ERP Lifecycle Concepts

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"All you need is ignorance and confidence and the success is sure."

(Mark Twain)
Agenda

- Review ERP implementation project cycle including
  - Initiation
  - Project planning
  - Process analysis and design
  - Realization
  - Transition approaches
  - Operations from “go live” to support

- Discuss ASAP as an example ERP method
Generic view of an ERP implementation

- Essentially two major components: development and deployment

- “Development”
  - Process selection/modeling
  - Coding/configuring
  - Data migration
  - Infrastructure

- Deployment
  - Organizational change
  - Education
  - Go Live

May 18, 2015
ERP Implementation Phases

1. Initiation
2. Planning
3. Analysis & Process design
4. Realization
5. Transition
6. Operations
Phase 1: Initiation

- The beginning of the project
- A project will begin when the project sponsor has obtained the funding
  - Implies that top management of the firm feels that it is important enough to invest big money
- Pull in key project resources, i.e., the project manager
Phase 2:  Project planning details

1. Set up project administration
2. Staff project
3. Set goals and objectives
4. Acquire project resources
5. Define metrics
6. Documentation standards
Phase 3: Process design

- Elucidate very detailed information on relevant processes
  - Determine specific process details
  - Redefine/clarify project scope

- Learn what the technology (ERP Modules) offers as a solution

- Choose whether to redesign processes or customize technology

- At the same time, ready the technology infrastructure to support the system
Installation steps

- Size the system
- Decide on installation type
- Check on installation requirements
- Install and configure hardware, network and base software
- Design file layout
- Install central instance
- Define database
- Build and load database
Phase 4: Realization

- Modifying “plain vanilla” enterprise system to support organization
- Industry specific settings
  - Unique characteristics of particular industry or market segment
- Company specific settings
  - Unique characteristics of company
- Some geography specific settings are usually allowed
Building interfaces to legacy

- Programs that allow enterprise system to exchange data with legacy systems
- Inbound and outbound
- Almost always custom-built
  - this is where the developers would step in; e.g., in SAP R/3 they would do this in ABAP
Creation of authorizations

Roles
- Manager
  - Executive Officer
  - Financial Accounting Manager
  - Managerial Accounting Manager
  - Managerial Accounting Manager
  - Managerial Accounting Manager
  - Managerial Accounting Manager
  - Managerial Accounting Manager
- Purchasing Agent
  - Purchasing Agent
- Employee
  - Maintenance Manager
  - Maintenance Clerk
  - Maintenance Engineer
  - Real Estate Administrator
  - Sales Executive
  - (Key) Account Manager
  - Sales Representative
  - Sales Administrator

Business Processes
Data migration/conversion

- Need to transfer historical or legacy data to new system
- Requires custom programs
  - Significant cost and time could go into cleaning the data
- Similar to interfaces development work
- Usually one-time uploads
Phase 5: Transition approaches

Direct Cutover

Parallel Transition

Phased Transition

Pilot Transition
System testing

- Occurs throughout phases 3, 4 and 5
  - Process personnel responsible for testing

- Unit or function testing
  - Testing individual and composite processes
  - Includes data conversion programs, interfaces, and authorizations
  - Occurs throughout realization phase

- Integration testing, does it all work
  - Final step before “go live”

- Stress testing

- User acceptance testing
Training

- Occurs throughout the project
- Phase 1 and 2: project team education on the use and implementation of the chosen solution
- Phase 3-6: end user education on how to use the system
Organizational change

- Change Management is the “Buzz” word for how to help the organization to accept the new system

- Intangible and fuzzy, yet highly important in order to smooth the transition to the new system
  - Often overlooked or the first place to cut budget
  - More psychological than technical in nature
Phase 6: Operations

- Quality assurance checks and evaluations
- Optimization and refinement of the production environment
- Follow-up training and assessment of end-user needs
- Refinement of systems administration procedures
- Project review
  - What are the lessons learned?
ERP System Builds

- Usually several builds maintained

1. Development System: all new functionality is developed and tested here. Used by customization experts.

2. Test System: To test modules in isolation.

3. Integration System: Also called test system or simulation system, but test in the integrated environment. Actual business data to test functionality under realistic conditions. Business experts involved in test and analysis.

4. Production System: The ERP system that is in actual use. All functionality should have undergone intensive testing.

5. Reporting System: A copy of the production ERP delayed by a day to enhance performance by doing reports.

6. Training System: A copy with realistic data for training. Data is not deleted for continuity of training.
ASAP Implementation Methodology

EXAMPLE of a company specific method

SAP Proprietary Methodology
Accelerated SAP (ASAP)

• An approach resulting in a quick, cost effective implementation of R/3
  • Minimizes the length of time between installation and production start up
  • Maximizes the utilization of SAP and customer resources
  • Incorporates a process oriented approach to training
  • Involves the user community
  • Results in a repeatable “model” that can be used with other implementations of R/3

• ASAP accelerators (tools)
  • R/3 Business Engineer (implementation tool)
  • Templates, examples, and checklists
  • Project Plan in MS Project
  • Templates for steering committee, etc.
# A University SAP Implementation Timeline

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<th>Wave</th>
<th>2003</th>
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<td>Management (R/3 Enterprise)</td>
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<td>Budget Planning (SEM-BPS)</td>
<td>Project Strategies &amp; Standards</td>
<td>Blueprint</td>
<td>Realization</td>
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<tr>
<td>Portal</td>
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<td>Blueprint / Realization</td>
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Project Preparation

Purpose
- Provide detailed planning for the project
- Identify high-level scope
- Define high-level strategies
- Define overall project schedule & implementation sequence
- Mobilize project team

Key Activities
- Finalize team structure
- Establish Project Plan
- Engage business leaders & client stakeholders
- Establish project mgmt procedures & standards
- Plan technical requirements
- Hold project team training
Business Blueprint

**Purpose**
- Create the Business Blueprint document which serves as the design specification for the new system

**Key Activities**
- Identify process & functional gaps via Business Blueprint Workshops
- Define & document client process changes
- Identify org. impacts
- Develop system environment
- Hold project team training
Realization

Purpose
- Implement business & process requirements based on Business Blueprint design

Key Activities
- Configure the ERP system
- Develop reports, interfaces, conversions & enhancements
- Develop training materials and end user documentation
- Conduct unit, integration & user acceptance testing
- Establish authorization concepts

Project Preparation
Business Blueprint
Realization 6 months
Final Preparation
Go Live & Support
Sustain
Final Preparation

**Purpose**
- Complete preparations for go live of the new SAP system

**Key Activities**
- Complete system testing
- Hold end user training
- Complete system mgmt & cut over planning
- Complete data conversion
- Establish system support infrastructure
- Develop Help Desk
**Go Live & Support**

**Purpose**
- Move from pre-production environment to live, stable production operation

**Key Activities**
- Implement help desk & support infrastructure for end users
Implementation Deliverables

1. Project Plan
2. Scope
3. Business Blueprint
4. Baseline Scope
5. Business Process Master List

- Business Process Master List
- Test Plan
- Conversion
- Test Cases
- Reports Interfaces
- Procedures
- Train.Mat.
- Go Live Plan
- System Performance

Enhancements, Authorizations, Reports, Interfaces, Processes, Org. structure

Baseline Scope
Example of Project Duration

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<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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Source: SAP (2002)
Example: University ERP

- **Project Phases**
  - **Team Training Phase**
  - **Configuration Phase (also called Structure Phase)**
    - Knowledge transfer
      - Consultants configure
      - Consultants guide configuration
      - Team Leaders configure
    - Identify gaps
  - **Construction Phase**
    - Write specifications and develop from specifications
      - Data conversion
      - Interfaces
      - Modifications / Customizations – Close gaps
    - Pre-Production Hardware
Example: University ERP

- Project Phases (cont’d)
  - **Transition Phase**
    - Stress testing
    - Certification by State
    - Campus-wide training
    - Additional functionality
  - **Deployment and Stabilization Phase**
    - Go Live
    - Security
    - Performance support
PeopleSoft Implementation Project

- Example for a university HR module implementation
Summary

- Discussed ERP life-cycle phases
- ASAP methodology as example
- University implementation as example