



STAC Test Harnesses™ and STAC Packs™ Frequently Asked Questions

Q: What are STAC Test Harnesses and STAC Packs?

A: STAC Test Harnesses and STAC Packs consist of software, test data, metadata, and documentation that enable you to run rigorous STAC Benchmarks on systems in your own labs. This provides an insightful, standardized picture of system performance that is capable of exact comparison with published test results from other systems.

STAC Test Harnesses are designed through the creative tension of competing vendors, with end-user firms as referees who ensure that the tests respond to business requirements. STAC Packs undergo rigorous vetting by STAC to ensure that they conform to STAC Benchmark requirements.

These testing tools embody the industry's best practices in four areas: workload generation, scenario configuration, measurement, and analysis & reporting. The expanding array of repeatable workloads ranges from network-bound transmission of high-speed market data, to data-bound analytics of tick data, to compute-bound calculation of derivatives risk. STAC Test Harnesses measure what customers have said is important, including things like speed, capacity, and scaling, as well as accuracy, data integrity, and resource efficiency. Each harness offers the ability to generate standardized analyses or drill down to minute detail.

In addition to implementing standard STAC Benchmarks, these tools enable you to perform customized tests. By tailoring the workloads and scenarios to your environment or taking them to extremes, you can get even greater insight into how a system meets your requirements.

Q: How can a user firm use STAC Test Harnesses and STAC Packs?

A: There are three main uses:

- 1) Mark your system to market. Running STAC Benchmarks on your existing system gives you a baseline for comparison to published STAC Benchmarks of off-the-shelf technology stacks, as well as subsequent tests you run.
- 2) Performance regression testing. By automating the execution of useful tests, as well as their analysis, STAC Test Harnesses reduce the cost of testing and make it feasible to test more things more often. By comparing new results to archived results in your private STAC Benchmark database, you can ensure that a change does not unexpectedly hurt performance.
- 3) Technology research. When you decide to test completely new solutions, STAC Test Harnesses provide a ready-made way to conduct unbiased comparisons and accelerate the testing process.

Q: What are the business benefits to a user firm?

A: There are two primary benefits:

- 1) Better business responsiveness. By providing you with STAC Benchmarks of your own system, STAC Test Harnesses and STAC Packs enable you to compare your system to the latest products available to your competitors without even bringing those new products in house. This makes it easier to treat competitive performance assessment as a continuous, strategic activity.

- 2) Reduced costs. STAC Test Harnesses offload the burden of designing, developing and maintaining test harnesses and analytics. And pre-optimized STAC Packs remove the requirement to write product-specific implementations or adapters. The total effect is to free up your staff to focus on higher value-added tasks.

Q: How does a technology vendor benefit from using these tools?

A: While STAC Test Harnesses may improve the quality or reduce the cost of a vendor's testing, the largest value to a vendor comes from supporting standardized measurement. Customers increasingly expect vendors to provide STAC Benchmarks as a first step toward a sale. And by using STAC Test Harnesses in the privacy of its own labs, a vendor is able to optimize against the tests that customers and prospects will use to evaluate its products. The vendor can use these internal results as an input into product development and marketing plans.

Q: How does a vendor benefit by offering a STAC Pack?

A: If a vendor uses STAC Test Harnesses to test its own products, it has effectively developed a STAC Pack. The incremental cost of supporting the use of the STAC Pack by customers and prospects is small, particularly when compared to the burden of supporting those customers integrating their own test tools with the vendor's product. Meanwhile, there are several benefits to vendors from supporting a STAC Pack:

- Shorter sales cycles. Standardized measurement shortens the sales cycle for vendors. Customers with a STAC Test Harness in place have a ready-made "landing slot" to evaluate the vendor's product. This reduces the hurdles to demonstrating that the vendor's products meet the customer's performance requirements.
- Higher-quality customer evaluations. Vendors often complain that end-user tests are inadequate to demonstrate the value of the vendor's product or are downright biased. STAC Test Harnesses minimize the chance that a vendor will lose a deal for these reasons.

Q: What do I need in order to test a given solution?

A: Up to four things:

- 1) The appropriate STAC Test Harness software (always).
- 2) Something to test (always). This may sound obvious, but sometimes two things need clarification:
 - STAC Test Harnesses do not include any vendor products for testing. The harnesses can be used with just about any product.
 - Some, but not all, STAC Test Harnesses and STAC Packs require additional software. For example, using STAC-M3 to compare storage systems under a tick analytics workload requires tick database software.
- 3) STAC Pack (sometimes). While some STAC Benchmarks don't require product-specific code (for example, STAC-N1 can be used to test any system that supports TCP or UDP sockets or RDMA), most do. If a STAC Pack is not already available for a given product, a firm has three options for obtaining one:
 - it can create an internal STAC Pack by writing code or modifying example programs provided by the product vendor;
 - STAC can provide the STAC Pack if STAC has an appropriate development relationship with the vendor; or
 - the vendor can develop and support the STAC Pack.

STAC charges for STAC Packs that it provides. The preferred model is for the vendor to create and maintain the STAC Packs for its products. The vendor has a natural incentive to keep the

STAC Pack up to date with the latest versions of the vendor's products and to ensure that they are optimized so that the products perform at their best.

- 4) Additional components (sometimes). Some STAC Test Harnesses require additional hardware or software. For example, harnesses that measure ultra-low latency systems often require a latency monitoring product and/or proprietary hardware for playback, capture, and time synchronization. Members may acquire these products directly from suppliers who have relationships with STAC. Contact STAC for details.

Q: What are the commercial terms for these tools?

A: User firms gain access to STAC Test Harnesses and STAC Packs through membership in the Council and subscription to a STAC Track that includes the desired software (some tools may carry additional fees). Similarly, vendors obtain access via Council membership. For details, see www.STACresearch.com/council). Special requests such as platform ports or features that go beyond the standard specs, are negotiated on a case-by-case basis.

Q: Can I get an evaluation version of a Test Harness?

A: Running up test tools in a lab is, in fact, the full intended use for these products, so evaluation licenses are not an option. However, STAC has a 30-day money back policy if the Test Harnesses do not work as advertised.

Q: What sort of education does STAC offer around these tools?

A: STAC Test Harnesses and STAC Packs come with good documentation. STAC also provides tutorials for STAC Test Harnesses and, if desired, deeper training and on-site assistance using them.

Q: Which STAC Test Harnesses and STAC Packs are available today?

A: See www.STACresearch.com/tools for details.

→ For more information, see www.STACresearch.com or contact council@STACresearch.com. ←