

# **BARCODE FACTS YOU NEED TO KNOW**

Most of us today are familiar with barcodes; in fact they encroach upon our daily lives in many ways from the supermarket to the library book.

Barcodes are as their name suggests, code in the form of bars and spaces; we use barcodes everyday and do not give much thought to why they work or how the barcode reader understands what they mean.

The barcode reader is able to decode what the barcode symbol represents because the printed barcode has to conform to very rigorous rules and standards; these include accuracy of print both in size and ratio, density and contrast.

We have all experienced or witnessed the inconvenience and frustration caused when the barcode reader simply refuses to read a particular barcode. It is highly probable this is due to the barcode symbol itself either not conforming to the correct standards or has deteriorated through age as a result of wear and tear or because of the material it was printed upon or covered with.

## **BARCODE SIZE & ACCURACY**

Barcodes consist of solid bars and spaces of various sizes and ratios, the size and accuracy of these bars and spaces and the relationship between the ratios are extremely important. If these are not accurate and do not conform to regulatory measurement standards then it is very likely the barcode reader will not decode them or worse, will misread them.

Barcodes printed on paper with ink jet printers run the risk of unreliability because the ink is likely to spread upon impact with the paper and as a consequence fail to maintain the required accuracy. Another trap when printing barcodes is where the barcode symbol has been derived from a True Type font and has quite likely been subjected to stretching. By intent True Type fonts are designed to be compacted or stretched, while this may be fine for normal Human Readable characters this can be disastrous when it comes to accurate barcode printing.

**Unless the barcode printing is specifically monitored with appropriate testing and measuring equipment the likely hood of creating inaccurate and defective bar codes by the incorporation of True Type fonts is virtually guaranteed.**

## **LABEL MATERIAL**

A very common material used for labels is plain paper. Paper is an organic material and as a consequence will degrade and deteriorate with age, observation over time has shown that paper based labels are highly susceptible to ***print blurring or bleeding***, this is very bad news for barcodes intended for long term use. Barcodes printed on paper labels are only satisfactory for use in short to medium life term applications, eg:- consumer goods at the point of sale.

If the barcodes are intended to be used and relied upon over a medium to long period of time (Library books and assets are good examples) then the material they are printed upon should ideally be more archival and stable than paper.

Paper based barcode labels are ***not recommended*** when intended for use with extended life term applications like libraries and other asset collections.

Extracted and condensed from "The U.S. Manufacturers Uniform Symbol Standards Manual" by:-

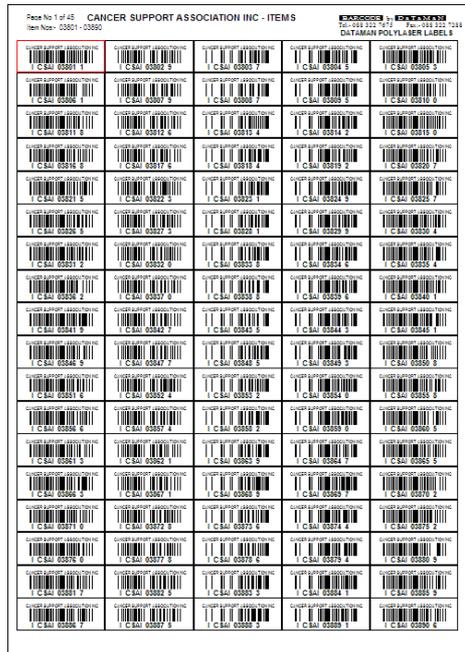
## ***Dataman Barcode Systems***

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Dataman's commercial library and asset barcodes ***are not*** printed with the use of True Type fonts but instead use vector graphic techniques to maintain the required accuracy and adherence to regulatory barcode measurement standards.

**Polylaser** is a Synthetic label material, Poly laser is very durable and has good archival qualities.

**Library Labels for Bookmark, Dynix, Metamarc, Microfusion, Amlib, Oasis, Alice, E-library**



Labels to suit a variety of different library automation systems can be supplied.

Dataman's library and asset labels are produced on A4 sheets in the traditional form illustrated. The supply of labels on sheets eases the application process by allowing multiple users simultaneous access to all labels unlike the restrictive method of supplying barcodes on rolls. We specialise in the use of **Polylaser** as our base material, polylaser is a synthetic white film and has been chosen for its stability and durability, this is essential for long term reliability.

We began producing library barcode labels in 1994 to cater for the rapid growth in the use of library automation software and introduced polylaser in 1996 when field test results indicated the **long term unreliability of paper based labels** for use on books and other assets. We still have clients confidently using those same polylaser based barcode labels 10 plus years on, something we do not believe could be claimed for paper based labels.

When we first started production of barcode labels we already knew that the barcodes had to be printed extremely accurately, this is essential to ensure that barcode readers would accept the barcode and work reliably with them.

In order to guarantee that our barcodes would be printed accurately and conform to international barcode measurement standards we adopted a printing technique known as vector graphics. This printing method requires our own purpose designed software to specifically map the barcode image using real and absolute measurement commands thereby ensuring the final result is as accurate as the printing machinery will permit.

Other software printing methods especially the use of True Type fonts cannot match the Vector method for accuracy and can result in very poor and inaccurate barcode images, this is because True Type fonts by intent and design are in reality pictures that can be scaled and distorted.

Printing barcodes by incorporating True Type fonts to create compact high-density barcodes as required and used in libraries is not recommended and can result in poor reader performance.

Dataman's Polylaser barcodes have been checked and tested for accuracy and conformity to specifications on barcode verification instrumentation. ( Pass rate between 98% - 100% ).

Current Pricing: (Postage and Packaging is not included in pricing.)

Qty	1 – 999	\$50.00 per 1000 + 10% GST
Qty	1000 – 9999	\$40.00 per 1000 + 10% GST
Qty	10000+	\$35.00 per 1000 + 10% GST
Transparent Overlay labels if required:		\$20.00 per 1000 + 10% GST

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