



# TRW Traceability System

## Problem

TRW is a large company manufacturing and assembling components for the automotive agency. When these assemblies are manufactured, a great deal of information is handwritten onto each of these parts. This information includes the number of the machine which it was manufactured on and whether the part has passed its validation etc. As this information is handwritten it is very time consuming and mistakes can be made.

## Solution

In an attempt to improve the efficiency of the manufacturing process and to improve the traceability of the parts, their components and the operators who have worked on them, a computerized system was developed. All parts are now either pre printed with a bar code, or have a bar code label attached to them. A variety of bar code scanners have been phased onto the factory floor, some that are handheld and some

that are integrated into the PLC machines. The software developed will accept all of the information passed back from the scanners and the PLC machines and then store this data. The software can also control the machine to reject a part on failure of the validation.

Wolf Consultancy was responsible for developing:

- Database, built in SQL server
- Program to accept the barcodes from readers
- Program to instruct the PLC machines
- Validation that an assembly has been built in the correct order to completeness
- Reporting information

It is now possible to take a fully assembled component and immediately extract from one barcode, the exact sub components that went to make it up, the machines

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involved in the process and the operators.

All of the computers on the factory floor are connected to the main network via a wireless link. This then keeps deployment costs to a minimum and allows flexibility in the location of the units.

## Savings

The implementation of this system has seen major cost reductions, as well as improved quality standards and increased efficiency, including:

- Removes need for handwritten information
- Allow a full trace of a components make up
- Made a saving of approximately £100,000 p/a
- Automatic rejection of invalid parts
- Generate reports that aid in fault finding
- Online statistics of system throughput
- Identification of sub assemblies without the need to disassemble a component



Fig. 1: Barcode Scanner