

Digital Occupational Profile Version 1.0

Occupation

821611 Railway Track Worker - Track Protection Officer



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Citation: Carretero Gomez, S., Vuorikari, R. and Punie, Y., DigComp 2.1: The Digital Competence Framework for Citizens with eight proficiency levels and examples of use, EUR 28558 EN, Publications Office of the European Union, Luxembourg, 2017, ISBN 978-92-79-68006-9 (pdf),978-92-79-68005-2 (print),978-92-79-74173-9 (ePub), doi:10.2760/38842 (online),10.2760/836968 (print),10.2760/00963 (ePub), JRC106281.

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The digital occupational profile defines the knowledge, skills and proficiency levels that a professional must possess to adequately perform the tasks that require digital capability in their occupation.

The profile can serve to assess the potential of a professional and their suitability to the requirements of an occupation, to detect needs and manage training plans as well as to evaluate proficiency.

Digital capability training and upskilling may be represented in Nationally Recognised Training, Accredited Courses, Enterprise Training, Propriety Training (e.g. Microsoft); at any point in the training sequence.

The digital occupational profile model uses the Australian Digital Capability Framework as a reference for the description of digital capabilities, their level of proficiency, and task descriptors. Experts in the occupation are interviewed to establish the digital aspects of their professional tasks and to describe the specific content of the digital capabilities for the occupation, as reflected in this document.

The digital occupational profiles places digital capabilities into three categories of usage based on work tasks and work processes:

Essential digital capabilities

capabilities that are essential and specific to the occupation described in the profile

Transferrable digital capabilities

capabilities that are essential to the occupation described in the profile but may also be used across multiple occupations

Complementary digital capabilities

skills that are useful and improve job performance but are not strictly necessary

Some capabilities from the Australian Digital Capability Framework may be excluded from some profiles because they are not required in the work processes of a certain occupation.

In each profile, the appropriate level of proficiency for each capability is established, with the type of knowledge, skills and attitudes required for that particular occupation described. These particular descriptions for each capability are occupation-specific: some profiles will have the same capability but with different descriptions, as each capability may cover different activities.

Note: Please refer to the Australian Digital Capability Framework and Proficiency levels for reference.





Digital Occupational Profile

Occupation

Track Protection Officer

e.g. Grape Grower

ANZSCO Code

821611

e.g. 121617 Wine Grape Grower, 121612 Fruit Grower

Future Skills/Upcoming/ New Technology

- Communications devices and technology
- High speed rail infrastructure
- Augmented reality (AR) and Virtual Reality (VR) – training, infrastructure inspection
- Unmanned aircraft for inspection (Drones)
- Automated warning devices and technology.
- Integration of AI technologies

Labour Market/ Occupational information

- Rail Track Worker: Career and training pathways (railskillshub.gov.au Link to occupation)
- Australian Skills Classification Jobs and Skills Australia)
- Australasian Railway Association: The Rail Industry Worker (RIW) program (https://www.riw.net.au/)
- Network Rules and Network Procedures
 Certification Standard V9.0
 (railsafe.org.au)
- Network Rules and Network Procedures
 Training Standard V6.1 (railsafe.org.au)

Training Opportunities

- TLISS00128 Rail Infrastructure Induction Skill Set
- TLI27121 Certificate II in Rail Infrastructure
- TLI32721 Certificate III in Track
 Protection
- TLI47121 Certificate IV in Rail Infrastructure
- TLI50621 Diploma of Rail Operations
 Management
- TLI32821 Certificate III in Rail Operations

List Future Skills/Upcoming/New Technology that is/ could impact the occupation Links or information that may be relevant to the occupation Links or information in this section to relevant training. It may cover all or some of the skills in the DOP.



Key functions of the occupation

- Track protection officer implement varying levels of safeworking worksite protection for activities being undertaken in the rail corridor by suitable qualified and inducted rail industry workers in accordance with relevant rail networks procedures.
- Considerations: physically demanding, requires driving and working outdoors.
- Assess all risks associated with work within, and/or entry to, the Rail Corridor
- Identify level of protection required
- Implement appropriate methods of worksite protection
- Act as a lookout
- Pilot rail traffic in and within a possession area
- Maintaining effective safety critical communication with all parties involved in implemented protection. Implementation of protection before, during and after

Digital Equipment used in the role

- Communications systems
- Augmented reality (AR) and Virtual Reality (VR)
- Unmanned aircraft (Drones)
- Automated warning devices and technology
- iPads
- Handheld terminals

List key digital and non digital tasks for the occupation

List digital equipment used, sources of information for this could be the ASC, CVIG or and SME etc.



Digital Focus Area 1: Information and Data Literacy

1.1 Search, browse, and filter information

Foundation		Intermediate		Advanced		Specialised	
		\boxtimes					
1	2	3	4	5	6	7	8

To understand the purpose, required content, and methods for the search. Search effectively for content, navigate between various resources, and apply, maintain and improve personal search strategies

Category of Usage	Digital Capability Skills
Transferrable	Use digital devices in the workplace
Transferrable	Safety critical data is imputed in a complete and accurate manner
Essential	Precautions against the loss or corruption of data are followed in accordance with workplace procedures
Essential	Access and search relevant/current network platforms for network specific documentation/data
Complementary	Accessing and prompting Al data bases
Transferrable	Usage of camera to capture QR codes
Choose an item.	



Digital Focus Area 1: Information and Data Literacy

Foundation		Intermediate		Advanced		Specialised	
	\boxtimes						
1	2	3	4	5	6	7	8

1.2 Verify information and data

To analyse, compare and critically evaluate the credibility and reliability of sources of data, information and digital content. To analyse, interpret and critically evaluate the data, information and digital content

Category of Usage	Digital Capability Skills
Transferrable	Use digital devices in the workplace
Transferrable	Identify the sources, use and importance of data; and apply to a workplace context
Transferrable	Precautions against the loss or corruption of data are followed in accordance with workplace procedures
Transferrable	Use data to verify worksite position and protection limits
Choose an item.	
Choose an item.	
Choose an item.	



Digital Focus Area 1: Information and Data Literacy

Foundation		Intermediate		Advanced		Specialised	
		\boxtimes					
1	2	3	4	5	6	7	8

1.3 Manage data and information

To manage, organise, store and retrieve data, information and content in digital environments. To organise and process them in a secure and structured environment for accessibility, for as long as it is needed

Category of Usage	Digital Capability Skills
Transferrable	Use digital devices in the workplace
Transferrable	Process and review workplace documentation
Transferrable	Precautions against the loss or corruption of data are followed in accordance with workplace procedures
Transferrable	Information/data/output is gathered and stored/retrieved on a digital system, as required, in accordance with regulatory requirements and workplace procedures
Choose an item.	
Choose an item.	
Choose an item.	



Digital Focus Area 2: Communication and Collaboration

Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

2.1 Digital communication

To interact through a variety of digital technologies and to understand appropriate digital communication means for a given context

Category of Usage	Digital Capability Skills
Transferrable	Use digital communication devices in the workplace
Transferrable	Interpret applications for workplace digital technology equipment and systems
Transferrable	Use appropriate digital sign-on/communications confirmation in accordance with workplace procedures
Choose an item.	



Digital Focus Area 2: Communication and Collaboration

Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

2.2 Digital sharing

To share data, information and digital content with others through appropriate digital technologies. To act as an intermediary, to know about referencing and attribution practices

Category of Usage	Digital Capability Skills
Transferrable	Organise information by accessing and/or recording relevant information from a range of sources
Transferrable	Share information using established workplace methods
Transferrable	Share information using correct templates or mechanisms; with a recognition of the importance of this practice
Choose an item.	



Digital Focus Area 2: Communication and Collaboration

Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

2.3 Digital engagement

To participate in education, workplace and society through the use of public and private digital services. To seek opportunities for self-empowerment and contribution through participation using appropriate digital technologies

Category of Usage	Digital Capability Skills
Transferrable	Participate in education, workplace and society through the use of digital services
Transferrable	Leverage technologies to achieve learning outcomes
Transferrable	Technology is used efficiently and effectively to manage work priorities and commitments
Transferrable	Communicate with the public us appropriate digital communication methods
Complementary	Researching workforce pathways through digital technologies
Choose an item.	
Choose an item.	



Digital Focus Area 2: Communication and Collaboration

Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

2.4 Digital collaboration

To use digital tools and technologies for collaborative processes, and for co-construction and co-creation of resources and knowledge

Category of Usage	Digital Capability Skills
Transferrable	Applying different digital equipment and applications/systems for workplace activities
Transferrable	Interact with relevant digital technologies and their function and capabilities used in the workplace
Transferrable	Understanding and selecting an appropriate channel/application for workplace collaboration
Choose an item.	



Digital Focus Area 2: Communication and Collaboration

Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

2.5 Digital conduct

To be aware of appropriate behaviour while using digital technologies and interacting in digital environments. To adapt communication strategies to the specific audience and to be aware of cultural and generational diversity in digital environments

Category of Usage	Digital Capability Skills
Transferrable	Use digital communications systems appropriately according to workplace protocols
Transferrable	Use inclusive and respectful communication protocols
Transferrable	Understanding/application of safety critical communications protocols using the relevant device in accordance with the workplace safety management system
Transferrable	Discreetly interacting in a digital environment using established workplace methods and protocols/channels
Transferrable	Clear and unambiguous vocal communication is used
Choose an item.	
Choose an item.	



Digital Focus Area 2: Communication and Collaboration

Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

2.6 Digital identity

To create and manage one or multiple digital identities, to understand how digital identities are used and how to manage and protect them

Category of Usage	Digital Capability Skills
Transferrable	Understand applications of digital identities according to workplace protocols
Transferrable	Manage theirs and others digital identities by keeping credentials and private data secure and protected
Complementary	Record participants start and finish work times/activities
Choose an item.	



Digital Focus Area 3: Digital Content Creation

Foundation		Interm	ediate	Adva	anced	Specialised	
		\boxtimes					
1	2	3	4	5	6	7	8

3.1 Develop digital content

To create and edit original digital content in different formats, to express oneself through digital means

Category of Usage	Digital Capability Skills
Transferrable	Use digital capture methods/applications to create digital content
Choose an item.	



Digital Focus Area 3: Digital Content Creation

Foundation		Intermediate		Advanced		Specialise	
	\boxtimes						
1	2	3	4	5	6	7	8

3.2 Integrate and modify digital content

To modify, refine, improve and integrate information and content into an existing body of knowledge to create new, original and relevant content and knowledge

Category of Usage	Digital Capability Skills
Transferrable	Edit and compile digital content within existing forms/templates/platforms
Choose an item.	



Digital Focus Area 3: Digital Content Creation

Foundation		Intermediate		Advanced		Specialise	
\boxtimes							
1	2	3	4	5	6	7	8

3.3 Digital copyright and licences

To understand how copyright, subscriptions and licences apply to data, information and digital content

Category of Usage	Digital Capability Skills
Transferrable	Adhere to workplace protocols and legislative obligations when sharing/using digital media
Choose an item.	





Digital Focus Area 3: Digital Content Creation

3.4 Create instructions for computers

To plan and encode computable logic to solve a given problem or perform a specific task

Foundation		Intermediate		Advanced		Specialised	
1	2	3	4	5	6	7	8

Category of Usage	Digital Capability Skills
Choose an item.	



4.1 Protect devices

Foundation		Intermediate		Advanced		Specialised	
	\boxtimes						
1	2	3	4	5	6	7	8

To protect devices and digital content, and to understand risks and threats in physical environments and digital environments. To know about safety and security measures and to have due regard to reliability and privacy

Category of Usage	Digital Capability Skills
Transferrable	Protect devices and content from malicious access and adhere to organisational cyber security policies and procedures
Transferrable	Limit access to devices in line with workplace policies and procedures
Transferrable	Identify and control risks to digital equipment in the rail workplace
Choose an item.	



Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

4.2 Protect information and privacy

To protect organisational and personal data, confidentiality and privacy in digital environments. To understand how to use and share identifiable information while being able to protect oneself, others and organisations from damage. To understand confidentiality and privacy statements and how confidential and personal information is used in a digital environment

Category of Usage	Digital Capability Skills
Transferrable	Ensure, in digital environment, organisational and personal data is managed in accordance with workplace procedures
Transferrable	Protect content from malicious access and adhere to legislation and organisational policies and procedures where relevant
Choose an item.	



4.3 Protection and Safety

Foundation		Intermediate		Advanced		Specialised	
	\boxtimes						
1	2	3	4	5	6	7	8

To identify and avoid health-risks and threats to physical and psychological wellbeing while using digital technologies. To protect oneself and others from possible dangers in digital environments (e.g. cyber bullying). To be aware of digital technologies for well-being and social inclusion

Category of Usage	Digital Capability Skills
Transferrable	Identify risks in digital environments and apply duty of care to protect self and others in line with workplace policies and procedures
Complementary	Identifying digital wellness technologies
Choose an item.	



4.4 Protect the environment

Foundation		Intermediate		Advanced		Specialised	
1	2	3	4	5	6	7	8

To identify and be aware of environmental impacts of digital technologies and their use. This includes knowledge of cloud and local energy consumption, disposal, energy consumption in systems development, whether obsolescence is designed in (circular economy). Using digital tools to learn about looking after the environment, and using them to drive reduced waste and circular economy. Creating material for or publicising positive environmental actions using digital means

Category of Usage	Digital Capability Skills
Choose an item.	





Foundation		Intermediate		Advanced		Specialise	
	\boxtimes						
1	2	3	4	5	6	7	8

5.1 Manage devices and resolve problems

To identify and resolve technical problems when operating digital devices and using digital environments (from troubleshooting to solving more complex problems)

Category of Usage	Digital Capability Skills
Transferrable	Recognise and manage and report faults with applications and devices
Transferrable	Troubleshoot basic issues with the hardware and software
Transferrable	Undertake diagnostic processes under guidance for more complex technical issues
Choose an item.	





Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

5.2 Operate digital devices and tools

Choosing, using and configuring digital systems for equipment, machinery, devices, online tools. To adjust and customise digital environments to task or customer requirements for access and use

Category of Usage	Digital Capability Skills		
Transferrable	Use digital device/equipment to perform work		
Transferrable	Understand/interpret data received through digital devices to schedule and/or conduct work activities		
Choose an item.			





Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

5.3 Innovate with digital tools

To use digital tools and technologies to create knowledge, and to innovate processes and products. To engage individually and collectively to understand and resolve conceptual problems and problem situations in digital environments

Category of Usage	Digital Capability Skills
Choose an item.	



Foundation Intermediate Advanced Specialised 1 2 3 4 5 6 7 8

5.4 Learning and self-development

To identify personal digital capability gaps and use learning and development opportunities to close them. To support others to improve or upskill with their digital capability development

Category of Usage	Digital Capability Skills
Transferrable	Identify, access, and use both internal and external learning e.g. eLearning applications, social learning platforms and websites to develop digital skills and knowledge
Choose an item.	





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Occupation

821611 Railway Track Worker - Track Protection Officer

