



Owen Dance

# GS1 DATABAR (RSS)

Due for universal introduction in 2010, the new retail bar code GS1 DataBar (RSS) – until recently known as Reduced Space Symbology (RSS) – will have varying impacts on retailers in different sectors, but the specifics are hard to predict.

**T**hat's the view of Owen Dance, a senior technical consultant at GS1 New Zealand (formerly EAN). Dance is managing the roll-out of the new bar code in New Zealand. "The grocery sector is sure to adopt GS1 DataBar (RSS) because it enables improved category management and increased profitability in fresh produce," he believes. "The hardware sector is likely to do the same – because GS1 DataBar (RSS) solves so many of the problems of bar-coding small items often sold in hardware stores.



GS1 DataBar (RSS) bar code.

When it comes to general merchandise only time will tell, but it would be surprising if (RSS) doesn't become widespread."

## PILOT STUDIES

Pilot studies in North America and Canada have indicated annual gains in the order of \$40,000 or more in supermarkets that implement GS1 DataBar (RSS) – more if meat and

delicatessen products are included. Because GS1 DataBar (RSS) bar codes can fit on the small produce labels that previously could only carry Price Lookup Numbers, fruit and vegetables can now be identified by variety and supplier – just as baked beans can be scanned by brand. This means they can be priced and managed separately.

Operator error is eliminated and visibility of sales data becomes as good as it is on packaged goods. Line pricing is no longer required, and prices can be matched precisely to the quality or freshness of each supplier's products.

"The more advanced GS1 DataBar (RSS) symbols can contain extra data such as batch numbers and use-by dates," explains Dance. "So meat and deli products can be bar-coded with identification, weight and price – whatever the retailer wants. This makes for much better management of products currently sold by generic ID and price. In those situations sales have to be assessed by such methods as dividing value of sales by price per kilo, with no ability to recognise quantities sold at reduced prices to clear. Now, identity, price, weight sold at each price – and even remaining life of the product at time of sale – can be captured."

Wal-Mart and Canadian retail giant Loblaws both introduced GS1 DataBar (RSS) pilots in fresh produce in 2001 and were so pleased with the results they have already turned the pilots into implementations. Their major suppliers of apples, avocados, bananas and whole chickens are using (RSS) and the roll-out will continue into other products and suppliers over the next few years.

In this country, Enza has successfully trialled GS1 DataBar (RSS) on products shipped to North America and is standing by to implement it fully in that market as soon as it is asked to do so.

The Warehouse is already using GS1 DataBar (RSS) on meat and salads at its new mega store in Sylvia Park.

## VISIT

Early in November two North American bar-code experts spent a week in New Zealand on a visit funded by GS1 New Zealand with assistance from the New Zealand Retailers Association (NZRA). Jane Proctor is the director of IT and Industry Standards for the Canadian Produce Marketing Association and chair of the International Federation of Produce Standards. She travelled with Greg Rowe, business development manager for GS1 US. They have

both been deeply involved in the development of GS1 DataBar (RSS) and in the North American pilots and spoke to 150 people representing nearly 50 companies and organisations – including the NZRA – to inform the New Zealand market about the new bar-codes.

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Proctor is concerned to point out that companies planning to invest in Radio Frequency Identification (RFID) shouldn't overlook RSS as 'just another bar-code.'

"North American retailers with RFID plans originally took the view that GS1 DataBar (RSS) needn't interest them," she says. "But it soon became obvious that RFID was simply too expensive to be an option on individual retail items like apples or boxes of breakfast cereal. Maybe one day it will be cheap enough, but who can afford to wait? Once that realisation dawned they turned their attention back to GS1 DataBar (RSS)."

Rowe points out that using GS1 DataBar (RSS) is a useful step in preparing for RFID – apart from its inherent benefits of improved

scanning rates and better sales data. The numbers used in GS1 DataBar (RSS) symbols are compatible with those used in RFID tags, he explains.

"If you enable your systems for GS1 DataBar (RSS), then you've already done most of what you'll eventually need to do for RFID implementation – so you'll save yourself money later on."

## DETAIL

GS1 DataBar (RSS) bar codes contain 14-digit numbers – more than the present retail bar-codes use, but the first digit is always zero and can be dropped off by scanning software. All 14 digits are required in more complex applications that also involve other data – such as dates.

## COST?

What would GS1 DataBar (RSS) implementation cost a retailer? That's impossible to forecast accurately because costs in each case would depend on the hardware and software already in use – but it may not be as much as people expect.

Rowe explains that all American scanner manufacturers have been building GS1 DataBar (RSS) capability into their products since 1998. "Depending on the age of your equipment, and the way your software's been written, enabling a scanning system could be as simple as turning on a function in the scanner.

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"If your software is already capable of handling 13-digit numbers, and you don't want to use the extra functionality like reading batch numbers and use-by dates, that might be all it takes." He warns that it could involve more than that, but says US experience in the pilot studies revealed costs anywhere between zero and \$300



Examples of fruit with GS1 DataBar (RSS) coding.

per scanner – depending on the age of the hardware and the nature of the supporting software.

He also warns that Asian scanner manufacturers have only just begun to build GS1 DataBar (RSS) capability into their scanners – so Asian equipment may not be as easy to upgrade.

Proctor says retailers should immediately begin querying their equipment suppliers about the GS1 DataBar (RSS) capability of the scanners they have provided – and should always write GS1 DataBar (RSS) capability into specifications for any new equipment. "Even if you don't think you'll need GS1 DataBar (RSS), it's prudent to have the potential capability and – if you choose the right makes and models – it won't cost you any more because the capability will be built in."

Owen Dance agrees. "Retailers in a small country like ours may or may not be able to avoid GS1 DataBar (RSS) – even if they decide for themselves that they don't want it," he says.

"In theory, suppliers won't be able to introduce it if their major customers say they don't want it on products they receive for sale. That will curb the enthusiasm of, for example, local designers who will like GS1 DataBar (RSS) because it frees up more label space for marketing or consumer information.

But what will happen when an offshore company introduces GS1 DataBar (RSS) and it just appears on imported products?"

There can never be two bar-codes (one old and one new) on a product because GS1 specifications forbid this – except in a small range of exceptional situations – and double-bar coding has been positively ruled out as an option with GS1 DataBar (RSS) already.

The capability for printing (RSS) already exists in New Zealand. All of the major prepress houses can provide printing companies with plates or digital images of the bar codes – and any press that can print the current retail bar codes can print GS1 DataBar (RSS).

Auckland's Jenkins Group has already been printing fruit stickers with GS1 DataBar (RSS) bar-codes for around three years for its US customers. A growing proportion of the on-demand printing equipment on sale in this country already has (RSS) as an option in its software and even older printers can print the symbols once their software is upgraded.

## SIZE

GS1 DataBar (RSS) can fit the present bar-code information – the basic identification number – into around 40% of the space the current retail bar-codes occupy. If extra information – such as batch numbers and dates – is encoded, the size will grow, meaning some 'reduced space' symbols may actually be the size of current bar-codes, or even bigger. The ones used at The Warehouse in Sylvia Park are 8 mm high and 70mm wide, while the simpler ones on Enza

apple labels fit into a 10mm by 15mm rectangle. The smallest allowable size for a current standard retail bar-code is 21mm high by 30mm wide.

Smaller bar-codes are likely to be helpful to manufacturers of small, complex products requiring large amounts of text on the labels – such as pharmaceuticals and some chemicals. Cosmetics suppliers are likely to be very interested due to space constraints on their packaging. Designers eager to minimise bar-code size (simply because they don't like bar-codes) will also find (RSS) attractive – but whether they can incorporate it into designs will depend on the wishes of their customers and the companies they supply.

**“The capability for printing GS1 DataBar (RSS) already exists in New Zealand.”**

"Just because you can use GS1 DataBar (RSS), doesn't mean you have to," says Dance. "It's an option. And whether to adopt the option is up to the individual parties in each case. Some may adopt the simpler version containing just the number, some may go all the way with additional data encoded as well – and some may decide not to implement. We can only wait and see.

"But prudent retailers should watch the situation as it develops and be prepared for whatever GS1 DataBar (RSS) is going to mean for them." ■

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GS1 DataBar (RSS) coding on individual sweets.