Running EDM

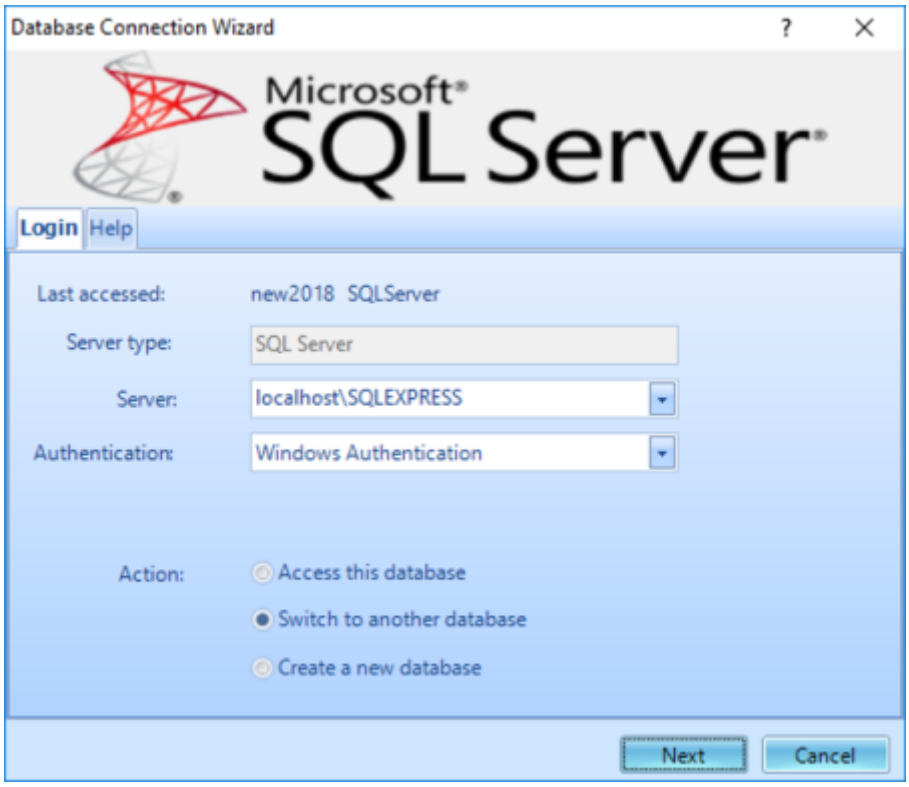
You are now ready to launch EDM. This section will explain the basics of configuring a system, running a test, and saving data.

Create and Connect to a Database

Note: this section is only applicable for versions 10.0 and earlier. Skip this section if you have a more recent version.

EDM adopts Microsoft SQL server to store and manage test configurations. The EDM installer checks and installs SQL server before EDM is installed. The EDM installer automatically creates a SQL server instance for EDM. The user may run the SQL server installer to manually create an instance for EDM. The latest EDM software supports SQL server 2008 R2, 2014, 2017, and 2019.

It is necessary to create a database to store and access test configuration data. When you first open EDM, the Database Access Wizard will be displayed. Select **Create a New Database** to create a new empty database. Click on the **Next** button, enter a new database name, and click the **Create** button. Then, click the Access button after the database has been created.




```
There are two password controls in the EDM software. One password accesses
the database server and the other password logs into EDM as a user. The
database password is rarely used.
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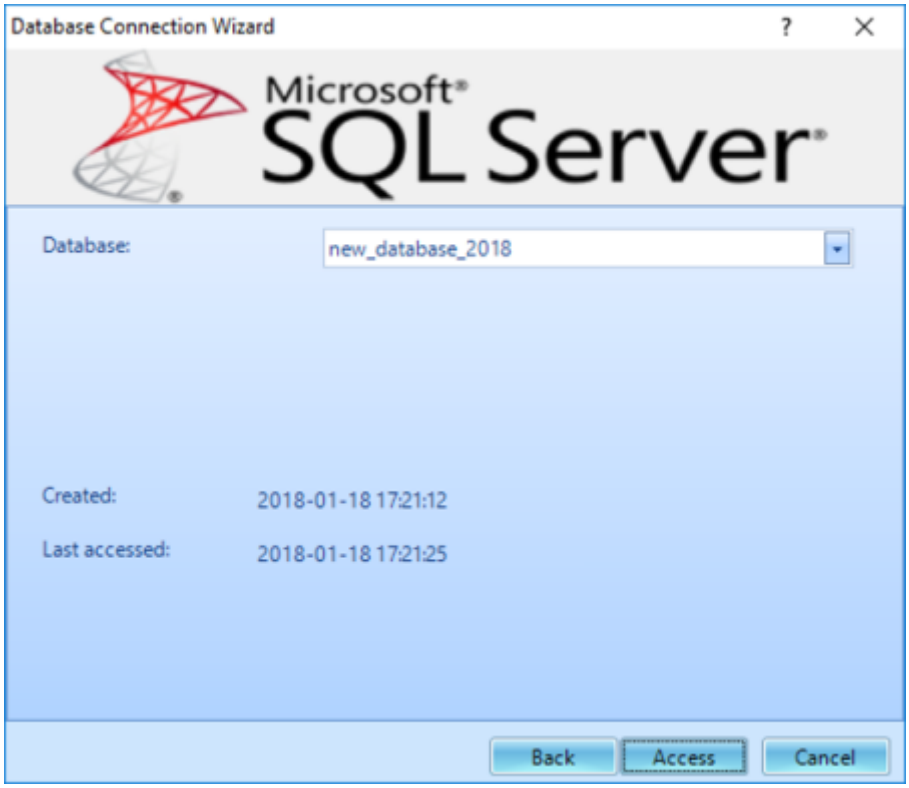
When creating a new database, check the box as shown below to copy libraries of channel table, sensor parameters, shaker parameters, and configured systems from the current database.

Alternatively, to open an existing database, select **Switch to another database** and in the next window select the database to use.

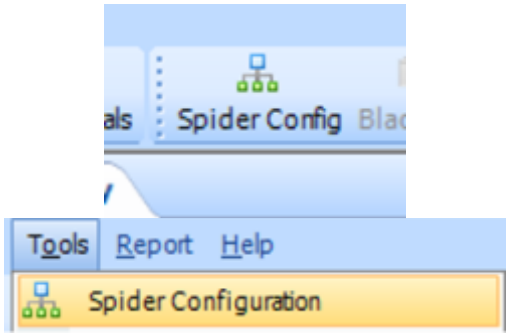


Note: the database and server can also be configured on the Start Page of EDM. In order to enable this feature, go to **Global Settings > VCS Settings** and enable the setting **“On the start page, display database server”**

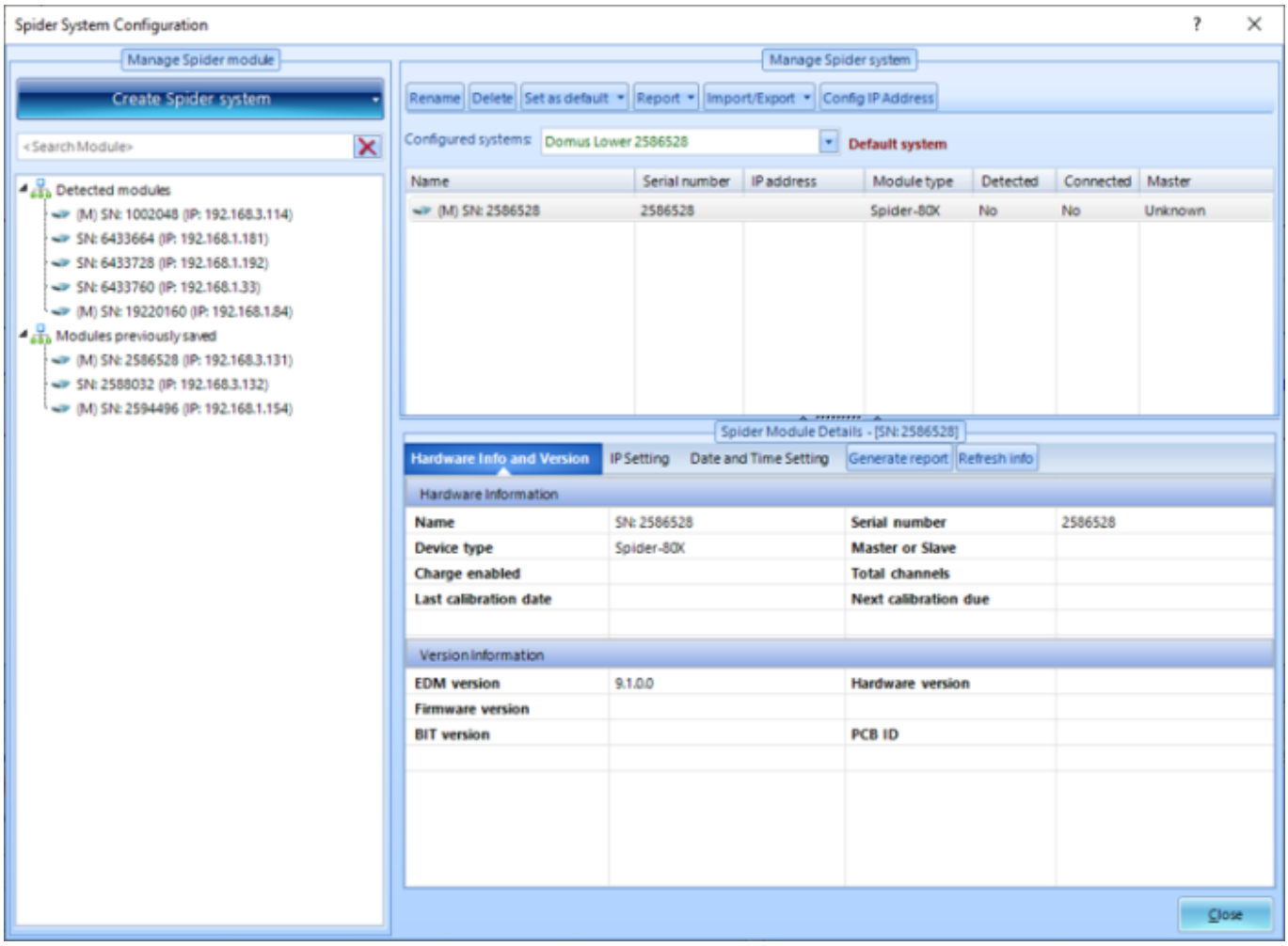
Configuring a System

A data acquisition or controller system can be configured from any combination of available front-end modules connected to the LAN. The desktop software can store multiple configurations and recall any one of them for a test.

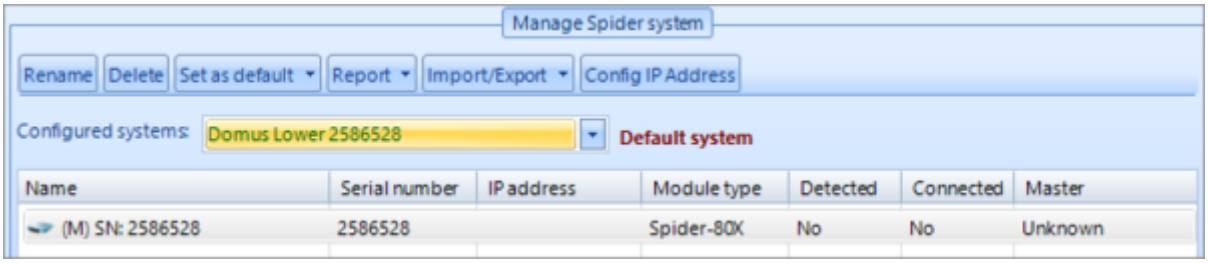
When all the front-end modules have been connected, bring up the hardware configuration window by clicking on **Spider Config**, or **Tools→Spider Configuration**.



Detected and previously used modules will be listed on the left side by IP address and serial number. The top right section shows the modules in the currently selected system and the section below lists settings for the selected module. To create a new system, click the **Create a New Spider System** button on the bottom left, enter a name for the system, and select the module or modules to include.



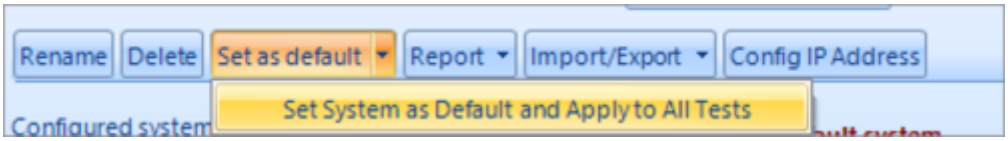
Multiple Spider systems can be managed in a list of Spider systems. Descriptions for the following actions are listed below:



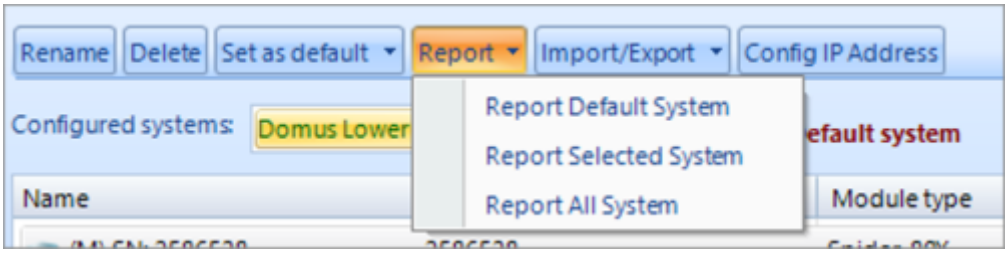
Rename: changes the labeling name for a system

Delete: removes the system from the list. Each EDM test must have an attached Spider System, so deleting a system requires the user to select a replacement Spider system for any of its existing tests.

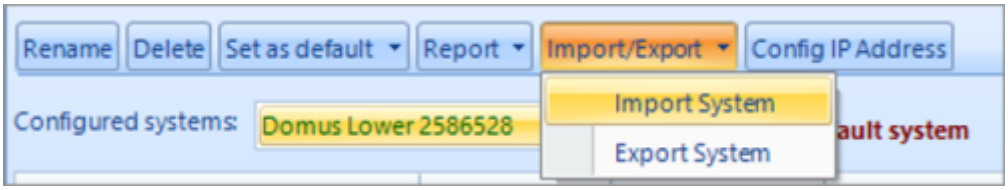
Set as default: sets the currently selected system as default. Newly created tests going forward will now be created with this system.



Set System as Default and Apply to All Tests: sets the currently selected system as default, and also assigns this system to all tests in the database.



Report: the report functions generate a document describing all the details for the relevant system.



Import/Export: hardware systems can be imported and exported as SSK files

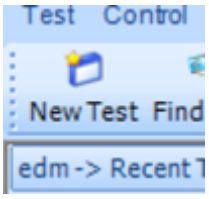
Config IP Address: if the Spider hardware is detectable on the LAN network, the IP address can be set through this function (this can also be done using the program Front-End IP Address Setup).

Updating Firmware

All front-end devices should be kept up to date with the latest firmware to ensure the best operation. The desktop software will automatically detect and update the firmware on connected modules. To manually update or change the firmware on a device, contact a Crystal Instruments tech support engineer at +1-408-986-8880.

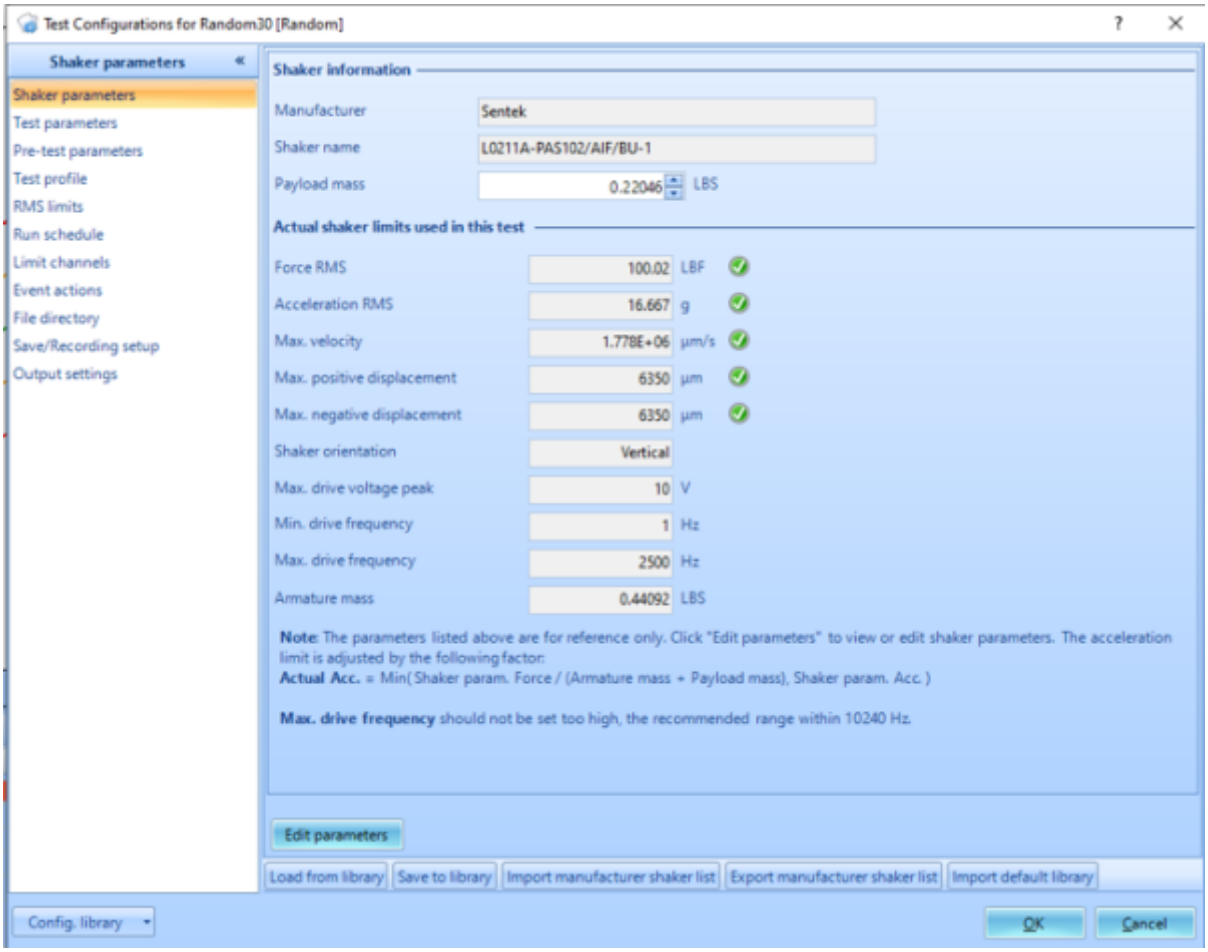
Creating a New Test

Once the front-end system has been configured and connected, a test can be set up by clicking on **New Test**.

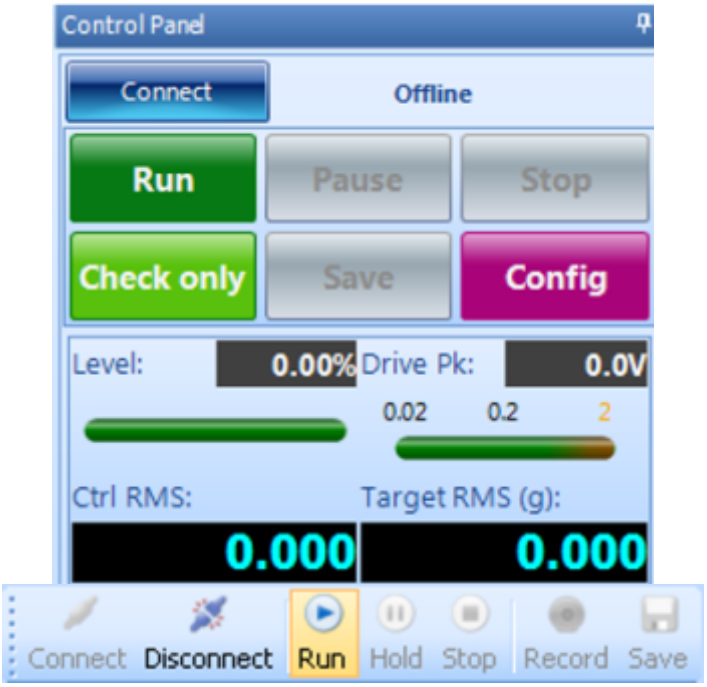


Click on **Test Config** (or click the Config button from the control panel) to access test configuration parameters.

The **Test Configuration** area is a multiple-tab dialog box that allows the user to set up the analysis parameters, run schedule, event-action rules and other settings. Some of these parameters can also be manually set directly on the control panel while a test is running.



A test can be controlled by the buttons on the **Control Panel** and on the **Control Toolbar**.

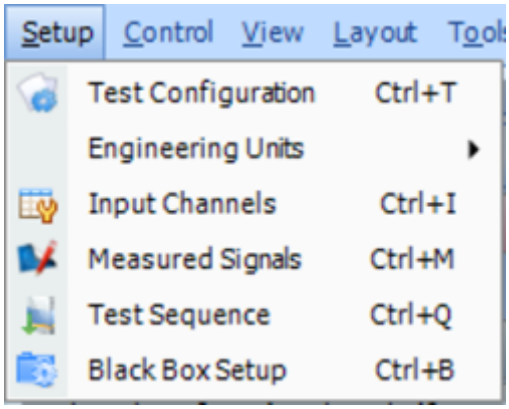


Saving Signals and Recording Time Streams

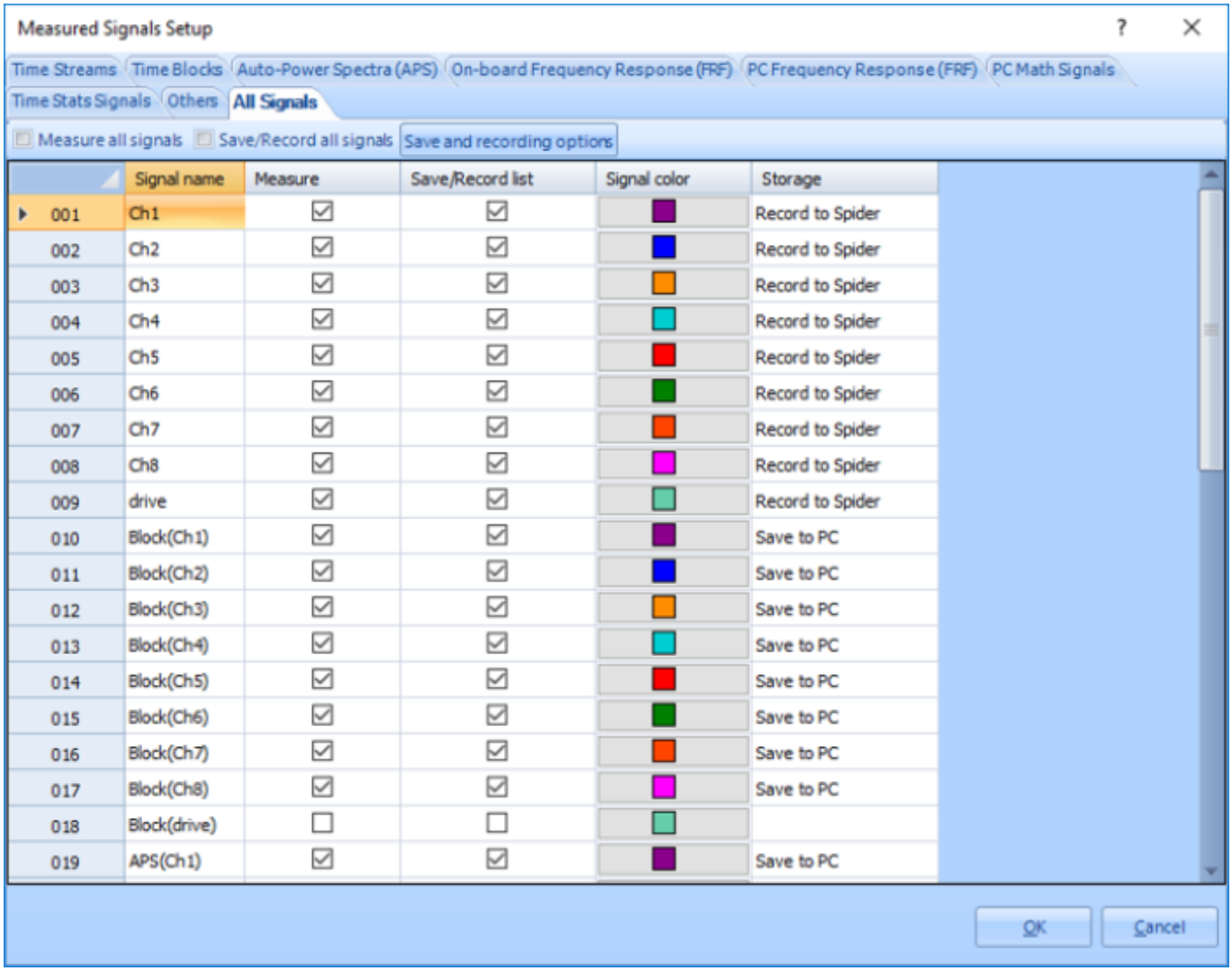
Different options are available to save measurement data. EDM uses the terms **Save** for block data and **Record** for time stream data. Blocks of data, which include time-domain and frequency domain

blocks, can be manually saved by clicking the **Save Sigs** button or automatically captured based on a trigger setting. Time stream data can be recorded manually by pressing the **Rec./Stop** button or by using a run schedule. Data can be stored on the internal flash memory of the front-end device or on a hard drive connected to the PC.

To select which signals to save or record, click on **Setup→Measured Signals**. Under this tab, signals are organized according to their type; each signal can save or record.

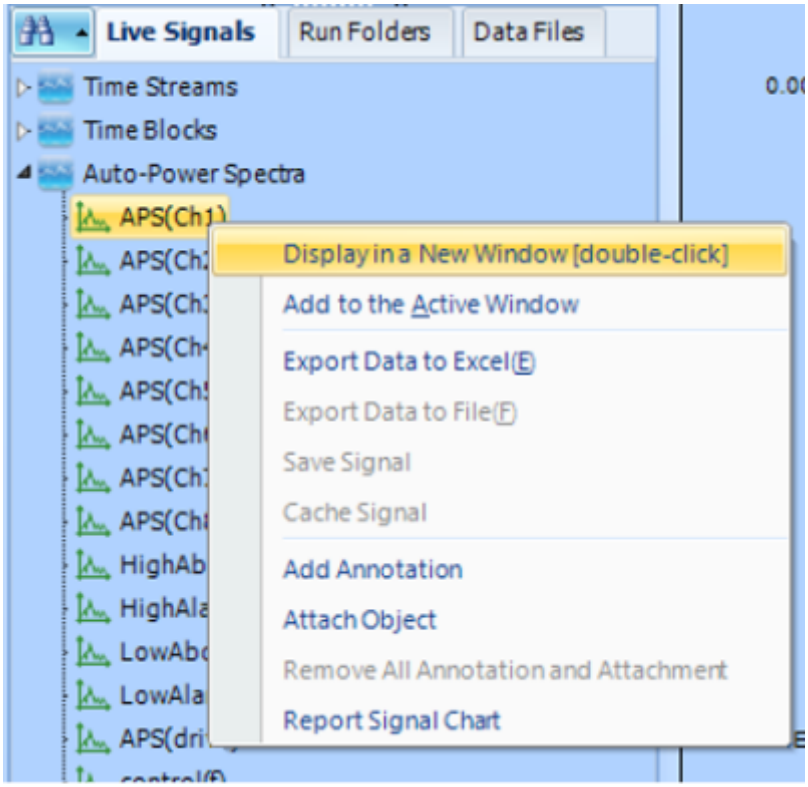


The signals checked in the **Save List** column (below) can be automatically saved when the user presses the Save button on the control panel, or when an **Event Action Rule** generates a **Save Signal** action. Currently displayed signals can also be saved by pressing **Ctrl+S** or by clicking on the small disk icon on the top of the window.

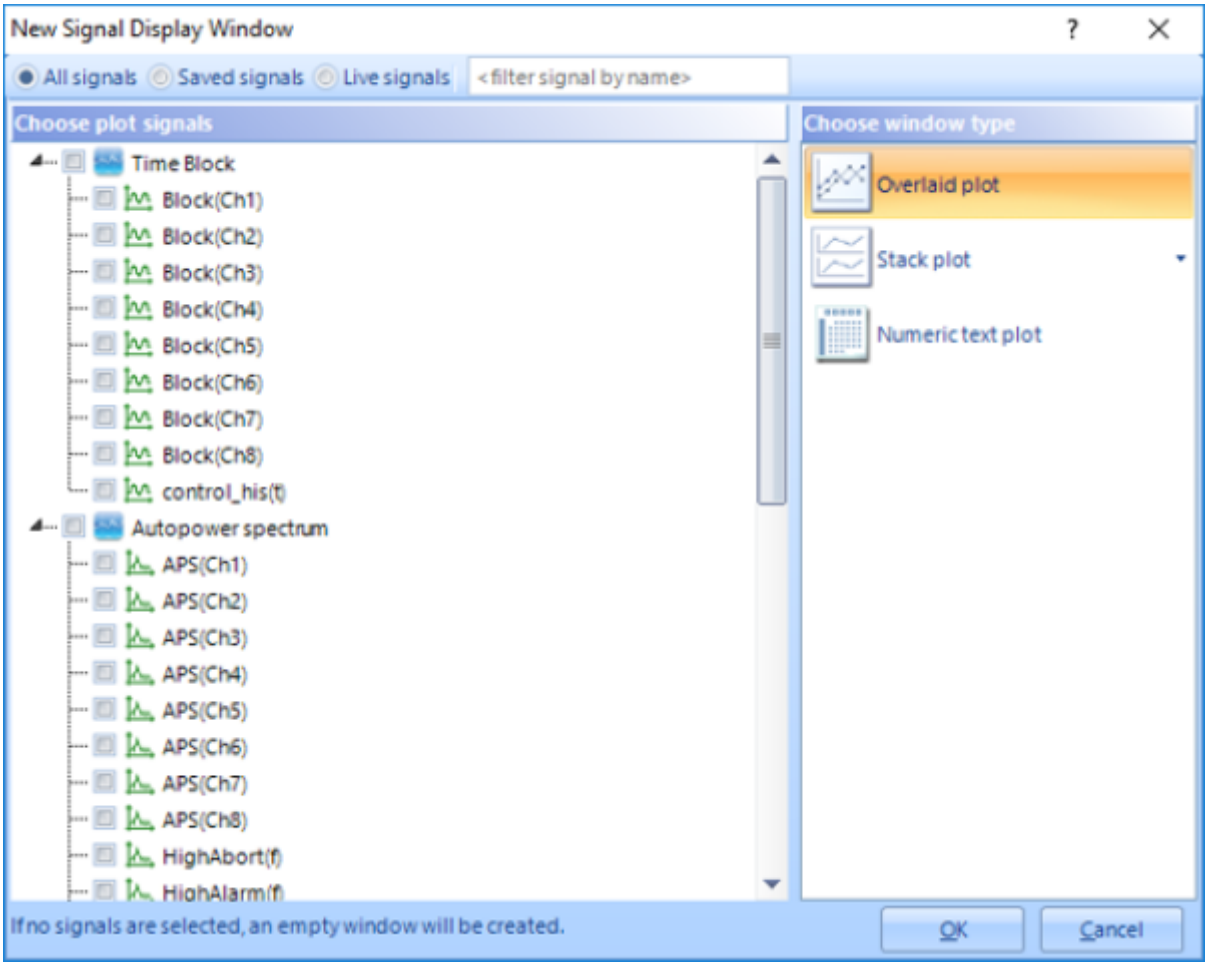


View Live Signals

To view a live signal, find it from the list of available live signals on the left side in EDM. Right-click the signal and select **Display** in New Window.

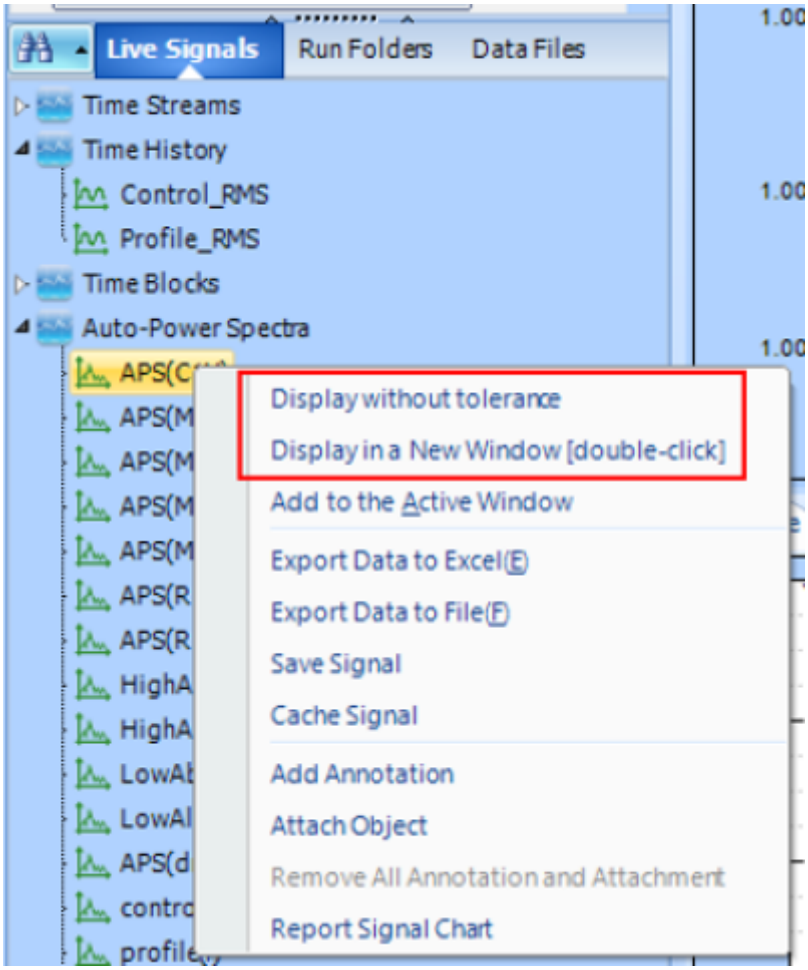


You can also select **View→New Signal Display Window**. This brings up the Window Customizer dialog box where you can select which signals to display and which type of display window to use.



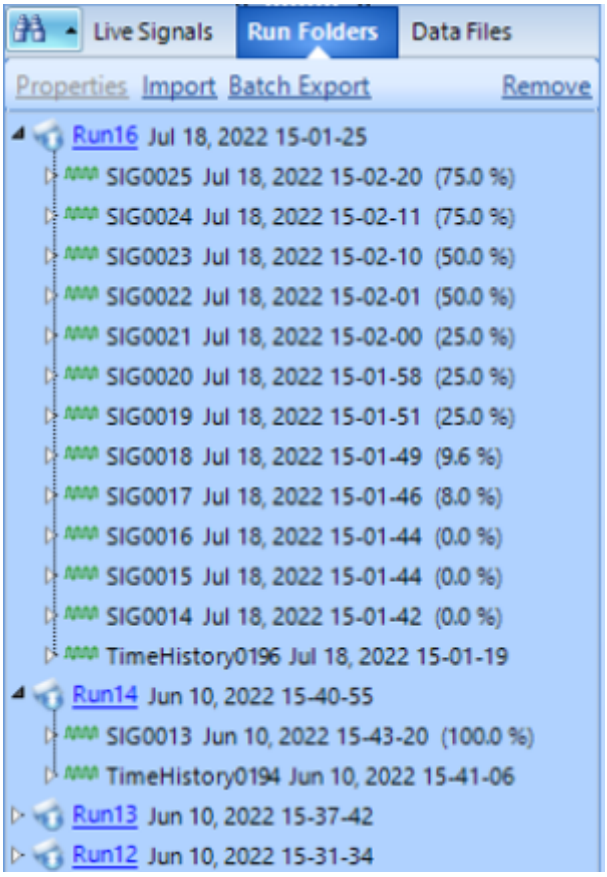
The spectrum can also be displayed with and without tolerance. Double click to display with

tolerances. Right-click to display without tolerances.

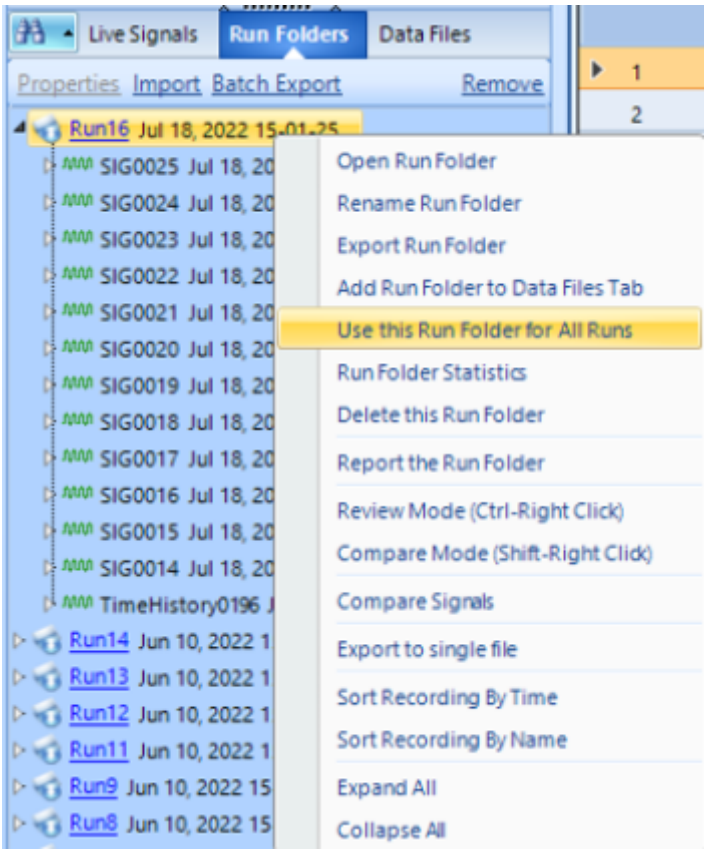


Run Folders

Every time the user presses the **Run** button on the **Control Panel**, a **Run folder** is created on the disk by default. Data files and a runlog are saved in the Run folder.

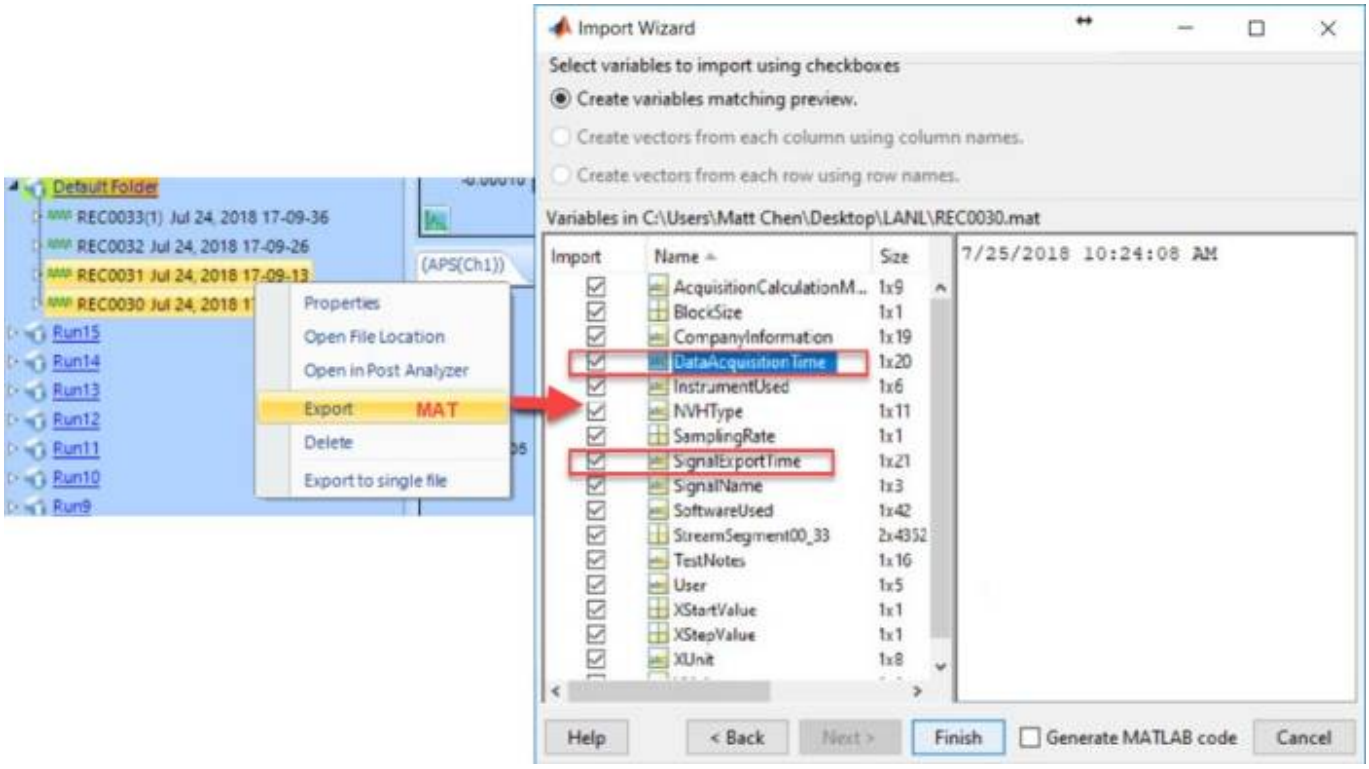


To save all the data files into one single folder, right-click on the **Run Folders** pane and select “Use this Run folder for all Runs”.

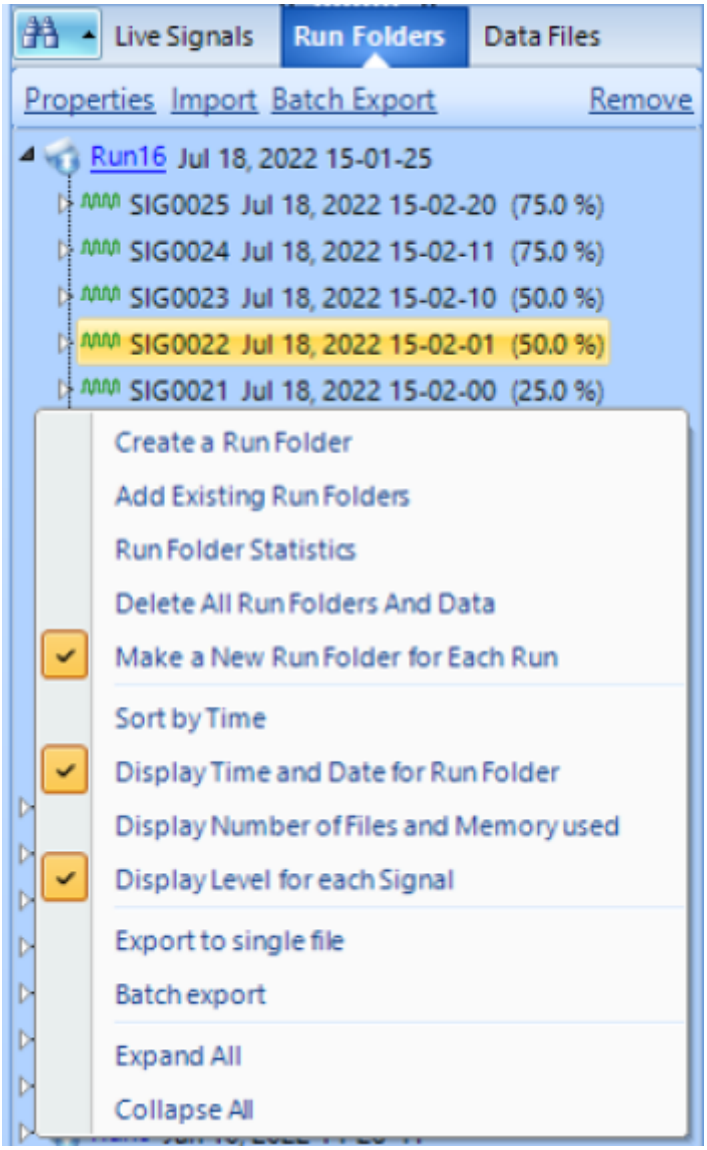


A Run folder can be opened, renamed or exported. When a Run Folder is exported, all the data files in the Run Folder will be copied to the target folder.

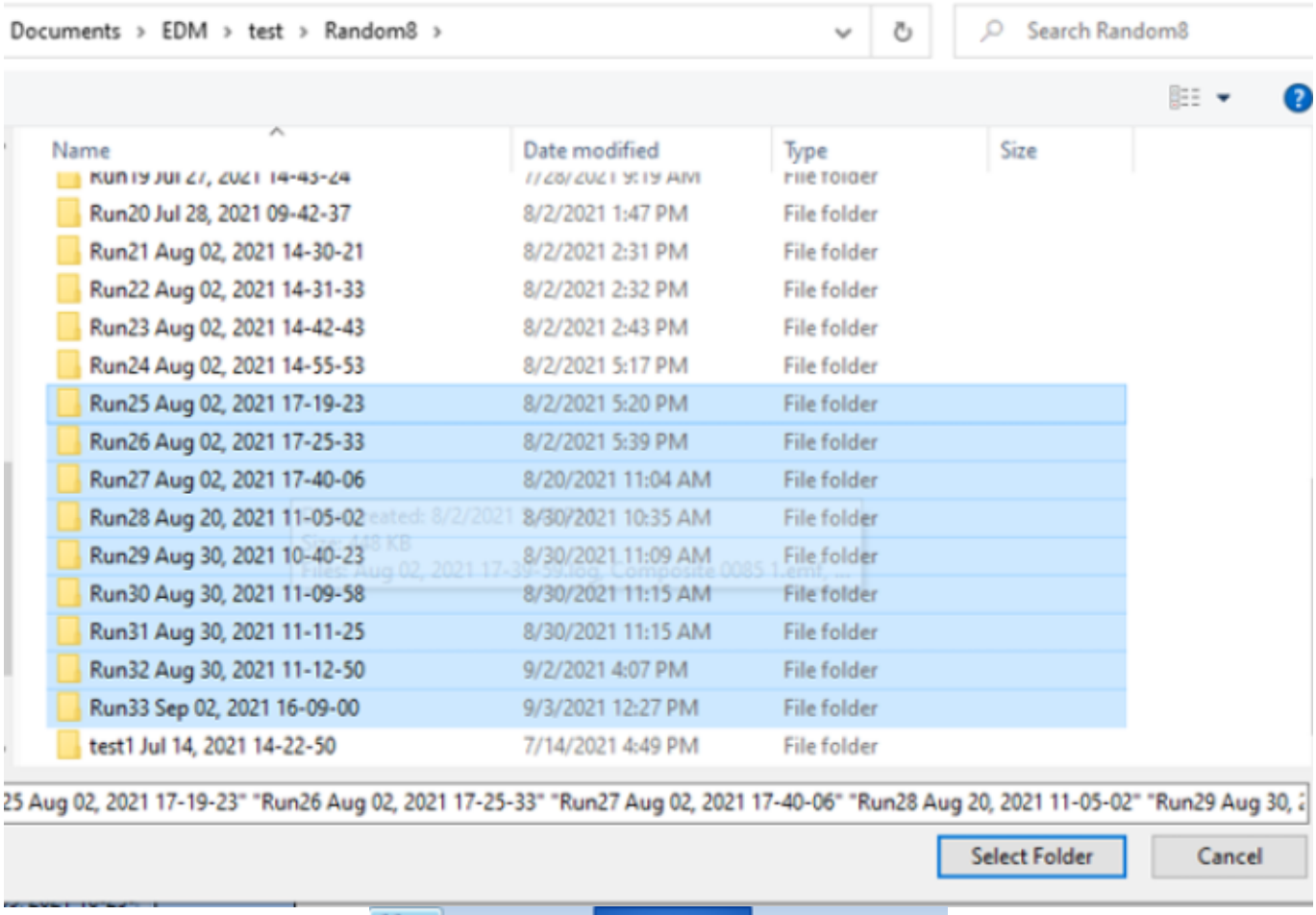
When the run folder is exported to. MAT format (matlab), the exported file contains the information about the data acquisition time and the signal export time.

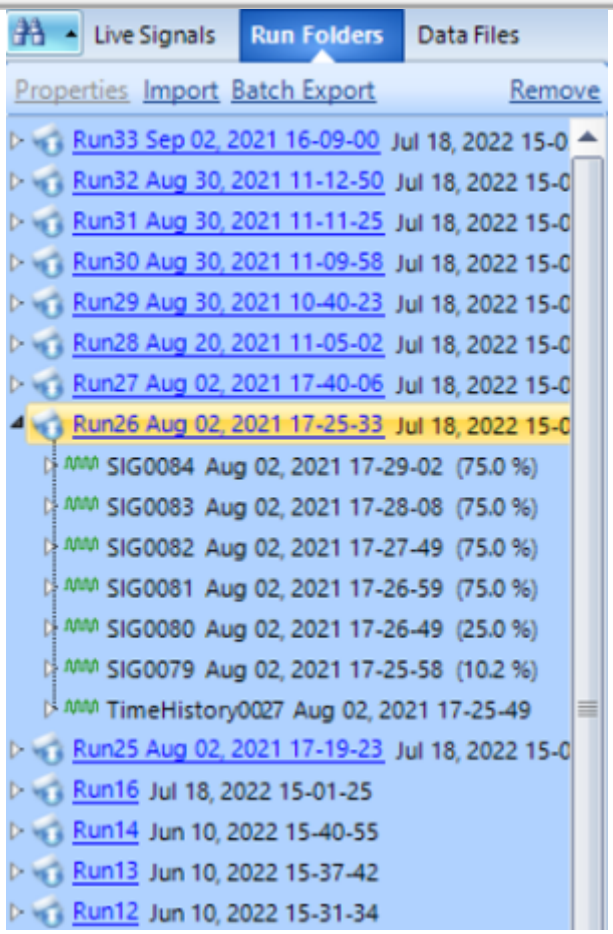


Right Clicking on the **empty space** of the Run Folders tab will display a context menu that allow users to **create or add existing run folders**. As well as allow users to choose which information to be displayed next to the saved signals name, such as **run level** or **date and time**.



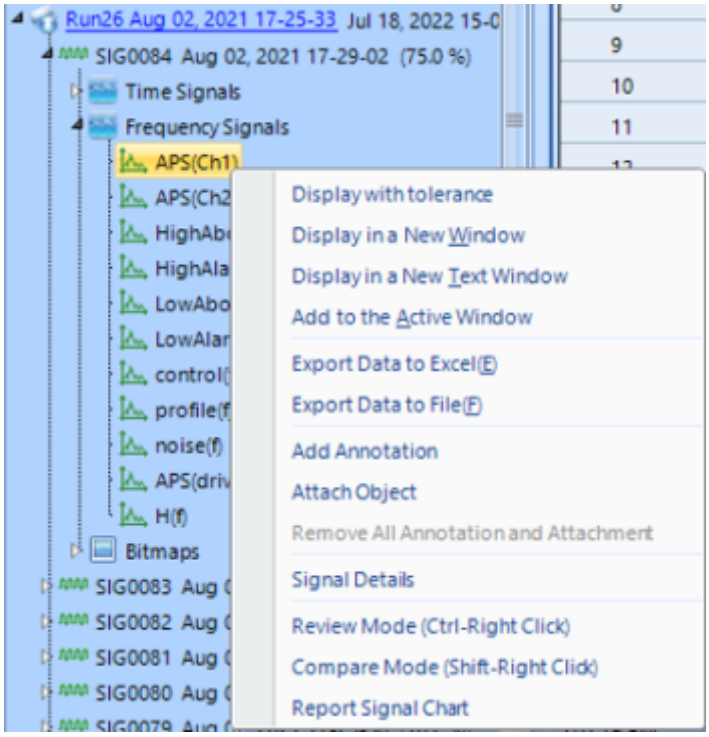
Selecting the above '**Add Existing Run Folders**', users can add a single or multiple run folders into the current test.


Documents › EDM › test › Random8 ›
Search Random8
Name
Date modified
Type
Size
Run20 Jul 28, 2021 09-42-37 8/2/2021 1:47 PM File folder
Run21 Aug 02, 2021 14-30-21 8/2/2021 2:31 PM File folder
Run22 Aug 02, 2021 14-31-33 8/2/2021 2:32 PM File folder
Run23 Aug 02, 2021 14-42-43 8/2/2021 2:43 PM File folder
Run24 Aug 02, 2021 14-55-53 8/2/2021 5:17 PM File folder
Run25 Aug 02, 2021 17-19-23 8/2/2021 5:20 PM File folder
Run26 Aug 02, 2021 17-25-33 8/2/2021 5:39 PM File folder
Run27 Aug 02, 2021 17-40-06 8/20/2021 11:04 AM File folder
Run28 Aug 20, 2021 11-05-02 8/30/2021 10:35 AM File folder
Run29 Aug 30, 2021 10-40-23 8/30/2021 11:09 AM File folder
Run30 Aug 30, 2021 11-09-58 8/30/2021 11:15 AM File folder
Run31 Aug 30, 2021 11-11-25 8/30/2021 11:15 AM File folder
Run32 Aug 30, 2021 11-12-50 9/2/2021 4:07 PM File folder
Run33 Sep 02, 2021 16-09-00 9/3/2021 12:27 PM File folder
test1 Jul 14, 2021 14-22-50 7/14/2021 4:49 PM File folder
25 Aug 02, 2021 17-19-23" "Run26 Aug 02, 2021 17-25-33" "Run27 Aug 02, 2021 17-40-06" "Run28 Aug 20, 2021 11-05-02" "Run29 Aug 30,
Select Folder
Cancel

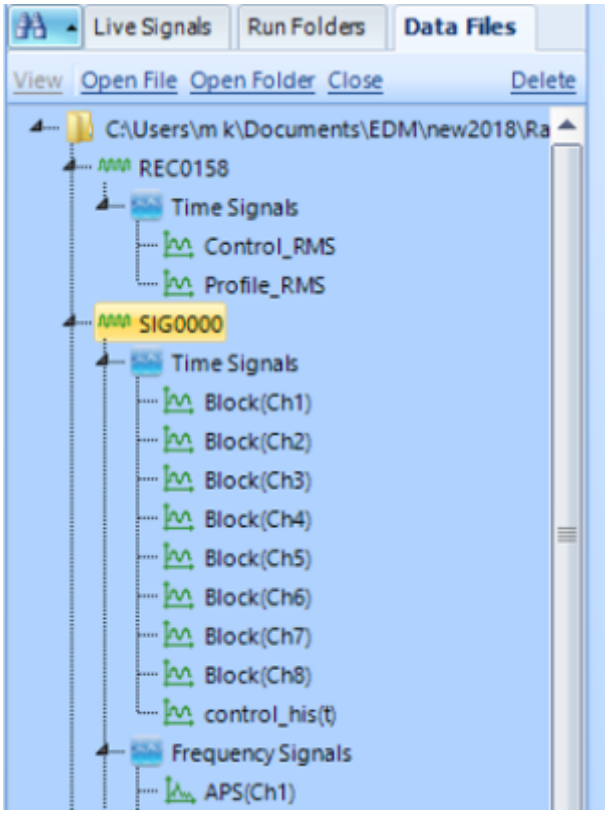

Live Signals
Run Folders
Data Files
Properties
Import
Batch Export
Remove
Run33 Sep 02, 2021 16-09-00 Jul 18, 2022 15-0
Run32 Aug 30, 2021 11-12-50 Jul 18, 2022 15-0
Run31 Aug 30, 2021 11-11-25 Jul 18, 2022 15-0
Run30 Aug 30, 2021 11-09-58 Jul 18, 2022 15-0
Run29 Aug 30, 2021 10-40-23 Jul 18, 2022 15-0
Run28 Aug 20, 2021 11-05-02 Jul 18, 2022 15-0
Run27 Aug 02, 2021 17-40-06 Jul 18, 2022 15-0
Run26 Aug 02, 2021 17-25-33 Jul 18, 2022 15-0
SIG0084 Aug 02, 2021 17-29-02 (75.0 %)
SIG0083 Aug 02, 2021 17-28-08 (75.0 %)
SIG0082 Aug 02, 2021 17-27-49 (75.0 %)
SIG0081 Aug 02, 2021 17-26-59 (75.0 %)
SIG0080 Aug 02, 2021 17-26-49 (25.0 %)
SIG0079 Aug 02, 2021 17-25-58 (10.2 %)
TimeHistory0027 Aug 02, 2021 17-25-49
Run25 Aug 02, 2021 17-19-23 Jul 18, 2022 15-0
Run16 Jul 18, 2022 15-01-25
Run14 Jun 10, 2022 15-40-55
Run13 Jun 10, 2022 15-37-42
Run12 Jun 10, 2022 15-31-34

View Saved Data

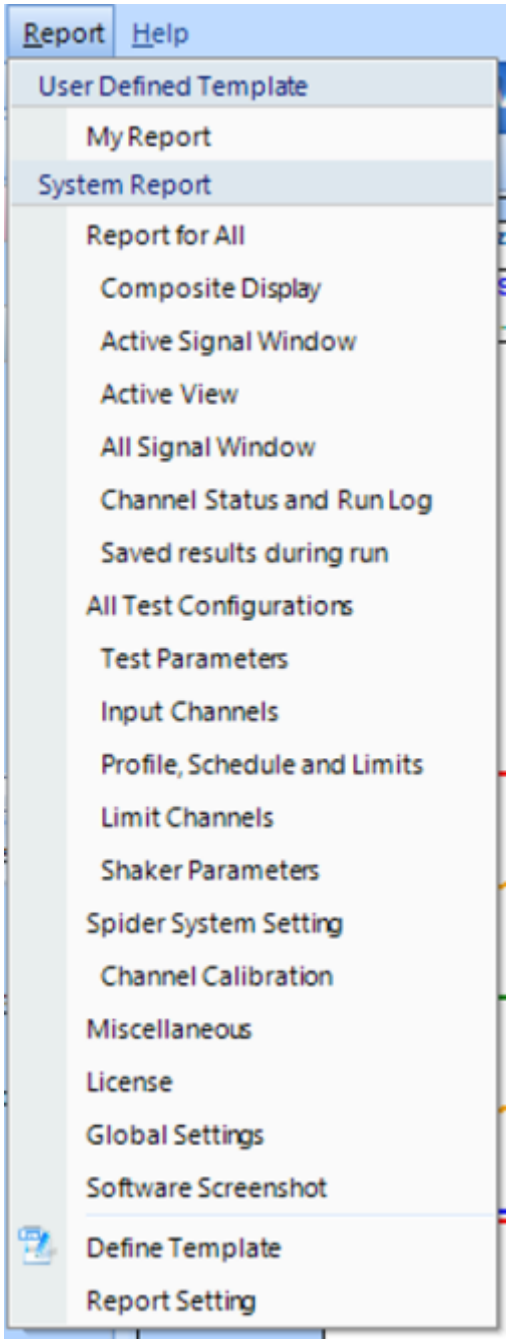
Saved signals for the current test are shown under the Run Folders tab on the left of the screen. Right-click on any listed signal to display it.



To view the data files saved by other tests, click on the Data Files tab and browse the folder:



Create a Report



Click on the (**Define my own report template...**) command under Report to define a template. Then click on any templates that were previously defined to generate the report.