



INTEGRATED TEST SUITE OVERVIEW

HIGH PERFORMANCE TECHNOLOGY FOR MORE
FLEXIBLE, USER-FRIENDLY TEST APPLICATIONS



INTEGRATED TEST SUITE: PERFORMANCE TO MATCH YOUR TEST

To help you run more tests, faster than ever with less test operators and specialists, Moog has invested heavily to develop an Integrated Test Suite that can answer your test needs today and in the future.

Whether your test requirements are basic or highly sophisticated, the Moog Integrated Test Suite provides the exact features you look for while adapting to test operator skill level and optimizing costs.

Listening to our customers and studying their requirements led us to develop an Integrated Test Suite that leverages the world class performance of Moog electric and hydraulic systems, Test Actuators, Servo Valves, Test Controllers, Servo Drives and Servo Motors.

Unsurpassed innovation and technological expertise combined with close customer collaboration make Moog a leader in the design and development of high-performance motion control test systems. The features of the Moog Integrated Test Suite have been designed to support both complex as well as simple testing and ensure that test results are captured efficiently.

Our total focus on meeting your unique test requirements means you can rest assured you're using the most flexible, highest performance test software available anywhere.

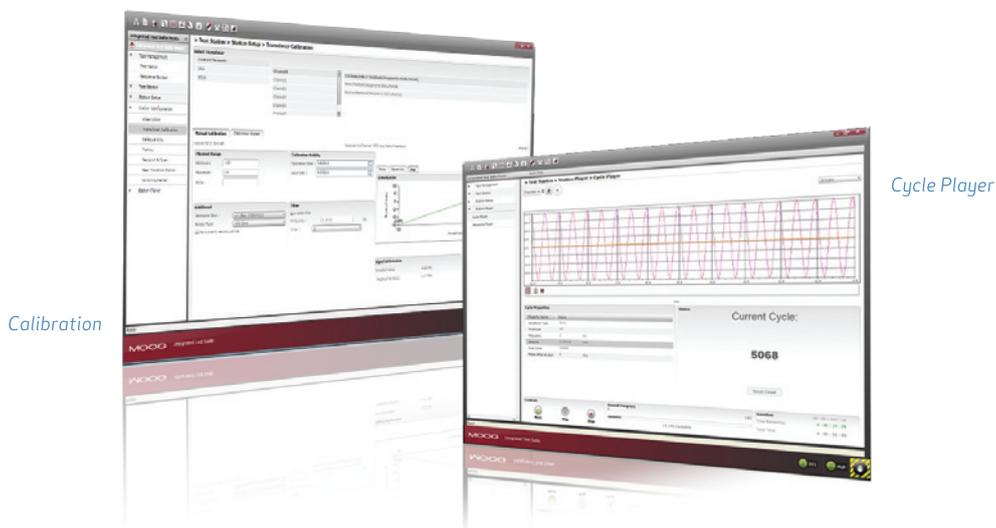
DESIGNED FOR THE NEEDS OF TODAY—AND TOMORROW

The Moog Integrated Test Suite not only incorporates technology that delivers maximum flexibility and efficiency, it is designed around how customers use test software. In fact, its specifications actually reflect working habits and business challenges on a global level.

For example, the number of experienced test system operators is declining, so manpower optimization requires people to switch departments more often and companies face higher staff turnover.

Moog's new software architecture resolves the trade-off between the need for a greater software sophistication and increased user flexibility to match operator skills by using a highly intuitive screen that can be customized for your processes.

By listening closely to the needs of our customers around the world, and observing how they work, we've designed the Integrated Test Suite to take applications further than ever thought possible.



Calibration

Cycle Player

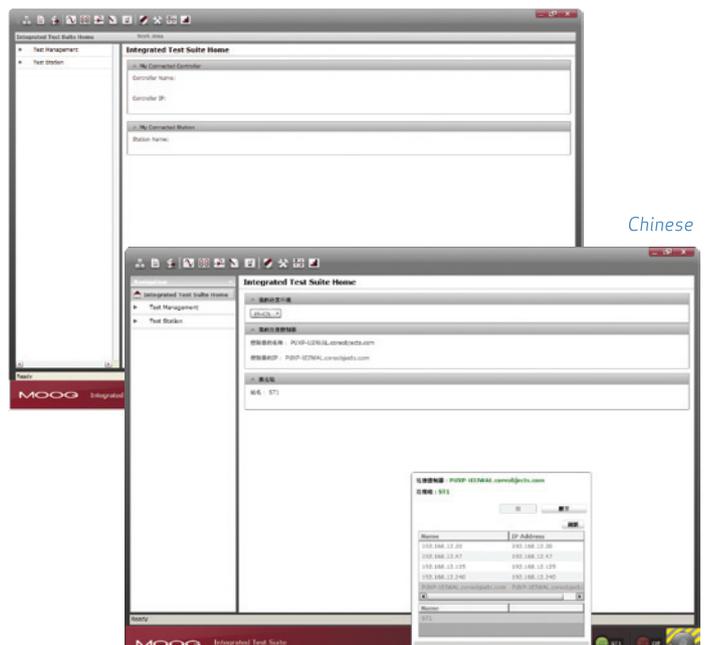
FASTER, MORE EFFICIENT TESTS

The key features of the Integrated Test Suite will bring you real benefits to set up and run more tests faster and efficiently anywhere in the world thanks to optimal algorithms, state-of-the-art workflow and a centralized database.

Reach higher sophistication and preserve intuitive ease of use through:

- Select user interface language
- Highly intuitive screens
- Ease of use for junior operators to start with basic tests
- Integrate modules for complex tests
- Customize your screens to match your processes
- Enjoy the modularity of the Test Suite as your test needs develop or expand
- Centralized database to access all tests and test data
- Supports electric and hydraulic test systems

English



Chinese

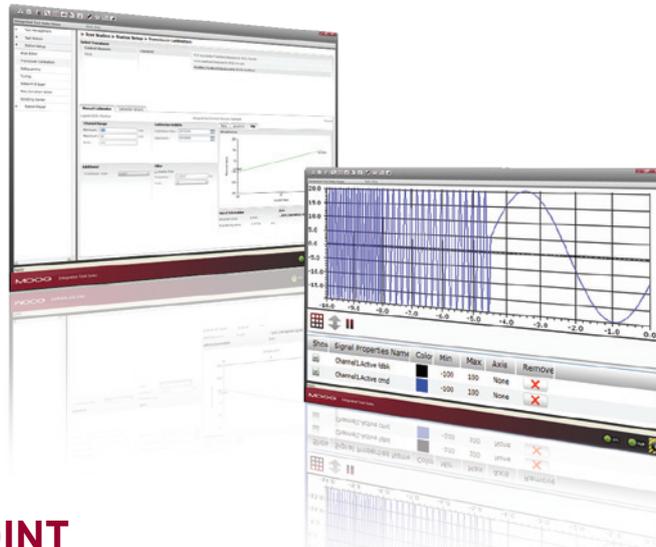
Multiple Interface Languages

MEET YOUR CHANGING REQUIREMENTS

The Moog Integrated Test Suite architecture matches your test needs as you grow. This makes it the ideal software for simple tests starting from one channel to more sophisticated tests using more channels and

various test systems. Additional Integrated Test Suite functions can be added to fit your changing test needs or business growth.

Transducer Calibration



Oscilloscope

THE CONNECTING POINT FOR MOOG SOFTWARE

The Integrated Test Suite allows you to connect to a monitor and operate a controller. You can easily create, edit, and run controller scripts or manage your aliases. The monitoring can be done using the oscilloscope, digital meters and indicators.

With the user canvas, you can even create your own screens the way you like them. The Moog Integrated Test Suite is the connecting point for all of Moog's test software modules.

Sequence Builder:

- Create your test program
- Sophisticated graphical user interface to easily construct complex test sequences

Test Station:

- Possibility to see all test stations on the network

Station Set up:

- Station configuration, calibration and tuning

Transducer Calibration:

- Enter the calibration data manually or calibrate using a wizard

Safeguarding:

- Alarm definition to protect your specimen
- Set failsafe threshold
- Define failsafe actions

Setpoint and Span:

- Manually command your system
- Select simple or advanced view

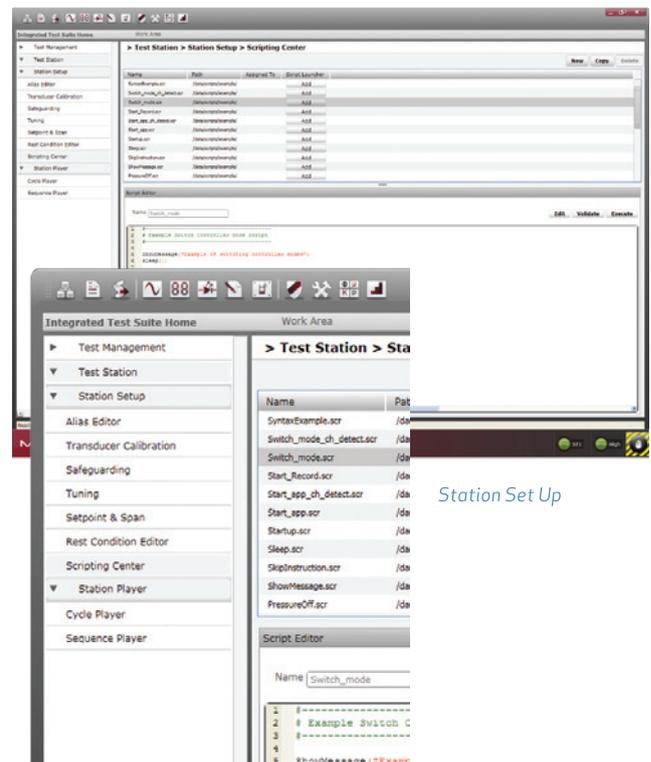
Station Player:

Cycle Player:

- Run simple cycle tests

Sequence Player:

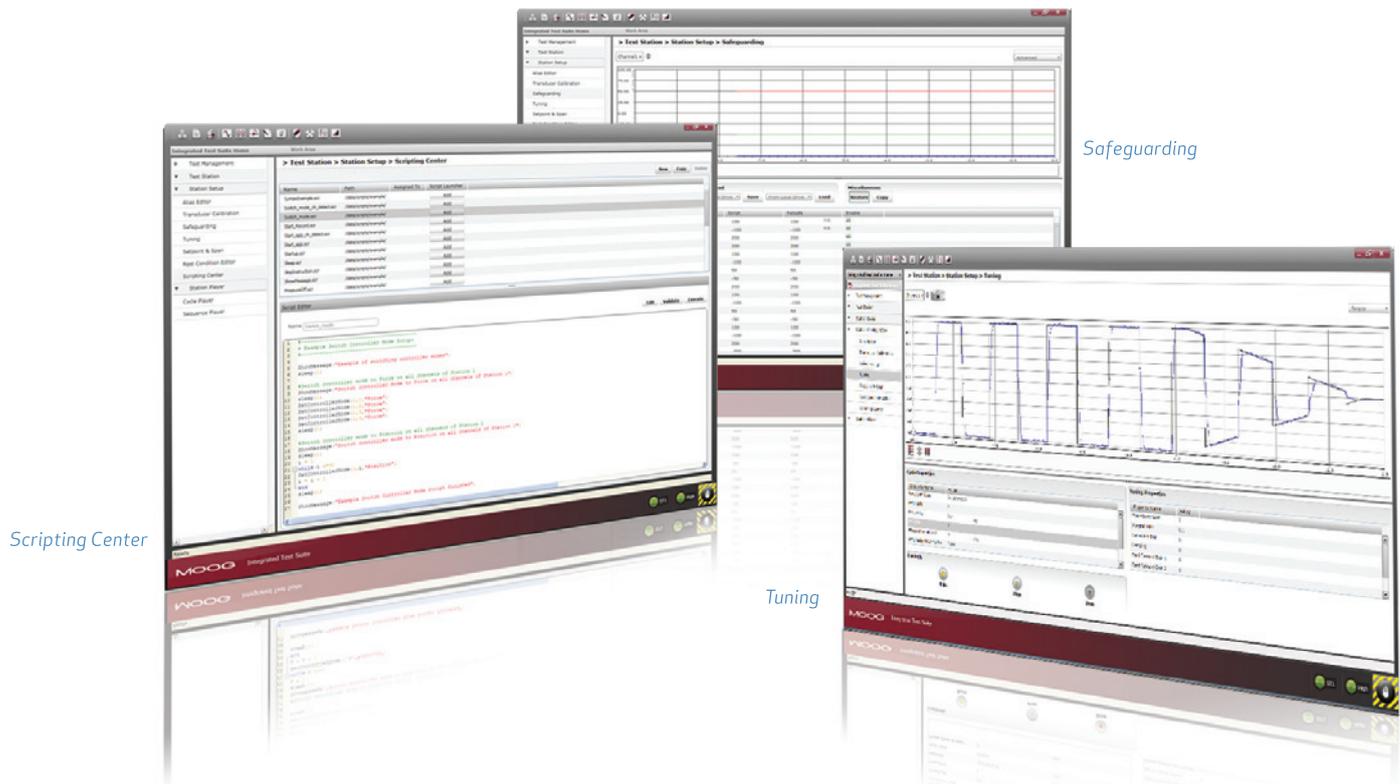
- Run your test programs
- Monitor the test progress



Station Set Up

FIT THE TEST SUITE TO YOUR REQUIREMENTS

Key features	User benefits
Supports multiple test systems <ul style="list-style-type: none"> Multi-Axis Test Systems, Hydraulic Simulation Table, Electric Simulation Table, Suspension Test Rig, Tire Coupled Simulation System 	Execute multiple tests faster <ul style="list-style-type: none"> Using optimal algorithms and efficient workflow templates proceeds to Durability, Vibrations, Static and Fatigue tests
Integrated suite <ul style="list-style-type: none"> Gives transparent access to multiple modules and their advanced options 	User friendly and intuitive <ul style="list-style-type: none"> One learning curve for working with different test rigs supporting cross-function deployment Supports less experienced operators Allows total control for advanced users
Optimized motion control algorithms <ul style="list-style-type: none"> Algorithms for faster testing, optimal system identification, accurate signal replication, power optimized random vibration 	Test time <ul style="list-style-type: none"> Reduces set up and run time
Central database <ul style="list-style-type: none"> Allows easy exchange of information between different software applications and external systems 	Data browser <ul style="list-style-type: none"> Search and find your test data
Fast graphics with rich feature set <ul style="list-style-type: none"> Selected best available library for maximum performance 	Highest level of software engineering <ul style="list-style-type: none"> Superlative match between high sophistication of a software tool with increased ease of use
Customize your interface <ul style="list-style-type: none"> Multi-language support, user canvas 	Localization <ul style="list-style-type: none"> Select your preferred language Create your own customized screen



ACCESS MORE FEATURES AS YOUR TESTS MATURE

The same module can be used for different test systems in your test labs and test data can be centrally accessed, dramatically reducing time.

The Integrated Test Suite gives access to all modules: Runner, Replication, Sinesweep and Random Vibration and to specific advanced features as required.



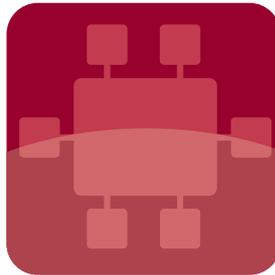
Runner Module

Run and control your durability tests.

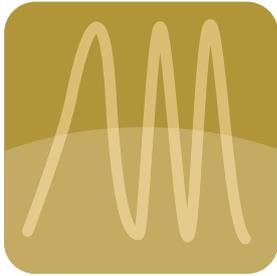


Random Vibration Module

Realize a predefined frequency spectrum using fully randomized time signals.

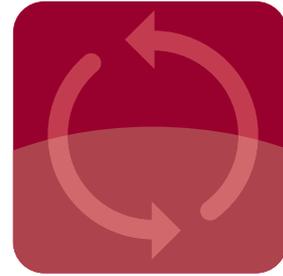


Moog Integrated Test Suite



Sinesweep Module

Investigate the resonance frequencies of your test specimen.
Run Sinesweep durability test.



Replication Module

State-of-the-art algorithms are at work to replicate time history files in an easy yet powerful way.

LET THE MOOG TEST SUITE MAXIMIZE YOUR TEST SYSTEM'S POTENTIAL

Genuine Moog products ensure the best performance so you can meet the challenge of a new testing generation with maximum versatility and stiffness.

Simulation Table

The hexapod configuration used by the Simulation Table is the optimal design to achieve simulation and test capability using acceleration, force and displacement inputs, and to reproduce data collected on proving grounds regardless of your test type, method or specimen.



Hydraulic Simulation Table

Test Controllers

Moog delivers the flexibility, innovation and trusted solutions you need for a smart approach to automotive testing. The heart of all our solutions is the control hardware and software that sets the pace for the industry.

Test controller advantages include:

Test versatility — Single channel and multi-axis test systems, structural durability testing and fatigue test spectrums.

User-friendly operation — For maximum flexibility in your test lab and less set-up time.

Run test precisely and securely — Constant amplitude and phase matching engineering specifications, test interruption prior to catastrophic failure.



Actuators and Valves

Moog Servo Valves, Manifolds and Actuators are just a few of the components that are critical to our solutions. By focusing on the performance of these high-quality individual components, the entire system can reach higher levels of efficiency, reliability and longevity.



Hydraulic Test Actuator



Servo Valve

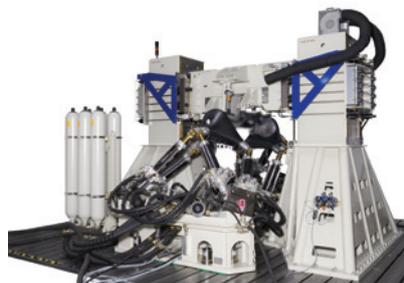
ONE MOOG SOFTWARE, MANY APPLICATIONS

Test labs have to adapt quickly to changing requirements when running different tests. Moog Automotive Test Software leads you to develop successful tests that match your changing priorities and protect the test specimen.

Our approach to achieving faster and better tests on new models, parts and prototypes using electric and hydraulic technologies, ensures we can meet even the highest requirements for frequency, payloads and stiffness.



Ride and Comfort Test System



Suspension Test System



Roof Test System



Seat Test System



4-Poster Test System



7-DOF Driving Simulator with Lateral Rail

TAKE A CLOSER LOOK.

Moog designs a range of products that complement the performance of those featured in this catalog. Visit our Web site for more information and the Moog facility nearest you

Argentina
+54 11 4326 5916
info.argentina@moog.com

India
+91 80 4057 6605
info.india@moog.com

Singapore
+65 677 36238
info.singapore@moog.com

Australia
+61 3 9561 6044
info.australia@moog.com

Ireland
+353 21 451 9000
info.ireland@moog.com

South Africa
+27 12 653 6768
info.southafrica@moog.com

Brazil
+55 11 3572 0400
info.brazil@moog.com

Italy
+39 0332 421 111
info.italy@moog.com

Spain
+34 902 133 240
info.spain@moog.com

Canada
+1 716 652 2000
info.canada@moog.com

Japan
+81 46 355 3767
info.japan@moog.com

Sweden
+46 31 680 060
info.sweden@moog.com

China
+86 21 2893 1600
info.china@moog.com

Korea
+82 31 764 6711
info.korea@moog.com

Switzerland
+41 71 394 5010
info.switzerland@moog.com

Finland
+358 10 422 1840
info.finland@moog.com

Luxembourg
+352 40 46 401
info.luxembourg@moog.com

United Kingdom
+44 168 429 6600
info.uk@moog.com

France
+33 1 4560 7000
info.france@moog.com

The Netherlands
+31 252 462 000
test@moog.com

USA
+1 716 652 2000
info.usa@moog.com

Germany
+49 7031 622 0
info.germany@moog.com

Norway
+47 6494 1948
info.norway@moog.com

Hong Kong
+852 2 635 3200
info.hongkong@moog.com

Russia
+7 831 713 1811
info.russia@moog.com

www.moog.com/test

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