

Overview

This standard identifies the competences you need to perform software configuration management activities, from initial product definition until product disposal, in accordance with approved procedures. You will be given a detailed brief which includes all necessary information, in order to carry out the software configuration management activity. You will need to select the appropriate software configuration method to use, based on the type of data configured. You will be expected to use current British, European, international and company standards.

Your responsibilities will require you to comply with organisational policy and procedures for working in the software configuration team. You will be required to report any problems with the computer hardware, software or procedures that you cannot personally resolve, or that are outside your permitted authority, to the relevant people. You will be expected to work to verbal/written instructions and draft specifications, with a minimum of supervision, taking personal responsibility for your own actions and for the quality and accuracy of the work that you carry out.

Your underpinning knowledge will provide a good understanding of your work and will provide an informed approach to applying software configuration management procedures. You will understand the computer system and software used, and the various configuration tools used. You will demonstrate adequate knowledge and use of configuration and change control techniques.

You will understand the safety precautions required when working in the software development team. You will be required to demonstrate safe working practices throughout and will understand the responsibility you owe to yourself and others in the workplace.

Performance criteria

You must be able to:

1. work safely at all times, complying with health and safety legislation, regulations, directives and other relevant guidelines
2. use appropriate sources to obtain the required information for the software configuration/change control activity
3. access and use the correct software components that require configuration/change control tasks
4. use references that follow the required conventions
5. perform the software configuration/change control tasks
6. check the output from the software configuration/change control tasks
7. save and store the software configuration/change control results as the appropriate file type and in the correct location
8. deal promptly and effectively with problems within your control, and seek help and guidance from the relevant people if you have problems that you cannot resolve
9. demonstrate an ability to retrieve and re-establish a configured baseline

Knowledge and understanding

You need to know and understand:

1. the specific safety precautions to be taken when working with software development environment hardware (to include such items as safety guidance relating to the use of visual display unit (VDU) equipment and workstation environment; repetitive strain injury (RSI); the dangers of trailing leads and cables; how to spot faulty or dangerous electrical leads, plugs and connections)
2. how to return the work area to a safe and useable condition (such as cleaning down work surfaces; putting media, manuals and unwanted items of equipment into safe storage; leaving the work area in a safe and tidy condition)
3. the relevant sources and methods for obtaining any required technical information relevant to the software configuration and change control (such as new model brief/request; drawing briefs; specification sheet; request for changes or modifications to code; technical publications; calculations; software requirements)
4. the basic principles of software configuration/change control management
5. software configuration and change control methods, and national, international and relevant company software configuration management procedures
6. identification of the correct version of software tool, and the various techniques that are supported by the tool
7. how to set up and use the software configuration and change control tools
8. how to access the specific items under software configuration and change control
9. the need for configuration control on all artefacts (such as ensuring that completed results are approved, labelled and stored on a suitable storage device)
10. why it is necessary to be able to recall previous issues of configuration items
11. when to act on your own initiative, and when to seek help and advice from others

Scope/range

1. Prepare for the software configuration management, by carrying out all of the following:
 1. check that the working environment is in a safe and appropriate condition and that all working equipment is in a safe, tested and usable condition (such as cables undamaged, correctly connected, safely routed)
 2. start the appropriate software configuration/change control tool
 3. set up the environment and select a suitable template/folder
 4. identify the relevant item(s) to be configured
 5. identify the required standards and all relevant sources (such as software requirements, design and software coding standards)
2. Use one of the following to obtain the necessary data to apply correctly the software configuration/change control tasks:
 1. change order/modification request
 2. regulations
 3. technical notes (such as meetings/discussions, e-mail)
 4. change control board minutes
 5. backup initiation and recovery requests
 6. build request
 7. other specific available data
3. Carry out all of the following before performing the software configuration/change control activities:
 1. ensure that the data and information you have is complete and accurate
 2. analyse the data and information to identify the correct items to be configured
 3. recognise and deal with problems (such as technical issues and lack of information, or incorrect, information)
4. Correctly perform change control activities within a software configuration framework, using one of the following techniques:
 1. baselines
 2. formal reviews
 3. change requests
 4. build management
 5. problem reports
 6. change boards
5. Check the change control and configuration for all of the following:
 1. completeness
 2. traceability
 3. accuracy
 4. identification
6. Save and store the results in appropriate locations, to include carrying out all of the following:

1. check that the results are correctly titled, referenced and annotated
2. ensure that your results have been checked and that they comply with company procedures
3. save the results to an appropriate location (such as storage device, configuration database)
4. ensure that a separate backup copy is created and placed in safe storage
5. register and store the results in the appropriate company information system (where appropriate)
6. retrieve and re-establish a configured baseline

SEMETS368



Performing engineering software configuration management

Developed by	Enginuity
Version Number	3
Date Approved	30 Mar 2021
Indicative Review Date	01 Mar 2024
Validity	Current
Status	Original
Originating Organisation	Enginuity
Original URN	SEMETS368
Relevant Occupations	Engineering, Engineering and Manufacturing Technologies, Engineering Technicians
Suite	Engineering Technical Support Suite 3, Advanced Manufacturing
Keywords	engineering; technical; support; baselines; build management; formal reviews; problem reports; change requests; change boards; completeness; identification; traceability; accuracy