vedant health

Taking quality assurance to heart

teststream

TestStream®
for Epic Hyperspace

Keep your health care systems in check

TestStream provides definitive validation of the quality and risk levels of your clinical healthcare systems.

Comprehensive testing of your clinical systems is essential to patient safety and quality care. But manual testing is slow, expensive and inaccurate. That's why we developed TestStream: Intelligent, fully automated testing and validation of your Epic Hyperspace® systems.

TestStream goes beyond standard testing and validation. It ensures that your systems are performing and processing orders and results appropriately, and provides detailed analysis and documentation. With TestStream, you can dramatically improve the reliability and safety of your clinical applications over time. Meanwhile, you'll save time and money and maximize your investment in your clinical systems.

TestStream's Solutions for validating Epic clinical systems, including Willow®, EpicCare® and Beaker®, are configured specifically for unparalleled ease, coverage and speed of testing.

How We Help

TestStream performs automated testing of system processes by replicating the activities of users on your Epic system. While you control the application functions, TestStream creates realistic and repeatable tests that process patient registration, order placement and order inquiries. You can also use TestStream for domain population, database build comparison, security layer validation and more.

An important factor to note is that TestStream is not a test tool, but an intelligent testing system. This means that on day one, it can start testing the Epic system as it understands how the Epic system is built, and does not need to be programmed based on how the Epic system is used at your site. Test from day one rather than spend months programming scripts.

TestStream comprehensively addresses HIPAA, FDA, AABB and other regulatory requirements, to assure safe patient care for the full lifecycle of your clinical applications. No order or process is left in an unknown functional state, significantly reducing the risk to your patients' safety. With TestStream, you can achieve total system validation of core processes, complete with cause and risk analysis and full defect-tracking capabilities, with speed, efficiency and accuracy manual testing can never match.

TestStream
for Willow
(Pharmacy)

The Challenge

Because medication processing is constantly changing, the pharmacy system requires frequent, comprehensive testing. Due to the complexity of the Epic system, the ordering process is affected each time the system is updated with new medications, preference lists and interaction information. Verifying that every medication can be processed and billed properly is extremely difficult, requiring retest after retest.

How We Help

TestStream can automatically process every medication in the Epic Hyperspace Willow system. For integration coverage, it can use existing interface patients supplied through an external spreadsheet. TestStream processes each medication automatically without the need of test data setup, performing the order with all relevant order entry fields completed, then optionally taking the order through Pharmacy Verification and Dispense Preparation, before being reviewed in chart review to ensure that the information was stored correctly in the system. TestStream produces a Pass and Fail report indicating the status and details of the order processed. Any problems are captured and full details — including screen prints — are included in the generated report. All results can be reviewed and digitally signed for regulatory purposes.

TestStream and Willow

TestStream processes through the medication ordering, verification and dispense sequence automatically and determines appropriate options for each field as necessary, regardless of the ever-changing state or complexity of the system. Complete validation or precise regression testing selection is just a click away.

TestStream for
EpicCare
(Inpatient)

The Challenge

The EpicCare system is the core system for nursing stations throughout the hospital. To ensure patient safety and comply with FDA and CAP regulations, it has to be completely accurate and reliable. But because of the size and complexity of the system, manual testing is extremely difficult.

How We Help

TestStream ensures that every Procedure in the EpicCare system can be processed through Order Entry, including all department procedures, such as imaging and patient care. The ordering values for every Procedure processed can be adjusted at a test level, department level or Procedure level.

As the order process completes, the order is signed and the provider details are entered. A vital order inquiry is performed within Chart Review to ensure that the order information was stored correctly. For integration coverage, TestStream can use existing interface patients supplied through an external spreadsheet.

TestStream produces a Pass and Fail report indicating the status and details of the order processed. Any problems are captured and full details—including screen prints—are included in the generated report. All results can be reviewed and digitally signed for regulatory purposes.

TestStream
for Beaker
(Laboratory)

The Challenge

The Epic Beaker system provides access to all laboratory procedures. Because of the complexity of these procedures, the many unique questions throughout the Order Entry process, and the individual requirements for the specimen processing, it's next to impossible to manually test the system in a way that provides meaningful results.
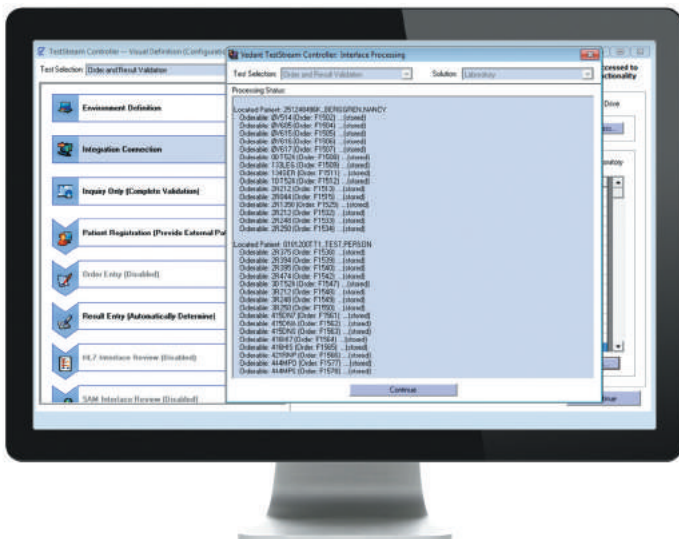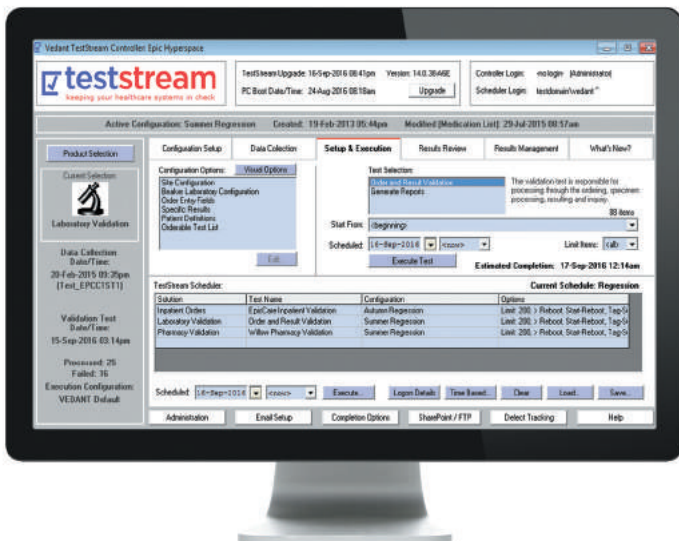
How We Help

TestStream ensures that every laboratory procedure in the system can be processed through the complete sequence, from order entry, specimen collection and receiving, and through result entry for in-lab tests or the creation of a packing list for send-out (ARUP) tests. A vital chart review is then performed to ensure that the procedure and its results were processed correctly. The entire laboratory catalog can be processed without complex data setup, and by answering a few simple questions.

For integration testing coverage, TestStream can use existing interface patients supplied through an external spreadsheet. A Pass and Fail report is generated, indicating the status and details of the order processed. Any problems are captured and full details—including screen prints—are included in the report. All results can be reviewed and digitally signed for regulatory purposes.
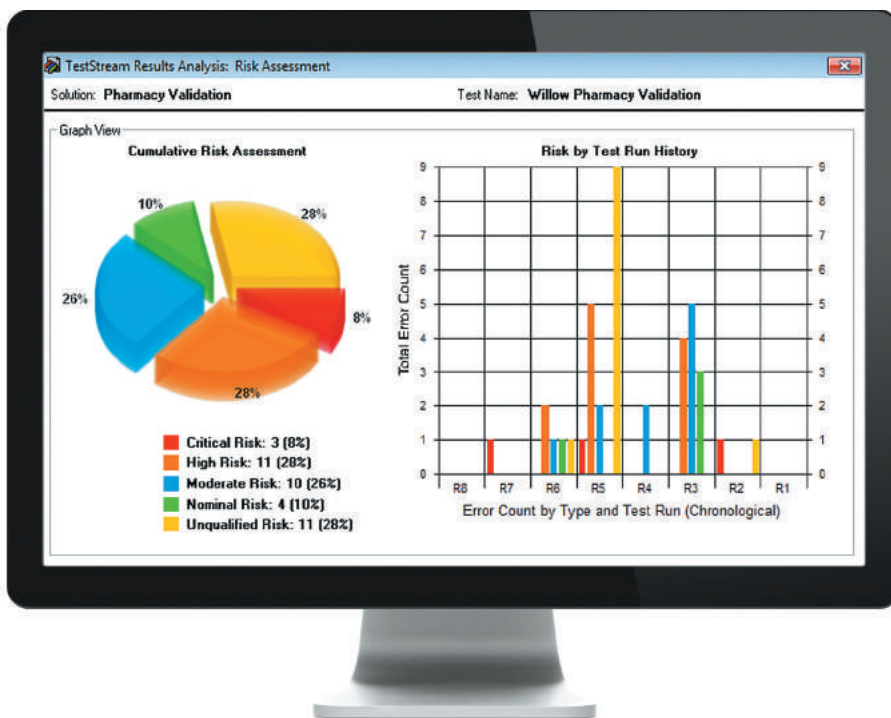
Integration Testing

TestStream solutions are designed to collaborate with each other. This means that thorough integration testing—which was previously impractical—can now be done simply by using TestStream for all of your healthcare applications, across multiple vendor platforms. You'll be able to completely understand full clinical functionality across multiple vendor applications and interfaces.

Cross-Platform Integration System

TestStream can order tests and procedures in the Epic system, received and resulted in another vendor system, and then the processing can be validated back in the Epic system. For example, you could ask TestStream to order every lab procedure in Epic and then allow it to receive and result those procedures in a Sunquest system, followed by an inquiry in the Epic environment.

Additional
Test Solutions

Comprehensive Risk Assessment

TestStream automatically analyzes and documents every error situation found. But since not every error situation has the same risk implications for patient safety, each error is assigned a specific risk level during the analysis, ranging from critical patient safety down to nominal. Combined, they identify the outstanding overall system patient to safety risk.

Risk-Based Quality Management

The ultimate objective of any healthcare system testing program is to ensure the highest possible levels of care and to address any errors. TestStream's risk-based Quality Management module provides a straightforward and comprehensive solution for prioritizing testing and error remediation according to the implications for risk to patient safety.

TestStream provides unparalleled insight into system error level and overall integrity, making it possible to focus on minimizing system errors with the greatest implication for patient risk. Testing cycle activity can be prioritized based on level of risk, and protocols established for retesting to verify error remediation.

☑ **Every application/system error isolated through TestStream testing** is categorized according to (user-configurable) risks associated with patient safety. TestStream technology recognizes FDA and other regulatory bodies' sensitivities to patient risk according to system treatment-interaction level, enabling comprehensive risk qualification against enterprise-wide deployment safety standards.

☑ **Testing schedules, deployment timelines and personnel needs,** as well as vendor remediation collaboration, can all be managed with full awareness of both the scale and risk of the application problems at hand.

☑ **The integrity and functional performance of the healthcare applications** can always be fully understood, for maximum return on your very large healthcare system investments. TestStream assesses each error situation within multiple related test runs and provides an instant risk assessment.

Defect Tracking

Vedant's Defect Tracking system is the summarizing and tracking component that allows issues to be tracked from testing to resolution, ensuring that critical errors never get lost along the way.

The Defect Tracking system is linked to the TestStream test result sets such that any issues found within a TestStream test can be readily logged into the defect system. The outcome of any supplemental manual testing can also be submitted to the same system, allowing all testing to be recorded and tracked within one defect tracking mechanism.

By tracking defects within specified projects or test cycles, the system can not only help determine the current status of testing, but also allow historical data to be reviewed from any previous test cycle, providing defect trend analysis capabilities.

Put TestStream
to work for your
organization

We look forward to helping you ensure that your Epic Hyperspace systems are at their best, so you can deliver care with confidence.

To learn more about us:

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Vedant Health: Your true partner in improving patient care
Testing and validation technology is what we do at Vedant Health. But what's at the heart of our mission—and always has been—is a passion for helping healthcare organizations save and improve their patients' lives.

For three decades, Vedant Health has provided quality assurance solutions for organizations around the world. We're a large but close-knit team, with deep and extensive experience in the testing technology and healthcare worlds. We look forward to talking with you about your quality assurance needs, and how we can help.

Our History of Innovation

1986 —
We created the first of a new generation of test tools with the award-winning V-TEST product set. The V-TEST innovation continues today under the OpenSTA open-source product.

1996 —
We started testing healthcare systems and found that the typical test tool and script approach could not handle the complexities of healthcare systems. TestStream and its revolutionary intelligence system launched.

2005 —
Moving on from validating airline, banking, insurance, government and space-destined systems, we made the commitment to concentrate solely on healthcare.

2014 →
Vedant Health is reborn, bringing a fresh approach to quality management. TestStream continues to validate healthcare systems throughout the world.

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