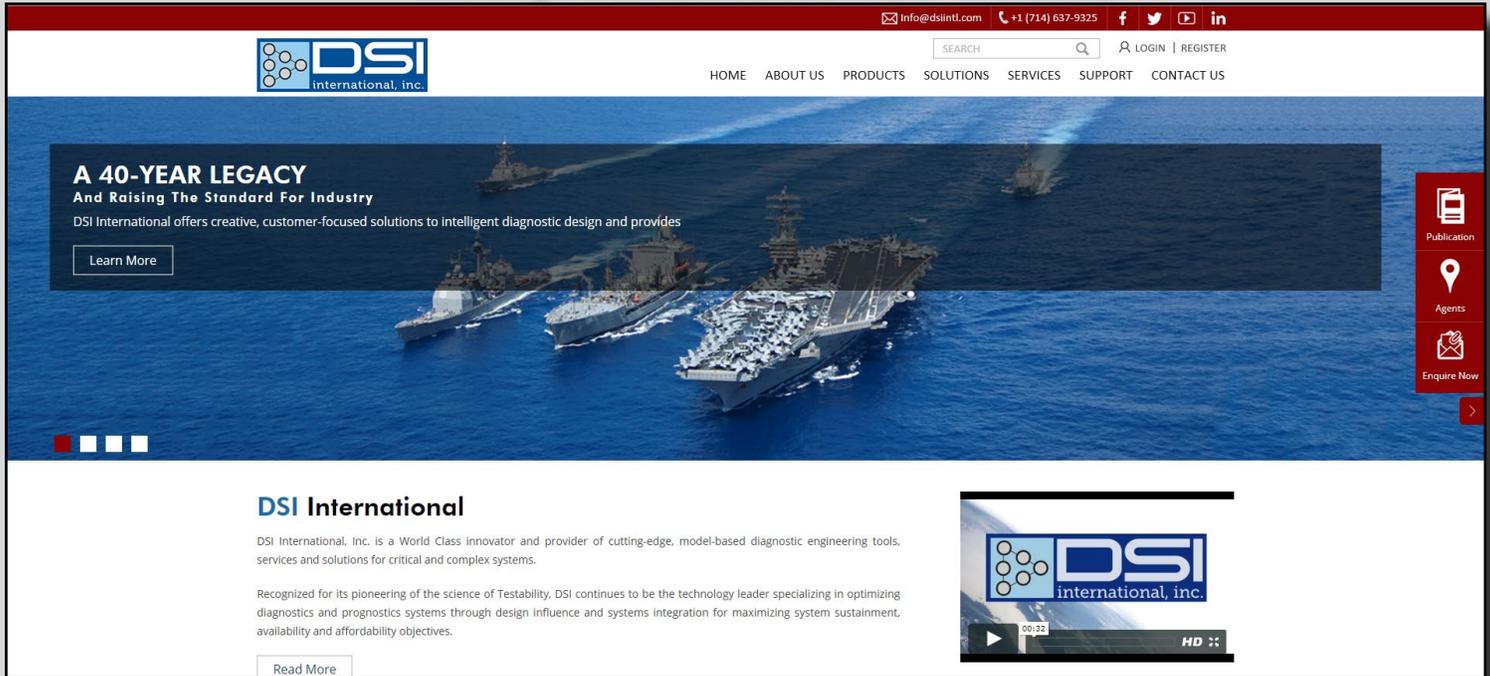


## Finally! DSI Launches New Website



### It took longer than anticipated, but DSI is thrilled to finally announce its new Website!

With the launching of the new website, DSI provides industry with a powerful educational resource that will allow both seasoned researchers and diagnostic newbies to enrich their understanding of Diagnostic Engineering and the various disciplines with which it intersects. A comprehensive resource of this type has been sorely in need for years and it has long been a goal of ours to provide one.

Our immediate objectives were to provide a doorway to the mastering of effective Diagnostic Engineering:

- 1) To provide a resource for aspiring engineers to enhance their background so that they are better prepared for the growing employment opportunities in this wide-open design discipline;
- 2) To reach out further to industry by sharing the value to be gained from significant advances in diagnostic engineering and the new roles it is playing in today's rapidly evolving design environment;

3) To differentiate between "lean" and "smart lean" development, thereby facilitating the seamless transition into new areas of on-going cost-avoidance during both the Development and Sustainment life cycles.

You will discover that the "SOLUTIONS" area of the website offers detailed prescriptions for typical diagnostic deficiencies and sustainment dilemmas (which we have identified by regularly talking with members of industry and listening to their concerns). Our hope is that you will learn to rely on this resource as a place where you can search for a topic of concern, gain some background on the various ways that your issue can be addressed, and then provide your company with a path forward so that you can achieve overall diagnostic success in the most cost-effective manner possible.

Feel invited to explore and revisit this resource often, as it will only improve going forward.

### Inside this Issue...

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### eXpress 7.0 Now Available

DSI is proud to announce a new Major Release of our industry leading Diagnostic Engineering Software! Although you will no doubt enjoy some of the improvements to the main **eXpress** tool itself, this release also facilitates a host of added capability in specialized **eXpress** Modules, as well as in other programs in DSI's powerful ISDD Tool Suite. Something for EVERYONE!

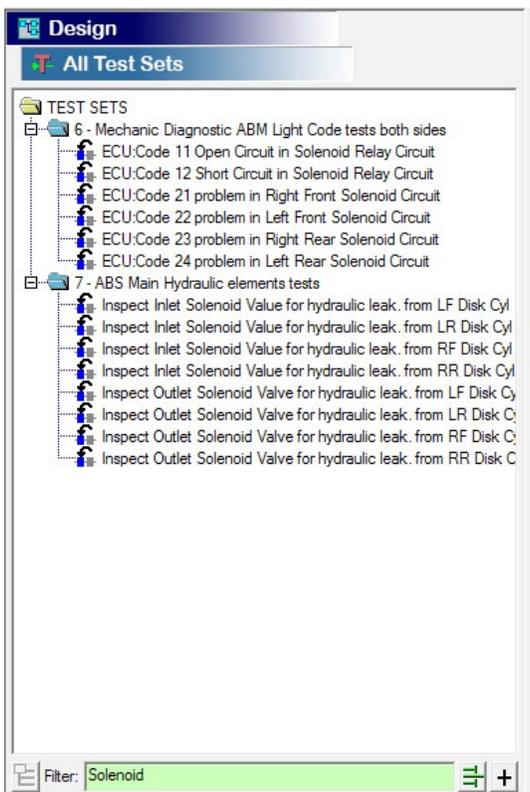
*Continued on page 2*

From page 1

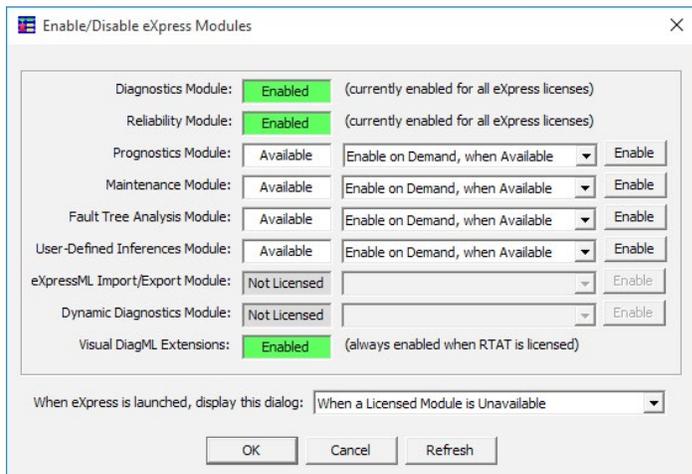
Optimized for Windows 10, **eXpress 7.0** offers a number of enhancements, tweaks, optimizations and fixes.

One of the most extensively upgraded areas of the software was the **eXpress** Maintenance Module, which now allows you to generate maintenance procedures (either manually or automatically, based on multiple criteria) so that you are no longer forced to choose between the two extremes of Block Replacement and Lambda Search.

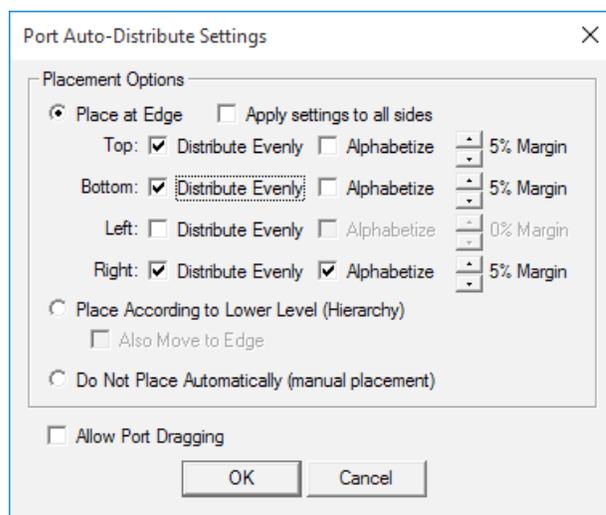
A few of the software improvements are listed on this page. Please read the **eXpress 7.0** Release Notice (accessible from your “User Dashboard” on the new DSI Website) for more details on this release.



Locating objects and tests in an extremely large model is no longer like searching for a needle in the proverbial haystack. Several new editing modes have been added to the software (and existing editing modes have been updated). Each mode not only refocuses the Explorer Tree, but also provides a text filter box so that you can easily locate design elements regardless of the size of your design!

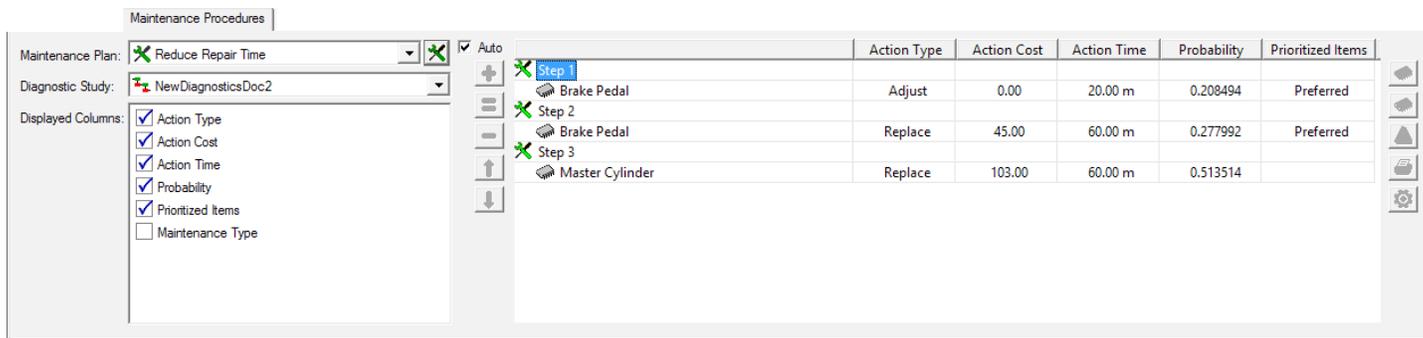


Using the dialog above, you can now manage whether licensed **eXpress** modules are enabled automatically, on demand, or manually. You can also manually disable modules so that they can be used by someone else (floating licenses only).



On the Port Auto-Distribute Settings dialog, you can now separately control how ports are placed on each side of an object. In addition to the existing options to alphabetize and distribute ports evenly, you can now also specify a margin so that names do not overlap for ports placed near the corners of an object.

The ability to disable port distribution on a given side of an object is particularly helpful when using the new “Align Ports on Other Objects” operation, which shifts port positions on adjacent objects so that the connecting nets are drawn *straightly* (that is, using a single segment).



The **eXpress 7.0** Maintenance Module introduces three new model elements: Maintenance Strategies, Maintenance Plans and Maintenance Procedures. Together, these allow you to calculate more nuanced Fault Resolution statistics, using sequences of maintenance actions that are ordered based on multiple criteria (repair cost & time, failure probability, etc.), support multiple action types (e.g., Adjust, Repair, Replace), take into account preferred and deferred maintenance items, and support multiple levels of repair. Currently affecting only statistics, in the future these procedures will be able to be exported for use in STAGE Simulations and DSI Workbench.

## Dependency Matrix (D-Matrix) Output Available with RTAT 5.1

Folks around the world with testability or diagnostic requirements that call for the use of a traditional D-Matrix can now export this format from the *eXpress* Run-Time Authoring Tool (RTAT). Although the *eXpress* diagnostics has a number of capabilities that are too rich to reduce to a single matrix, you may nevertheless find it useful for basic diagnostic data to be available in this legacy format.

Moreover, RTAT will soon be able to import diagnostic data from an existing D-Matrix. This will allow you to support fielded designs that were developed using this approach, yet still upgrade the technician experience with all the cool bells and whistles in DSI Workbench!

## New RTAT (5.2), *eXpress* Design Viewer (v.2.1) and DSI Workbench (v. 4.7)

As DSI Workbench finds its way into more mainstream diagnostic applications as a high-end troubleshooting reasoner, RTAT and the *eXpress* Design Viewer have benefited from the robust demands made on our back-end product line!

For example, the Run-Time Authoring Tool (RTAT)—as well as its companion *freeware*, the *eXpress* Design Viewer—now provide a spreadsheet-like display of design properties, attributes and settings, similar to Grid View in *eXpress*. This feature was in response to requests by our user base and will greatly facilitate working with these tools to improve design development and sustainment.

Object Abbreviation	Context	Object Type	In Scope	Failure Rate	Description	Repair Item Visibility	Cost	LCN	Nomenclature	Part Number	Time
1 ABS LED		Component	True	7.760348	L.E.D.	Primary Suspect	5			GW LED24	0.25
2 ABS Speed Sensor	LR Disc Assy	Component	True	2.953323	Square	Primary Suspect	62			MIBRAB11	0
3 ABS Speed Sensor	LF Disc Assy	Component	True	2.953323	Square	Primary Suspect	62			MIBRAB11	0

Failure Mode Abbreviation	Object	Context	Fault Group Message	Relative Failure Probability	Severity	Rate	Mapped Functions
7 BF Level 1	+12V connection failed.	J1	ECU	False	1E-07	Category I - Catastrophic	100
8 Brake Fl 2	ABS Indicator output failed.	U1	ECU	False	1E-07		Select to View
9 Brake Fl 3	ABS LED driver fails always on.	U1	ECU	False	1E-07		Select to View
10 Brake Li 4	ABS warning LED connection failed.	J3	ECU	False	1E-07		Select to View

Message Name	Display Style	Rt Width	Overall Width	Caption Text	Caption Justification
13 Brake Va 7	Battery Charge Lc				
14 Brake Va 8	Battery dead	1	250	ABS LED Light Is On	Center
15 Brake Va 9	Battery Fuse Blow	2	250	ABS Warning light does not turn on briefly during engine start.	Center
16 C1 10	Battery Partially S	3	250	Automobile Start Test	Center
17 C2 11	Brake fluid indica	4	250	Brake Fluid Low	Center
18 C3 12	Brake fluid LED c	5	250	Braking squeal.	Center
19 C4 13	Brake fluid LED d	6	250	Check BATTERY	Center
20 C5 14	Brake fluid level i	7	250	Check Brake Linkage	Center
21 C6 15	Brake fluid level s	8	250	Check Main Power Fuse	Center
22 C7 16	Brake Indicator ou	9	250	Check tone ring timing from LFDisc Assy	Center
23 Caliper 17	Brake LED driver	10	250	Check tone ring timing from LR Disc Assy	Center
24 Caliper 18	Brake light LED c	11	250	Check tone ring timing from RF Disc Assy	Center
25 Caliper 19	Brake light switch	12	250	Check tone ring timing from RR Disc Assy	Center
26 Caliper 20	Brake light switch	13	250	Code 11 - Solenoid Relay Control Fault from ECU	Center
27 Caliper 21	Brake Light Switc	14	250	Code 12 - Solenoid Relay Operations Monitor Fault from ECU	Center
28 Caliper 22	Brake Light Switc	15	250	Code 15 - Motor Relay Operations Monitor Fault from ECU	Center
29 Caliper 23	Caliper Wear bey	16	250	Code 21 - Left Front Inlet Solenoid Fault from ECU	Center
30 Caliper 24	Caliper Wear bey	17	250	Code 22 - Left Front Outlet Solenoid Fault from ECU	Center
31 CKV 1	Caliper Wear bey	18	250	Code 23 - Left Rear Inlet Solenoid Fault from ECU	Center
32 CKV 2	Caliper Wear bey	19	250	Code 24 - Left Rear Outlet Solenoid Fault from ECU	Center
33 CKV 3	Caliper Wear bey	20	250	Code 25 - Right Front Inlet Solenoid Fault from ECU	Center

The new Grid View capability in RTAT and the *eXpress* Design Viewer allows you to review properties, attributes and settings in a manner very similar to Grid View in *eXpress*.

## For When Sharing Just Isn't Enough...

Because it greatly facilitates the demonstration and review of *eXpress* models and diagnostics on platforms that do not have the *eXpress* software installed, the *eXpress* Design Viewer has quickly become an essential element in many diagnostic engineering processes. The *eXpress* Design Viewer is now commonly used not only for in-house reviews, but also as a means for sharing a team's progress with both management and the end customer!

For some teams, however, sharing is not enough! They'd like the ability to add comments to the model or diagnostic that they are reviewing—comments that can not only be viewed (and commented on) by other team members, but can also be used as a guideline for analysts as they update the corresponding models and/or diagnostics in *eXpress*.

DSI has heard your requests loud and clear! We are currently developing a "redlining" capability in the *eXpress* Design Viewer that will allow reviewers to add comments to different elements in the design—either by typing in the desired comment or by drawing directly on the screen (assuming you have a touch-screen or drawing tablet capability). These comments and annotations will not only be visible to other team members in the *eXpress* Design Viewer (where they can respond in the same thread, as well as add their own separate comments), but will also be able to be reviewed by analysts in *eXpress*, using a mechanism that will take them directly to the area of the design addressed in the comment.

Why let sharing suffice when you can integrate, communicate, and collaborate?!!

## Re-register your Login Credentials

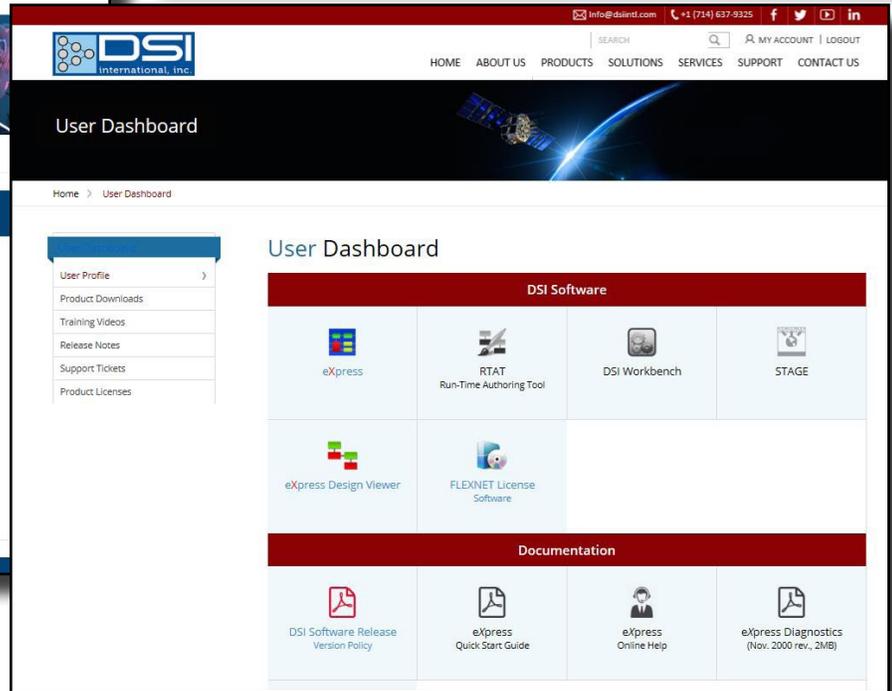
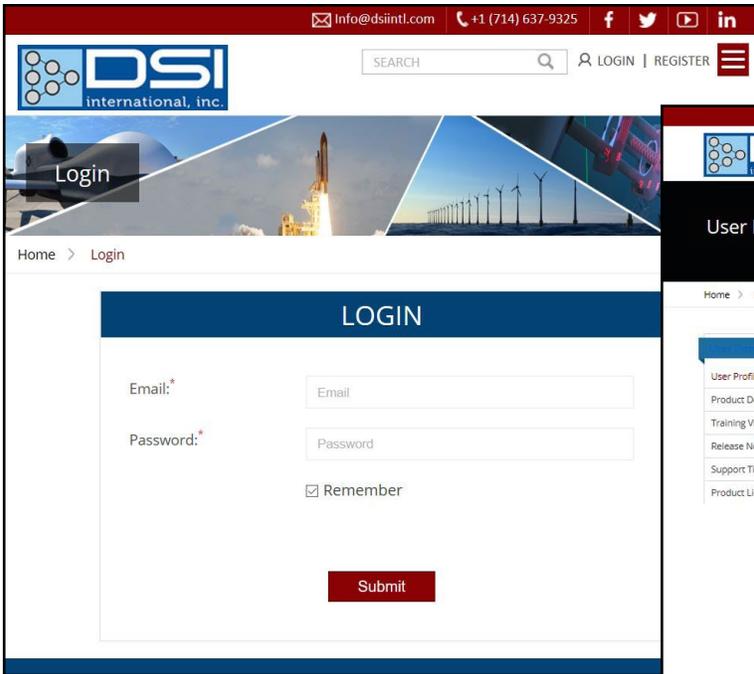
With the rolling out of the new DSI Website, we need to ask you to re-register in order to access secured areas of the site.

This process will only need to be negotiated once. Simply follow the Login instructions. You will notice that there are two levels of password-protected login access.

Once you have re-registered, you can explore the new DSI video library (with over 100 instructional videos and growing), as well as access downloads and documentation using your own User Dashboard!



Like us on Facebook, Connect with us on LinkedIn, Follow us on Twitter. In addition to the new DSI website, you'll now find DSI's presence on social media. Look for announcements of Software Releases and Upcoming Events. Feel free to add your comments! Or, if you'd like to share something more substantial, please feel invited to send it to us for review so we can share it with the entire DSI and Diagnostic Engineering Community.



## Training Course Schedule

Course Number	Pre-requisite	Course Description	Dates	Location	POC
T-100		System Diagnostics Concepts and Applications	May 1, 2017	Orange, CA	info@dsiintl.com
T-110	T-100	Basic Modeling & Introduction to Testing	May 1 - 3, 2017	Orange, CA	info@dsiintl.com
T-120	T-110	Introduction to Testing & Analysis	May 3 - 5, 2017	Orange, CA	info@dsiintl.com
<b>ADVANCED TRAINING COURSES</b>					
T-200	T-120	Advanced Model Development and Analysis	May 22 - 23, 2017	Orange, CA	info@dsiintl.com
T-205	T-200	Advanced Test Development and Importing	May 24 - 25, 2017	Orange, CA	info@dsiintl.com



## World Wide Representatives



United States	United Kingdom	France	Japan	South Korea	China
DSI International, Inc. (714) 637-9325 info@dsiintl.com <a href="http://www.dsiintl.com">www.dsiintl.com</a>	Sphera Test Engineering Services +44 (0)1202 868585 chris.gorringe@sphera.co.uk <a href="http://www.sphera.com">www.sphera.com</a>	Sphera Test & Services +33 (0)6 88 61 33 91 michel.schieber@sphera.com <a href="http://www.sphera.com">www.sphera.com</a>	Y-MAX, Inc. +81-45-789-0701 tets@y-max.com.jp <a href="http://www.y-max.com">www.y-max.com</a>	Realtimewave Co, Ltd +82-2-572-9471/2 sales@realtimewave.com <a href="http://www.realtimewave.com">www.realtimewave.com</a>	MTCS Systems Engineering Co. Ltd +86-10-5881-6565 sales@mtcs.com.cn <a href="http://www.mtcs.com.cn">www.mtcs.com.cn</a>

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