



Trading as Trans Data Communications

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Asset Management Capability

Visual Assets

1. Overview

The following provides an overview of Sonar Technology's asset and inventory management solutions that are currently available.

In reading the following product overviews it should be noted that all Sonar solutions incorporate the following features:

- Solutions can be directly interfaced to any other existing corporate system such as Oracle Financials or SAP. Alternatively data can be moved between systems in real time via file transfers.
- Solutions have inbuilt high level user and data security.
- Solutions have a separate Data Mart and reporting layer that utilizes Crystal Report with the ability for users to tailor their own reports.
- Solutions are scalable from less than ten to in excess of concurrent 3,000 users and can manage many thousands of simultaneous transactions.
- The core technology is C# and .Net.
- Solutions are client server based, either centrally located or distributed with the ability to provide web user interfaces for low security, simple processes.
- Solutions utilize a Microsoft SQL Enterprise Server RDBMS which is double byte enabling any language clients.
- Sonar Technologies has development teams and integration partners in Australia, India, Singapore, Jakarta and the Middle East and a very experienced mobile team of business analysts and system design specialists.
- All solutions are built around a common 'core' and are modular and fully customizable to suit each customer's specific requirements.

3.1 Sonar Asset Management

1.3.1. Location

Sonar has a unique asset management solution called '**Visual Assets**', which provides its customers with total visibility of all its fixed and mobile assets.

Assets can either be uniquely identified by RFID or barcode or identified as a group of assets (chairs for instance) and placed on a visual electronic location plan.

The plan is available at both base end workstation and PDA and any asset can be manually or electronically repositioned by a user, for instance when an asset is moved from one room to another, into a vehicle or distant location. Once moved the new location becomes immediately visible to all users.

If assets are fitted with RFID tags and the organisation has a mesh wireless network in place or RFID readers are strategically placed in areas where asset tracking is important the exact position of each asset is immediately visible. This makes locating the closest piece of equipment required in an emergency much faster than manually searching or calling multiple areas seeking its last known location.

1.3.2. Usage

When linked to the Sonar Asset Maintenance system a complete usage history of every asset is maintained, from its time of purchase and entry into the database to its eventual disposal

(or loss). This makes forecasting and budgeting a more accurate process and ensures assets are utilized to their maximum extent possible.

1.3.3. Stocktaking

Stocktaking is a relatively simple exercise as the location of all assets is known by the system, making spot audits possible and quickly identifying lost items. Where items are not RFID tagged staff has a requirement to scan the new location into the system or manually enter it.

In cases where equipment is likely to be stolen or removed from a designated area readers placed at entrances can set an alarm if an item is taken out. The process works in a similar way to a department store.

4.1 Sonar Asset Maintenance

Sonar's Trans-Service solution enables the scheduling and management of regular maintenance or ad-hoc job against any number of assets by any number of people.

1.4.1. Scheduling and Dispatch

Assets requiring maintenance, including location, maintenance history, frequency and next maintenance date are held in the system or passed to it from the current assets register.

The system will automatically generate maintenance jobs in advance and can automatically schedule them to staff based on skill sets, availability and priority.

Ad-hoc jobs can be entered into the system and immediately become visible to the maintenance supervisor staff.

All jobs are visible on a dispatch screen and can be manually or automatically allocated to maintenance staff.

In most cases a PDA is utilized by each staff member or at the supervisory level. Jobs are sent to the PDA, along with details of the asset, maintenance history and current job tasks. If required, a schematic and/or technical manual of the asset can also be available on the PDA. If a PDA is not available job sheets can be printed and passed to staff members.

If Sonar's Visual Assets module is in place the exact location of each asset can be plotted on a map or area diagram and viewable on both the PDA and administrator workstation.

1.4.2. Resourcing

As with all Sonar solutions the system will manage the maintenance resources available, including rosters, start times, time off, unavailable periods, time sheets and vehicle allocation if required. Initial data can be passed to Sonar from the existing HR system and time sheet data and other necessary information recorded passed back to the HR or FM system.

1.4.3. Job Recording

When a PDA is utilized operational staff can see the progress of each job in real time and a full job history including start, finish time, work completed, materials used and so on is available on the system.

If assets are fitted with an RFID tag or barcode this can be automatically recorded to certify job completion and identify specific asset.

1.4.4. Forecasting and Budgeting

By capturing a full job history administration staff can easily calculate the real cost of its assets, identify problem assets and better forecast and budget for asset acquisition and replacement.

5.1 Sonar Consumables Management

1.5.1. General

Sonar's consumable and asset management solutions are designed to provide either a total end to end or partial solution directly linked to an existing warehouse package.

Our strength is providing our customers with the ability to track and trace and report on any item, irrespective of type or size throughout its entire life cycle and make its current location or status available in real time to end users.

1.5.2. Delivery by Suppliers to the Warehouse

When linked to suppliers, items can be fixed with barcodes or RFID tags, either at the pallet, carton or individual level at the time of manufacture or on order. Delivery manifests are then passed to the warehouse along with delivery dates/times, making delivery acceptance checking much simpler and cheaper as the information is already available in the Sonar database.

On arrival at the warehouse pallet or carton checking can be either managed electronically at the unloading point if RFID is employed via wide range readers or via hand held barcode readers and access points. The delivery can therefore be quickly checked against the delivery manifest already held in the database and any discrepancies discovered and resolved.

The delivery manifests and their current status are also available to other hospital users, such as accounts, either via the Sonar system or through the real time update of other systems in use by the specific department.

1.5.3. In the Warehouse

If an existing warehouse management system is not already in place Sonar can provide a total best practice warehouse management system.

We can also provide a partial solution linked to the existing system to enable the real time visual location and tracking of pallets, individual cartons and even items throughout the warehouse environment. By utilizing RFID locators and readers throughout the warehouse linked to RFID pallet tags the location of every pallet within the warehouse is instantly available and visible on a 'Warehouse Map'.

When a pallet is moved from one location to another the new location, either a rack or on the warehouse floor, the new location is assigned in the database in real time. If the current warehouse application enables it the new location can also be passed to it.

If RFID tags are fitted to cartons and/or high value items these can be tracked in exactly the same way when a pallet is split.

The solution can also work with barcodes, however while much cheaper the process is a manual one and prone to user errors. It is often economically more feasible however to use barcodes for individual cartons and/or individual items.

Sonar can also provide mobile warehouse management workstations, including monitor and printer for use within the warehouse, including in narrow aisles. These enable staff to work without having to constantly return to a fixed terminal to print barcodes, record movements, picking and packing, delivery dockets and so on thus saving valuable time and minimizing user errors.

1.5.4. Delivery to End Users

Deliveries to the consumer can be tracked from their time of ordering, packing, leaving the warehouse, in transit and delivery. When linked to a PDA, delivery progress and if required signature capture, can be made at any point and is visible in real time.

If an internal automated delivery system is utilized, such as conveyer, progress is tracked via strategically placed RFID readers and wireless access points.

This means that end users can track progress from their own workstation without having to constantly refer to warehouse staff. It also means the warehouse can better manage its delivery resources and improve processes and forecast future requirements based on accumulated history.

1.5.5. Usage

The Sonar system can manage inventory usage, either automatically or via manual recording, providing management with full visibility of total inventory and usage throughout the organisation.

Depending on the level and type of recording – carton, box or item and barcode or RFID the system can automatically reduce the inventory as items are used. Alternatively staff can manually record usage. Individual item usage can also be recorded against specific assets and processes.

For replaceable items, such as laundry these can be tracked throughout the complete laundry process enabling a replacement policy to be implemented based on usage (See Sonar Laundry System).

Through the use of spot inventory audits an accurate map of current inventories and overall usage over time can be maintained.

Of particular importance is the ability to better manage perishable inventory items and the location of Batch #'s as the system will record all 'use by dates' and 'batch #'s' embedded in the relevant barcode or tag, or manually entered on delivery. This enables managers to implement a policy of timely relocation of perishable items. In the case of inventory provided by suppliers on consignment a similar process can be implemented by them if they are provided access to their inventory via a secure portal.

1.5.6. Stock Control and Re-ordering

By accurately knowing the total inventory and its location at any time efficient stock control and reordering processes can be put in place.

In many instances, large disparately located organizations hold excessive stock and place inefficient numbers of small orders because of a lack of immediate visibility of total inventory and thus ability to move items from one area to another.

Given the normal non visible view by end users of stock levels and arrival of new stock into the warehouse they also have a natural inclination to order excessive amounts and to stockpile inventory by overstating usage. Sonar's system is designed to ensure this cannot easily occur as the total inventory is visible at all times.

1.5.7. Stocktaking

Once the Sonar system is set up, stocktaking becomes a simple process. A complete inventory, including location, of every item is always available in the system. This enables spot checks to be undertaken as and when required by managers and auditors. End of year stocktaking is also much simpler and faster to complete and provides a far more accurate result.

1.5.8. Forecasting

By maintaining an accurate record of the organization's total inventory, even if the warehouse is managing more than one business group, forecasting becomes a simpler and more accurate process. This can provide additional purchasing power with suppliers as well as better overall budgetary management.
