



Introduction

TeleTracker Service is a barcode based item tracking system that includes maintenance history and service intervals. The system is suitable for almost any application that requires off-site recording of service and repair information. Applications such as fire extinguisher maintenance and pest control equipment are ideal.

The system utilises the Telescan2 portable data capture terminal for off site data recording of items locations and service history.

System Description



The system consists of a special multi-user PC application program, a number of Telescan2 hand-held data collection devices with charger / data transfer cradles and a dedicated barcode reader for connection to the main PC. The Telescan2 unit has a display, keypad and integrated barcode laser scanner. The batteries are re-charged by placing the Telescan2 in a cradle. The cradle also provides a connection to a serial port (which must be available on the target PC) so that data can be transferred.

The PC program maintains the database in Microsoft Access format. It accepts data from the Telescan2 and produces printed reports to order using any standard Windows compatible A4 printer. It runs under Microsoft Windows 98/NT/2000/XP.

The Telescan2 is used on customer sites for 2 functions:

- Collecting the details of items that have been newly tagged.
- Recording the substitution of items.

Database

For each item the following fields are available:

- Item ID (as contained in bar-coded tag)
- Customer/Location ID (selectable via text list of customer sites)
- Issued Date
- Specific Location (free text)
- Product Group Number (selectable from list)
- Components Included (memo field - up to 64,000 characters)
- Test Report Number (generated automatically by test equipment)
- Last Test Date
- Test Due Date
- Test History (memo field - up to 64,000 characters)
- Replaced By (if this item has been replaced, Item ID of new item)

Customer details are recorded in a separate table as follows:

- Customer/Location ID
- Customer Name
- Site Location Name

Product Groups are also recorded in a separate table:

- Product Group Number
- Description

System Operation

PC Program

Database Maintenance

A database screen is provided to add, amend and delete item, customer and product group records. A query function is also available to display details of a selected item.

A facility is provided to create records for a group of similar items with consecutive barcode numbers. The Item ID and test fields must be completed individually for each item, but the remaining fields are copied automatically after the first item has been entered.

Menu Sheet Printing

The system includes the ability to print bar-coded menu sheets for Customers and Product Groups. These are used during the collection of information on newly tagged items at a customer site.

The Customers sheet contains a list of each customer site (e.g.



“Acme Co, Derby”, “Acme Co, Leicester”, “Smith Ltd, Bradford, Green Lane”). Next to each site, a barcode is printed containing the customer/location ID.

Similarly, the Product Groups sheet lists all the group names, and for each a barcode is printed containing the product group number.

Telescan2 Data Loading



A screen is provided to implement the transfer of site-collected data from the Telescan2 to the PC. This consists of 2 possible types: new item numbers, and replacement items. For each new item number, a skeleton record is created with the Item ID, Customer ID and Product Group fields completed. The remaining fields must be completed manually using notes made by the engineer on site. For each replacement, the Replaced By field in the old item record is automatically set to the new Item ID, a new item record is automatically created with the new Item ID and relevant fields copied over from the old item record. The test fields for the new item record have to be completed manually.

Site Equipment Lists

An equipment list should be printed in advance of an engineer visiting the site. To print a list, the user selects the customer site and specifies a particular product group or all product groups. Details of items that satisfy these criteria are then printed.

For each item, the Item ID, Issued Date, Specific Location, Product Group Number, Last Test Date, and Test Due Date are printed. The Item ID is also printed as a barcode. A boxed space is included for each item on the print-out so that the engineer can write down any relevant information. E.g. “Tested 6/12/02. Next due 6/12/03”.

After a site visit, the list is returned to the PC for record updating. The user reads the barcode from the list for an item to be updated which selects the correct item record. Using the above as an example, the last and next test date fields would then be amended.

Reports

The screenshot shows the 'Caswell Product Tracking System' Reports window. The window has a menu bar with 'File', 'Equipment Lists', 'Menu Sheets', 'Reports', 'Settings', and 'About'. Below the menu bar are several icons. The main area is divided into two panes. The left pane, titled 'Data Transfer', contains fields for 'Records Received' (0), 'Records Processed' (0), and 'Errors' (0), along with a 'View Log' button and a 'Start' button. The right pane is titled 'Items' and contains a 'Customers' tab and a 'Product Groups' tab. It features a navigation bar with arrows and a 'Locate Item' field. Below this are several input fields: 'Item ID' (W1500001), 'Replaced By' (empty), 'Date' (empty), 'Customer/Site' (Smith & Brown, Newtown), 'Location' (Top of Office Stairs), 'Product Group' (2kg CO2), and 'Issued' (01/09/2002). There is a 'Components' list box. Below the list box are fields for 'Last Test' (01/09/2002), 'Next Test Due' (01/09/2003), and 'Hydraulic/Dischge Test Due' (12/05/2003). At the bottom, there is a 'Test Report No.' field (1501) and a 'Test History' list box containing 'Discharge Test Due 01/02/2012'.

3 report types can be displayed or printed as required:

- **Tests Due.** The user specifies a start and end date (which defaults to the current day's date), and the report lists the items by customer and location that are overdue or due for testing in the selected period. Items that have been replaced are not included.
- **Replaced Parts.** The user specifies a start and end date (which defaults to the current day's date), and the report lists the parts that have been replaced in the specified period by customer and location.
- **Test History.** The full test history for a selected item is printed.

Telescan2

Simple data collection sequences are used to record newly tagged items and item replacements in the field. The Telescan2 display prompts the user to enter the appropriate data at each step. The sequence steps are defined in the following table.



Step No	Prompt	Data Entry	Next Step
1	1=New Tag 2=Swap	Key in 1 to select tagging an item Key in 2 to select item replacement	2 5
2	Site ID	Barcode from Customers Menu Sheet OR. Scan End barcode	3 1
3	Product Group	Barcode from Product Groups menu sheet	4
4	Item ID	Attach bar-coded tag to item and scan OR... Scan End barcode	3 2
5	Old Item ID	Scan old item bar-coded tag OR... Scan End barcode	6 1
6	New Item ID	Scan replacement item bar-coded tag	5

When the engineer returns to the office, he places the unit in the cradle. The data transfer is started via the PC program, and when all data has been transferred and applied to the database, the data in the unit is cleared under program control.

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Telescan2 Portable Data Collection Terminal

- Graphic LCD Display (backlit) for up to 8 lines of text
- Laser scan engine for excellent readability
- 1 MB memory
- RS232 interface
- 2 Year Warranty
- Unique side-on read for easy scanning