



**Australian Government**

# **ICTPRG515 Review developed software**

**Release: 1**

# ICTPRG515 Review developed software

## Modification History

| Release   | Comments                                                                                                     |
|-----------|--------------------------------------------------------------------------------------------------------------|
| Release 1 | This version first released with ICT Information and Communications Technology Training Package Version 1.0. |

## Application

This unit describes the skills and knowledge required to review developed software in relation to quality standards. This involves reviewing quality standards, determining development quality issues, and closely reviewing specific quality areas.

It applies to individuals who are senior programmers who ensure the quality of software produced by others.

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

## Unit Sector

Programming and software development

## 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. Review the quality standards                  | 1.1 Review the organisation's quality standards, and the standards related to software development, and prepare them for use<br>1.2 Contact the appropriate person to discuss their involvement in the review, and establish their role<br>1.3 Determine and document the approach to be used to validate quality during the review |
| 2. Determine development quality issues          | 2.1 Examine and document processes that have a significant impact on the quality of a particular product under development<br>2.2 Hold discussions on quality issues with the development staff                                                                                                                                     |

| ELEMENT                              | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                      | and establish agreed actions<br>2.3 Allocate responsibilities to the development staff<br>2.4 Obtain agreement from the appropriate person on the procedures to ensure quality of development, where necessary                                                                                                                                                           |
| 3. Review the specific quality areas | 3.1 Review plans to ensure that they are adequate to control the quality of the development process<br>3.2 Review testing processes, to ensure that defect-free software will be developed<br>3.3 Examine documentation and methods for development, to ensure that the software will be supportable<br>3.4 Monitor the requirements to ensure that client needs are met |

## Foundation Skills

*This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.*

| Skill                      | Performance Criteria | Description                                                                                                                                                                                                                                                                                        |
|----------------------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading                    | 1.1                  | <ul style="list-style-type: none"> <li>Interprets, and critically analyses, complex texts and applies appropriate strategies, to construct meaning from the organisation's quality standards and the standards related to software development</li> </ul>                                          |
| Writing                    | 1.3, 2.1             | <ul style="list-style-type: none"> <li>Displays a knowledge of structure and layout, employing a broad vocabulary, grammatical structure and the conventions appropriate to text, when documenting the validation approach, and the processes, that have an impact on quality</li> </ul>           |
| Oral communication         | 1.1, 1.2             | <ul style="list-style-type: none"> <li>Demonstrates flexibility in spoken texts by choosing appropriate structures and strategies in a range of contexts, and applies appropriate strategies, to extract the main ideas from oral texts</li> </ul>                                                 |
| Navigate the world of work | 2.4                  | <ul style="list-style-type: none"> <li>Recognises and responds to both, explicit and implicit, protocols within familiar work contexts and appreciates the importance of identifying, and responding to, protocols in new situations, in the context of gaining agreement on procedures</li> </ul> |
| Interact with              | 2.2                  | <ul style="list-style-type: none"> <li>Uses active listening, observational and questioning techniques in order to identify different perspectives,</li> </ul>                                                                                                                                     |

|                   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| others            |     | and confirm, clarify or revise understanding <ul style="list-style-type: none"> <li>• Collaborates with others to achieve joint outcomes, playing an active role in facilitating effective group interaction, influencing direction, and taking a leadership role on occasion</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Get the work done | All | <ul style="list-style-type: none"> <li>• Sequences and schedules complex activities, monitors implementation, and manages relevant communication</li> <li>• Uses systematic, analytical processes in complex, non-routine situations, setting goals, gathering relevant information, and identifying, and evaluating options against the agreed criteria</li> <li>• Uses analytical processes to decide on a course of action, establishing the criteria for deciding between options, and seeking input and advice from others, before taking action when necessary</li> <li>• Demonstrates a sophisticated understanding of principles, concepts, language and practices associated with the digital world</li> </ul> |

## Unit Mapping Information

| Code and title<br>current<br>version         | Code and title<br>previous<br>version         | Comments                                                 | Equivalence<br>status |
|----------------------------------------------|-----------------------------------------------|----------------------------------------------------------|-----------------------|
| ICTPRG515<br>Review<br>developed<br>software | ICAPRG515A<br>Review<br>developed<br>software | Updated to meet<br>Standards for<br>Training<br>Packages | Equivalent<br>unit    |

## Links

Companion Volume implementation guides are found in VETNet -

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

# Assessment Requirements for ICTPRG515 Review developed software

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## Performance Evidence

Evidence of the ability to:

- review and discuss the organisation's quality standards relevant to software development
- determine and document quality standards and procedures that support the development of defect-free products to meet client requirements
- review plans, testing processes and documentation related to the quality of software development to ensure that client needs are met.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

## Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- describe the client business domain
- summarise industry-accepted hardware and software products
- describe input and output drivers
- identify and describe operating systems
- identify and describe:
  - two or more procedural languages
  - three or more object-oriented languages
- describe quality assurance practices, and the identification of standards
- explain real-time programming techniques
- describe software application measuring and estimating methodologies
- describe software development and configuration management processes
- explain the process of software metrics development.

## Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the programming and software development industry, and include access to:

- data dictionaries
- design specifications
- a data stream management system (DSMS)
- a simulated scenario
- Australian and international software quality standards.

Assessors must satisfy NVR/AQTF assessor requirements.

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