



**Australian Government**

# **ICTICT449 Use version control systems in development environments**

**Release: 1**

# ICTICT449 Use version control systems in development environments

## Modification History

| Release   | Comments   |
|-----------|--|
| Release 1 | This version first released with ICT Information and Communications Technology Training Package Version 6.0. |

## Application

This unit describes the skills and knowledge required to use version control systems to track content, versions and maintain a code repository of work when developing in an ICT environment.

It applies to individuals who work in a development environment and create a history of changes to track multiple versions of their own or team's work. These development environments include processes of designing, building and testing code and product.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Unit Sector

General ICT

## Elements and Performance Criteria

| ELEMENT  | PERFORMANCE CRITERIA  |
|--|---|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>  |
| 1. Prepare to use version control systems (VCS)  | 1.1 Research and choose version control system (VCS) according to organisational requirements<br>1.2 Identify required subversion and VCS pre-installation factors<br>1.3 Determine and communicate installation disruption to required personnel according to organisational policies and procedures<br>1.4 Install VCS and create personal account and push changes from branch according to VCS service provider and organisational requirements<br>1.5 Configure tools and user interface of VCS according to organisational requirements |

|                        |  |
|------------------------|--|
| 2. Build files in VCS  | 2.1 Create local repository according to service provider procedures<br>2.2 Create required directory according to service provider procedures and organisational requirements<br>2.3 Create and access required staging environment structures and branches<br>2.4 Create and access files in the repository according to service provider procedures                                   |
| 3. Test VCS            | 3.1 Add and commit files to staging environment<br>3.2 Commit required files to local depository<br>3.3 Locate track of initial version change and confirm new status according to service provider procedures<br>3.4 Respond to remote pull requests according to service provider procedures<br>3.5 Retrieve remote commits and locally merge according to service provider procedures |
| 4. Finalise use of VCS | 4.1 Document VCS test outcomes according to organisational requirements<br>4.2 Submit documented outcomes to required personnel<br>4.3 Respond to feedback on documented outcomes from required personnel<br>4.4 Obtain final task sign off from required personnel  |

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria*

| SKILL                   | DESCRIPTION  |
|-------------------------|--|
| Oral communication      | <ul style="list-style-type: none"> <li>• Uses listening and questioning techniques and effective mode of communication to confirm requirements and negotiate outcomes using required language</li> </ul> |
| Reading                 | <ul style="list-style-type: none"> <li>• Analyses textual information to establish requirements</li> </ul>   |
| Writing                 | <ul style="list-style-type: none"> <li>• Prepares documentation for final outcomes using comprehensive structure, layout and complex industry language</li> </ul>  |
| Teamwork                | <ul style="list-style-type: none"> <li>• Applies protocols governing what to communicate, with whom and how, in a range of work contexts</li> </ul>  |
| Planning and organising | <ul style="list-style-type: none"> <li>• Plans a range of routine, and some non-routine, tasks, accepting stated goals and required outcomes</li> </ul>  |

| <b>SKILL</b>    | <b>DESCRIPTION</b>   |
|-----------------|--|
| Problem solving | <ul style="list-style-type: none"><li>• Gathers information and identifies and evaluates several choices against a limited set of criteria</li><li>• Applies formal problem-solving processes when tackling unfamiliar problems, breaking complex issues into manageable parts and identifying and evaluating options for action</li></ul> |
| Self-management | <ul style="list-style-type: none"><li>• Follows explicit and implicit procedures and meets expectations associated with own role when submitting documentation for approval and completing organisational requirements</li></ul>   |
| Technology      | <ul style="list-style-type: none"><li>• Uses procedures and techniques to maintain articulation of version control systems</li></ul>   |

## Unit Mapping Information

No equivalent unit. New unit.

## Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>