AMIGO WAREHOUSE MANAGEMENT SYSTEM

Software Development Risk Assessment

Contents

1 Introduction:

1.1 Purpose:

Performing a risk assessment is an important step in being prepared for potential problems that can occur within software project. During the risk assessment, if a potential risk is identified, a solution or plan of action should be developed. (A problem analyzed and planned early is a known quantity. Likewise, unanticipated problems can affect a project with no resolution plan.)

2 Risk Identification and Analysis:

The following list of possible project risks is provided for use in assessing the factors that may have an effect on the cost and schedule of project. The project manager must always be vigilant, anticipating risk factors that have not been previously identified. Answer the questions as a first step toward identifying and managing risks associated with project. This list should be reviewed throughout the life of the project, at points such as when the project plan is being revised for the next lifecycle stage, to reassess whether risk factors have changed as the project progresses.

All major dependencies in the project plan are examined and evaluated.

Note: Certain assumptions are made about the basics of project management and how the project is being run. The assumptions are as follows:

1. The project will have a project plan.
2. A process methodology will be applied throughout the project life cycle.
3. A systematic method of project tracking and control and a change control process will be used.
4. An acceptably detailed Work Breakdown Structure will be produced.
5. A proper status reporting mechanism will be used to update all interested parties.
6. All roles and responsibilities are well defined

If the project is deficient in any of these areas, appropriate corrective measures should be taken before the prompt list is completed. These items make up the foundation upon which successful projects are built.

The following is a list of potential project risks. Each risk that receives a high score should have a corresponding plan for management and control of that risk.

Apply the following criteria when selecting the appropriate risk level.

Low - Very unlikely that this will occur during the life of the project

Medium - There is a 50-50 chance that this will occur during the life of the project

High - Very likely that this will occur during the life of the project

1. Risks associated with using off-the-shelf packages.
   Low **Medium** High

2. Risks associated with any conversions of existing data required before implementation of a new system.
   Low **Medium** High

3. Risks with the hardware and software (the development platform) chosen to perform project development. e.g., can this hardware and software handle the workload required to complete the project ?
   Low Medium **High**

4. Chance that the workstation environment of the intended user will change after requirements are gathered.
   Low Medium High

5. Risks to the project caused by requirements that are inadequately defined.
   Low Medium **High**

6. Risk to cost and schedule involved with the use of subcontractors as a part of the development effort.
   Low **Medium** High

7. Risk caused by a system owner's or user's representative **not** participating in the change control process used to manage all proposed changes to the software product from the Requirements Definition Stage forward?
   Low Medium **High**

3 Risk Evalution:

The following are statements that correspond to the risk statements contained in the previous prompt list. These examples are not intended to be exhaustive. Other factors may apply to the project that would give it a high risk in a particular area. These examples are meant to be a guide and may not be all inclusive.

1. If a specific piece of hardware (e.g., a color scanner) and /or software (e.g., a testing tool) is/are needed to develop or implement the project and there is either a supply problem on the manufacturer's end or the procurement process takes a long time.

2. If the project goes beyond the current fiscal year, funding for the project may decrease or dry up for the next fiscal year. The client should be aware of this as it may affect the delivery date.

3. If burden rates, support costs, and/or charges increase and are not planned for, the contractor will be graded negatively on their ability to work within their budget.

4. Not having the required people in place to complete the project would include things like not having a Visual Basic programmer in place to code the Graphical User Interface portions of the application.

5. If previous data from an old system is required to run a new system, data conversion will need to be closely managed to ensure it happens successfully.

6. If the hardware and software products are prone to bugs and are “slow”, they may be inappropriate for developing a system. This can affect development, especially during the coding and testing stages.

7. With today's rapidly changing software and hardware workstation environment there is a good chance that changes to the user's intended environment will occur, and that they will have an effect on the project.

8. Requirements that are incomplete, ambiguous, or untestable will cause problems at some point during the life of the project, normally toward the end.

9. If the organization historically has a high turnover rate, it can have an effect on the project and should be taken into account when planning. Any project that is planned not expecting attrition will experience an impact to the planned schedule when someone leaves.

10. Any move of all or a part of an organization will incur a risk because it will take time away from the project.

11. Unless planned, pulling someone from the project will have an effect on the schedule of the project because that person is not available to do the work assigned to them. If done continually, it will affect the continuity of the development team.

12. Change control and configuration management are activities that are key to delivering a project on time and within budget. If there is no control of changes to requirements, design, etc., there is the potential for serious cost overruns, depending on the size of the project. Control means all changes will be estimated and agreed upon by all parties before that change is approved.