Navis SPARCS N4

The Global Technology Standard

Navis, a part of Cargotec Corporation, provides the industry’s leading operating system, managing the movement of cargo through terminals across the globe. Navis combines advanced, innovative software with industry best practices and world class services, enabling terminals to maximize performance with reduced risk. For more than 20 years, Navis solutions have been at the forefront of industry trends, transforming terminal operations and the overall supply chain, with the most advanced and innovative technologies. Navis solutions help marine terminals improve efficiency and productivity with optimization tools that are currently in operation at more than 230 locations worldwide.

Navis SPARCS N4 is the next generation terminal operating system (TOS), specifically designed to offer unparalleled value and to grow as the terminal grows, at the lowest possible total cost of ownership. As a platform to build upon, SPARCS N4 is a system that is very maintainable and adaptable over the entire life of the product, allowing terminals to have the flexibility and scalability they need to run their operations; from a single terminal to multiple terminals across multiple geographic locations, all within a single instance.

Designed to deliver the most scalable, open, deployable, adaptable and maintainable terminal operating system today, operators can reap the benefits of high-quality, low risk packaged software without sacrificing the flexibility of a custom solution.

Navis SPARCS N4 is the industry’s proven TOS solution.
Streamline Terminal Operations

Increase Scalability

Navis SPARCS N4 scales with your business to optimize utilization of IT infrastructure and eliminate unnecessary, upfront capital expenditures. The flexible SPARCS N4 architecture allows you to create clusters of database and application servers, allowing your TOS to grow to meet demand.

Seamless Integration of Gate, Yard and Vessel Operations

The open architecture of Navis SPARCS N4 allows you to readily connect to your existing systems and add new applications as your business grows. Whether looking at various levels of gate automation or for dealing with highly complex business to business integration requirements, SPARCS N4 has the APIs and tools for the task at hand.

Simplify and Accelerate Implementation

Navis SPARCS N4 accelerates implementation by configuring operational and administrative processes which previously required code based customization. Flexible configuration enables rapid deployment and reduces implementation costs.

Avoid Expensive Customization

Navis SPARCS N4 employs extensive data-driven business logic to create a highly configurable solution, thereby avoiding many of the common customizations required by less flexible TOS alternatives. In addition, SPARCS N4 software development kits (SDKs) make it possible to extend and integrate your TOS solution with other internal and external systems. If customization is truly required, SPARCS N4 allows you to imbed source code specific to your operation within your deployed version of SPARCS N4. All of these options are available using your choice of internal IT resources, third party contractors, or Navis Professional Services, thus giving you the control and flexibility you require.

Reduce Administration and Support Costs

The multi-facility capability of Navis SPARCS N4 provides a single, homogeneous system across global operations, allowing you to standardize and centralize hardware and software infrastructure, IT administration, and common business functions across multiple operations.

Get more with Navis SPARCS N4

• More system features and functionality
• More flexibility and configurability
• More visibility across the entire organization
• More integration across your organization
Optimize Container Handling Equipment Utilization
The Navis SPARCS N4 PrimeRoute pools equipment across cranes, while combining yard and equipment constraints with operating business rules to optimize work assignments in real-time for efficient use of equipment, shorter travel distances, fewer un-laden moves, and lower fuel, labor and maintenance costs.

Optimize Yard Utilization
The Navis SPARCS N4 Expert Decking helps space-constrained terminals increase utilization of yard space in order to handle growth without adding new land. Without Expert Decking, yard assignments are made manually and are subject to the limits of ad-hoc human judgment, leading to under utilized yard space, inefficient decking and higher operating costs. With Expert Decking, each container is assigned to its optimal position based on the business rules and constraints of the terminal, providing a much higher utilization of yard space, up to 90% reduction in re-handles, and enhanced equipment utilization.

Optimize Vessel Planning
The SPARCS N4 AutoStow option combines stowage factors (e.g., type, weight) with yard constraints and operating strategy to select the best container to load in real-time, resulting in improved vessel stow plans, up to 70% reduction in planning time, higher yard productivity and increased responsiveness to operational challenges.

Automate Crane Scheduling and Monitoring
The Navis SPARCS N4 Quay Commander provides real-time monitoring of crane schedules, vessel container moves, vessel activities, and vessel labor assignments, enabling dynamic adjustments to predicted load, discharge times and crane sequences. With Quay Commander, vessel planners can achieve more accurate predictions of container move and completion times, increased labor productivity, and more tightly integrated equipment control.

Navis SPARCS N4 Deployment Options
- Designed for either Multi-Facility or Multi-Complex deployments
- Global visibility and management in a single instance
- Manage disparate facilities regionally or globally
- Configure business rules across multiple terminals for improved operational control, coordination and efficiency
- Configure and manage multiple terminals for increased deployment, administrative and operational savings
Navis SPARCS N4 Features and Functionality

- The Navis SPARCS N4 System Foundation is built on highly scalable fault tolerant architecture built on the latest J2EE design concepts, advanced metadata driven model and highly configurable business rules.

- Tailor SPARCS N4 to meet specific needs with system options that involve advanced configuration, customization and integration.

- Standard Options offer full configurability and flexibility of SPARCS N4.

- Advanced EDI Options provide an innovative approach to EDI management that significantly reduces the amount of on-going maintenance with a highly configurable and accessible EDI format.

- Facility Planning and Control offers real-time features in the XPS client application providing world renowned operational efficiency.

- Radio Data Terminal Execution Options offer real-time monitoring and management of all equipment.

- Advanced Vessel Options offer advanced monitoring and management of vessel activities and berth scheduling.

- Advanced Rail Options offer advanced monitoring and management of rail operations.

- Advanced Yard Options enable optimized use of yard space and CHE’s and optimized Equipment Control.

- Automated Terminal Option supports unmanned technology, such as automated equipment.

- SDK Options enable terminal operators to customize and extend SPARCS N4 to suit specific needs.

- Marine Telematics Solutions supports process automation at the vessel, quay and in the yard.

FOR MORE INFORMATION please visit us at www.navis.com