

Software Development Process

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Software Development Process

- Management Support Processes
- 9-Phase Process
- Entrance Criteria
- Process Details

Management Support Processes

- Change Management
- Financial Management
- Operations & Customer Service
- Project Management
- Quality Assurance
- Release Management
- Resource Management
- Risk Management
- Sales / Marketing
- Software Development

Software Development Process Phases

- Project Initiation
- Concept Analysis
- Requirements
- System Architecture
- Component Design
- Construction
- Integration
- Acceptance
- Deployment

Entrance Criteria

- Research Effort
- Initial Sales Presentation
- Exploration Questionnaire (Pre-Visit/Site Questionnaire)
- Due Diligence Sessions
- Signed Contract or Signed Letter of Intent
 - Project Scope
- Country Research Effort
- Site Assessment Visit

Major Activities
Assemble Management Team Review <i>Contract / Letter of Intent</i> with Management Team Review Management Support Processes with team Develop <i>Project Plan</i> using Software Development Plan Structure Develop <i>Resource Plan</i> including roles and responsibilities Staff and Train Concept Analysis Team Conduct Project and Resource Plan Review

Review(s)
Project and Resource Plan Review

Project Initiation

Participants
Management Team

Phase Product(s)
Project Plan Resource Plan

Major Activities

Develop *System Concept*
Prepare *Reuse Proposal*
Develop *Operations Concept*
Conduct System Concept Review
Staff and Train Requirements Team

Review(s)

System Concept Review

Concept Analysis

Participants

Concept Analysis Team
Management Team

Phase Product(s)

Systems and Operations Concept
Document

Major Activities

Define Requirements and *Prototype(s)*
Derive Functional Specifications
Prepare *Requirements and Specifications Document*
Conduct System Requirements Review
Analyze and classify requirements
Prepare the *Requirements Analysis Report*
Conduct the Software Specification Review
Refine *Project and Resource Plans*
Staff and Train the Development Team

Participants

Requirements Team
Management Team
Development Team

Review(s)

System Requirements Review
Software Specification Review



Requirements

Phase Product(s)

Requirements and Specifications Document (Baseline)
Requirements Analysis Report
Refined Project and Resource Plans
Prototype(s)

Major Activities

Prepare Architecture diagrams / models for data, applications and infrastructure

Prepare *Systems Architecture Report*

Conduct System Architecture Review

Staff and Train additional resources

Review(s)

System Architecture Review

System Architecture

Participants

Requirements Team

Development Team

Management Team

Phase Product(s)

System Architecture Report (Baseline)

Major Activities
Prepare Component/Database design diagrams
Conduct design walk-throughs
Refine operational scenarios
Prepare <i>Component/Database Design Document</i>
Conduct Component/Database Design Review
Prepare <i>Build Plan</i>
Conduct Build Plan Review
Prepare <i>Build Test Plan</i>
Conduct Build Test Plan Review
Begin work on Acceptance Test Plan

Review(s)
Component/Database Design Review
Build Plan Review
Build Test Plan Review

Component Design

Participants
Development Team
Management Team
Requirements Team
Integration Team
Acceptance Test Team

Phase Product(s)
Component/Database Design Document
Build Plan
Build Test Plan

Major Activities

Code new / Revise existing components
Construct and populate physical
databases
Conduct Unit Tests
Conduct Code/Database Walk-throughs
Draft User Documentation
Release components to Integration for
Builds

Review(s)

Code/Database Walk-throughs

Construction

Participants

Development Team
Management Team
Requirements Team
Integration Team
Acceptance Test Team

Phase Product(s)

System code and supporting data and
documentation

Major Activities

Conduct Builds as per Build Plan
Perform Build Tests as per Build Test Plan
Finalize *User and Operations Documentation*
Finalize *Acceptance Test Plan*
Conduct Acceptance Test Readiness Review

Review(s)

Acceptance Test Readiness Review

Integration

Participants

Development Team
Management Team
Integration Team
Acceptance Test Team

Phase Product(s)

Tested system code, integrated application code and supporting data
Build Test results
User and Operations Documentation
Acceptance Test Plan

Major Activities
Conduct Acceptance Tests Evaluate <i>User and Operations Documentation</i> Formally Accept the System Prepare <i>Software Development History</i> Prepare <i>Release Documentation</i> Conduct Acceptance Test Completion Review

Review(s)
Acceptance Test Completion Review

Acceptance

Participants
Development Team Management Team Acceptance Test Team

Phase Product(s)
Accepted Solution for Deployment Accepted User and Operations Documentation Acceptance Test results Software Development History Release Documentation

Major Activities

Develop and Conduct Pre-Launch
Training of Users and Operations
Conduct Family and Friends Pilot
Conduct Full Deployment of System to
entire user community
Obtain *Deployment Completion Signoff*
Conduct Software Development History
Review

Review(s)

Software Development History Review

Deployment

Participants

Deployment Team
Management Team
Development Team

Phase Product(s)

Training Documentation
Signed Deployment Completion
Document