Auditing

The configuration audit is an activity that is conducted to determine that a system or item meets it functional requirements and has been built in accordance with its blueprints, source code, or other technical documents. In plain English, audits are done to prove that the thing works the way it should, and the process of the development of the system has reliable quality control.

- The goal of these configuration audits is to provide the following:
- Ensures that product design provides agreed-to performance capabilities
- Validates integrity of product configuration information
- Verifies consistency between a product and its product configuration information
- Determines that adequate processes are in place to provide continuing control of the configuration
- Provides confidence that product definition information is under configuration control

To achieve the objectives, it is necessary to carry out the following process:

General audit process

1) Ensures a controlled configuration is the basis for manufacture, installation, and maintenance instructions, training, spare and repair parts, etc.
2) Verifies that we know what we built including that part substitutions are known, and that assembly heritage is verified
3) Ties performance requirements to program documents that verify all technical requirements are met and documented
4) Identify the context and environment for a product to which CM is to be applied to determine specific CM application methods and levels of emphasis.
5) Document how the Organization will implement CM functions to provide consistency among the product requirements, the product's configuration information, and the product throughout the applicable phases of the product's life cycle.
6) Identify resources required to implement the CM functions and ensure they are applied throughout the product's life cycle.
7) Establish procedures to define how each CM function will be accomplished.
8) Conduct training so that individuals understand their responsibility, authority, accountability, and the procedures for performing specified CM tasks.
9) Use performance measures to assess the CM plan in terms of implementation and the effective performance of CM functions.
10) Delegate appropriate CM requirements to suppliers and monitor for CM functional performance.
11) Establish product configuration information status levels.
12) Ensure that transmitted product configuration information is usable.
13) Plan for long-term data preservation by addressing the information technologies used to store, retrieve, and interpret data.
14) Define the attributes of a product and its interfaces in the product definition information and use it as the basis for product operational information.
15) Define a product composition which matches its Product Configuration Information.

It is unknown what the possible result will be once it is applied in CR, it may be concluded before, just in time or after the expected time, for each case we must be prepared.

The actions for each of the 3 situations mentioned above are listed below:

Faster implementation:

- Call a meeting with the development team
  - Analyze the stages of system development and identify the total time required to develop each stage and the used resources
  - Identify the task or tasks of the development process that was completed faster than the estimated
  - To analyze the reasons why those part was finished faster than the estimated
  - Once the task that was performed faster than expected has been identified, document the procedure to be used in future projects.
  - Continue with the general audit process

Planned implementation:

- Call a meeting with the development team
- Analyze the stages of system development and identify the total time required to develop each stage and the used resources
- Analyze what could have been improved during the process in each task
- Analyze the resources used
- Make recommendations on how the resources used could be optimized
- Document recommendations for future projects
- Continue with the general audit process

slower implementation:

- Call a meeting with the development team
- Analyze the stages of system development and identify the total time required to develop each stage and the used resources
- Identify the part of the development process that was completed slower than the estimated
- To analyze the reasons why those part was not finished in the estimated time
- Ask to a member of the team if someone need help or was having problems with some assigned task
- Make a report that include the necessary extra time to end appropriately the project and the reasons why is or not necessary
- Make a report that include the necessary extra budget to end appropriately the project and the reasons why is or not necessary
- Make a report that include the necessary extra personal to end appropriately the project and the reasons why is or not necessary
- Prioritize requirements
- To have a meeting including all responsible people of the project and take a decision regarding to future of project

- In case of approving to continue with the project, the developers must develop the requirements according to their priority
- Once the above is completed, Continue with the general audit process