

Title	Demonstrate knowledge of the GS1 bar coding system		
Level	3	Credits	3

Purpose	People credited with this unit standard are able to demonstrate knowledge of: the basics of the GS1 system; bar code structure; and verification reporting.
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Classification	Printing > Print Industry Management
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Available grade	Achieved
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Guidance Information

- 1 Global Standards One (GS1) replaced the term EAN. GS1 is the international body that administers the GS1 system of identification in automatic data capture, previously known as the EAN.UCC system. For reference to GS1 publications and standards refer to <http://www.gs1nz.org/> or <http://www.gs1nz.org/standards/>.
- 2 Definitions
 - EAN* – European Article Number.
 - EDI* – Electronic Data Interchange.
 - EPC* – Electronic Product Code.
 - GDSN* – Global Data Synchronisation Network.
 - GTIN* – Global Trade Item Number.
 - SSCC* – Serial Shipping Container Codes.
 - UPC* – Uniform Product Code.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of the basics of the GS1 system.

Performance criteria

- 1.1 The GS1 system is explained in terms of its origins and purpose.
 - Range origins – formation of EAN and GS1; purpose may include but is not limited to – inventory control, supply chain management, unique identification, uniform bar code system, global system.
- 1.2 The role of GS1 in the supply chain is explained.
 - Range service to members, validation, testing.

- 1.3 GTIN is explained in terms of the GS1 system.
- 1.4 EDI is explained in terms of the GS1 system.
- 1.5 EPC is explained in terms of the GS1 system.
- 1.6 GDSN is explained in terms of the GS1 system.

Outcome 2

Demonstrate knowledge of bar code structure.

Performance criteria

- 2.1 Bar code symbology is explained in terms of the GS1 system.
- 2.2 GS1 symbologies are explained in terms of their structure.
Range prefix, item reference, check digit.
- 2.3 The physical requirements that apply to GS1 barcodes are stated.
Range size, height, colours, light margins, location, magnification, X-dimension, module width.
- 2.4 GTINs and SSCCs are explained in terms of their purpose and use.
Range 8, 12, 13, and 14-digit GTINs, SSCCs.
- 2.5 The four bar codes useable in the retail environment are identified and explained in terms of their structure.
Range EAN-8, EAN-13, UPC-E, UPC-A.
- 2.6 GTINs are explained in terms of their use in non-standard retail applications.
Range restricted distribution, variable measure, books and periodicals, coupons.
- 2.7 The standard GS1 symbologies are explained in terms of their use.
Range EAN-8, EAN-13, UPC-E, UPC-A, GS1-128, DataBar.

Outcome 3

Demonstrate knowledge of verification reporting.

Performance criteria

- 3.1 The function and use of verifiers is explained in terms of analysing the pattern of reflected light.

- 3.2 GS1 verification reports are explained in terms of their use and importance in the bar coding system.
- 3.3 Non-GS1 verification and GS1 verification are explained in terms of their differences.
- Range size, symbology, structure, location.
- 3.4 The GS1 accreditation programme is explained in terms of verification reporting.
- Range purpose of programme, accreditation requirements, difference for manufacturers and print and/or packaging suppliers.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	17 November 2004	31 December 2022
Review	2	20 March 2008	31 December 2022
Revision	3	12 December 2008	31 December 2022
Rollover and Revision	4	31 May 2018	31 December 2022
Review	5	23 July 2020	31 December 2022

Consent and Moderation Requirements (CMR) reference

0005

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.