

Foreword

This article was first published in the Journal of The Emhart Quality Improvement Program in the winter 2006. The author of the article is Mr. Peter Friis-Sørensen, PTS Project Manager.

We are proud to publish this article and are of course grateful to Emhart Glass for letting us use their material.

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Product Tracking System (PTS)

PTS is a development project to introduce a business intelligence system to assist with tracking products, projects and selected parts. PTS is also a tool to identify when and what EMHART GLASS Sweden has purchased, made, and supplied to customers.

PTS Process

The Product Tracking System is integrated into our manufacturing processes to:

- Create and individual serial numbers for our own made parts
- Capture a supplier's individual serial numbers
- Capture the test results of the individual mechanisms from test benches

The output of what has been created and captured will be available for future search activities.

Create

When a part number has been selected to have an individual serial number, information is applied in BPCS by simply putting a flag (S/N Y). An individual serial number is created for each part we would like to track. The individual serial number is written as a seven-digit number (EG1234567). It is shown with a two letter prefix "EG" which stands for EMHART GLASS. The 7 figures are generated sequentially and do not contain any part intelligence.

Basic additional information in PTS for a part number or a project is:

- Position rules if the part is assembled
- Warranty time from supplier
- Warranty time to the customer
- Project ID from BPCS
- Customer's production line

Planners create the individual serial number in PTS. They generate individual serial number plates and a shop order document. These are given to the production personnel for application. The serial number plates give information on part number and serial number. The serial number is typed both with digits and bar code.

Capture

Production personal applies the plate and captures the item serial number as well as the components serial number in the assembly.

Capture of individual serial numbers are done via Scan Guns over the wireless network

Results from test benches that have been stored in an SQL database is captured in the PTS and retrieved as test reports.

Complete FlexIS systems with hundred+ of Individual serial number is sent via mail to a special e-mail address and captured in PTS

Supplier's individual serial number (Up to 30 alphanumeric characters allowed) are registered and captured at goods reception.

Software version can be captured during the acceptance test of the product.

Search

When there is an individual serial number, you will find information in the PTS Search View. There are a lot of possibilities and combinations to find the record you are looking for.

The individual serial number will give you information on:

- Part number
- Included in (if assembled)

- Actual revision
- Software version
- Positions
- Serial number structure
- Frozen structure

To whom and when we have supplied

- Project ID
- Customer's product line
- Customer name
- Invoice number and data to customer
- Warranty to customer

What and when we have purchased

- Supplier name
- Purchase order number
- Warranty from supplier

What and when we have manufactured

- Shop order
- Manufacturing data
- Test bench results
- Stock availability

World-class Integrated IT System

All this is possible by connecting information from our business system, SQL test bench databases. Bar code system, email system to database, to SQL based system FCC (Full Control Concept) and MCC (Mobile Control Concept) via a wireless network in combination with a transfer software system integrator. There are also many additional programs for BPCS/AS400 environment and application programs for different printer types.

World-class Quality Supplier

PTS is installed in Sweden and will improve our possibilities to be a world-class quality supplier, because we will finally know what and when we have purchased, made and supplied! We know what we have done, and that will lead to faster response times and customer satisfaction. By building up information of what our customers have (or have not) purchased will give the possibilities for new additional business.

Peter Friis-Sørensen, PTS Project Manager.