

Nissan drives continuous efficiency with a ProcessFlows solution

ProcessFlows, with channel partners Micro-Image Document Systems (MIDS) and Document Genetics, are improving business processes at Nissan UK. MIDS works directly with Nissan as a third party bureau, processing Nissan's data into electronic format. Document Genetics is developing output management with Nissan's finance department to provide professional design and delivery from legacy systems.



The Customer:

Nissan Motor Manufacturing UK (NMUK) have been an established UK car manufacturer for over 20 years and was ranked the most productive car plant in Europe for seven years running (2000 - 2007). Their Sunderland plant manufactures the Qashqai, Micra, Micra C+C and Note ranges of cars – their output accounts for 80% of Nissan vehicles sold in the European market, making it the largest vehicle exporter from the UK.

The Qashqai is the fastest-selling car in Nissan's history. Motoring journalists are saying, "For Qashqai, read cash cow." The car meets market demands for cost effective, well built vehicles big enough to mobilise a large family.

Nissan believe that investing in new technologies is the foundation for future success. This strategy applies to their products and also the way they do business. By continually focusing on moving ahead, Nissan aim to anticipate future desires and provide even higher levels of customer satisfaction.

The Challenges:

In 2005, Nissan identified a business problem which proved a catalyst for change – the ageing microfilm system used for archiving documents, which included all purchase invoices, was no longer supported by the supplier. ProcessFlows Bureau Partner MIDS, who specialise in the conversion of paper and electronic based records are also based in Sunderland. They have been providing the third party scanning services for Nissan since 1999. Data was scanned to microfilm and stored on CD for future reference. Physical CD storage went back 12 years.

The original system was not client-server based. Because a high percentage of staff use PCs, Nissan wanted to implement an improved system which would be networked and allow multiple clients to access online data.

Two processes needed to be replaced. One was a standard file archiving product with scanning support. The other was a bespoke application which scanned the double-sided A3 Vehicle History Cards (VHC), whilst performing barcode Optical Character Recognition (OCR).

Quality Assurance personnel have to provide a full record of every car - essential for sustained quality control. Each vehicle is issued with a VHC which follows it through the manufacturing process – body shop, engine plant etc. A printed bar code is added to the VHC to provide a unique record of materials/parts used, date/time the vehicle passes through that location and operator details.

The Solution:

At the beginning of 2006, Nissan began to look for a single product solution which could replace both of these systems – something which could combine an 'off-the-shelf' archiving product with a specially designed system for the VHC scanning.

Mike Sadler, MD at MIDS, introduced Nissan to an alternative – OpenText Alchemy from ProcessFlows.

Alchemy provides a centralised digital archive with a familiar folder-based interface familiar to users. It was capable of fulfilling the criteria of a single product solution and supplied the vital client-server networking support Nissan wanted.

In Q1 2006, ProcessFlows installed Alchemy, complete with Alchemy Scan Module, Index Station and Search Clients at Nissan.

A custom scanning module was developed by ProcessFlows and existing data converted and migrated to standard Alchemy databases. The data contained in the legacy system formed 30 separate databases containing live and archive data, metadata and images.

The scan module makes it easy to convert paper-based documents into a secure electronic repository that is immediately accessible and searchable. Alchemy Scan is completely integrated within Nissan's Alchemy client program. At the beginning of the production process, the VHC are scanned with a Kodak i610 scanner, with advanced

OCR to create searchable text. The multi-sheet feeder then uploads batches of images directly into repository folders.

Here's how Scan works:

- Scan documents into an Alchemy folder
- Create searchable full-text or key fields using the OCR or barcode feature
- Key in data using profile cards
- Edit the scanned images - rotate, flip, invert, cut, clear - or add annotations

Scanned VHCs are indexed using the barcodes, which are added at each stage of the car manufacturing process. Alchemy Scan reads these barcodes as the documents are scanned and stores the information in profile fields in the Alchemy repository. Index Station allows users to add, annotate, index and view the VHCs. The securely stored electronic information can be found at a later date, within seconds, even years later.

The Alchemy Search Windows client is used for read-only, multiple-user access to the VHCs. Users can query by full-text or data fields, view a hit list, view the contents of the cards and print, fax or email the document if required.

The business needs change and grow

Nissan made a decision in 2007 to export 35,000 vehicles per annum from the UK to Japan.

The Alchemy system was enhanced to provide not only the VHC but also a digital image of the Vehicle Identification Number (VIN) that is required by the Japanese authorities as part of their import regulations. This enhancement, known as the Kanzen Project, emphasises the flexibility of the Alchemy suite to be tailored to address specific business needs.

Miscellaneous documents are also scanned into Alchemy for permanent archiving - although this has not been rolled-out yet to all departments. Departmental desktop scanners are used to add documents to the Alchemy repository and to create documents in other applications, such as Microsoft Word, and drag them into Alchemy. The documents have indexing applied to them within Alchemy to enable ease of retrieval.

Finance business need – output management

As well as improving the processes associated with the Vehicle History Cards in the factory and solving the archiving problems, Nissan is expanding the use of Alchemy into the finance department to help develop electronic 'self build invoices' which will replace the paper-based invoicing process. 'Self build' encompasses an arrangement between Nissan and their suppliers in which Nissan prepares the supplier invoice and forwards a copy to the supplier with the payment.

As a fully authorised partner bureau for Nissan, MIDS is central to the invoicing process – to Nissan customers

and their suppliers. ProcessFlows' partner Document Genetics has developed the 'self build invoices' element of the process to enable automatic email delivery of all invoices. The process is carried out by MIDS, who send the emails directly to Nissan's customers and suppliers, via their normal email service.

How 'self build' works:

- Once a week MIDS collect a CD from Nissan containing all invoices for that week. Data format contained on the CD is ascii text – a single print spool file
- At MIDS, Alchemy is integrated with Formate data transformation software to process the data files - the data file is simply copied into a Formate 'watch' folder and the automatic process begins
- Formate splits up the large file into individual invoices and adds a form overlay
- Formate has an API interface with Alchemy, so PDF copies of the forms/invoices can automatically be saved into a defined folder structure, with index data in the Alchemy repository – this helps searching later
- As the email addresses of the recipients are not held in the data file, Formate queries a contact spreadsheet against the customer/supplier reference code which then returns the relevant email address or addresses
- The email generated will display a Nissan return address, so any replies/queries relating to that invoice will go directly to Nissan
- The PDF invoice is emailed to the customer
- At the end of the process, a report is created which lists all the transactions performed
- MIDS deliver the information back to Nissan on a CD, where it is imported into their own Alchemy server

The Benefits:

■ Cost saving

Electronic access from across the organisation to the VHC improves workflow and speeds up technical investigation.

Automatic 'self build' invoicing means it is simple for Nissan and MIDS to administer the weekly run.

■ Reduction of carbon footprint

Because Alchemy is a scalable solution, Nissan will be able to provide additional data archiving across the Plant and the Alchemy Web Service will provide easy internet access to their document repositories should the need arise.