VIKING PROJECT

Measurement Plan

Version 1.0

Revision History

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| --- | --- | --- | --- |
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| 22/5/2012 | 0.1 | Write MP Draft | HIT Team |
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Measurement Plan

# Introduction

## Purpose

In the project, the estimation is very important, it helps the project manager can plan a strategy for all project. To know some estimations and the context of project. The project manager should generate necessary metrics.

To ensure Business Values:

* Cross-sell products and services to utilize reasonable resources of the ABC system, providing maximum profit
* Build an integrated, web enabled issue and action item logging and tracking application for a new ABC Systems customer. This will fill a critical gap in today’s project management tools industry and provide profit for ABC systems
* Build and nurture long-term partnerships with ABC’s customers.
* Be regarded as a premier provider of PMT solutions, develop a high quality architecture, toolkit and components
* Regain the trust of customers after the Matador project, completed Viking project in time and cost with high quality.

And then, they will know when the project need to change or modify. The main purpose of this document is provided goal and sub goal to generate metric.

The project manager will use metrics to estimate and provided some information.

## Scope

[A brief description of the scope of this **Measurement Plan**; what Project(s) it is associated with and anything else that is affected or influenced by this document.]

## Definitions, Acronyms, and Abbreviations

|  |  |
| --- | --- |
| Acronyms | Description |
| GQM | Goal Question Metric |
|  |  |

## References

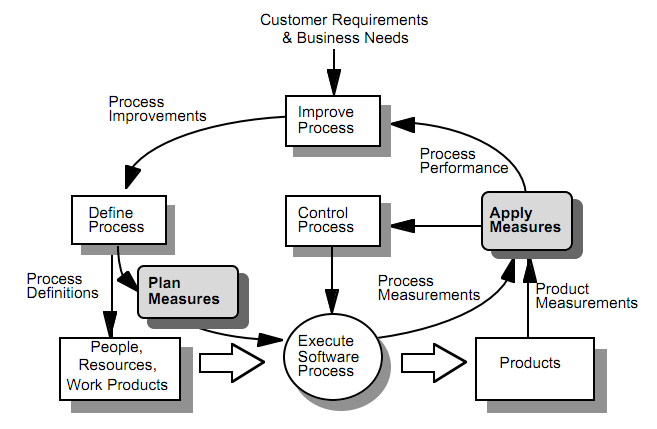
|  |  |
| --- | --- |
| Documents references | Description |
| Viking\_Project\_Charter | Will give the reader an overview of the Viking project. Includes: Project Description, Project Scope, Project stakeholders. |
| Viking\_Project\_Plan\_1.0 | Will give the reader an overview of strategy development and management Viking project. Through it, readers will also see the problem of measurement is an essential component will be implemented during project development. |
| Viking\_URD\_V1.0 | The objective of the document is to capture the understanding of customer requirements for the Viking product. |

## Overview

This software measurement plan contains following information:

* **Measurement Goals:** The goals of measurement program relative to the project in term of achievement, improvement and quality.
* **Metrics:** The metrics that are to be synthesized at regulated intervals on the project to support the goals.
* **Measurement process:** provide step by step to team to act for exactly and easy to implement collect and validate historical data as well as improve the process.
* **Time and Roles:** this table provide role to each team members responsible for the metric to collect weekly, monthly or each release.

# Measurement Process



1. **Define the process.** A process is an organized combination of people materials, energy, equipment, and procedures engaged in producing a specified end result—often a product or service. Prior to selecting and implementing measures, each contributing element of the process must be identified, and a thorough understanding of the process operation and objectives must be attained by those engaged in process management. Data-flow diagrams and control-flow diagrams can be useful tools for documenting and communicating understandable and usable (i.e.,operational) definitions.
2. **Plan the measures.** Measurement planning is based on an understanding of the defined (or implicit) software process. Here the product-, process-, and resource-related issues and attributes are identified; measures of product and process quality are selected and defined; and provisions for collecting and using the measurements to assess and track process performance are integrated into the software process.
3. **Execute the software process.** Processes are executed by the software organization. The product, process, and resource attributes that were identified are measured during and at the completion of each software process.
4. **Apply the measures.** Applying measures puts to use the measurements that are obtained while executing the software process. Data from the software process and from products produced by the process are collected, retained, and analyzed so that they can be used to control and improve the process.
5. **Control the process.** If measurements of product or performance attributes indicate that the process varies in unexpected or unpredictable ways, actions must be taken to remove assignable causes, stabilize the variability, and (if appropriate) return the process to its natural level of performance.
6. **Improve the process.** Once measurements indicate that all variability in a process comes from a constant system of chance causes (i.e., only natural or inherent variation exists), process performance data can be relied on and used to guide actions aimed at changing the level of performance. Improvement actions whose benefits are subsequently validated by measurement can then be used to update and evolve the process definition.

# Time and Roles for collecting data

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Goal | Role – Name | Time |
| 1 | Schedule | Leader – Ha Thanh | Monthly |
| 2 | Productivity | Member – Quang Hiep | Weekly |
| 3 | Team Morale | Member – Hong Phuc | Weekly |
| 4 | Customer Satisfaction | Member – Trong Giang | Release |
| 5 | Defect | Member – Chan Huy, Dung Dat | Weekly |

# Management Goals and Subgoals

Having goals and sub goals help project manager define questions. From each question, we will define metrics. With GQM, we can define a process which can show a relationship of GQM.

From one or many metric for a question, and with many question, we can determine a information that can be satisfied the goal.

Some possible goal and sub goal for example:

- Reduce product schedule by 10%

- Improve productivity by 10%

- Reduce project costs by 10%

- Improve product quality by 10%

- Reduce project risk by 10%

- Reduce product change by 10%

- Improve customer satisfaction by 10%

- Increase team morale by 10%

- Reduce defects found by system test by 10%

- Increase project schedule predictability by 10%

# GQM for Viking Project

1. Reduce Schedule

|  |  |
| --- | --- |
| Name | Reduce Schedule |
| Definition | This metric calculate by compare plan schedule versus actual schedule of Viking project |
| Goals and Question | Goal: Reduce product schedule by 10%  Question 1: What was duration of Viking plan schedule?  Question 2: What was duration of Viking actual schedule? |
| Analysis Metric | Duration of Viking plan schedule: R1  Duration of Viking actual schedule: R2  The schedule reduce by 10% when R1 - R2 >= 10% → Goal accomplished |
| Strengths | Simple, easy to understand and implement |
| Weaknesses | Can proceed only when the project has finished |

1. Improve productivity

|  |  |
| --- | --- |
| Name | Improve productivity |
| Definition | This metric calculate by compare team productivity through 2 months |
| Goals | Goal: Improve productivity by 10%  Question 1: What was team productivity in first month?  Question 2: What was team productivity in second month? |
| Analysis Metric | Team productivity in first month: R1  Team productivity in second month: R2  The productivity improve by 10% when R1 - R2 >= 10% → Goal accomplished |
| Strengths |  |
| Weaknesses | Just compare the two months, small scale, accuracy is not high  Information may not true |

1. Reduce project costs

|  |  |
| --- | --- |
| Name | Reduce project costs |
| Definition | This metric calculate by compare plan cost versus actual cost of Viking project |
| Goals | Goal: Reduce project costs by 10%  Question 1: What was Viking plan cost?  Question 2: What was Viking actual cost? |
| Analysis Metric | Viking plan cost: R1  Viking actual cost: R2  The cost reduce by 10% when R1 - R2 >= 10% → Goal accomplished |
| Strengths | Simple, easy to understand and implement |
| Weaknesses | Can proceed only when the project has finished |

1. Improve product quality

|  |  |
| --- | --- |
| Name | Improve product quality |
| Definition | This metric calculate by compare defects feedback by customer through 2 times release |
| Goals | Goal: Improve product quality by 10%  Question 1: What was the defects feedback by customer at first time release?  Question 2: What was the defects feedback by customer at second time release? |
| Analysis Metric | the defects feedback by customer at first time release: R1  the defects feedback by customer at second time release: R2  The quality improved by 10% when R1 - R2 >= 10% → Goal accomplished |
| Strengths |  |
| Weaknesses | Can proceed only when the project has released |

1. Reduce project risk

|  |  |
| --- | --- |
| Name | Reduce project risk |
| Definition | This metric calculate by compare plan risk and actual risk |
| Goals | Goal: Reduce project risk by 10%  Question 1: What was Viking plan risk?  Question 2: What was Viking actual risk ? |
| Analysis Metric | Viking plan risk: R1  Viking actual risk: R2  The risk reduce by 10% when R1 - R2 >= 10% → Goal accomplished |
| Strengths |  |
| Weaknesses | Can proceed only when the project has finished |

1. Reduce product change

|  |  |
| --- | --- |
| Name | Reduce product change |
| Definition | This metric calculate by compare plan change and actual change |
| Goals | Goal: Reduce product change by 10%  Question 1: What was Viking plan change?  Question 2: What was Viking actual change ? |
| Analysis Metric | Viking plan change: R1  Viking actual change: R2  The change reduce by 10% when R1 - R2 >= 10% → Goal accomplished |
| Strengths |  |
| Weaknesses | Can proceed only when the project has finished |

1. Improve customer satisfaction

|  |  |
| --- | --- |
| Name | Improve customer satisfaction |
| Definition | This metric calculate by compare customer satisfaction through surveys in 2 months |
| Goals | Goal: Improve customer satisfaction by 10%  Question 1: What was customer satisfaction at the first survey?  Question 2: What was customer satisfaction at the second survey? |
| Analysis Metric | Customer satisfaction at the first survey: R1  Customer satisfaction at the second survey: R2  The customer satisfaction improve by 10% when R1 - R2 >= 10% → Goal accomplished |
| Strengths | Help team know which part in project need to be improved to satisfy customers. |
| Weaknesses | Can proceed only when the project has released |

1. Increase team morale

|  |  |
| --- | --- |
| Name | Increase team morale |
| Definition | This metric calculate by compare team morale through surveys in 2 months |
| Goals | Goal: Increase team morale by 10%  Question 1: What was team morale at the first survey?  Question 2: What was team morale at the second survey? |
| Analysis Metric | Team morale at the first survey: R1  Team morale at the second survey: R2  The team morale improve by 10% when R1 - R2 >= 10% → Goal accomplished |
| Strengths | Help vice president or Executive manager know about team morale to have right actions in team treatment. |
| Weaknesses | Require team member’s honestly when answer survey.  Just compare the two months, small scale, accuracy is not high |

1. Reduce defects

|  |  |
| --- | --- |
| Name | Reduce defects |
| Definition | This metric calculate compare the deftect at the first testing and the second testing |
| Goals | Goal: Reduce defects found by system test by 10%  Question 1: What was deftect at the first testing ?  Question 2: What was deftect at the second testing ? |
| Analysis Metric | Defect at the first survey: R1  Defect at the second survey: R2  The defect reduce by 10% when R1 - R2 >= 10% → Goal accomplished |
| Strengths | Easy to gather information, information clearly |
| Weaknesses | Change requirement may affect defect |