



•• Ensure Implementation Success with Comprehensive Testing

One of the biggest advantages of the Navis N4 terminal operating system (TOS) is that it is highly configurable, allowing customers to tailor software functionality to their own specific operational business processes and needs. But with that configurability and flexibility comes risk. The most common and best way to mitigate that risk is through comprehensive system testing.

Unlike standard software QA testing, which generically tests the software's functionality, the objective of operational system testing is to determine how the TOS will function in combination with new processes, procedures, other systems and users, in real-world scenarios.

Because of this, system test plans have become increasingly sophisticated, designed to carefully consider all aspects of the business processes that need testing and to confirm test coverage. In fact, testing is typically the largest single part of the project timeline. In a review of 21 recent N4 go lives, testing consumes an average of 62% of the total project duration leading up to go live.

Navis Test Strategy and Test Plan Facilitation services help you to develop an approach that makes better use of this significant investment in time and effort. Whether you're engaged in a full N4 Implementation, a migration, or an integration project, the Navis Professional Services team can help you create a comprehensive, state of the art test approach to mitigate risks, increase testing accuracy and expand testing coverage.

•• Navis Professional Services provides the following services to assist customers in the planning and execution of their testing:

- Test Strategy Facilitation
- Test Plan Facilitation
- N4 UI and API Automated Testing Workshop
- XPS Automated Testing Workshop

Benefits of Navis Testing Services

1 Navis is the developer and provider of the global technology standard terminal operating system and has unparalleled knowledge of these systems.

2 Testing is not just an activity done before initial go live. It is an effort that lives through the entire lifecycle of a solution including maintenance patch installation, upgrades and significant business process changes. As such, higher quality in the initial project testing approach will leave a legacy long after the project go-live is complete.

3 Many terminals are now including emulation and automated testing in their project to extend the scope and coverage of testing. This can be completed in each testing cycle without extending the time allocated to testing. Navis can accelerate automated testing use and time to benefit by leveraging our extensive experience in creating and executing automated tests of N4 and XPS.

Navis Testing Services include:

oo Test Strategy Facilitation

Navis Professional Services will facilitate the definition of a well formed test strategy that will guide the development of the test plan and execution of testing in the project. Navis will lead project management and key project stakeholders through the definition of:

- **Test Objectives** – Produce a clear statement of the intent of project testing.
- **Governance** – Create the testing organization, outline test resources and assign responsibility and accountability to parties involved in testing as well as the test communication strategy.
- **Testing Priorities and Tools** – Develop a risk based assessment of test priorities and select supporting test tools to improve test diversity and coverage in high priority areas.
- **Environment and Data Management** – Define technical infrastructure and data management practices required and available to support the testing effort.

oo Test Plan Facilitation

Navis Professional Services will deliver a project level definition of the test plan, including a dynamic outline of how the test strategy will be applied in test execution. Navis will also lead project resources to define:

- **Scope Definition** - The first step in defining the test plan is to define the scope of the testing to be conducted. Business requirements and process design are supplemented by the testing goals and assumptions in the test strategy.
- **Testing Techniques** – Identification of techniques to be applied in test execution are based on test priorities, tools and the 5 dimensions of testing.
- **Test Repository** – Populate the structure of the test management application.
- **Case Management Standards** – Agree on how bugs will be classified and managed.

Testing Workshops

oo N4 UI and API Test Automation Workshop

Many terminals are beginning to use test automation to improve test coverage and diversity. Navis will provide a 1 week test automation workshop focusing on use of the HP Unified Functional Testing application. Topics covered in the course include:

- Introduction to HP Unified Functional Testing
- Installation and use of the Navis UFT Plug-ins
- Demo and exercises - basic UI and API tests
- Support in the development of sample tests

oo XPS Test Automation Workshop

Expand the scope and benefits of automated testing through this 1 week course on the use of STAF STAX in the testing of XPS. Topics covered include:

- Introduction to STAF STAX
- STAF STAX installation support
- Demo and exercises - basic XPS tests
- Review of the STAF test library
- Support in the development of sample tests

About Navis Professional Services

For more than 25 years, Navis has provided operational technologies that unlock greater performance and efficiency for our customers, the world's leading terminal operators. Backed by the experience of working with more than 250 customer sites, the Navis Professional Services Team is uniquely qualified to help address terminal operational challenges with comprehensive implementation and optimization services. The Navis Professional Services team is comprised of former terminal operators, MBAs, operations research PhD's, and Navis N4 experts with decades of experience helping terminals to implement their TOS and optimize operations. As a result, Navis Professional Services helps terminals to maximize investments in advanced technology solutions, new business processes and operational optimization initiatives by aligning them with our customers' highest-level strategic goals.

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