INTEGRATED TEST SUITE
OVERVIEW

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

WHAT MOVES YOUR WORLD
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.
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.

**DESIGNED FOR THE NEEDS OF TODAY–AND TOMORROW**

**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
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.

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.

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

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.
## FIT THE TEST SUITE TO YOUR REQUIREMENTS

<table>
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<tr>
<th>Key features</th>
<th>User benefits</th>
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| **Supports multiple test systems**  
  - Multi-Axis Test Systems, Hydraulic Simulation Table, Electric Simulation Table, Suspension Test Rig, Tire Coupled Simulation System | **Execute multiple tests faster**  
  - Using optimal algorithms and efficient workflow templates proceeds to Durability, Vibrations, Static and Fatigue tests |
| **Integrated suite**  
  - Gives transparent access to multiple modules and their advanced options | **User friendly and intuitive**  
  - 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**  
  - Algorithms for faster testing, optimal system identification, accurate signal replication, power optimized random vibration | **Test time**  
  - Reduces set up and run time |
| **Central database**  
  - Allows easy exchange of information between different software applications and external systems | **Data browser**  
  - Search and find your test data |
| **Fast graphics with rich feature set**  
  - Selected best available library for maximum performance | **Highest level of software engineering**  
  - Superlative match between high sophistication of a software tool with increased ease of use |
| **Customize your interface**  
  - Multi-language support, user canvas | **Localization**  
  - 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.

**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.

**Random Vibration Module**
Realize a predefined frequency spectrum using fully randomized time signals.

Moog Integrated Test Suite

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.
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.

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
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.

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