**Functional Specification**

**Owners and List of Contacts**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Email** | **Phone** | **Role** |
| John Doe | Jdoe@Me.com |  | Project ManagerDevelopment Lead |
| Joe Tester |  |  | System Test Lead |
| Jane ProdSupport |   |   | Production Support Mgr |
| Joe UserMgr |  |  | User Test Lead |
| Joe Developer |   |   | Developer – Presentation Tier |
| Jane Developer |   |   | Developer – Business Tier |
| Joe DBA |  |  | Data Base Administrator |
| Joe Tester |  |  | Tester |
| Jane Tester |   |  | Tester |
| Joe Customer |  |  | Department VP |
| Jane Customer |  |  | Department Mgr |
| Josey Customer |  |  | Product Support |

**Signoffs**

|  |  |  |  |
| --- | --- | --- | --- |
| **Phase** | **Name** | **Date** | **Signature** |
| Functional Specifications | John Doe, PM/DMJoe Tester, System Test LeadJane ProdSupport, Production Support MgrJoe User Mgr, UMJoe Customer, Customer | xx/xx/xx |  |

**Revision History**

|  |  |  |
| --- | --- | --- |
| **Date** | **Reason for change(s)** | **Author(s)** |
| *09/15/1988* | *First Draft* | *John Doe* |

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**1. Summary**

This document describes the features and timeframe desired for [ProductName]…

**2. Project Goals, Justification, and Success Criteria**

**2.1 Project Goals**

Explain the goals of the project here…

**2.2 Justification**

Explain why the project is needed. List revenue impact or cost savings information.

**2.3 Success Criteria**

List the success criteria for the project. Once the project is complete, it will be measured back to the criteria listed here to determine if the project was successful.

**3. Features**

**3.1 Feature 1**

Explain exactly what the feature is to perform in Use Case format. List any constraints, actors, security implications, etc.

**3.2 Feature 2, etc.**

**4. Security Requirements**

Explain the security requirements of the system. If needed, assign user groups and define what those groups have access to.

**5. Data Conversion Requirements**

Explain any requirements in which we must convert data to import into the system. Detail the mapping needed from their system to the new system.

**6. Performance and Response Time Requirements**

Explain how many concurrent users will be using the system and expected response time.

**7. Platform Dependent and Installation Requirements**

Explain what platforms the client presentation layer must run on (Windows 95, 98, NT 4, 5, etc) and describe the installation process.

**8. Localization Requirements**

Explain any requirements that are specific to localization (European date and postal code format, etc.)

**9. Parallel Testing Requirements**

Explain the areas of the system (if any) that must be run parallel to an existing production system and compared for consistency.

**10. Cross System Interface Requirements**

Explain the systems this system interact with and detail any requirements for testing with that system to ensure integrity.

**11. Data Archival, Backup and Recovery Requirements**

Explain the purge, archival, backup and recovery requirements of the system.

**12. Reporting Requirements**

Describe the reports (if any) are required for the system. Are they to be online or run in batch and must they be exportable to other formats such as MS Word, MS Excel or HTML.

**13. Project Flexibility Matrix**

For a project to succeed, there are 3 variables that affect how quickly a project can be completed: **Resources, Schedule and Feature** (see diagram below). One of the sides of the triangle must always be flexible to achieve success. For example, if the client has a fixed number of resources (people that work on the project) and their schedule has been set in stone, the feature set must be flexible. This means that they must be flexible to drop some features to make the pre-determined date with that number of resources.



**Project Trade-off Matrix**

|  |  |  |
| --- | --- | --- |
|  | **Inflexible** | **Flexible** |
| **Resources(Cost)** |  |  |
| **Ship Date** |  |  |
| **Features** |  |  |

Working together, the team and customer place a check mark in the appropriate column for each of the project variables. The columns are defined as:

* **Inflexible.** Mark 2 items that are inflexible. For example, if the cost and ship date are set in stone, make Resources (Cost) and Ship Date as Inflexible. Only 2 items can be inflexible, the last item must be flexible.
* **Flexible.** Mark one item as flexible. For example, if you are flexible with the features that are included in the project, mark Features as Flexible.

A team should use the project trade-off matrix as a reference when making decisions. The matrix is not intended to show absolute priorities; it is merely a tool to facilitate communication and understanding. Most important for the project team is that the matrix shows areas in which the customer is willing to compromise. Make sure that no row or column in the project trade-off matrix has more than one check mark. Any other combination poses serious risk to the project and must be accounted for explicitly in the risk management plan.

In order for a team to be successful, at least one check mark must be in the “flexible” column. This means that the team owns one side of the triangle (that iws, owns at least one variable) so that the team is empowered to manage change and risk, and is therefore positioned to achieve success instead of failure.

**14. Stack Ranking of Features**

To ensure that items are worked on in order of importance, stack rank the features with the lowest stack rank being most important and the highest stack rank being least important. This will allow the development team to focus on the important items and to manage risk.

|  |  |  |
| --- | --- | --- |
| **Ranking** | **Req #** | **Feature** |
| 1 | 1.1 | Display MSL Listings (very important) |
| … | … | … |
| … | … | … |
| … | … | … |
| 99 | 1.2 | Update agent information (not very important) |

**15. Roles and Responsibilities**

Below are the roles and responsibilities for each phase of the life cycle. Smaller projects may not be broken out to this level of detail.

|  |  |  |
| --- | --- | --- |
| **Life Cycle** | **Role** | **Responsibility** |
| Planning | Setup hardware for Development | Development Team |
|  | Functional Specs | Development Team / Client PM |
|  | Detailed Design | Development Team |
|  | Test Design | System Test Lead |
|  | Development Project Plan | Development Team |
|  | Test Project Plan and Budget | System Test Lead |
|  | Overall Project Plan | Project Manager (PM) |
| Construction | Coding | Development Team |
|  | Unit Testing | Development Team |
|  | System Test - Test Cases | System Test Team |
|  | User Test – User Test Lead | User Test Team |
|  | User Test - Test Cases | User Test Team |
|  | Setup hardware for System Testing | System Test Team |
| System Testing | Migration of code/database from Development to System Test | Development Team |
|  | Populate test database for System Test | Development Team |
|  | System Testing | System Test Team |
|  | Bug Tracking / Triage | System Test Lead, Development Manager, PM |
|  | Drops for reiteration of fixes | Development Team |
| User Acceptance Test (UAT) | Migration of code from System Test to UAT | Development Team |
|  | Populate test database for UAT | Development Team |
|  | UAT Testing | User Test Team |
|  | Bug Tracking / Triage | System Test Lead, DM, PM, User Test Lead |
|  | Drops for reiteration of fixes (must go back through System Test) | Development Team |
| Production | Migration of code from UAT to Production | Development Team |