Software configuration status accounting.

Introduction

Software configuration status accounting is a process that ensures all configuration data and documentation are recorded as each configuration item (CI) progresses through its lifecycle, from test to production to retirement.

The criterial to evaluate in the aspect of documentation is shown in the following table.

|  |  |
| --- | --- |
| Documented Process Criteria | |
| Check Mark | Task description |
|  | Record the current approved configuration documentation and configuration identifiers associated with each configuration item (CI) |
|  | Record and report implementation status of authorized changes. |
|  | Provide the traceability of all changes from the original released configuration documentation of each configuration item (CI) affected. |
|  | Record all document and software that has been delivered to the stakeholder or the main repository. |

The criterial to evaluate in the aspect of code is shown in the following table.

|  |  |
| --- | --- |
| Code Process Criteria | |
| Check Mark | Task description |
|  | Each commit has a unique identifier, a timestamp, the person who made the change, and a message describing the change. |
|  | All function develop has a backup. |

# Criterial for Time

|  |  |
| --- | --- |
| Criteria table for time | |
| Evaluated in days or month (depends on the project or the change request) | Aspect to consider: |
|  | Amount of time for the approve a change. |
|  | Amount of time for the conception of a feature to its implementation. |
|  | Amount of time that developers spend working on the project. |
|  | Amount of time from the start to the completion of the task. |

Equation for evaluation of time:

The time value must be expressed in days or months in both fields (real time and estimate time).

Real time - estimate time

Scale:

* Underestimated: This may be an indicator that tasks are more complex than expected, or that there are unanticipated problems that are slowing down the progress.
* Accurate: The time taken to complete a task is equal to the estimated time.
* Overestimated: If the actual time taken to complete a task is less than the estimated time. This can be an indicator that tasks are less complex than expected or that the team is working more effectively than anticipated.

# Criterial for money

Equation for evaluation of money

Real expense – estimate expense.

Scale:

* Underestimated: If the actual cost of a change is greater than the estimated cost.
* Accurate: If the actual cost of a change is equal to the estimated cost.
* Overestimated: If the actual cost of a change is less than the estimated cost.

|  |  |
| --- | --- |
| Criterial for money | |
| Check Mark | Aspect to consider |
|  | Training was needed |
|  | Establishment expense was considered |
|  | workers' salaries |
|  | It is considered an additional percentage to the final payment |

# Criterial for human resources

Human resources for the development area are expressed in terms of skill or experience:

* Junior: Person with low experience and require supervision and training.
* Semi Senior: Person with intermediate experience, can handle low to medium complex tasks.
* Senior: Person with experience, can handle complex tasks and leading teams.

|  |  |
| --- | --- |
| Criterial for human resources | |
| Check Mark | Aspect to consider |
|  | Training was needed |
|  | More staff needed to be hire; |
|  | Personnel are correctly assigned to necessary tasks by level of knowledge. (Junior, Semi senior, Senior) |

# Criterial for effort

This table groups certain criteria that will be evaluated to consider the degree of satisfaction of the changes.

|  |  |
| --- | --- |
| General Criteria | |
| Check Mark | Documented Process |
|  | 1. Does the contractor have a documented Configuration Status Accounting process? |
|  | 1. Does the contractor follow his documented process? |
|  | 1. Are all disciplines involved in the process informed and knowledgeable about the procedures they are supposed to follow? |
| Check Mark | Computer Software Assurance information |
|  | Has the project manager established an accurate, timely information base concerning the product and its associated product information, appropriate to the applicable phase of the life cycle? |
| Check Mark | Metrics |
|  | Does the status accounting data being collected and the information system enable meaningful metrics to be developed and used to improve the Configuration Managements process? |

# Conclusion

Other internal aspects are considered in terms of execution times, the personnel in charge and the expenses related to the change to identify the possible vulnerabilities of the decisions made to be considered in future decisions and estimates in the changes to be made in the project.