



NSD ERP® Solution - 6.01

Overview

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Introduction

The aim of this document is to put at the hands of all enterprise or government decision makers a clear and complete, as possible, an integrated solution allowing them to be at the peak of the latest technology concerning the Business Process Management.

The challenge, today, is to have the best solution at the best price and best time, but that is not all, more points and issues still worries the users and decisions makers.

One of these worries is the Data SECURITY!

How can I be sure that, my stored and exchanged data is secured and it is not covered my competitors or general by anyone who is not allowed to know, copy, or use it?

How can I be sure that, my system editor doesn't have access to my Data?

How can I be sure that, the change of my Business Rules will be adapted and took into consideration by my technical solution?

And much more other questions...

Let us understand the offered possibilities and technical solutions in terms Business Process Management at today in the beginning of 2011.

Apart from the classic software, we have tow solutions:

- 1- Enterprise Resources Planning, also called *Integrated Management Software (PGI)*, or Government Resources Planning: are applications whose purpose consists in coordinating all activities of a company (so-called vertical activities such as production, procurement, or rather horizontal activities such as marketing, sales forces, management of human resources, etc.), The term "ERP" comes from the name of the MRP (Manufacturing Resource Planning) method used during the 70s for managing the planning of industrial production.
- 2- Cloud: Cloud computing is nothing else, neither more nor less than the outsourcing of IT resources. The "cloud" could be called "all my IT and Telecom on the Internet for everyone (**including attackers**).

Based on the Data Security issues, It is going to be clear that, the clouds is a source of risks and that allows us to focus, for now at least, on the ERP system.

NSD ERP® - Integrated Solutions Knowledge Library

Whatever the NSD ERP system which you use, the security of your data depends on you

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The Cloud, represent a high level of insecurity for the enterprises

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So, returning to our secure system.


NSD has successfully answered and reduced the number of worries of its ERP clients, by a long terms of close collaboration and especially, by providing an integrated solution including:

- Infrastructure (Networks and Hardware) audit and realization
- System delivery
- System Implementation
- Training
- Support
- Data Migration
- Business Process Management, Enhancement and Audit
- Policies and Procedures
- Organizational Structuring / Restructuring


NSD Enterprise Resource Planning (NSD ERP) – Integrated Management Software

NSD ERP® - Integrated Solutions

Organizational Elements



- In the NSD ERP System:
 - Organizational elements are structures that represent the legal and/or organizational views of an enterprise
 - You can design your company structure based on your business processes and reporting requirements
- The organizational elements form a framework that supports all business activities.
- All Applications and sub applications are fully integrated
- The Database access is limited and controlled
- Power users and system administrators have their interfaces allowing them to customize and enhance your business scenario and process
- Query reports allowing you to build and save your useful reports and parameters

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Introduction to NSD ERP or GRP (Government Resources Planning)

The policies and procedures in the private sector may not be the same as in the public sector, managing the different aspects in both sectors becomes quite possible and easy because of the customization tools of NSD ERP System.

Customizing means that, whatever your policies and procedures, NSD ERP (GRP) System will be adapted and configured based on your specific management rules.

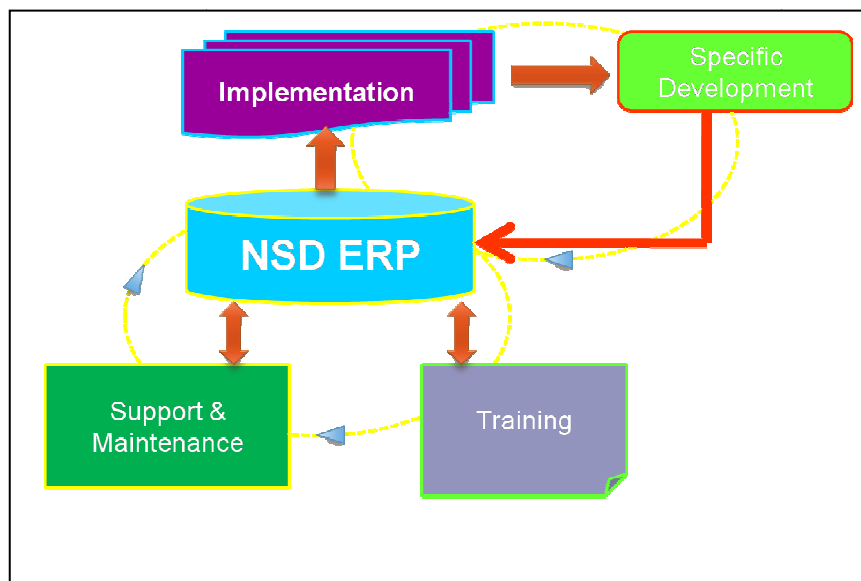
The individual applications in NSD ERP System are fully integrated. All data that are used across applications are stored at the server level. Specifications that you make or data that you enter at the client level are valid for all company codes and for all other organizational structures. Consequently, you do not have to enter these specifications or data more than once. Central maintenance ensures standardized data

Also, the individual applications exchange data so that business transactions do not need to be entered more than once. For example, invoices that are posted in SD are passed on to FI, and data that is entered in FI is passed on to other applications. If you use Cost Center Accounting, for example, you can specify a cost center directly when you enter a document, to which the amount entered in the line item, is to be posted. Since every company area in the NSD System can define its own structure, you should specify how each structure is to be derived from the others, so that data can be transferred from one application to another.

- On-line/real time information throughout all the functional areas of an organization
- Data standardization and accuracy across the enterprise
- Best Business Practices" included in the applications
- The efficient processes they force an organization to undertake

NSD ERP® SYSTEM

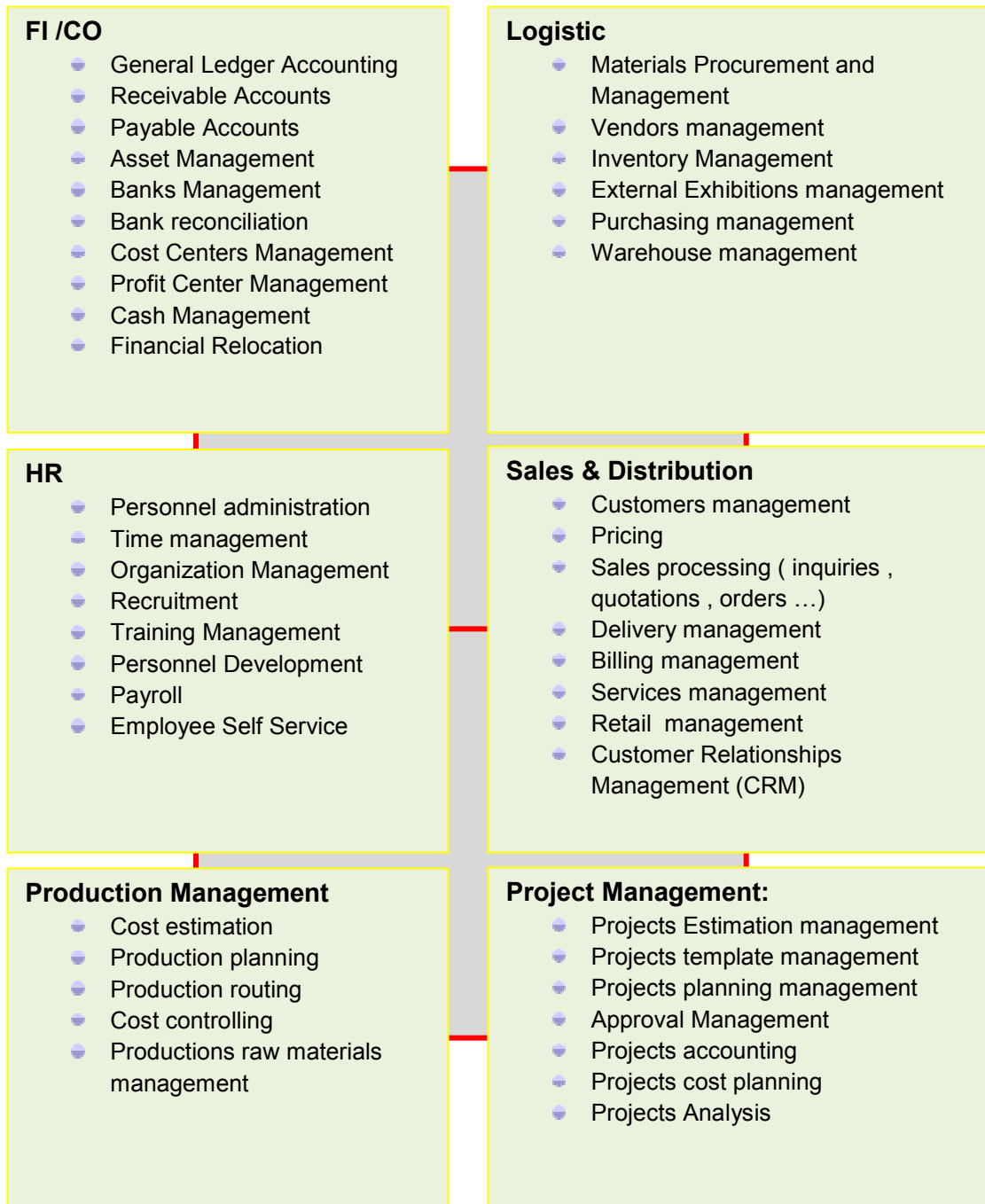
- The analysis and reporting that can be used for long term planning
- Multi-language, Multi-Currency and Multi-Companies System.....
- The NSD ERP System allows you to manage and perform and present better customer services, greater organizational transparency and increased operational efficiency leading to long-term savings.
- The NSD System includes reporting tools for either main reports or for powerful query reports.
- NSD ERP system, fundamentally, integrates the different processes necessary for businesses into a centralized pool that facilitates data sharing and eliminates redundancy.
- The NSD ERP System is built and developed based on the best worldwide business practices. It includes the necessary applications for the best enterprise management.
- The flexibility of the NSD ERP System allows you to add more functionalities and related reports.....Etc.

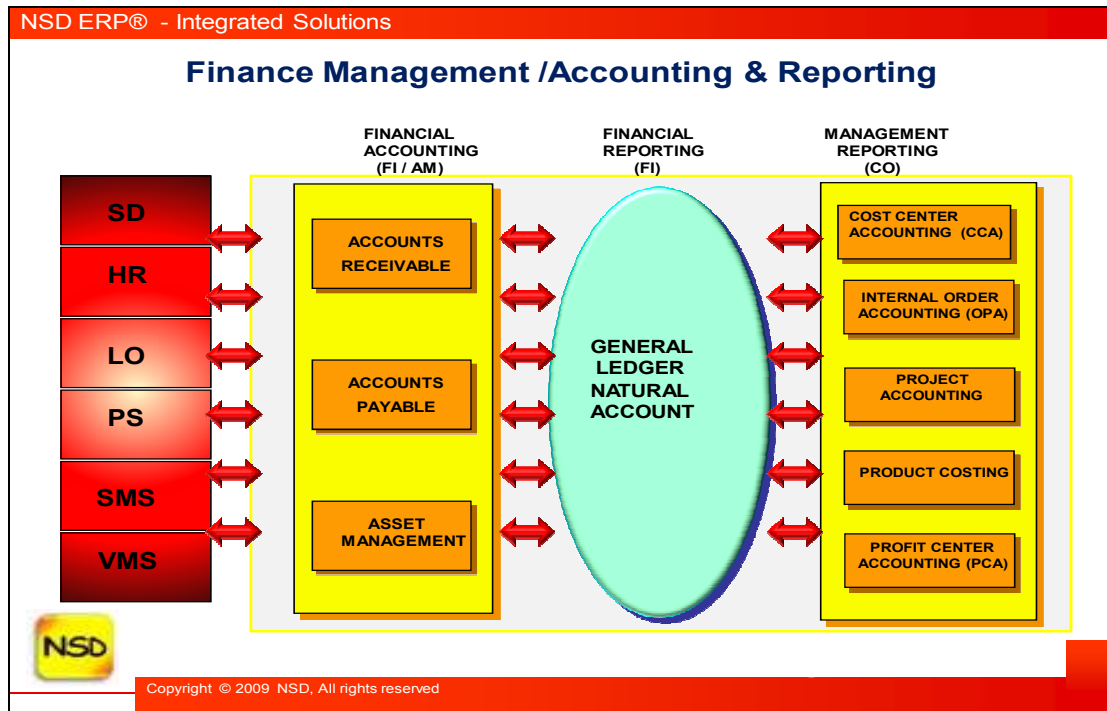


Implementation of ERP

Much more than just software, ERP is a true project requiring full integration of a software tool within an organization and a specific structure and therefore involves significant engineering costs. On the other hand, its implementation in an enterprise requires significant changes in the working habits of a significant part of the employees. It is therefore believed that the cost of the software tool accounts for less than 20% of the total cost of implementing such a system.

NSD ERP SYSTEM is an information System, it includes the below integrated applications:





NSD ERP SYSTEM – Human Resources Module

The Human Resources management system consists of many components, which are capable of working together. Hereunder, we will mention some of these functionalities knowing that we stay at your entire disposition in order to explain and demonstrate the whole human resources sub-modules to you to understand and appreciate the power tools and functionalities of this application:

Personnel Administration: allows you to assign employees to the company's organizational units and structures during the hiring process, as well as maintain important employee personal data, such as, change in cost center, salary, address, etc...through out the employee's life cycle at the company.

The personnel Administration Component includes, among other, the employee benefit which is an essential element of competitive employment market, employees benefits play a significant role in total compensation offers designed to attract and keep the best possible employees. The NSD Benefits component offers you powerful and comprehensive tools for creating and managing tailor-made benefits packages for your employees. It allows you to administer an extensive range of benefit plans.

Organizational Management: allows you to depict your organizational and reporting structures clearly by presenting an up-to-date picture of your enterprise's organizational plan.

Time Management: provides full functionality for managing time and leave information in the company including Time collection, Time evaluation and absence data for employees.

Payroll: covers all essential payroll functions including earnings and deductions processing, preparation of remuneration statements, and follow up activities such as transfer of information to Financial Accounting and bank transfers.

Recruitment: enables you to optimize the recruitment process triggered by vacant positions by linking the client's organizational process, from organizational and job planning to mailing letters of rejection or acceptance.

Personnel Development: it allows you to promote the professional development of your employees. You can also ensure that staff qualification requirements are met and planned. By taking into account employees' preferences and suitability, you can increase job satisfaction. Personnel development sets out to ensure that all of the employees in all of the functional areas in your company are qualified to the standards required at present, and will remain so in the future. This is achieved by developing qualification potentials.

Training Management: the Training and Event Management Sub-Module has a wide range of powerful functions to enable you to plan and manage all kinds of business events from training events (internal and external) to conventions simply and efficiently. Its flexible reporting and appraisal functions provide you with important decision support feedback to ensure that the business events you offer are both high quality and effective. It is fully integrated with all other Modules of NSD ERP like FI and Logistics....

HR - PA (Personal Administration)

Allows you, throughout the employee's life cycle at the company, to assign employees to the company's organizational units and structures during the hiring process, as well as maintain all employee personal data, such as, salary, address...etc.

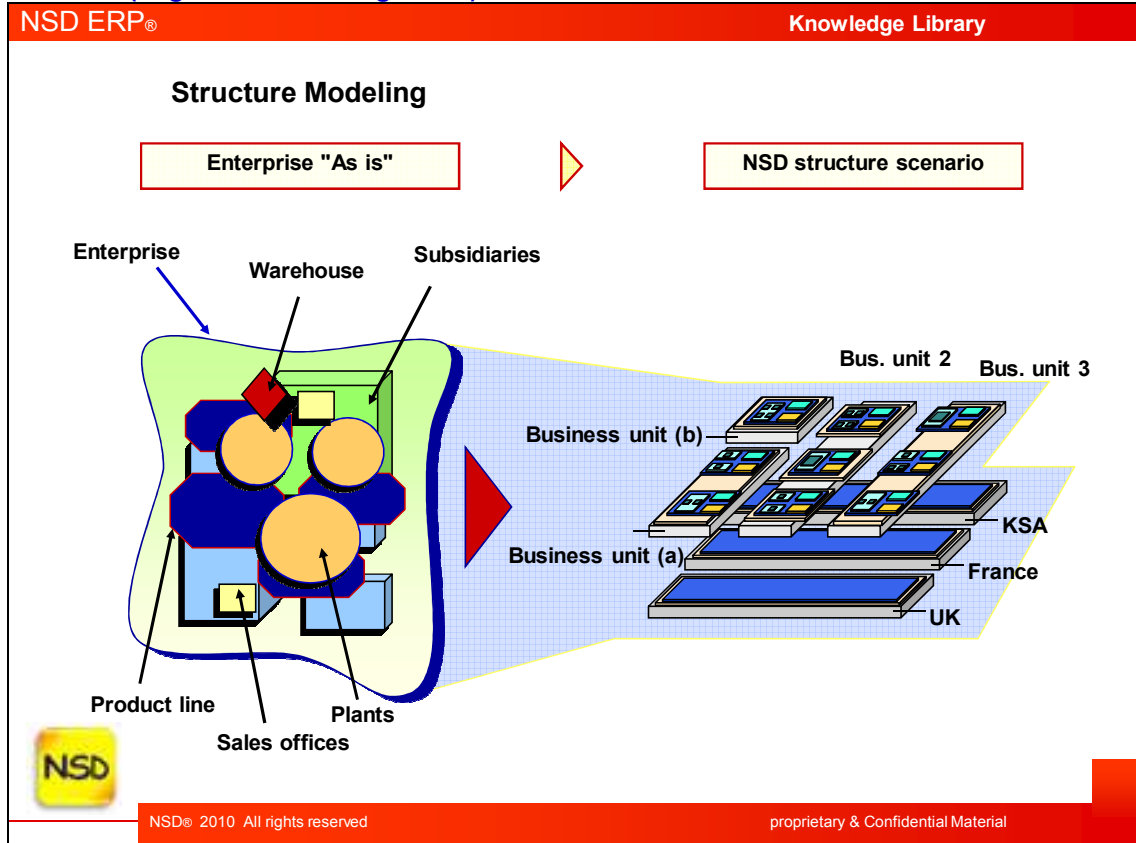
Personal Actions: Allows you to use many customized actions (Hiring, Reassignment, Terminated), all these customized actions consist of a lot of screens (infotypes) called automatically by the system, as a cycle.

Maintain Personal Data: Allows the user to modify all information related to the employees.

Display Personal Data: Allows the user to preview all information related the employees.

The NSD Human Resources application takes advantage of the best results of the Human Capital Management.

HR - OM (Organization Management)



Allows you to depict, clearly, your organizational and reporting structures by presenting an up-to-date picture of your organizational plan enterprise

OM Structure: Allows the user to preview the organization structure and get full information about all departments and branches and hired employees.

Define Business Unite: Allows the user to create and define the business unites depending on the divisions of your company.

Define Work Centers: Allows user to create the work centers (work center is the geographical description for the business unite).

Define Jobs: Allows user to create all jobs which existing in the company (Manager, Sales, Purchase.....)

Define Positions: Allows the user to create the positions for the employees in the company (Sales manager, Support Engineer.....)

Position Details: this functionality allows you to manage your positions one by one, especially the vacant positions. In case where you have a vacant position, the system select for you the a list of all qualified employees having the competence to occupy this position also and in same time, it gives you a list of the qualified applicants, capable, too, to be hired and occupy this vacant position.

In addition to the above and through the same screen (Position details), the system allows you to make a comparison between the needs of the vacant positions and the selected person (employee or applicant) in case where the selected person needs training, the system show you the points and plan for you a training session.

HR - Time Management (TM)

Provides full functionality for management of time and leave information in the client company including time collection and evaluation of time and absence data for employees.

Emp. Time Rule: Allows the user to create the time rules for the employees (how the employee has to work from which time up to time).

Time Sheet: Allows employee to insert his time sheet

Leave Request: Allows user to create a leave request and send this request to his manager in order to get approval.

Leave Approve: Allows the HR manager to give his approval for the leave request and this feature just for the HR Manager.

Absence: this option allows the user to insert the absence days for the employee (which absence without get the leave approve)

Over Time Request: allows the user to create an overtime request and send it to his manager.

Over Time Approve: Allows the HR manager to give his approval for the overtime request and this feature just for the HR Manager.

Over Time: this option allows the user to insert the over time sheet for the employees

Time Tree: allows the user to create and customize a tree for timing processes to use it by the company's employees whose aren't system user

HR - Payroll (PY):

Covers all essential the functions of your payroll such as the earnings and deductions and preparation of remuneration statements, bank transfers and follow up activities such as transfer of information to Financials.

Payroll Calculation: Allows the user to run the simulation for the payroll to check the results then run the payroll and post the results to the account department.

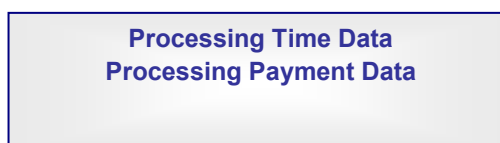
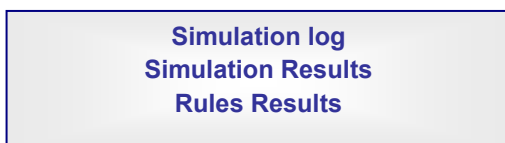
Payroll History: Allows the user to get information about the results of the payroll for previous months and changing rules of the payrolls

NSD Payroll is a National and International Payroll:

The NSD payroll system is built with a maximum security which allows the client to run his payroll in simulation and in production modes. The simulation method is the best way to verify all payroll results before the database update. Once you are satisfied with the results, you can run it in production mode (database update) and you can then after post your payroll results in the NSD accounting module or in an external system.

Payroll Simulation:

The Payroll tool bar, in NSD ERP System, gives you access to the following elements:



Simulation log: Shows you the rejected persons. If the personnel data necessary for calculating the payroll is not correct or doesn't exist, the system stops calculating these employees and gives you a rejection list as shown below

HR - Recruitments

Vacant Position Details: this option allows you to get full information about vacant position in the company and the required needs and budget for this position.

In this screen you can see all employee whose are suitable for this option and you can make comparison between the qualification of the employee and the position needs same the procedure when create the position as explained in the define position in the sub-application Organization Management.

Recruitment / Applicant Managements:

This option allows you to create a flexible action for applicants.

Action: Is a group of infotypes which permit the HR user to enter and manage all data related to applicants.

HR - Training:

Vacant Position Details:

Once a position is vacant within your organization the system alerts you and proposes to you two lists of qualified peoples who can occupy this vacant position. The first list concerns your employees and the second list concerns the applicants already entered on your database.

Selecting one person, the system compare between his qualifications and the defined needs of your vacant position and gives you a graphic showing the result of this comparison and if this selected person needs a training or no and the area of his weak points.

Also we can register the employee for training by clicking the register E to training the system will open the training screen as below:

From this sub application, and based on the result of profiles comparison, the system allows you to register your selected person on a training session.

Internal Training:

1- Training Locations and Rooms:

- a. Training Locality: same as IMG Location just to define the training Location.
- b. Training Rooms: to define the training rooms with required equipment with possibility to define the employee capacity in each room.

2- Training Catalogs and Trainers:

- a. Training Catalog: to define the catalog with training Structure and Minum and maximum trainees, the cost depending on the selected billing category, the trainers (Internal, External), the Lessons and the catalog needs.
- b. External Trainer: to define the full information about the external trainer with vendors company and the qualification.

3- Training Management:

- a. Trainer Qualification: to define the qualification for the trainer from the company (Internal Trainers).
- b. Define Training Sessions: allows you to create the training session with assignment with the training catalog and the training Admin (the training Admin is an employee selected as training admin while hiring the employee by put the check box for the training Admin), the Trainer with password and the location, rooms, and begin & end training session date

- c. Register the Employee: there are two trainees type one is the same company employees (Internal Trainees) and second is the customer' employee (External Trainees), and this option allows you to register the company employee to the training session by select internal trainees or external trainees by select put the check box on external trainees and select the customer company and the customer employees.
- d. Define Trainees: to define the full information related the external trainees:

4- Trainer and Admin Spaces:

- a. Trainer Space: allows the trainer to make view for the trainees in his session and get information about it like time sheet.
- b. Admin Space: allows the training Admin to make view for the trainees in his session and get information about it like time sheet.

External Training:

- 1- **Define Training Sessions:** to define the training session made by external vendor not the same company:
- 2- **Register Trainees:** to register the trainees to the external training session.

HR - Utilities

Employee Offer: Allows the user to create working offer for any person as first step to hire him in the company

Training Report: Allows employee to create a report for the training course which attended and send it to his manager.

Salesman Payment: Allows user to generate the commission for the sales man depending on his sales and defined percentage.

Auto Time Sheet: Allows the user to insert the time sheet for chosen employee automatically and the same time for certain month.

Scanning Documents: this option allows the get a copy from the certain document and related of the employees

Applicant Report: allows the user to get full information about all applicants in hired in the system.

Employee Vacation History: Allows the user to get full information about the details of payment of vacations related of the employee.

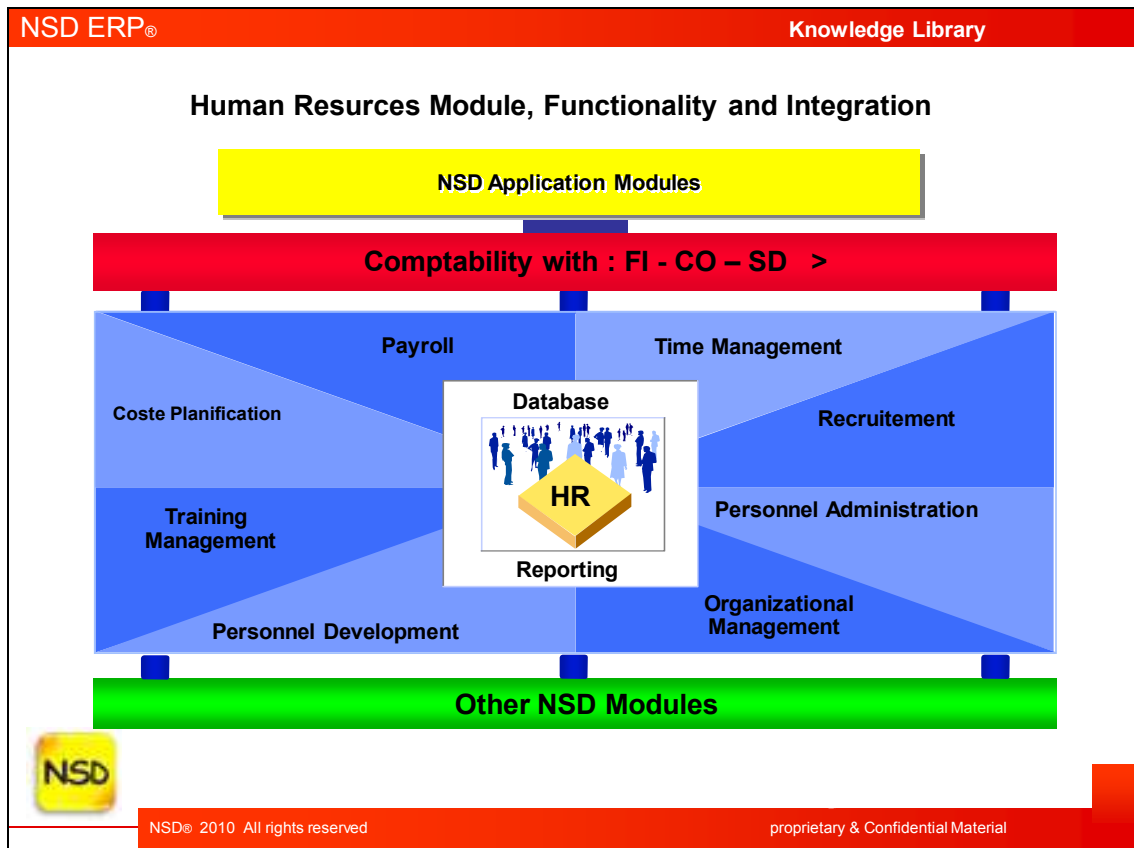
Define Vehicles: allows the user to define all information related the vehicles in the company (deriver, papers...)

My Comment MNG: allows the responsible employee to insert his comments related of any employee

Import and Export Time Data: allows you to upload the time sheet file from the time attendance machine to the system and calculate the payroll depending on the this time sheet

HR - Reports

This option allows user to get a quickly views about all processes done in the system in each functions and sub-functions, also, you have the possibility to customize your own report through the Query report functionality.



NSD ERP - HUMAN RESOURCES FUNCTIONALITIES

Recruitment

The Recruitment sub module supports the following functionalities	
Code	Functionalities Description
REC -01	Online searches for qualified applicants/Applicants based on requirements
REC -02	Tracking of applications by personal data, skills, education, training, test results
REC -03	Resume routing
REC -04	Scheduling of interviews
REC -05	Tracking interview results
REC -06	Word processing interface for customizing recruitment letters
REC -07	Process offers and new hires
REC -08	Online status and summary information of applicants requisitions, costs
REC -09	Applicant flow statistics
REC -10	Sourcing engine integration with career development, matching competencies of internal candidates
REC -11	Resume scanning capabilities.
REC -12	Import resumes from internet and or e-mail
REC -13	Personnel (Applicant) Profile
REC -14	Centralized applicant database
REC -15	Applicant experience and skill information
REC -16	Family/children/spouse information
REC -17	Home phone number
REC -18	Emergency contact information
REC -19	Education profile
REC -20	Possibility to scan and archive all applicants documentations (Diploma or +)
REC -21	Applicant education and training tracking

REC -22	Decentralized updating capability to the Applicant level such as through the internet or the internal mail system
REC -23	Integration with the Organizational Structure
REC -24	Definition of Business Units
REC -25	Identification of position/job, especially the vacant positions
REC -26	Position/job title
REC -27	Position by organization, location, job code, title, shift, work days
REC -28	Normal hours of job
REC -29	Skills required for job
REC -30	Applicant profile required for each job/task
REC -31	Applicant assignments to single or multiple jobs
REC -32	Positions concerned – vacant /available reporting
REC -33	Recording of Applicant skills, qualifications, competencies and experience
REC -34	Matching Applicant profile to job and position requirements
REC -35	Identification of training events and development activities
REC -36	Printing of course description and schedules
REC -37	Generation of training costs and reporting
REC -38	Determination of training needs
REC -39	Updating of Applicant skills, education, honors, special projects, licenses, certificates, languages, course enrollments, evaluations
REC -40	Identification and follow-up of high-potential Applicants
REC -41	Collect basic personal data during the registration process such as name, address, language preference, location, required qualifications, etc.
REC -42	Automatically add registrants to the waiting list
REC -43	Full history of Applicant reward packages maintained
REC -44	Maintenance of physical exams, injuries, illnesses, audiometric test results
REC -45	Supports tracking of accidents and injuries and generation of reports
REC -46	Applicant History and Personnel Reporting
REC -47	Applicant health and incident tracking

Benefits

The Benefit sub module supports the following functionalities	
Code	Functionalities Description
B - 01	Defined benefits plans, allowances type and rates
B - 02	Customizing condition of eligibility
B - 03	Assignment by default of the employees benefit based on the organization structure or any other HR elements
B - 04	Identification of appropriate dates for calculating coverage and deductions
B - 05	Maintenance and dependent and beneficiary information
B - 06	Base benefits maintenance decentralized to the employee level through the use of internet or internal mail capability
B - 07	Waiting period by employee
B - 08	Type/amount of benefit coverage per employee
B - 09	Service requirements for benefits
B - 10	Maximum and minimum benefits
B - 11	Benefits Administration
B - 12	Definition and maintenance of flexible credits
B - 13	Employment-related rules that affect participation eligibility
B - 14	Creation of customized employee enrollment forms and confirmation statements
B - 15	Recording of annual pledges for flexible spending accounts

Payroll

The Payroll sub-module supports the following functionalities	
Code	Functionalities Description
PY -01	Employee Payroll Profile
PY -02	Name, employee identification number
PY -03	Address, city, state, zip
PY -04	Telephone number
PY -05	Marital status
PY -06	Ethnic classification
PY -07	Job classification/skill code
PY -08	Pay type (hourly/salary)
PY -09	Number of pay periods per year
PY -10	Standard hours per pay period
PY -11	Basic pay managed and related to the salary structure or the organization structure
PY -12	Termination date
PY -13	Vacation accrual rate, vacation accrued, vacation used
PY -14	Sick leave accrual rate, sick leave accrued, sick leave used
PY -15	Unpaid leave
PY -16	Earnings and Deductions (manual or automatic calculation)
PY -17	Earning types: salaried and salaried/exempt
PY -18	Earning types: weekly, bi-weekly, semi-monthly, monthly, special (executive) pay cycle
PY -19	Unlimited earning types
PY -20	Unlimited deductions
PY -21	Calculation of deductions based on percent of earnings
PY -22	Fixed deduction amounts
PY -23	Automatic deductions stop when limit is reached
PY -24	Employee payments and rules history maintenance
PY -25	User-maintained health insurance deductions
PY -26	Automatic assignment of employee compensation and benefits based on rules
PY -27	Automated Time Sheet
PY -28	Ability to provide decentralized capability for time sheet entry
PY -29	Time sheets provide for exception-only data entry
PY -30	Supports multiple work hours standards
PY -31	Security and Audit
PY -32	Customized menus and forms, by user, by responsibility
PY -33	Multiple access responsibility assignments to tasks, by user
PY -34	Audit log of all changes
PY -35	Time and attendance
PY -36	Saving or archiving of the Payroll history
PY -37	Payroll simulation (calculation without update)

Personnel Administration

The Personnel Administration sub-module supports the following functionalities	
Code	Functionalities Description
PA -01	All type of actions as the Hiring - Termination - Re-assignment, to be adapted to the enterprise policy, all of these should be flexible
PA -02	Sizing of all type of personnel data (contractors or employees...)
PA -03	Automatic or manual personnel numbers
PA -04	Creation of the employees structure taking into consideration all branches of your company
PA -05	Integration with the Recruitment application allowing the users to get back the applicants data

PA -06	Integration with internal alert system allowing the administrators to be informed by any change of status or change of any critical employees data (IQAMA expiry date.....)
PA -07	Employees badges automatically print out
PA -08	Scanning and archiving of all personnel (employees) documents and data (copy diploma, pictures...)
PA -09	Personnel history including the previous employees data
PA -10	Having the possibility to save all personnel data changes (history)
PA -11	Having the possibility to limit the access to the personnel data at the screen level
PA -12	Possibility to group the employee's screen based on the type of actions (Hiring...)
PA -13	Automatic creation of a personnel file including all personnel data (screens)
PA -14	The possibility to do fast actions for a group of employees
PA -15	The assignment of the employee on the organization structure through the personnel data
PA -16	Approve process allowing a multiple request for approve (ex: if the hiring of a new employee is started on a past date.....). This approve process is completely related to the alert center which allows the administrator to be alerted by any new request for approve.
PA -17	The automatic assignment of the employee to the administrators (Payroll, Time, Security....)
PA -18	Based on the policy of your enterprise and the employee assignment, the system calculates automatically the allowances and deductions once the basic pay is entered
PA -19	Help one line (system documentation)
PA -20	Full Integration with the other Human Resources sub - modules
PA -21	Employee self service (request leave, overtime ...)

Time Management

The Time Management sub-module supports the following functionalities	
Code	Functionalities Description
TM -01	Customizing Time Rules (based on the enterprise policy)
TM -02	Employees Time Sheet (the possibility to complete the time sheet manually or through the web)
TM -03	Possibility to integrate an external time attendance Hardware and get the time data online
TM -04	Absence evaluation based on the enterprise policy
TM -05	Full Integration with the whole package
TM -06	Leaves Quotas (Automatic update)
TM -07	Personnel Calendar
TM -08	The possibility to control all requests for overtime or leave or even absence
TM -09	Time Request Process (TRP)
TM -10	Concerning the absence and leaves, the possibility to control the employee's time data based on his personnel calendar (Muslim, Christian.....)
TM -11	Customizing yearly calendar

Organization Management

The Organization Management sub-module supports the following functionalities	
Code	Functionalities Description
OM - 01	The system provides method to create the enterprise organization structure components including the following: Business Unit Jobs Positions Work Center

	Tasks catalog
OM - 02	Full integration with the alert center (especially for the vacant positions and the overstaffed and understaffed positions)
OM - 03	Possibility to create multiple version of the company structure
OM - 04	Full Integration with the whole package
OM - 05	A hierarchy presentation of the company structure
OM - 06	Possibility to maintain all parts of the structure directly from the Structure hierarchy presentation
OM - 07	Possibility to list all vacant positions
OM - 08	Possibility to print out the company structure
OM - 09	Possibility to display the occupation of all positions directly in the hierarchy
OM - 10	Monitoring occupied position and occupied percentage.
OM - 11	Monitoring vacant position in the company and select correct employee to correct position.
OM - 12	Ability to compare position needs and employee qualification
OM - 13	<p><u>The system provides a complete range of reports as:</u></p> <ul style="list-style-type: none"> List of business units List of jobs List of positions List of work center List of tasks and catalogs List of cost centers Business units occupations Vacant positions Full capacity positions Overstaffed positions Understaffed positions Query reports (customizing and flexible report, based on the customer requirements and input data) <p>All of the above reports are flexible in terms of input data (parameters of selection)</p>

Training Management

The Training management sub-module supports the following functionalities	
Code	Functionalities Description
TR - 01	Enter training locality and training rooms with the equipments in each room
TR - 02	Enter training catalogs with lessons and needs for each course
TR - 03	Register external trainers
TR - 04	Manage internal trainers
TR - 05	Create request for training
TR - 06	Release request for training by the manager
TR - 07	Create training session
TR - 08	Define trainees (external) or (employees)
TR - 09	Register trainees in the training session
TR - 10	Request materials for the training session from the warehouse
TR - 11	Register training partners

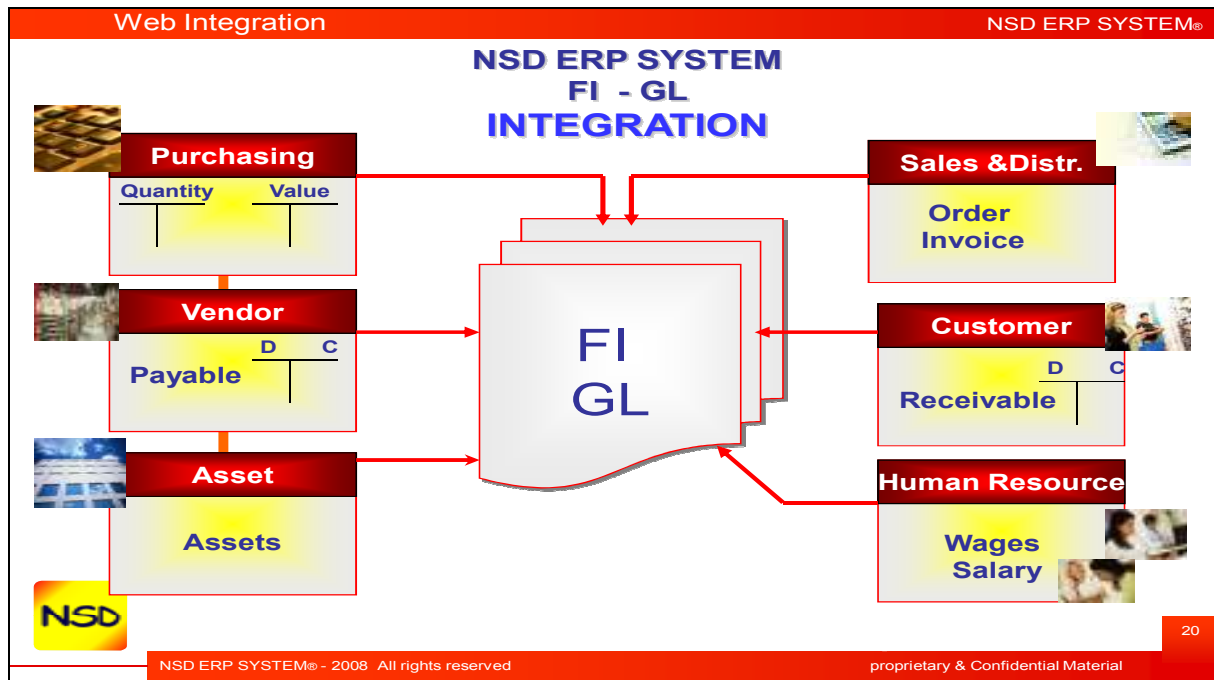
TR - 12	Close the training session
TR - 13	Register session results
TR - 14	View materials issue from warehouse to the session and returned to the warehouse

Personnel Development

The Personnel Development sub-module supports the following functionalities	
Code	Functionalities Description
PD - 01	Ability to create qualification catalogs
PD - 02	Display and maintain qualification catalogs
PD - 03	Integrate qualifications and needs with position and job
PD - 04	Compare employee qualifications and position needs
PD - 05	Find candidates for vacant positions
PD - 06	Planning an employee's professional career path
PD - 07	Create and manage development plan
PD - 08	Create appraisal catalog
PD - 09	Enter and manage appraisal result
PD - 10	Manage the employees benefits through appraisal result
PD - 11	Full integrated with personnel administration
PD - 12	Full integrated with training application

NSD ERP - Financial Accounting Module (FI)

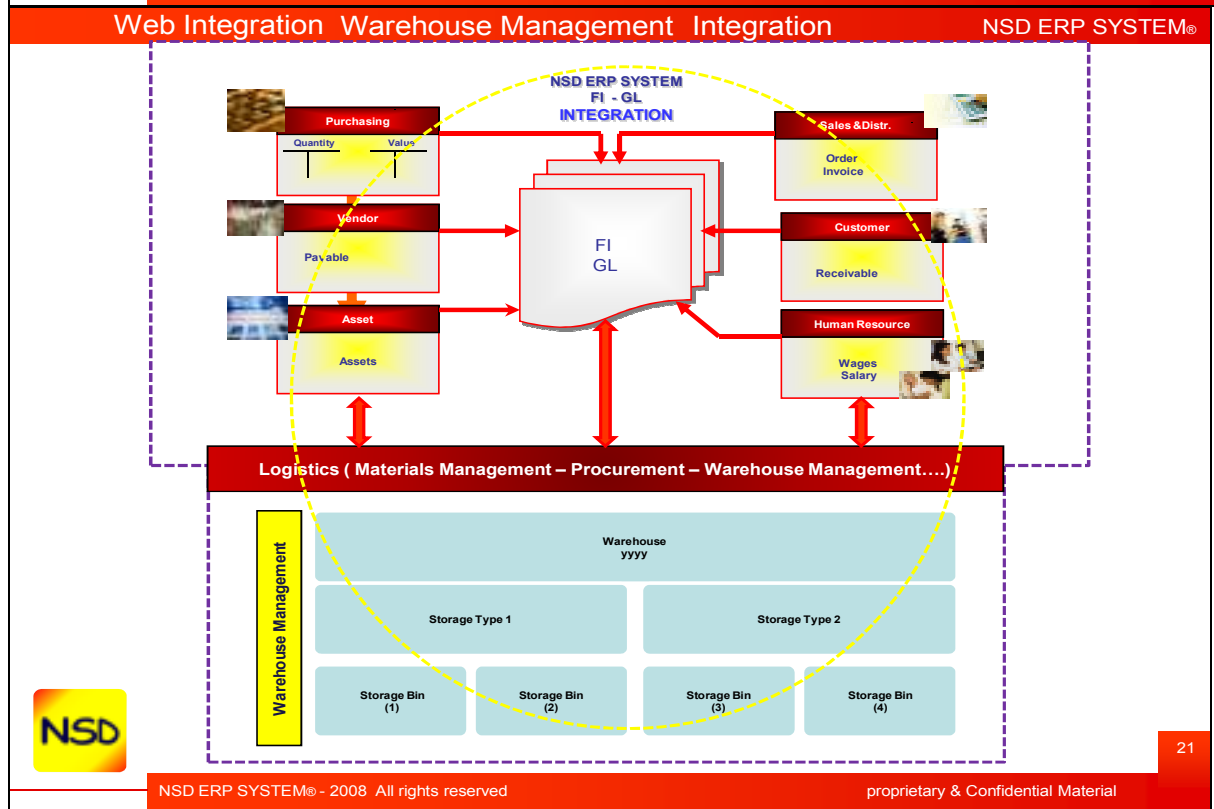
Financial Integration



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Financial Accounting (FI) in NSD ERP System is divided into the following areas and it is designed for an automated management and external reporting of:

- General Ledger Accounting
- Cost Center Management
- Profit Center Management

- Accounts Receivable.
- Accounts Payable, and Other Sub-ledger Accounts with a Pre-defined Chart of Accounts.
- Asset Management
- Bank Accounting Management (Bank Book and Bank Reconciliation)
- Cash Management (Cash Book)
- Depreciation Management
- Cheque Printing System

BACKGROUND

The General Ledger (G/L) module is the central integrating component in FI. Each account used for posting is defined in the G/L and contains information that reflects or describes its function. This information is stored in the master record of an account.

The central task of G/L accounting is to provide a comprehensive picture for external accounting. Recording all business transactions (primary postings as well as settlements from internal accounts in a software system that is fully integrated with all the other operational areas of a company ensures that the accounting data is always complete and accurate.

Actual individual transactions can be checked at any time in real-time processing by displaying the original documents, line items, and transaction figures at various levels such as:

- Account information;
- Journals;
- Totals/transaction figures;
- Balance sheet/profit and loss evaluations.

ORGANIZATION STRUCTURES and Definition (NSD System Terminology)*

The key organizational elements in the NSD Financial Accounting System consist primarily of:

- Company Code
- Chart of Accounts
- Business Area

Company Code

A company code is the smallest organizational unit for which complete, independent accounting can be carried out. This includes the entry of all transactions subject to posting and the creation of all items for legal individual financial statements, such as the balance sheet and the profit and loss statements.

The Company Code organizational element represents the national view of the company. The company code is normally derived directly from the legal entity structure. One legal entity would equal one company code. The Company Code can be defined as the central organization unit that integrates accounting from many different areas within the organization. It controls the publication of balance sheets and profit and loss statements.

Chart of Accounts

The Chart of Accounts can be represented in the NSD system as one of three functions:

- Operational Chart of Accounts;
- Country Chart of Accounts;
- Group Chart of Accounts.

Business Area

You can define an organizational unit for internal reporting, in which the transaction figures from G/L accounts are managed separately. This is the business area. The business area is a special unit, for which an internal balance sheet and profit and loss statement can be prepared. The business area is, however, purely an **internal organizational structure**. You define business areas if you want to draw up balance sheets and profit and loss accounts not only for company codes, but additionally for internal areas.

When you prepare the balance sheets and profit and loss statements that are required by law, you must fulfill certain requirements. With an internal balance sheet, however, not all these requirements are fulfilled, since they are not required for internal reporting.

FI - General Ledger Accounting

The NSD - FI General Ledger has the following features:

- Free choice of level
- Corporate group or company
- Automatic and simultaneous posting of all sub-ledger items in the appropriate general ledger accounts (reconciliation accounts)
- Simultaneous updating of general ledger and cost accounting areas
- Real-time evaluation and reporting on current accounting data, in the form of account displays, financial statements with different balance sheet versions and additional analysis. Essentially, the general ledger serves as a complete record for all business transactions.

It is the centralized, up-to-date reference for the rendering of accounts. Actual individual transactions can be checked at any time in real-time processing by displaying the original documents, line items and monthly debits and credits at various levels such as:

- Account
- Journals
- Summary of monthly debits and credits (balances)
- Balance sheet/profit and loss evaluations

FI - Cost Center Management

Cost Centre Accounting is a sub-module of CO (Controlling Module). Cost centers enable the client to be broken down into smaller segments allowing costs to be tracked and controlled. Cost centers are created and grouped in a cost centre “standard hierarchy”. “Alternate hierarchies” can be created (grouping of cost centers in different order – more user specific). Postings in CCA (Cost Centre Accounting) are mainly from other modules. CCA receives postings from FI, Material Management, Human Resources (any transaction that carries a cost centre or that is automatically assigned to a cost centre assignment).

NSD ERP SYSTEM / Financial Module Functionalities

General Ledger Accounting:

General Ledger Accounting supports the following functionalities	
Code	Functionalities Description
GL - 01	Create fiscal year and period depending on the requirements
GL - 02	Multi currencies accounting
GL - 03	Create Chart of Accounts Structure
GL - 04	Create new account online
GL - 05	Ability to block any account and register the reason of this block
GL - 06	System supports multi companies
GL - 07	System contains currencies exchange rate and user can modify the exchange rate but system will keep history of old exchange rate
GL - 08	Ability to define currency for each account and enter controlling data related with this account

GL - 09	Accept direct journal entries
GL - 10	Reversing journal entries
GL - 11	Support direct editing of journal entries
GL - 12	Journal and journal entry ID number report
GL - 13	Journal entry date report
GL - 14	Journal entry description report
GL - 15	Journal entry amount report
GL - 16	Journal entries report
GL - 17	Ability to open or close posting period
GL - 18	Controlling transactions that posted
GL - 19	Ability to do auto post for journal or manual post
GL - 20	Ability to display any transaction and maintain it if it is not posted
GL - 21	Ability to check account balance for specific period and fiscal year
GL - 22	Ability to check account line items for specific period, fiscal year and account
GL - 23	Ability to display account open line items
GL - 24	Ability to display closed line items
GL - 25	Ability to display reverse or clearing line items
GL - 26	Fixed asset depreciation and gain/loss entries report
GL - 27	Inventory summary entries report
GL - 28	Cash summary entries report
GL - 29	Create/generate reversal postings for transactions generated from a journal entry posted in error
GL - 30	Multiple open periods
GL - 31	Detailed journal inquiry view to original sub-ledger documents
GL - 32	Transaction/trial balance reports
GL - 33	Trial balance
GL - 34	Profit and loss statement and balance sheet
GL - 35	Comparative balance sheet
GL - 36	Fixed asset reporting
GL - 37	Chart of accounts structure
GL - 38	Check block account history
GL - 39	Ability to block account at company level or chart of account level
GL - 40	Create new account at company level or chart level or centralized
GL - 41	Ability to create account at chart of account level and block it from create at company level
GL - 42	Ability to classify business transaction depending on the requirements
GL - 43	Ability to search any posted or non-posted transaction depending on business transaction, Transaction currency, period, fiscal year or transaction id
GL - 44	Ability to hold any transaction then repost it
GL - 45	Ability to do transaction manual post
GL - 46	Ability to check exchange rate difference
GL - 47	Ability post incoming or outgoing payment directly
GL - 48	Ability clear open items
GL - 49	Create journal voucher transact
GL - 50	List and post journal voucher
GL - 51	Create multi budget variants
GL - 52	Create budget variant structure
GL - 53	Budget Journal management
GL - 54	Copy budget
GL - 55	Transfer Budget

GL – 56	Budget Inquiry
GL – 57	Budget Statement
GL – 58	Budget Trail Balance
GL – 59	Budget open year
GL – 60	Budget close the year
GL – 61	Mass allocation management
GL – 62	Create accounts that is related with mass allocation
GL – 63	Enter accounts period for allocation
GL – 64	Alert admin to allocation account balance
GL – 65	Create allocation document
GL – 66	Post allocation document
GL – 67	History of allocation documents

Account Receivables:

Account Receivables supports the following functionalities	
Code	Functionalities Description
AR – 01	Ability to define customer hierarchy
AR – 02	Ability to define customer structure
AR – 03	Ability to block customer account
AR – 04	Ability to manage customer credit limit
AR – 05	Ability to enter customer general data like customer address, customer contact persons, customer payment data
AR – 06	Ability to maintain customer master data
AR – 07	Ability to display customer master data
AR – 08	Ability to display customer profile screen by screen with easy navigation method
AR – 09	Create relationship between customer master record and reconciliation account
AR – 10	Ability to define multi customer kind depending on the company requirements
AR – 11	Search customer master data with easy method
AR – 12	List customer by customer name
AR – 13	List customer by credit limit
AR – 14	List customer by customer type
AR – 15	List customer addresses
AR – 16	List customer currencies
AR – 17	List customer
AR – 18	List customer by customer code
AR – 19	Ability to enter customer invoice
AR – 20	Ability to enter incoming payment with clearing
AR – 21	Ability to clear customer open item
AR – 22	Ability to manage customer cash discount depending on terms of payment
AR – 23	Accept credit memo and debit memo
AR – 24	Print customer account statement
AR – 25	Print customer dunning letter
AR – 26	List customer invoices and filtering it by multi criteria
AR – 27	Check customer balance
AR – 28	Check customer open transaction
AR – 29	Check customer close transaction
AR – 30	Check customer all transaction
AR – 31	Ability to reverse customer invoice or transaction
AR – 32	Ability to manage exchange rate

AR – 33	Enter customer receipt vouchers
AR – 34	Post customers receipt vouchers
AR – 35	Print List customers receipt vouchers
AR – 36	Manage receipt vouchers lot
AR – 37	Avoid customer receipt voucher
AR – 38	Register avoiding voucher reason
AR – 39	Build customers letters template
AR – 40	Print out customer letter and keep history of it
AR – 41	Reset clearing transactions

Account Payables:

Account Payables supports the following functionalities	
Code	Functionalities Description
AP - 01	Ability to define vendor hierarchy
AP - 02	Ability to define vendor structure
AP - 03	Ability to block vendor account
AP - 04	Ability to enter vendor general data like vendor address, vendor contact persons, vendor payment data
AP - 05	Ability to maintain vendor master data
AP - 06	Ability to display vendor master data
AP - 07	Ability to display vendor profile screen by screen with easy navigation method
AP - 08	Create relationship between vendor master record and reconciliation account
AP - 09	Ability to define multi vendor kind depending on the company requirements
AP - 10	Search vendor master data with easy method
AP - 11	List vendors by vendor name
AP - 12	List vendors by vendor type
AP - 13	List vendors addresses
AP - 14	List vendors currencies
AP - 15	List vendors general data
AP - 16	List vendor by vendor code
AP - 17	Ability to enter vendor invoice
AP - 18	Ability to enter outgoing payment
AP - 19	Ability to clear vendor open item
AP - 20	Ability to manage taken cash discount depending on terms of payment
AP - 21	Accept credit memo and debit memo
AP - 22	Print vendor account statement
AP - 23	List vendor invoices and filtering it by multi criteria
AP - 24	Check vendor balance
AP - 25	Check vendor open transaction
AP - 26	Check vendor close transaction
AP - 27	Check vendor all transaction
AP - 28	Ability to reverse vendor invoice or transaction
AP - 29	Ability to manage exchange rate loss or gain
AP - 30	Vendor payment history
AP - 31	Credit balance vendor listing
AP - 32	Vendor analysis
AP - 33	Hold payment at vendor level
AP - 34	Payment processing
AP – 35	Enter vendor payment vouchers
AP – 36	Post vendor receipt vouchers
AP – 37	Print vendors list / receipt vouchers

AP – 38	Manage vendor vouchers lot
AP – 39	Avoid vendor receipt voucher
AP – 40	Register avoiding voucher reason
AP – 41	Build vendor letters template
AP – 42	Print out vendor letter and keep history of it
AP – 43	Reset clearing transactions

Asset Management and Depreciation:

Asset Management supports the following functionalities	
Code	Functionalities Description
AM-01	Create +Asset master record
AM-02	Create simple asset of complex asset
AM-03	Identify each asset by unique number
AM-04	Enter asset responsible employee
AM-05	Enter the origin of the asset
AM-06	Enter asset address
AM-07	Enter asset structure
AM-08	Enter asset location
AM-09	Enter asset notes and memo
AM-10	Maintain Asset data
AM-11	Display asset data
AM-12	Delete asset data
AM-13	Enter asset description and asset type
AM-14	Acquisition date, cost and AP reference
AM-15	Depreciation expense account
AM-16	Enter depreciation method
AM-17	Track assets by number, description, type, location
AM-18	Depreciation balance, depreciation methods
AM-19	Provide depreciation calculation results for current and future year
AM-20	Asset transactions
AM-21	Current costs
AM-22	Transaction reports: period additions, transfers, disposals, depreciation--asset/type/department
AM-23	Asset depreciation
AM-24	Depreciation method (the system includes a multiple method of depreciation calculation)
AM-25	Explore all company assets (the exploration means for the users that the possibility to have access to all asset through a unique form – screen)
AM-26	Explore all company asset capital
AM-27	Enter asset transaction
AM-28	Display asset transaction
AM-29	Maintain asset transaction
AM-30	Post asset transaction
AM-31	Connect asset master data with general ledger
AM-32	Calculate and post depreciation

Cash Management :

Cash Management supports the following functionalities	
Code	Functionalities Description
CM -01	Calculation of expected cash resources (sales, AR, field service, miscellaneous cash)

CM -02	Calculation of expected cash uses (purchasing, AP, miscellaneous cash)
CM -03	Forecast effects of cash resources and uses on cash availability
CM -04	Expected pay date maintenance
CM -05	Cash projection reporting
CM -06	Printing of statement of account

Banks:

Bank Management Supports the following functionalities	
Code	Functionalities Description
BM-01	Create bank master record
BM-02	Create bank address and common information
BM-03	Display bank data
BM-04	Maintain bank data
BM-05	Delete bank data
BM-06	List of banks grouped by country
BM-07	Create house bank
BM-08	Attach housing bank with general ledger accounting
BM-09	Maintain housing bank data
BM-10	Display housing bank data
BM-11	Delete housing bank data
BM-12	Check bank balance
BM-13	Check bank line items
BM-14	Check open, close, other line items
BM-15	Enter bank transactions
BM-16	Check status of bank transactions
BM-17	Define Bank Deposit Vouchers Lot
BM-18	Define bank withdraw voucher lot
BM-19	Create bank deposit voucher
BM-20	Create bank withdraw voucher
BM-21	Post bank deposit voucher
BM-22	Post bank withdraw voucher
BM-23	Print list of deposit vouchers
BM-24	Print list of withdraw vouchers
BM-25	Deposit PDC checks
BM-26	Bank Reconciliation management
BM-27	Enter bank statement
BM-28	Maintain bank statement
BM-29	Display bank statement
BM-30	Bank statement management
BM-31	Post reconciliation statement
BM-32	Statement reconciliation overview

Cost Center:

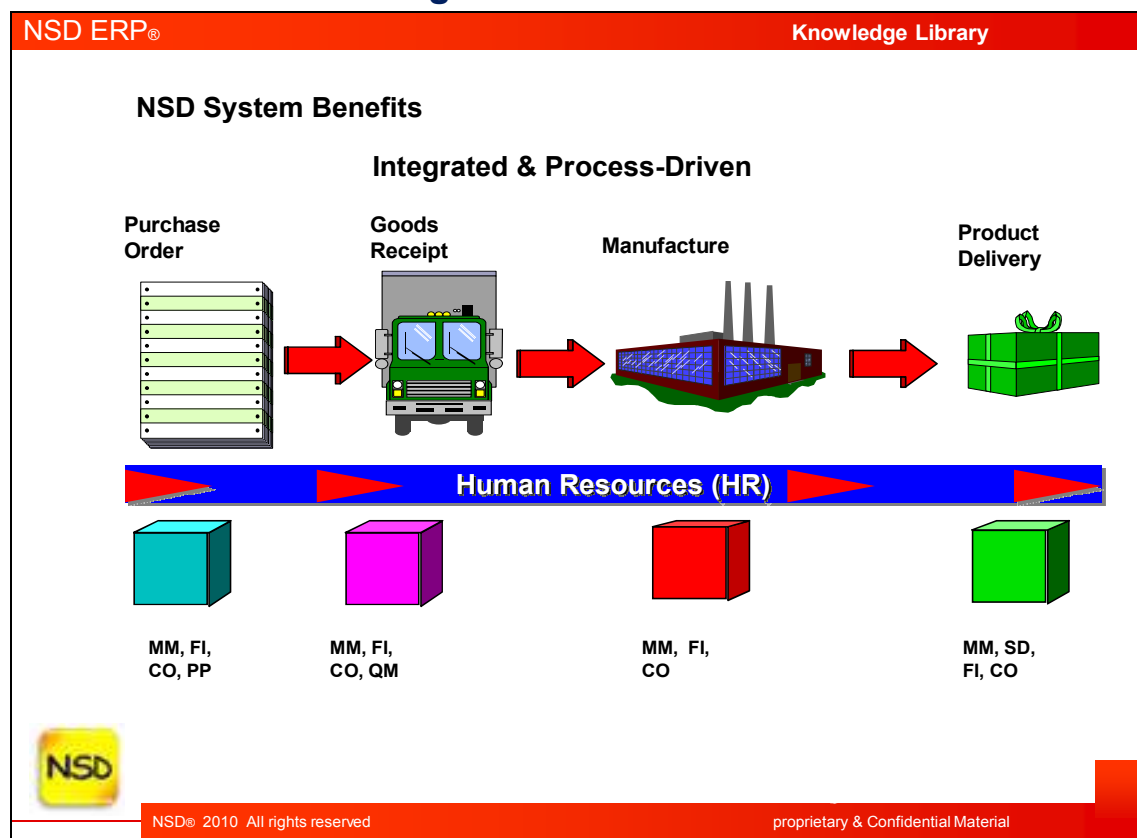
Cost Center Management supports the following functionalities	
Code	Functionalities Description
CC -01	Create cost center group
CC -02	Maintain cost center group
CC -03	Display cost center group
CC -04	Delete cost center group
CC -05	Create cost center activity type

CC -06	Maintain cost center activity type
CC -07	Display cost center activity type
CC -08	Delete cost center activity type
CC -09	Create cost center statistical key figures
CC -10	Maintain cost center statistical key figures
CC -11	Display cost center statistical key figures
CC -12	Delete cost center statistical key figures
CC -13	Create cost center master data
CC -14	Maintain cost center master data
CC -15	Display cost center master data
CC -16	Delete cost center master data
CC -17	Check cost center balance
CC -18	Check cost center line items
CC -19	List cost center transactions
CC -20	Integrate cost centers structure with general ledger

Profit Center:

Profit Center Management supports the following functionalities	
Code	Functionality Description
PC - 01	Create profit center master record
PC - 02	Display profit center master record
PC - 03	Maintain profit center master record
PC - 04	Delete profit center master record

NSD ERP SYSTEM – Logistics Module



Computer support of the organization and management of materials and warehouses has become imperative for efficient and effective processing of logistic requirements within a company.

The Logistics Application concerns the full materials cycle from procurement to sales.

This application is based on the material master who contains information on all the materials that a company procures or produces, stores, and sells. It is the company's central source for retrieving material-specific data. This information is stored in individual material master records.

The material master is used by all components in the NSD Logistics System. The integration of all material data in a single database object eliminates redundant data storage. In the NSD Logistics System, the data contained in the material master is required, for example, for the following functions:

- In purchasing or ordering
- In Inventory Management for goods movement postings and physical inventory
- In Invoice Verification for posting invoices
- In Sales and Distribution for sales order processing
- In Production Planning and Control for material requirements planning, scheduling, and work scheduling

Also,

The material master has a hierarchical structure resembling the organizational structure of a company. Some material data is valid at all organizational levels, while other data is valid only at certain levels. The organizational units (Corporate Structure) are as follows:

- Company code
- Plant
- Storage location
- Purchasing organization
- Sales organization
- Warehouse number
- Storage type

Storage Location

An organizational unit allowing the differentiation of material stocks within a plant. All data referring to a particular storage location is stored at storage location level. This applies mainly to storage location stocks.

Warehouse Number

An alphanumeric key defining a complex warehousing system and consisting of different organizational and technical units (storage areas). All materials data specific to warehouse management and relating to a particular warehouse number are stored at warehouse number level. This includes, for example, data on palletizing, stock placement, and stock removal.

Storage Type

A physical or logical storage area that can be defined for a warehouse. It consists of one or more storage bins.

Storage types differ according to organizational and technical criteria. The following are typical examples of storage types that can be defined using the WM system:

- Goods receipt area
- Goods issue area

- Picking area
- High rack storage area

All material data specific to warehouse management and relating to a particular storage type is stored at storage type level. This includes, for example, fixed storage bins as well as maximum and minimum storage bin quantities.

In NSD ERP System, the Logistics application has and is composed by the below sub modules:

- Procurement
- Purchasing
- Warehousing
- Inventory

LO - Procurement

The typical procurement cycle for a material consists of the following steps:

- Determination of requirements;
- Source determination;
- Vendor Selection and Comparison of Quotations;
- Purchase Order Processing;
- Purchase Order Follow-Up;
- Goods Receiving;
- Invoice Verification.

Purpose

External procurement in the MM System centers on a general cycle of activities.

Process Flow

The typical procurement cycle for a service or material consists of the following phases:

1. Determination of Requirements

Materials requirements are identified either in the user departments or via materials planning and control. (This can cover both MRP proper and the demand-based approach to inventory control. The regular checking of stock levels of materials defined by master records, use of the order-point method, and forecasting on the basis of past usage are important aspects of the latter.) You can enter purchase requisitions yourself, or they can be generated automatically by the materials planning and control system.

2. Source Determination

The Purchasing component helps you identify potential sources of supply based on past orders and existing longer-term purchase agreements.

3. Vendor Selection and Comparison of Quotations

The system is capable of simulating pricing scenarios, allowing you to compare a number of different quotations. Rejection letters can be sent automatically.

4. Purchase Order Processing

The Purchasing system adopts information from the requisition and the quotation to help you create a purchase order. As with purchase requisitions, you can generate PO's yourself or have the system generate them automatically. Vendor scheduling agreements and contracts (in the NSD System, types of longer-term purchase agreement) are also supported.

5. Purchase Order Follow-Up

The system checks the reminder periods you have specified and - if necessary - automatically prints reminders or expeditors at the predefined intervals. It also provides you with an up-to-date status of all purchase requisitions, quotations, and purchase orders.

6. Goods Receiving and Inventory Management

Goods receiving personnel can confirm the receipt of goods simply by entering the PO number. By specifying permissible tolerances, buyers can limit over- and under deliveries of ordered goods.

7. Invoice Verification

The system supports the checking and matching of invoices. The accounts payable clerk is notified of quantity and price variances because the system has access to PO and goods receipt data. This speeds up the process of auditing and clearing invoices for payment.

LO - Purchasing

Purpose

The NSD System consists of a number of components that are completely integrated with one another. This integration allows the various departments and units of an enterprise to share and maintain the same information.

Purchasing is a component of Materials Management (MM). The Materials Management (MM) module is fully integrated with the other modules of the NSD System. It supports all the phases of materials management: materials planning and control, purchasing, goods receiving, inventory management, and invoice verification.

The tasks of the MM Purchasing component are as follows:

- External procurement of materials and services
- Determination of possible sources of supply for a requirement identified by the materials planning and control system or arising directly within a user department
- Monitoring of deliveries from and payments to vendors

Good communication between all participants in the procurement process is necessary for Purchasing to function smoothly.

LO - Warehousing

The NSD Warehouse Management (WM) system provides the flexible, efficient, automated support that enables you to:

- 1- Manage highly complex warehouse structures and several different types of warehousing facilities including automatic warehouses, custom-designed storage areas, high rack storage, block storage, fixed bin storage and all other commonly used storage areas.
- 2- Define and adapt a variety of storage bins for use in your specific warehousing complex.
- 3- Process all relevant warehousing activities and movement tasks, such as good receipts, goods issues, internal and external stock transfers, automatic replenishment of fixed bins, material staging to production areas and stock difference handling.
- 4- Utilize random slotting for multiple owners of goods, display summary evaluations of all goods movements in the warehouse, implement a variety of readily available put-away and picking strategies including self-designed strategies.

5- Support the storage and retrieval of hazardous materials and all other goods that require special handling, maintain up-to-the-minute inventory records at the storage bin level using real-time continuous inventory techniques.

6- Support the use of automated barcode scanners for all stock movements, interface to external non-NSD warehousing systems, fully integrate your Warehouse Management system for instantaneous interaction with other NSD components to include Materials Management (MM), Inventory Management (IM) and Sales and Distribution (SD).

7- In addition to supporting the design of all typical storage areas, the WM system provides an automated support for several advanced warehousing techniques, such as the analysis of requirements and automatic assignment of goods to optimum locations in the warehouse using put away strategies that can be easily defined to match the characteristics of each storage area the configuration of areas for backorder staging and cross-docking of received goods.

8- The WM system supports the processing of all relevant movements, including goods receipts and goods issues initiated by the Inventory Management (IM) system, deliveries from the Sales and Distribution (SD) system, as well as movements that take place within the warehouse, such as internal stock transfers.

9- With its inventory functions, the WM system ensures that book inventories in the Inventory Management system match the stock in the warehouse, at any time. Because NSD components are fully integrated, you do not need separate interface programs between the Inventory Management system and the Warehouse Management system.

10- The MM application supports the procurement and inventory functions occurring in day-to-day business operations and the Warehouses and Storage Management.

LO - Inventory

Inventory Management is part of the Materials Management module and is fully integrated in the entire logistics system:

Material is procured from external or internal sources on the basis of the requirements determined by Material Requirements Planning. The delivery is entered in Inventory Management as a goods receipt. The material is stored (and managed under Inventory Management) until it is delivered to customers (Sales & Distribution), or is used for internal purposes (for example, for production). During all transactions, Inventory Management accesses both master data (such as material master data) and transaction data (such as purchasing documents) shared by all Logistics components.

Goods Receipt: You use this component to post the receipt of goods from an external vendor or from production. A goods receipt leads to an increase in warehouse stock.

Goods Issue: Using this component, you can post a material withdrawal, a material issue, or a shipment of goods to a customer (without the involvement of the SD Shipping component). A goods issue leads to a reduction in warehouse stock.

Transfer Stock

You can use this component to remove materials from storage in one storage location and place them in another storage location. Stock transfers can occur either within one plant or between two plants or company codes.

Materials Reservation

With this component, you make a request to the warehouse to keep materials ready for withdrawal at a later date and for a certain purpose. This simplifies and accelerates the goods receipt process.

A reservation for goods issue can be requested by various departments for various account assignment objects (such as cost center, order, asset, etc.).

Stock Determination - Check Stock at any time

Stock determination enables you to implement various strategies to withdraw material for goods issues and stock transfers. You configure these strategies in Customizing. Based on the material requirements entered, the NSD ERP system determines how and when the material should be withdrawn, and from which storage locations and stocks.

When planning your materials requirements, it is not always important that you define the stocks and storage locations from which the materials are later to be withdrawn. Automatic stock determination takes care of this decision for you, thus preventing you from defining these parameters too early and restricting your business processes unnecessarily. The NSD ERP system does not determine the values you require until the goods movement is posted.

Based on the stock determination strategy you predefine, the system makes decisions on material withdrawal depending on the material, plant, and the business process.

NSD ERP SYSTEM / Logistic (Procurement, inventory) Module Functionalities

Material Data:

Material Master Data supports the following functionalities	
Code	Functionalities Description
MM - 01	Define , maintain and display the materials hierarchy
MM - 02	List all materials related with one hierarchy
MM - 03	Ability to Define , maintain and display the hazardous indicator for the materials
MM - 04	List all Hazardous materials that available in the system
MM - 05	Define new materials
MM - 06	Block material for procurement
MM - 07	Group materials under (material category ,subcategory , group ,subgroup , type and subtype)
MM - 08	Search material master data with easy method (by structure, name, description and more ...)
MM - 09	Enter material manufacture , part number, country of origin , photos, minimum purchase order quantity , maximum purchase order quantity, notes and more ...
MM - 10	Change material master data status (active, hold, blocked)
MM - 11	Register materials properties

Vendors Management:

Vendors Data management supports the following functionalities	
Code	Functionalities Description
MM - 01	Define , maintain and display the vendors hierarchy
MM - 02	List all vendors related with one hierarchy
MM - 03	Register vendor applicant
MM - 04	Send vendor applicant request to the manager
MM - 05	Register vendor applicant as regular vendor
MM - 06	Create new vendor master data, maintain and display
MM - 07	Block vendor account
MM - 08	Group vendors master data by structure(vendor group ,subgroup , type and subtype)
MM - 09	Link vendors with materials data

MM - 10	Enter vendors legal documents with expiration data and display alert for the vendor admin when the document reach to critical date
MM - 11	Link vendor with G/L reconciliation account
MM - 12	Enter comments , notes , scanning document and address for the vendors
MM - 13	Enter vendor violations
MM - 14	Evaluation vendors
MM - 15	List vendors address
MM – 16	List vendors communication information
MM – 17	List vendors by structure

Purchasing Management:

Purchasing management supports the following functionalities	
Code	Functionalities Description
PR - 01	Ability to create material requisition and submit to purchasing department
PR - 02	ability to release material requisition by manager
PR - 03	Create request for quotation with reference to material requisition
PR - 04	Create request for quotation without reference
PR - 05	Automatically select the vendors and generate the request for quotations
PR - 06	Monitoring the request for quotation status (closed, pending and open)
PR - 07	Enter vendors quotations
PR - 08	Compare between vendors quotations and select best supplier
PR - 09	Enter the vendor reject reason for the request for quotation
PR - 10	Create purchase order with reference to vendor quotation
PR - 11	Create purchase order directly without reference to vendor quotation
PR - 12	Ability to cancel the purchase order
PR - 13	Monitoring the purchase order status
PR - 14	Display the status of the delivery of the materials in the warehouse
PR - 15	Design and print the purchase order
PR – 16	Design and print the request for quotation
PR – 17	Ability to send purchase order directly through email
PR – 18	Ability to Send request for quotation directly through email

Inventory Management:

Inventory management supports the following functionalities	
Code	Functionalities Description
IM - 01	Ability to enter stock beginning inventory
IM - 02	Ability to receive free materials , free samples ...
IM - 03	Receive materials from the vendors with references to purchase order
IM - 04	Receive materials from the vendors without reference
IM - 05	Receive materials from products exhibitions
IM - 06	Receive materials from training session (return materials)
IM - 07	Goods issue to customer
IM - 08	Goods issue to consumption (for department , cost center and more ...)
IM - 09	Goods return to the vendors
IM - 10	Goods issue to the training session
IM - 11	Goods issue to the products exhibitions
IM - 12	Transfer stock between warehouses
IM - 13	Transfer stock internally in the warehouse (from block stock, to normal stock and more ...)
IM - 14	Destroy Defect materials
IM - 15	Assemble material in the warehouse
IM – 16	Disassemble a material in the warehouse

IM – 17	Monitor minimum , maximum stock and alert the admin
IM – 18	List stock in the warehouse
IM – 19	Check material stock in the warehouse
IM – 20	Check material stock in all warehouse
IM – 21	Ability to manage many warehouses
IM – 22	Enter physical inventory and adjust the difference
IM – 23	Monitor the stock average cost

Products Exhibitions:

Inventory management supports the following functionalities	
Code	Functionalities Description
EX - 01	Release new exhibition and enter the location, address , start date ,end date
EX - 02	Ability to enter exhibition budget
EX - 03	Ability to issue materials from the warehouses to the exhibition
EX - 04	Ability to return the materials from the exhibition to the warehouses
EX - 05	Close the exhibition
EX - 06	Enter exhibition sales
EX - 07	Compare the cost and the sales of the exhibition
EX - 08	Monitor the cost of the materials that issue to the exhibition
EX - 09	List all exhibitions
EX - 10	List exhibitions by budget and real cost

NSD ERP SYSTEM – Sales & Distribution Module

Sales processing is based on the following basic structures:

- Every company is structured in a certain way. In order to work with the NSD System your company structure has to be represented in the system. This is done with the help of various organizational structures.
- In sales and distribution, products are sold or sent to business partners as well as services performed for them. Data about the products and services as well as about the business partners is the basis for sales processing. A sales processing with the NSD System requires that the master data has been stored in the system.

In addition to sales and distribution, other departments of the company such as accounting or materials management access the master data. The material master data is stored in a specific structure in order to allow access from these different views.

- The processing of business transactions in sales and distribution is based on the master data. In the NSD System, business transactions are stored in the form of documents. These sales and distribution documents are structured according to certain criteria so that all necessary information in the document is stored in a systematic way.

The SD application helps optimize all the tasks and activities carried out in sales, delivery, and billing.....

The Sales procedure is constituted by the below steps:

1. Inventory Sourcing
2. Delivery
3. Billing
4. Payment

SD - Inventory Sourcing

- There are two categories of pre-sales activity: Sales Support and Pre-sales Documents.
- Sales Support allows tracking of customer contacts by including sales visits, phone calls, letters and direct mailings. Mailing lists can be generated based on specific customer characteristics. Basically an Integrated CRM system.
- Pre-sales contracts include inquiries and quotes.

Inquiries document customer requests for information (“how much is . . .”, “is the product in stock . . .”)

Quotes are binding documents to a customer offering a specific quantity of material at a specific price if accepted within a specific period.

Both Inquiries and Quotes can be used as a starting point to create a customer order.

- Customers place orders with a customer service representative who creates a document with information about:
 - Customer
 - Material Ordered - material and quantity
 - Pricing conditions for each item
 - Schedule lines - delivery dates and quantities
 - Delivery Information
 - Billing information
- Information is pulled from master data on customers and materials to minimize data entry errors.
- Inventory Sourcing determines:
 - If a product is available (availability check).
 - How the product will be supplied:
 - From stock on hand.
 - From production or purchase orders that should be available.
 - From make-to-order production.
 - Shipped from an external supplier.
 - Shipped from another plant or warehouse.
- Inventory sourcing occurs when:
 - An order is created.
 - An order is changed.
 - When the delivery document is created.

SD - Delivery

- Delivery activities include:
 - Creating delivery documents
 - Creating transfer orders for material picking
 - Provide packing information (if required)
 - Goods issue (updating accounting and inventory data)

SD - Billing

- A Billing Document is created by copying information for the sales order and delivery document into the billing document which is used to create the invoice.
- Creating a Billing Document will automatically debit the customer's accounts receivable account and credits the revenue account. Postings may also be made to other accounts.

SD - Payment

- Payment is the final step in the customer order management cycle.
- Final payment includes:

- Posting payments against invoices.
 - Reconciling differences, if necessary.
- The Cycle may not always go as planned (material not in stock, defective material returned for credit, etc.). NSD has procedures to deal with these possibilities.

NSD ERP SYSTEM / Sales & Distribution Module Functionalities

Sales & Distribution supports the following functionalities	
Code	Functionalities Description
SD – 01	Enter material pricing list by customer price list type
SD – 02	Enter material pricing list by Customer
SD – 03	Enter material pricing list as general list
SD – 04	Create customer sales inquiry
SD – 05	Maintain, display customer sales inquiry
SD – 06	Reject customer sales inquiry and register the reason
SD – 07	Create, maintain and display customer quotation
SD – 08	Create customers quotation with reference to customer inquiry
SD – 09	Reject customers sales quotation and register the reason of reject
SD – 10	Monitoring customers sales inquiry status
SD – 11	Monitoring customers sales quotations status
SD – 12	Create customers sales orders
SD – 13	Create customer sales orders with reference to quotation
SD – 14	Monitoring customer sales orders
SD – 15	Post customers sales orders
SD – 16	Create delivery notes
SD – 17	Monitoring delivery notes status
SD – 18	Create customers sales invoices manually
SD – 19	Create customers sales invoices with reference to delivery note
SD – 20	Create customers sales invoices with reference to sales order
SD – 21	Monitoring the sales invoice
SD – 22	Post sales invoices to FI Department
SD – 23	Create Customers return orders
SD – 24	Monitoring customers return orders
SD – 25	Create customers memo with reference to return orders
SD – 26	Post customers memos to FI
SD – 27	Create customer pro forma invoices with reference to delivery note
SD – 28	Create customer pro forma invoices with reference to sales order
SD – 29	Create stores sales invoices
SD – 30	Post stores sales invoices
SD – 31	Create stores sales return
SD – 32	Post stores sales return
SD – 33	Create store purchase invoices
SD – 34	Create stores purchase returns
SD – 35	Post stores purchase invoice
SD – 36	Post stores purchase returns
SD – 37	Point of sales management
SD – 38	Create payment vouchers
SD – 39	Create receipt vouchers
SD – 40	Post payment vouchers
SD – 41	Post receipt vouchers

Customer Relationship Management (CRM)

The client is generally the main source of income for enterprises. However, as business is changing, in particular as a result of the integration of new technologies in client-enterprise relations, competition is becoming increasingly stiffer, and clients may therefore choose their suppliers or change them with a simple click. Client's criteria of choice are, in particular, financial criteria, responsiveness of the enterprise, but also purely affective criteria (need for recognition, need to be heard, etc.) In an increasingly competitive world, enterprises who wish to increase their profits therefore have several alternatives:

- Increase the margin for each client,
- Increase the number of clients,
- Increase the life cycle of the client, i.e. increase client loyalty.

New technologies allow enterprises to better know their clientele and to gain their loyalty by using pertinent information in such a manner as to better gauge their needs and therefore better respond to them.

It has been found that turning a client into a loyal client costs five times less than recruiting new clients. For that reason, a large number of enterprises design their strategy around services proposed to their clients.

What is CRM?

CRM (Customer Relationship Management) intends to provide technological solutions which make it possible to strengthen the communication between the company and its clients in order to improve the relationship with the clientele through automatization of the different components of the client relationship:

Pre-sales: Refers to marketing, consisting in studying the market, i.e. the needs of clients and identifying prospects. Analyzing the client information collected allow the enterprise to revise its product selection to more closely match expectations. *Enterprise Marketing Automation (EMA)* consists in automating marketing campaigns.

Sales: Sales forces automation (**SFA**), consists in providing piloting tools to businesses to assist them in their prospecting measures (contact management, sales meeting management, re-launch management, but also assistance with the preparation of business proposals, etc).

Client service management: clients loved to feel known to and acknowledged by the enterprise and cannot stand having to recount, upon every contact, the history of its relationship with the enterprise.

After-sales, consisting in providing assistance to the client, in particular through the implementation of call centers (also *Help Desk* or *Hot-Line*) and the online provision of technical support information.

The purpose of CRM is improved proximity to clients to respond to their needs and turn them into loyal customers. A CRM project therefore includes providing each sector of the company with access to the information system to get to know the client better and provide him with products and services which meet his expectations in the best possible way.

Integration of CRM in the company

Implementation of CRM solutions in an enterprise not only consists in ad-hoc installation of software, but rather in modifying the organization of the enterprise as a whole, which involves the necessary implementation of a behavioral change project. As a matter of fact, implementation of a CRM strategy requires structural, competitive, and behavioral changes.

Call centers (Help Desk/Hot Line)

Introduction to call centers

The term **Call center** refers to a platform, either hosted by the company or outsourced, that is in charge of assisting users.

Call centers make it possible to assist clients within the scope of after-sales service (ASS), technical support, telesales or staff of an enterprise within the scope of the use of a tool or with their daily tasks. In the case of a call center dedicated to providing technical support, the term **Support center** (in English **Help Desk** or **Hot Line**) is generally used.

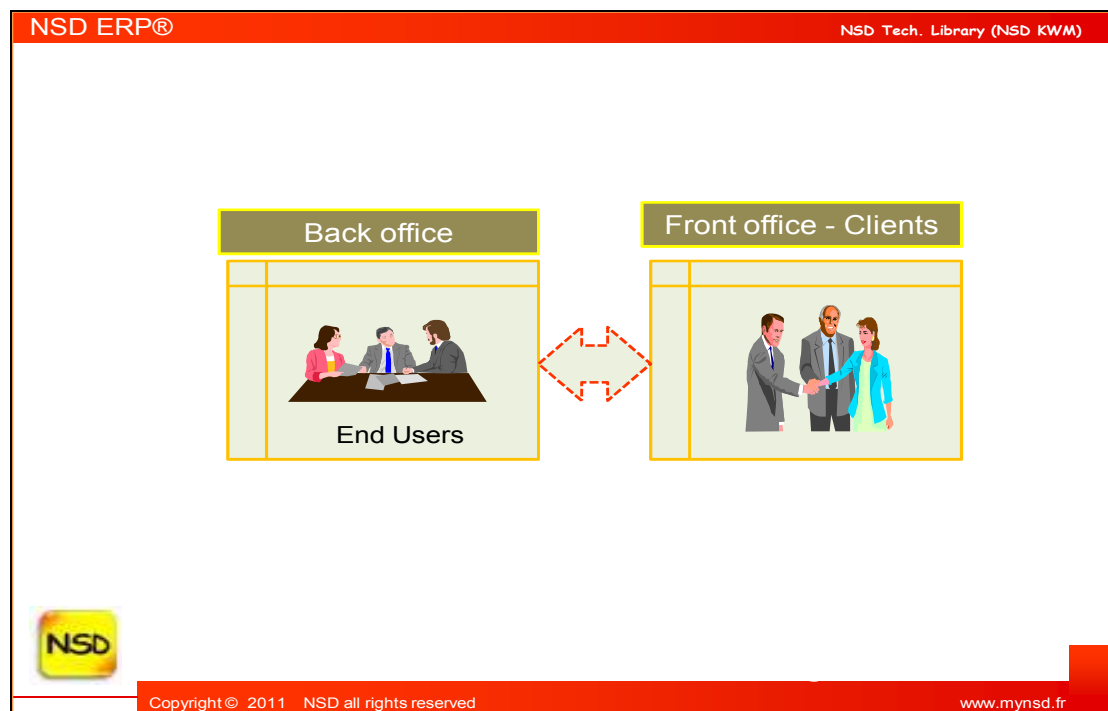
Functioning of a call center

A call center is, first and foremost, a human organization in charge of responding to user questions. Most of the time, the privileged channel is the telephone, but assistance via the Internet through groupware applications is also possible. Certain devices feature a so-called "Web Call Back" (or "Call Through") tool, which allows the user to be called back by the company through simple capture of the phone number and clicking on the capture button.

At first, operators are responsible for identifying the parties on the line. *Computer telephony integration* (acronym **CTI**) are increasingly used to link the phone system of the enterprise to its information system and allow the operators automatic access to files regarding the clients based on the calling number.

As soon as the user has been identified and its identity verified through a number of questions (client number, address, phone number, etc), the operator opens an **incident ticket** and can access the record via the Help Desk software interface. The client record contains the history of the clients calls and all measures that have already been undertaken, to prevent diagnosis from scratch. Opening an incident tick starts a timer, and the operator must therefore provide the user with an answer within the shortest time possible.

To help with this task, a knowledge base, using the user's most frequently asked questions, allows the operator to ask "good questions", diagnose the problem and, as much as this is possible, find a solution. The term **CBR** (*Case-Based Reasoning*) is used to describe the process which makes it possible to find a solution through successive questions/answers.



Whenever the first level of operators (called *Front-Line*) is unable to provide an answer to the inquirer, the record is forwarded to level 2 operators, who are more specialized and therefore

more costly for the enterprise. The mechanism which involves forwarding the record to a higher level is called **call escalation**.

In rare cases where it is found that the problem depends on a third-party editor, the problem can be directly forwarded to the support center of the editor.

NSD ERP SYSTEM – Project Management Module

Definition:

The Project Management Application (PM) is an integrated application and essential part of the NSD ERP SYSTEM. It concerns the management of all steps of a project from the pre-sales phase, Inquiry and Study up to Realization and Delivery. It is designed to support the planning, control and monitoring of long-term, highly complex projects with defined goals.

PM - Project Templates

NSD ERP SYSTEM – PM Application, allows you to create some project templates used frequently by your staff and project management.

The role of these templates is to help you gain time and especially decentralize and publish the templates and projects structures to all of your project managers.

PM - Project Analysis

The financial study of any project is of two majors fees:

- 1- Outcome fees
- 2- Income fees

The Income fee minus the Outcome fees is the result of your project from a financial point of view. That is why; you need to be sure that your system has the capability and functionalities to calculate for you the right costs. NSD ERP SYSTEM – PM application assures a detailed and clear cost calculation in two ways; through simulation and production. This calculation includes all phases and tasks of your project from the pre-sales phase to the delivery and maintenance contract.

Notice finally that the NSD System – PM application is a preferred application allowing you to win in terms of money and in terms of organization.

PM - Project Planning (Creation)

In NSD ERP SYSTEM, the creation of a new project requires defining your project by giving it a description and a definition and then you will be guided step by step by the system until the end of the creation procedure.

Knowing that the NSD ERP System is international and multi Companies solution, you can define all your business and activities cross wide.

From the first screen, you have the possibility to assign the company and the project type and especially that you can select a predefined project template or a standard system template, which can help you save time.

This part of project's study is to insert general information about the project, for example start date, finish date, income amount, location, project manager, level.....

Also this part gives the following:

- Possibility to plan and divide this project to realize it on multi-steps

- Possibility to choose the team who will work on the project according to the qualification of all employees and the requirement of the project
- Possibility to determine the number of equipment required to work on this project according to the productivity power of these equipments and limit time to realize this project
- Possibility to choose the suitable material required in this project according to the global standards to realize the project in high quality specifications
- Possibility to prepare the financial study including the income and outcome fees to get the real profit from this project
- Possibility to solve any problem occurred in any step and give the solution to avoid any possible delay

All this information can be maintained and displayed. You can open any project from a lot of your projects by searching according to the company, country, start and finish date, project type and status.

To realize any project, you have to define two resources: Human and Equipment. These two resources are assigned and listed for you by the system. Then you have to select the appropriate employee or equipment.

These equipments in fact are Assets for the company. This means that, the depreciation of your equipments is completely managed and all of the assets are also maintained on the Asset Management Application.

PM - Project Cost Planning

Preparing a new project necessitates defining and determining the cost of all elements of this project (task by task). The NSD Project Management Application allows you to determine the daily cost of these elements as the Human Resources and Equipments.

The financial study of any project is divided into two majors steps:

Human Resource Costs

This functionality of the NSD PM application allows you to have the costs (rates) of all persons assigned to your project, task by task.

Equipment Cost Sheet:

Same procedure as the Human Resource assignment, each equipment has daily cost to be used in a project. This cost is calculated based on many requirements of this equipment, for example fuel, oil, daily maintenance...

PM - Project Equipments

In this part we can define the assets which will be used in your project.

When you create a new equipment, you have to determine which company has to use this equipment to realize its projects and to which class it belongs to (for example: cars, cranes, winches.....).

When defined as Project's Equipment, these assets need some more information to be inserted:

- 1- General Information: this includes description of equipment, its inventory information, asset number, reason of investment, quantity...
- 2- Responsible (Employee) who is responsible of the equipment.
- 3- The controlling data which will include the number of accounts in accounting department and the cost center for this equipment.

- 4- Origin: includes information about the place of origin and brand specifications
- 5- Leasing: in case of buying the equipment by installment plan
- 6- Insurance: including information about the Insurance Type, Company, Rate, Value, Start and Finish date of the insurance Agreement
- 7- Asset Structure: define the Group and Sub-group, Type and Sub-type for the Asset for example: Heavy Equipment - Cranes – 500 Ton – Volvo
- 8- Depreciation Area: measure the yearly percentage for the depreciation of the equipment
- 9- Asset Address: display the area where the equipment has to find in case its not working
- 10- Asset Location: display the currently location for choice equipment in any project
- 11- Additional Data: including any customize inserting information

All of the above information concerning your equipments (asset) already exist of course in the Asset Management Application. Therefore, here in this step (as mentioned above) you have only to select the necessary information needed (or necessary) for your project.

All this information can be maintained or displayed through the above screen. You can have access to any equipment according to three parameters: company, asset class, and the required asset.

You can review also all equipments in the company using the Asset Explorer.

PM - Human Resources Assignment

In addition to the equipment resources and to realize any project, we need the human elements (persons), necessary to drive the equipment and to execute and control every step (tasks) of the project according to the planning. Concerning the assignment of the Human Resources, the definition of the tasks of your project and the qualifications of your staff assured you to have a detailed list of people having the capabilities to run your project. Of course, the system gives you the planning and occupation of the selected employees.

In this part, we can define all catalogs of the employees who will work on the project at required positions.

Resources Tree: based on the project tasks definition and the human resources assignment, the NSD system builds automatically the HR assignment tree showing the HR elements and its scores.

Tasks Catalog (Tree):

All positions required for any project have many tasks. To determine if an employee is suitable or not to work in this position, the system gives you the possibility to compare the qualifications of this employee with the position tasks.

Project Management:

NSD ERP System – Project Management Module Functionalities

Project Management supports the following functionalities	
Code	Functionalities Description
PM - 01	Define new project
PM - 02	Ability to enter project address , project manager and expected start and end date
PM - 03	Ability to define the project WEBS

PM - 04	Ability to define the networks of the WEBS
PM - 05	Define the network activities
PM - 06	Assign the employees with then project activities
PM - 07	Ability to assign equipments with the project activities
PM - 08	Ability to define new project equipments
PM - 09	Ability to create project template and save it for future projects
PM - 10	Issue materials from the warehouse to the project
PM - 11	Request materials from the warehouse
PM - 12	Monitor material requests status
PM - 13	Ability to group the projects in (project types and subtypes)
PM - 14	List all projects by structure and location
PM - 15	Monitoring the project process time
PM - 16	Create material purchase order with reference to the project
PM - 17	Enter project Budget & Expenditure
PM - 18	Project document management
PM - 19	List projects by status
PM - 20	Manage the project accounting
PM - 21	Close project

NSD ERP SYSTEM – Production Module

PRM - Materials Requirement Planning.

The main function of material requirements planning is to guarantee material availability, that is, it is used to procure or produce the requirement quantities on time.

PRM - Cost Estimation

It is used to specify the estimation cost for producing a material in house

PRM - Production Orders

You can use the production order to specify:

- What is to be produced
- When production is to take place
- Which capacity is to process the order
- How much production costs

PRM - BOM (Bill of Material)

A formally structured list of components that make up the raw materials, sub-assemblies, intermediate assemblies, sub-components, components, parts and the quantities of needed to manufacture a final product.

PRM - Production resources catalogue

It is include the information for the materials, equipments, documents that will be used by production process.

Supply Chain Management (SCM)

Introduction to the supply chain concept

In a production enterprise, the time required to complete a product is largely dependent on the supply of raw materials, assembly elements or single piece on all levels of the production chain. The term "supply chain" therefore refers to all links of the supply chain.

- Purchasing,
- Supply,
- Stock management,

- Transportation,
- Maintenance,

...

The term "supply chain" is comprehensive, i.e.. in particular within the enterprise, but also includes all suppliers and their subcontractors

What is SCM?

The term **SCM** (*Supply Chain Management*) refers to the tools and methods whose purpose is to improve and automate the supply through the reduction of stock and delivery times. The term "just-in-time" production characterizes the concept of minimizing stock throughout the entire production chain.

SCM tools are based on production capacity information that is present in the information system of the enterprise to automatically place orders. SCM tools are therefore strongly correlated with *Enterprise Resource Planning (ERP)* of the enterprise.

Ideally, a *SCM* tool makes it possible to track the passage of pieces (*traceability*) between les different parties of the supply chain.

NSD ERP SYSTEM / Production Management Module Functionalities

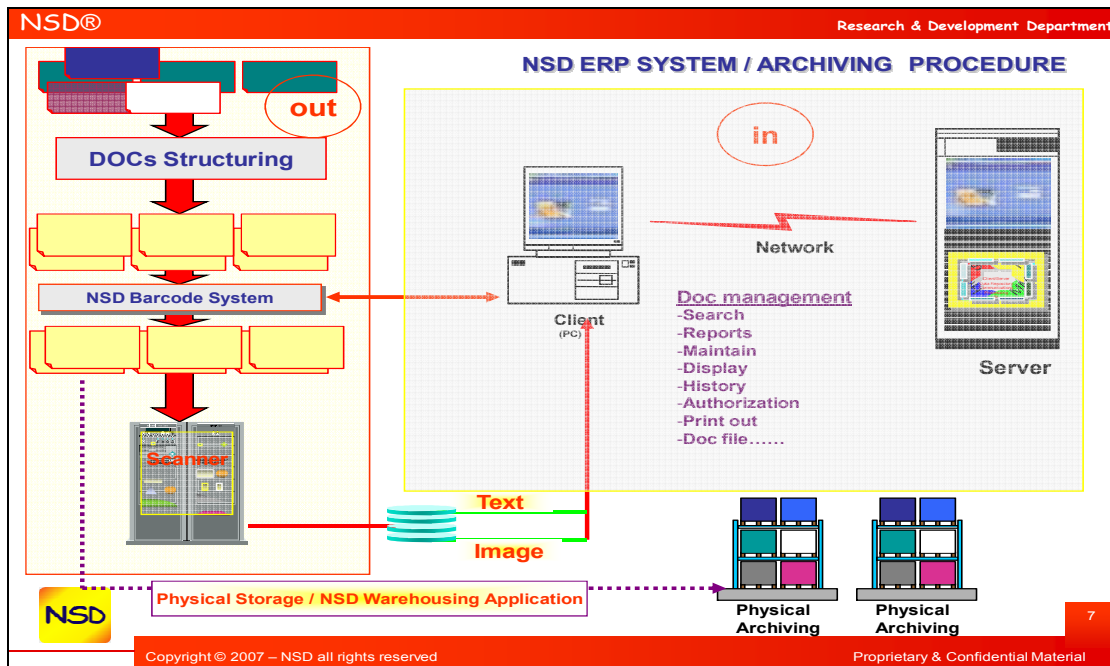
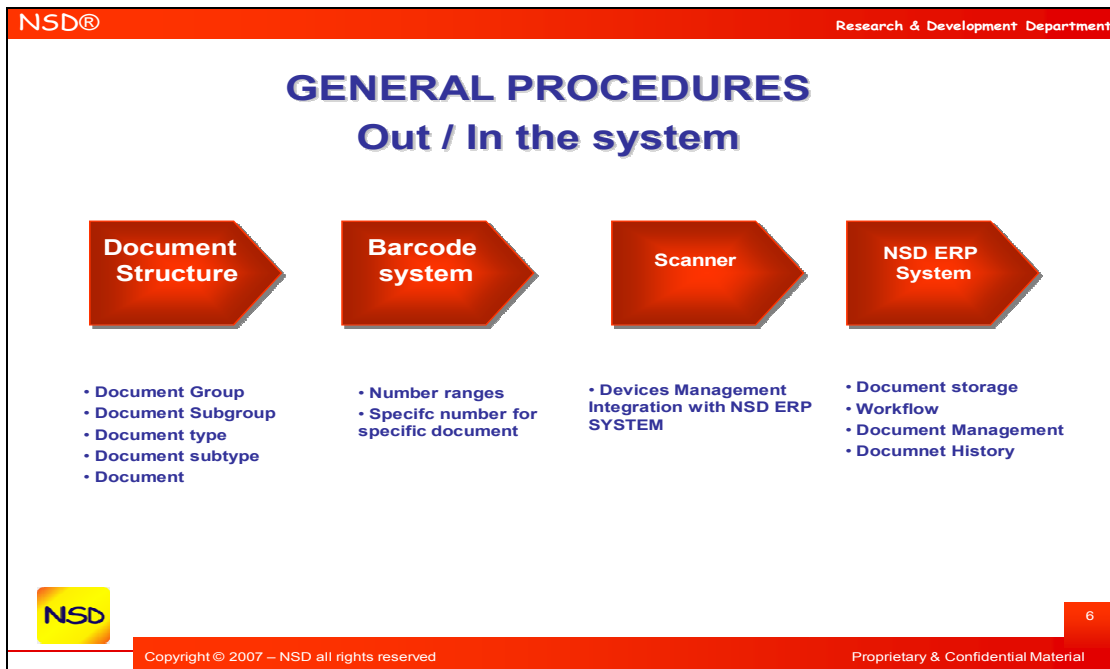
Production Management supports the following functionalities	
Code	Functionalities Description
PP - 01	Define materials that are produced in house
PP - 02	Create production order
PP - 03	Release production order
PP - 04	Close Production Order
PP - 05	Request raw materials for production orders
PP - 06	Issue final products from production orders to the warehouse
PP - 07	Return raw materials to the warehouse
PP - 08	Define production router path
PP - 09	Create production machines and tools
PP - 10	List all productions orders with the status (under processing , closing , pending ...)
PP - 11	Monitoring all raw material and final productions that issue for production order
PP - 12	Production work center planning
PP - 13	Manage production orders documents
PP - 14	Production orders analysis
PP - 15	Covert sales orders to production orders
PP - 16	Cost controlling
PP - 17	Orders analysis before releasing
PP - 18	Plant resources management

NSD ERP SYSTEM – Archiving Module

The Development methodology of NSD systems is based on structuring procedures, one of these is the document structure which allows you to manage any type of document whatever the number of your documents.

Once the document is entered in process cycle, you have all details about it as its storage (Physically and numeric), numbers, history, responsibility and status

In another terms, your document is stored in the NSD system but it is, all time, at your



DC - Activity OUT and Activity IN

Activity OUT, concerns all activities done before to scan your document and then send as image or text to NSD ERP.

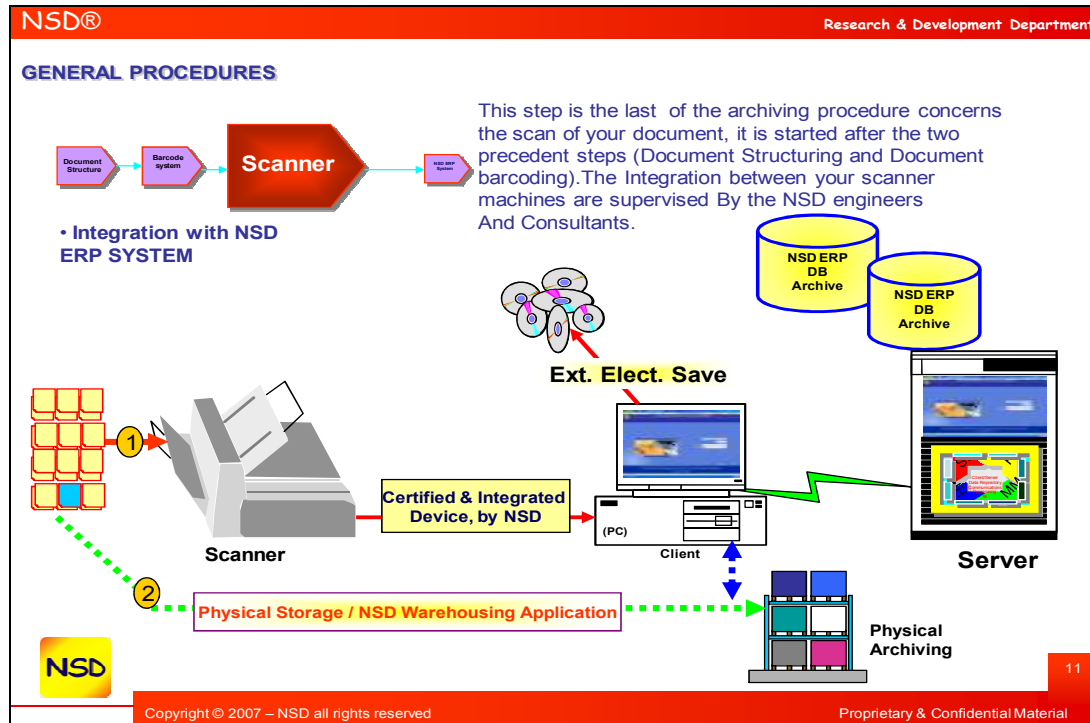
Activity IN is the procedure from the instant where your document has been scanned and transferred from Information (document) to DATA (information in the system).

DC- Documents barcode

The barcode system is a part of the global standard NSD ERP System, It is used to barcode any item or object in your company. The codification is highly flexible because it is linked to a customizing and Flexible number ranges, consequently, you can define what you need as a number ranges in accordance with your document structure.

DC- Documents Scanning

This step is the last of the archiving procedure concerns the scan of your document, it is started after the two precedent steps (Document Structuring and Document bar-coding). The Integration between your scanner machines are supervised By the NSD engineers And Consultants.



DC - Documents Management

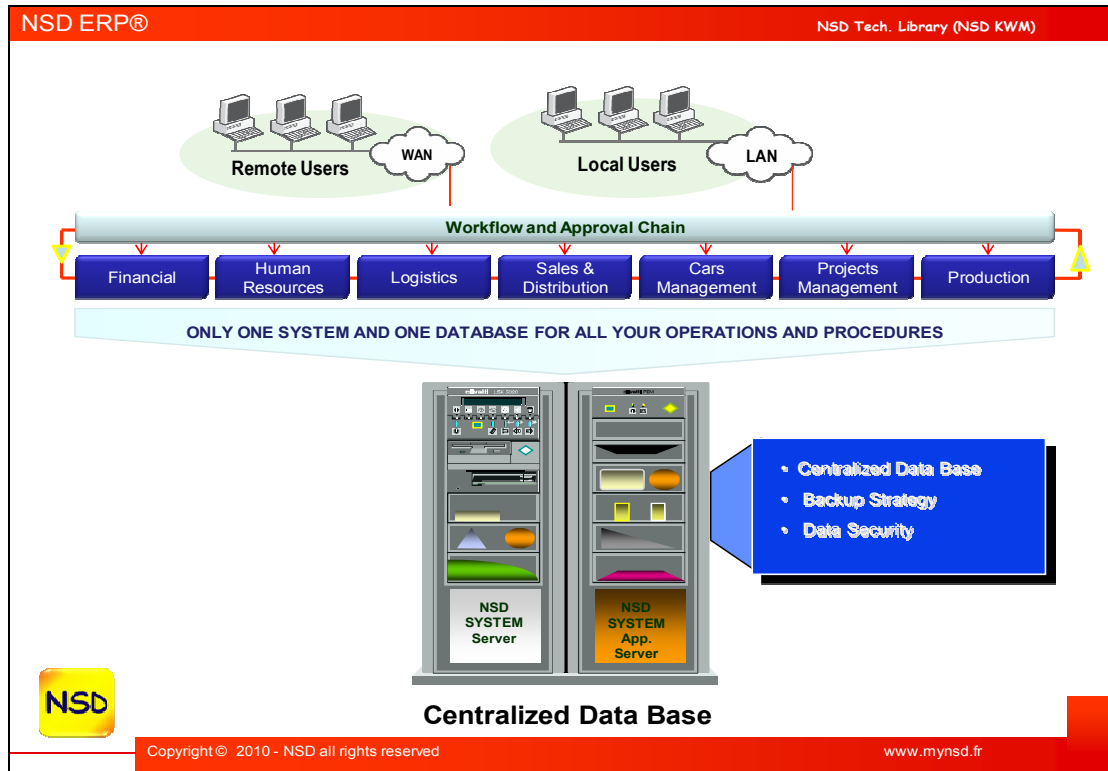
Once your document is scanned and entered on NSD System, you will be able to:

- Documents storage
- Workflow
- Documents Management
- Documents History

NSD ERP SYSTEM / Document management Module Functionalities

Document management supports the following functionalities	
Code	Functionalities Description
DC-01	Document Indexing Management
DC-02	Group the enterprise document by flexible structure (group , subgroup , type , subtype)
DC-03	Add new document to the system
DC-04	Enter document properties (size, dimension)
DC-05	Enter expiration date and admin for the documents
DC-06	Enter document physical location
DC-07	Attach files to scanning document (PD, Word, ...)
DC-08	Assign document with the approval chain for approval
DC-09	Each user in the approval chain can assign his sign to the document
DC-10	History for all previous documents
DC-11	Get chart of the documents by physical location
DC-12	List documents by status (approved, reject)
DC-13	Ability to download the documents and print it

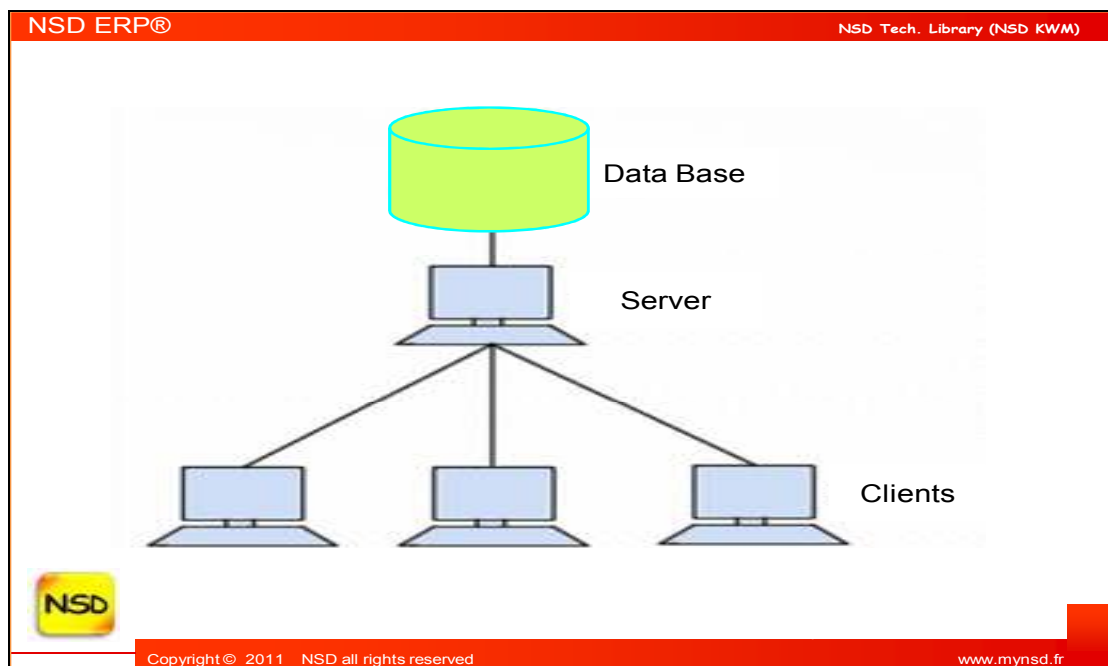
Technical Environment



Introduction - Databases

What is a database?

A database (abbreviated *DB*) is an entity in which data can be stored in a structured manner, with as little redundancy as possible. Different programs and different users must be able to use this data. Therefore, the concept of a database is generally linked to that of a network used for sharing this information, hence the term **base**. "Information system" is the general term used for the overarching structure which includes all data-sharing mechanisms that have been installed.



Why use a database?

A database gives users access to data, which they can view, enter, or update, within the limits of the access rights granted to them. Databases become all the more useful as the amount of data stored continues to grow.

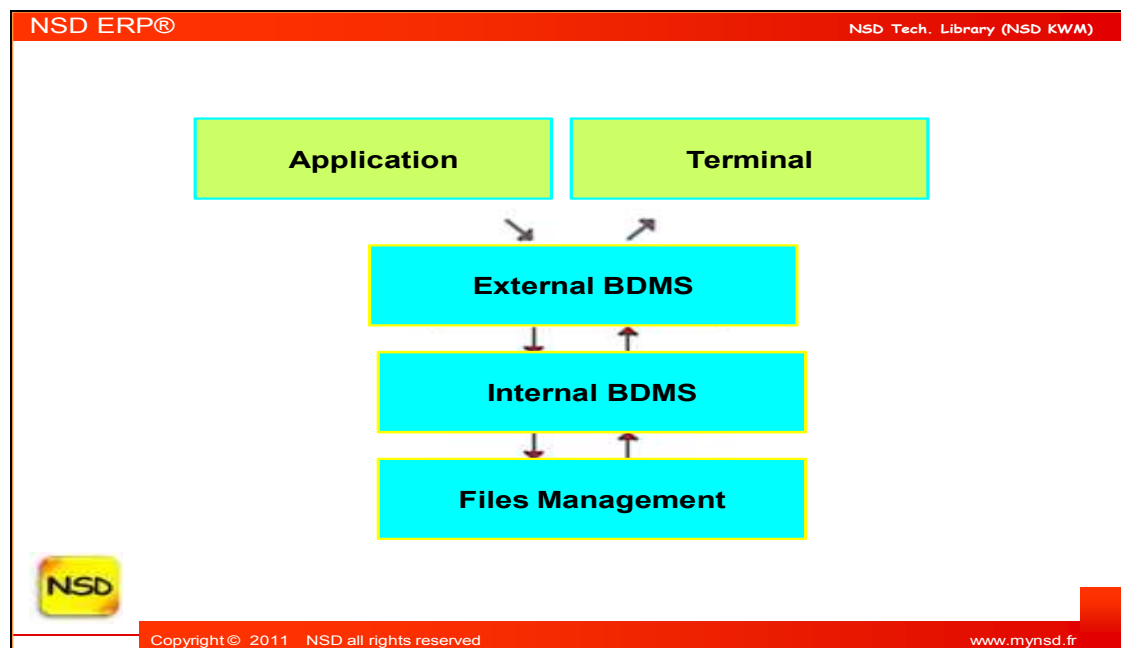
A database can be local, meaning that it can be used on one machine by one user only, or it can be distributed, meaning that the information is stored on remote machines and can be accessed over a network.

The primary advantage of using databases is that they can be accessed by multiple users at once.

Database management

Early on, the need for a management system in order to control both data and users quickly arose. Database management is done using a system called a **DBMS** (Database management system). The DBMS is a suite of services (software applications) for managing databases, which involves:

- Enabling simple access to data
- Allowing multiple users access to the information
- Manipulating the data found in the database (inserting, deleting, editing)



The DBMS can be broken down into three subsystems:

- The file management system: for storing information in a physical medium
- The internal DBMS: for placing information in order
- The external DBMS: represents the user interface

The main DBMSs

The main database management systems are:

Microsoft SQL server

Microsoft Access

Oracle

Sybase
 MySQL
 PostgreSQL
 mSQL
 SQL Server 11.....etc.

NSD ERP SYSTEM - Technical requirements

To install and run NSD ERP System, you should install and configure the below elements:

Oracle Database Standard Edition Named User
Oracle IAS Enterprise Edition Named User

And the Graphical User Interface (GUI), this part will be provided and installed by NSD, below you have the required hardware in order to run the NSD ERP GUI

The hardware specifications concerning the installation and the use of the above elements are:

Oracle Database 10g Installation Requirements

Requirement	Minimum Value
Physical memory (RAM)	4 GB minimum, 6 GB recommended
Virtual memory	Double the amount of RAM
Disk space	120 GB
Video adapter	256 colors
Processor	3.2 GHz minimum 32-bit (x86)
Operating System	Windows 2000 with service pack 1 or later. All editions, including Terminal Services and Microsoft Windows 2000 Multilanguage Edition (MLE), are supported. Windows Server 2003 - all editions Windows XP Professional Windows NT is not supported. Windows Multilingual User Interface Pack is supported on Windows Server 2003 and Windows XP Professional.
Network Protocol	TCP/IP TCP/IP with SSL Named Pipes
Others	DVD room
Database	Oracle Database 10 g License

Oracle Application Server Installation Requirements:

Requirement	Minimum Value
Physical memory (RAM)	4 GB minimum, 6 GB recommended
Virtual memory	Double the amount of RAM
Disk space	80 GB
Video adapter	256 colors
Processor	3.2 GHz minimum 32-bit (x86)

Operating System	Microsoft Windows 2000 with Service Pack 3 or above Microsoft Windows Server 2003 (32-bit) with Service Pack 1 or above Microsoft Windows Server 2003 Release 2
Network Protocol	TCP/IP TCP/IP with SSL Named Pipes
Host Name	Ensure that your hostnames are not longer than 255 characters.
File System Type	NTFS is recommended over FAT32 or FAT file system types because NTFS includes security features such as enforcing permission restrictions on files
Internet Browser	Microsoft Internet Explorer 6.0 SP2 (supported on Microsoft Windows only) Netscape 7.2 Mozilla 1.7. You can download Mozilla from http://www.mozilla.org . Firefox 1.0.4. You can download Firefox from http://www.mozilla.org .
Space in Temp Directory	512 M.B minimum
Others	DVD Room
Application Server	Oracle Application Server 10g License

NSD ERP System Graphical user interface (GUI) – Client:

Requirements	Minimum Value
Physical memory (RAM)	1 GB MB minimum, 2 GB recommended
Virtual memory	Double the amount of RAM
Disk space	2 GB
Video adapter	256 colors resolution 1024x768
Processor	2.4 GHz minimum
Operating System	Windows XP,Vista,2000 professional , Windows server 2003, windows server 2000
Internet Browser	Microsoft Internet Explorer 6.0 SP2 (supported on Microsoft Windows only) Netscape 7.2 Mozilla 1.7. You can download Mozilla from http://www.mozilla.org . Firefox 1.0.4. You can download Firefox from http://www.mozilla.org .
Network Protocol	TCP/IP TCP/IP with SSL Named Pipes

In addition of the above, you should install the below elements

- Need UPS 6000 VA, to control and adjust the electricity power for the servers.
- Need Minimum 24 Ports Rack switch.
- Modem Router for the internet.
- You have to reserve Real (Internet) IP Address (from your ISP) to run the application server through the internet for your branches (Minimum 8 IP address).
- Minimum 42U Cabinet 800x100 with fixed shelf, slide shelf, Fans and wheels

NSD Implementation / Methodology (Functional & Technical) Strategy

To drive successful the ERP implementations based on the above development phases and having and realizing all of the required functionalities we start the NSD ERP System implementation or only the developed and required functionalities

The procedure of the system implementation is same for the, two, above possibilities.

In order to get your solution up, run it quickly, to contribute into your business goals. The implementation of the new system can be assured by our teams; this implementation is based on our NSD Methodology and on the advanced software tools.

SYSTEM - Implementation Technical Strategy

Introduction

The purpose of this section is to describe the roles of the three different NSD systems and the various clients within each system. The client strategy is explained in the context of ensuring through testing of customizing and other developments. The standards and procedures for transport of customizing and development objects are also described.

System Roles

Overview

This section describes the system landscape for the Client NSD systems. It assumes that the landscape will comprise two physical servers, hosting three NSD Systems

- Development system (Dev S) – Customer Development System.
- Quality Assurance system(QAS)
- Production system (Prd S) – Customer Production System

The client landscape is a dynamic picture that is open to change during the project lifecycle.

Systems Overview

In accordance with our methodology, the following three systems will be used to control development on The Customer Project:

- Development - For customizing, development and unit testing;
- Quality assurance - For integration testing and training;
- Production - For productive work.

These three-system configuration supports:

- Initial installation of NSD (or other) applications (modules);
- Successive installation of additional NSD applications (or other);
- Successive installation of NSD applications (or other) in different offices of a company;

- Implementation of substantial proprietary development or modifications;

System (Clients) Definitions

A) - Development System (System = Client - DB)

NSD / Customizing and development System: is used for carrying out the (Customer) specific development and cross client customizations, and functionality or unit testing. This client is restricted to NSD consultants.

NSD / Experimental System: is used for carrying out customizing experiments – tasks and transport requests will not be created and consequently no transports can be exported out or imported into it. Development and cross-client customizations will not be permitted.

NSD / Unit testing System: is used to unit test developments and customization. Transports are to be made from the customizing and development System and tested here before transporting the same to the Quality assurance server. Client is restricted to NSD consultants only.

Customer playpen System: is restricted to the Customer employees. Client is configured for display configuration only.

Customer Unit testing: is used to carry out unit testing of the (NSD Applications) developments and customizations. Master data loads and/or conversions are permitted.

B) - Quality Assurance System (Client - DB)

Integration System: is used for system testing and will be created from the Master-customizing System, which is resident in the development system. Master data loads should be executed prior to test execution. No changes are allowed

Data conversion System: is used to test data conversions and uploads and will be created from the Master-customizing System, which is resident in the development system. No changes are allowed. Master data upload to be performed before using.

Training for (Customer) System: is used to render training for the Customer end-users. Master data loads are to be performed along with this system, before using. No changes to customization or development are allowed. Master data upload to be performed before using.

Production support for (Customer) System: is used for trouble-shooting production issues. Initially created from the production System and should be refreshed with the data from the production system occasionally till an exclusive production support system comes into place. Access restricted to NSD help desk team members of the Customer and restricted access to NSD consultants. No changes are allowed.

C) - Production System (Client -DB)

Production System: is used in production mode only. No changes will be permitted. All change authorizations will be turned off at the client and system level.

The Golden Master System: is used as a master reference client for all future references and shall be used only restrictively by the Customer IT department. No changes are allowed after Go-live. However, it can be refreshed with customizing data from the production after the Go-live.

The NSD Implementation methodology (Functional) is based on the below phases

System Implementation (Functional) Strategy

Introduction

The purpose of this section is to describe the multiple phases of NSD System Implementation.

Phase 1 - Project preparation:

The purpose of this phase is to provide initial planning and preparation for your NSD System project. Although each NSD System project has its own unique objectives, scope, and priorities, the steps in Phase One help identify and plan the primary focus areas to be considered.

As you prepare for your NSD System implementation, there are important issues you must address at the beginning of the project, including:

- Defining your project goals and objectives
- Clarifying the scope of your implementation
- Defining your implementation strategy
- Defining the overall project schedule and implementation sequence
- Establishing the project organization and committees
- Assigning resources

By addressing these issues early in your implementation, you help ensure that the project proceeds efficiently, and that you have established a solid foundation for a successful NSD System implementation.

- Refine the original project goals and objectives.
- Define the baseline scope.
- Refine the overall project schedule and implementation sequence.
- Phase One consists of the following work packages:
 - Initial Project Planning
 - Project Procedures
 - Project Kickoff
 - Technical Requirements Planning
 - Quality Check and Project Preparation Phase

Phase 2 - Business Blueprint

The purpose of this phase is to create the Business Blueprint, which is a detailed documentation of the results gathered during requirements workshops. Furthermore, the Business Blueprint documents the business process requirements of the company. On this basis, you achieve a common understanding of how the company intends to run its business within the NSD System.

During this phase, you also:

- Phase Two consists of the following work packages:
 - Project Management Business Blueprint Phase
 - Project Team Training Business Blueprint Phase
 - Develop System Environment
 - Business Organization Structure
 - Business Process Definition
 - Quality Check Business Blueprint Phase

Phase 3 - Realization

The purpose of this phase is to implement business and process requirements based on the Business Blueprint. The objectives are final implementation in the system, an overall test, and the release of the system for productive (live) operation. The project team receives relevant knowledge.

Configure the system in two work packages, Baseline (major scope), and Final (remaining scope). This lets you work on the other work packages after Baseline Confirmation.

Phase Three consists of the following work packages:

- Project Management Realization Phase
- Project Team Training Realization Phase
- Baseline Configuration and Confirmation
- System Management
- Final Configuration and Confirmation
- Develop Conversion Programs
- Develop Application Interface Programs
- Develop Enhancements
- Create Reports
- Create Layout Sets
- Establish Authorization Concept
- Establish Archiving Management
- Final Integration Test
- End User Documentation and Training Material
- Quality Check Realization Phase

Phase 4 - Final Preparation

The purpose of this phase is to complete the final preparation, including testing, user training, system management and cut over activities, to finalize your readiness to go live. This final preparation phase also serves to resolve all crucial open issues. On successful completion of this phase, you are ready to run your business in your productive NSD System.

Phase Four consists of the following work packages:

- Project Management Final Preparation Phase
- User Training
- System Management
- Detailed Project Planning
- Cut Over
- Quality Check Final Preparation Phase

Phase 5 - Go Live and Support

The purpose of this phase is to move from a pre-production environment to a live productive operation. You must set up a support organization for users, not just for the first critical days of your productive operations but also to provide long term support.

During this phase, users of the NSD system have many questions. There must be a solid user support organization easily accessible to all users. This phase is also used to monitor system transactions and to optimize overall system performance. Finally, the completed project is closed.

Phase Five consists of the following work packages:

- Production Support
- Project Conclusion

Post Go- Live Activities

The purpose of this work package is to support NSD users after the project is in productive operation. There is always a need for user training (for example, as employees change job responsibilities or as new employees join the company).

Also, it is important to develop a long term support strategy. This includes implementing a wide variety of upgrades (for example, system, database, NSD software upgrades). Finally, this work package includes a project review to resolve outstanding issues, and to sign off the final project.

Activities

- Follow Up Training
- Define Long Term Plans

Follow Up Training

The purpose of this activity is to provide a range of training, such as advanced user training, cross- application training, or initial training for new users.

Tasks

A. Attend Advanced Training

B. Train New Employees

Attend Advanced Training

NSD ERP® - Integrated SolutionsKnowledge Library

Training

Since more than a decade, NSD has established a long NSD ERP practice that provides its clients with access to a full range of Knowledge transfer including advices, skills and experience covering all aspects of implementation through client training.

You implement the NSD ERP System? Executive and project management teams, Power users

Be involved and Active

End the training when the production of the production

Client Training

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Purpose

The purpose of this task is to provide advanced user application training. When users have completed NSD System training relevant to their position and understand the system, more specific training is required to use additional capabilities. Advanced training can be carried out on site, and must address specific user roles within the company.

Procedure

Find out from users what specific questions or areas of interest they have in relation to NSD System.

Feedback can be obtained through questionnaires or interviews. The methods may depend on the number of users in the company.

Analyze the results of the feedback and decide how to address each concern. Feedback should be specific to each NSD application; whoever analyzes it will need expertise in relation to that application.

Decide how to fulfill user training needs. Different forms of training

Decide what courses are required. Decide whether standard training classes or special on site classes are required. Determine which training is relevant to each user.

- Schedule the training and consultant visit, if required.
- Notify users to attend the training.

Train New Employees

Purpose

The purpose of this task is to ensure that all new employees, or existing employees whose responsibilities change, are properly trained in the appropriate NSD application.

Procedure

A. Determine the training approach for new employees. Decide whether to train in-house or outside the company. Or, you can use a combination of the two.

B. Decide who should have responsibility for in-house training.

- Is there an in-house training department which has responsibility for training new employees?
- Are there any users or systems personnel who could train new employees?
- Does the hiring manager decide what training for a new employee is needed?
- What role, if any, should power users play?

C. If you wish to train in-house, consider using the end user documentation developed in Phase Three for your training.

Whatever training materials you use will need to be updated periodically.

Decide what methodology is appropriate for ongoing training. Should it be self study or classroom training?

2. Define Long Term Plans

The purpose of this activity is to define long term plans for your NSD system for processes and functions not previously addressed. It is also important to define your release upgrade plan.

This activity is necessary for refining Further Process Requirements Plan and to identify business requirements not previously addressed in the implementation project. This plan determines how and when to resolve these issues.

You arrived at the end of this overview regarding NSD ERP System; we thank you for your interests and time and invite you to send to our global Documentation unit, any remarks or suggestions.

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