



Australian Government

ICTPRG405 Automate processes

Release: 1

ICTPRG405 Automate processes

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 write scripts to automate solutions, by using basic scripting processes, and application-specific scripting options.

It applies to individuals who may work in information and communications technology (ICT) support roles and who are required to automate tasks.

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. Develop algorithms to represent a solution to a given problem	1.1 Develop an algorithm that is an exact and sufficient description of the solution 1.2 Develop an algorithm that takes account of all possible situations 1.3 Develop an algorithm that is guaranteed to end
2. Describe the structures of the algorithms	2.1 Use structures, sequence, selection and iteration 2.2 Use structures to describe algorithmic solutions to a problem
3. Design and write the script or code	3.1 Create an abstract design, to fulfil the requirements of the proposed process

ELEMENT	PERFORMANCE CRITERIA
	3.2 Review the abstract design for any omissions or errors 3.3 Translate the abstract design to the chosen language 3.4 Create the internal documentation
4. Verify and review the script or code	4.1 Check the script or code, for syntax and semantic errors 4.2 Identify any areas that are not covered, or are covered incorrectly, in the script or code
5. Document the script or code	5.1 Create technical-level documentation 5.2 Create user-level documentation

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	3.2, 4.1, 4.2	Analyses complex technical documentation for any inconsistencies and errors
Writing	3.1, 3.3, 3.4, 5.1, 5.2	Completes code and workplace documentation, using the vocabulary and form appropriate to the context and audience
Numeracy	1.1, 1.2, 1.3, 2.1	Interprets, and manipulates, complex formulae and numerical information
Get the work done	1.2, 2.2, 3.1, 3.2, 3.3, 4.2	- Uses systematic analytical processes to review and identify coding errors - Uses familiar digital technologies and systems to access information, search and enter data, code, and to present information and communicate with others, cognisant of data security and safety

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTPRG405 Automate processes	ICAPRG405A Automate processes	Updated to meet Standards for Training Packages	Equivalent 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 ICTPRG405 Automate processes

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Performance Evidence

Evidence of the ability to:

- develop an algorithmic statement of a solution, for a set process
- produce a functional script to automate a set process
- document this script for internal and external stakeholders.

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:

- explain debugging for a variety of scripting scenarios
- describe the principles of algorithms, and their application, in computer programming
- describe scripting language syntax
- identify and describe scripting techniques.

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:

- applications capable of being scripted, or having their own scripting language
- templates for automating processes
- executable scripts for set repeat time slices, single runs or break-out loops
- debugging tools.

Assessors must satisfy NVR/AQTF assessor requirements.

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