

Microimage and ask to have a print made from their microfilmed back-up. While they got the documents they needed, they lost valuable time waiting for the back-up copy of the document. Today, with DocuWare, there's no losing, mis-placing or mis-filing of documents.

**Improved Employee Accountability** – Prior to using DocuWare, Field Service supervisors had concerns with employee accountability due to their need to retrieve documents from the Print Room. With DocuWare, Field Service employees don't need to go to the Print Room to get what they need so supervisors have a much easier time accounting for the Field

Service personnel's time. They no longer question where they were or what they were doing.

**Print Room Eliminated** – The Print Room has been entirely eliminated. All documents are now stored electronically on DocuWare. The space used by the Print Room has been transformed into valuable office space.

### Tool Box:

**COMPUTERS:** A combination of Windows 95, NT and 2000.

**SERVER:** Windows NT 4.0

**SOFTWARE:** DocuWare Version 4.1

**SCANNERS:** SQL Database

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### Industry:

Engineering/manufacturing

### Application:

Engineering documents and customer service

### The Problem:

Manufacturing inefficiencies due to slow document retrieval

### The Solution:

DocuWare document management system

### The Benefit:

DocuWare dramatically cut document retrieval time helping to boost productivity and reduce cycle time, while freeing up floor space for more offices.

## Schneider Automation

Schneider Automation is headquartered in North Andover, Massachusetts. Schneider Automation's four primary brands are Merlin Gerin, Modicon, Square D and Telemecanique. Schneider Automation's parent company, Schneider Electric headquartered in Paris, France, is the world's power and control specialist. The company has global electrical industry leadership in five strategic business segments: transmission and distribution, low voltage power distribution, low voltage final distribution, industrial control and automation. Schneider Electric has operations in 130 countries and employs 67,500 people worldwide. In 1999, Schneider Electric had sales of approximately \$9 billion.

### The Problem

Schneider Automation makes programmable logic controllers (PLC) for companies that use robotics in manufacturing such as those in the auto industry, like Ford, and GM. Their customers come from diverse industries, ranging from the candy manufacturing industry to the elevator construction industry. The PLCs are created specifically for each customer and each one generates numerous documents, including engineering documents, parts lists, schematics, and ECOs (engineering change order), before it is installed at the customer's site.

Because the lifespan of PLCs is so long, Schneider Automation keeps most of the documents that a PLC generates and refers to them when refurbishing or repairing a PLC. The documents are stored in Schneider Automation's Print Room. Chuck Babcock is the manufacturing engineer manager for Schneider Automation.

Babcock is in charge of the Process Engineering department that supports the manufacturing floor on every project. His job is to make the production of PLCs more efficient and more cost-effective while improving quality. The Process



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**Chuck Babcock,**  
Manufacturing Engineer,  
Schneider Automation

Engineering department is one of the Print Room’s most frequent users, making use of the documents stored there on a daily basis. Getting documents from the Print Room was a real headache for Process Engineering. Because the Print Room was in a different building, it could easily take up to 30 minutes to retrieve a document. These delays resulted in a lot of manufacturing inefficiencies. Babcock decided he needed to find a better way to access the documents in the Print Room to eliminate the manufacturing efficiencies and that this could mean drastic change for the Print Room. Fortunately, Babcock knew that the Engineering department, the one responsible for the Print Room, wanted to make a change as well. In fact, they were considering moving the contents of the Print Room off-site and having someone else manage it for them. They wanted to use the Print Room for more offices.

### The DocuWare Solution

Even though the Order Administration department’s application was not up and running, Babcock agreed with Doherty’s assessment; DocuWare could be used to solve his problems. So he approached the Engineering department with his idea. They quickly got on board because DocuWare solved their problem as well. Once everyone agreed to go with DocuWare, Babcock purchased a site license and began working on creating the database of images. Getting all of Schneider Automation’s Print Room documents into DocuWare was a big job. Rather than taking on the job themselves,

One day Babcock was discussing the problem with John X. Doherty, a representative from a microfilm service bureau, Applied Microimage Corporation. Doherty said that the DocuWare document imaging system might be the solution to his problems because it could be used to search and retrieve, even print and e-mail, electronic images of the Print Room’s documents. Furthermore, Doherty told Babcock that another department at Schneider Automation, Order Administration, had already purchased that system, but that its application was not yet implemented. Doherty gave Babcock a demonstration of the DocuWare system and a brief explanation of what it could do. Encouraged by what he heard, Babcock met with the Order Administration department to discuss the DocuWare system they had already purchased.

Schneider Automation hired Applied Microimage to do the conversion for them. This process was made a bit easier because Applied Microimage had been microfilming all the Print Room documents over the years. This permanent archive of the company’s Print Room documents was used as an emergency back up and had been stored off-site, at Applied Microimage, for additional protection. It also made the conversion process proceed more smoothly. To get the database of document images started, Applied Microimage simply scanned all the microfilmed images into TIFF files and indexed

them according to a plan established with Schneider Automation. For those few documents that still existed only in paper, Applied Microimage simply scanned the documents to create TIFF files. The document conversion process took a total of five months, but upon completion, Schneider Automation had over 50,000 images in their DocuWare system. Once the conversion process was complete, Schneider Automation set up an in-house system to get future ECOs scanned and into the DocuWare system. Once a week the Process Engineering department scans and indexes new documents into the system. “It takes them no more than an hour a week to put new documents into the system,” said Babcock. Schneider Automation has about 400 employees, 150 of them use DocuWare occasionally and 50 of the 150 users use it daily. The most frequent users are in the Field Service

### DocuWare Results

**Improved Productivity –** The Field Service group is a frequent user of DocuWare. Their job is to service PLCs that come back from the field. The PLCs that come in can be up to ten years old. In the past, they had to go to the Print Room to retrieve documents that would help them bring the product up to spec. “This could take hours,” said Babcock. “Today, they are able to access all the documents they need right from a PC and they get the documents they need in seconds.” In addition, DocuWare’s ability to bring up an entire project history with all related documents has been very

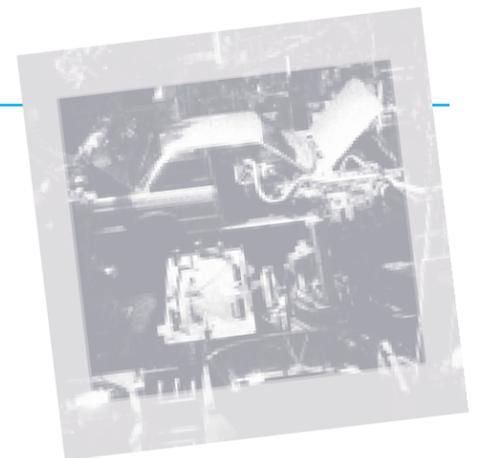
useful. “Our employees get a complete project history in a short amount of time, this has helped productivity go way up,” said Babcock. “Everything Field Services does relates to ECOs or parts lists, so they use DocuWare several times a day,” said Babcock. “It’s become such a useful tool to them that I don’t think that they could live without it today.” Babcock recalls that preparing employees to use DocuWare was a simple process, one that didn’t require too much work – just loading software onto the server and PCs. Even training didn’t require too much effort. They conducted a half hour training session to teach the employees how to use it. “DocuWare was a very easy program for our employees to learn,” says Babcock, “even those employees who weren’t very familiar with computers had no trouble learning how to use it.” DocuWare allows users to locate documents using any number of key job references such as: document type (i.e. part list, ECO, etc.), part

group. Using DocuWare has become part of their everyday routine. “Our employees get a complete project history in a short amount of time, this has helped productivity go way up,” said Babcock.

#### **Shortened Cycle Time on Field Returns -**

“Field service technicians spend more time updating the product — versus searching for information on how to update it — now that they can retrieve documents with DocuWare,” said Babcock. As a result, cycle time (the time a product is back at Schneider Automation for updating, refurbishment or repair).

number, description, revision or date. Schneider Automation uses DocuWare in its Order Administration department as well. This customer service application allows Order Administration employees to resolve order discrepancies quickly and efficiently. Order Administration uses DocuWare to store and quickly retrieve the original product order and any subsequent problem data. Prior to the DocuWare installation, the order and problem data documents were stored in cardboard boxes by date. Locating the appropriate documents with this type of filing system could take hours, so order administration employees usually had to call back customers once they had located and reviewed the documents in question. Today these same documents can be retrieved while the customer is on the phone so customers get their questions answered right on the spot.



#### **One Source for All Documents –**

From time to time, documents would be missing from the Print Room. In that case, Schneider Automation would have to call Applied

