

Action.NET

Automatic Measures Export

Version 2016.2

User Guide

july, 2018

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On this page are exemplified the styles to be used with the attention icons of the text. Style is **Attention – icons**.



Tip. Indicates useful and quick information for troubleshooting small problems.

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1. OVERVIEW

1.1 Requirements

For the current version the prerequisites for this guide are:

- Action.Net version 2016.2.83 or higher installed on the machine;

1.2 Description

Functionality: Automatic Measures Export

Current Version: 1.0

The automatic export of measurement history functionality is a script that can be added in the project, so that according to a desired time and the previously saved filters, automatically filter the measurement history data and export this filtered data to the XML format on the user's computer (the location to be saved can be chosen).

2. UTILIZATION

2.1 Action.Net Setup

2.1.1 Class Creation

First, it's necessary to create a new class in 'Edit -> Scripts -> Classes' (in the example project, the class was created with the name 'FilterNExport'). Next, select the created class CodeEditor and add the following variable definitions: SPIN.ActionNet.Biz, SPIN.ActionNet.Entity.Filter and SPIN.ActionNet.Enums.

```
1 using SPIN.ActionNet.Biz;  
2 using SPIN.ActionNet.Entity.Filter;  
3 using SPIN.ActionNet.Enums;
```

Inside the 'Main' method, it's necessary to first create a new 'Filter' type list and then call the method 'FilterBiz.LoadFilterList', passing as an argument the list of filters created and the 'byte' casted enumerator '(byte)FilterType.HistoricMeasures' to identify that the filter's list is of type measures. This function will populate the filter's list with all the user's saved filters.

Following, still in the 'Main' method, call 'FilterAndExport' method, passing as an argument the list of filters. This method will execute the user's saved filters and export all results to xml.

Finally, it is necessary to create the 'FilterAndExport' method inside the class, it will have a loop that iterates all the filter's list items. Inside the loop, call 'MeasuresBiz.GetMeasures' method that applies the measures filter, passing as an argument a single filter item, and then call 'MeasuresBiz.ExportXmlMeasures' method that exports the filtering results to xml, passing as an argument a string with the desired directory to save the file.

Here is the example code for the class 'FilterNExport' mentioned above:

```
using SPIN.ActionNet.Biz;  
using SPIN.ActionNet.Entity.Filter;  
using SPIN.ActionNet.Enums;  
  
public void Main()  
{  
    List<Filter> filters = new List<Filter>();  
    FilterBiz.LoadFilterList(filters, (byte)FilterType.HistoricMeasures);  
  
    //Filter And Export the whole saved filters list:  
    FilterAndExport(filters);  
}  
  
private void FilterAndExport(List<Filter> filters)  
{  
    foreach(Filter filter in filters)
```

```
{
    MeasuresBiz.GetMeasures(filter);
    MeasuresBiz.ExportXmlMeasures(@"C:\Users\ Desired_Directory_To_Save \Desktop\" +
filter.Name + "-" + DateTimeOffset.Now.ToString("dd-MM-yyyy HH-mm-ss") + ".xml");
}
```



The string passed as an argument to the method 'MeasuresBiz.ExportXmlMeasures' should have, besides the desired directory to save the file, the filter name, date/time and the file's format (.xml). Example: @"Desired_Directory_To_Save" + **filter.Name** + "-" + **DateTimeOffset.Now.ToString("dd-MM-yyyy HH-mm-ss")** + ".xml"



The folder on the server where the files are saved needs to be shared on the network.



If the data filtering results empty (without any data), no files will be saved in the computer.

2.1.2 Task Creation

First, it's necessary to create a new task in 'Edit->Scripts->Tasks' (in the example project, the task was created with the name 'AutoFilter'). Next, select the created task CodeEditor and call the 'Main' method of the previously created class:

Here is the example code for the task 'AutoFilter' mentioned above:

```
// Calls FilterNExport Main method every hour.
if(DateTime.Now.Hour >= 0 && DateTime.Now.Hour < 1)
{
    @Script.Class.FilterNExport.Main();
}
```

Where 'DateTime.Now.Hour >= 0 && DateTime.Now.Hour < 1' specifies the time interval for filtering and exporting (in this case, it will be done every day between 00:00:01 and 01:00:00 hours). If you want to change the collection time, just change the value at the left, to change the beginning of the collection window, and the value at the right to change the end of the collection window. If you do not want a collection window, just remove the 'if' condition.

Finally, return to 'Tasks' and edit the 'Period' field with the desired frequency that the filtering and data export will occur. (In the example project, a period of 1 hour was chosen).

Name	Code	Trigger	Period	Domain	BuildStatus	BuildErrors
AutoFilter	CSharp		one hour	Server	✓	none

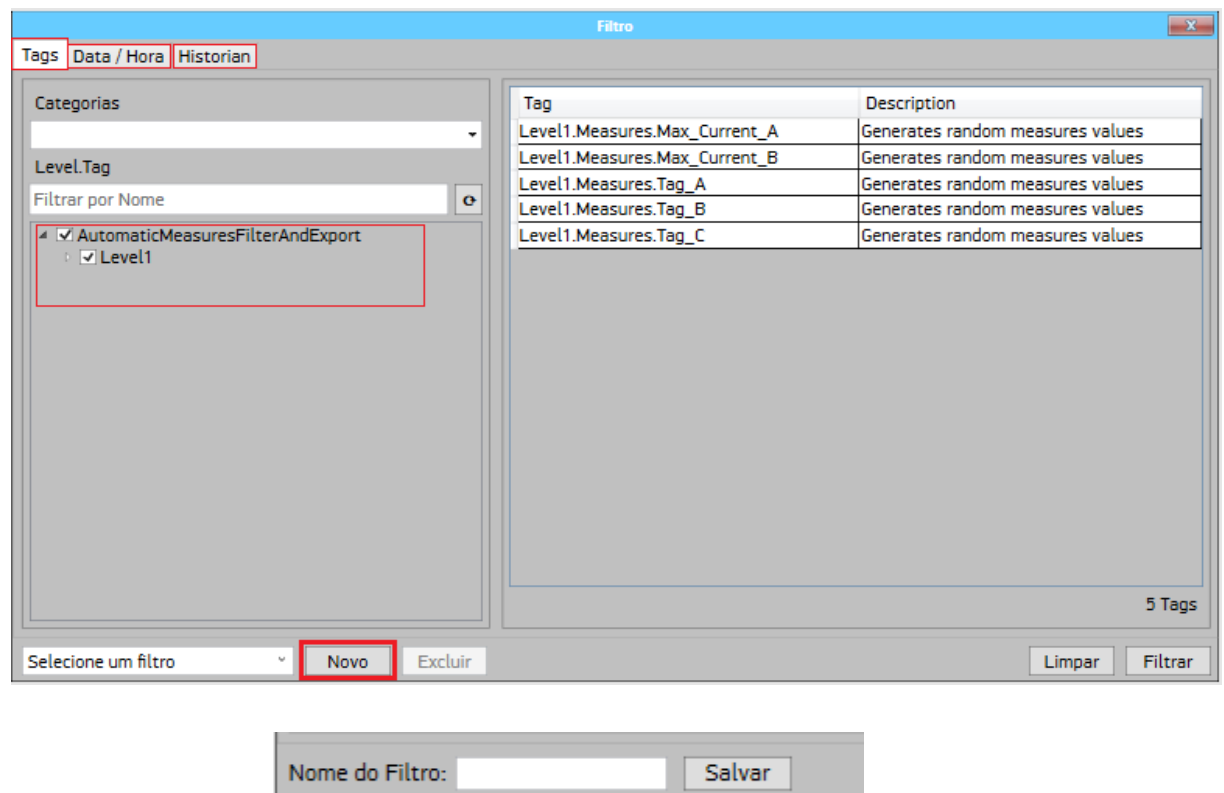
2.2 Add/Update/Delete Filters

2.2.1 Add Filters

To add new filters, simply run the project, go to the Historic Measures tab and click the filter button.



Then select all desired filter settings (tags that will be selected, Date/Time and Statistics (Historian)). Click on the 'New' button, enter a name for the filter, and then click 'Save'. (In the example project, 3 sample filters were created: 'TEST', 'ONEMORE' and 'ANOTHERFILTER'.)



! TÍP Do not forget to set a date setting for the auto filter run (it will be done only for the specified dates). Select 'Yesterday' so that the filter is always made the previous day, as seen below:

2.2.2 Update Filters

To update the filter, just do the same process of [adding](#) a filter, with the difference of saving the filter with the same name as an existing one, to update it.

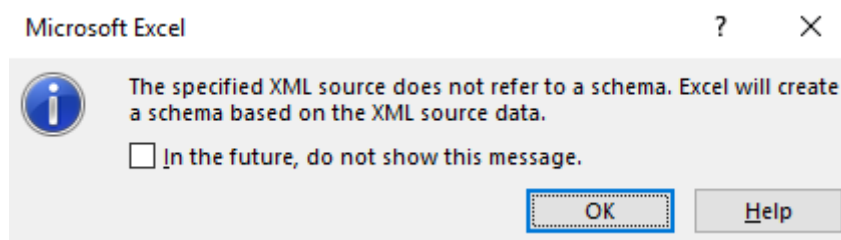
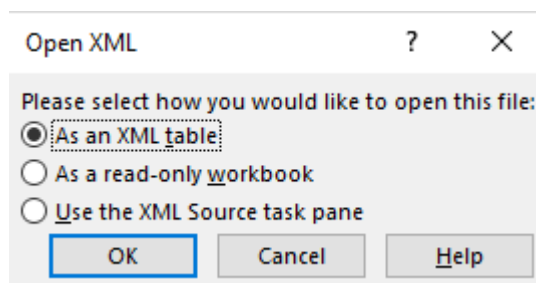
! TÍP Use the option to select a saved filter, then make the filter edits, finally click 'New' and then 'Save' to facilitate the process

2.2.3 Delete Filters

To delete a filter, just go to the same window where you can [add](#) filters, use the option to select a saved filter and then click 'Delete'.

2.3 Opening The XML File

After executing the project and exporting a filter, just open the file with excel. When opening, a message will appear asking which way the file should be opened. Select the option to open the file as an xml table and in the next question click 'OK'.



Lastly, the data for the normally saved file, as shown below, will be displayed:

Data / Hora	tag1[0]	tag1[1]	tag1[10]	tag1[2]	tag1[3]	tag1[4]	tag1[5]	tag1[6]	tag1[7]	tag1[8]	tag1[9]
05/06/2018 10:39:00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00
05/06/2018 10:40:00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00
05/06/2018 10:41:00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00
05/06/2018 10:42:00	84,80	32,15	55,44	61,52	72,66	36,20	100,00	30,13	50,38	29,12	66,58
05/06/2018 10:44:00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00
05/06/2018 10:45:00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00
05/06/2018 10:46:00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00	-0,00
05/06/2018 10:47:00	65,57	30,14	67,59	61,51	82,79	59,49	84,81	69,62	27,10	29,12	30,14