



Australian Government

ICTPRG439 Use pre-existing components

Release: 1

ICTPRG439 Use pre-existing components

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 identify, evaluate and incorporate pre-existing (re-use) components from a library, or other source, as part of a software project.

It applies to those who work in a programming role in a variety of information technology areas, who are required to use programming libraries to support their work.

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. Identify potential re-use components	1.1 Analyse project design and required functionality 1.2 Source re-use components according to required functionality
2. Evaluate and select re-use components	2.1 Evaluate suitability of re-use component and libraries 2.2 Compare functionality of re-use components according to functionality required by parent project 2.3 Clarify technical impact on parent project design 2.4 Identify re-use component vendor licensing agreements, requirements and costs 2.5 Finalise and document selection, evaluation and decision processes according to organisational requirements
3. Incorporate re-use	3.1 Configure development environment and include re-use

components into parent projects	components during build process 3.2 Construct test programs or use provided example programs according to organisational guidelines and procedures 3.3 Add re-use components incrementally to parent project 3.4 Resolve re-use component dependencies according to task requirements 3.5 Assemble and test parent project according to functionality provided by re-use components 3.6 Review parent project and amend issues accordingly
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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
Numeracy	Selects from, and applies a range of mathematics and problem-solving techniques when evaluating costs
Reading	Identifies and interprets technical and organisational documentation to determine and confirm job requirements
Writing	Develops documentation selection, evaluation and decision processes according to organisational requirements using appropriate structure, layout and technical programming language
Problem-solving	- Decides on a course of action using analytical processes - Uses systematic and analytical processes in complex non-routine situations, setting goals and gathering information
Technology	- Improve personal productivity and optimises software functions using a broad range of features within applications - Interprets key principles and concepts underpinning the design and operation, of digital systems and tools and applies these to troubleshoot technology

Unit Mapping Information

Supersedes and is not equivalent to ICTPRG413 Use a library or pre-existing components.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for ICTPRG439 Use pre-existing components

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- identify, evaluate and select at least two existing components to be re-used in a software project.

In the course of the above, the candidate must:

- identify costs of incorporating existing components
- address technical impacts and vendor licensing issues
- document selection and evaluation processes
- test functionality of pre-existing components
- comply with organisational guidelines and procedures.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- industry development and design methodologies
- re-use component licensing agreements, requirements and implementation costs
- project designs that may assist in using pre-existing components
- library content and structures
- documentation techniques used to document selection, evaluation and decision processes
- project testing methods that may assist in determining pre-existing components
- re-use component dependency and version compatibility
- repository tools applicable to using pre-existing components
- organisational guidelines and procedures applicable to using pre-existing components.

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry.

This includes access to:

- software development environment
- libraries and re-use components
- vendor licensing agreements
- technical requirement guidelines
- required hardware and its components.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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