SAP UNIVERSITY ALLIANCE ACADEMIC CONFERENCE
INDIA 2010

Introduction to SAP ERP
SAP ERP 6.0
Global Bikes Incorporation
Trainer: Prof. Aradhana Gandhi, Symbiosis Centre for management and HRD, Pune
Course Content

Introduction to SAP
Navigation
Sales & Distribution
Materials Management
Production Planning
Financial Accounting
Controlling
“Systems, Applications, and Products in Data Processing”

Name of the Company
- SAP AG
- SAP America
- SAP UK

Name of the Software
- SAP R/2
- SAP R/3
- SAP ERP
Who is SAP?

SAP AG
- Founded in Walldorf, Germany in 1972
- World’s Largest Business Software Company
- World’s Third-largest Independent Software Provider

Company Statistics
- Over 40,000 employees in more than 50 countries
- 1500 Business Partners
- 36,200 customers in more than 120 countries
- 12 million users
- 100,600 installations

Source: SAP AG website
Integrated Business Solution Vendors

SAP (Systems, Applications, & Products in Data Processing)
- SAP ERP, All-in-One, Business by Design, Business One

Oracle Applications
- Oracle, JD Edwards, PeopleSoft, Siebel, Retek

Microsoft Business Solutions
- Dynamics: Great Plains, Navision, Axapta, Soloman

The Sage Group
- Sage Software – Accpac ERP, PeachTree

SSA Global Technologies
- BAAN
SAP Architecture

World-wide usage

Designed to satisfy the information needs for business sizes (small local to large all international)

- Multi-lingual
- Multi-currency

Designed to satisfy the information needs for all industries
SAP ERP

Enables a company to link its business processes

Ties together disparate business functions (integrated business solution)

Helps the organization run smoothly

Real-time environment

Scalable and flexible
Client/Server Environment
- Client – hardware/software environment that can make a request for services for a central repository of resources
- Server – hardware/software combination that can provide services to a group of clients in a controlled environment

Three – Tier Structure
- GUI
  - Graphical User Interface or Web Interface
- Application Server
  - One or more, help distribute work load
- Database Server
  - One single data repository
SAP Architecture

Network

Presentation

Application

Database

PCs, Laptops, etc.

Browser Client

Web Server

Internet Transaction Server

Application Servers

Database
SAP Business Suite

SAP PLM

SAP SRM

SAP CRM

SAP SCM

SAP ERP ECC 6.0

SAP NetWeaver
SAP Business Suite

SAP R/3
Client/Server
ABAP
Basis

SAP ECC

SAP NetWeaver

SAP PLM
SAP CRM
SAP SRM
SAP SCM
SAP Software Applications

Solutions
- SAP ERP
- SAP CRM
- SAP PLM
- SAP SCM
- SAP SRM
- SAP Analytics
- SAP Manufacturing
- SAP Service
- SAP Mobile Solutions
- SAP xApps

- Small & Medium Size Solutions
  - Business One
  - Business by Design
    - SAP All-in-One

- Platforms
  - Enterprise Services Architecture
    - SAP NetWeaver Platform
SAP ERP Business Modules

Collections of logically related transactions within identifiable business functions

- MM ("Buy")
- PP ("Make")
- SD ("Sell")
- FI and CO ("Track")
- HCM
SAP ERP Core Applications

Logistics
- Sales & Distribution
- Plant Maintenance
- Materials Management
- Production Planning
- Quality Management

Accounting
- Financial Accounting
- Controlling
- Asset Management
- Treasury

Human Resources
- Personnel Management
  - Benefits
  - Payroll
SAP Industry Solutions

- Aerospace & Defense
- Automotive
- Banking
- Chemicals
- Consumer Products
- Defense & Security
- Engineering, Const.
- Healthcare
- High Tech
- Higher Education
- Industrial Machinery
- Insurance
- Media
- Mill Products
- Mining
- Oil & Gas
- Pharmaceuticals
- Postal Services
- Professional Services
- Public Sector
- Railways
- Retail
- Telecommunications
- Utilities
- Wholesale Distribution

Life Sciences
Abstract
This material explains how to navigate in SAP systems. It is aimed at students at educational institutions, such as schools, universities of cooperative education, universities of applied sciences, and other universities, with no previous experience of SAP software. It can be used in the classroom or for self-study.

On completion of the course, students will be able to navigate through the user interface to deal with business processes and case studies.
Content

User guidance

User specific settings

Navigation in SAP Easy Access Menu

Help
Learning Targets

At the end of this chapter you can

Name the window elements

Navigate in an SAP system

Apply personal system settings

Effectively use Help
Log on to an SAP system
SAP Easy Access Menu
### Role-based User Menu

![SAP Easy Access](image)

The Role-based User Menu in SAP Easy Access provides a comprehensive list of roles and their descriptions. Here are some examples:

<table>
<thead>
<tr>
<th>Single role</th>
<th>Role name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA_INFODB</td>
<td>AAA-INFODATABASE</td>
</tr>
<tr>
<td>AAA_ROLES</td>
<td>IDES Role Switcher</td>
</tr>
<tr>
<td>AC260_RECHERCHE</td>
<td>AC260_RECHERCHE</td>
</tr>
<tr>
<td>ADSCALLER</td>
<td></td>
</tr>
<tr>
<td>AIS_AR_CLERK_US00</td>
<td>AIS - Accounts Payable Clerk</td>
</tr>
<tr>
<td>AIS_AR_CLERK_US00</td>
<td>AIS - Accounts Receivable Clerk</td>
</tr>
<tr>
<td>ASAP_AUTORENUMGEBUNG</td>
<td>Profile for the ASAP Authoring Environment</td>
</tr>
<tr>
<td>CA040_BC_ADMIN</td>
<td>CA040_BC_ADMIN: User Administrator CA040</td>
</tr>
<tr>
<td>CA040_DISPLAY</td>
<td>CA Display authorizations for all modules (except BC, CO, HR)</td>
</tr>
<tr>
<td>CA040_PLUS</td>
<td></td>
</tr>
<tr>
<td>CA040_SD_SALES</td>
<td></td>
</tr>
<tr>
<td>CA040_USER</td>
<td></td>
</tr>
<tr>
<td>CFM_INSURANCE_COMPANIES</td>
<td></td>
</tr>
<tr>
<td>CH_ADMIN</td>
<td>HR-Administration Switzerland</td>
</tr>
<tr>
<td>CH_MANAGER</td>
<td>Manager Switzerland</td>
</tr>
<tr>
<td>CH_MINI</td>
<td></td>
</tr>
<tr>
<td>CH_PAYROLL</td>
<td>Payroll Administration Switzerland</td>
</tr>
<tr>
<td>CH_PAYROLL</td>
<td>Payroll Administration Specialist</td>
</tr>
</tbody>
</table>

More than 500 input options available.
DYNPRO Elements

- Command field (transaction code)
- System function bar
- Application function bar
- Input fields
- Check box
- Radio buttons
- Tabs
- Press buttons
- Status bar
ENJOY Initiative – Old Design

Initial screen

Position overview

Header data

Position details
ENJOY Initiative – New Design

header data
position overview
position details
Help Functions

F1: Description of Input Fields

F4: value list

Customer Account Number

A unique key used to clearly identify the customer within the SAP system.

Procedure

When creating a customer master record, the user either enters the account number or the system determines the number when the record is saved, depending on the type of number assignment specified. The account group determines the type of number assignment used.
Transaction Codes
Transaction SEARCH_SAP_MENU

Search for a Transaction Code or Menu Title

<table>
<thead>
<tr>
<th>Notes</th>
<th>Transaction code</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notes MM03</td>
<td>Material</td>
<td>Material Data</td>
</tr>
<tr>
<td>Preceding note</td>
<td>Material</td>
<td>Environment</td>
</tr>
<tr>
<td>Preceding note</td>
<td>Material</td>
<td>Purchasing Information System</td>
</tr>
<tr>
<td>Preceding note</td>
<td>Material</td>
<td>Reporting</td>
</tr>
<tr>
<td>Preceding note</td>
<td>Material</td>
<td>Order Goods</td>
</tr>
<tr>
<td>Preceding note</td>
<td>Material</td>
<td>Purchasing</td>
</tr>
<tr>
<td>Preceding note</td>
<td>Material</td>
<td>Materials Management</td>
</tr>
<tr>
<td>Preceding note</td>
<td>Material</td>
<td>Logistics</td>
</tr>
</tbody>
</table>

Search text entry: mm03

Choose: ✅ | ✗
Transaction ICON
Multiple Selection
User Profile Settings (local)
Desktop Shortcut

SAP Easy Access

Properties

System Data:
- Description: [Box with text]
- System ID: G96
- SAP GUI Parameters: [Box with text]

Login Data:
- Client: 990
- User Name: MASTER-ADM
- Password: [Box with text]
- Language: EN - English

Application:
- Type: Transaction
- Command: SESSION_MANAGER
- Title: SAP Easy Access

Start Options:
- Trace Level: No Trace
- Window Size: Normal Window
- Working Directory: C:\[Folder Path]
Summary

You are now able to:

- Name the window elements
- Navigate in an SAP system
- Apply personal system settings
- Effectively use help
Abstract

This material explains the company on which the introduction material is based on. It describes its enterprise structure in detail.

Trainer: Prof. Aradhana Gandhi
Symbiosis Centre for management and HRD, Pune
Global Bike Incorporated

Company in the bicycle business

Initially buys and re-sells different lines of bicycles

Sells to both wholesale and Internet – procure and distribute

Later acquires a production facility to manufacture its own product – produce and distribute
Core Business Processes

Global Bike Inc.
Sell – Sales and Distribution (SD)
Buy – Procurement (MM)
Plan – Production Planning (PP)
Make – Manufacturing Execution (PP)
Track – Financial Accounting (FI)
Track – Controlling (CO)
Two Approaches of Learning

Standard Training
- Level 1: Introductory
- Level 2: Business processes
- Level 3: Configuration

Business Process Integration Approach
- Cross functional
- Understand business processes and their relationship to SAP's organizational structure
- Highlight integration/configuration
Cross-functional integration
Sales and Distribution (SD)

Product
SAP ERP 6.0
Global Bike Inc.

Level
Beginner

Focus
Cross-functional integration
Sales and Distribution
Functionality

Sales Support
Sales
Shipping and Transportation
Billing
Credit Management
Foreign Trade
Chapter Overview

Sales and Distribution Org. Levels

Sales and Distribution Master Data

Sales Order Process

- Order-to-Cash
## Organizational Structure

<table>
<thead>
<tr>
<th>S&amp;D Structure</th>
<th>Internal Sales Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client</td>
<td>Sales Offices</td>
</tr>
<tr>
<td>Company Code</td>
<td>Sales Groups</td>
</tr>
<tr>
<td>Sales Area</td>
<td>Salesperson</td>
</tr>
<tr>
<td>- Sales Organization</td>
<td></td>
</tr>
<tr>
<td>- Distribution Channel</td>
<td></td>
</tr>
<tr>
<td>- Division</td>
<td></td>
</tr>
<tr>
<td>Plant</td>
<td></td>
</tr>
</tbody>
</table>
Organizational Data

A hierarchy in which the organizational units in an enterprise are arranged according to tasks and functions

Are static data and are rarely changed

Once you have decided on an organizational structure it is not easy to change it

The definition of organization units is a fundamental step, it is a critical factor in how the company will be structured
Sales Organization

- Sells and distributes products
- Negotiates terms of sales
- Responsible for these business transactions

Critical organization element to the definition of business markets

A sales transaction is linked to only one Sales Organization
Sales Organization

US Sales S000
**Distribution Channel**

Identifies how products and services reach the customer

Can be assigned to one or more Sales Organizations
Division

Often times used to define product line distribution

Organization level to which customer specific information and requirements are maintained (e.g. pricing, partial delivery)

Assigned to one or more Sales Organizations
Division

US Sales
S000

Medical Division

Chemical Division
Sales Area

Sales Area comprised of:
- Sales Organization
- Distribution Channel
- Division

Will be used to link together the organizational aspects of sales to customers

Used for statistical analysis
Sales Area

US Sales S000

Wholesale Dist Channel (WH)
- Medical Division
- Chemical Division

Retail Dist Channel (RE)
- Medical Division
- Chemical Division
Internal Sales Organization

Typically defines a territory or market

Linked to one or more Sales Areas

Optional organization structure
Sales Group

- Sub-division of a sales office, territory or market
Sales Person

- Defined in Human Resources (HR) — Personnel Admin.
- Specifically defines an individual rather than a position (sales rep.) in sales processing
Internal Sales Organization

US Sales

Eastern Sales
- Northeast Sales Group
  - Salesperson 1
  - Salesperson 2

- Southeast Sales Group
  - Salesperson 3
  - Salesperson 4

Western Sales
- Northwest Sales Group
  - Salesperson 9
  - Salesperson 10

- Southwest Sales Group
  - Salesperson 11
  - Salesperson 12
Shipping and Loading Points

Shipping Point

- Location that performs all delivery related activities
- Assigned a factory calendar
- A delivery can be processed from only one shipping point

Loading Point

- A subdivision of the shipping point used for more specialized handling
Structure for Sales Order Processing

Client 410

Company Code C100

Sales Area

Sales Org S100

Distribution Channel (RE)

Division (01)

Plant P100

Plant P101
Internal Sales Structure

- US Sales Office S100
  - Western Sales Office
    - Northwest Sales Group
      - Salesperson 1
      - Salesperson 2
      - Salesperson 3
    - Southwest Sales Group
      - Salesperson 4
      - Salesperson 5
  - Eastern Sales Office
    - Northwest Sales Group
      - Salesperson 6
    - Southwest Sales Group
      - Salesperson 7
      - Salesperson 8
      - Salesperson 9
SD Master Data

- Customer Master
  - Party: CLIENT-00
  - Woody/Woodpecker/176131

- Material Master
  - Order: 10557
  - Total: 349,900 EUR
  - Delivery Block: 0
  - Delivery Plant: 
  - Price: 44.1505 LB
  - Billing Block: 
  - Exp Date: 

- Sales Condition
  - Payment Terms: 2801
  - 14 Days 3%, 3002
  - Incoterms: CIF Berlin

- Order: 
  - Sales Area: 1000 / 10 / 00
  - Germany Frankfurt, Final customer sales, Cross-division

- Item: UDC-MOTORCYCLE-00
  - Order Quantity: 1
  - Description: UDC Motorcycle 00
  - B: 
  - C: 
  - D: 
  - E: 
  - F: 
  - G: 
  - H: 
  - I: 
  - J: 
  - K: 
  - L: 
  - M: 
  - N: 
  - O: 
  - P: 
  - Q: 
  - R: 
  - S: 
  - T: 
  - U: 
  - V: 
  - W: 
  - X: 
  - Y: 
  - Z: 

SAP University Alliances
Customer Master Data

Customer Master
- Contains all of the information necessary for processing orders, deliveries, invoices and customer payment
- Every customer MUST have a master record

Created by Sales Area
- Sales Organization
- Distribution Channel
- Division
Customer Master Data

The customer master information is divided into 3 areas:
- General Data
- Company Code Data
- Sales Area Data
Customer Master

General Information relevant for the entire organization:
- Name
- Address
- Communication

Client 410

Company Code specific information:
- Acc. Mgmt
- Payment
- Bank

Company Code 100
- Company Code 101
- Company Code 102

Sales Area specific information:
- Sales Office
- Currency

Sales Org. 100
- Sales Org. 101
Material Master

- Contains all the information a company needs to manage about a material
- It is used by most components within the SAP system
  - Sales and Distribution
  - Materials Management
  - Production
  - Plant Maintenance
  - Accounting/Controlling
  - Quality Management
- Material master data is stored in functional segments called Views
Material Master Views

- Basic Data
- Sales Data
- Purchasing Data
- Mat. Plan. Data
- Forecasting Data
- Storage Data
- Controlling Data
- Quality Data
- Accounting Data
Material Master

General Information relevant for the entire organization:
- Name
- Weight
- U/M

Sales specific information:
- Delivery Plant
- Loading Grp

Storage Location specific information:
- Stock Qty

Client 410

Sales Org 102
Sales Org 101
Sales Org 100

Storage Location 20
Storage Location 10
**Customer Material Information Record**

Data on a material defined for a specific customer is stored in a Customer material info record.

Info Records contain:
- Customer-specific material number
- Customer-specific material description
- Customer-specific data on deliveries and delivery tolerances

You can also maintain default text to appear on sales orders for that customer.

![Image of Customer Material Information Record](image)

### Change Customer Material Info Record: Item Screen

| Material | KB-0013-00 | Material
| Sales Organization | 00A1 | Bike - USA
| Distribution Channel | WH | Wholesale
| Customer | 301 | 00 The Bike Zone

| Customer material | 1234567 |
| Customer description | Kids Bike - Mek |
| Search term | KB |

| Plant | 00a2 |
| Delivery Priority | 2 | Normal item |
| Minimum delivery qty | 10 | ST |

| Partial delivery |
| Part div / item | Underdel. Tolerance | 5 % |
| Max part deliveries | Overdeliv. Tolerance | 5 % |
| Unlimited tolerance | |

| Control data |
| Item usage | |
Condition Master (Pricing)

Condition master data includes:
- Prices
- Surcharges
- Discounts
- Freights
- Taxes

You can define the condition master to be dependent on various data:
- Material specific
- Customer specific

Conditions can be dependent on any document field
Output

Output is information that is sent to the customer using various media, such as:

- E-mail
- Mail
- EDI
- Fax
- XML

Output examples:

- Quotation
- Confirmation
- Invoice