3 classes of Data

3 classes or types of data exist in an ERP system:
- Master Data
- Organizational Data
- Transactional Data
Master Data

Master Data: ________________________________________

Often shared between different functional areas, processes, and system modules.

Examples: customer data (address, contact info, etc.), vendor data, material data, and more.

Providing consistency and accuracy in master data with and across systems: role of __________
____________

In SAP managed by SAP Exchange Infrastructure (XI) (old name), Process Integration (PI) (new name).

Organizational Data

Organizational Data: ________________________________________

Examples: plants, warehouses, storage locations, divisions, distribution channels, sales organizations, etc.

Arranged according to tasks (particular activities) and functions (overall responsibilities).

Mapping actual organization units to appropriate SAP structural representation is key element in ____________.

Organizational data is a more specific type of master data and is rarely changed.

Before creating master data, organizational data must be in place.
Transaction Data

Transaction Data: ____________________________
_________________________, typically based on internal
and external exchanges/flows (information,
and external exchanges/flows (information,
money, etc.).

Customer orders, payment records, goods
movements, etc.

Archived and accessible over time, but not reused
regularly.

Unlike master data, aggregate transactional data is
dynamic – each transaction is unique
Transaction data pulls from organizational data,
master data, and rules (and is therefore traceable).

Transaction Data vs. Master Data

Transactions flow down the river of time
“The 3 Legged Stool”

Components:
- Organizational Data
- Master Data
- Rules
- Transaction Data

Rules: ____________________________ (valid values, uses, inter- and intra-relationships, etc.)

Determines functionality and usage of Master Data and Transaction processing.

- A P.O. can only be accepted on a valid customer account. (Must create customer account before entering first order.)
- Sales person can only give a discount of 5%.

Relatively fixed
Changes as policy changes
Document Principle

Document Principle: _______________________
_________________________________________
______________________________________

Each document contains information such as
Person responsible (who?)
Date and time of the transaction (when?)
Commercial content (what?)

Once created, a document **cannot be deleted** from the database.
Key to preserving an audit trail.

SAP Document Flow

<table>
<thead>
<tr>
<th>Document Flow</th>
<th>Edit</th>
<th>Date</th>
<th>Environment</th>
<th>System</th>
<th>Help</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Image of Document Flow]</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Outbound delivery**

| Business partner | 1 | 08 West Hills Athletic Club |

<table>
<thead>
<tr>
<th>Document</th>
<th>Date</th>
<th>Overall processing status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inquiry 10000001</td>
<td>08/11/02</td>
<td>Completed</td>
</tr>
<tr>
<td>Standard Order 2</td>
<td>08/11/02</td>
<td>Completed</td>
</tr>
<tr>
<td>Outbound delivery 30000001</td>
<td>08/11/02</td>
<td>Completed</td>
</tr>
<tr>
<td>Picking request 20000001</td>
<td>08/11/02</td>
<td>Completed</td>
</tr>
<tr>
<td>EDI goods issue 4900000105</td>
<td>08/11/02</td>
<td>Completed</td>
</tr>
<tr>
<td>Invoice 50000001</td>
<td>08/11/02</td>
<td>Completed</td>
</tr>
<tr>
<td>Accounting document 80000001</td>
<td>08/11/02</td>
<td>Cleared</td>
</tr>
</tbody>
</table>
SAP System Landscape High Level Overview

______: a self-contained unit in an SAP system with separate master records and its own set of tables.

Given an identifying number.

ERP Terms and Concepts

_______: each install of an ERP (or other) software on an individual application server.

Typically 1 instance per machine.

Typical SAP Landscape consists of multiple instances for development (DEV), testing/quality assurance (QAS), training (TRN), and production (PRD).

Typical install size: 1 terabyte.

SAP is platform agnostic. Can run on IBM AIX, IBM AS/400, Linux, HP-UX, Solaris, IBM S/390, Windows
Typical Company Installation Landscape

ERP Terms and Concepts

___________: process of distinctively setting up each instance to fit needs of customer (within certainly existing limits)

What you do to have the system execute your business processes the way you want them executed.

*No coding necessary.* Change options in configuration settings.

Over 8,000 configuration decision points available.
ERP Terms and Concepts

___________: going beyond configuration to design and write custom code to enhance or replace existing ERP functionality.
Facilitated in SAP ERP by user exits and other code hooks.
"Configuration, not customization."
"We need people that can re-engineer standard SAP and minimize writing code." (Valerie Homan, Manager, Enterprise Solutions, Y12 National Security Complex)

SAP Configuration

Most infrastructure decisions, including configuration decisions, occur during project implementation
Basic SAP installation—over 28,000 tables.
Once it is done, very difficult to undo or reconfigure

SAP Consultant Focus

1990s

Today
SAP Database

At the heart of every SAP installation is a relational database server.

- Oracle, IBM Informix, SAP MaxDB, MS SQL Server, IBM DB2
- Licensed separately from SAP.

Do not manipulate database data apart from SAP control. SAP will not support your company.

- Tables created, managed, etc. from within SAP.
- Valid SAP-independent operations: DBMS patching, backup, recovery, auditing, performance tuning.

Keeping hardware and software infrastructure running, patched, performance tuned, etc. is the role of SAP Basis Administrator.

Conclusion

ERP systems do not work "out of the box." An instance requires significant configuration.

Configuration is a non-trivial activity.

Configuration brings together concepts of organizational data, master data, transaction data, and business rules.

Development in ERP requires one be cognizant of the data models established, and the functionality of various modules.

One cannot fully appreciate the complexity of configuration management without additional study.