

## eMentoring Brief

Tom Welch, PMP, CPC, MBA

# Software Development Plan

## COVER

- Date
- Project Name
- Project Manager
- Contact Info
- Document #
- Revision Level
- Label "Business Confidential"

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### PROJECT OVERVIEW

- Project Objective(s)
- Narrative -- Identify customer and key stakeholders, background info, explain plan's organization, assumptions and constraints
- Specifics -- Describe high level plan, identify all related major efforts, and include summary project schedule, contractors, and vendors involved

### PROCESS PLAN

- Objective -- Define development effort as a series of processes
- Narrative -- Describe software development cycle, briefly identify processes, establish basic definitions
- Specifics -- Preliminary Analysis (or Definition Process). Analyze problem, prepare project plan, define acceptance criteria, choose preliminary tools, secure resources, understand the customer, form (very) tentative design concepts
- Design Process -- Primary design objectives, design operational programs, design support programs, redefine project plan, and conduct project review. Also, prepare for integration testing, setup change management, construct simulation models, identify resources, prepare for programmer training, publish programmer's handbook, do initial groundwork for system test, acceptance test, site test. Organize project libraries
- Programming Process
- Objectives -- Detailed design, coding, module test and integrate. Document. Also, prepare for system test and acceptance test, site test. Prepare for customer training and migration
- System Test Process
- Objectives -- Test system against problem specification, test as "live" as possible, customer test. Also, complete acceptance test preparation, train customer, update descriptive documentation, Complete user documentation
- Acceptance Test Process
- Objectives -- Execute and analyze acceptance tests, sign formal acceptance test agreement.

Also, complete customer training and update documentation

- Migration Process
- Objectives -- Data conversion, establish cutover criteria, generate fall-back plans, define migration sequence, and do cutover. Also, communicate with affected groups and support auditing process
- Operational Process
- Objectives -- Initiate operation, test on site, maintenance, tuning, and releases. Evaluate project (lessons learned)

### ORGANIZATION PLAN

- Objective -- Define project organization. Establish roles and responsibilities
- Narrative -- Describe project organization. Clarify jobs, interactions, main work flows, control points and flows, and change control procedures
- Specifics -- Roles and responsibilities, analysis and design, prepare problem specification, design spec. Change management, data control, simulation modeling, generate user documentation, integration test
- Programming -- Detailed design, coding, module test, integration test, descriptive documentation
- Test -- Generate system test (with test cases), acceptance and site test specs, gather and analyze test data. Choose and obtain test tools. Setup test libraries. Schedule test resources. Execute tests and analyze and document test results
- Staff -- Library services, computer resources, issuing Programmer's Handbook, training, special technical assignments, technical liaison, document and report control, contract change management, administrative/clerical support, Project Notebook and history
- Organizational Chart -- Preliminary Analysis, Design, Programming, System Test, Acceptance, Migration, Training, and Operational

### RISK MANAGEMENT PLAN

- Objective -- Define the ongoing practice of identifying, evaluating, and mitigating project risks
- Narrative -- Describe the basic elements of risk: cost, schedule, technical, staffing, and organizational
- Specifics -- Risk identification, analysis, tracking, control, and communications. Review risk estimating and consequences, monitoring and status checks, priorities, resolution reserves, metrics, and customer impacts, also external dependencies

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### COMMUNICATIONS PLAN

- Objective -- Define means of effective communications with key stakeholders, results and process areas to coordinate, review, and status project
- Narrative -- Describe need to communicate with customer, management, stakeholders, development staff, functional and support areas, and vendors. Discuss the formal manner in which progress is reviewed and reported
- Specifics -- Define directives, letters (alert and jeopardy), status reports, agendas, minutes, issue logs, plans, schedules, and milestones (focus, format, scope, distribution electronic/hard copy), conditions, cycle (timing), and retrieval (storage)). Also, describe internal reviews (participants, end of processes, design, programming, system test, and postmortem reviews). And external reviews (preliminary, design, and acceptance reviews). Formal inspections

### CHANGE MANAGEMENT PLAN

- Objective -- Define procedure for controlling change
- Narrative -- Describe need to create baseline documents as a reference point acceptable to both you and the customer
- Specifics -- Define baseline documents (problem and design specifications, for example), who may propose change, change proposal procedure (who, how when, type and classification, impact, recommendations (approval and rejection), change implementation (estimating, documenting, scheduling, and testing the change)

### DOCUMENTATION PLAN

- Objectives -- Identify documents, publication cycle, procedures, and resources
- Specifics -- Describe preparation and approval cycle, reproduction, distribution, electronic storage, and include document outlines

### TEST PLAN

- Objective -- Define responsibilities, tools, and procedures for conducting all levels of software system test
- Narrative -- Briefly define test hierarchy (module, integration, system, acceptance, site) and how it all levels fit together
- Unit/Module Test -- Objectives, responsibility, tools, procedures
- Integration Test -- Objectives, responsibility, tools, procedures
- System Test -- Objectives, responsibility, tools, procedures
- Acceptance Test -- Objectives, responsibility, tools, procedures
- Site Test -- Objectives, responsibility, tools, procedures
- Test Facilities -- Describe common facilities and tools (system library, computer facilities, desktop systems, operating systems, special languages, test run pickup and drop areas, CASE tools, and simulators)

- Testing Support Programs -- Describe testing of test tools

### TRAINING PLAN

- Objective -- Describe project's training responsibilities
- Narrative -- Describe training of project team (internal) and the customer (external)
- Specifics -- Describe internal training (coding languages, use of test tools, desktop resources, hardware, interfacing with subsystems, and management techniques), and external training (installing, using, and modifying software system). Also, include resources (training schedules, instructors required, materials, facilities, and any other special requirements)

### INSTALLATION & OPERATING PLAN

- Objective -- Define responsibilities for installing and operating a system
- Narrative -- Describe participants in installing and operating system. Include Migration Plan
- Specifics -- Installation (plan, responsibility, strategy, method, cutover criteria, decision points, fallback position, data conversion (who gathers, validates, and manages process), site installation teams, and site to site coordination). Operation (responsibility, maintenance, tuning, change management, work location, funding, and duration)

### RESOURCES & DELIVERABLES PLAN

- Objective -- Summarize resource estimates and schedule of all deliverables
- Narrative -- Discuss various deliverables, schedules, and resources pertinent to your project plan
- Specifics -- Review manpower and computer requirements on a monthly basis. Include all programming and management personnel per phase, subsystem or release basis. Also, identify computer resources such as processing time, storage, terminals, peripherals, and supplies, again, broken down by phase, subsystem, or program release. Recognize additional costs such as publications (reports, problem, design, and coding specs, user and test documents), travel (to customer facilities, contractors, and test sites), employee relocation, equipment and supplies, special purchases or rentals. Delivery schedules showing dates and capsule descriptions. Show milestones and budget

**Tom Welch, PMP, CPC, MBA**

Email comments to [PM4HIRE@Hotmail.Com](mailto:PM4HIRE@Hotmail.Com)

Tom Welch is a rescue and recovery consultant serving industry and government sectors