



10 Commerce Way
Norton, Massachusetts 02766
Tel: 508.946.5100
Fax: 508.946.9500
info@mccdaq.com
www.mccdaq.com

DASYLab Techniques

Create a worksheet that saves a new file at midnight every day, DASYLab Full and Pro

This document describes how to create a worksheet that saves a new file at midnight every day.

For measurement tasks that run over multiple days, weeks or months, it can be useful to create a new data file every day, rather than to have all of the data in one file with multiple days. DASYLab Full or Pro can be configured to start a new file at midnight. Because this feature uses the Action module, it will not work in DASYLab Lite or Basic. DASYLab 2016 is used in the figures, but this technique applies to earlier and future versions of the software.

The example described will show you how to configure a file name that incorporates the year, month and day. At midnight every night, an Action module will tell the Write Data module to close the current file and reopen. It will reopen using the current values of year, month and day, creating a new file with day changed.

Similar techniques can be used to start a new file every week, or every month. The common theme is that an Actionable event has to be configured to direct the Write module to change the filename. The DASYLab Write Data module will not automatically change the file name when the underlying variable or string changes; it takes the Action module or a Key Action to direct the Write Data module to save the file and update the file name using the current values of variables and strings.

Use your current worksheet to configure the DASYLab Write Data module to use a filename that incorporates the date, for example: 2016-09-13-TestData.asc. The date is incorporated using the Global String feature. Then, add Time Base and Action modules to control the file name change.

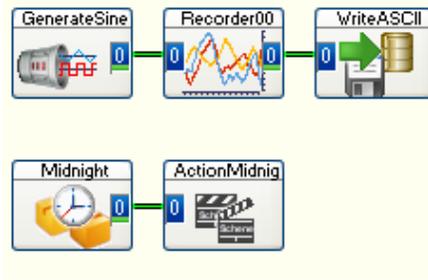
DASYLab will not automatically change the file name. Use an Action module to control when the file name changes.

Worksheet Overview

If you don't have a worksheet, you can build this one. The figure shows the completed worksheet, using the default module properties. You can modify an existing worksheet by editing the properties of the Write Data module and adding two modules, a Time Base module for an event at midnight and an Action module to react to the event.

For help on setting up the Write Data module as an ASCII file, see "Saving DASYLab data to an ASCII (text) readable file" on the [DASYLab Resources](#) page.

DASYLab Techniques: Create a worksheet that saves a new file at midnight every da



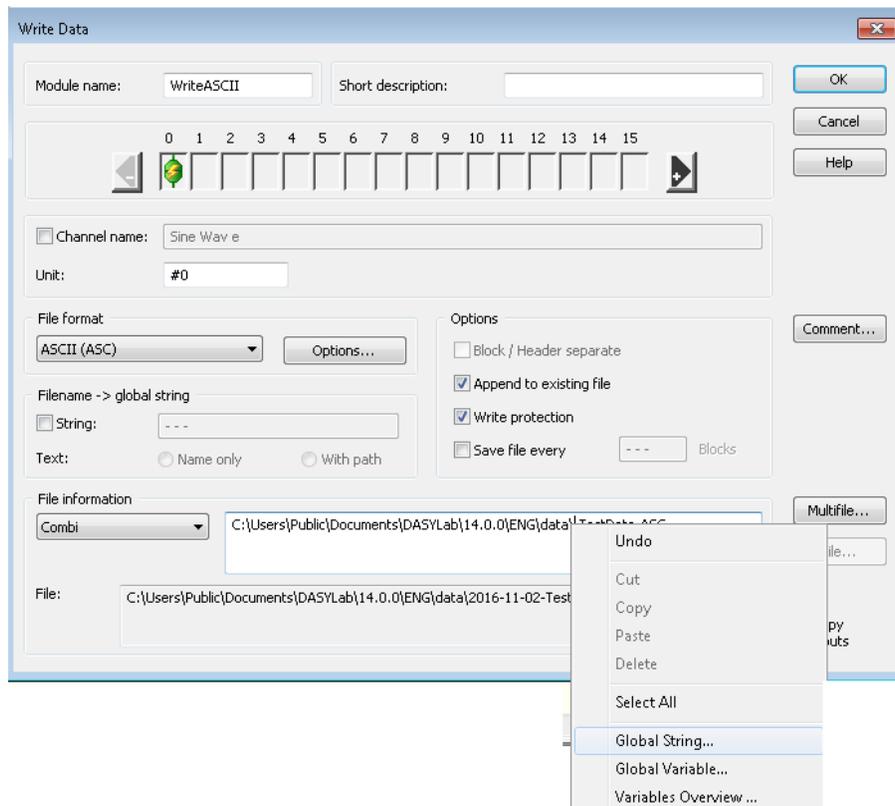
Set up the file name in the Write Data module

Open the Write Data module properties. Configure “Combi” for the Filename and path setting. In the entry box, you will set up the file name to use *System Global Strings*.

How to insert a Global String

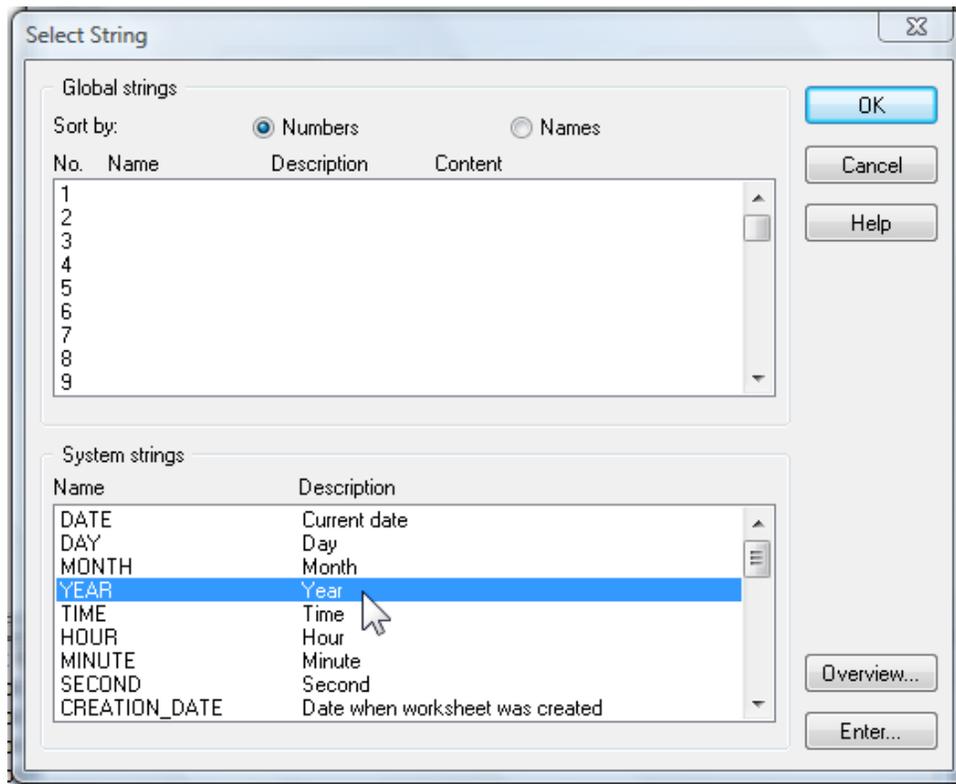
DASYLab offers a number of system global strings with information that is known to the program. The date and time are examples of strings that DASYLab knows. Unfortunately, the standard format for the date often includes characters that are not allowed in file names, for example, a date formatted as 1/5/2011 includes the “/” character, which is not allowed in a file name. Similarly, the time 10:23 PM includes a “:” character. To avoid this problem, DASYLab has Global Strings for the Year, Month, Day, Hours, Minutes, and Seconds.

DASYLab allows you to select the strings from a list. To open the list, position the cursor in the file name entry box, at the position where you want to include the year. Right click to open the context menu and select Global String.

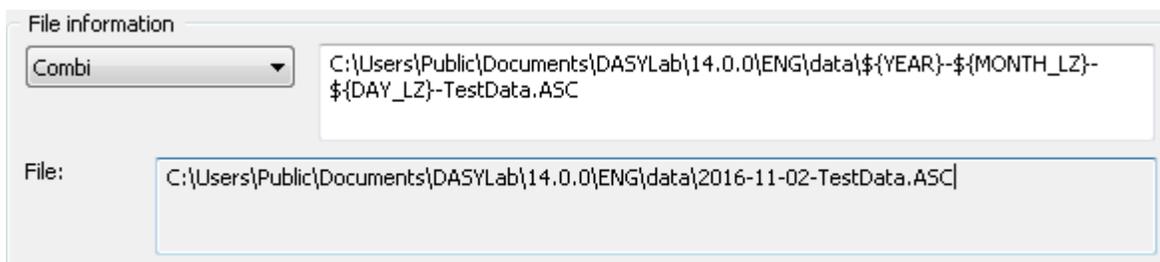


DASYLab Techniques: Create a worksheet that saves a new file at midnight every da

Select YEAR. This is a four digit year, such as 2016. If you prefer a two digit year, choose YEAR_2, further down the list. Click OK, and DASYLab will insert \${YEAR} (or \${YEAR_2}) as a placeholder in the file name.



Repeat this same process to enter the \${MONTH_LZ} and \${DAY_LZ}. These two strings include a leading zero for single digit months and days, so that your file names will sort correctly. Use hyphens or underscores for punctuation. For example, C:\Users\Public\Documents\DASYLab\14.0.0\ENG\data \\${YEAR}-\${MONTH_LZ}-\${DAY_LZ}-TestData.ASC, will create a filename that looks like this: C:\Users\Public\Documents\DASYLab\14.0.0\ENG\data\2016-11-02-TestData.ASC.

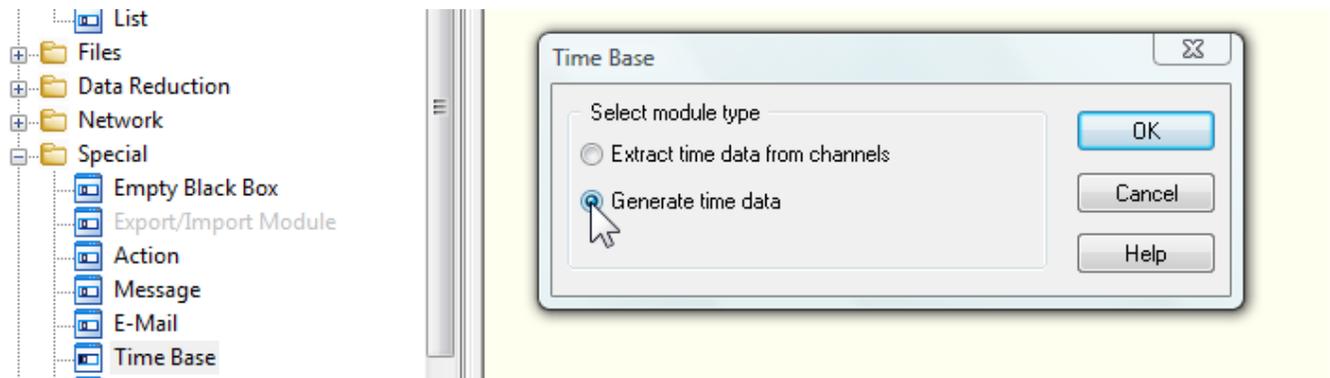


Click OK to close the properties dialog. This is all that the Write Data module needs. At Measurement Start, DASYLab will replace the placeholders with the actual values as shown at the bottom of the Write Data properties.

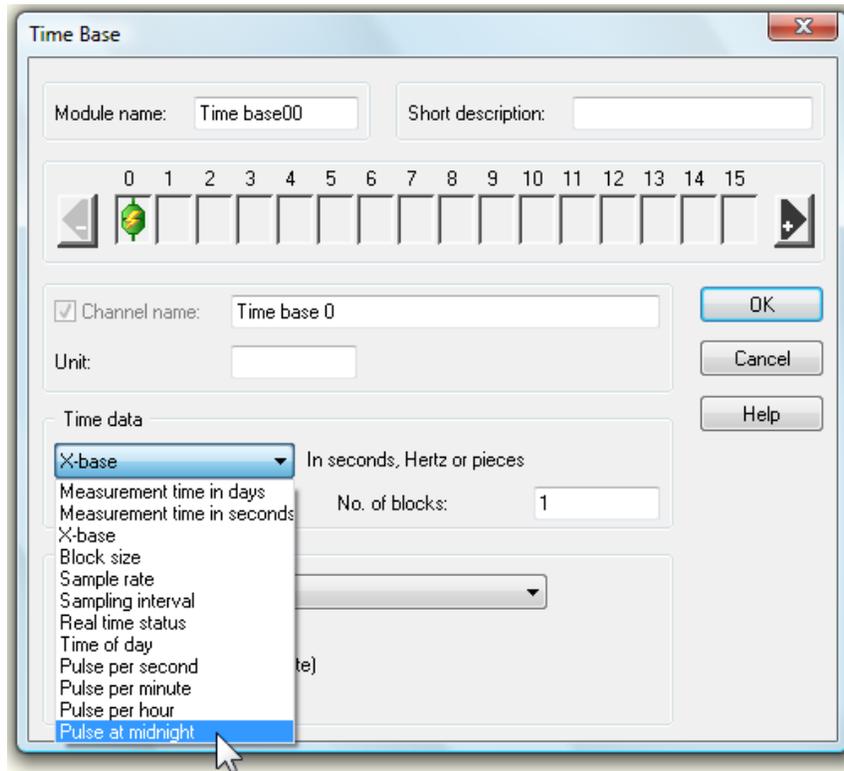
Next, add the timing logic so that the file name will change when the date changes at midnight.

Add the Timing Logic

After you save the Write Data module settings, move to an open area of the worksheet. Add a Special→Time Base Module. Configure it to Generate time data.



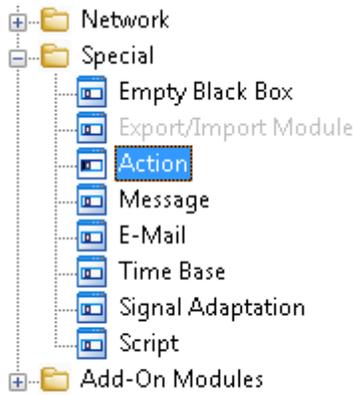
Open the module properties, and configure the Time Base module to Pulse at Midnight. Click OK to save the module settings.



At midnight, the Time base module will output a single pulse of 0V to 5V to 0V.

DASYLab Techniques: Create a worksheet that saves a new file at midnight every da

Add a Special → Action Module to the worksheet.

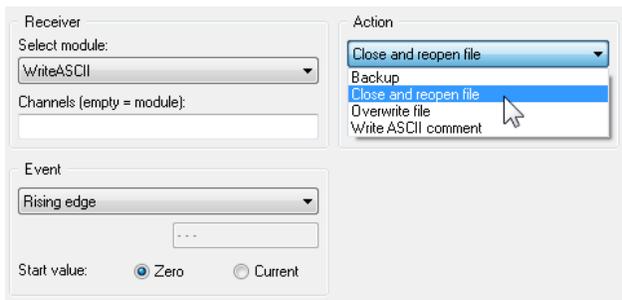


Open the module properties to configure it. Change the settings to:

Receiver: your Write module

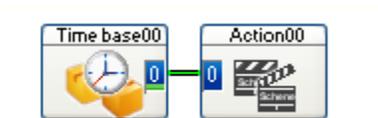
Event: Rising Edge

Action: Close and reopen File



Save the Action module settings by clicking on the OK button.

Connect the output of the Time Base module to the input of the Action module.



When the Time Base module pulses at midnight, the Action module will tell the Write Data module to close and reopen the file. When it reopens, it will check the current values of the Global strings and use them in the file name.

Other Events

In addition to pulse at midnight, the Action module can respond to other events. For example, use the Read Global Variable module to read the $\${WEEK_DAY}$ system variable. It is a number from 0 to 6, where Sunday is 0, and Saturday is 6. To change the filename at the end of the week, when the weekday changes from 6 to 0, you can use a Falling edge event in the Action module. Read the system variable using the Read Variable module, and connect it to the Action module.

To change every month, you would use the $\${ACTUAL_MONTH}$ system variable and the Event is "Input Value Changed".

Search the Help Index for "System variables" to get a complete list of available variables.

Summary

Your worksheet is now configured to use the current date as part of the file name, and the Timebase and Action modules tell DASYLab to close and reopen the file at midnight. If the value of the strings has changed, as they will at midnight, then DASYLab will start a new file using the new values, in this case, the current date.

More information on Global Strings

DASYLab has 999 strings in order to read, to change, and to transfer alphanumeric strings (text) during a measurement. Strings can be used in a variety of ways, including as file names or parts of file names, as discussed in this document. Strings can be entered at measurement start or on demand, using the Action module or Key Actions. Use strings to document the test, for example, with part numbers, work orders, serial numbers, or other relevant test information and automatically include that information in the data file.

Use the Options Menu, Global Variables and Strings to define and review the strings used in a worksheet.

You can use the System strings to access internal program information such as worksheet name, author, or date. To select a string in the context menu right-click an entry field in a dialog box.

You also can name strings. The default name is in the form $\${Str_13}$. You can define a name using the Advanced button in the Options menu, Define Global Strings. The name is uppercase only, and must start with a letter. You cannot use spaces or other special characters. You can use the underscore `_` character to make the name readable.

Review the Help sections on Global Strings for more information.