



BUSINESS SOLUTIONS ASSOCIATION

Mobile Code Best Practices BSA Standard 03-12

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Definition: The term Mobile Codes includes QR Code, Microsoft Tag, JagTag, Snap Tags. They are used with smart phone applications to support Mobile Commerce. They enable the user to scan a code with the phone and be linked directly to a specific URL that provides further information or special marketing programs. This provides a real time consumer to business link that has never existed before.

Goals and Objectives of This Document

Our purpose is to educate industry members on history, terminology and potential uses of Mobile Codes, thus creating value. We will share best practices, how these codes are being used to drive branding and sales and discuss potential pitfalls and how to avoid them.

This material is intended for members of the supply chain who wish to consider the use of Mobile Codes within their own company or with trading partners.

The goal is to provide:

1. Fundamental understanding of the technology and where it is being used or could be used so that trading partners in the BSA supply chain can communicate

- effectively when discussing how and why to use the technology with trading partners and/or technology providers.
2. Reference to technical standards and guidelines to facilitate effective use of the technology.
 3. Best Practices to avoid pitfalls that could result in channel conflicts and technical problems in implementation.
 4. Materials that can be used to support educational activities.

Purpose

The purpose of this document is to clearly define the industry's Best Practice as it relates to the usage of Mobile Codes within a specific company or among multiple supply chain member companies for a common project. The primary benefit of a Mobile Code project is to take advantage of having actual two-way C to B (Customer to Business) communications.

Business Objective

An overall goal is to provide superior customer service by getting the right products (and information) to the right place at the right time at the least cost to members of our supply chain. The business objective for a specific Mobile Code project must be clearly stated to meet this overall goal in such a manner that data from measurable metrics. These ROI parameters must be pre-defined.

- The target audience definition must be precise so that the identified 'added value' provided to the audience can be measured.
- These objectives may or may not differ for a Catalog or Retail focused project.

Application Issues

There are many places where Mobile Codes can be used. This is an ever expanding list but this provides a general understanding how they can be used:

- link to product information
- link to premiums
- link to maintenance information
- track customer needs
- survey customers
- use with social media

Applications that have been deployed in the industry to date include, but are not limited to the following:

Placement	Actions
Packaging	Deliver additional product info, videos
In-Store:	Deliver games, videos, additional product information
Free standing displays, shelf talkers	
Print Media:	Games, videos, additional product info, coupons
Retail circulars, print advertising	
Product Literature:	Deliver additional product information
Catalog pages, brochures, flyers	
Maintenance information	Deliver specifications or instructions
Trade Shows: Displays	Deliver additional product information, leads, request brochures
Outdoor Marketing: Billboards, delivery trucks	Deliver additional product information, contests, games, sweepstakes

Mobile Codes used include QR Code, Microsoft Tag, JagTag, Snap Tags.

Lessons learned / Watch outs

Deliver content with maximum usability and compatibility.

- Avoid Flash due to high penetration of iOS devices (Apple)
- Linking directly to PDF's is not a best practice – will not work with all devices (Blackberry). If a PDF needs to be delivered, link to it from an interim page where consumer will have other options.

Remember where the consumer will be when scanning Mobile Codes to ensure the right message and experience is delivered.

- Consumers scanning at a retail location will be more interested in additional product information than being able to purchase the product through their phone.
- Scanning a Mobile Code can take time. Ensure consumer has sufficient time to scan a code. Mobile Codes in television commercials will be problematic.
- When selecting mobile code technology, be aware that some providers require licensing fees."

Mobile Codes are now readable on an ever increasing number of smart phones. (In 2011, smart phone purchases increased 30% over 2010.) Because there are a wide range of suppliers, it is critical to create clear message content that can be quickly and easily understood by the user.

The application design should be such that all trackable metrics (including location if available) should be logged permanently thus allowing for further data analysis by any and all appropriate trading partners.

The planned evaluation tools should be designed up front.

When selecting which mobile code to use study any licensing costs. Some are in the public domain and some are not.

Mobile Code Linking Commandments

When providing codes to be used by multiple customers and the dealer community:

- The destination URL contained in the mobile code must be carefully considered. Consumers should never be directed on behalf of one dealer's publication to a site that:
 - Offers a where to buy
 - Sells direct to consumer
 - Advertises any dealers, national or independent in nature
 - Offer any way to link to a site that does any of these things
 - Would be changed in the future to any of these things
- Destination must be active for life of publications code but only be available for the time the publication is current. For example, Mobile codes found in the General Line catalog should only be useable annually.
- Ensure products that are being promoted will be generally available in their intended distribution channel.
- Communication is critical. All parties (i.e. dealers, wholesalers, mfrs.) should agree upfront on *all rules of engagement*, what the code links to, timeframe, and exit strategy.

Technology Related

Even though there are multiple choices of Mobile Codes, as of spring of 2012, QR Code has become the clear preference for these C to B applications. Until there has been overwhelming evidence of an alternative Mobile Code that has surpassed QR Code market share, it is the ***preferred*** Mobile Code for usage within the industry. The technical specifications for a QR Code are set down in the ISO-18004 standard. More of the technical information is found in the Technology section of the BSA website.

General Issues

- Data content encoded into the Mobile Code should be held to a minimum to allow for quick scanning results to be displayed.

Print Guidelines for QR Code should at least include:

- Code Area: 2 cm X 2 cm minimum size.
- Module size: Module size is 1.0mm², each module is made up of at least 4 dots.
- Version 1: 21 x 21 modules.
- The margin is a clear area around a symbol where nothing is printed. QR Code requires a four-module wide margin at all sides of a symbol.
- Ideally, a URL should be printed with each code. (URL should be as short as possible)
- This is NOT a complete list. Please review the Technology section of the BSA web site for further details

Reading

- The minimum camera pixel for scanning this size bar code is 2 megapixels.
- Of course, if the Mobile Code is placed on a 6 foot high poster in a shopping mall or train station, the size of the bar code might be as large as 8 in X 8 in. With auto-focus smart phones, these can be easily read from a farther distance. Obviously, location of the bar code position is critical for easy scanning. Eye level is preferred for a poster printed bar code.

Communications

- A major barrier for project success is NOT having adequate WiFi access at all Mobile Code locations. Proper and thorough testing is necessary to avoid this pitfall.

Printing

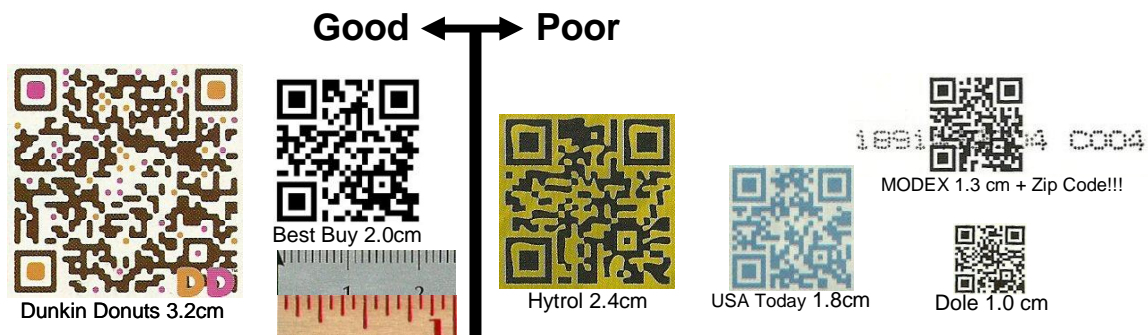
- In all cases, every Mobile Code that is printed for use should be tested before deployment.

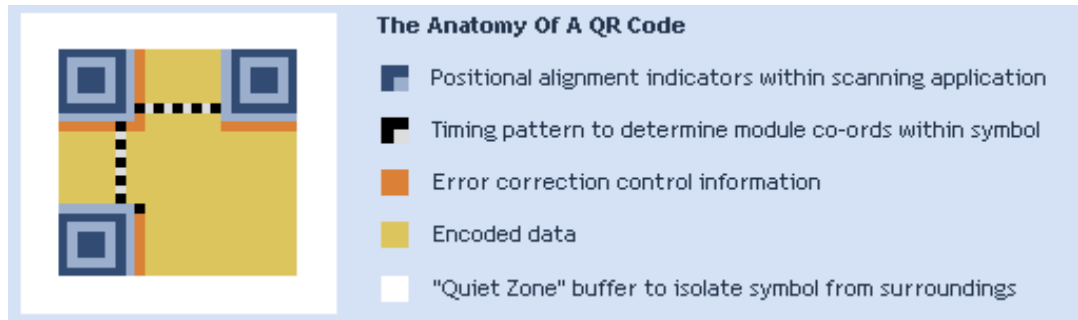
As an example, here are two Microsoft Tag bar codes: the first in an industry publication with the second taken from USA Today.

Note: When selecting which mobile code to use study any licensing costs. Some are in the public domain and some are not.

The image shows two Microsoft Tag bar codes. The left one is a colorful geometric pattern with text: "Enter to win a FREE TRIP! Go to www.sandals.com/sweepstakes or scan the tag." Below it is a smaller version of the same pattern and text: "Get the free mobile app at http://gettag.mobi". The right one is a similar pattern with text: "See the best sports photos of the day on your smartphone". Below it is a smaller version of the same pattern and text: "To do so, download the Microsoft TagReader app at http://gettag.mobi and capture a photo of today's tag." Both have fine print at the bottom.

Shown below are a select set of QR Code examples. The two left codes meet the minimum size with acceptable print quality. The four on the right sides have problems included poor printing, size, and incorrect placement on the mailing document. Note the Zip Code was overprinted on the Modex mailing:





Education Related

All supply chain members who will interact with the Mobile Code project need to have the appropriate level of education prior to project launch. The campaign objectives need to be well understood especially at senior management levels.

Prior to implementation, three educational needs must be met:

- Senior and general management - to help various levels of management to understand why this is being done, what the business benefits are, and how it will affect various functions within the organization. They will also need to understand how policies will be affected.
- Sales and marketing people - General knowledge and understanding by those who will need to know how to use the “tool” to benefit their activities.
- Technical issues - for those involved in the graphics, IT and Web site: What Mobile Codes are and how to make them work within the scope of this application.

Few project managers will possess all this knowledge themselves. Their job is to know enough about Mobile Codes to find the resources that can provide the right information at the appropriate level to the appropriate person

The challenge is to provide the appropriate level of information to the appropriate person. This means the project leader should find information and organize it so that all the various people involved in the project have a common vision of the project and that they understand where they fit and how they will be able to add to the success of the project. This is true for every function in the organization. A simple matrix can help you understand “who needs what.”

Function	General Overview	1 st Level of Detail	Deeper Detail
Management			
Sales			
Marketing			
Distribution			
Manufacturing			
Graphics			
Information Tech			
Web Support			
In Store			

A product supplier must also understand that there is a “downstream” need for education and training. Those are the people who will interact with the customer that everyone is trying to serve. At Retail store locations, store management and employees need to understand the goal and share the vision to enable them to assist their customers as required. Although they do not need a technical understanding they should have a functional understanding. For example, Mobile Code placement for easy scanning is really important.

Implementation

This is where planning, training and technical execution meet employees and customers. *Implementation* is frequently viewed as the items included in Step D in the outline below. However, over the years project managers have learned that Step D is the culmination of several preceding steps. For that reason Steps A through C are shown to help the project manager prepare. Explained another way, Deployment is based on the foundation of a clear Definition and a well conceived Design with appropriate level of Development.

A. Definition

- a. Statement of business objective
- b. List metrics to be measured and identify where those metrics will be sourced.
- c. Define success criteria
- d. List all parties involved and education required for each party
- e. Present proposal to senior management and gain approval to proceed

B. Design

- a. Design analytical tools for evaluating results
- b. List all mobile phones which must run the application (which could be as simple as scan the Mobile Code and display imbedded URL – or website.)
- c. Design smart phone software application with screen size in mind
- d. Define data content to be included in the Mobile Code
- e. Evaluate how to provide alternate way for user to reach the information
- f. Identify printing technology for Mobile Code creation
- g. Define QA testing procedure to validate design goals (e.g. for printing this would include min/max of such parameters as overall size, contrast ratio, etc.)

C. Development

- a. create analytical tools
- b. Evaluate whether a smart phone software application should be developed, or utilize one of the many current applications available.
- c. Identify, source or create printing software for all required media (e.g. shelf labels, catalog pages, posters, etc.)
- d. Identify, source or create QA test routines

D. Deployment

- a. Conduct senior management education
- b. Complete all QA testing

- c. Hold training webinars to all relevant parties inside and/or outside company environment
- d. Complete all product runs of required media
- e. Distribute materials to destination locations
- f. Go Live and begin collecting raw data
- g. If possible, collect real time metric measurements
- h. Make necessary adjustments as required to metrics and original design goals
- i. Provide interim feedback of results to date



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