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1. PREPARATION CHECK LIST

PURPOSE

A procedure to collect required information before installing the software package.

DESCRIPTION

Software is a tool to support all kinds of operations. Before applying such a tool it is necessary to know the environment where it is used. The environment is the organization that is going to use the computer system. By following checklists and procedures, this manual makes sure that the organization is described and the implementation is directed towards predefined goals. Most of the procedures are also suitable in auditing the usage of system after the implementation is completed.

CHECKLIST

chapt.	subject	responsible	assistance by	date
2 / 3 / 4	Appointing responsible computer managers	managing director	-	
6	organization and flow chart	organization manager	managing director	
this check list	implementation schedule	organization manager	managing director	
7	definition of company standards	organization manager	management team	
5	installation of work groups	organization manager	management team	
8	procedure for stock and warehousing	organization manager	warehouse group	
9	procedure for purchase	organization manager	purchase group	
10	procedure for sales	organization manager	sales group	
11	procedure for accounting	organization manager	accounting group	
12	procedure for production / projects	organization manager	production group	
13	procedure for product development, product information and parts file maintenance	organization manager	R & D / sales / production group	
15	other procedures	organization manager		

2. ORGANIZATION MANAGER**PURPOSE**

A description of the job.

DESCRIPTION

To ensure that all required actions are taken during implementation and the system is used properly afterwards, a description of responsible persons is required. A person needs to have the rights to take his or her responsibilities. Therefore a responsibility can be regarded as a right and a task. The organization manager has to be a member of the management team. This person needs to have a lot of knowledge of the organization and enough experience and personality to convince people and to get things done.

IMPORTANT: These qualifications are much more important than knowledge of computer systems.

Responsibilities are:

1. Managing the application and the system manager
2. Managing work groups during preparation and changes
3. Setup and maintenance of an organization chart
4. Setup and maintenance of procedures
5. Motivation and support of work groups
6. Procedures on other office applications
7. Decisions in priority problems
8. Decisions in requests for changes
9. Planning and progress control during the implementation of the system or new modules
10. Internal audits of procedures
11. Internal audits on file contents

3. APPLICATION MANAGER**PURPOSE**

A description of the job.

DESCRIPTION

To ensure that all required actions are taken during implementation and the system is used properly afterwards, a description of responsible persons is required. A person needs to have the rights to take his or her responsibilities. Therefore a responsibility can be regarded as a right and a task. The application manager is responsible for the software package. This person needs to have a lot of knowledge about the processes, the users and the software. Depending on the size and the type of organization the responsibilities can be split over several persons or can just be combined with the responsibility of the organization manager.

Responsibilities are:

1. Support to work groups
2. Instruction and education of users
3. Implementation and application of procedures
4. Implementation of master data
5. Forms and layouts
6. User assistance
7. Integrity of data
8. Backup procedures
9. Maintenance of user rights according to the organization chart
10. Solving user problems
11. Sorting and pre-evaluating requests for changes
12. Tests and acceptance of new software
13. Regular contacts with the software and consultancy supplier
14. Reporting to the organization manager in case of problems
15. Error and recovery procedures

4. SYSTEM MANAGER**PURPOSE**

A description of the job.

DESCRIPTION

To ensure that all required actions are taken during implementation and the system is used properly afterwards, a description of responsible persons is required. A person needs to have the rights to take his or her responsibilities. Therefore a responsibility can be regarded as a right and a task. The system manager is responsible for the hardware and operating software. This person needs to have knowledge about computers, all kinds of other hardware devices, networking and operating systems. Depending on the size and the type of organization the responsibilities can be split over several persons or can just be combined with the responsibility of the application manager.

Responsibilities are:

1. Installation of equipment and operating software
2. Availability of supplies like paper, cartridges, disks and tapes
3. Backup
4. Data communications
5. Version control on software
6. PC-settings and technical usage
7. Regular contacts with the hardware supplier
8. Reporting to the application manager in case of problems
9. Description of hardware installation, cabling, networks etc.
10. Error and repair procedures

5. WORK GROUPS

PURPOSE

A description of the function and responsibilities of work groups.

DESCRIPTION

A system can only work as long as it is supported by the users and as long as it is helping the users with their job. Work groups formed out of key-users can help to involve and educate the users at an early stage and to take advantage of their experience and skills. A group needs to have the rights to take a responsibility. Therefore a responsibility can be regarded as a right and a task. Depending on the size and the type of organization the setting up of work groups can be done more or less officially. In case the organization is too small for work groups, the responsibility can be given to the management team and the computer manager(s).

Responsibilities

1. Collecting user requirements
2. Evaluation of requirements
3. Requests and advice to the management
4. Evaluation of procedures
5. Motivation of the other users
6. Support of final procedures in the organization

Agenda

To avoid a waste of time and effort, a work group meeting has to be based on an agenda. This agenda has to be prepared by the organization manager. Because the organization manager has an overview of everything, and the work groups are limited to specialized subjects, this agenda can prevent useless discussions. It also helps to line up the output to and the feedback from different work groups and to get the optimal result out of the specialized advice.

Discussions and advice

During a discussion of an agenda subject and the final advice, the chairman has to ensure watch that the following points are considered:

1. Are there conflicts with the overall requirements of the organization ?
2. Does the discussion fit to the general implementation goals?
3. Are the requirements on the average difficulty, costs and effort level of the other work groups ?
4. Are the users capable of spending enough time and effort to do their part of the computer job?
5. Is the progression list published?

6. ORGANIZATION FLOW CHARTS**PURPOSE**

Instruction on how to create the charts and why.

DESCRIPTION

The software can only work well if procedures on how to use the system are available and the responsible persons and departments are known. This information is the basis of all other procedures.

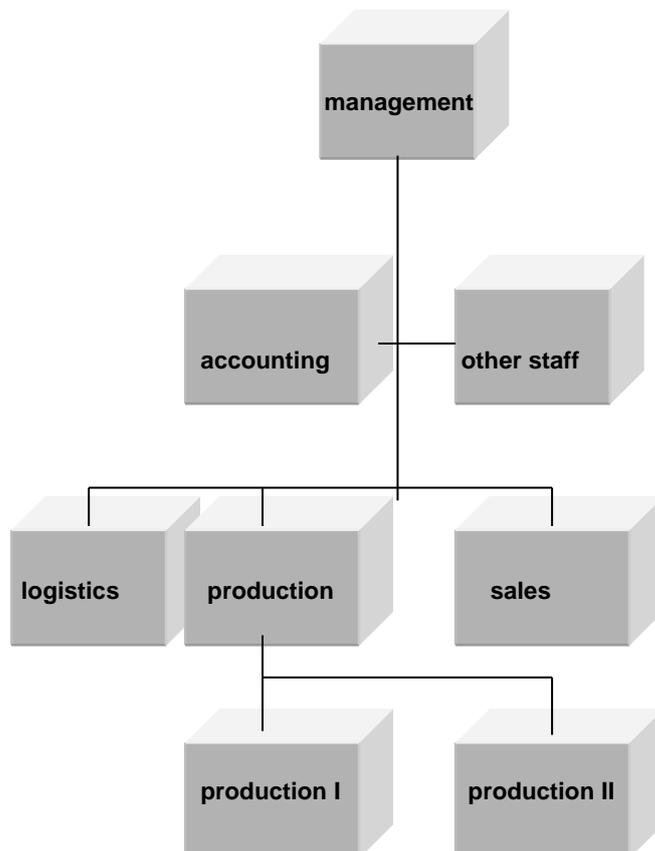
There are 2 major points of interest:

The organization structure

The structure of the departments is also required to build up the system. By defining the departments in the system and using them afterwards, the system can provide all kinds of very useful statistics and results down to the finest details.

In case the organization is a production company, the department structure is required to get proper cost price calculation and production planning.

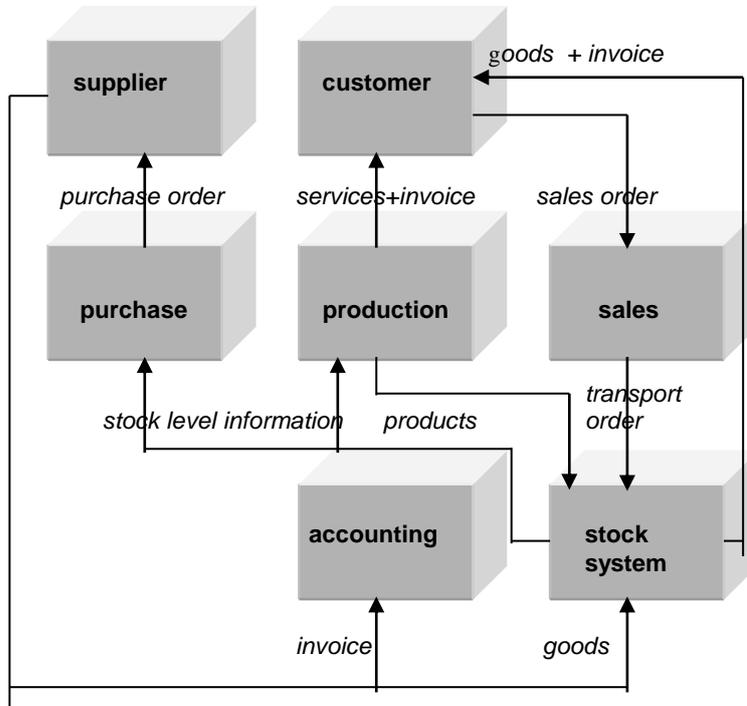
A chart should have the following form:



flow of goods and information

After the description of the departments and the responsibilities inside them, it is necessary to show the interactions between the departments and the outside world.

Such a chart will show the responsibilities involved in the flows.



7. COMPANY STANDARDS

PURPOSE

A checklist to collect information used during implementation.

DESCRIPTION

An organization uses standards like accounting principals, or the way cost prices are calculated. The standards have to be known by the system before doing any other job or writing any other procedure: changing them afterwards will make interpretation of figures very difficult. Other standards will take a long preparation to put them correctly into the system: layouts of invoices, orders etc.
This checklist will help to collect the information at an early stage.

CHECKLIST

Subject	Company standard
Company currency and decimals of all currencies	What will be the basic currency of the company? How many decimals are used per currency? How many extra decimals are used for cost prices?
Stock validation	Is a standard cost price used or a price per lot? In case a price per lot is used: Are the lot prices based on the latest calculated cost price or based on the actual purchase prices/production costs?
Number ranges	The range of numbers used for Invoices packing lists sales orders quotations goods receipts purchase invoices purchase orders production orders / projects repair jobs
Financial periods	How is the year divided into financial periods? Does it match the months or are they 13 periods of 4 weeks? On what date are the books closed annually ?
User defined forms	The layouts of Debtors statements / reminders Invoices Shipping lists Sales orders Quotations Goods receipts Purchase invoices Purchase orders Production orders / projects Repair jobs
Quantities	How many decimals are used to present quantities?
Hours	If the company is using hours administration: Are hours registered as 60 minutes or 100 units per hour?

8. STOCK AND WAREHOUSING**PURPOSE**

A (*template for a customized*) procedure on administration of goods and their movements.

DESCRIPTION**authorized persons**

Only authorized persons are allowed to enter a store room. The authorized persons are responsible that the physical stock quantities are matching with the quantities in the computer system. Therefore they are the only ones that can do any change in the stock administration.

goods receipts on purchase orders

Received goods are not stored in the warehouse room until the receipt is entered in the computer. The supplier has to mention the SERA purchase order number.
In case parts are marked as "to be checked", the goods are booked in a quarantine warehouse.
In case the goods are purchased directly for a sales order and no check is required, the stock is committed directly to the sales order.
Destination information, like "ship directly to customer" can be entered while creating a purchase order. This information can be helpful to avoid unpacking and storing.

goods receipts on production orders / finishing work orders

Goods produced by "own production" are treated in the same way as purchase receipts. The work order number is the reference used to enter the quantities into the system.
On entering the received quantities, the system will mark the work order as (partially) finished.

quality control

Parts can be marked as "to be quality controlled before usage" - it is not possible to issue these goods. Therefore unapproved and approved goods do not have to be separated physically. The administrative procedures however have to be followed 100%.
Only authorized persons are allowed to release the goods.

shipment of goods to customers or issues to production

Goods can only be shipped or used with a computer printed packing list, with lot numbers and locations. These goods are **COMMITTED** to an order. As soon as stock is committed, the lots, locations and order lines cannot be changed in the computer until the system is told that the goods are actually shipped or that the commitments are released. In case of a release the packing list has to be DESTROYED or to be made INVALID.

NOTE : THIS IS A VERY IMPORTANT PROCEDURE !!

In case of violation of this procedure, goods can remain un-invoiced or non-quality controlled goods might be used.

stock adjustments

Only authorized persons are allowed to adjust stock, both positive and negative. Important adjustments are only allowed AFTER an explanation has been found or permission is given by the management. A regular check on adjustments is made by the management.
Be sure that the correct reference is used, because the financial influence can be different per type of adjustment: for example damaged goods have to be booked as "quality costs", while another adjustment has to be booked as "exceptional usage".

confirmation of shipments or issues.

The moment goods leave the warehouse, a confirmation has to be entered in the computer. In case of a sales order, stock is written off and an invoice is automatically raised based on the prices that are entered earlier by the sales department.

In case of a work order / project, stock is written off and the work in progress of the work order is raised.

NOTE: In the case of sales orders the warehouse actually creates the invoice. It is important to maintain this procedure, otherwise the warehouse can not be responsible for the stock information. Assuming that sales has entered the prices correctly, this procedure will save a lot of work.

stock control

While keeping these procedures, the stock figures are correct. A periodical physical check has to be made to be sure that all stock is available. This check can be done according to a cycle depending on the importance of the stock.

stock movements

Any movement of stock has to be entered into the system as soon as possible.

DOCUMENTS

PACKING LISTS -out

These documents are a specification of the shipped goods and their lot numbers. This document can be used to make notes about packing, serial numbers, quality, etc. The documents are saved in a (carton) box, with the latest documents on top. More detailed sorting is not required, because it is rare that a shipment is doubted and a signed document has to be recalled. The method of storage is good enough to find quickly the required document by checking the date. The date can be found in the computer. In case a packing list is used as a delivery document for **counter sales**, the list (or a copy of the invoice) has to be signed by the customer.

TRANSPORT -out

In case the goods are transported to the customer, another document is required. These types of documents are most of the time official preprinted documents. They have to be signed by the collecting transport company. The documents are saved in a (carton) box in the same way as the packing lists.

STOCK ADJUSTMENTS

Stock adjustments need to be written to a list, containing the part number, lot, location and quantity. Important changes have to be guided by a reason. The lists have to be archived in a file, sorted on date.

STOCK MOVEMENTS

Stock movements are written on a list, and processed afterwards in the computer. The lists are saved for one week to track errors. After that the list can be dumped because the movements are saved in the computer.

PACKING LISTS -in-

Documents from the supplier are entered directly into the computer. After processing, the documents are saved in a (carton box) in the same way as the packing lists

NOTE: as long as no problem is reported, the packing lists are NOT attached to incoming invoices. Since all over the world far over 95% of the invoiced quantities on goods are correct, it is not necessary to do a lot of work without any purpose. It saves time to solve the real problems.

RESPONSIBILITY

The head of the store and the shipment department is available for maintaining this procedure.

9. PURCHASE**PURPOSE**

A *(template for a customized)* procedure how to use the purchase module.

DESCRIPTION

One department is responsible for purchasing goods and related tasks. No other departments are allowed to purchase goods.

requests for prices

Request are made by customers directly or on behalf of the customer by the sales department. In case RECENT information is available in files, the representative will handle the requests. When information is not available, the request is passed on to the purchase department. An answer has to be given as soon as possible to the sales department.

purchase orders

Actual purchases are always handled by the purchase department by entering a purchase order into the computer. An exception is made for subcontracting in case it is part of a production process. In that case the production planning will handle the job as if an own machine was planned.

A purchase order has to contain the next items :

- 1 Supplier number
- 2 Name of the employee or a reference number
- 3 Delivery and payment conditions
- 4 Agreed price. No purchase without a price. Be sure the latest price is used.
- 5 Delivery date. This has to be a real date, which makes it possible to evaluate the reliability of the supplier.

Even when a purchase is done by telephone, a printed order must be sent by post or fax

NOTE It very important that a purchase price is entered. If no purchase price is entered, there are a lot of problems afterwards in validating stock, work in process and the accounts payable. When no exact price is available, at least an estimated amount has to be entered.

type of purchases**PARTS**

Numbers from the parts file. This option is required for all goods that have to be recorded in the stock system.

COSTS

Services or other goods that are not in the parts file, like one time purchases or office supplies.

SUBCONTRACTING

Subcontracting can be done by the production department as part of a total production process. All other subcontracting is done by the purchase department. In case goods have to be supplied for further processing a special bill of material is required. The system will create a work order together with the purchase order to handle the supplies of the goods to the subcontractor.

methods of purchasing**REGULAR**

This type of purchase can be used for all type of purchases. It is possible to reserve a number and to add more detailed information later on.

AUTOMATIC

In case a part has a fixed supplier, it can be marked for automatic purchasing. The system will check if there is any requirement from sales or production or a stock level below a minimum. In case a shortage is found, a purchase order is created automatically. This method can speed up the purchasing tremendously. Instead of entering most of the orders manually, the purchaser now has to change only a few automatically produced orders before sending them to the suppliers.

DIRECT

In case stock is required for special sales or production orders it can be useful to purchase the goods with a reference to those orders. As soon as the goods are arrived the system will know that it is not free stock and it will commit the goods to the sales or production order.

purchase invoices

The moment the goods are entered into the stock, the system will create a goods receipt record. This record contains the received quantity and the price from the purchase order. Based on this information the system will create a journal that debits the stock and credits the 'invoices to receive' account.

The accounting department will receive the invoice for delivered goods from the supplier. The invoice is posted against the open goods receipt records. During the posting the system shows the received quantities and the agreed prices. This information makes it possible to accept all invoices where quantity and prices are correct without further authorization from the purchase department.

In case of a difference the invoice can be rejected until an approval from the purchase department is received. An other solution can be found in posting the difference on the account 'credit notes to receive'. The invoice has to be marked as 'not yet payable'.

NB: It is important to check if there are no open goods left after a certain period.

DOCUMENTS

The purchase department is responsible for an updated information base concerning products and suppliers. The information has to be as COMPLETE and as RECENT as possible. Files involved are:

- The parts file regarding the purchased parts
- The suppliers file
- The purchase catalog
- The product information archive and the corresponding information file in Sera.

NOTE: in case information has NO date, the date the information was received has to be written on the sheets.

RESPONSIBILITY

The head of the purchase department is responsible for maintaining this procedure.

10. SALES

PURPOSE

A (template for a customized) procedure how to use the sales modules.

DESCRIPTION

There are several completely different ways of handling sales of goods and services. Most organizations use more than just one of them. All possible situations are described below. Every type of sale has its own description, a list of basic data, and the actions involved. The following basic data items are applicable as described:

basic data

#	When	Type	Department	Comment
1	Optional	Prospects	Sales	Data of potential customers and other relations
2	Always	Customers	Sales	Required at order entry
3	Parameter on/off	Credit limits	Accounting	A limit on outstanding amounts and overdue period
4	Almost always	Parts	Product development	Parts are used in trade orders, repairs production, rent and in a lot of services

DOCUMENTS

All relevant data that is entered in the computer is kept in historical files, even after the order is invoiced and paid. The system provides a lot of inquiries to retrieve the historical data. It is therefore not necessary to archive all kinds of computer printouts. The only documents to archive are those documents that can not be reproduced and that are showing vital information like:

- signed customer orders
- special agreements / contracts
- sales checklists
- manual calculations and drawings
- important handwritten memo's

RESPONSIBILITY

The sales department has the overall responsibility for this procedure. For each separate item special responsibilities of other departments are shown.

TRADE - SALES OF PURCHASED AND PRODUCED PARTS

All regularly supplied goods have a part number. The parts are purchased or made by the own production department. The parts are always registered, while taken into stock, even when they are sold or used immediately afterwards. Special prices / discounts per quantity, per part, part group, customer or type of customer, can be archived in the computer. This information is used at quotation and order entry. It is possible to sell so called assemblies. An assembly is a collection of separate parts, that are sold as one main part, with it's own price. The separate parts are collected by the warehouse at the moment of shipment according to the packing list. The assemblies have to be entered into the system as bills of materials.

basic data

#	When	Type	Department	Comment
1	Optional	Translations of parts descriptions	Sales or purchase	Translations for foreign customers or suppliers
2	Optional	Prices and discounts	Sales	Discounts and prices are calculated at quotation and order entry
3	Optional	Alternative parts	Sales	Alternative part numbers in case of no stock or a part is outdated
4	Optional	Assemblies	Product development	Bills of material, describing the sub-parts of a main part

operations

#	When	Type	Department	Action / comment
1	Optional	Quotation	Sales	Entry of TRADE quotations
2	Quotation-> order or direct entry	Order	Sales	Entry of trade orders
3	Directly with order entry or later	Packing list	Sales	Stock has to be available
4	1.after shipment or 2.directly	Invoice	1.warehouse 2.sales	Direct invoicing is a special option, that combines # 2, 3 and 4 in case of counter sales.
5	Per shipment or per period	Collect invoice	Sales	Requires customer and order settings

PROJECTS - SPECIAL PRODUCTS AND SERVICES ON FIXED PRICE BASIS

This type of sales is not related to a part number. The product or service is always different and made for a particular customer. This type of order is called a PROJECT:
 The required materials, hours and other costs are calculated. Based on that calculation a fixed price in one or more installments is quoted to the customer. A project that is not finished completely has a 'WORK IN PROCESS' status, showing all the materials used, hours spent and other actual costs and possible advance invoices.

basic data

#	When	Type	Department	Comment
1	Always	Work types	Production planning	The different work types and the rates per hour. Also used in subcontracting
2	Optional	Services	Product development	Fixed price services are a special type of non-stock parts. A finished service is registered per employee and/or used equipment
3	Optional	Calculation components	Product development	Components to be combined and/or customized during calculation or project entry

operations

#	When	Type	Department	Action / comment
1	Optional	Calculation	Sales	A calculation is built out of components and/or single entries.
2	Optional	Quotation	Sales	A calculation is required at the entry of a PROJECT quotation
3	Quotation-> order Or direct entry	Order	Sales	Entry of projects
4	In case of physical shipments	Packing list + Invoice	Warehouse	Products are ready
5	Other services	Invoice	Production	Services are (partially) finished
6	Per shipment or per period	Collect invoice	Sales	Customer and order settings can postpone #5.

PROJECTS - GOODS WITH INSTALLATION SERVICES

In case goods are not just shipped to the customer, but installed by service personnel, a project has to be opened. During the project, goods are issued and services and hours are spent on this project. The goods, services and hours are invoiced against the rates as entered in the quotation and/or the order. Invoicing can be done during the project and/or after finishing it. A project that is not finished completely has a 'WORK IN PROCESS' status.

basic data

#	When	Type	Department	Comment
1	Optional	Translations of parts descriptions	Sales or purchase	Translations to foreign customers or suppliers
2	Optional	Prices and discounts	Sales	Discounts and prices are calculated at quotation and order entry
3	Optional	Alternative parts	Sales	Alternative part numbers in case of no stock or a part is outdated
4	Optional	Assemblies	Product development	Bills of material, describing the sub-parts of a main part
5	Always	Work types	Production planning	The different work types and the rates per hour. Also used in subcontracting
6	Optional	Services	Product development	Fixed price services are a special type of non-stock parts. A finished service is registered per employee and/or used equipment

operations

#	When	Type	Department	Action / comment
1	Optional	Quotation	Sales	Entry of TRADE quotation
2	Quotation-> project or direct entry	Order	Sales	Entry of PROJECT
3	Anytime	Invoice	Sales	Services are (partially) finished
4	Per shipment or per period	Collect invoice	Sales	Customer and order settings can postpone #3.

PROJECTS - SERVICES INVOICED ON ACTUAL QUANTITIES AND HOURS

This option is almost similar to the previous one. This method is used in case inputs cannot be planned at the opening of a project.
Other applications are CONSULTANCY or SERVICES, where invoices are based on actual hours spent or actual services done.

Services and hours are invoiced according to the rates as entered in the project. Invoicing can be done during the project and/or after finishing it. A project that is not finished completely has a 'WORK IN PROCESS' status, showing all the materials used, hours spent and other actual costs that are not yet invoiced.

basic data

#	When	Type	Department	Comment
1	Always	Work types	Production planning	The different work types and the rates per hour. Also used at subcontracting
2	Optional	Services	Product development	Services are a special type of non-stock parts. A finished service is registered per employee and/or used equipment

operations

#	When	Type	Department	Action / comment
1	Always	Order	Sales	Entry of PROJECT
2	Anytime	Invoice	Sales	Services are (partially) finished
3	Per shipment or per period	Collect invoice	Sales	Customer and order settings can postpone #2.

REPAIRS

Repair orders are used for internal repairs or for registration of repairs sent to the original supplier. Different sets of computer forms can guide different types of repairs. A repair order can only be finished by an invoice, a claim to a supplier or booking quality costs. It may be that only one of the situations is applicable or that two or even all three situations are actual. The stock module gives the possibility to issue stock, (temporary) replacements to the customer. In case a repair is not necessary or viable, the valuable residues can be purchased from the customer. The invoice program collects all movements, hours, services and other costs.

basic data

#	When	Type	Department	Comment
1	Always	Complaints and causes	Quality control	These codes make statistics available.
2	Optional	Work types	Production planning	The different work types and the rates per hour.
2	Optional	Services	Product development	Fixed price services are a special type of non-stock parts. A finished service is registered per employee and/or used equipment
3	Optional	Dummy parts	Product development	In case the repairs are not done on regular trade parts, a dummy part per type of repair is required to make statistics available.

operations

#	When	Type	Department	Action / comment
1	Always	Order	Repair	Repair order entry.
2	Optional	Claim	Purchase	In case a warranty is claimed from the supplier.
4	Optional	Invoice	Sales	Invoice of all expenses that are excluded from warranty terms.
5	Optional	Costs	Repair	All expenses that are not covered by a supplier claim or an invoice to a customer have to be passed on to an internal department as quality costs.
6	Per shipment or per Period	Collect invoice	Sales	Customer and order settings can postpone #4.

11. ACCOUNTING**PURPOSE**

A *(template for a customized)* procedure how to use the accounting modules.

DESCRIPTION

The accounting department has a lot of controlling activities besides several entry jobs. Since most of the postings are done automatically, it is absolutely necessarily that the saved time is spent on those controlling activities.

CONTROLLING

A checklist replaces a lot of detailed procedures. Some checks / actions have to be done weekly, and others monthly.

WEEKLY

- stock movements
analyze large amounts
- payment duties
what has to be paid this week?
- summary projects
are all finished projects invoiced?
- invoices to receive
are all incoming invoices correctly booked?
- packing lists in process
are all shipments invoiced?
- planning per order
is everything going according to the planning?
- hours per employee
are all hours entered correctly?
- open repairs
are there any old repairs left unfinished?

MONTHLY

- debtors
call old debtors for payment
- statements
send the statements by mail or fax
- balance and result
analyze the results
- stock value
check against the physical stock
- VAT - report
analyze the report and do the tax-work

ENTRIES

booking periods

All details, even for a range of years will be available in the computer. Since there is no closing of a period or a book year, where details are compressed or even lost, the accounting department has to lock a period, to avoid posting to a wrong period. It is always possible to open a period temporarily in case a correction has to be made for instance in the previous year after the external audit on the financial report.

foreign currency

Receivables and liabilities are posted in the original currency. The system will exchange foreign currencies automatically to local currency in case a ledger account will not allow other currencies than the local one. The different currencies are balanced on a position account. The exchange rates are taken from the currency history file that contains the latest rates per period per currency. It is always possible to change a rate or to reverse a change. The system will post the result on a pre-defined account.

journals

Journals are entered in a transaction file. After everything is entered correctly, this file is posted. While opening a journal, the system will ask for the period, the company and the currency. All details have those same basic data. Any account can be used except for those that have a sub-ledger like stock and debtors. In case a journal has one fixed account like cash or bank, the posting on this account is done automatically. It is not allowed to post manually. Some accounts are marked 'PROJECT ACCOUNTS'. These accounts request a project, work order or a repair order number. Allocation against outstanding debtors, creditors or special general ledger accounts can be done during journal entry.

purchase invoices general

In case a purchase invoice has a foreign currency, the system will post the creditor in this foreign currency and all other postings in the local currency. The exchange is done against the period rate and the position account is used to balance the different currencies. After an invoice is posted, the system will provide a number. This number is written on the invoice. Any other coding of the invoice is not required, because the system can print labels with all information on it. This information is even more reliable than hand-written information, because the printout shows how the ACTUAL posting is done, while written code only shows how it was meant to be entered and not how it was finally entered.

An invoice can be marked as payable or not-payable. Payments can be split into different amounts and periods.

purchase invoices regarding goods receipts

While goods are received into stock, the system creates a journal

stock (dt) <> invoices to receive (cr)

A file containing all goods receipts is updated. The goods receipts are used during invoice entry. The system shows all receipts with no invoice booked against them together with the purchase price, the received quantities and the cost price. There are now 5 different parties involved : product development for cost prices, purchase for orders, warehouse for receipts and accounting for posting the invoice, and the computer for registering price differences. This is a fine check to prevent mistakes. Other checks like an approval from the purchase department are unnecessary. It is obsolete double work. As long as no problem occurs, an invoice can be accepted without the packing lists attached to it. It saves time to solve the real problems.

The posting of the invoice is done as follows:

invoices to receive (dt) <> creditors (cr)

purchase invoices regarding investments

These invoices are posted against a transfer account. The same account is use to post new entered fixed assets.

other purchase invoices

Other purchase invoices can be posted on any other account, except for those accounts that have a sub-ledger like stock, creditors and debtors.

Some accounts are marked as 'PROJECT ACCOUNTS'. These accounts request a project or a repair order number. Be sure that invoices regarding projects or repairs are indeed booked on these type of accounts. It is possible to divide expenses over several periods: This applies in cases like yearly insurance invoices.

bank

Bank statements are posted as regular journals. Allocations against outstanding amounts are made during journal entry. Payments in other currencies are handled automatically.

cash

The cash book can be entered as a regular journal. Cash payments on invoices done by customers are handled by the counter sales people. During the day the sales department is responsible for that specific cash book. They can correct mistakes, add new entries etc. As soon as the cash is closed, the list is compared with the actual amount of money, checks etc. The final posting, after which no changes are possible, is done by the accounting department.

payments

Payments to creditors can be generated by the system. In case this option is used, the system will debit the creditors against an account 'payments in process'. Posting of the actual payments is reduced to 1 allocation against this account.

work in process

All hours, material and expenses less advanced invoices or finished goods are counted and posted. This program can run as many times as required, because it is only posting the difference since the last time.

hours

The costs of labor are posted according to the details from the hours administration. This program can run be as many times as required, because it is only posting the difference since the last time.

finished jobs and subcontracting

The financial results of finishing a job or receiving goods from a subcontractor are posted automatically by the system on a on-line basis. The department, which is responsible for a work order or a project will get all revenues and therefore all costs. The department or the subcontractor, which did the job will get the credits.

stock and material usage

Issue of material and finished goods from production are posted automatically by the system on a on-line basis.

forecasts and budgets

Comparing figures like forecast and budgets are posted once a year. These figures appear on several reports.

allocation of expenses

Allocation tables have to be entered to split expenses or other amount over different departments.

DOCUMENTS

PURCHASE INVOICES

are filed by number. Unpaid invoices are separated from the paid ones. There is no need to attach packing lists for goods, that are purchased with the computer system.

BANK STATEMENTS

are filed by number / data as soon as they are posted.

CASH BOOK
is filed per period.

COMPUTER PRINTS
can always be reprinted. There has to be at least 1 final set at the end of a year.

SALES INVOICES
are filed by number whether they are paid or not.

RESPONSIBILITY

The chief accountant is responsible for this procedure.

12. PRODUCTION / PROJECTS

PURPOSE

A (*template for a customized*) procedure how to use the production modules.

DESCRIPTION

serial production

This type of production is used for making parts that are known by the computer. Those parts are made every time there is a requirement or the stock is below a certain level. The quantities to produce can have any range from 1 piece to an unlimited number. After an order is finished, the produced parts are taken into stock. From there these parts can be sold or used in a higher level of production. The parts are described by a recipe. A recipe has 2 parts:

1. a **bill of material**, containing all the required sub-parts and /or raw materials.
2. a **labor route**, describing the steps that have to be taken in order to produce the parts and the sequences of those steps.

As soon as finished goods are supplied to the warehouse, the stock is debited while the production department is credited for the value of the goods.

component production

This type of production is used to make products on customer specification. The product can be built from scratch or from half finished goods. Modern production plants however are using **components** to define the final product. A component is just a template for a part of the final product. Components be can modified, added or removed according to the wishes of the customer. A component contains one or more elements, while elements contain materials, required labor, subcontracting, expenses, instructions etc. The original or modified components are collected in a calculation. The calculation is taken into the production order, called a PROJECT. The final product is invoiced against a fixed price.

other projects and services

This type of production is also not related to a part number. The project or service is always different and made for a particular customer. This type of order is called a PROJECT:
In case there is planning of required materials, hours and other costs, these are entered during project creation. This type of project can be invoiced against a fixed price or it can be invoiced based on the actual costs.

GENERAL

Even though the start and the finish of a production order are different per type, all types of production are based on the same principles. There are requirements for material, labor, other expenses, subcontracting and / or technical documents. These 5 elements can occur in all types of production. An order can be separated into several milestones.

material planning

Material requirements are known by the system as soon as an order is entered. The purchase and / or production department is informed about quantities and delivery dates immediately. The information is given as a stock forecast, showing totals and details per week.

A more complex way of planning is:

MRP II (material requirement planning / manufacturing resource planning)

Sometimes production uses half finished goods, that use again half finished goods etc. etc. It is almost impossible to enter all orders for the highest level and based on the computer information to enter the next level afterwards etc. etc. Especially when half finished goods or raw materials have a longer delivery time than the finished product, a lot of problems can occur both in material planning and in capacity planning. Based on actual sales orders for stock-parts, projects for customized product, and additional sales planning, the system creates a sophisticated planning for materials and labor, long before the customer

orders the final product. This type of planning requires very accurate stock administration and production planning, but it gives a lot of advantages in return.

material issue

Material is issued to production orders based on the requirements of those orders. Depending of the type of parts, there are different ways to do so:

1. A picking list can be printed with the materials and the stock locations, (where to collect them). After finishing the collection, the list is written off from stock automatically after entering the list number. This option is used for the supply of basic materials from stock to production.
2. The goods are written off from stock directly without printing a picking list. This option is used for quick deliveries or in smaller environments.
3. The goods are written off after finishing (a part of) the job. This option is used for materials used during the production. The quantities are mentioned by the machine operators.
4. Reconstruction of usage. This option is used for all kind of material, where an average quantity is assumed to be used during production, Materials or parts like paint, grease, small bolts etc. Reconstruction is based on finished jobs and finished final products. As long as an order is not cleared to the history file, the system will check if everything was issued according to the planning.

TRACEABILITY : In case traceability of goods is important, only option 1 and 2 are allowed.

planning of jobs

The orders are containing one or more jobs. A job contains information about the required time and quantities. A job can be divided into several sub-jobs per employee / equipment.

A company calendar contains available hours and capacities per department, employee and equipment. While entering an order or changing an order, the system can show the available capacity and advise the latest possible start date or the earliest possible finish date.

finishing jobs

A job represents a certain amount of money once it is finished. The department that did the job will be credited for it and the value of the work in process is increased. The production planning is also updated as soon as a job is (partially) finished. Depending on the type of work, the finishing of a job is done during registering the hours (how much of the job is finished?) or written on the job completion form. Jobs are mostly not used in service projects, where planning is not possible.

hours

In case several people are working on a big machine or a continuing operation, it is not necessary to mention the order together with the hours: a general productive type of work is entered. Efficiency is measured by the quantities produced or the number of jobs finished.

In case actual hours are invoiced or the production efficiency depends on the efficiency of people, it is very important to mention the order: An order related work type is used. Efficiency can be measured both on jobs and on hours.

services

Services can be used for those operations, where a fixed price is calculated like transport jobs, repairs according supplier standards etc. where planning is not very important. They can be regarded as small jobs without a planning. The service codes are stored as non-stock items in the parts file. Services can be reported to the system by mentioning an order instead of detailed hours. The actual hours have to be registered only in general.

subcontracting

Jobs done by subcontractors are regarded as part of the total production process. These jobs are treated as if they are done by an own department or machine. Instead of mentioning hours with a rate per hour, the costs per quantity are entered. When a job is finished, the system creates a goods receipt and a financial posting called 'invoices to receive'.

finishing orders

All orders are finished by raising an invoice, except for serial production. Those products are booked into stock. Depending of the type of product the products are place into free stock or into quarantine stock (not controlled / unchecked goods).

calculations / efficiency

While the system is creating automatically all kinds of financial postings, a result per department is always available at the level of accounting. On the level of production there is even more detailed information available like:

result per order
analyses per order, work type, department, machine
hours per employee, department, machine
services per employee, department, machine

DOCUMENTS

HOURLY FORMS are archived on name and date.

SERVICE REPORTS are archived on name and date.

JOB FINISH REPORTS are archived on date.

WORK ORDERS work orders are mentioning the jobs. The responsible production employees and quality control have to put their signature on the form. the documents are filed sorted on number.

PICKING LISTS when the lot numbers mentioned on the picking list are not used, but replaced by others, the changed lot numbers have to be written on the list. This can happen in case of bulk material. The lists are filed on number.

RESPONSIBILITY

The head of the production planning is responsible for this procedure.

13. PRODUCT DESCRIPTIONS

PURPOSE

A (*template for a customized*) procedure how to create and maintain the parts file and related data..

DESCRIPTION

The more accurate products are described the better a computer system will run. The total overview of all the elements required to describe a product can be very extended. This procedure shows all possible items involved.

parts file

The parts file is one of the most important files. Descriptions, minimum levels, prices, technical details etc. are stored in this file. The whole organization uses this file but the overall responsibility for the data is centralized. There are some sub-responsibilities:

- | | | |
|---------------------------|---|-----------------------|
| 1. minimum stock levels - | | purchase / production |
| 2. cost prices | - | accounting |
| 3. sales prices | - | sales |
| 4. translations | - | sales |
| 5. supplier information | - | purchase |

bills of material

There are several types:

1. A list of the parts and /or raw materials for a finished or half-finished product. One (half-) finished product can have different bills of material (= different routes). This can be useful in case a part can be made in different ways, for example out of modified half-finished goods in case of single pieces or out of raw material in case of large quantities. This type contains information like waste percentage and optimal quantity.
2. A list of parts (including options) to collect parts under 1 main part. Only 1 part has to be entered instead of a lot of single parts. This type is called an assembly. It is never a stock part, because all the single components are kept in stock.
3. A list of alternatives. Alternatives can give sales people information in case there is no stock for the requested part, or in case the requested parts is no longer sold and has been replaced by a new, but compatible type.
4. A list of parts to be supplied to subcontractors. This type of subcontracting is handled by the purchase department. For example, in the case of an order to a subcontractor to put sorted materials in a nice bag.

labor routes

A labor route describes the steps that have to taken in order to produce a (half-) finished product and the sequences of those steps. Items in a labor route are:

1. Jobs, with the setup time (costs), the time (costs) per unit and the overhead costs.
2. Preferred machines.
3. Subcontracting jobs with preferred suppliers and the prices per unit.
4. Text lines.
5. Cost lines.
6. Documents.

Up to 9 different ways of producing (routes) can be described per main part.

production components

Modern production plants are using **components** to define a customized product. A component is just a template for a part of the final product. Components can be modified, added or removed according to the wishes of the customer. A component contains one or more elements, while elements contain materials, required labor, texts, subcontracting, expenses, instructions etc. The original or modified components can be taken into a calculation, which can be used in component production. A calculation can also be used to **generate a bill of material and a labor route for a (half-) finished product**.

prices and discounts

Retail prices can be calculated on cost prices. There are 2 retail prices available, which can be useful while preparing a price list for a new period. As soon as the new period starts, price 1 is overwritten by price 2, and price 2 is available for the next period. Special prices / discounts per quantity, per part, part group, customer or type of customer, can be archived in the computer. This information is used at quotation and order entry. Special groups can exclude all discounts.

documentation

A lot of parts have additional information like sales brochures, mounting and maintenance manuals, technical drawings and production instructions. Computer programs for CNC machines can also be regarded as documentation. All these documents have to be numbered and entered into the computer. Version and distribution changes have to be maintained in the system. Both technical and commercial documents have to be connected to parts. This makes it possible to print references to purchase, sales and production order, or even to print documents together with them.

DOCUMENTS

There are no specific documents involved.

RESPONSIBILITY

The head of the product development department is responsible for this procedure.

14. OTHER PROCEDURES**PURPOSE**

A general description, how to create a procedure.

DESCRIPTION

Standard procedures are available as a template in this manual. Sometimes an organization requires special procedures, that have to be written afresh.
A procedure has to contain several paragraphs:

purpose

A one-liner, telling directly what in the procedure.

description

Additional information and explanations about the procedure. The description paragraph can contain sub-paragraphs

examples (optional)

Example(s), where, when and how to apply the procedure.

documents

This paragraph describes what documents are involved and how they are distributed and archived.

responsibility

The responsible person. Don't make more than 1 person responsible. In case the responsibility is shared, the procedure has to be split into smaller ones.

15. PROGRESSION LISTS**PURPOSE**

A procedure to measure the progress of the implementation

DESCRIPTION

The main checklists from the implementation manual are meant to plan the whole project in general. During the project a more detailed planning is required.

It depends on the type and the size of the organization what details have to be described and planned.

A more detailed planning is contained and followed by one or more progression lists.

responsibility

The organization manager is responsible that the progression lists are made. The actual job can be done by somebody more related to the subjects, like a member of a work group.

frequency of publishing a progression list

A detailed progression list has to be refreshed every meeting, where the subjects are discussed.

In case no meeting is planned, still a refreshed copy has to be distributed EVERY WEEK as long as a subject is overdue or new comments are added to regular subjects.

A progression list has 2 parts:

overdue subjects

A subject has to be published with a comment why it is overdue. This comment has to be given by the person, who is responsible for the subject, BEFORE releasing the new progression list. In case this person is not available, the comment will be *'not available for comment'*.

EVERY WEEK a subject is overdue, A NEW COMMENT has to be given.

NOTE: This procedure is not made to harm any person, but to make sure that the project will be finished according plan. The comments can show that nobody is to blame, but that the responsible person gets not enough assistance or enough time to finish the subject.

Sometimes it is better to POSTPONE a subject. A new finish date is planned and all comments are removed. It becomes a regular subject.

regular subjects

These subjects are not overdue and not finished yet. During the lifetime of a subject, comments can be added for getting more attention or support from people involved. The responsible person can ask to put comments to the subject or the organization manager can decide to do it, based on his own responsibility for the whole project.

In case a comment is not required anymore it has to be removed from the progression list.

In case a subject appears to be too much for one person, the subject can be split into smaller parts with different responsible people.

RATINGS

In case a project is facing a lot of delays it can be helpful to publish rating lists showing the top 10 of subjects and requests overdue or a list that show the best performances.

Regular projects that are not yet finished are not counted.

SUPPORTING PROGRAMS I101 - I 109

The menu, 'implementation progression' within the menu system management provides a number of programs to support this procedure.

16. ARCHIVES

PURPOSE

A (template for a customized) procedure how to archive the most important information.

TEMPORARELY ARCHIVES

ARCHIVE	PERIOD
1. Hours	until entered into the system
2. Stock movements	1 week
3. Open repairs	until repair is finished
4. Open work orders	as long as the project is not finished

PERMANENT ARCHIVES

ARCHIVE	PERIOD	SORTED ON
1. Weekly checklists	2 years	week
2. Monthly checklists	2 years	month
3. Car files	5 years	license plate
<ul style="list-style-type: none"> • Lease contract or owners certificate • Insurance documents • Copy of the drivers license • Other legal certificates • Copy of road tax payment • Copy of the car key 		
4. Customer files	permanent	name
<ul style="list-style-type: none"> • main data • company brochure or profile • contracts • important correspondence • minutes of important meetings and discussions • legal affairs 		
5. Supplier files	5 years	name
<ul style="list-style-type: none"> • contracts • important correspondence • legal affairs 		
6. Tax files	10 years	date
<ul style="list-style-type: none"> • VAT • tax on salaries • calculation of wages • social security • company tax 		
7. Financial reports	permanent	year
<ul style="list-style-type: none"> • auditors report • report to chamber of commerce 		
8. Other contracts and official documents	10 years	subject
<ul style="list-style-type: none"> • institutional and legal documents • bank agreements • housing contracts 		

- energy and electricity
- municipality / district government
- telecommunication contracts
- insurance
- subscriptions
- partner and subsidiary contracts
- others

9. Employees	permanent	name
<ul style="list-style-type: none"> • contracts • job description • job evaluation • others 		
10. Trade information of frequent suppliers	6 months	name
11. Product information	5 years	number
12. Purchase invoices	10 years	number
13. Cash book	10 years	month
14. Bank	10 years	date
15. Sales invoices	10 years	number
16. Packing lists - out	5 years	date
17. Transport documents - out	5 years	date
18. Stock adjustments	2 years	date
19. Packing lists - in	5 years	date
20. Hour forms	1 year	date
21. Copy of service reports	5 years	number
22. Job finish reports	5 years	date
23. Work orders	5 years	number
24. Picking lists	5 years	date