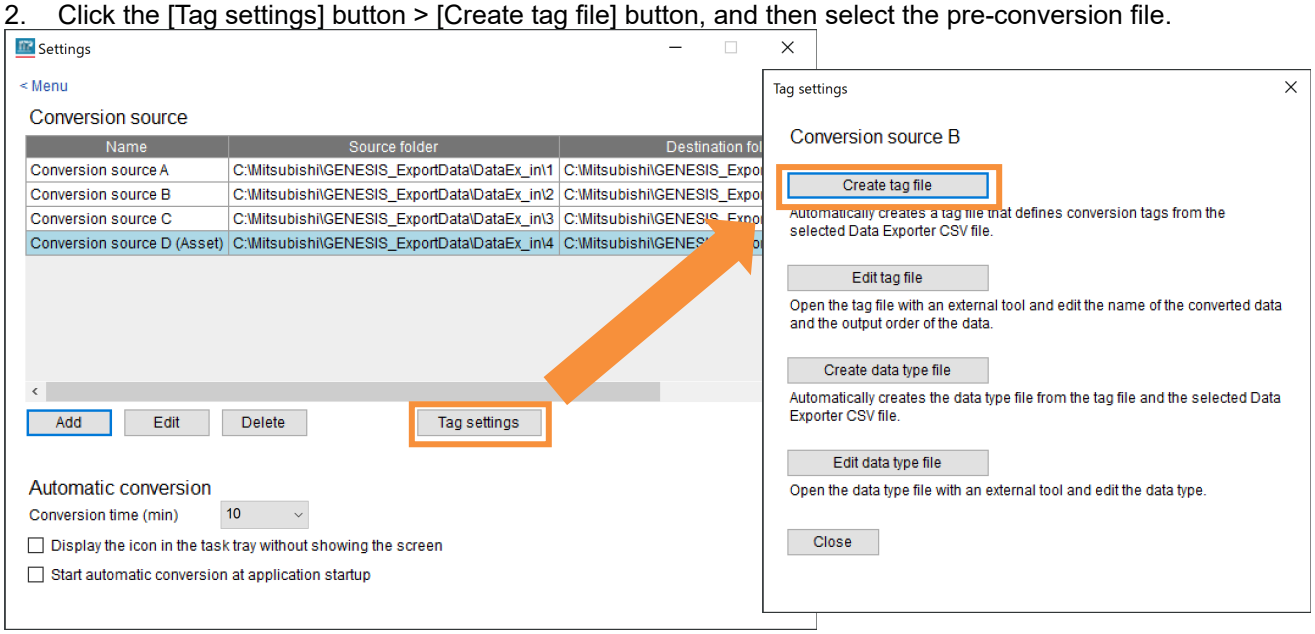
## 6.7 Creating a tag file

This creates a file that records the correspondence between the pre-conversion name (the GENESIS64 tag name) and the post-conversion name (the name of the measurement point registered in EcoAdviser).
This is required when converting data files.

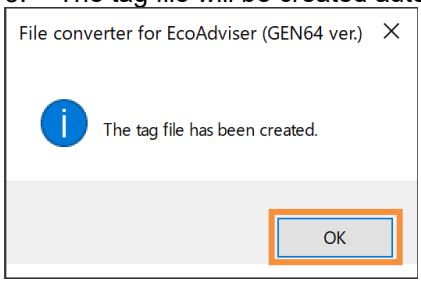
1. Select conversion source



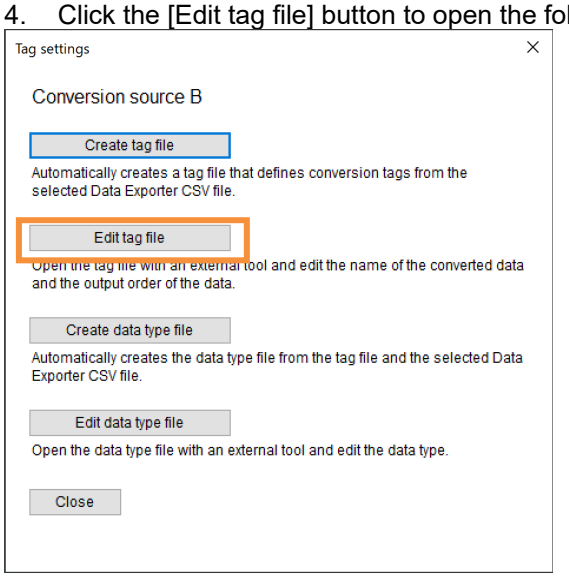

2. Click the [Tag settings] button > [Create tag file] button, and then select the pre-conversion file.




3. The tag file will be created automatically. Click the [OK] button to close the message.



4. Click the [Edit tag file] button to open the folder where the tag file is located.

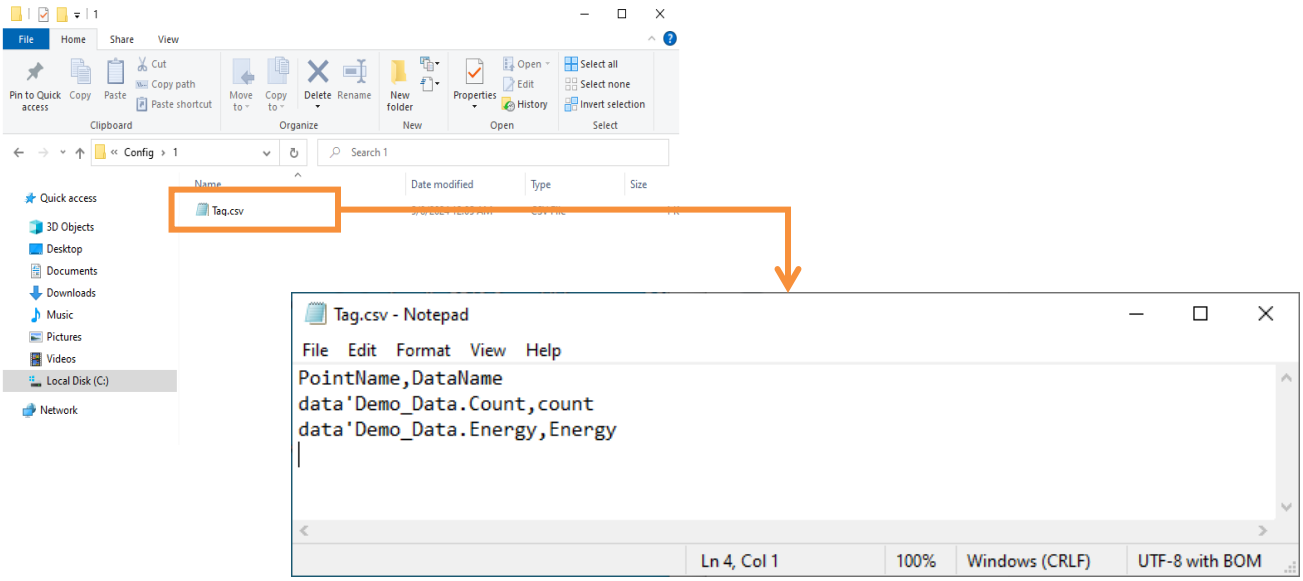


5. Open the tag file in a text editor (e.g. Notepad), and edit it as described below.

✓ Enter in CSV format. (Enter “,” (comma) between columns.)

✓ Enter text in single-byte alphanumeric characters. Do not use “,” (commas) in column entries.

✓ “n” is used to represent the number of measurement data items to be converted. Up to 256 data items can be converted.



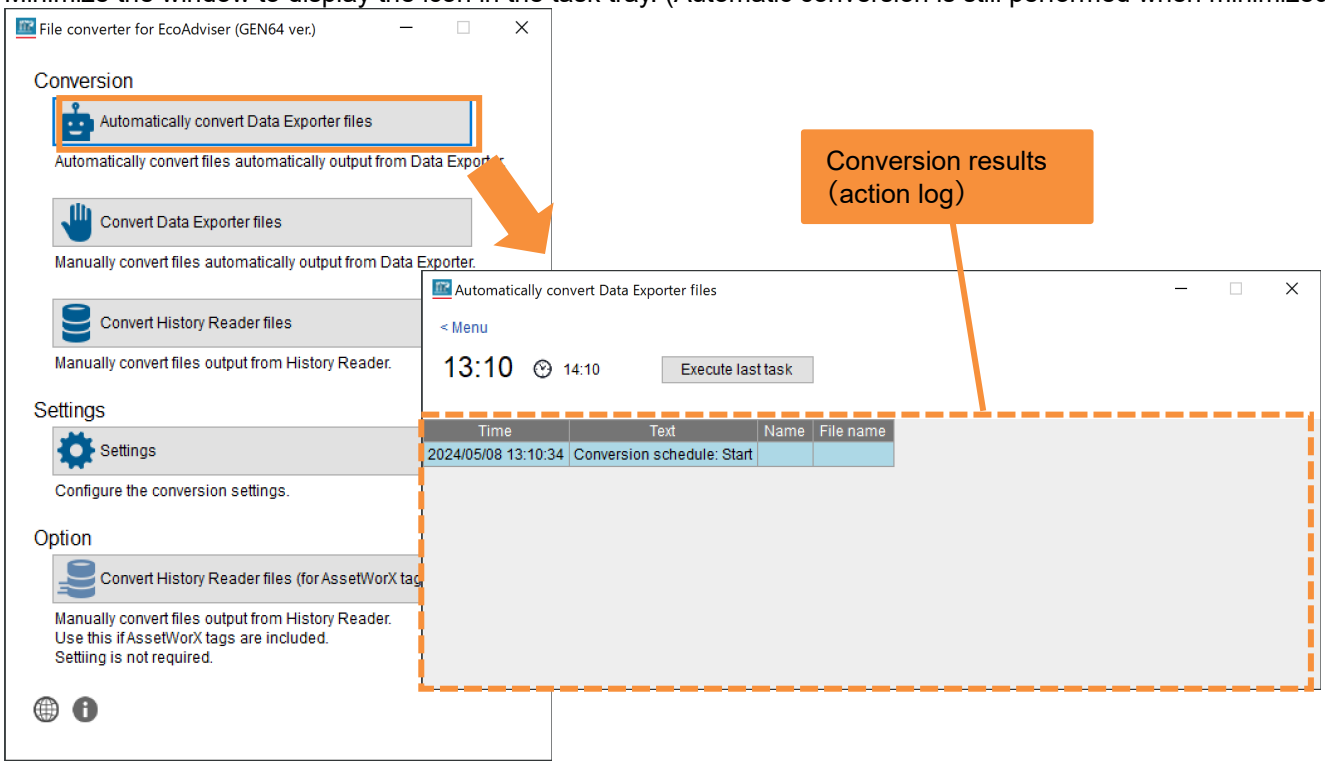

| | | Column 1 | Column 2 |
|---|---|---|---|
| Row 1 | Example | PointName | DataName |
| | Remarks | Do not change. | |
| Row 2 | Example | Data: Trend1-Pen1 | Name1 |
| | Remarks | Do not change. | Enter the name of the converted measurement point for measurement data 1.<br>Enter the name listed for the data type file output in Section 6.2. *1 |
| Row 3 | Example | Data: Trend1-Pen2 | Name2 |
| | Remarks | Do not change. | Enter the name of the converted measurement point for measurement data 2.<br>Enter the name listed for the data type file output in Section 6.2. *1 |
| | | ⋮ | |
| Row n+1 | Example | Data: Trend1-Pen n | Name n |
| | Remarks | Do not change. | Enter the name of the converted measurement point for measurement data n.<br>Enter the name listed for the data type file output in Section 6.2. *1 |

*1: The third line in the data type file shows the name of each measurement data entry.
This is registered as the name of the measurement point in EcoAdviser. The maximum character length is 30 characters.
If the tag names of GENESIS64 are duplicate, change DataName so it will avoid duplication in measuring point names on EcoAdviser.

## 6.8 Automatic conversion

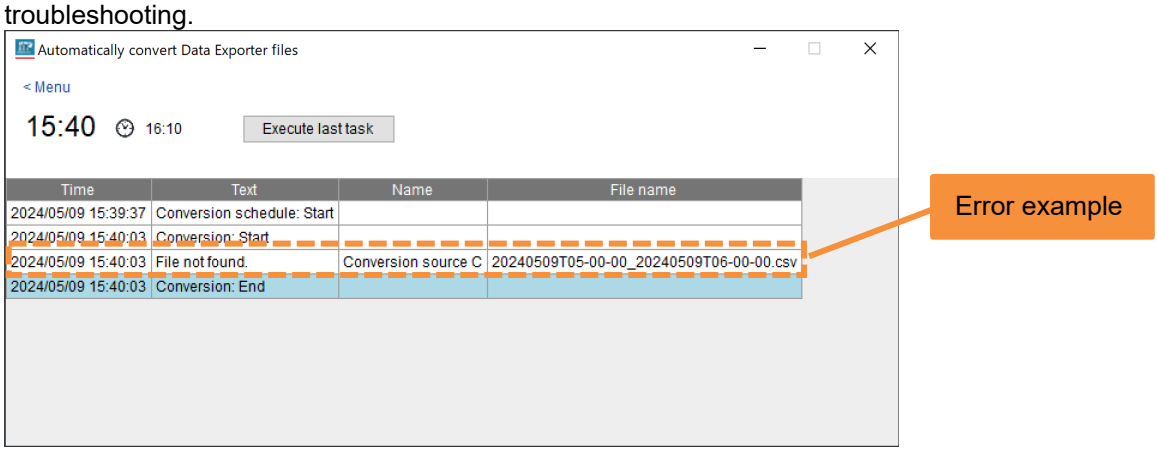
Perform an automatic conversion to automatically collect data in EcoAdviser.

Click the [Automatically convert Data Exporter files] button.
Automatically convert data from each collection source to display the conversion results (action log) in a window.
Minimize the window to display the icon in the task tray. (Automatic conversion is still performed when minimized)




To finish automatic conversion, click the [x] button.
To run the most recent automatic conversion process again, click the [Execute last task] button.

If an error message appears in the action log, refer to Section 8.1 to identify the cause and perform troubleshooting.



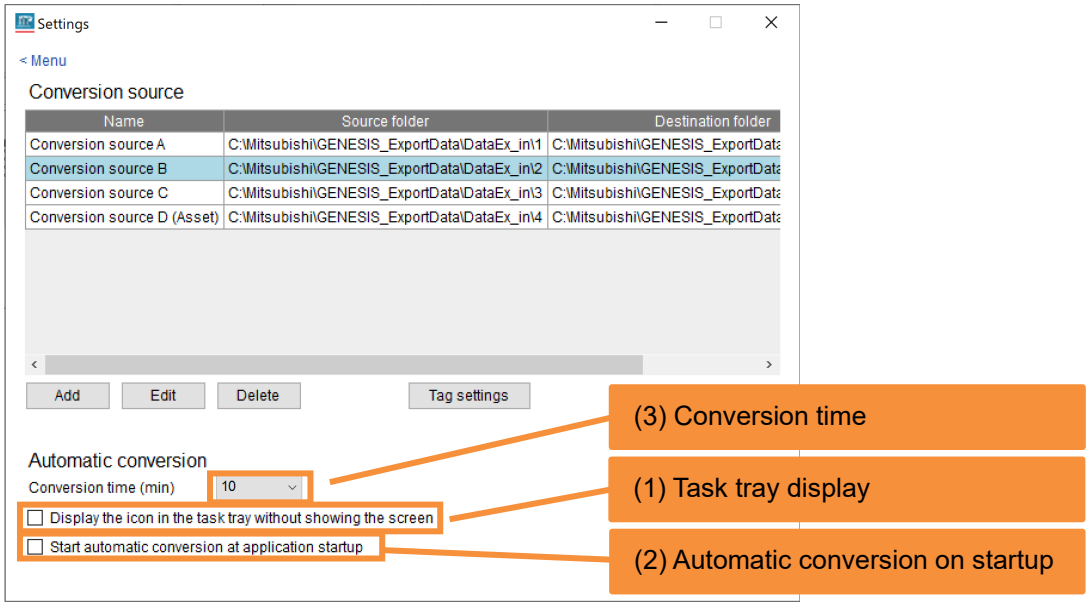
## Helpful settings for automatic conversion

You can opt to enable or disable the following functions from the Settings screen.

(1) Display the icon in the task tray without showing the screen
This displays the icon in the task tray without showing the Automatic conversion screen when clicking the [Automatically convert Data Exporter files] button.

(2) Start automatic conversion at application startup
This starts automatic conversion (displays the Automatic conversion screen) when starting up the software.
If the function described in (1) is enabled, the icon will appear in the task tray without showing the screen.

(3) Change the conversion time
The automatic conversion time can be set in 10-minute increments from 10 to 50 minutes each hour.



# 7. Troubleshooting

## 7.1 Condition and countermeasures

| Software | Condition | Cause and countermeasures |
|---|---|---|
| GENESIS64 | Data Collection does not appear. | The Data Collection is a function that is only available with a GENESIS64 Advanced license.<br>Please change to an Advanced license. |
| | The Data Exporter does not output pre-conversion files | The following settings may be incorrect.<br>• Storage: Root Folder (page 10)<br>Has this been set to a folder that does not exist?<br>Set this to a folder that exists.<br>• Datasets: Filters (page 12)<br>Have unnecessary tags, or tags that do not exist been set?<br>Only set this to output tags (tags that exist).<br>• Tasks: Is Enabled (page 15)<br>Has this been unchecked?<br>Select this check box to enable the Task. |
| | | The following services may have stopped.<br>If any of these services have been stopped, start them again.<br>• ICONICSFrameWorXTriggers<br>• ICONICSHyperHistorianLogger<br>• ICONICSHyperHistorianOPCHADServer |
| EcoAdviser | There are intermittent skips in the data collected | The pre-conversion data file may not have been created properly. Create the file again, taking note of the following.<br>■ For Data Exporter<br>The Recur every setting in the Data Storage Schedule<br>Make sure [0.1:00:00(D:0 H:1 M:0 S:0)] is selected.<br>■ For Historian Reader<br>Processing Interval setting<br>Make sure [60] is entered. |
| | The integrated data collected is abnormal | The measurement type of the measurement point may have been set incorrectly when registering with EcoAdviser.<br>Check the following in EcoAdviser, and correct any errors.<br>• The measurement type of the measurement point is [Pulse].<br>• The Measuring Type of the collection source is [Indicated].<br>* Note that changing the integrated value type will affect all measurement points for the collection source. If an indicated value and a difference value exist, the data must be registered with EcoAdviser with a different collection source. |
| | | The pre-conversion data file may not have been created properly. Create the file again, taking note of the following.<br>■ For Data Exporter<br>The Recur every setting in the Data Storage Schedule<br>Make sure [0.1:00:00(D:0 H:1 M:0 S:0)] is selected.<br>■ For Historian Reader<br>Processing Interval setting<br>Make sure [60] is entered. |
| | Failure in data collection | The names of measuring points of the collection sources may be duplicate. Change tag names of GENESIS64 and/or DataName of the tag files as not to duplicate the measuring point names. |

## 7.2 Error messages and countermeasures

This section describes countermeasures to perform if an error message appears while using the software.

| Screen (operation) | Error message (first sentence) | Countermeasures |
|---|---|---|
| At startup | Failed to create Settings folder | Check whether the application folder has been saved to a folder in which you have write permission. If it has been saved to a folder in which you do not have write permission, change the storage destination. |
| | Failed to create conversion source settings file. | Check whether you have written permission for the Config folder. If write access is restricted, change folder permissions to grant write permission. |
| Menu screen (When clicking the Settings button) | Failed to read the conversion source settings file. | The Source.csv file in the application folder is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |
| | Failed to read the tag file. | The tag file (Tag.csv) in the application folder is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |
| Menu screen (When clicking the Automatically convert Data Exporter files button) | Failed to create a log folder. | Check whether the application folder has been saved to a folder in which you have write permission. If it has been saved to a folder in which you do not have write permission, change the storage destination. |
| | Failed to open the log file. | The log file in the application folder is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |
| Settings screen (When clicking the Add button) | Failed to update conversion source settings file. | The Source.csv file in the application folder is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |
| | Failed to create conversion source settings folder. | Check whether another folder with the same name as the conversion source you are trying to add exists in the Config folder. If a folder with the same name already exists, either delete the folder, or move it to another folder. |
| Settings screen (When clicking the Create tag file button) | Failed to create tag file. | The tag file (Tag.csv) in the application folder is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |
| Settings screen (When clicking the Edit button) | Failed to rename conversion source settings folder. | A folder or file in the Config folder is currently being accessed by another software application. If any of these folders or files have been open on your system or by another user, please ensure they are closed. |
| Settings screen (When clicking the Delete button) | Failed to delete conversion source settings folder. | A folder or file in the Config folder is currently being accessed by another software application. If any of these folders or files have been open on your system or by another user, please ensure they are closed. |

| Screen (operation) | Error message (first sentence) | Countermeasures |
|---|---|---|
| Convert Data Exporter files screen | Failed to create a destination folder. | The destination folder cannot be accessed. Identify the cause and resolve the issue. Possible causes include the following.<br>• Unable to access due to a network failure. (If the destination folder is on a network)<br>• You have not been granted access or write permissions for the destination folder. |
| | Failed to read the source file. | The pre-conversion file is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |
| | There are no tags to be converted. | The Hyper Historian tags recorded in the tag file (Tag.csv) are different to the Hyper Historian tags in the pre-conversion file (no matching Hyper Historian tags found). Possible causes include the following.<br>• There are pre-conversion files of a different conversion source.<br>• The pre-conversion file specified when creating the tag file (Hyper Historian tags) and the pre-conversion file saved to the source folder (Hyper Historian tags) are different.<br>• The source folder settings are incorrect. |
| | Failed to write to destination file. | The file to be overwritten in the destination folder is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |
| Convert History Reader files (for AssetWorX tags) screen | This tag is not supported. | The source folder contains unsupported tag data. Save the correct pre-conversion file to the source folder. Possible causes include the following.<br>• The folder specified is wrong.<br>• Tags different from the AssetWorX tags were selected when outputting the pre-conversion file. |
| | Failed to create Data type file folder. | The destination folder cannot be accessed. Identify the cause and resolve the issue. Possible causes include the following.<br>• Unable to access due to a network failure. (If the destination folder is on a network)<br>• You have not been granted access or write permissions for the destination folder. |
| | Failed to create Data type file. | The data type file to be overwritten in the destination folder is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |

# 8. Appendix

## 8.1 Types of operation logs

| Description | Name | File name | Details/Countermeasures |
|---|---|---|---|
| Start conversion schedule | (Blank) | (Blank) | Started automatic conversion of Data Exporter files. |
| Finish conversion schedule | (Blank) | (Blank) | Finished automatic conversion of Data Exporter files. |
| Start conversion | (Blank) | (Blank) | Started conversion process. |
| Finish conversion | (Blank) | (Blank) | Finished conversion process. |
| Create destination folder error | Conversion source name | (Blank) | The destination folder cannot be accessed. Identify the cause and resolve the issue. Possible causes include the following.<br>• Unable to access due to a network failure. (If the destination folder is on a network)<br>• You have not been granted access or write permissions for the destination folder. |
| Source file not found error | Conversion source name | Source file path | The source folder cannot be accessed. Identify the cause and resolve the issue. Possible causes include the following.<br>• Unable to access due to a network failure. (If the source folder is on a network)<br>• You have not been granted access or write permissions for the source folder.<br>• The source folder does not exist. |
| Source file read error | Conversion source name | Source file path | The pre-conversion file is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |
| Input data not found error | Conversion source name | Source file path | No data found in pre-conversion file. Output the pre-conversion file with Data Exporter. Confirm that there are no errors in the measurement data collected in GENESIS64, and take the necessary countermeasures. |
| Conversion target tag not found error | Conversion source name | Source file path | The Hyper Historian tags recorded in the tag file (Tag.csv) are different to the Hyper Historian tags in the pre-conversion file (no matching Hyper Historian tags found). Possible causes include the following.<br>• There are pre-conversion files of a different conversion source.<br>• The pre-conversion file specified when creating the tag file (Hyper Historian tags) and the pre-conversion file saved to the source folder (Hyper Historian tags) are different.<br>• The source folder settings are incorrect. |
| Destination file write error | Conversion source name | Destination file path | The file to be overwritten in the destination folder is currently being accessed by another software application. If this file is open on your system or by another user, please ensure it is closed. |

## 8.2 FAQ

| | |
|---|---|
| **Q** | Can converted data be used with the diagnostic functions in EcoAdviser? |
| **A** | Converted data can be used with diagnostic functions provided that energy measurement points, production volume measurement points, and other data required for diagnosis in EcoAdviser are retrieved. |

| | |
|---|---|
| **Q** | What if the OS time zone accounts for daylight saving time? |
| **A** | The time of the files to be converted will move forward one hour when daylight saving time starts, and move back one hour when daylight saving time ends. In EcoAdviser, data collection skips forward one hour after daylight saving time starts, and data collected one hour before the end of daylight saving time is overwritten. |

| | |
|---|---|
| **Q** | Can converted data files be used on systems other than EcoAdviser? |
| **A** | Use of converted data on systems other than EcoAdviser is not supported. |

## 8.3 Release notes

| Version | Main changes |
|---|---|
| 1.0.0 | The first release version. |

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# File converter for EcoAdviser(GEN64 Ver)

Please refer to our website for service network.
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