|  |  |
| --- | --- |
|  | Risk Management Plan |
| 5/7/2013 | Graduate Capstone |

Table of Contents

[1 Introduction 2](#_Toc355688813)

[1.1 Intended Audience 2](#_Toc355688814)

[1.2 References 2](#_Toc355688815)

[1.3 Revision History 2](#_Toc355688816)

[2 Approach to Risk Management 3](#_Toc355688817)

[2.1 Risk Categories 3](#_Toc355688818)

[2.1.1 Cost Risk 3](#_Toc355688819)

[2.1.2 Schedule Risk 3](#_Toc355688820)

[2.1.3 User Risk 3](#_Toc355688821)

[2.1.4 Operational Risk 3](#_Toc355688822)

[2.1.5 Technical Risks 3](#_Toc355688823)

[2.1.6 Legal Risks 3](#_Toc355688824)

[2.2 Risk Rating System 3](#_Toc355688825)

[2.2.1 Likelihood of Occurrence 4](#_Toc355688826)

[2.2.2 Risk Impact 4](#_Toc355688827)

[2.2.3 Risk Score 5](#_Toc355688828)

[2.3 Response Strategy 6](#_Toc355688829)

[2.3.1 Mitigation 6](#_Toc355688830)

[2.3.2 Acceptance 6](#_Toc355688831)

[2.3.3 Avoidance 6](#_Toc355688832)

[2.3.4 Transference 6](#_Toc355688833)

[3 Risk Assessment 6](#_Toc355688834)

[3.1 Definitions 6](#_Toc355688835)

[3.2 Form Template 6](#_Toc355688836)

[3.3 Table Template 6](#_Toc355688837)

[Appendix 7](#_Toc355688838)

[Appendix A: Risk Form Template 7](#_Toc355688839)

[Appendix B: Risk Assessment Table Template 8](#_Toc355688840)

# 1 Introduction

This documents purpose is to give instructions and guidance regarding the identifying and handling of risks that may occur in the system.

## 1.1 Intended Audience

This document is written and is geared toward individuals of a medium level understanding of technical background and who have a medium level understanding of the project scope itself.

## 1.2 References

* <http://www.cs.odu.edu/~cpi/411/orangs11/web/plans/Risk%20Management%20Plan.doc>
* <http://www.oceanleadership.org/wp-content/uploads/2009/04/OOI_CDR_RiskMgtPlan.pdf>
* <http://www.nd.gov/itd/files/services/pm/risk-management-plan-sample.pdf>
* <http://international.fhwa.dot.gov/riskassess/risk_hcm06_05.cfm>

## 1.3 Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Name | Date | Reason For Change | Version |
| Andy Bottom | 04/29/2013 | Started compiling the plan into the document | 0.1 |
| Andy | 05/06/2013 | Finished the first version of the risk document | 1.0 |

# 2 Approach to Risk Management

## 2.1 Risk Categories

### 2.1.1 Cost Risk

This risk type is used to identify risks involving finances and costs.

### 2.1.2 Schedule Risk

This risk type identifies those occurrences that could negatively impact the schedule and push back deadlines. This risk may show a cascading effect on features after the occurrence. Risk is very time oriented focus.

### 2.1.3 User Risk

This risk involves the occurrences directly related to external users using the system. Includes security from users, both handling sensitive data and potential hackers attempting to break into the system.

### 2.1.4 Operational Risk

Directly results from Operational changes such as a change in ability to manage systems.

### 2.1.5 Technical Risks

Involve risks regarding technical systems, such as servers being overloaded.

### 2.1.6 Legal Risks

Involves legal ramifications that may impact the project and bring in outside requirements and laws that must be met.

## 2.2 Risk Rating System

In order to effectively measure the risks, the following section explains in a meaningful way what the impact of a risk may indicate.

### 2.2.1 Likelihood of Occurrence

|  |  |  |  |
| --- | --- | --- | --- |
| Numeric Score | Natural Language | Probability Value of Calculations | Probability Range |
| 1 | Remote | 5% | 1% - 10% |
| 2 | Unlikely | 26% | 11% - 40% |
| 3 | Possible | 51% | 41% - 60% |
| 4 | Probable | 76% | 61% - 90% |
| 5 | Near Certainty | 95% | 91% - 99% |

### 2.2.2 Risk Impact

|  |  |  |
| --- | --- | --- |
| Numeric Score | Impact | Description |
| 1 | Negligible | If occurred, would have no impact on the project;  Requirements would be unaffected; |
| 3 | Minor | If occurred, would cause small change in schedule; Requirements would remain intact; |
| 5 | Moderate | If occurred, would cause moderate increase in schedule; Important requirements would be unaffected. |
| 8 | Serious | If occurred, would cause large increase in schedule; Secondary requirements may not be achieved; |
| 10 | Critical | If occurred, it may cause potential project failure;  Minimal requirements may not be achieved; |

### 2.2.3 Risk Score

The matrix below is an example of the overall probability of occurrence and its related impact. The table is used to compare risks and gather a more observable prioritization between risks.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Negligible (1) | Minor (3) | Moderate (5) | Serious (8) | Critical (10) |
| Remote Occurrence (1) | 1 | 3 | 5 | 8 | 10 |
| Unlikely Occurrence (2) | 2 | 6 | 10 | 16 | 20 |
| Possible Occurrence (3) | 3 | 9 | 15 | 24 | 30 |
| Probably Occurrence (4) | 4 | 12 | 20 | 32 | 40 |
| Near Certainty of Occurring (5) | 5 | 15 | 25 | 40 | 50 |

## 2.3 Response Strategy

### 2.3.1 Mitigation

This technique is geared to minimize as much of the risk as possible or completely resolving it. Recommended if the risk cannot be avoided.

### 2.3.2 Acceptance

Essentially the team must accept the risk or completely ignore it till it occurs.

### 2.3.3 Avoidance

In this strategy, the action is to change the plan in hopes of completely avoiding the risk and prevent is from occurring.

### 2.3.4 Transference

This is the ability to transfer the risk to a third party or someone outside the scope of the project.

# 3 Risk Assessment

## 3.1 Definitions

* Risk ID – is the unique id to identify the risk
* Risk Summary – is a description about the risk
* Response Action Summary – description about the action that is needs to be done

## 3.2 Form Template

Can be found in Appendix A

## 3.3 Table Template

Can be found in Appendix B

# Appendix

## Appendix A: Risk Form Template

**<NAME>**

Information

Risk Information

|  |  |
| --- | --- |
| Risk ID | <Risk ID> |
| Risk Name | <Name> |
| Category | <Category> |

Submitter Information

|  |  |
| --- | --- |
| Name of Submitter | <User Name> |
| Date of Submission | <Date> |

|  |
| --- |
| Risk Summary |
| <Description> |

Risk Specifics

|  |  |
| --- | --- |
| Likelihood | <Likelihood> |
| Impact | <Impact> |
| Response Action | <Response> |

|  |
| --- |
| Response Action Summary |
| <Summary> |

Risk Review

|  |  |
| --- | --- |
| Review Name | <Name> |
| Date of Review | <Date> |
| Revised Impact | <Impact> |

|  |
| --- |
| Review Summary |
| <Summary> |

## Appendix B: Risk Assessment Table Template

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ID | Category | Likelihood | Impact | Response |
| <Risk ID> | <Category> | <Occurrence> | <Impact> | <Response> |
| <Risk ID> | <Category> | <Occurrence> | <Impact> | <Response> |
| <Risk ID> | <Category> | <Occurrence> | <Impact> | <Response> |
| <Risk ID> | <Category> | <Occurrence> | <Impact> | <Response> |
| <Risk ID> | <Category> | <Occurrence> | <Impact> | <Response> |