



## QR Codes: Links, Coordinates, Text and More!

No. TR-2013-1 January 3, 2013

**Learning Objective:** The student shall be able to create and implement QR codes in a variety of functions, as they relate to training, documentation or duty requirements.

In 1994, one of the Toyota divisions in Japan created a two-dimensional bar code that could be scanned at high speeds in order to analyze their manufacturing processes. This was a departure from the traditional one-dimensional bar code, which could only be scanned by a narrow beam of light and had a severely limited storage capacity. The two-dimensional bar code can be scanned from most surfaces (computer monitors, paper, metal, clothing, etc.) by any smartphone or tablet that has a QR code scanner, several of which are easily downloaded from the devices' applications store for free. It can also contain a large amount of data such as Internet addresses, geographical locations, video trailers, information about an article of clothing, or even about the individual wearing it. QR codes can be used to identify structures, their contents, or specific locations within structures.



This QR code contains the URL (link) to the National Fire Academy's Coffee Break Training Web page.

At a fire station, QR codes may be used in a variety of ways. A training specialist might use one to provide a link to a document or a series of documents related to available or ongoing training courses. Pieces of equipment might have QR codes displayed that would enable a new recruit to watch a short training video. Inventory management would also be enhanced by the use of QR codes on all equipment that instantly provide series, age and inspection data.

Some stations already use these QR codes on equipment that, when scanned, will take the visitor to their Web page. In the future, firefighters could have QR codes on their helmets or shirt sleeves containing their names and contact information for quick identification purposes during an emergency.

For minimal cost, these QR codes could be used to aid firefighters everywhere. Imagine QR codes on every corner of large box stores or specialty shops that can provide the amount of highly flammable or hazardous materials and where they are located within the structure.

The Internet address <http://www.qrstuff.com/> is one of several websites that provides free creation of QR codes in less than a minute's time. Save the output (a .png file), print it out on your selection of material, apply it to the surface of your choice, and step into the future of information coding.