



ISSN(Online): 2320-9801  
ISSN (Print): 2320-9798

# International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: [www.ijircce.com](http://www.ijircce.com)

Vol. 5, Issue 3, March 2017

## Industrial Management Using QR Code System

Dhanaraj.N<sup>1</sup>, Sivaprakash.R<sup>2</sup>, Pareshkumar.J<sup>2</sup>, Ponraja.M<sup>2</sup>, Vikash.S.R<sup>2</sup>

Asst. Professor, Dept. of Electronic and Communication Engineering, Jay Shriram Group of Institution

Tirupur, Tamilnadu, India<sup>1</sup>

Dept. of Electronic and Communication Engineering, Jay Shriram Group of Institution

Tirupur, Tamilnadu, India<sup>2</sup>

**ABSTRACT:** Quick Response (QR) codes are two-dimensional (2-D) barcodes that can contain information's. This paper put forward an improved background colours and put the company logo on centre of the QR code. In this paper, including the many options such that Wi-Fi, location, E-mail, SMS and link. The above data's are in data base and it is combined with server by using QR code we can view all the details. Better accuracy could be obtained by the help of this QR code scanner system. Customer can easily detect the QR code image, via his Android mobile or web camera itself. QR code verifies products by capturing it through the scanner then decodes and sends it to the server for authentication. By use of this QR based system since it is low cost, non invasive, compact and easy to use. Doing in ROOTS INDIA PVT. LTD.

### I.INTRODUCTION

QR code is currently the most widely used matrix twodimensionalcode, is developed by Japan Dcnso in 1994, is identified as a Chinese national standard "GB/T18284.2000" in2001. Because of its large information capacity, high reliability,ultra-high-speed read, efficient Chinese characters, QR code iswidely used in many fields, such as newspaper and TV media,product identification, security, electronic business cards, ecommerce,electronic guides, and assembly line production, etc.QR code reading is divided into two categories:laser-wayacquisition, image acquisition. Image-acquisition type is used inmost cases, but QR code image based on image-acquisition have uneven illumination problems, resulting to recognition difficult.In the QR code image recognition process image binarizationplays a very important role, directly impacting on the follow-upimage edge detection, grid sampling, and ultimately affect theaccuracy of the QR Code recognition. QR Code imageacquisitionby the terminal is susceptible to complex environment where the light effects, resulting in decreased QR Code image quality. The practical application of the binarization results areoften unsatisfactory, affecting the subsequent identification process. To solve this problem, local binarization algorithm,watershed binarization algorithm, surface fitting binarization algorithm, the adaptive threshold binarization algorithm and thebackground graylevel based binarization algorithm are putforward. Among them background gray-level based binarization algorithm improves QR Code image binarization quality best. However, the computation is extremely large, the operating efficiency is not good. In order to ensure the validity of the algorithm and improve the algorithm run rate, this paper proposes an improved background gray-level based binarization algorithm for the nonuniform illumination QR code image. Firstly, use the improved joint interpolation algorithm to build the background gray-level image. And then use it to correct the uneven gray-level of the original QR code image. Finally, use Otsu algorithm to binary the corrected image.



# International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: [www.ijircce.com](http://www.ijircce.com)

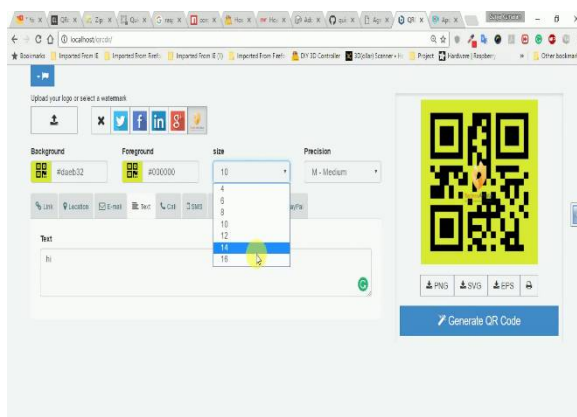
Vol. 5, Issue 3, March 2017

## II.EXISTING METHOD

Barcodes are often intended for consumer use where using a barcode device, a consumer can take an image of a barcode on a product. The barcode must be read using computer vision techniques and barcode can hold information, it makes this vision task in consumer scenarios unusually challenging. Barcode decoder can give the vision algorithm feedback, and develop a progressive strategy of the product.

## III.PROPOSED SYSTEM

In the proposed system, we are using Multiplexing and de-multiplexing algorithm for recognizes QR code image using smart phones to provide various services that can recognize the authenticity of any product.



So QR code verifies products by capturing it through the smart phone, then decodes and sends it to the server for authentication. The customer forwards the selected product list to the server that enables the consumer to decide based on the products authenticity.

## IV.EMBEDDED SYSTEM

An embedded system is a computer system with a dedicated function within a larger mechanical or electrical system, often with real-time computing constraints. It is embedded as part of a complete device often including hardware and mechanical parts. Embedded systems control many devices in common use today.

Embedded systems range from portable devices such as digital watches and MP3 players, to large stationary installations like traffic lights, factory controllers, and largely complex systems like hybrid vehicles, MRI, and avionics. Complexity varies from low, with a single micro-controller chip, to very high with multiple units, peripherals and networks mounted inside a large chassis or enclosure.

## V.OVERVIEW

C# can be written with any text editor, like Windows Notepad, and then compiled with the C# Command line compiler, csc.exe, which comes with the .NET framework. However, most people prefer to use an IDE (Integrated Development Environment), and Microsoft offers several options for this. Their flagship is Visual Studio, which can be used to work on every possible aspect of the .NET framework. This product is very advanced, and comes in several editions. Visual Studio is not exactly cheap, and might even be too advanced for hobby programmers.

With .NET framework 2.0, Microsoft introduced the so-called Express versions, targeted at hobby programmers and people wanting to try .NET, and they continued this tradition with the later release of .NET 3.0 and 3.5. The Express versions only work for one language, like C# or VB.NET, and miss some of the really advanced features of

# International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: [www.ijircce.com](http://www.ijircce.com)

Vol. 5, Issue 3, March 2017

Visual Studio. However, they are free and will work just fine for learning the languages, which is why we will use it for this tutorial.

C# is a modern, general-purpose, object-oriented programming language developed by Microsoft and approved by European Computer Manufacturers Association (ECMA) and International Standards Organization (ISO).

C# was developed by Anders Hejlsberg and his team during the development of .Net Framework.

C# is designed for Common Language Infrastructure (CLI), which consists of the executable code and runtime environment that allows use of various high-level languages on different computer platforms and architectures.

## VI.METHODOLOGY

### HARDWARE TOOL

Argox CP-3140L PPLB :



The CP-3140L/CP-3140LE compact desktop printer offers 300dpi resolution and larger memory for high quality printing. The high print resolution is perfect for producing text and graphics for applications such as clothing labels, photos on hospital I.D. bracelets, and labels for small retail items such as jewelry.

The CP-3140L/CP-3140LE holds a 300M long ribbon for large printing demands and for less frequent ribbon changes. Loading media and ribbons is quick and easy. A paper sensor system supports diverse media and you can select ribbon ink-side in or ink-side out. Four autocalibration modes deliver more precise printing. The printer provides multiple communication interfaces including parallel, RS-232, and USB ports.

The CP-3140L/CP-3140LE prints at a speed of 4ips and onto media of up to 50-inches in length. Standard memory includes 8MB Flash and 8MB SDRAM. The printer's modular design simplifies maintenance. It supports 1D/GS1 Data bar, 2D/Composite codes, QR barcodes, and Windows TrueType font download. The CP-3140L provides high quality printing for applications that require enhanced printing of text and graphics. The new CP-3140L/CP-3140LE printer is space-saving, flexible, and delivers outstanding print performance

### PERSONAL COMPUTER

A **personal computer (PC)** is a multi-purpose electronic computer whose size, capabilities, and price make it feasible for individual use. PCs are intended to be operated directly by a end-user, rather than by a computer expert or technician



# International Journal of Innovative Research in Computer and Communication Engineering

(An ISO 3297: 2007 Certified Organization)

Website: [www.ijircce.com](http://www.ijircce.com)

Vol. 5, Issue 3, March 2017



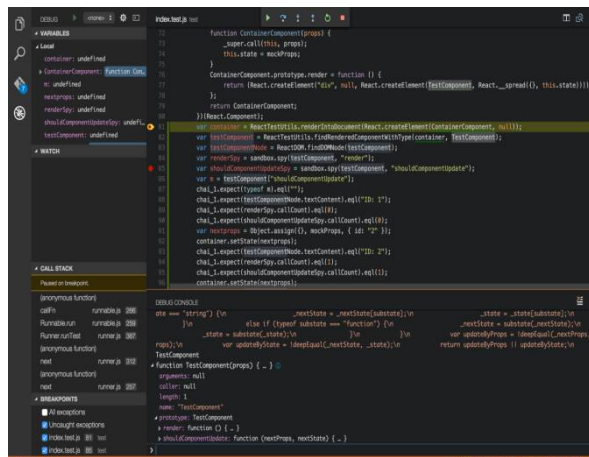
## USB CABLE



The term **USB** stands for "Universal Serial Bus". **USB cable** assemblies are some of the most popular **cable types** available, **used** mostly to connect computers to peripheral devices such as cameras, camcorders, printers, scanners, and more.

## SOFTWARE DEVELOPMENT

**Microsoft Visual Studio** is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs for Microsoft Windows, as well as web sites, web apps, web services and mobile apps. Visual Studio uses Microsoft software development platforms such as Windows API, Windows Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight. It can produce both native code and managed code.





# International Journal of Innovative Research in Computer and Communication Engineering

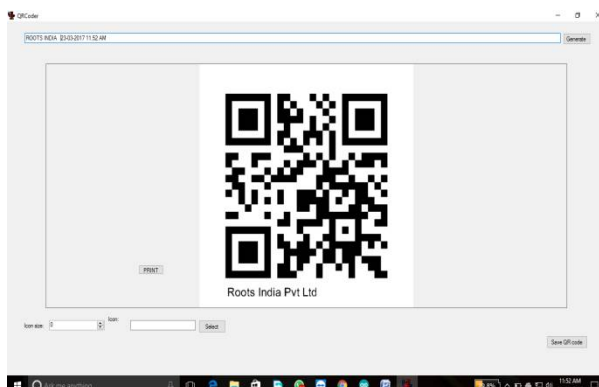
(An ISO 3297: 2007 Certified Organization)

Website: [www.ijircce.com](http://www.ijircce.com)

Vol. 5, Issue 3, March 2017

**Microsoft Visual Studio** is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs for Microsoft Windows, as well as web sites, web apps, web services and mobile apps. Visual Studio uses Microsoft software development platforms such as Windows API, Windows Forms, Windows Presentation Foundation, Windows Store and Microsoft Silverlight. It can produce both native code and managed code.

Visual Studio includes a code editor supporting IntelliSense (the code completion component) as well as code refactoring. The integrated debugger works both as a source-level debugger and a machine-level debugger. Other built-in tools include a code profiler, forms designer for building GUI applications, web designer, class designer, and database schema designer. It accepts plug-ins that enhance the functionality at almost every level—including adding support for source control systems (like Subversion) and adding new toolsets like editors and visual designers for domain-specific languages or toolsets for other aspects of the software development lifecycle



## VII.CONCLUSION

Visual Studio allows developers to write extensions for Visual Studio to extend its capabilities. These extensions "plug into" Visual Studio and extend its functionality. Extensions come in the form of macros, add-ins, and packages. Macros represent repeatable tasks and actions that developers can record programmatically for saving, replaying, and distributing. Macros, however, cannot implement new commands or create tool windows. They are written using Visual Basic and are not compiled. Add-Ins provide access to the Visual Studio object model and can interact with the IDE tools. Add-Ins can be used to implement new functionality and can add new tool windows. Add-Ins are plugged into the IDE via COM and can be created in any COM-compliant languages. Packages are created using the Visual Studio SDK and provide the highest level of extensibility. They can create designers and other tools, as well as integrate other programming languages. The Visual Studio SDK provides unmanaged APIs as well as a managed API to accomplish these tasks. However, the managed API isn't as comprehensive as the unmanaged one.<sup>[11]</sup> Extensions are supported in the Standard (and higher) versions of Visual Studio 2005. Express Editions do not support hosting extensions.

Visual Studio 2008 introduced the **Visual Studio Shell** that allows for development of a customized version of the IDE. The Visual Studio Shell defines a set of VS Packages that provide the functionality required in any IDE. On top of that, other packages can be added to customize the installation. The Isolated mode of the shell creates a new App Id where the packages are installed. These are to be started with a different executable. It is aimed for development of custom development environments, either for a specific language or a specific scenario. The Integrated mode installs the packages into the App Id of the Professional/Standard/Team System editions, so that the tools integrate into these editions. The Visual Studio Shell is available as a free download.

After the release of Visual Studio 2008, Microsoft created the Visual Studio Gallery. It serves as the central location for posting information about extensions to Visual Studio. Community developers as well as commercial developers can upload information about their extensions to Visual Studio .NET 2002 through Visual Studio 2010. Users of the site can rate and review the extensions to help assess the quality of extensions being posted. An extension is stored in a VSIX file. Internally a VSIX file is a ZIP file that contains some XML files, and possibly one or more



ISSN(Online): 2320-9801  
ISSN (Print): 2320-9798

# International Journal of Innovative Research in Computer and Communication Engineering

*(An ISO 3297: 2007 Certified Organization)*

Website: [www.ijircce.com](http://www.ijircce.com)

Vol. 5, Issue 3, March 2017

DLL's. One of the main advantages of these extensions is that they do not require Administrator rights to be installed. RSS feeds to notify users on updates to the site and tagging features are also planned.

## REFERENCES

- 1.M. Filipovic Tretinjak (2015) "The Implementation of QR Codes in the Educational Process" School of Electrical Engineering (Elektrotehnicka skola),Zagreb Croatia
- 2.Lei Fu , (March 2011), "Design of QR Code based Mall Shopping Guide System", Nanjing, Jiangsu,China
- 3.Phaisarn Sutheebanjard ,(2010), "QR-Code Generator", Graduate School of Information Technology , Siam University, Bangkok10163,Thailand.
- 4.Yinghui Zhang, Tianlei Gao, Deguang Li, Huaqi Lin, "An Improved Binarization Algorithm of QR Code Image", Chengdu Neusoft University, ChengDu, China, College of Information Science and Engineering, Northeastern University, Shenyang.
- 5.Raed M. Bani-Hani , Yarub A. Wahsheh, Mohammad B. Al-Sarhan, Dept. of Network Engineering and Security, Jordan University of Science and Technology, Irbid.