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Introduction

- **Business Process Management (BPM)** is primarily a business philosophy
  - About people
  - The way they work together (their business processes)
  - The performance objectives that these processes underpin

- At the same time, it is about the technology used to make this vision a reality
  - **Systems implementation** is highly iterative

- **A Journey – Not A Destination!!**
Overview of Capability Maturity Model Integration (CMMI) levels
Business Processes

- The components necessary to provide a full description of a business process
  - Procedures
  - Events
  - Products/services (statuses)
  - Processors
  - Organizational units
  - Information technology resources.
ARIS: Architecture of integrated Information Systems

ARIS is based on an integration concept which is derived from a holistic analysis of business processes.
General Company Documentation using ARIS

- Documentation of company objectives using object diagram
- Documentation of the company added value
  - Identification of the functions involved in value-adding activities of a company is the basis for many company decisions.
- Documentation of the organizational structure
- Documentation of company functions
- Process documentation
General Company Documentation

- Documentation of company objectives
  - Objective diagrams can be used for the hierarchical alignment of company objectives and the associated critical factors.
Example of an Objective Diagram
General Company Documentation

- Documentation of the company added value

- The identification of the functions involved in value-adding activities of a company is the basis for many company decisions.

- The company functions involved in adding value can be displayed using the value-added chain diagram.
Example of a Value-Added Chain diagram
General Company Documentation

- Documentation of the organizational structure
  - The structure of an enterprise can be documented with organizational charts which show the hierarchy and relationships of organizational units.

- Documentation of company functions
  - A function tree can display individual functions of a company in an overview.

- Process documentation
  - For further utilization of the process models in SAP applications, simulation, workflow, etc.
  - It is recommended modeling with an event-driven process chain (EPC).
ARIS Analytical Views of the Process Model

Organization View (Who)

Data View (Which)

Control/Process View (How)

Function View (What)

Product/Service View (Why)
Organization view

- combination of the users and the organizational units as well as their relationships and structures.
Organization View: Organization Chart

- Organizational units
  - The performers of the tasks that must be performed in order to attain the business objectives.

- The relationships
  - The links between the organizational units.
Organization View: Organization Chart

- An Organizational Chart
Organization View: Organization Chart

Organizational Chart with Position and Person Allocation
Organization View: Organization Chart
Organization View: Organization Chart

Location Allocations

Location Hierarchies
Function view

- Function view includes
  - The functions to be performed (processes) and their interrelationships.

- It contains
  - the description of the function,
  - the enumeration of the individual sub-functions that belong to the overall relationship and
  - the positional relationships that exist between the functions.
Function view

- A function is a technical task or activity performed on an object in support of one or more company objectives.
  - An example of a function

Function tree

- Dividing functions can involve several hierarchy levels.
- Elementary functions represent the lowest level in semantic function trees
Example of a Function Tree

Prosiness Process Modelling using ARIS

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Product/service view

- product/service view states in the objects' environment
  - e.g. in the environment of the customer order.

- A product/service can be either a concrete product or an intangible service.
  - Information services: Services that generate and provide information
  - The provision of financial resource
Control view

- control view
  - describes the relationships between other views.

- Breaking down the process into individual views reduces its complexity
  - albeit at the expense of the relationships between the views.

- The integration of these relationships within a separate view
  - makes it possible to systematically enter all the relationships without any redundancies.
Process/ Control view: Events

- Events trigger functions and are the results of functions.

Examples of rules:

1st case
- Routing available
- Resources checked
- Release operation

2nd case
- Check supplier offer
- Supplier quote accepted
- Supplier quote rejected
Process/ Control view: Rules

- Three types of rules:
  - AND
  - OR
  - XOR

- Two types of rules:
  - Event rules
  - Function rules
Event rules

AND rule

OR rule

XOR rule
events cannot make decisions
only functions can do this
Data view

- **Entity-relationship model (ERM)**
  - A description of the semantic data model of the field which is to be examined.

- **Entities**
  - real/abstract things that are of interest for those tasks in a company that are currently under consideration e.g., customer 12

- **Entity type**
  - Grouping entities of the same type into sets. The individual occurrences of these are entities e.g., customer
Data view

- **Attributes**
  - The properties describing entity types e.g., customer number.

- **Relationship**
  - A logical link between entities.

- **Relationship types**
  - Grouping relationships of the same kind into sets.
Data view

- The complexity or cardinality
  - indicates how many entities of one entity type can be assigned to an entity of the other entity type.

- Four types of cardinalities
  - 1:1 relationship
  - 1:n relationship
  - n:1 relationship
  - n:m relationship
Data view

- Representation of Cardinalities in the ERM

![Diagram showing relationships between entities such as Drawing, Part, Employee, Department, Company, Plant, Employee, and Project with cardinalities 1:1, 1:n, n:1, and n:m.]

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Example of a Process Chain Diagram
Thank you for your attention!!

Any Questions?