

# How to Prepare a Successful Data Migration Plan

By

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# Basic Plan Contents

- Define Scope and Objectives
- Develop Initial Plan and Cost Summary
- Design Phase
- Development Phase
- Test Phase
- Transition to New System

# Environmental Guidelines

- **Tool Selection (Package and Version)**
- **Documentation Control**
  - Versioning, Standard Formats
  - Depositories
  - Access
- **Software Version Control**

# Who's Involved

- Project Sponsor Role
- Steering Committee
- Project Stakeholders
- Corporate Gatekeepers
- PM
- Project Coordinator(s)
- Project Team
- Subject Matter Experts

# Getting Started

- **Build the Plan**
- **Consider Environment & Controls**
- **Consider People**

# Basic Plan -- Scope

- **Define Scope and Objectives**
- **Develop Initial Plan and Cost Summary**
- **Design Phase**
- **Development Phase**
- **Test Phase**
- **Transition to New System**

# Scoping Steps

- **Develop a Project Outline**
- **Define Schedule Constraints**
- **Define Budget Constraints**
- **Define Staffing Requirements**
- **Other Constraints and Assumptions**
- **Prepare a Project Charter**
- **Prepare a Preliminary Plan**

# Scope Review & Approval

- Review Project Charter with Sponsor and Stakeholders. Get written approval from all.
- Prepare Preliminary Plan with deliverables. Review with Sponsor and Stakeholders. Obtain documented approval.



# Basic Plan – Planning

- Define Scope and Objectives
- **Develop Initial Plan and Cost Summary**
- Design Phase
- Development Phase
- Test Phase
- Transition to New System

# The Planning Phase

- **Define Requirements. Obtain Signoff.**
- **Develop Solutions Delivery Spec, Acceptance Tests. Obtain Signoff.**
- **Define Environments for Design, Development, Testing, Training & Transition.**
- **Refine Project Plan, Schedule, Budget & Deliverables. Obtain Signoff.**
- **Confirm Toolsets.**

# The Project Schedule

- **WBS should conform to PMI type standards.**
- **Detail and Summary Tasks**
- **Milestone Tasks (Approvals, etc)**
- **Durations, Work Estimates (Hours)**
- **Resource Skills – Loaded Labor**
- **Contingency Planning**

# Basic Plan -- Design

- Define Scope and Objectives
- Develop Initial Plan and Cost Summary
- **Design Phase**
- Development Phase
- Test Phase
- Transition to New System

# Detail Internal Design Phase

- Perform Internal Design. Build Test Cases.
- Prepare Development Environment
- Walkthrough Internal Design with SME's and System Gatekeepers
- Revise Plan. Review with Sponsor.
- Review any cost or schedule changes with Stakeholders.

# Internal Design

- **Extract Processes**
- **Data Transformation Processes**
- **Data Clean-up Processes**
- **Data Load Processes**
- **Indexing Considerations during load**
- **Auditing & Certification design**
- **Re-start and Recovery design**

# Extract Process Design

- Sources (DB, Table(s), Fields)
- Extraction Criteria/Filtering
- Extract Record(s) layout
- Extract Field Type/Sizes
- Extract Tools
- Extract Transformation (Pro's/Con's)
- Extract Audits, Error Handling

# Data Transformation Processes

- **Source (System, DB, Table, Field Type, Size, Nulls allowed, Required Field)**
- **Destination (System, DB, Table, Field Type, Size, Nulls allowed, Required Field)**
- **Default Values**
- **Sample Value**
- **Referential Integrity Rules**
- **Field Transformation Rules, Assumptions, Comments**



# Data Clean-up Design

- **Addresses**
  - US
  - Foreign
- **Phone Numbers**
- **Email Addresses**
- **Codes (Obsolete, Non-conforming)**
- **Missing Required Data**
- **Duplicate Records from Multiple Sources**  
Source vs. load process vs. Destination

# Data Load Design

- Load Times
- Load Precedence (Referential Integrity)
- Pre-Load (V. Large Data Stores)
- Special Indexing for Loading Only
- Special Pre-Load Tables
- Configuration Management Issues
- Manual vs. Automated.
- Freezing Certified Data

# DB Indexing Design

- Load Times vs. Indexing
- Removal of non-needed during load
- Addition of special for loading only

# Audit & Certification Design

- **Date/Time/ID stamp from Extract Record to Record inside Loaded DB**
- **ID Audit Trail of all files/stores from source to destination DB table**
- **Configuration Management of all extract, transformation and load routings, work files & new master tables**
- **Record counts, Reject counts, Run times**

# Re-start & Recovery Design

- **Hardware Failure Issues**
- **Communication Failure Issues**
  - Record Counts
  - Byte Check Values
- **DB Configuration Issues (Table space, sort space, temporary space)**
- **Software Aborts**

# Basic Plan --Development

- Define Scope and Objectives
- Develop Initial Plan and Cost Summary
- Design Phase
- **Development Phase**
- Test Phase
- Transition to New System

# Development Steps

- **Perform Software Development.**
- **Perform Unit Test.**
- **May include Acquisition and Installation of Software.**
- **Prepare Integrated and System Test Environment.**
- **Revise Plan. Review with Sponsor & Stakeholders.**

# Basic Plan -- Testing

- Define Scope and Objectives
- Develop Initial Plan and Cost Summary
- Design Phase
- Development Phase
- **Test Phase**
- Transition to New System



# Testing Phase

- **Conduct Integrated Testing.**
- **Correct Deficiencies if found & Repeat.**
- **Conduct System Testing.**
- **Correct Deficiencies if found & Repeat.**
- **Obtain Approval to Proceed.**

# Basic Plan -- Transition

- Define Scope and Objectives
- Develop Initial Plan and Cost Summary
- Design Phase
- Development Phase
- Test Phase
- Transition to New System

# Transition

- Check Out Environments
- Training
- User Release for Transition (written)
- Conduct Data Migration
- Certify Migration
- Obtain Transition Approval (written)

# Summary

<b>5%</b>	<b>Define Scope &amp; Objectives</b>
<b>20%</b>	<b>Plan</b>
<b>15%</b>	<b>Design</b>
<b>25%</b>	<b>Develop</b>
<b>20%</b>	<b>Test</b>
<b>15%</b>	<b>Transition</b>

# Comment

**Approximately 80% of the PM's effort is spent in the first 25% of the project (Scope & Planning Phases).**

# Common Planning Errors

- Data Clean-up (25% of total)
- Configuration Management (5-10%)
- Error Handling, Rejected Records, Audit Capability
- Transition Dress Rehearsal Runs
- Communication and Environmental Set-up and Check-out
- Legal Requirements buried in data (FDA, EPA, DOT, OSHA, EEOC, IRS, etc)
- Test Environment Set-up (Resources) and Timing (When Needed)

# Why Plan

- Proven that it works.
- Scalable
- Controls expectations
- Controls cost and schedule
- Maximizes Quality
- No surprises for your Customer

# Keys to Success

- **The Project Sponsor must have sufficient power to reject scope creep or schedule delays.**
- **The Project Sponsor must trust you. Be open and honest with the Project Sponsor at all time.**
- **Obtain guidance from someone who has managed a migration.**
- **As PM, don't kid (a.k.a BS) yourself.**



**?'s**

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