Application Implementations
The Good, the Bad, and the Ugly

Implementation Process and Pitfalls

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Speakers

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IT Project Implementations

STATISTICS

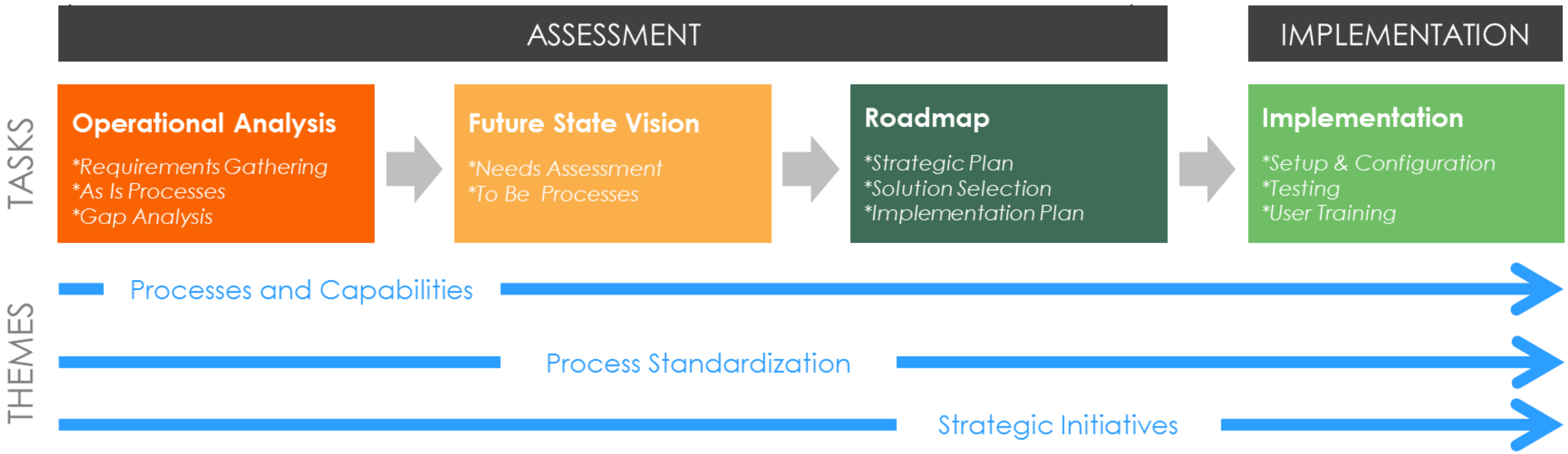
- From the Project Management Institute's 2017 Pulse of the Profession report surveying more than 3,000 project management professionals:
  - 28 % of strategic initiatives overseen by survey respondents were deemed outright failures.
  - 37 % cited a lack of clearly defined and/or achievable milestones and objectives to measure progress as the cause of failure, followed by poor communication (19%), lack of communication by senior management (18%), employee resistance (14%) and insufficient funding (9%).
- Due to poor project performance, organizations waste an average of $97 million for every $1 billion invested.
  - Better than 2016's $122 million in waste, but still a significant amount of cash lost.

Implementation Lifecycle

OBJECTIVES

Implementation Objectives

- Identifying a solution to be used across the organization
- Maximizing “out-of-the-box” functionality
- Aligning current operations with best practices



Holistic Approach

BRIDGING THE GAP

Understanding Organizational Cognitive Dissonance

- IT vs. Operational Implementation
- Functionality vs. Effectiveness
- Critical to the Individual vs. Critical to the Organization

Implementation Milestones

KEY PHASES

1. Process Prioritization
2. Needs Assessment
3. Application Assessment
4. Application Selection
5. Strategic Plan and Implementation Planning
6. Program Management and Implementation Validation

Implementation Milestones

PROCESS PRIORITIZATION

1 Process Prioritization

- Identify & prioritize industries and process areas
- Assess criticality of primary process areas
- Prepare process prioritization matrix

CRITICALITY RANKINGS

HIGH CRITICALITY

High criticality ratings are for process areas that are material, are part of the core operational model, and/or have a high compliance risk.

MODERATE CRITICALITY

Moderate criticality ratings are for process areas that would not realize a high gain from customizations, there is minimal compliance risk, and do not service the core business operations

LOW CRITICALITY

Low criticality ratings are for process areas that are typically performed manually, are not resource intensive, and do not have a high compliance risk.

Implementation Milestones

PROCESS PRIORITIZATION

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High
Moderate
Low

Sample Process Prioritization Matrix

Rank	Significant Activities	Subprocesses	Process / Subprocess Classification	Finance								Priority by Rating
1	General Revenues	Property Taxes	Centralized	X								3.03
		Franchise Fees (Cable, Natural Gas, & Telecommunications)	Centralized				X					
		Sales Taxes	Centralized	X								
2	Purchasing	Purchase Initiation and Approval	Decentralized	X	X	X	X	X	X	X	X	2.88
		Vendor Acceptance	Centralized	X								
		Vendor Maintenance	Centralized	X								
		Bidding (RFQ / RFP)	Centralized	X						X		
		Selection and Award	Centralized	X						X		
		Purchase Orders	Centralized	X						X		
		Contract Negotiation and Approval	Centralized	X						X		
		Contract Issuance and Monitoring	Centralized	X						X		
3	Fund Budgeting and Planning	Budgeting, Forecasting, and Planning Process	Centralized	X								2.67
		Development of Department Budget	Decentralized		X	X	X	X	X	X	X	
		Capital Expenditures Budget	Decentralized		X	X	X	X	X	X	X	
		Budget Monitoring (Department Level)	Decentralized		X	X	X	X	X	X	X	
		Review and Amendment	Centralized	X								
		Authorization to Transfer Non-Restricted Funds	Decentralized		X	X	X	X	X	X	X	
		Transfer of Appropriations from Fund to Fund	Centralized	X								
4	Community Development	Licenses and Permits	Decentralized				X		X	X		2.61
		Economic Development	Centralized									
		Capital Recovery/Impact Fees	Centralized							X		

Implementation Milestones

NEEDS ASSESSMENT

2 Needs Assessment

- Identify core team and conduct brainstorming sessions
- Develop baseline requirements inventory and document processes and transaction flows
- Conduct needs assessment and compile report

Key components of a requirements inventory:

- Known "pain points" in the current process
- Required integrations
- Historical data access requirements
- Key regulatory data requirements
- Required reports

Analysis

Work with management to understand the short- and long-term goals of the organization

Create a prioritized plan to align with these goals

Gain an understanding of existing procedures relating to business processes

Document all business processes as they actually occur in their current "as-is" state

Evaluation

Provide an integrated, objective and disciplined approach to documenting, evaluating and improving the effectiveness of all identified:

- "To-be" business processes
- Sub-processes
- Activities and practices

Determine the short- and long-term plan

Implementation & Training

Prepare an implementation plan

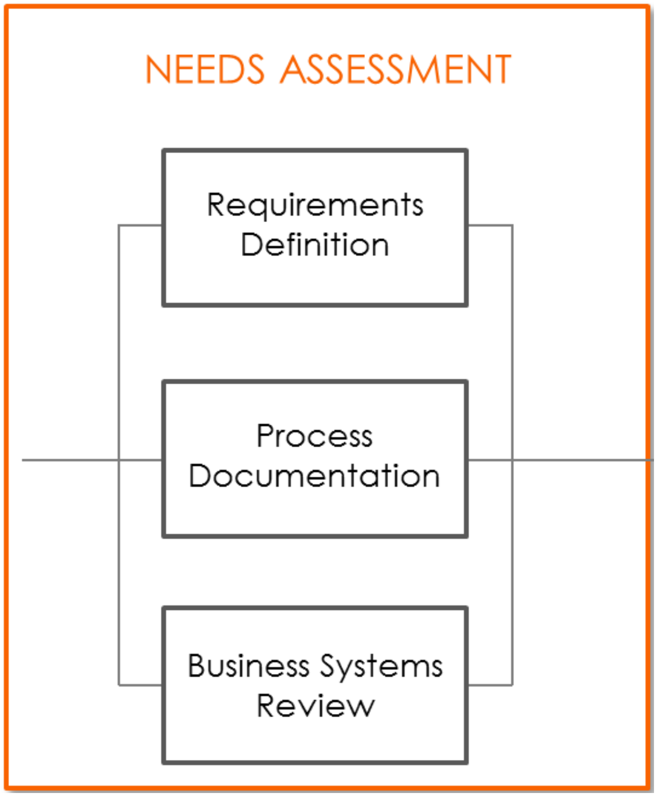
Prepare a training plan, if applicable

Map out the preliminary scope and objectives to move from the "as-is" to the "to-be" processes

Create a permanent repository for both "as-is" and "to-be" business processes that can be accessed by all users throughout the organization

Implementation Lifecycle

ASSESSMENT



Key Tasks

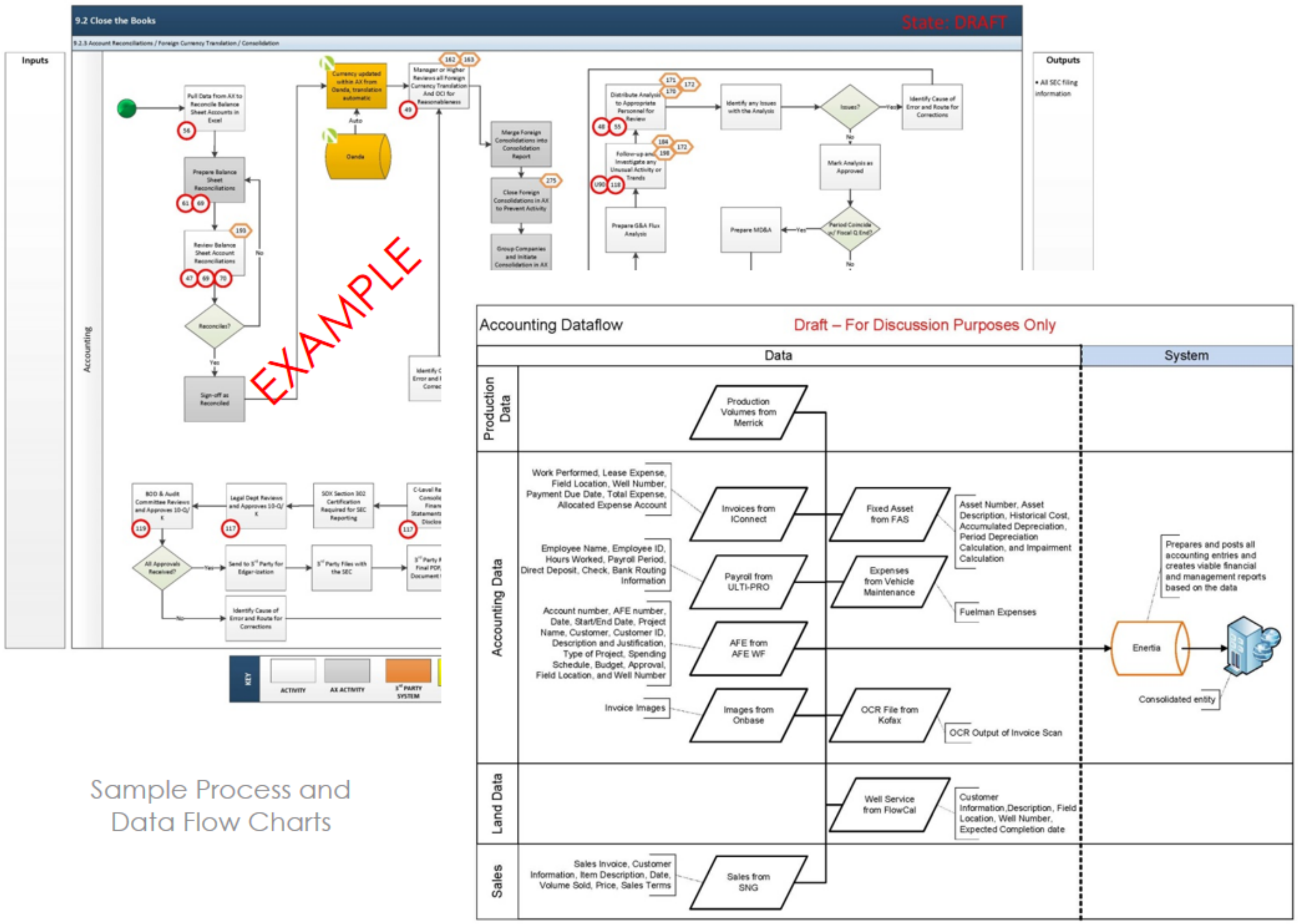
- Understand business strategy
- Define/document current processes, systems and technical infrastructure
- Define and prioritize business requirements

Key Deliverables

- Requirements Inventory
- Process Documentation and Flows
- Needs Assessment Report

Implementation Milestones

NEEDS ASSESSMENT



Sample Process and Data Flow Charts

Implementation Milestones

NEEDS ASSESSMENT

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Field Title	Field Type	Field Length	Required (Y/N)	Field Description
Inventory (Item) Master File				
Item Reference	Numeric	12	Y	Product inventory number
Product Count (bottles)	Numeric	8	Y	Total count of items on order
Order Pallets	Numeric	4	Y	Number of pallets for order
Order Master Cases	Numeric	4		
Order Sub Cases	Numeric	4		
Order Bottles	Numeric	5		
Product Lot Number	Numeric	8		
Product Location	Alpha Numeric	8		
Stock Count	Numeric	6		
Product Type	Alpha Numeric	10		
Product Description	Alpha Numeric	50		
Product SKU	Numeric	11		
Customer Product SKU	Numeric	10		
Reorder Status	Numeric	1		
Expiration date	Date	8		
Product Cost	Numeric	5		
Accounting code	Numeric	20		
Buyer	Alpha Numeric	20		
Product line	Alpha Numeric	20		
Date created	Date	8		
Creation user	Alpha	20		
Customs reference	Numeric	10		
Default title	Numeric	20		

Sample Data Elements Dictionary

Note: This matrix documents all of the reports that have been identified within the flowcharts produced as part of the documentation of the priority processes. In addition, expected management reports have been included to begin the list of required reports needed to manage the business. These reports do not have a flowchart page number included for reference.

Data Field Legend:

AN Alpha numeric Data Type D Date Data Type
N Numeric Data Type T Time Data Type
Data Field
Report Content

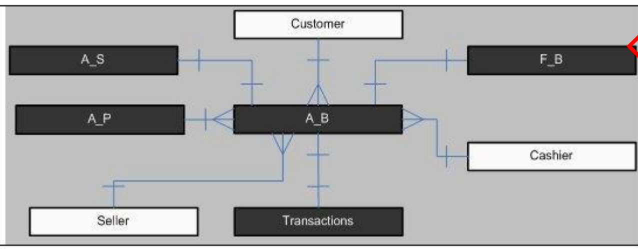
Report Number	Area	Flowchart Page Number	Report Name	Report Owner	Preparer	Reviewer	System Canned Report?	Automated Generation?	Scheduled Generation?	Report Frequency	Distribution Medium
Inventory											
1	Inventory	3	New Inventory Item Request	Chief Operating Officer	Operations Manager	Inventory Control	Y	Y	N	As Needed	Email/Workflow
2	Inventory	3	New Product Document	Director of Operations and Logistics	Researcher	Director of Operations and Logistics	Y	Y	N	As Needed	Email/Workflow
3	Inventory	3	New SKU Request	Director of Operations and Logistics	System	Inventory Control Supervisor	Y	Y	N	As Needed	Email/Workflow
4	Inventory	4	Notification of New Active SKU	Director of Operations and Logistics	Inventory Control Supervisor	Director of Operations and Logistics	Y	Y	N	As Needed	Email/Workflow
5	Inventory	5	Retiring Inventory Item Request	Chief Operating Officer	Inventory Control Supervisor	Director of Operations and Logistics	Y	Y	N	As Needed	Email/Workflow
6	Inventory	5	Consolidated Inventory Retirement Report	Chief Operating Officer	Inventory Control Supervisor	Director of Operations and Logistics	Y	Y	N	As Needed	Email/Workflow
7	Inventory	7	Stocking Documentation	Director of Operations and Logistics	System	Inventory Control Supervisor	Y	Y	N	As Needed	Email/Workflow
8	Inventory	8	Shipping Documentation	Director of Operations and Logistics	Shipper	Picker/Stocker	N	N	N	As Needed	Physical Copy
9	Inventory	15	RTV Document	Director of Quality Assurance	Manager of Quality Assurance	Director of Quality Assurance	Y	N	N	As Needed	Email/Workflow
10	Inventory	20	Sales Order	Director of Operations and Logistics	System	Director of Operations and Logistics	Y	N	N	As Needed	Email/Workflow
11	Inventory	20	Pick Ticket	Director of Operations and Logistics	System	Picker/Stocker	Y	Y	N	As Needed	Email/Workflow
12	Inventory	23	Packing Slip	Director of Operations and Logistics	System	Packager	Y	Y	N	As Needed	Physical Copy
13	Inventory	23	Commercial Invoice	Director of Operations and Logistics	System	Packager	Y	Y	N	As Needed	Physical Copy
14	Inventory	27	Daily Direct Order Shipping List	Director of Operations and Logistics	Packer	Shipping Manager	Y	Y	N	As Needed	Email/Workflow
15	Inventory	28, 29	Return Merchandise Authorization	Director of Operations and Logistics	Operations Manager	Director of Operations and Logistics	Y	Y	N	As Needed	Email/Workflow
16	Inventory	32	Request for Distribution	Director of Operations and Logistics	Inventory Control Manager	Operations Manager	Y	N	N	As Needed	Email/Workflow
17	Inventory		Shipment Forecast Report	Director of Operations and Logistics	System	Operations Manager	Y	Y	Y	Daily	Dashboard

Report Number	Transit Time	Item Location In Warehouse	Date Placed In Stock	Location Of Any Reserves	Number Of Items Placed In Reserves	Beginning Inventory Count	Time	Date of Count	Employee that Performed Count	Order Number	Date	Quantity Ordered	Purchaser	Tax	Shipping Charges	Quantity to be Picked	Unique Pick Ticket Number
Data Type:	N	AN	D	N	N	N	T	D	AN	N	D	N	AN	N	AN	N	N
1																	
2																	
3																	
4																	
5																	
6																	
7		x	x	x	x												
8	x														x		
9										x	x	x	x	x	x		
10																	
11		x								x	x					x	x
12																	
13																	
14										x							
15																	
16		x								x							
17																	

Sample Report Listing

Holistic Approach

NEEDS ASSESSMENT

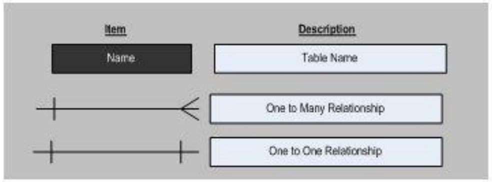
Table	A_B
Purpose	Lists Sell records at the Accounting stage
Status	Active/Retain
PK	iKey
FK	Type3_Number, Cashier, Cust_ID, Slsp
Unique Identifier	Trans
ERD	

Sample System Specifications

The diagram below shows the relationships between the physical tables from above in the triangle design and the other primary tables within each significant functional process: Process A, Operations, and Accounting. The purpose is to show the primary tables of the database that are utilized within that process and its relationship to each other. Select tables from the Tier 1 status are shown below to show the primary tables within the significant functional processes. See the System Overview document for details regarding the processes.

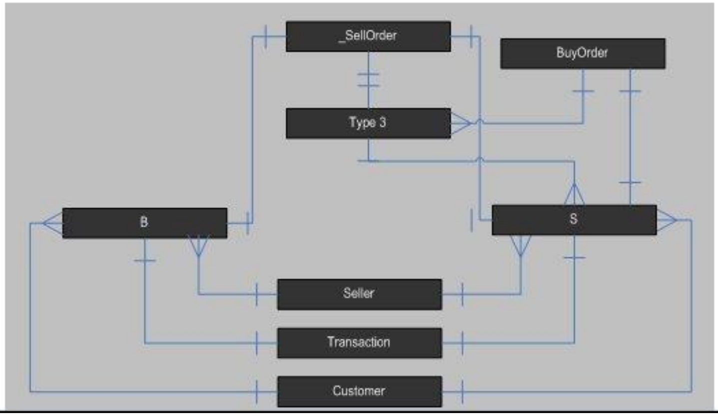
Cardinality, which shows how the tables are related to each other, is shown below. The relationship lines with cardinality show whether the records within the table have a one to one relationship between the two tables; or if the relationship is one to many.

The below describes the icons used in the below Entity Relationship Diagrams.



Sales/Trading

The BuyOrder and _SellOrder tables are the initial tables which contain the potential transaction. When the order is approved, it is respectively created in the S and B tables, including the related tables. The Transaction table is updated with the Trans ID, which will be used throughout the system as a unique identifier.



Implementation Milestones

APPLICATION ASSESSMENT/ APPLICATION SELECTION

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3 Application Assessment

4 Application Selection

- Perform needs assessment gap analysis
- Compile system requirements matrix and identify solution short list
- Develop RFP and evaluate RFP responses
- Align processes

Analyze process mapping, data elements, and required functionality to facilitate the transaction flow and reporting requirements of each key process for each service

Identification of the Scope of the Needs Assessment/GAP Analysis

The purpose of the Needs Assessment/Gap Analysis is to identify the functionality resident in the JD Edwards system and determine the system's ability to satisfy the needs of each department within CLIENT.
(Includes information from departmental meetings - not intended to be all-inclusive.)

	Department A	Department B	Department C	Department D	Department E	Department F	Department G	Department H	Department I	Department J	Department K
Assess the needs, gaps and feasibility of:											
Implementing an integrated JD Edwards system to perform the following fixed asset **accounting functions**, in addition to the standard depreciation calculation and reporting:											
Track acquisitions, transfers, and disposals	X	X	X	X	X	X	X	X	X	X	
Record fixed asset transaction activity as transactions occur	X	X	X	X	X	X	X	X	X	X	
Compare current and year to date asset acquisitions to capital budget	X	X	X	X	X	X	X	X	X	X	
Track assets by location	X	X	X	X	X	X	X	X	X	X	
Track assets by serial number	X		X	X				X	X		
Track assets by GIS identification number	X						X			X	
Track assets by identification number				X					X		
Record serial # ranges, manuf, model #, qty, unit cost of group or bulk purchases	X		X	X	X				X		
Track equipment located within each facility/substation, including serial numbers	X	X							X		
Track assets by property unit number	X										
Track project costs/construction in progress	X	X	X	X	X	X	X	X	X	X	
Provide inventory of facilities		X									
Perform departmental allocations	X	X	X	X							
Perform vehicle allocations to project cost	X	X	X	X	X	X	X	X	X	X	
Perform administrative overhead allocations to project cost	X	X	X	X	X	X	X	X	X	X	
Use asset numbers currently used in the Faster System			X								
Use asset numbers currently used in the Paradigm System					X						
Provide inventory of vehicles and their related components/equipment			X								
Track assignment of assets to employees			X	X	X	X		X	X		
Track condition of assets				X						X	
Track OCI - Overall Condition Index										X	
Track acquisitions, transfers, and disposals queried by user defined fields					X	X		X	X		
Provide user-defined comment fields to record other identification information					X	X	X	X	X	X	
Provide detailed schedules of assets sold at auction						X			X		
Perform payroll allocation to project costs	X	X	X	X	X	X	X	X	X	X	
Implementing an integrated JD Edwards system to perform the following **operational functions** as they relate to fixed assets and job costs:											

EXAMPLE

Sample Needs Assessment Gap Analysis

Implementation Milestones

IMPLEMENTATION EVALUATION

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Table of Contents

EXAMPLE

1.0 Executive Summary

1.1 Objectives

The objective is to define the requirements for the Intra

1.2 Approach

The current business process was examined within the interviewed:

- Compliance

1.3 Key Findings

There is currently no standardized process for managing and publishing of Compliance and Corporate records. The Compliance group does not currently use the Current intranet solution Compliance page for any internal processes.

The current Current intranet solution solution is no longer sufficient to support the growing needs of COMPANY XYZ and the Compliance group.

2.0 COMPANY XYZ Intranet Functional Requirements

2.1 Business Process & Intranet

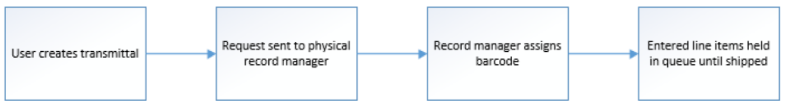
2.1.1 Existing "AS IS" Process for Compliance

2.1.1.1 Intranet Solution

Currently, the only page that is viewable externally on the Compliance site is located on Current intranet solution and is called "Ethics and Compliance Week". This is the only use of the Compliance page at this time.

2.1.1.2 Existing Workflows

Transmittal Workflow



Process Name	Transmittal Request Workflow	
Description	This process is used to create new transmittals.	
Processes	*Step #*	*Comments*
	1	User creates a transmittal
	2	Transmittal request is sent to location physical record manager (currently Jim Bob)

Sample Functional Requirements Documentation

Implementation Milestones

STRATEGIC PLAN AND IMPLEMENTATION PLANNING

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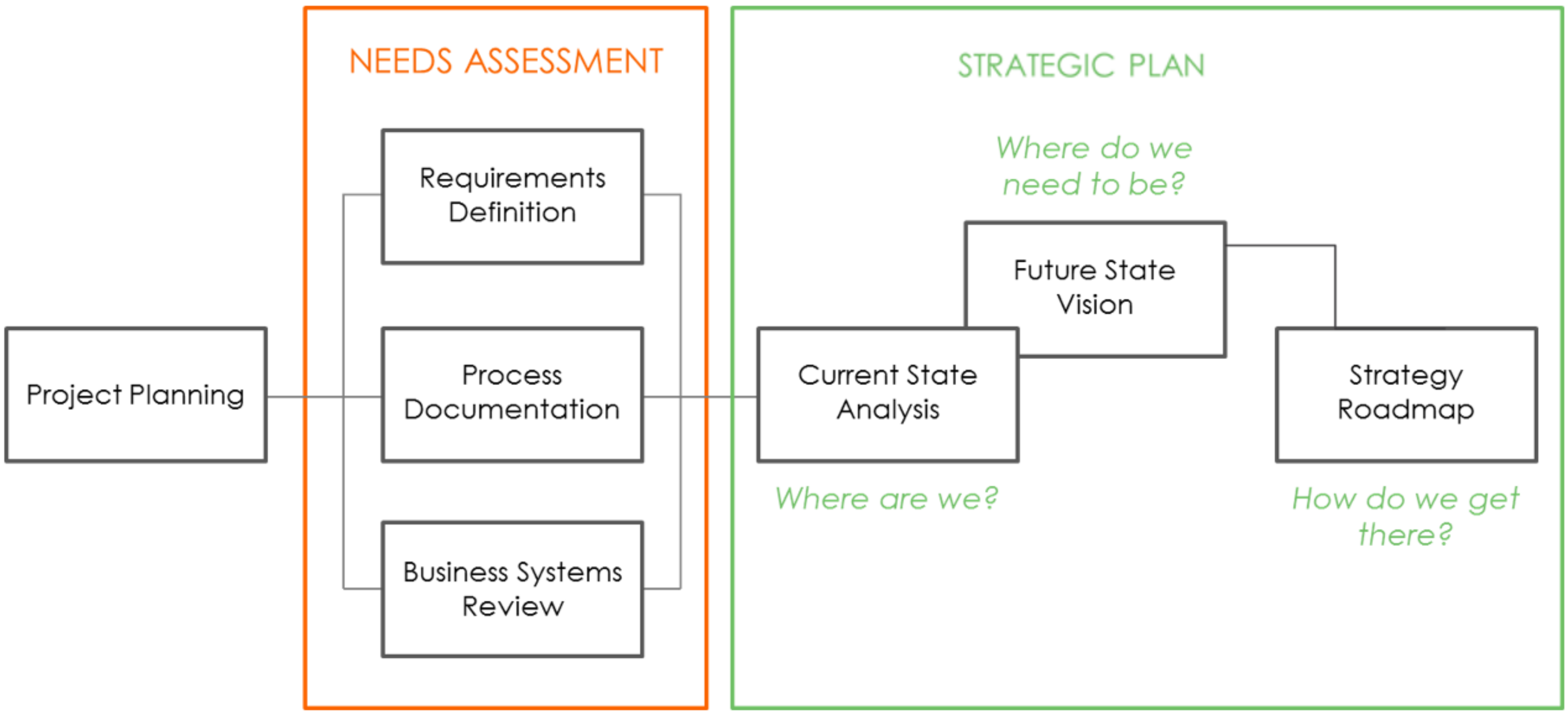
5 Strategic Plan and Implementation Planning

- **Strategic Implementation Procedures** – These are procedures related to the management of the project and include items such as the identification of the project steering committee, project governance model, customization acceptance criteria, etc.
- **Project Timeline** – The project timeline is multi-tiered to include milestone goals, project phases, project activities, and task oriented dates
- **Project Budget** – The project budget considers direct and indirect project expenses including transitory expenses as well as criteria-based contingency funds
- **Project Skills Analysis, by Phase** – The project skills analysis identifies internal and external skill sets as well as any transitions to allow for resource planning including staffing recommendations
- **System Development/Configuration** – Ensure developments meet stated requirements and proper configurations should be determined based on needed functionalities.
- **Infrastructure Assessment** – Ensure that the new system requirements are compatible with existing infrastructure or if they should be updated.
- **Controls Consideration** – Controls affected by the implementation should be considered as system functionalities supporting controls may change or no longer be available
- **Training Plan** – The training plan identifies the training model and methods, and is segregated by pilot groups, power users and general users
- **Access to Legacy Data** – Ensuring legacy data can still be accessed and readable.
- **Timing of Implementation (Fiscal Year Considerations)** – For budget considerations, business needs.

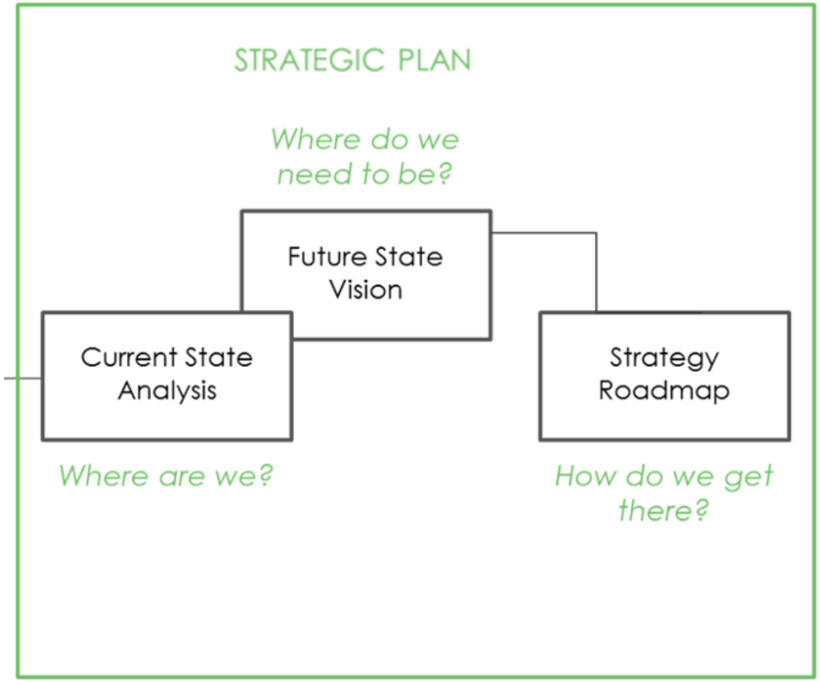
Implementation Milestones

ASSESSMENT AND STRATEGIC PLAN



Implementation Milestones

STRATEGIC PLAN



Key Tasks

- Perform gap analysis for "as is" and "to be" processes
- Develop solution short-list and compare functionality
- Prepare business cases for short list solutions
- Create RFP
- Draft strategic plan

Key Deliverables

- Functional Requirements
- Request for Proposal
- Strategic Roadmap
- Implementation Plan

Collaborative, Stakeholder Focus

PROJECT MANAGEMENT AND IMPLEMENTATION VALIDATION

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6 Program Management and Implementation Validation

Focus on consistent and reliable communication throughout the project to ensure that all key stakeholders are aware of project status, issues and accomplishments.

Informal Meetings

- Ad hoc project meetings
- Conference calls
- Task-oriented discussions

Formal Meetings

- Bi-weekly management meeting, including review of the project tracker
- Monthly stakeholder meeting to review progress, budget and ongoing strategic alignment

Collaborative, Stakeholder Focus

PROJECT MANAGEMENT DASHBOARD EXAMPLES

Records and Information Management Project Dashboard

Obj. #	Project Title	Project Completion Status	Dashboard	Estimated Completion Date	Project Activity Status	Comments
1	Structure and Mapping	100%		3/1/2019	Completed	
2	Profile Template Development	60%		6/26/2019	On-Track	
3	Physical Records Identification and Archival	0%		10/1/2019	Not Started	
4	Electronic Record Management	0%		3/1/2020	Not Started	

EXAMPLE

Dashboard | Objective 1 | Objective 2 | Objective 3 | Objective 4

Collaborative, Stakeholder Focus

PROJECT MANAGEMENT DASHBOARD EXAMPLES

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Workday Implementation
Pre-Implementation Considerations
Internal Audit Dashboard
DRAFT - For Discussion Only

(pink)	High Risk
(yellow)	Medium Risk
(green)	Low Risk

	Risk Percentages		
Pre-Implementation Area	Rating (as of 4.16.19)	Rating (as of 4.29.19)	Rating (as of 5.13.19)
Implementation Initiative/Project Management Process	83%	74%	74%
Security Administration Configuration	36%	32%	32%
Design/Requirements	60%	60%	60%
Data Migration	33%	33%	33%
Test Plans	40%	40%	40%
Interface Management	68%	68%	80%
Go-Live	64%	64%	60%
Post Go Live	53%	53%	53%
User Administration	35%	35%	35%
Business Process Controls	24%	22%	22%
Process/Functionality	18%	17%	17%
Vendor Management	33%	33%	33%

Note - The percentage represents the coverage of the risk in that area. The risk percentage is based on the rating of multiple questions that feed into the overall area's rating. The lower the

Dashboard | Implementation_Pjt Mgt | Security Administration Config | Design - Requirements | Data M

Collaborative, Stakeholder Focus

PROJECT MANAGEMENT DASHBOARD EXAMPLES

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Workday Implementation
Pre-Implementation Considerations
Internal Audit Dashboard
DRAFT - For Discussion Only

Scope: To determine and evaluate risks associated with the implementation project plan and execution. This section focuses on the project management role for the Workday Implementation.

Total Count of Questions	7	7	7	7
Sum Total	29	26	26	25
Max Total	35	35	35	35
% Risk	83%	74%	74%	71%

Question	Rating (as of 4.16.19)	Rating (as of 4.29.19)	Rating (as of 5.13.19)	Rating (as of 6.4.19)	Commentary
1. Are periodic meetings being held with the key stakeholders?	4	3	4	4	As of 5/13 - Periodic Steering Committee meetings are held with management and key stakeholders: First Meeting: March 28th 2019 Second Meeting: April 10th 2019 Next meeting: June 3/4 2019 The agenda and objective of the steering committee meetings include the timeline, budget, requirements and key decision points. Frequency of meetings are monthly. Questions for 6/4 Are agendas provided for these meetings. Are minutes of the meetings and validation of key stakeholders involvement shared following the meeting?
2. Are periodic meetings been held with the key process owners?	3	4	4	3	As of 5/13 - Inspected the steering committee meetings and they include the project team structure with the testing leads and project owners. Also confirmed the Weekly Lead Status Meeting are on-going on a weekly basis with the relevant key process owners. Questions for 6/4 What is the plan to ensure accuracy of process owners in the Weekly Lead Status Meetings?
3. Is a project plan established?	5	5	5	5	As of 5/13 - Inspected committee meetings, kickoff meetings, Implementation planning and validated that a project plan is established.
4. Is the project plan	5	5	4	4	As of 5/13 - Inspected the committee/kickoff meetings and implementation planning documents. Determined that the

EXAMPLE

Dashboard | Implementation_Pjt Mgt | Security Administration Config | Design - Requirements | Data Migration | Test Plans | Interface

Documentation

IMPLEMENTATION IT AUDIT DOCUMENATION REQUIREMENTS

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- A process should be established to include the development of testing plans with business users and requiring the documentation, as well as the retention of, approvals for user acceptance testing, data validation, and go-live approvals.

- Comprehensive documentation of system design including how it relates to business process objectives should be developed and retained.

- Documentation demonstrates that controls around implementations are in place.

Documentation

LACK OF DOCUMENTATION/CONTROLS EXAMPLE IMPACT

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Client Example Impact

- The District's internal control system over financial reporting was compromised as the new software failed to ensure that journal entries were appropriately balanced prior to posting to the general ledger.

- Upon receipt of the year end trial balance, it was noted the District's general fund and capital projects fund were out of balance $330,722* and $466,412*, respectively due to posting of unbalanced journal entries.

*amounts changed by a few dollars

Finally…

- Always…

  Always…

  Always…

Know when you don't know enough!

QUESTIONS?

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