

<b>Title</b>	<b>Demonstrate knowledge of surveying instruments, software and firmware</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>5</b>

<b>Purpose</b>	People credited with this unit standard are able to demonstrate knowledge of surveying instruments, software and firmware.
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<b>Classification</b>	Surveying > Survey Practice
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with relevant legislative and industry requirements.
- 2 Legislation and documentation relevant to this unit standard includes:  
Cadastral Survey Act 2002;  
Health and Safety at Work Act 2015;  
Surveyor-General's Rules published by Land Information New Zealand at <http://www.linz.govt.nz>;  
Price, WF, and Uren, J, *Surveying for Engineers*, 5<sup>th</sup> ed. (UK: Red Globe Press, 2010), available at <http://www.fishpond.co.nz>.
- 3 Definition  
*Industry requirements* may refer to but are not limited to relevant company policies, processes, methodologies, industry codes of practice, standard operating procedures, site safety plans, quality plans, work plans, job instructions, and manufacturer's requirements.

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### Outcomes and performance criteria

#### Outcome 1

Demonstrate knowledge of surveying instruments, software and firmware.

#### Performance criteria

- 1.1 Components of surveying instruments are identified and described in terms of their function.  
  
Range instruments include – theodolite, triback, level, total station, GNSS unit, steel band or steel tape, plummet, tripod, levelling staff.

1.2 Types of software used for surveying are explained in terms of their function and purpose.

Range evidence of three types of software is required.

1.3 Firmware is identified and explained in terms of their function and purpose.

Range evidence of three examples of firmware is required.

<b>Planned review date</b>	31 December 2025
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#### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	21 April 2016	31 December 2022
Review	2	25 February 2021	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0101
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

#### Comments on this unit standard

Please contact Connexis - Infrastructure Industry Training Organisation [qualifications@infrastructureito.org.nz](mailto:qualifications@infrastructureito.org.nz) if you wish to suggest changes to the content of this unit standard.