



Australian Government

DEFFOR015 Conduct digital data search and analysis

Release: 1

DEFFOR015 Conduct digital data search and analysis

Modification History

Release 1. This is the first release of this unit of competency in the DEF Defence Training Package.

Application

This unit describes the skills and knowledge required to analyse digital data that has been acquired through a range of digital forensic methodologies. It includes analysing digital storage devices for artefacts that may become evidence.

This unit applies to those working in the gathering and analysis of digital data.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to, particularly those relating to work health and safety (WHS) and the conducting of digital data search and analysis.

Those undertaking this unit would work independently, with minimal supervision, while performing complex tasks, including making complex judgements. They would use discretion and judgement and take responsibility for the quality of their outputs.

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

Pre-requisite Unit

Not applicable.

Competency Field

Digital Forensics.

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1 Reduce and describe data**
 - 1.1** Identify digital data to be analysed
 - 1.2** Reduce the data, identify possible artefacts and describe these in a suitable form to support the development of interpretations
 - 1.3** Decrypt data if appropriate
 - 1.4** Review the reduction and description processes to determine their suitability for acquisition and analysis, and make improvements where necessary
 - 1.5** Save data not used in the reduction and description processes for future reference
- 2 Analyse and interpret data**
 - 2.1** Interpret the data using deduction, induction and problem-solving techniques
 - 2.2** Analyse digital storage devices for artefacts that may become evidence
 - 2.3** Apply sound reasoning to ensure consistency of interpretations based on the data
 - 2.4** Base interpretations on the factual quantitative and qualitative data
 - 2.5** Develop a reconstruction of events using analysis techniques
- 3 Develop conclusions and recommendations**
 - 3.1** Test and review possible interpretations to ensure they are credible and consistent with relevant data
 - 3.2** Refine and consolidate interpretations to strengthen inferences drawn
 - 3.3** Clearly state assumptions in the arguments leading to inferences
 - 3.4** Formulate sound inferences, probable predictions, interpretations and/or explanations from facts and the tested interpretations
 - 3.5** Ensure transparency in the investigation process by formulating inferences through a clear chain of reasoning
 - 3.6** Review inferences to identify and address any fallacies in reasoning

- 3.7 Assess the relationship between the data developed and the probable interpretations to ensure validity and compliance, and report in accordance with organisational requirements
- 3.8 Develop and report conclusions and recommendations, addressing evidential requirements

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the DEF Defence Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit supersedes and is equivalent to DEFFOR006 Conduct electronic data search and analysis.

Links

Companion Volume Implementation Guides are found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6bdbab1e-11ed-4bc9-9cba-9e1a55d4e4a9>

Assessment Requirements for DEFFOR015 Conduct digital data search and analysis

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- analysing and evaluating data
- applying reasoning processes using at least two of:
 - inductive (interpreting raw information, identifying and testing trends or patterns)
 - deductive (beginning with a hypothesis and testing it), lateral, critical or creative
 - problem-solving techniques and decision making
- conducting a digital data search using forensic hardware and software
- communicating and negotiating
- analysing and evaluating data
- maximising the potential evidentiary value of the digital evidence
- operating safely
- preparing reports
- reducing and describing data
- using and interpreting the outcomes from different types of digital forensic tools

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- analytical techniques appropriate for data analysis systems
- available resources required to support the analysis process
- digital operating and storage device theory, characteristics and operating mechanisms
- evidentiary requirements
- inductive/deductive reasoning processes
- relevant laws, policies and procedures
- security issues and classifications
- the influence of human factors on data analysis
- various types of digital forensic tools and their capabilities and limitations
- work health and safety (WHS) practices to be followed when conducting digital data search and analysis.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation, including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools, equipment and personal protective equipment (PPE) currently used in industry.

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