GS1 Australia

GS1 DataBar
Are You Ready for GS1 DataBar

What is GS1 DataBar?

GS1 DataBar bar codes can deliver enhanced product identification at retail Point-of-Sale (POS), can be used on small or hard-to-mark consumer products that could not previously be identified by bar codes and can carry more information than the current GS1 retail POS bar codes allow.

This additional information includes, but is not limited to, weight, expiration date, batch and serial numbers.

It also allows more space on packaging for branding and messaging.

GS1 DataBar not only increases the number of products that can be automatically identified at retail POS, it also creates new opportunities to solve today's retail business problems such as enhanced and wider category management, product authentication, traceability, stock control, product replenishment, variable measure product identification and shrink control.

Evolution not revolution

GS1 DataBar joins the existing GS1 family of bar codes and is not a replacement for any current bar code; it is a new option that provides new opportunities.

"As a retailer, we always look at ways to improve the shopping experience for customers. Building on the last 25 years of the GS1 System this new bar code, the GS1 DataBar will enable us to extend customer service in a range of activities that is currently limited by existing bar codes types, especially with small products and capturing additional information at POS. In effect, the GS1 DataBar is like a 'high performance bar code'."

Daniel Kochanowicz, *Woolworths Australia*

The Business Benefits

The business case for GS1 DataBar is simple:
more data…less space.

More data

Existing GS1 Bar Codes for retail POS, such as EAN-8 and EAN-13, are used to identify products through the use of Global Trade Item Numbers (GTINs). No other data can be encoded in these bar codes. The ability of GS1 DataBar to encode additional data beyond basic product identification, such as weights, expiry dates, batch numbers and serial numbers, provides new opportunities for retailers, manufacturers and solution providers to improve many retail supply chain processes, right through to POS.

Less space

Some GS1 DataBar symbols can occupy less space than the equivalent EAN-13 Bar Codes that are currently widely used to identify retail items. This allows manufacturers to save valuable space on product packaging for greater branding, consumer and promotional messages and regulatory information.

This reduced space also means GS1 DataBar can be used to identify many small or hard to mark consumer products that could not previously be identified with bar codes, such as cosmetics, pharmaceuticals, DIY hardware, jewellery, fresh produce etc. This brings to this wider range of products the benefits of accurate, automatic identification that have been enjoyed by retailers with many other products since the 1970s.

The Benefits of GS1 DataBar

- Enhanced category management for a wider range of products
- Improved product replenishment and out-of-stock anticipation
- Improved shrinkage control
- Globally unique product identification for fresh foods replacing today's generic information
- Increased product identification accuracy for loose produce by scanning versus manual key entering

- Improved scan rates compared to those of incorrectly-sized EAN-13 and EAN-8 Bar Codes
- More products that can be scanned by consumers at self scanning checkouts
- Gain valuable space on product packaging
- Prevention of sales of out-dated products through sell-by and expiry date management
- Traceability of products at the POS through the use of batch and serial numbers
- Recall of products at POS through the of use of batch and serial numbers
- Product weight management
- Ability to capture markdown pricing
- Improved coupon and voucher control

Industry Sectors
- Current uses of GS1 DataBar

GS1 DataBar is currently being trialled and implemented by retailers and manufacturers throughout the world, with particular interest in three main applications:

Fresh, loose produce

The smaller size of GS1 DataBar means it can be used on standard labels on many fresh, loose produce items such as apples, pears, tomatoes and other fruit and vegetables. A number of leading global retailers are taking advantage of this and the benefits they are already realising include:

- Enhanced product identification accuracy at the POS compared to manual key entry using PLU (price look-up) codes
- Faster checkout times
- Greater use of self-scanning checkouts by customers
- Greater shrink control by, for example, differentiating conventional versus organic produce
- Faster product replenishment leading to greater product availability

Variable-measure fresh produce

Many trials are also taking place with variable measure fresh produce such as meat, seafood, cheese etc, using GS1 DataBar to encode additional information such as best-before date, country of origin, batch number and weight. By ensuring accurate and complete sales information for these products, retailers benefit from:

- Greater flexibility over discounted pricing
- More accurate stock replenishment
- Less waste
- Higher margins

Small and hard-to-mark consumer products

Many retailers and manufacturers are using GS1 DataBar on small and hard to mark consumer products, such as cosmetics, jewellery, DIY hardware and pharmaceuticals. In the past these products were not bar coded or used incorrectly sized, and therefore low-performing, EAN/UPC Bar Code symbols.

An Enhanced Consumer Experience

GS1 DataBar will contribute towards an improved consumer shopping experience.

1. Better category management and stock control resulting in improved product availability and fewer wasted customer journeys
2. Greater and clearer product information available on product packaging
3. Increased customer usage and satisfaction with self-scanning checkouts as more products can be scanned
4. Enhanced consumer and product safety through improved best-before and expiry date management
5. Faster checkouts and less queuing as more products are scanned

When will GS1 DataBar be Available for Use?

GS1 DataBar introduces many new benefits and applications for retailers and manufacturers.

It is already being used in widescale implementations by North American grocery retailers, in trials throughout Europe and Asia and also on loose, fresh produce shipping all over the world.

GS1 DataBar standards are available for use now by bilateral agreement between trading partners.

By 2014, GS1 DataBar standards, including the use of additional data (using GS1 Application Identifiers), can be used by all trading partners in an open environment. At a minimum, retailers should be able to scan GS1 DataBar symbols and process the encoded GTINs.

In practical terms this means:

- Retailers can use GS1 DataBar at any time with their trading partners, if there is agreement in advance to do so
- Retailers who are already utilising GS1 DataBar, especially with fresh produce, can progress their activities with no interruption and continue to enjoy the benefits
- 2014 is the date when GS1 DataBar can be used globally in open trade, on any product

Are Your Scanners Ready?

All companies that scan trade items in the supply chain will need to identify and list all of their current scanning equipment. This will include, if applicable, all in-store and general distribution scanners and devices with integrated scanners. Experience of early adopters is that some scanner read points are easily overlooked. Examples of read points are Point-of-Sale (hand-held, tabletop, or both types at a single POS), kiosk and self-service, specialty departments, seasonal departments, in-store applications such as price verification, ordering, inventory and store receiving. In-store applications frequently use portable data-entry terminals, pocket PC devices, or PCs. Scanners are integrated, wireless, or cabled.

For your existing scanning equipment, contact your equipment provider or go to *www.gs1au.org/products/gs1_system/data_carriers/databar/* for a list of GS1 DataBar ready scanners by brand and model.

Note: This list may not include all brands of scanning equipment but will be continually updated as equipment companies provide us with information.

Purchasing new equipment

When purchasing new equipment, ensure that purchase contracts specify GS1 DataBar standards compliance in addition to the other GS1 Bar Codes

Scanner test cards

To test scanners for GS1 DataBar compliance, we've created printed scanner test cards. Companies can use these cards to see if the GS1 DataBar functionality of their scanners has already been activated or not.

Note: This is NOT a card that can be used to 'switch on' GS1 DataBar scanning capability. Enabling the GS1 DataBar scanning capability is a job for equipment suppliers. This test card is quite simply a card for testing whether the GS1 DataBar capability is present.

Scanner test cards and procedure kits are available from GS1 Australia.

GS1 DataBar Impacts on Your Database

While GS1 DataBar bar codes are capable of encoding 14 digits, the majority of retail POS systems can only hold up to 13 digits. While a data restriction will apply at POS so that only GTIN-8, GTIN-12 or GTIN-13 can be used, GS1 Australia recommends that your systems are upgraded to store 14 digits.

To encode the GTIN-13, GTIN-12 or GTIN-8 in a GS1 DataBar Symbol for use at POS, one, two or six filler zeros will be encoded respectively at the start of the GTIN, after the application identifier.

GS1 DataBar Expanded or GS1 DataBar Expanded Stacked Symbols are used in applications where information beyond the GTIN (e.g. weight, extended price, dates etc.) is required for items such as variable measure products. GS1 Australia acknowledges that POS systems and applications vary by company and industry; guidelines will be developed for additional information (beyond GTIN) that is required to support any solution.

Steps to Launching GS1 DataBar

1. Identify a GS1 DataBar Program Leader.
2. Contact GS1 Australia.
3. Communicate the business benefits of GS1 DataBar internally to category, buying and merchandising managers.
4. Contact your scanning and/or scale labelling supplier to determine the status of your equipment to support GS1 DataBar.
5. Set target dates with your IT department teams to test your systems and scanners once the appropriate changes have been made.

Additional tools to assist in your GS1 DataBar readiness, can be found at *www.gs1au.org/products/gs1_system/data_carriers/databar/*

	Example of GS1 Bar Codes	Omnidirectional Scanning – (POS)	General Distribution Environment	Attribute Information	Other Applications	General Information
EAN-8	9312 3457	✓	Some instances Not general practice			Encode GTIN-8 Used for small products that cannot fit an EAN-13 Bar Code Must apply for number via GS1 Australia member organisation
EAN-13	9 312345 678907	✓	✓			Encode GTIN-13 Used for all items intended to be scanned at POS If supplying to the US or Canada, consult GS1 Australia
GS1 DataBar Omnidirectional	(01) 0 93123 4567890 7	✓				Encode a GTIN* Used for small products that cannot fit an EAN-13 Bar Code
GS1 DataBar Stacked Omnidirectional	(01) 0 93123 4567890 7	✓				Encode a GTIN* For small products that cannot fit an EAN-13 Bar Code
GS1 DataBar Expanded	(01) 0 93123 4567890 7	✓		✓		Encode a GTIN* and additional data using GS1 Application Identifiers Strategy developed for Fresh Foods Industry Consult a GS1 Australia Industry Advisor for other industry initiatives
GS1 DataBar Expanded Stacked	(01) 0 93123 4567890 7	✓		✓		Encode a GTIN* and additional data using GS1 Application Identifiers Strategy developed for Fresh Foods Industry Consult a GS1 Australia Industry Advisor for other industry initiatives
GS1-128	(01)19312345678904		✓	✓		Encode a GTIN-12, GTIN-13 or GTIN-14 and additional data using GS1 Application Identifiers Used for non-retail trade items when additional information over and above GTIN is required, e.g. batch, expiry, pack date. Also used for logistics labels
ITF-14	09312345678907		✓			Encode GTIN-12, GTIN-13 or GTIN-14 Used for non-retail trade items that have poor quality substrate and when no attribute data is required.
GS1 DataBar Truncated	(01) 0 93123 4567890 7				✓	Designed for hand scanning environments only Use only after consulting all trading partners or consult GS1 Australia
GS1 DataBar Stacked	(01) 0 93123 4567890 7				✓	Designed for hand scanning environments only Used in the Healthcare Industry Use only after consulting all trading partners or consult GS1 Australia.
GS1 DataBar Limited	(01) 0 93123 4567890 7				✓	Designed for hand scanning environments only Used in the Healthcare Industry Use only after consulting all trading partners or consult GS1 Australia

NOTE: GS1 DataBar requires a 14 digit field, please read the section GS1 DataBar impact on your database.

*GS1 DataBar is currently approved for use at Point-of-Sale, therefore GTIN-8, GTIN-12 and GTIN-13 can be encoded.

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