

DOD ATS Framework Technology Initiative

Through-Life Support Demonstration

ATS FRAMEWORK AT AUTOTESTCON

“Collaborate with technology companies, standards organizations, and research institutions to promote ATS technologies and standards for open system, interoperable solutions to the DOD maintenance communities.”

FRAMEWORK IPT GOALS:

- Reduce the total cost of ownership of DoD ATS
- Provide greater flexibility to the warfighter through Joint Services interoperable ATS
- Reduce logistics footprint
- Improve the quality of test

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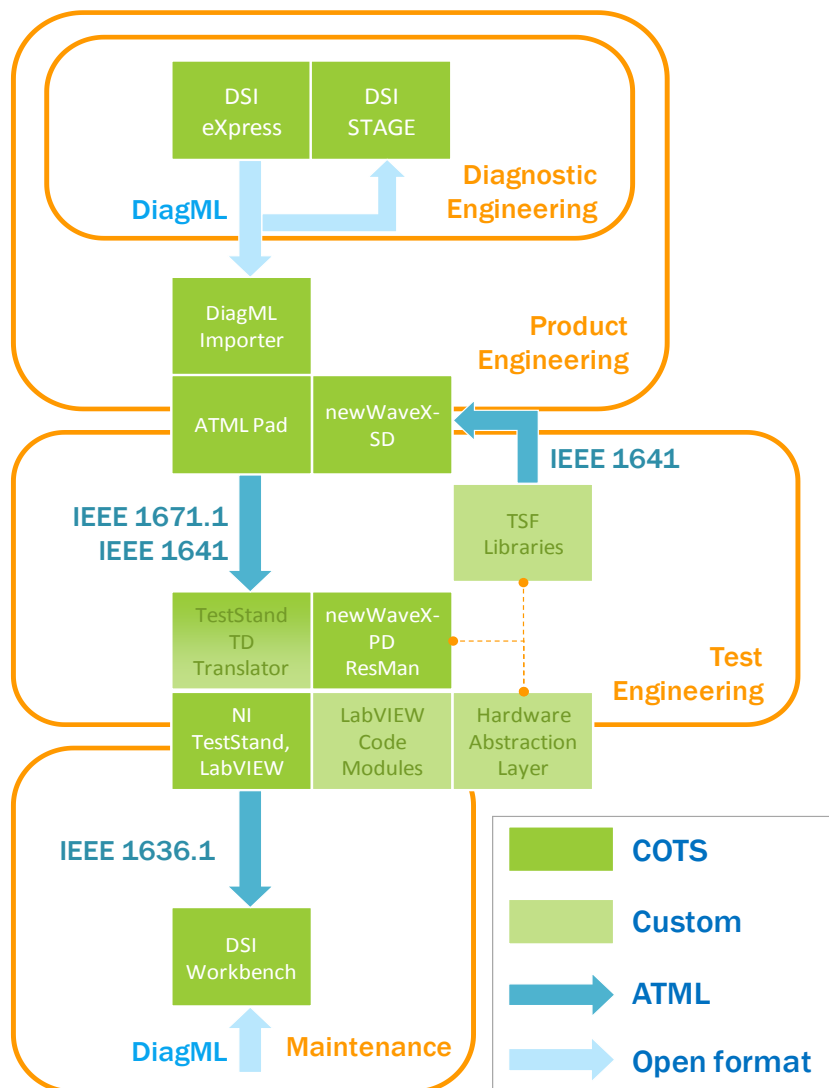
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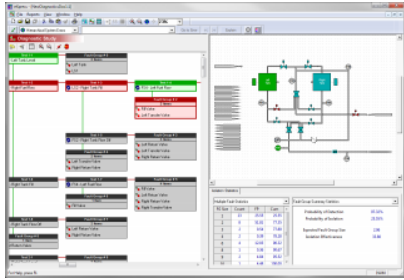
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ATML-Powered, COTS-Based ATS Software Solution



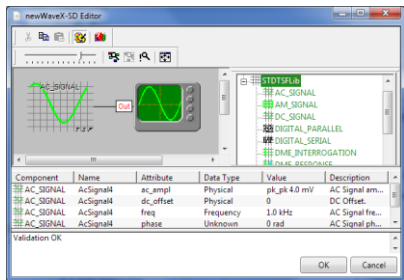
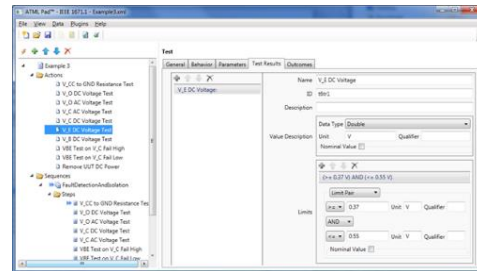
A suite of commercially available software tools adhering to the ATML standards, targeted at different areas of a products life cycle and interfaced through standard formats to offer a complete end-to-end support solution

The use of standards to allow information to move seamlessly through the various stages of a system's life cycle has been aspired to, but seldom achieved. This Through-Life Support Demonstration is designed to showcase a complete end-to-end solution that integrates various components that enable testability, diagnostic, and reliability analysis of a design, health monitoring, testing, diagnosis, and repair, all though the use of standards and applicable to a wide variety of fielded systems.



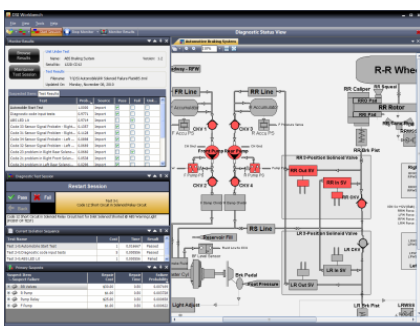
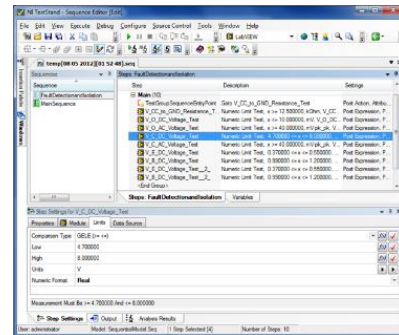
DSI eXpress is a fully-featured, off-the-shelf software application providing an environment for the design, capture, integration, evaluation and optimization of System Diagnostics, Prognostics Health Management (DPHM), and holistic Systems Testability engineering. With **eXpress** you can develop diagnostic strategies and export diagnostic strategy data in the *DiagML* open format.

ATML Pad™ is a visual editor for the *IEEE Std 1671.1 ATML Test Description* data format. You can import diagnostic strategy data from *DiagML* and other sources, add test and signal definitions, and then export ATML Test Description data to NI TestStand. Integration with newWaveX allows in-place editing of signal definitions conformant with *IEEE Std 1641 Signal and Test Definition*.



newWaveX™ Signal Development (SD) is a user-friendly graphical design environment for signal based test & measurement. This product provides the facilities to design, build and simulate test signals prior to their inclusion in a test program. The signals and TSFs developed in this product are validated against the *IEEE Std 1641 Signal and Test Definition* standard schemas.

The **NI TestStand ATML Toolkit** translates *IEEE Std 1671.1 ATML Test Description* documents into TestStand template sequences and template LabVIEW VIs or LabWindows™/CVI functions that you can use to develop your test software. You can write custom code generators to enhance the LabVIEW or LabWindows™/CVI code that is generated during translation. NI TestStand produces test results in the *IEEE Std 1636.1 SIMICA Test Results* format.



DSI Workbench allows for publication of **eXpress** or user-supplied diagnostics (via *DiagML*) within production and maintenance troubleshooting environments, facilitating the integration of diagnostic design views, engineering views, photos and videos within an integrated environment. DSI Workbench accepts test results generated by Automatic Test Equipment in the standard *IEEE Std 1636.1 SIMICA Test Results* format.