Gak Nederland b.v.
Amsterdam, The Netherlands

European Excellence Awards: Workflow, Gold

Executive Summary:

Like many institutions across Europe, Gak Nederland b.v., the largest Dutch Social Security provider, is spearheading the drive for efficiency throughout its organization in order to control costs and spending and provide better and more efficient services to its public.

One department within Gak Nederland b.v. is leading the way: the Employers Insurance Administration Department, in conjunction with Gak's Document ConversionCenter Department, recently succeeded in reengineering the process of registration, premium calculation and filehandling. This department serves more than 280,000 Dutch employers for the insurance of their seven million employees/beneficiaries, accounting for almost 65 percent of the Dutch workforce. Gak Nederland b.v., distributes $11 billion to beneficiaries per annum.

Previously, the Department handled over eight million filed documents manually. "We had major problems due to the amount of paperwork involved, information was not easily accessible, files often got lost and misplaced, thus premium processing was delayed. We had no adequate means to manage those complex processes," says Manager Johan Heetwinkel.

In order to facilitate such business critical processes, various logistical issues needed to be reengineered. With the introduction of a data logistics concept, ASZ, an IT company of the Gak Group, provided its Customer with a rich toolset for Work Management. "We defined four layers; strategic, tactical and operational management and the operational process itself." said Jaap van Zetten, Marketing Manager for ASZ.

ASZ implemented a tactical steering layer with BAAN (Triton) industrial logistics software (installed at Boeing as their logistics application), and Wang Laboratories, Inc. (Wang)'s OPEN/workflow (IBM/AIX), OPEN/image (Sun Solaris), PC DOCS—DOCS OPEN (Windows NT Server), Netstor (Hierarchical Storage Management Software on Windows NT Server), and Anacomp COM application as operational instruments. ASZ integrated those components with existing legacy (approximately 150 VAX-based systems as a result of right sizing from ICL mainframes) systems and thus implemented a full-scale and operational solution.

Currently the department electronically processes some 280,000 files per year, each approximately five to seven pages thick and growing at a rate of 25,000 files per year, with more than eight million image documents on line today. As a result of implementing a redefined logistics in an administrative process and by integrating Wang's work management software, all relevant information is available immediately to our Customer service staff, thus improving their responsiveness and productivity. Processing time has been reduced from one month to two weeks and we have also saved two floors of office space (more than 1,600 square meters, representing approximately 500,000 guilders now occupied by office personnel), eliminating paper document storage completely.

Gak's staff and customer service representatives use Wang's OPEN/image software to scan approximately 900 documents per day including correspondence, income

statements etc. PC DOCS—DOCS OPEN, manages the process of indexing, cataloguing, processing, managing and retrieving these incoming documents as well as Gak's eight million on-line files.

The staff can locate a document anywhere on the system at any time improving responsiveness and productivity. They can retrieve files and images via PC DOCS— DOCS OPEN based on certain criteria and view the images in OPEN/image software. Despite the high volumes involved, the system gives users immediate access to files.

Wang's OPEN/workflow software is used to route the scanned information, through the system electronically to different areas of the department for further handling and investigation. This application also assigns tasks to the Gak staff members, alerting them automatically of any outstanding actions which need to be taken.

"We chose Wang because of its work management architecture and ability to easily integrate with open and standard solutions like PC DOCS — DOCS Open. This seamless approach to process information has brought our client significant business benefit and cost savings of up to 25 percent. We expect to extend this approach to other clients in the future", says van Zetten.

Users access the system by an easy to use Microsoft Windows front end. The system was integrated into a multiple platform environment, including Sun Solaris, IBM AIX and NT Servers by ASZ. Wang's OPEN/image runs on Sun Solaris and OPEN/workflow is running on an IBM RS6000 Servers, while PC DOCS–DOCS OPEN is running on the Windows NT server. These are linked together via Ethernet and a TCP/IP protocol. Documents are scanned by four dual-page Bell&Howell scanners and archived using Netstor HSM Windows NT Server software onto HP jukeboxes with 800gb of storage space.

Section 1. Describe the system application. What the system is used for, who are the users and what the job entails. How often or how many hours is the system in use on a daily basis.

1.A Company Background: Gak Nederland b.v.

Gak Nederland b.v. is the largest social security provider in the Netherlands. Gak Nederland b.v. provides sickness and unemployment insurance serving 280,000 Dutch employers and institutions for the insurance of seven million employees and beneficiaries, accounting for almost 65 percent of the Dutch workforce. Gak distributes $11 billion to beneficiaries per annum. The organization covers over 30 district offices throughout the country and has 13,500 employees. Gak Nederland b.v. is a member of the Gak Group. Gak Nederland is spearheading the drive for efficiency throughout the organization in order to control costs and spending and provide better services to its public.

Two Departments are leading the way:

- Employers Insurance Administration (EIA) Department, which registers the Employers and prepares premium calculations and collection.
- Document Conversion Center (DCC) Department, which handles high volume conversions of paper based, data and microform documents to other media types.

ASZ automatisering sociale zekerheid b.v.

ASZ, Automatisering sociale zekerheid b.v., is an IT Company within the Gak Group, servicing Gak Nederland b.v. and other clients with its staff of 700 people and a variety of IT services such as data center services, project management, software development, business process redesign, document information systems, imaging and workflow and data logistics.

Project participants:

- Gak Nederland b.v.
- ASZ Automatisering sociale zekerheid b.v.
- Wang Nederland bv
- Anacomp B.V.

1.B Document Conversion Center-DCC

Back-office bulk conversion to a mix of storage media

Gak's Document Conversion Center (DCC) uses a mix of storage media. "There isn't a single medium that can meet all our retrieval and storage needs, now and in the future, so we've opted for an optimum combination of storage media: paper, 16 mm roll-film, microfiche jackets, COM (image) fiches, optical disks, rewritable MOs, 8mm tapes and CD-R," says Pieter Minten, responsible for document information supply.

In order to structure various media types, the latter part of the existing files and other information carriers needed to be structured in a usable form. In a joint cooperation between Anacomp B.V. and Gak's Document Conversion Center, various media types were structured in a usable mix such as:

- Microfiche for longer-term storage as back-up medium
- Jackets and 16mm film (CAR)
- Paper, since the fact that not all organizations use the same/compatible resource 8 mm tapes as intermediate medium after bulk scanning to feed the COM document and information systems.
- Rewritable MO disks to store imagedocuments
- Roll-films for feeding digital workstation
- CD-R for recording bulk mainframe correspondence
- In addition, separate OMR and OCR projects have been set up
- Scanning of micofilmed documents to TIFF-files

The incoming information, from wherever and in whatever form, needed to be converted to an industry standard electronic format TIFF (Tagged Image File Format). This forms the base of Wang's document/imaging information system and was processed via various systems. Paper documents in a variety of formats are currently scanned at a rate of approx. 500,000 a month. Historical microfilmed documents are scanned at a rate of 250,000 a month.
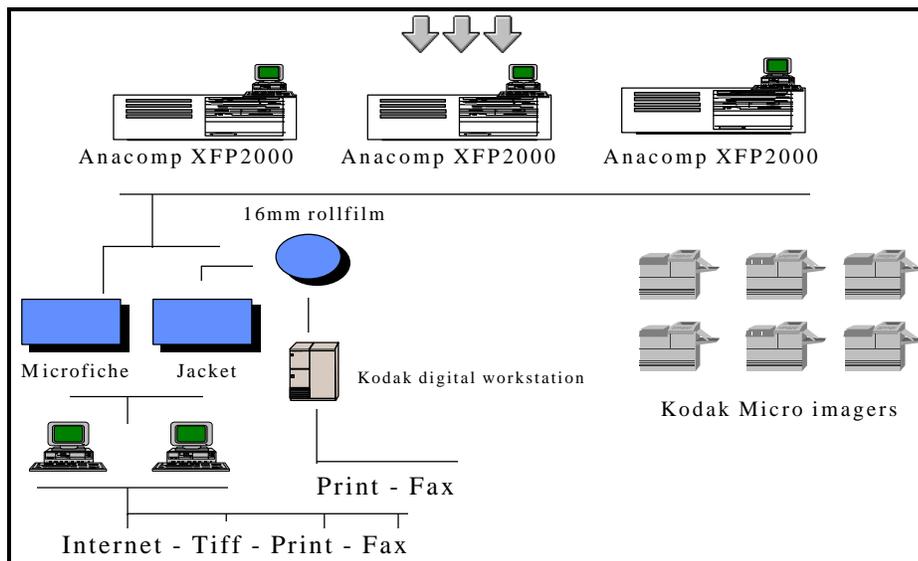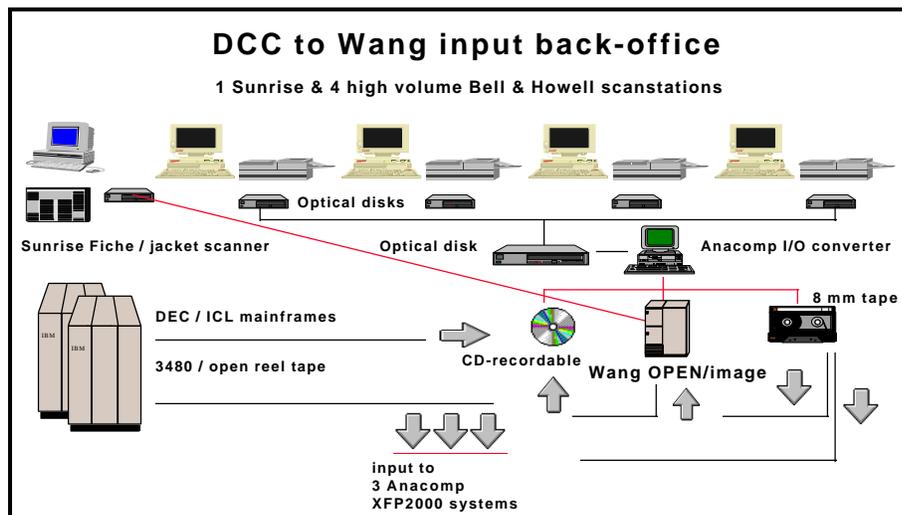
Paper scanning is done via four Bell&Howell bulk scanners, creating the TIFF images to be indexed in PC DOCS–DOCS OPEN and stored in Wang's OPEN/image system. Another not insignificant aspect of the route chosen by Gak was the manageability of costs. Converting a single paper document need not be expensive, but

millions of documents to be used in a document management system can be considerably costly. This leads automatically to the mix of media to be used to date.

Anacomp's XFP 2000 COM system appeared the ideal system to create usable micrographic information carriers. The bulk of the millions and millions of paper based files were processed by Anacomp's scanning and conversion technology and served the ideal starting point of Wang's integrated imaging and document management system servers for in depth indexing and archiving.

The conversion of all those types of dissimilar media types is a complex matter, which as an individual complementary project was well coordinated and served by Gak's DCC, assisted by Anacomp. Conversion is the crux of the matter. The document conversion allows for Gak to deliver information to their external customers in the form they can use. Internally it allows departments to have access to the information as they build their own infrastructure for the work management solution, and provides a secure backup of the information that is maintained for decades by Gak.

Document Conversion Center (DCC) Department Process

DCC to Wang input back-office

1 Sunrise & 4 high volume Bell & Howell scanstations

Optical disks

Sunrise Fiche / jacket scanner   Optical disk   Anacomp I/O converter

8 mm tape

DEC / ICL mainframes

3480 / open reel tape

CD-recordable   Wang OPEN/image

input to
3 Anacomp
XFP2000 systems

Anacomp XFP2000   Anacomp XFP2000   Anacomp XFP2000

16mm rollfilm

Microfiche   Jacket   Kodak digital workstation

Kodak Micro imagers

Print - Fax

Internet - Tiff - Print - Fax

Document input/output management

In order to dispense with all paper information (files and computer output) as quickly as possible, all computer data are put directly onto 16mm rollfilms using Kodak cameras and onto image-fiches on Anacomp's XFP2000 COM system. Electronic documents can always be created from these micrographic information carriers.

Those divisions of the organization which have no necessary infrastructure have time to prepare their infrastructure. The fiches take up little space and form a usable back-up for files. The micrographic carriers can be scanned and entered in the image system as Tiff-files. Filling the electronic archive with the existing paper output is a manageable task and also a necessary one. Once a part of the organization has its infrastructure available, all that has to be done is to read in tapes containing the scanned documents as images with data, and with indexes, into the system. The division will have a complete electronic system, in addition to a back-up on one of the micrographic carriers. Until then, it is easy to supply information through the usable fiches.

Retrieval on demand and off-line storage

From a whole jacket even a single image can be accessed on demand and the Tiff image can be resent via the Internet for example. Duplicates of the fiches are available for the various departments as a shadow-archive whenever they do not have the required infrastructure in place. Once a document is no longer in active use, that document can be stored off-line and once the document needs to be used again, it can be automatically re-entered as an active image.

1.C Employers Insurance Administration Department-EIA

The Employers Insurance Administration (EIA) Department took the decision to reengineer the process of registration, premium calculation and file handling. This department serves more than 280,000 Dutch employers for the insurance of their seven million employees/beneficiaries. The amount of collected information over the recent decades is used to track each individual worker in the Netherlands and thus calculate his/her taxable social security premium. The procedures to control that information are a vital part of the business process.

Previously, this Department handled over eight million filed documents manually. They had major problems due to the amount of paperwork involved, information was not easily accessible, files were often lost or misplaced, and thus premium processing was delayed. Furthermore, the department had no adequate means to manage those complex processes.

Work Management process

Gak's staff and customer service representatives use Wang's OPEN/image software to scan approximately 900 documents per day including correspondence, income statements, etc. PC DOCS-DOCS OPEN, manages the process of indexing, cataloging, processing, managing and retrieving these incoming documents as well as Gak's eight million on-line files.

The staff can locate a document anywhere on the system at any time improving responsiveness and productivity. They can retrieve files and images via PC DOCS–DOCS OPEN based on certain criteria and view the images in the OPEN/image software

system. Despite the high volumes involved, the system gives users immediate access to files.

Wang's OPEN/workflow software is used to route the process information, through the system electronically to different areas of the department for further handling and investigation. This application also assigns tasks to the Gak staff members, alerting them automatically of any outstanding actions that need to be taken.

Links between DCC and the EIA Departments

Controlling unstructured information objects (image) documents were captured as described in section 1.1A-1.1C. The unstructured information is then needed to be indexed to serve the Employers Insurance Administration Department's needs.

The paper bulk-to-image conversion, as provided by the DCC department, then could be taken over by Wang's OPEN/image software batch utility which generates indexes for PC DOCS–DOCS OPEN indexing process. This indexed and structured information forms the core base of the Employers Insurance Administration Department's electronic document archive, stored on jukeboxes (800Gb).
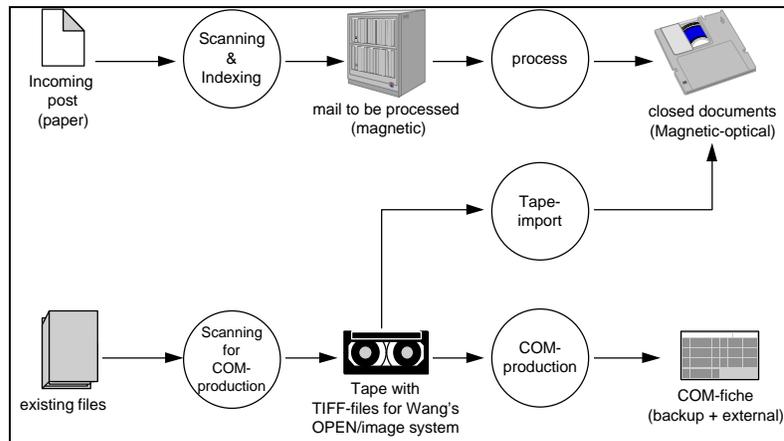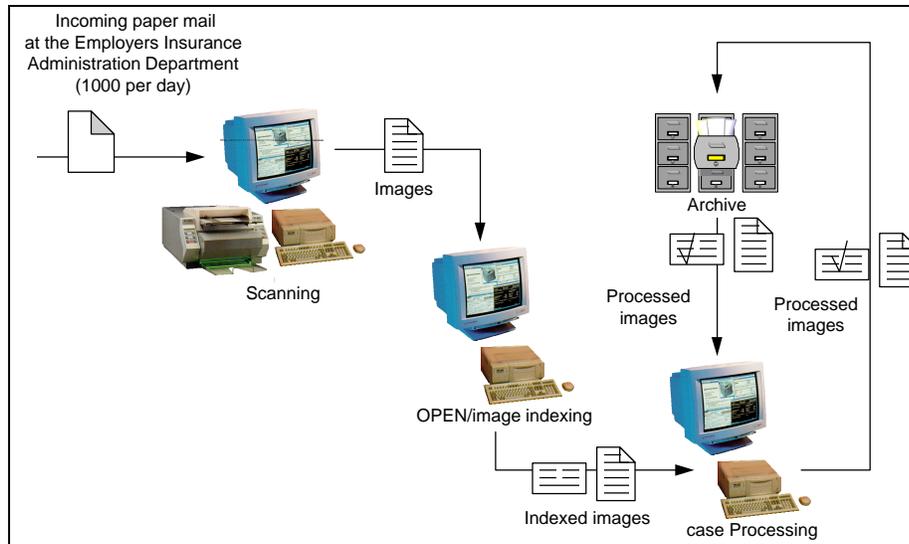

1.D Document Management

With the introduction of Wang's work management applications (imaging, document management and workflow), structured index information stored in a database facilitates fast access and relational on-line files.

Security of the files is guaranteed, because PC DOCS–DOCS OPEN controls the user and case accessibility. The document management system facilitates integration with other industry applications, thus controlling outgoing correspondence created by a case operator and consequently indexes the correspondence automatically prior to predefined HSM archiving.

An important aspect of this integrated solution is the use of structural components based on industry standards, in order to integrate various upcoming applications in use with the Wang OPEN/workflow for AIX, Wang OPEN/image for Sun and PC DOCS-DOCS OPEN for NT system.

Incoming paper mail at the Employers Insurance Administration Department (1000 per day) · Scanning · Images · OPEN/image indexing · Indexed images · case Processing · Archive · Processed images · Processed images

1.E. Process management/Reengineering

Two individual process management systems (data logistics and workflow) were introduced and implemented on top of the document and imaging systems. The OPEN/workflow application from Wang could easily be used as a steering instrument of incoming cases to be processed according to the case criteria inclusive of the steering of the related (image) documents stored. The data logistics concept, as developed by Gak, was integrated with the workflow component in order to introduce a modern and highly innovative administrative working method.

Key to the reengineering effort prior to implementation was Gak's decision to model based on industrial logistics processing principles. Gak selected BAAN software (also utilized by Boeing to manage their manufacturing-based industrial logistics), as the software to provide the logistical principals to support their administrative processes. In conjunction with the BAAN initiative, Gak also developed internally their own business modeling and process tools which they then integrated as a front end to the BAAN logistics software for their reengineering initiatives.

Two teams were then assigned; the Document Conversion Center (DCC) reengineering was determined by a 5-10 member team (depending on which aspects of the operation were being analyzed) of Anacomp, and DCC personnel with ASZ as the system integrator. The data logistics and work management/workflow initiative team consisted of personnel (upward of 25 at a given time dependent on processes being analyzed) from the Employers Insurance Administrative (EIA) Department, and Wang with ASZ as the overall conceptualizer and systems integrator.

As a result, users are freed from login into multiple systems and applications needed for case control. The system launches various applications, either business-critical or desktop applications and are architecturally controlled. In fact, it is no longer the user who determines the file position and its relational application, but the combination of Wang OPEN/image software, Wang OPEN/workflow, BAAN, and PC DOCS–DOCS OPEN which perform those tasks automatically. The user/operator concentrates his/her activities via predefined work queues with priorities given by the workload balancing mechanism of OPEN/workflow software. Cases are automatically routed through the organization once case items are concluded. The whole business process therefore can be managed and maintained. A comprehensive set of

management tools provides management information about case duration times, costs per task etc.

Section 2. What were the key motivations behind installing the system?

2.A Dutch Government Privatization of the Social Security Program

The Dutch Social Security program is both complex and changing dramatically. One of the many changes was the key motivator for Gak to implement the work management system. Previously employees were insured through their employer without any registration of the individual employee. For premium calculations the 200,000 employers informed Gak about the total amount of employees and wages and premiums were calculated as percentage of that total amount. Today every person in the system is managed individually and an insurance policy is issued per person.

This move represented a significant impact on Gak. The number of customers they needed to service grew from the collective program of approximately 280,000 employers, to one where, at the employee level, it increased the number of customers to be serviced to approximately 7,000,000 employees and beneficiaries of these employers for Gak.

This increase in customer numbers also exponentially increased the number of telephone calls and documents to be processed and managed by Gak. Calls for information average 1,400 daily with peaks up to 2,000 per day. The call desk is now able to answer most questions on the first call by utilizing the access to information available through the work management solution, eliminating the cost and expenses of a callback. In addition, the level of correspondence increased to more than 1,000 per day requesting clarity on the changes to the system as well as modification and changes to individual accounts.

Through the automation of the work management technology and the reengineering of the processes, Gak now has a diverse work force that can respond to workload balancing based on peaks in demand, while downsizing the EIA department by approximately 50 percent from 240 to 125 today, with efficiencies gained by the system allowing for further streamlining of the employee pool. Gak has realized these staff reductions through the work management technology and process re-engineering with the data logistics concept even as their customer base grew from 280,000 employers to more than 7,000,000 individual customers.

Automation has also reduced the informational workload of Gak's customer base as all information and data are automated, reducing the informational requirements from several pages in the manual processes to approximately two pages today.

Business Process history:

The Gak organization, as any administrative organisation, records an extensive paper-based archiving method decades-long per individual. Since inception, Gak produces an enormous paper mountain. Information is collected, used and archived on paper. The Gak products to its clients (branch organizations), and to employers and beneficiaries are usually presented on paper. Since the introduction of IT methods, the use of physical files has increased even further. Millions of documents are collected and distributed every year and stored in files. The information within all these documents is hard to access for all departments needing to use that information.

Pre-project working methods

In the old situation, paper files had trivial limitations, only one user could keep a file in its possession for processing. The administrative tasks therefore were strict, none other than the case operator had access to a particular file. Interim reports to the customer as to the status of a case could not be provided, leading to tedious long processes and a lack of proactive customer service.

Problem definitions

- A significant amount of paper files was untraceable
- Files or parts thereof were lost
- Unsecured and unstructured
- No tracking possible as to contents completion
- Ranking order (dates of correspondence) within a dossier did not exist
- Misfiled contents (wrong case in wrong file)
- Frequent duplicates and duplicated version of file contents, leading to massive increase of paper use.
- Problems with dissimilar information resources; paper, film, tapes, microfiche

Project objectives

In order to overcome the above-mentioned bottlenecks, Gak defined their objectives to deal with the ever-increasing limitations of accessibility to documents and the information therein.

- Accessibility to various media types, magnetic and paper
- Research the possibility of introducing an image-based system
- Reduce costs by implementing an image-based document management system
- Structure work processes via a logistics and workflow management instrument.

Section 3. Please Describe the current system configuration: number of workstations number and type of software servers, scanners, printers, storage devices, number of locations involved.
Section 4. How is this system integrated with the company's other information processing systems?
Section 5. What stage of development is each part at; what has been installed?

These issues have all been covered above. All aspects of the implementation discussed in this Case Study are installed and in full deployment.

Next step in the planning stages is deploying the system to the 30 District offices throughout the country.

Section 6. Describe how the company has been impacted by this system. Be as specific as possible. A.) What costs savings or increased revenues have been realized since the system was first installed. B.) What productivity improvements have been realized. C.) How has the business problem been affected (compared to before the system implementation).

Currently the department processes some 280,000 files electronically per year, each approximately five to seven pages thick and growing at a rate of 25,000 per year. As a

result of implementing redefined logistics in an administrative process and by integrating Wang's work management software, all relevant information is available immediately to the customer service staff, thus improving their responsiveness and productivity. Processing time has been reduced from one month to two weeks. Furthermore Gak Nederland saved two floors of office space, eliminating paper document storage. The twin goals of cost reduction and improved efficiency were met.

With the combination of all involved elements in this project the administrative process has brought Gak significant business benefit and cost savings.

- Reclaimed two floors, 1,600 square meters representing approximately 500,000 guilders per year, now occupied by office personnel
- EIA Department staff reductions of approximately 50 percent
- Total cost reduction of 25 percent representing 25,000,000 guilders per year
- Product quality
- Effective implemented process
- Efficient process flow
- Fast information supply
- Measurable cost structure

Epilog

With the introduction of data logistics concept and work management at Gak Nederland b.v., considerable changes occurred in work processes. In the pre-imaging era, incoming mail was distributed over various different task departments, each of them took care of further distribution and sorting of cases to users.

With the initial introduction of imaging, these time-consuming tasks were integrated in a reception office, where daily input with the use of high volume scanners, could be sorted and processed faster, thus leading to a seamless approach to work management.

Section 7. Describe the implementation process and methodology, the project team and any change management and business process reengineering issues addressed.

7.1 Project participants

- Gak Nederland b.v.
- ASZ automatisering sociale zekerheid b.v.
- Wang Nederland bv
- Anacomp B.V.

7.2 Project implementation electronic archiving, work management and logistics

We moved from dissimilar media types to an industry standard format. Due to the magnitude of the organizational paper-based archives, two separate projects were coordinated. These projects were started with two joint teams.

- Gak's Document Conversion Center and Anacomp and
- Gak's Employers Insurance Administration Department, ASZ, and Wang

The specific task results were that more than one medium was needed to meet the whole range of retrieval and storage needs. While Anacomp and DCC took the lead in converting the paper-based bulk and media conversion, Employers Insurance Administration Department, ASZ and Wang concentrated their efforts on the actual data logistics system and work management applications. ASZ acted as the overall systems integrator.

7.3 Data Logistics and Work Management

The Gak Group developed a data logistics concept defining four layers: strategic, tactical and operational management and the operational process itself. ASZ implemented a tactical steering layer with BAAN (Triton) industrial logistics software. The administrative process was reengineered as an industrial process: the products to be delivered, the raw materials needed out of stock or to be purchased and production. The result was a reduction of dataflow, simplification of processes, and effective production management. ASZ and Wang implemented Wang's OPEN/workflow and OPEN/image software and PC DOCS–DOCS OPEN document management as operational instruments. ASZ integrated those components with existing legacy systems.
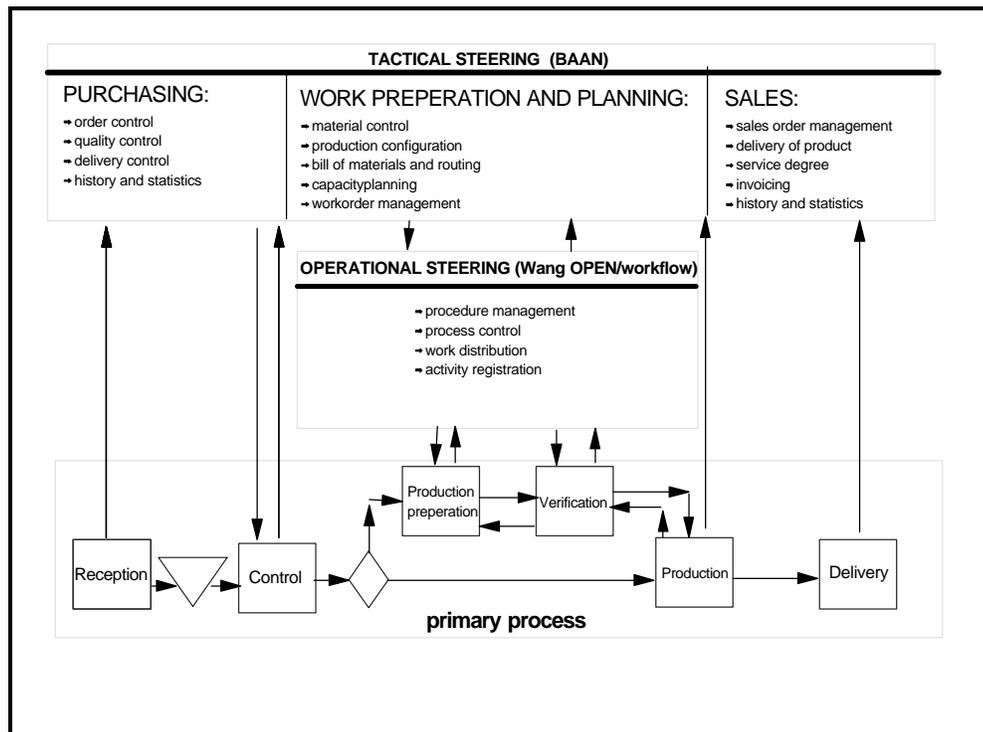
Section 8: The following highlights some of the detail included in the preceding Case Study on Gak Nederland b.v.,

Corporate Overview	- Gak Nederland b.v., - Largest Social Security provider in the Netherlands 13,500 employees 30 District Offices throughout the country

	• Serving 280,000 Dutch Employers,
	• Representing seven million employees and beneficiaries
	• Accounting for approximately 65 percent of Dutch workforce
	• Distribution of $11 billion per annum
DCC Project Team	• Document Conversion Center (DCC) Dept.
	• Anacomp and DCC Document Conversion Team
	• ASZ systems integrator
	• Multi-media conversion effort
	• Microfiche
	• Jackets and 16 mm film (CAR)
	• Rewriteable MO disks to store image documents
	• Foll-films for feeding digital workstation
	• CD-R for recording bulk mainframe data
	• Separate OMR and OCR projects
	• Scanning of microfilmed documents to TIFF files
Project Team	• Employers Insurance Administration (EIA)
	• EIA, ASZ and Wang
	• ASZ overall conceptualiser and systems integrator
	• Datalogistics and work management applications
Reengineering	• Data Logistics concept, defining four layer strategy as a tactical steering layer with BAAN (Triton) industrial logistics software
	• Strategic
	• Tactical
	• Operational management
	• Operational process itself
Work Management Platform	• 125 Users
	• Wang OPEN/workflow on IBM/AIX
	• Wang OPEN/image and Oracle 7 on Sun Solaris
	• PC DOCS OPEN Docs on Windows NT Server
Data Logistics Platform	• 15 management users
	• BAAN on DEC Alpha
Document Conversion	• 16 mm rollfilms using Kodak cameras

Platform	• Image-fiches onto Anacomp's XFP2000 COM System
	• Electronic documents created from the micrographic information carriers
Hierarchical Storage Management Platform	• Netstor HSM on Windows NT Server
Legacy Systems Platform	• Ingres on DEC VAX/vms
	• DBMS on DEC VAX/vms
Document Volumes Unique Correspondence	• 280,000 Files per Year
	• 6-7 pages thick
	• Growing at of 25,000 files per year
Document Volumes Financial Statements	• Seven million statements a year
	• 1 million on paper, 6 million on tape, disk, edi
Document Volumes Conversion	• 500.000 documents scanned per month
	• 250.000 historical microfilm documents scanned per month
	• eight million on-line document today
System Impact	• Total cost reduction of 25% representing 25,000,000 guilders per year
	• Reduced staff almost 50 percent from 240 to 125 in the EIA department
	• Eliminated 2 floors (1,600 square meters representing approximately 500,000 guilders per year) file storage, now occupied by office personnel
	• Processing time reduced 50 percent from one month to less than two weeks
	• Access to over 8,000,000 on-line documents for customer service representatives
	• Multi-media types used in the document conversion allow them to deliver the information to their external clients in the form in which they can use them. Internally provides access to those departments to yet implement the infrastructure for the work management system
Wang Software Selection Criteria	• Wang has a comprehensive architectural concept.
	• The open architectural concept has allowed Gak to select best of breed and price/performance by software application on the hardware platform, thus the Wang OPEN/workflow for AIX and OPEN/image for Sun, PC Docs/NT, BAAN/DEC Alpha, and Netstor/NT

	• Their core business is workflow and imaging which they know best
	• Software functionality best met the end user demand
Next Stage	• Distribute system to the 30 District Offices throughout the country