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.

Database Connection \	Nizard ? ×
Login Help	SQL Server
Last accessed:	new2018 SQLServer
Server type:	SQL Server
Server:	localhost\SQLEXPRESS
Authentication:	Windows Authentication
Action:	 Access this database Switch to another database Create a new database
	Next Cancel

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.

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.

Database Connection V	lizard	? ×
	SQL Serv	ver
Database:	new_database_2018	
Created:	2018-01-18 17:21:12	
Last accessed		
Last accessed.	2018-01-1817/21:25	
	Back	ccess Cancel

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.

Spider System Configuration ? X								
Manage Spider module			Manage Spie	der system				
Create Spider system •	Rename Delete Set as defaul	t • Report • Impo	rt/Export • Con	nfig IP Address				
<search module=""></search>	Configured systems: Domus Lo	wer 2586528	•	Default system				
A Detected modules	Name	Serial number	IP address	Module type	Detected	Connected	Master	
 (M) SN: 1002048 (IP: 192.168.3.114) SN: 6433760 (IP: 192.168.1.181) SN: 6433760 (IP: 192.168.1.33) (M) SN: 19220160 (IP: 192.168.1.84) Modules previously saved (M) SN: 256528 (IP: 192.168.3.131) SN: 2588032 (IP: 192.168.3.132) (M) SN: 2594496 (IP: 192.168.1.154) 	Hardware Into and Version	2586528 Spi IP Setting Date and	der Module Deta d Time Setting	Spider-80X	No efresh info	No	Unknown	
	Hardware Information					_		
	Name	SN: 2586528		Serial number	2586528			
	Device type	Spider-80K		Master or Slave				
	Charge enabled			Next calibration	fue			
	cast canoration date			reext calibration (we			_
	Version Information							
	EDM version	9.1.0.0		Hardware version				
	Firmware version							
	BIT version			PCB ID				
							<u>0</u>	ose

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

_	Manage Spider system							
R	Rename Delete Set as default Report Import/Export Config IP Address Configured systems Domus Lower 2586528 Default system Default system							
N	lame	Serial number	IP address	Module type	Detected	Connected	Master	
	(M) SN: 2586528	2586528		Spider-80X	No	No	Unknown	

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.

Rename Delete	Set as default 💌 🛛	Report • Import/Ex	port Config IP Address				
Configured system Set System as Default and Apply to All Tests Duilt 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.

Rename Delete Set as default 💌	Report • Import/Export • Confi	g IP Address	
Configured systems: Domus Lower	Report Default System Report Selected System	efault system	
Name	Report All System	Module type	
- (NO CNI) 25205520	2505520	Californ 00V	

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

Rename Delete Set as default	Import/Export Config	IP Address	
Configured systems	Import System		
Domus Lower 2500520	Export System	ault 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).

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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

Updating Firmware

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.

G Test Configurations for Random	0 [Random]				? X				
Shaker parameters «	Shaker information								
Shaker parameters	Manufactures	C							
Test parameters	manufacturer	Sentek							
Pre-test parameters	Shaker name	L0211A	-PAS102/AIF/BU-1						
Test profile	Payload mass		0.22046	LBS					
RMS limits									
Run schedule	Actual shaker limits used in th	is test							
Limit channels	Force RMS		100.02	LBF	0				
Event actions	Acceleration PMC		16 667		0				
File directory	Acceleration rons		10.007	9					
Save/Recording setup	Max. velocity		1.778E+06	µm/s	0				
Output settings	Max. positive displacement		6350	μm	0				
	Max. negative displacement		6350	μm	0				
	Shaker orientation		Vertical						
	Max. drive voltage peak		10	V					
	Min. drive frequency		1	Hz					
	Max. drive frequency		2500	Hz					
	Armature mass		0.44092	LBS					
	Note: The parameters listed a limit is adjusted by the follow Actual Acc. = Min(Shaker pa	ibove ar ing facto iram. Fo	re for reference only. (or: rce / (Armature mass	Olick "B + Payle	idit parameters" to view or edit shaker parameters. The acceleration load mass), Shaker param. Acc.)				
	Max. drive frequency shoul	Max. drive frequency should not be set too high, the recommended range within 10240 Hz.							
	Edit parameters	Edit parameters							
	Load from library Save to libra	ry Imp	ort manufacturer shal	oer list	Export manufacturer shaker list Import default library				
Config. library •					QK Cancel				

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

Control Panel				
Connect	Off	ine		
Run	Pause		Stop	
Check only	Save		Config	
Level:	0.00% Drive	Pk: 0.2	0. (v
Ctrl RMS:	Targe	t RMS	(g):	
0.0	000		0.00	0
1 💋			0	
Connect Disconnect	Run Hold	Stop	Record	Save

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** \rightarrow **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.

Measured Si	gnals Setup					?	\times
Time Streams	Time Blocks	Auto-Power Spectra ((APS) On-board Frequenc	y Response (FRF)	PC Frequency Response	(FRF) PC Math Signals	
Time Stats Sig	nals Others A	All Signals					
🔲 Measure a	Il signals 🔲 Sa	ve/Record all signals	Save and recording option	rs			
	Signal name	Measure	Save/Record list	Signal color	Storage		
▶ 001	Ch1	\checkmark			Record to Spider		
002	Ch2	\square			Record to Spider		
003	Ch3	\checkmark			Record to Spider		
004	Ch4	\checkmark			Record to Spider		
005	Ch5	\checkmark			Record to Spider		
006	Ch6	\checkmark			Record to Spider		
007	Ch7	\checkmark			Record to Spider		
008	Ch8	\checkmark			Record to Spider		. U
009	drive	\checkmark			Record to Spider		
010	Block(Ch1)	\checkmark			Save to PC		
011	Block(Ch2)	\checkmark			Save to PC		
012	Block(Ch3)	\checkmark			Save to PC		
013	Block(Ch4)	$\mathbf{\nabla}$			Save to PC		
014	Block(Ch5)				Save to PC		
015	Block(Ch6)	$\mathbf{\nabla}$			Save to PC		
016	Block(Ch7)				Save to PC		
017	Block(Ch8)	\checkmark			Save to PC		
018	Block(drive)						
019	APS(Ch1)				Save to PC		-
							ncel

(Signals APS(Ch1))		4 Þ 🗙
St 🕂 🕂 🗛 📗 🔤	1 🖀 🚔 🔜 🍠	->> X
AF S(CIT) RMS.0.0 g	Save block signals to file (Ctrl+S)	

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.

New Signal Display Window					?		×
All signals Saved signals Live signals	< filter signal by name>						
Choose plot signals			Choose				
4 Sime Block Block(Ch1) Block(Ch2)		Î		Overlaid plot			
Block(Ch3)				Stack plot			•
🔟 🏧 Block(Ch4)							
🔟 Mock(Ch5)		=		Numeric text p	lot		
🔲 🗠 Block(Ch6)							
Block(Ch7)							
Block(Ch8)							
C. Control_his(t)							
4 🔲 🔛 Autopower spectrum							
🖾 🛵 APS(Ch1)							
🖾 🛵 APS(Ch2)							
🛄 🛵, APS(Ch3)							
🖾 🛵 APS(Ch4)							
🖾 🛵 APS(Ch5)							
🖾 🛴 APS(Ch6)							
🔲 🛴 APS(Ch7)							
🔟 🛴 APS(Ch8)							
🔲 📐 HighAbort(f)							
III IA., HighAlarm(f)		Ψ.					_
If no signals are selected, an empty window will b	e created.			OK		<u>C</u> ancel	

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

tolerances. Right-click to display without tolerances.

A Live Signal	s Run Folders Data Files	1.00
▷ 🔛 Time Streams ▲ 🔤 Time History		
Control_R	ИS	1.00
Profile_RM	IS	
⊳ 🔤 Time Blocks		
Auto-Power S	pectra	1.00
APS(C	Display without tolerance	
APS(M	Display in a New Window [double-click]	
APS(M	Add to the <u>A</u> ctive Window	
<u>іл.,</u> APS(М	Export Data to Excel(E)	F
APS(R	Export Data to File(F)	- F
APS(R	Save Signal	
HighA	Cache Signal	-
<u>لکہ</u> LowAt	Add Annotation	
📐 LowAl	Attach Object	
APS(d	Remove All Annotation and Attachment	ŀ
کے contro کے profile	Report Signal Chart	

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.

Properties Import Batch Export Remove
4 👘 Run16 Jul 18, 2022 15-01-25
1444 SIG0025 Jul 18, 2022 15-02-20 (75.0 %)
L ANN SIG0024 Jul 18, 2022 15-02-11 (75.0 %)
1 AMM SIG0023 Jul 18, 2022 15-02-10 (50.0 %)
D AMA SIG0022 Jul 18, 2022 15-02-01 (50.0 %)
b AMA SIG0021 Jul 18, 2022 15-02-00 (25.0 %)
I= AMA SIG0020 Jul 18, 2022 15-01-58 (25.0 %)
SIG0019 Jul 18, 2022 15-01-51 (25.0 %)
L AMA SIG0018 Jul 18, 2022 15-01-49 (9.6 %)
L AMA SIG0017 Jul 18, 2022 15-01-46 (8.0 %)
C AMA SIG0016 Jul 18, 2022 15-01-44 (0.0 %)
C ANA SIG0015 Jul 18, 2022 15-01-44 (0.0 %)
C ANA SIG0014 Jul 18, 2022 15-01-42 (0.0 %)
(3 AMA TimeHistory0196 Jul 18, 2022 15-01-19
Run14 Jun 10, 2022 15-40-55
D AMA SIG0013 Jun 10, 2022 15-43-20 (100.0 %)
D ANNO TIMEHistory0194 Jun 10, 2022 15-41-06
P 10 Run13 Jun 10, 2022 15-37-42

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".

Han Live Signals Run Fold	ers	Data Files		
Properties Import Batch Expo	ort	Rem	ove	▶ 1
A Run16 Jul 18, 2022 15-01-0	25			2
1 AMA SIG0025 Jul 18, 20	Ope	n Run Folder		
1- ANA SIG0024 Jul 18, 20	Ren	ame Run Folde	er	
1 AMA SIG0023 Jul 18, 20	Exp	ort Run Folder		
12 AMA SIG0022 Jul 18, 20	Add	Run Folder to	Data F	iles Tab
1 AMA SIG0021 Jul 18, 20	Use	this Run Folde	er for A	ll Runs
IP MM SIG0020 Jul 18, 20	Run	Folder Statisti	ia	
5 MM SIG0019 Jul 18, 20	Dele	ete this Run Fo	lder	
MM SIG0017 Jul 18, 20 Report the Run Folder				
12 AMA SIG0016 Jul 18, 20	nep			
1 AMA SIG0015 Jul 18, 20	Rev	ew Mode (Ctri	I-Right	Click)
1- 100 SIG0014 Jul 18, 20	Con	npare Mode (S	hift-Ri	ght Click)
1 TimeHistory0196 J	Con	npare Signals		
Run14 Jun 10, 2022 1	Exp	ort to single fil	e	
Run13 Jun 10, 2022 1	Sort	Recording By	Time	
P 0 Run12 Jun 10, 2022 1	Sort	Recording By	Name	
Rung Jun 10, 2022 1	Eve	and All		
Run8 Jun 10, 2022 15	Coll			
 Run11 Jun 10, 2022 1 Run9 Jun 10, 2022 15 Run8 Jun 10, 2022 15 	Exp	and All apse All		

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.

Last update: 2023/08/29 21:22	general:tutorial		https://help.go-ci	.com/general:tutori
Documents > EDM > test > Random8 >		ٽ ~	🔎 Search Ra	ndom8
				≣ - (
Name	Date modified	Туре	Size	
Kun 19 Jul 27, 2021 14-45-24	1/28/2021 3:19 AM	rile tolder		
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 eated: 8	/2/2021 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		
Bun33 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		

Select Folder

Cancel

8 4	 Live Signals 	Run Folders	Data Files
Prop	erties Import	Batch Export	Remove
Þ 😚	Run33 Sep 02, 2	2021 16-09-00	Jul 18, 2022 15-0 📥
Þ 🕤	Run32 Aug 30, 3	2021 11-12-50	Jul 18, 2022 15-0
Þ 🔞	Run31 Aug 30,	2021 11-11-25	Jul 18, 2022 15-0
Þ 🔞	Run30 Aug 30,	2021 11-09-58	Jul 18, 2022 15-0
Þ 🕤	Run29 Aug 30,	2021 10-40-23	Jul 18, 2022 15-0
Þ 🔞	Run28 Aug 20,	2021 11-05-02	Jul 18, 2022 15-0
Þ 🔞	Run27 Aug 02,	2021 17-40-06	Jul 18, 2022 15-0
40	Run26 Aug 02,	2021 17-25-33	Jul 18, 2022 15-0
Þ	MM SIG0084 Au	g 02, 2021 17-2	29-02 (75.0 %)
D	MM SIG0083 Au	g 02, 2021 17-2	28-08 (75.0 %)
Þ	MM SIG0082 Au	g 02, 2021 17-2	27-49 (75.0 %)
D	MM SIG0081 Au	g 02, 2021 17-2	26-59 (75.0 %)
D	MM SIG0080 Au	g 02, 2021 17-2	26-49 (25.0 %)
D	MM SIG0079 Au	g 02, 2021 17-2	25-58 (10.2 %)
Þ.	MM TimeHistory	/0027 Aug 02, 2	021 17-25-49 🛛 🗏
Þ 🔞	Run25 Aug 02,	2021 17-19-23	Jul 18, 2022 15-0
Þ 🔞	Run16 Jul 18, 2	022 15-01-25	
Þ 🕤	Run14 Jun 10, 2	2022 15-40-55	
Þ 🕤	Run13 Jun 10, 2	2022 15-37-42	
Þ 🕤	Run12 Jun 10, 2	2022 15-31-34	

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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

<u>R</u> ep	ort <u>H</u> elp		
User Defined Template			
MyReport			
Sy	System Report		
	Report for All		
	Composite Display		
	Active Signal Window		
	Active View		
	All Signal Window		
	Channel Status and Run Log		
	Saved results during run		
	All Test Configurations		
	Test Parameters		
	Input Channels		
	Profile, Schedule and Limits		
	Limit Channels		
	Shaker Parameters		
	Spider System Setting		
	Channel Calibration		
	Miscellaneous		
	License		
	Global Settings		
	Software Screenshot		
2	Define Template		
	Report Setting		

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.

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