Overview

This document provides key differences between common 2D Barcode formats including Datamatrix codes, QR codes and EZcodes™.

The EZcode is a 2-dimensional barcode that was designed specifically for mobile camera phones. The optimized design in combination with ScanLife’s Code Management Platform leads to some significant benefits:

- **Reach** – EZcodes can be read by the ScanLife reader which is available to around 3 times more phones than any other 2D barcode application.

- **Size** – The size of an EZcode does not increase based on the information which it is linked to, while other formats are directly proportional to the amount of data delivered.

- **Density** – EZcodes are simpler in density which means they can be read by more phones, more easily, and with higher accuracy.

- **Uniqueness** – There are 75 sextillion distinct combinations of an EZcode so each code is unique and it will go where it’s intended to.

- **ScanLife Platform** – Each EZcode is created on ScanLife’s Code Management Platform which is a completely turn-key and integrated solution. It provides valuable performance data, and gives the code publisher complete control over their codes.

- **Cost** – The ScanLife revenue model is built on performance-based, cost-per-scan pricing. There are no charges or fees to register for a ScanLife account, create barcodes, or to view analytic data associated with individual codes. Individual accounts for personal use will always be completely free.

- **Standardization** – Millions of EZcodes have been published and are in commercial use around the world. Scanbuy’s EZcode barcode symbology has been officially recognized and endorsed in documents published recently by the CTIA and the GSMA.

Reach

The ScanLife client solution is available on mobile devices from all top-tier handset makers running on every major operating system. In many markets, like the United States, this number can be 3 times more than any other 2D barcode application (based on M:Metrics data).

Some of Our Operator Partners:

Pre-Loaded Manufacturers:

All Major Operating Systems Supported:
Size

The following table demonstrates the space efficiency of an EZcode over the Datamatrix and QR code formats. An EZcode can always remain the same size – ½ inch or 1.27 cm.

This example is from a real project using a URL that is 118 characters long. 2D barcode projects commonly use direct URL’s to deliver relevant content.

<table>
<thead>
<tr>
<th>Mode Used</th>
<th>EZcode</th>
<th>Datamatrix code</th>
<th>Datamatrix code</th>
<th>QR code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indirect</td>
<td>Indirect</td>
<td>Direct</td>
<td>Direct</td>
</tr>
<tr>
<td>Module Size</td>
<td>1.0mm</td>
<td>1.0mm</td>
<td>1.0mm</td>
<td>1.0mm</td>
</tr>
<tr>
<td>Code Size</td>
<td>11x11mm</td>
<td>18x18mm</td>
<td>40x40mm</td>
<td>45x45mm</td>
</tr>
<tr>
<td></td>
<td>1.7x larger than EZcode</td>
<td>12.2x larger than EZcode</td>
<td>than EZcode</td>
<td></td>
</tr>
<tr>
<td>Code Image</td>
<td><img src="image1.png" alt="EZcode Image" /></td>
<td><img src="image2.png" alt="Datamatrix Code Image" /></td>
<td><img src="image3.png" alt="Datamatrix Code Image" /></td>
<td><img src="image4.png" alt="QR Code Image" /></td>
</tr>
</tbody>
</table>

Density

The following table demonstrates what happens when Datamatrix and QR code formats are “forced” to a smaller size – the same physical size as an EZcode. The module sizes of these codes are significantly smaller which results in denser codes. Very few camera phones would be able to read these Datamatrix and QR codes.

This example uses the same 118-character URL from above.

<table>
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<tr>
<th>Mode Used</th>
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<th>Datamatrix code</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Indirect</td>
<td>Indirect</td>
<td>Direct</td>
<td>Direct</td>
</tr>
<tr>
<td>Module Size</td>
<td>1.0mm</td>
<td>0.611mm</td>
<td>0.275mm</td>
<td>1.0mm</td>
</tr>
<tr>
<td>Code Size</td>
<td>11x11mm</td>
<td>11x11mm</td>
<td>11x11mm</td>
<td>11x11mm</td>
</tr>
<tr>
<td></td>
<td>2.68x more dense than EZcode</td>
<td>13.22x more dense than EZcode</td>
<td>16.74x more dense than EZcode</td>
<td></td>
</tr>
<tr>
<td>Code Image</td>
<td><img src="image1.png" alt="EZcode Image" /></td>
<td><img src="image2.png" alt="Datamatrix Code Image" /></td>
<td><img src="image3.png" alt="Datamatrix Code Image" /></td>
<td><img src="image4.png" alt="QR Code Image" /></td>
</tr>
</tbody>
</table>
Uniqueness

Datamatrix and QR codes can be created and scanned using a number of “open source” technologies. However, these vendors do not provide control mechanisms, so multiple codes could have the same numeric value encoded in them which could cause false positives or could even send the user to an unintended location.

1. Codes created from multiple sources

2. User scans 3 different Datamatrix codes from different sources using an indirect decoder

3. Same decoded numeric value:
   All 3 will go to wap.campbells.com
Uniqueness

Alternatively, when an EZcode is decoded, there is no chance for false positives because they can only be created on a licensed platform. The ScanLife system guarantees the uniqueness of a code index within a standardized geographic market and globally across multiple markets.

1. Create EZcodes on ScanLife platform at no charge.

2. User scans EZcode from licensed sources.

3. Controlled barcode indicies assures resolution to unique URL (across global markets)
ScanLife Platform

Using the ScanLife platform provides the following advantages:

1. More code actions are available

2. The codes created on the ScanLife platform can be scanned by all subscribers in a market, regardless of their mobile operator or handset type (assuming it is compatible). This means codes can be created from one central source to reach millions of people.

3. Once you’ve created a code it’s always under your control. You can go back and change it anytime. All you do is press “Save” and the code is updated immediately.

4. Every scan from an EZcode collects valuable data and all of it is accessible on the ScanLife platform whenever you want it:
   - Use different codes to understand when your audience is most receptive and what type of content and messaging they’re most interested in.
   - Use that data in real time to send relevant content – if a user scanned one of your codes in the past, you can send them something new.
Cost

Each time a code is scanned, it triggers an action that has inherent value to the code publisher. These actions can include initiating web traffic, information or digital content, facilitating mobile commerce transactions, text and email communication, or simply starting a voice conversation. ScanLife pricing is based on the value of each code-initiated action which is typically just pennies per scan.

Business

✔ No charge to register
✔ Create a code in seconds
✔ Make instant modifications to codes at any time
✔ Get useful data from every code you create

There are no incremental charges around how many codes are created or how much analytic data is needed. Once you register, we will be given pricing options based on your specific needs and the volume of scans you expect to generate.

Personal

✔ 100% free
✔ Create Web and Contact codes
✔ Change your codes at any time
✔ Intended for non-commercial use only

Please go to www.scanlife.com to register for your account now.
Millions of EZcodes have been published by marketers, mobile operators, and others in countries like the United States, Spain, Denmark, Mexico and France. EZcodes have been endorsed by global industry standards organizations. Scanbuy, Inc. supports national and international 2D barcode standardization initiatives; we are an active member of both the OMA and GSMA standards-making committees.

CTIA's Code Scanning Action team is comprised of the major mobile operators in the United States. The team released a White Paper in June, 2008 which endorsed EZcodes and the indirect model.

The GSM Association, which represents more than 750 GSM mobile phone operators around the world, released a White Paper in October, 2008 endorsing EZcodes and the indirect model.

OMA, Open Mobile Association, is addressing 2D barcode interoperability through a global committee. Scanbuy, Inc. is participating in these discussions, and a White Paper is expected in 2009.
Contact Us

We invite you to register for an account at www.scanlife.com or contact us for more information.

P: (212) 278-0178  -  F: (212) 202-4318
info@scanbuy.com  -  www.scanbuy.com
54 West 39th Street, 4th Floor, New York, NY 10018

Scan here for more information.