

ARCHITECTURE & INTEGRATION

Proteus® Warehouse Management Solutions are designed and built for collaborative commerce, with powerful business process logic, simplicity of operation and integration capabilities as major objectives, thus providing our clients with compatible, robust, flexible, high performance solutions.

Proteus® Warehouse Management System can be integrated with existing ERP/Supply Chain solutions, using industry standard software integration tools, or with the Proteus® Supply Chain package. Multiple integration modes are provided so that it can easily be confloured to met specific client reouirements.

Stand-alone mode enables the Proteus® Warehouse Management System to operate independently with data elements manually maintained or imported as required from a third party system.

Tightly coupled mode enables the Proteus® Warehouse Management System to transfer data automatically with local or remote third party systems, using real time secure messaging.

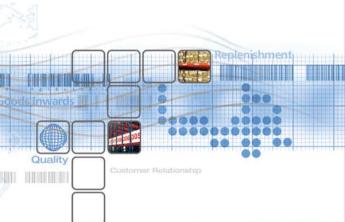
Integrated mode enables the Proteus® Warehouse Management System to use shared data by direct database access with the Proteus® Supply Chain Modules to provide a fully integrated system.

The Proteus® Integration Highway, using XML and Java messaging technology, provides seamless application integration, secure messaging, and full interoperability with other ERP or Supply Chain solutions.

For maximum flexibility, the Proteus[®] Warehouse Management System offers a range of operating options including bar code scanning using radio frequency, speech, RFID, or paper based. Multiple technologies can be combined in a single warehouse. If required.

Proteus* Warehouse Management System is developed using the Progress Open Edge* toolset that provides a thin client, high performance environment. Progress Open Edge* is the world's leading embedded business application of database, with over 2 million users, supporting over \$0.000 businesses worldwide, providing a rowen track record of high preformance and reliability.

Proteus® operates in a distributed n-tier environment on the hardware platforms and operating systems of all the leading computer vendors.



WARFHOUSE OPERATIONS & TASKS

Operational efficiency, high throughput and planning within a warehouse can only be achieved by simplifying the complex, and streamlining business processes. By shortening the order to despatch cycle, operating costs. are minimised and service levels optimised.

Every warehouse is unique in terms of its physical characteristics, product range and stocking units of measure. Each management team is faced with a different operating environment.

Advanced planning is essential to maintain a high level of service and it often starts with transportation and load plans. When warehouse space or resource is limited, it is vital to coordinate picking and put-away with delivery and despatch schedules.

Effective business software must support the business processes, quide management actions, provide comprehensive functionality, as well as being logical and straightforward to use.

The Proteus® Warehouse Management System includes the following operation and task options:

· Warehouse location manning

- · Operator and equipment capabilities
- · Stock categorisation attributes
- . Units of measure (UOM) matrix
- · Flexible nut-away rules
- · Expected receipts booking · Advanced Shipments Notices (ASN)
- · Consignment management
- . Quality control and quarantine
- Cross docking
- · Distribution orders
- · Immediate release orders
- Capacity planning
- · Batch and serial number control
- · Wave picking
- Task manager
- · Dual cycling
- · Stock rotation control
- · Dynamic and manual replenishment
- · Perpetual Inventory
- · Palletisation control and audit
- · Fast, medium and slow stock re-classification
- Repackaging









WAREHOUSE PERFORMANCE

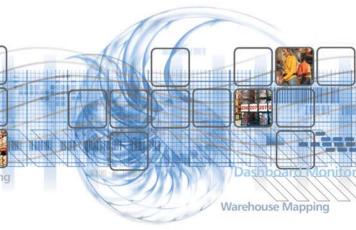
Warehouse operations can only remain effective and competitive over the long term by capitalisizing on on competitive over the long term by capitalisizing on performance knowledge. Too often in the past decisions on the law to the

As pressure is applied to the supply chain, the demands for high levels of warehouse performance increase. Access to essential data, such as high and low spots in the warehouse and performance statistics empowers management to take the actions necessary to improve operations and optimise stock locations.

Business software must provide decision support information, historical performance and predictive reporting to enable management to be proactive and plan for the future.

The Proteus® Warehouse Management System includes the following performance management options:

- · Pick rates
- Task rates
 Movement records
- Movement records
 Warehouse hotspots
- Average times
- · Equipment usage
- Shift reports
 Location reports
- SmartAlerts™
- SmartMonitor™
- · Delivery recording



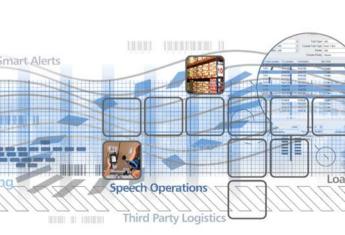
WARFHOUSE PLANNING & MANAGEMENT

Professional supply chain managers and logistics solution providers are seeking the comprehensive depth of functionality provided by "Best of Breed" warehouse solutions, combined with the flexibility to support growing and changing business needs.

As more pressure is applied to the supply chain, just in item replenishment becomes increasingly important and high lexels of accuracy are paramount. The right items must arrive at the agreed time. EV.4 califylt must be managed effectively to ensure goods are ready for deepastch when the whiche arrives. Replenishments must be put away promptly so the stock is available to fulfill mene worders. The drive to reduce costs creates a demand from supply chain professionals to solutions providers for on going efficiency improvements.

Business software solutions must automatically manage the many individual tasks within the warehouse, and provide the ability to keep the potentially complex simple. The Proteus® Warehouse Management System includes the following planning and management options:

- Warehouse operational planning
- Inter-warehouse transfers (IWT)
- · Back to back inter-warehouse transfers
- · Radio frequency task management
- Radio frequency task managemen
 Speech task management
- Stock ownership
- Analysis groups
- Item attributes
- Charging matrix
- Delivery requirements plan
 Event handling
- · Product movement tracking
- Despatch management
- Proof of delivery (POD)
- Stock reconciliation
 Stock take verification
- · Directed stock take
- · Perpetual inventory (PI)
- Task history and auditing
 Capacity planning
- Labour planning
- Carrier integration
- Document manager



WAREHOUSE REPORTING

The essence of any quality Warehouse Management Solution is its ability to provide valid and accurate management information easily, reliably and immediately to each authorised member of staff.

Proteus® Warehouse Management System is designed to provide a wide range of useful enquiries and reports based on specific data analysis. These standard reports are easy to produce. The Report Generator can be utilised and tailored by each user to obtain precise details and the layout required.

In addition, Proteus® provides end user reporting tools that allows the extraction of data using ODBC drivers. A series of extract programs are also available, to transfer key data into a data warehouse, or business intelligence software for sonhisticated user defined business reports

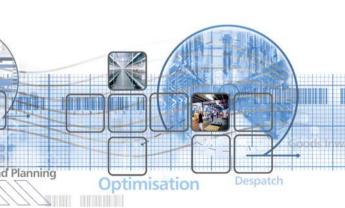
Business software solutions need to facilitate the immediate and easy access to key knowledge that enables the warehouse team to act or respond without delay rather than waiting for a report to be written for them.

Whilst the extrapolation of historical data is essential to future planning, equally important is the ability of the system to respond immediately to exceptions that occur. Proteus® SmartAlert™ will immediately notify designated personnel, by email or SMS of user selected events.

For example if an unexpected stock-out occurs due to damaged stock, or a scheduled delivery fails to arrive, a SmartAlert™ will be generated, giving the warehouse manager complete control

The Proteus® Warehouse Management System includes the following reporting options:

- Report generator
- Audit reports
- Performance analysis
- · Report builder · E-Business report delivery
- ODBC interfaces SmartAlerts[®]
- SmartMonitor™
- · Dashboard activity monitor · Activity targets and comparisons



WAREHOUSE FEEICIENCY

The efficiency of the warehouse operation is essential to the success of any supply chain business, and its ability to consistently deliver high levels of service.

Varying operational requirements mean that each function within the warehouse may need to be manual. assisted or fully directed. Assisted or fully directed modes normally use radio frequency or speech terminals for communication to the warehouse operative, and bar code scanning for high data capture accuracy.

The fully directed mode creates a highly efficient paperless environment, with the Proteus® Warehouse Management System managing all aspects of the operation.

Business software solutions must be able to operate across multiple warehouses or across the whole supply chain in many different modes and with varying complexities

The Proteus® Warehouse Management Solution assists distribution and logistics organisations to achieve improvements in operational efficiency, staff productivity, stock accuracy and customer service.

Operational effectiveness is achieved through

- · Ontimising travel time · Location management
- Minimal nanonwork Improved scheduling
- · Receipts immediately available for pick
- · Automatic replenishments
- Direction to best location
- Fulfilment from multiple distribution centres (order splitting)

· Improved stock turn

- Staff productivity is enhanced through
- · Staff allocation based on capabilities · Damages and mis-picks traced
- · Fast and accurate task confirmations
- . Transaction date and time stamping for traceability

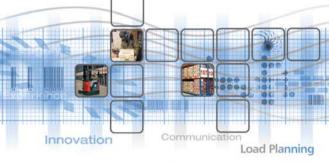
Stock accuracy is improved through

- · Reductions in mis-nicks and returns
- Stock take procedures automated and simplified Obsolete stock minimised
- . Out of stock situations reduced
- · Full pallet, carton and item traceability

Customer service is enhanced through

- · Improved responsiveness
- · Improved data/resource visibility . State of the art systems
- Dynamic reporting
- · Remote data visibility







CENTRES OF EXCELLENCE

PROTEUS Europe

PROTEUS SOFTWARE

Birmingham Business Pa Birmingham B37 7YD

Tel: +44 (0)121 717 7474 Fax: +44 (0)121 717 7401

Email: moreinfo@proteussoftware.c

PROTEUS Eastern Europe

PROTEUS HUNGARY

Maros U.30 H-1122, Bud

Tel: +36 1214 6020 Fax: +36 1214 6019

Email: moreinfo@proteus-sw.hu

PROTEUS Africa

Po Box 70619 Bryanston 2021

South Africa Tel: +2711 706 8051

Fax: +2711 463 3626

Email: moreinto@proteussoftware.co.za
Web: www.proteussoftware.co.za

PROTEUS Asia Pacific

PROTEUS SRI LANKA

Level 5, Millennium Hou 46/58 Navam Mawatha Colombo 2

Sri Lanka Tel: +94 11472 0700

Fax: +94 11479 1733

nail: moreinfo@proteussoftware.ll

