ScanVue® 5000
Customer Interactive (Web Client) Kiosk
User Manual

(U.S. Patent No. 6,213,394 B1)

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STANDARDS CERTIFICATION

The ScanVue® product described in this manual has been fully tested and certified by an independent testing laboratory and is compliant with the following international standards.

- UL Standard 60950 (ITE) listed product.
- CSA standard C22.2 No. 950 recognized product.
- RF Emmissions (Conducted):

  FCC CFR Title 47 part 15 Subpart B, Class A
- RF Emmissions (Radiated):

  CISPR 22 called out in FCC CFR Title 47 part 15 Subpart B, Class A
- EN55022, 2010/AC: 2011 Class A
- EN55024: 2010
- EN61000-3-2: 2006 + A1: 2009 & A2: 2009
- EN61000-3-3: 2008

The internal Wireless LAN PCIe Minicard is certified by the manufacturer to be compliant with the following standards:

- EN60950-1: 2006 + A11: 2009, EN 50385: 2002, EN 301 489-17
- IEC 60950-1: 2001
- FCC part 15B & part 15C

CAUTIONS

Caution: **DO NOT DISPLAY A FIXED IMAGE FOR EXTENDED PERIODS OF TIME AS THIS MAY CAUSE LCD IMAGE PERSISTENCE PRODUCING PIXEL DISCOLORATION.**

TABLE OF CONTENTS

TABLE OF FIGURES 5

Chapter 1—Introduction 6

Overview 6
ScanVue® 5000 (Web Client) Kiosk Description 6
ScanVue® 5000 (Web Client) Kiosk Operation 7
Demo Mode 7
Interactive Mode (Home Web Page Image) 7
Alternating Web Page Image Feature 8
Web Page Video Clip (Slideshow) Presentation 8
4 Pushbutton Switches 9
Configuration Example 10
ScanVue® 5000 (Web Client) Kiosk Models 11
Available Options 11
Configuration 12
Specifications 13
Interactive Device Options 14
ScanVue® Accessories 14

Chapter 2—Getting Started 15

Part 1 - SDK Installation 16
Hardware and Software Required 16
ScanVue® Documentation Access Instructions 16
SDK Files and Software Installation 16
SDK Contents 17
Part 2 - Local PC (Host Server) Network Setup 18
Introduction 18
Network Setup Example Procedure (Windows 7) 19
Part 3 – Demo Mode Test 24
Instructions 24
Part 4 – Home Web Page (Interactive Mode) Test 25
Sample Script / Image File Installation 25
Test Procedure 25

Chapter 3—ScanVue® Connections 26

Connections For (PoE Power / Communication) 26
Connections For (+12V Power / Ethernet Communication) 26
Connections For (+12V Power / Wi-Fi (802.11b/g) Communication) 26
Mounting the ScanVue® (Web Client) Kiosk 28
Standard Wall Mount Installation 28

Chapter 4—ScanVue® Web Client Configuration 29

UnitConfig Program 29
Modeset Program 31
ScanVue® Web Client Kiosk Supported Modes 32
Wireless Network Setup 37
WEP Encryption Settings 37
WPA and WPA2 Encryption Settings 37

Chapter 5—Interactive Device Options 38

Serial Receipt Printer 38
Magnetic Stripe Reader 40
Touch Screen 40

Appendix A—Configuring with Barcodes 42

Barcode Scanner Settings 42
Configuring ScanVue® 42
Support Barcodes 44
Appendix B—Mounting Bracket Outline 47

TABLE OF FIGURES

Figure 1—Configuration Info Screens 1 and 2 12
Figure 2—Connector Location—Rear of ScanVue® 26
Figure 3—Ethernet / PoE Connector (RJ45) Pin Assignments 27
Figure 4—Power Connector (DIN8F) Pin Assignments 27
Figure 5—Unit Configuration (UnitConfig) Screen 30
Figure 6— Example WPA / WPA 2 Encryption Settings 37
Figure 7—Wiring a Serial Printer 39
Figure 8—Interface Connector Pin Assignments 41
Table 1—Barcode Configuration Labels 43
Figure 9—Slimline Wall Mount Bracket 47

Chapter 1—Introduction

Overview

This manual provides instructions for configuration and operation of the IEE ScanVue® 5000 Interactive (Web Client) Kiosk. Included is a description of the basic functions and features of the hardware along with a description of how to physically install the unit in its intended location, set it up to operate on your specific network, configure your network, and interface the IEE ScanVue® to a host web server.

The following chapters describe how to:

- Setup and install a local desktop or laptop PC with IEE Configuration programs.
- Configure ScanVue® using IEE configuration program ***UnitConfig*** or ***Modeset***.
- Display web images and short Animated GIF video clips when directed to the host web server network by entering URL's using IEE configuration program ***UnitConfig*** or ***Modeset***.

ScanVue® 5000 (Web Client) Kiosk Description

ScanVue® 5000 (Web Client) Kiosk is a mini kiosk designed to scan bar coded merchandise, obtain and display current in-store promotional information. Retail consumers are provided this information to help make informed purchasing decisions. The QVGA (320x240 pixel) resolution display can be used to present in-store merchandising and multimedia presentations for promoting seasonal sales and upcoming events to help retail consumers make informed purchasing decisions. The programmable function buttons and available touch screen enhance in-store applications and allow customer interaction. Image formats supported are GIF, JPEG and PNG. Short animated GIF clips are also supported. Content developers are encouraged to use familiar design tools, such as HTML, JavaScript and PHP scripts to create images and interactive applications.

ScanVue® Web Client Kiosk is a network–connected device supporting 10/100 Base-T Ethernet, Power-Over Ethernet (PoE) and 11Mbps (IEEE 802.11b) Wi-Fi communication.

The contemporary housing design merges well with almost any store décor and custom color combinations are available if the units are ordered in sufficient quantities. The electronics package is completely contained in a high impact ABS injection molded case.

ScanVue® 5000 (Web Client) Kiosk Operation

Demo Mode

The default "as-shipped" setting ***Demo mode*** provides a way to showcase the ScanVue® Web Clients' abilities without requiring a physical connection to a host computer. An internal web server with a price-lookup database application loaded with several items is embedded in ScanVue® Web Client Kiosk. Refer to **Chapter 2 - Part 3** for **Demo Mode Test**.

To exit ***Demo Mode*** and setup for ***Interactive Mode*** to run on your network, reconfigure the Web Client and change the ***HomeURL*** and ***HomeURL2*** to your network home pages. Refer to ***Interactive Mode*** section below and **Web URL Configuration** section in **Chapter 4**.

Interactive Mode (Home Web Page Image)

Mode Setting: (HomeURL)

Interactive Mode is the interface between the user (customer) and the Web Client. A retail store unit, for example, running a product item price verifier, loyalty program, gift registry and other retail applications will be operating in this normal operation mode. With ***HomeURL*** specified, ScanVue® Web Client expects to find the host server web page to load and display.

Web page images or short animated GIF clips are displayed continuously (with ***HomeURL*** specified) during Idle Stage until item barcode scan. HTML and PHP scripts are used for presenting images and video clips. Idle stage Image resumes after a programmed timeout. (*A single image may be preferred but is not recommended due to possible LCD image persistence "pixel discoloration").*

- Once the home page loads, control resides primarily with the web server application. The Web Clients' page display will persist until the either web server directs it to another page, a new URL is generated by scanning a barcode, pressing a pushbutton or the **POStimeout** value is exceeded in which case it will return to the homepage.

Item Barcode Scan:

During normal operation (***Interactive Mode***), customer scans product UPC barcode generating a URL with the UPC number merged with the scanner prefix and suffix specified. This unique URL is used to lookup and retrieve the specific items properties. The Web Server based product price and description information in the form of QVGA (320x240) images are then displayed on the ScanVue® Web Client.

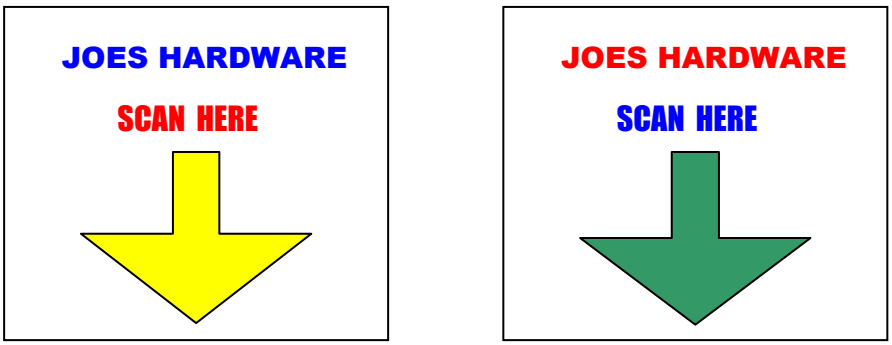
- Scanning a barcoded item generates a URL with the SKU or UPC# merged with the scanner prefix and suffix specified. This unique URL can be used to lookup and retrieve the specific items properties from a table. For example; the URL http://mysite/pricelookup/123456B.html will be directed to the *mysite* domain, *pricelookup* directory. The application will retrieve the price and description data for item 123456B, format it and display its contents. In this example *URLprefix* = /mysite/pricelookup; *URLsuffix* =.html and the item SKU or UPC barcode = 123456B.

Alternating Web Page Image Feature

Mode Settings: (HomeURL + HomeURL2)

Two web page images set using ***HomeURL*** and ***HomeURL2*** mode settings (using HTML and PHP script) alternate during Idle Stage with programmed timeout until item barcode scan. Alternating idle stage images resume after a programmed timeout. (*Possible LCD image persistence is avoided using this feature).*

- 2 alternating graphic images can be as simple as the image below shown in complementary colors. Alternating the two images every 20 seconds is default.



Web Page Video Clip (Slideshow) Presentation

Mode Settings: (HomeURL or HomeURL2)

A sequence of 30 or more animated **.gif** images set using either ***HomeURL*** or ***HomeURL2*** mode settings (using HTML and PHP script) are displayed during Idle Stage simulating slideshow until item barcode scan. Idle stage images resume after a programmed timeout.

- The animated GIF should not exceed 4 Mbyte in size. Depending on the complexity of each image in the animated GIF, the presentation allows for more than 30 images.
- If more complex images are desired, a simple web-server driven sequence of images can be implemented on the home page. For example, the home page contains a pointer to a GIF or JPEG image with a meta-tag in the header specifying how long to display the page and which page to go to next. An almost infinitely long chain of images or a loop could be created.

4 Pushbutton Switches

The four pushbuttons are treated as four separate input devices. Pushing any one of the 4 pushbuttons generates a URL with the pushbutton number merged with the btPrefix and btSuffix specified. The pushbuttons are numbered 1 to 4 from left to right.

PushButton	Value (Mask Setting)
Push button 1 (leftmost)	fffffff1h
Push button 2 (2nd from left)	fffffff2h
Push button 3 (3rd from left)	fffffff4h
Push button 4 (rightmost)	fffffff8h
Push button release	fffffff0h

For example:
Pressing pushbutton 2 could generate the following URL (depending on settings).

Press pushbutton 2 ⇨ http://mysite.com/buttons.php?val=fffffff2
Releasing pushbutton 2 could generate the following URL (depending on settings).

Press pushbutton 2 ⇨ http://mysite.com/buttons.php?val=fffffff0

- ***Event Start*** mode setting default is **0000000F**. This is a bitmap indicating all 4 buttons are activated). A start event will be generated when a button is pressed. Refer to **ScanVue® Supported Modes** section for ***EventStart*** requirements.

Configuration Example

Default Configuration for Demo

The ScanVue® Web Client is shipped configured in **Demo Mode**. Refer to **Demo Mode** section. Default Settings are as follows:

eventStart	=0000003F
HomeURL	=http://localhost/index1.html
HomeURL2	=http://localhost/index2.html
URLPrefix	=http://localhost/barcode.php?val=
btPrefix	=http://localhost/buttons.php?val=
btSuffix	=(Not Set)

The example above puts the ScanVue® Web Client into internal **Demo Mode**. With *HomeURL* specified, ScanVue® Web Client expects to find the embedded web page to load and display.

Test Example Configuration (Web Page Operation)

eventStart	=0000003F
HomeURL	=http://10.0.10.13/faucet.html
HomeURL2	=http://10.0.10.13/circle.html
URLPrefix	=http://10.0.10.13/barcode.php?val=
btPrefix	=http://10.0.10.13/buttons.php?val=
btSuffix	=(Not Set)

The example above puts the ScanVue® Web Client into ***Interactive Mode*** which is the interface between the user (customer) and the Web Client. A retail store unit, for example, running a product item price verifier, loyalty program, gift registry and other retail applications will be operating in this mode. With ***HomeURL*** specified, ScanVue® Web Client expects to find the host server web page to load and display.

HomeURL must be set to start web page for producing primary image or animated GIF clip. ***HomeURL2****,* if used, is set to secondary web page for producing alternate image or animated GIF clip.

Customer scans product UPC barcode generating a URL with the UPC number merged with the scanner prefix and suffix specified. This unique URL is used to lookup and retrieve the specific items properties from a table. The Web Server based product price and description information in the form of QVGA (320x240) images are then displayed on the ScanVue® Web Client.

Changing a mode setting value using ***UnitConfig*** modifies the saved configuration. ScanVue® retains the new settings in non–volatile memory.

The ScanVue® Web Client supports input devices—barcode scanner, pushbuttons, optional magnetic stripe reader and optional digital touchscreen.

ScanVue® 5000 (Web Client) Kiosk Models

ScanVue® Model 5000 Web Client Kiosk is available with a SVGA color graphics LCD display. The ScanVue® LCD family consists of a number of different models that appear externally identical but have different features:

- The ScanVue® Web Client Kiosk model **5000-0010** is basic model with 10/100 BaseT Ethernet communication.
- The ScanVue® Web Client Kiosk model **5000-0110** has 11Mbps (IEEE 802.11b) Wi-Fi communication along with 10/100 BaseT Ethernet communication.

Model Number Scheme

Model #: XXXX-XXXX-XX

1st 4 Digits: **Model 5000 Series** **XXXX**-XXXX-XX

5000	LCD - 5.7” QVGA Display

2nd 4 Digits: **ScanVue Configuration Options** XXXX**- X X 1 0**-XX

(4) Buttons	0 = No 1 = Yes
Wi-Fi	0 = No 1 = Yes

Last Digit: **Special Order:** XXXX-XXXX-**X X (OPTIONAL)**

Printer Kit	2
Custom Color	X

Please call for custom color or special request requirements

ScanVue Web Client models are available with Power-Over-Ethernet (PoE) 10/100 BaseT communication or Ethernet with power input for 11-29 VDC power. A 12 VDC 2.5A (30W) Power Supply is available as an option.

Available Options

For available device option requirements, refer to **Interactive Device Options** section.

For power and communication requirements, refer to **Specifications** section.

Configuration

ScanVue® Configuration Options

There are 2 ways to configure a ScanVue® unit:

1. Commands sent across the network using the ***UnitConfig*** or ***Modeset*** programs. (ScanVue® must be able to communicate with the server on the network before configuration settings can be changed on the network).
2. Scan special purpose configuration barcodes. Refer to **Appendix A** for instructions.

UnitConfig the graphical, table oriented version of **modeset** provides the easiest way to change the configuration of a unit on the network (as opposed to scanning barcodes or sending ***modeset*** DOS commands. ***UnitConfig*** may be installed on a desktop or laptop computer for setting up ScanVue® units without a large network complicating it. You will need a network interface card (NIC) installed in your PC and configured properly to communicate with ScanVue®.

Configuration Info Screens

When ScanVue® boots up, two configuration status screens (**Fig. 1**) are sequentially displayed which show the current settings of the unit. Each screen is displayed for 10 seconds then the unit will load the slideshow from the server and start running. These screens can be displayed at any time by scanning '**Info Screen 1**' and '**Info Screen 2**' bar codes shown in **Appendix A** under **Support Barcodes**. Wireless RF configurations display brown text on a light green background and hardwired Ethernet units display yellow text on a blue background.

Refer to **Chapter 5** for detailed information on how to configure a ScanVue®.

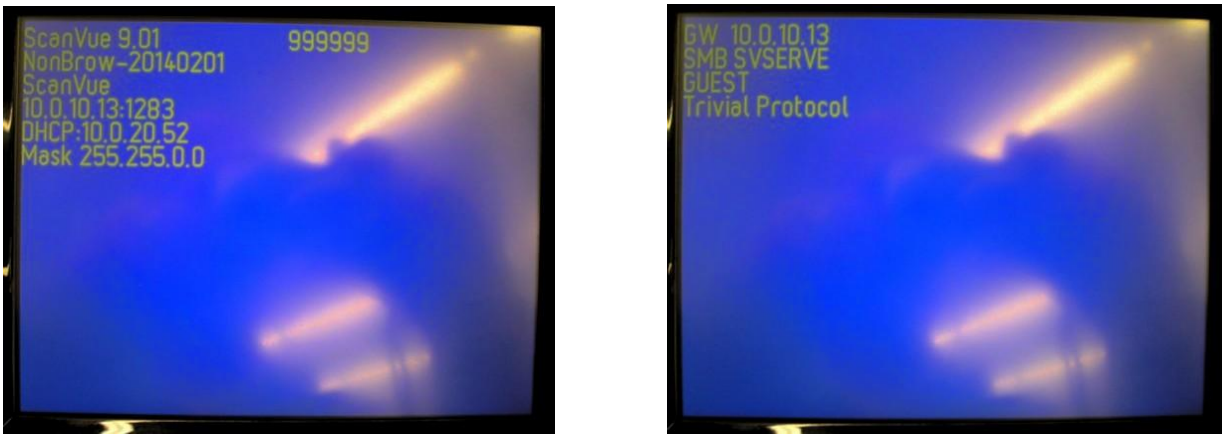


Figure 1—Configuration Info Screens 1 and 2

Specifications

Display:
- QVGA (320x240 pixel) color graphics 5.7" Diagonal LCD display

Network Server Computer Requirements:
- MS Windows, Unix, Linux, VAX or any other platform that runs a TCP/IP network

Supported Operating Systems:
- Windows 98, ME, 2000, NT, XP, Windows 7 (32-Bit), Unix, Linux and Open VMS

Power Options:
- Wi-Fi and Ethernet Models: 11-29 VDC, 10 W typ. (24 VDC Nominal)
- PoE Hardwired Models: 48 VDC, 10 W typ. (IEEE 802.3af compliant)

Communication Options:
- 11Mbps (IEEE 802.11b) Wi-Fi *
- Ethernet 10/100 Base-T
- Power-over-Ethernet (PoE)

Interactive Devices:
- 4 front panel push button interactive switches

Input Device Options:
- An external RS232 serial port is available via an optional Y cable that supports a serial receipt printer or other serial device.
- 2 USB ports – (For any desired future use such as MSR, please contact Sales)

1D/2D Barcode Scanner:
- Supports any 1D and 2D bar codes including PDF417 codes. UPC and NCR prefix support.

Web Client Kiosk OS:
- Embedded Linux

Web Page Image Support:
- Image Format: GIF, Animated GIF, JPEG, PNG
- Image Resolution: 320x240
- Animated GIF Image Memory: 4 MB (More than 30 images)

Input Data Steering:
- Configurable URL for each device type

Configuration Setup:
- On Line: UnitConfig
- Off Line: Barcodes

Web Application:
- Standard HTML 4.0, Javascript, PHP

Security:
- WEP*
- WPA - WPA-PSK, TKIP
- WPA2 - WPA-PSK, CCMP

Mounting Options:
- Standard wall-mount bracket

Tools:
- SDK (software developers kit) includes ScanVue® configuration programs (UnitConfig and Modeset), Sample code, sample graphic image files and user manual

*NOTE: WEP (Wireless Equivalent Privacy) encryption continues to be supported by ScanVue®, however, the recommended solution to WEP security problems is to switch to WPA2 (Wi-Fi Protected Access).

Interactive Device Options

- **Fujitsu model FP-1000 thermal 3" receipt printer**
  (Contact IEE Sales for this option)
  (Serial RS-232 communication - Requires optional Y cable – The printer is powered separately)
  - Serial RS-232 Communication - ScanVue® receives pre-formatted data and control codes from a printer driver resident on the network host, which it passes, unmodified, through DIN 8 Connector (Serial RS-232) to the printer. Default Communication is 9600 BAUD, 8-bit, no Parity and 1 stop bit.
- **3 track USB Magnetic stripe reader**
  (Contact IEE Sales for this option)
- **Resistive touch screen**
  (Contact IEE Sales for this option)

ScanVue® Accessories

- +12 VDC 2.5A (30W) Power Supply (IEE P/N 39055-01) with a standard 8 pin DIN male connector to power ScanVue® (Typically not included with ScanVue®). The input is universal 90-264VAC/50-60Hz and the power supply has global certifications.
- 48 VDC, 10 W typ. (IEEE 802.3af compliant) Power Over Ethernet (PoE) Injector (IEE P/N 90180-01) with dual RJ45 jacks (J2 Ethernet IN - J1 Power / Ethernet OUT to ScanVue®) - (Typically not included with ScanVue®). The input is 100-250VAC/47-63Hz.
- Printer interface cable for Fujitsu model FP-1000 or equivalent printer (IEE P/N 38578-01)
- Y cable for ScanVue® with Fujitsu model FP-1000 or equivalent printer (IEE P/N 70665-01)
- Y cable, RS232 Universal with DB9F connector (IEE P/N 38516-07)
- 6' DC power extender cable with DIN8F to DIN8M connectors (IEE P/N 37082–72)

Chapter 2—Getting Started

This Chapter describes how to set up and operate a factory default IEE ScanVue® 5000 Web Client Kiosk on your laptop or desktop PC (Host Server). Several programs are installed that let you demonstrate the capabilities of the ScanVue® 5000 Web Client Kiosk and make use of the tools and utilities provided in the SDK package downloaded from IEE's web site. These programs can be used as demonstration tools.

Part of the process is to change the network settings of your computer so that it can communicate with a factory default ScanVue® 5000 Web Client Kiosk. If you need to set your computer back to its original settings, note down all the original settings before you make the changes.

If your computer is already setup to operate on a private company network IEE recommends consulting with your IT group before performing this procedure.

Part 1 - SDK Installation

Hardware and Software Required

- Laptop (or desktop) computer with Windows 98/ Me / 2000 / NT / XP Pro / 7
- LAN system with TCP/IP network protocol.
- Router or switch for connecting ScanVue® 5000 Kiosk to network.
- Category 5 standard straight cable when using a router or switch (or a “crossover” network patch cable when connecting directly to Host Server)
- IEE ScanVue® 5000 Web Client Kiosk SDK

ScanVue® Documentation Access Instructions

Please follow link for available ScanVue® Web Client Kiosk documentation and Software Developers Kit (SDK) from IEE web site:

http://ieeinc.com/downloads

1) To download Software Developer’s Kit for setting up a PC as ScanVue® Station Server with utilities, click on **SDK_5000_WC.zip** and save to your choice directory.
2) Extract all files from **SDK_5000_WC.zip**.
3) Refer to **SDK Contents** section for description of folders and their contents.

SDK Files and Software Installation

Before installing the ScanVue® programs, IEE highly recommends installing the latest updates or service packs to the operating system you are using.

1) Copy the entire **POS** folder into **C:** directory on your host system or any other folder you choose.
2) Refer to instructions described in **Part 2** of this Chapter to prepare the host server for communication with ScanVue® 5000 Web Client Kiosk.
3) Refer to instructions described in **Part 3** of this Chapter to perform local demo mode test (default “as-shipped” setting) using sample images internal to ScanVue® Kiosk.
4) Refer to instructions described in **Part 4** of this Chapter to perform home web page test using sample script files and images located on host server **htdocs** folder copied from SDK **htdocs_kiosk** folder.

SDK Contents

Documentation Folder

Contains Manual and support documentation

POS Folder

UnitConfig — A GUI program used for setting up ScanVue® from the network. Written in VisualBasic, the .exe, VB sources and an OCX are provided. When installed the program has a wrench logo. **Modeset** is the associated DOS program

modeset.exe — Command line utility for setting ScanVue modes instead of **UnitConfig**. (Also named **ms.exe**)

htdocs-kiosk Folder

Contains support folders, sample test images and sample **HTML** and **php** scripts to be copied into Host Web Server **htdocs** directory for test purposes

Test Directory:

c:\program files\apache software foundation\apache 2.0\htdocs

Application Examples Folder

Modeset Examples

Contains DOS command line batch program examples using **Modeset** utility that can be used to configure a group of ScanVue units at one time

UnitConfig Driver Installation (Win7) Folder

Windows 7 UnitConfig Driver Installation.pdf

Driver registration procedure required for running UnitConfig and Modeset programs on Windows 7 (32 Bit and 64 Bit) OS

(32 Bit OS Drivers):

richtxt32.ocx
msflxgrd.ocx
comdlg32.ocx

Files required to be registered in Win7 (64Bit OS) to run the UnitConfig program. Files registered are located in directory: **c:\windows\system32**

(64 Bit OS Drivers):

richtxt32.ocx
msflxgrd.ocx
comdlg32.ocx

Files required to be registered in Win7 (64Bit OS) to run the UnitConfig program. Files registered are located in directory: **c:\windows\syswow64**

Part 2 - Local PC (Host Server) Network Setup

Introduction

ScanVue® 5000 Web Client Kiosk comes factory defaulted with IP address set for DHCP. This is for automatically obtaining IP addresses assigned from a network server when performing installations. The ScanVue® will default to 192.168.0.1 if you don't have a DHCP server installed on your network.

This section describes how to setup a local desktop or laptop PC (Host Server) to communicate with a factory default ScanVue® 5000 Kiosk. A router is expected to be installed on your network with DHCP server enabled. The Host Server must be set for Ethernet communication allowing for further configuration using IEE's configuration program ***UnitConfig*** or ***Modeset***. See **Chapter 4** for ScanVue® Configuration.

This process is specific for Windows 7 OS, however, Windows OS (98/ NT, 2000, and XP) are also supported. Your computer will be configured as a network server with one client.

If you need to set your computer back to its original settings, note down all the original settings before you make the changes. If your computer is already setup to operate on a private company network, IEE recommends consulting with your IT group before performing this procedure.

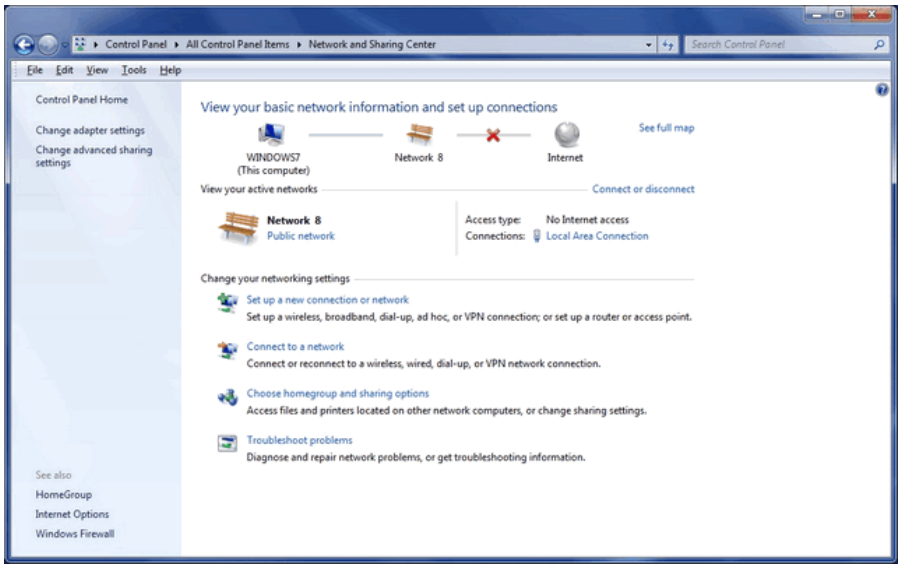
(Note: If a ScanVue® is connected directly to a PC without a router or switch, a crossover cable must be used).

ScanVue® Factory default network settings:

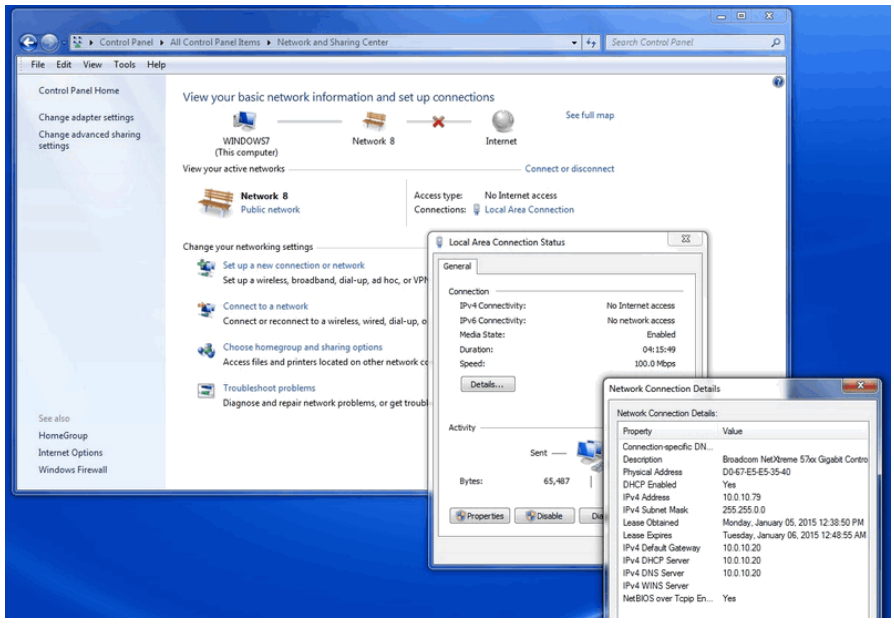
IP Address:	(via DHCP)	Username:	GUEST
Sub-Net Mask:	255.255.0.0	Windows Serv:	SVSERVE
WINSserverIP:	10.0.10.13	password:	(Not Set)
Unit ID:	ScanVue		

Network Setup Example Procedure (Windows 7)

1. **Preliminary**
   - Disable your Windows 7 Firewall or Anti-Virus.
2. **Network Security Settings**
   - Enter ***Control Panel → All Control Panel Items → Network and Sharing Center***
   - Under "View your active networks" section**,** click ***"Local Area Connection"***.



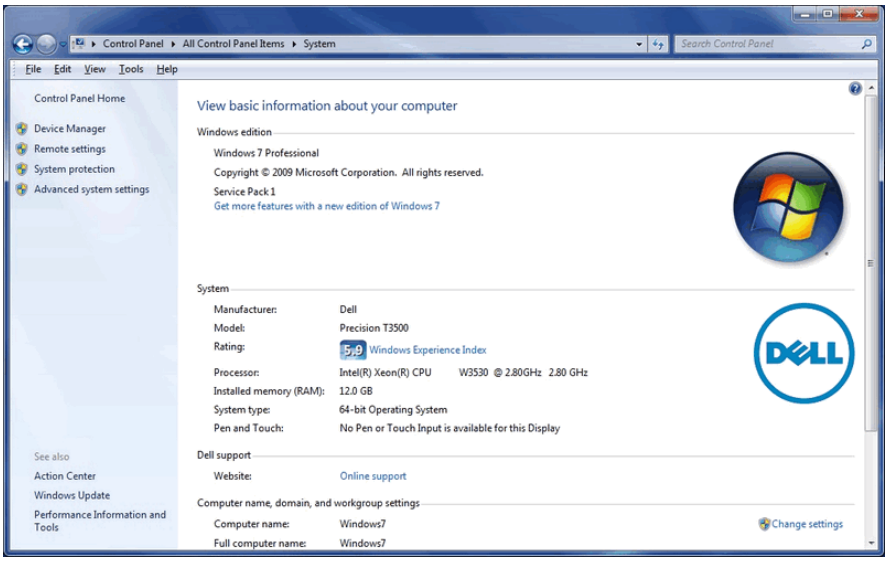
   - Verify network communication is established with status similar to the following example.
     (Note: Host Server obtains IP address from router DHCP server referenced in example as IPv4 Address 10.0.10.79)



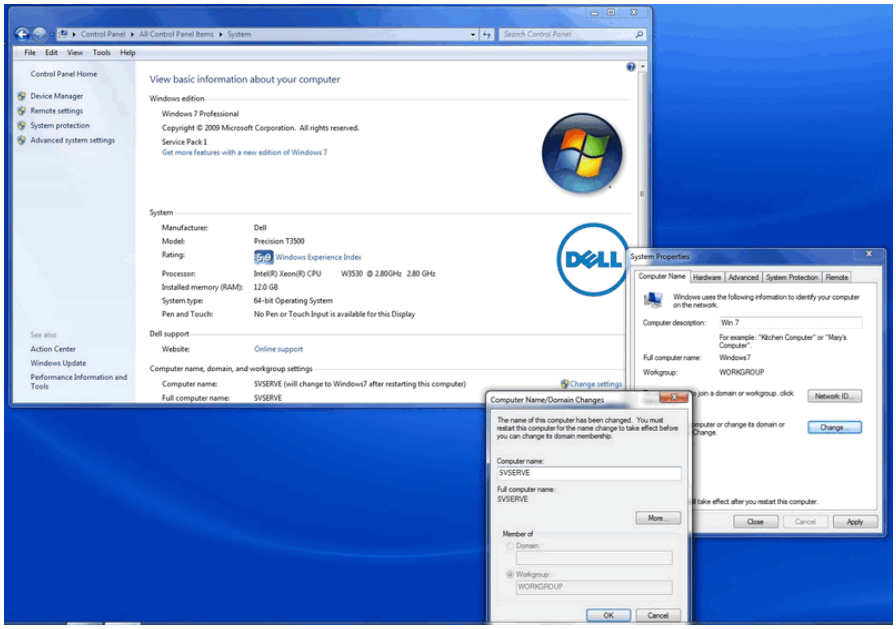
   - Close **Network and Sharing Center** window.

3. **Change Computer Name**

- Enter ***Control Panel → All Control Panel Items → System → Computer Name*** tab.



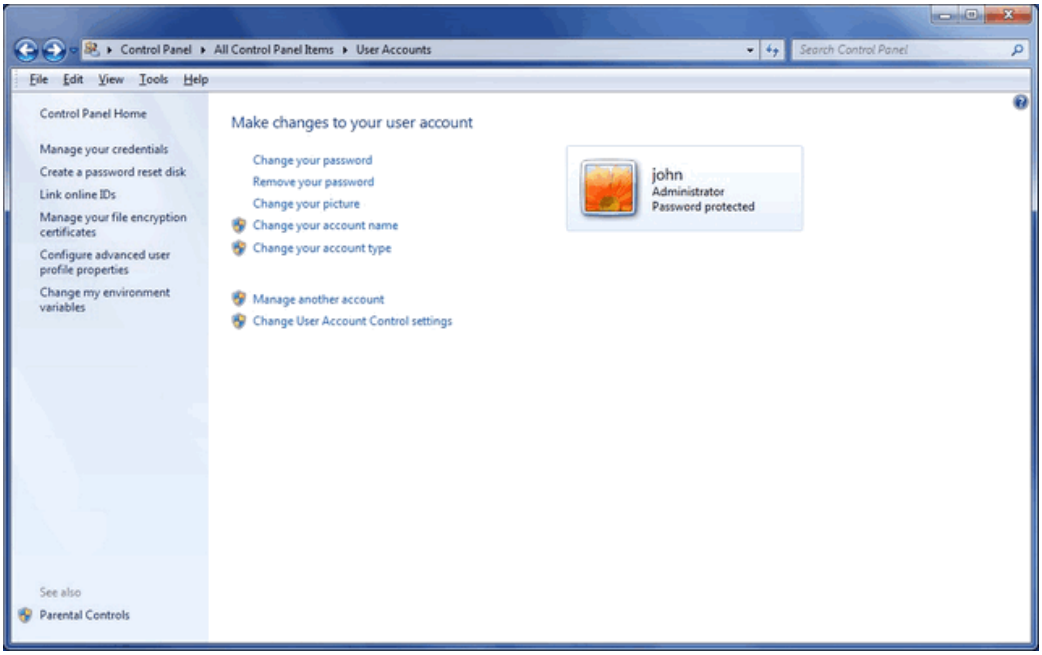
- Double-click **Change settings**.
- In the ***System Properties*** window, click Change button to bring up ***Computer name / Domain Changes*** window.
- Enter **SVSERVE** in **Computer name** field.
  Note: Workgroup must be selected with any description, provided it is 8 characters or less, no spaces.



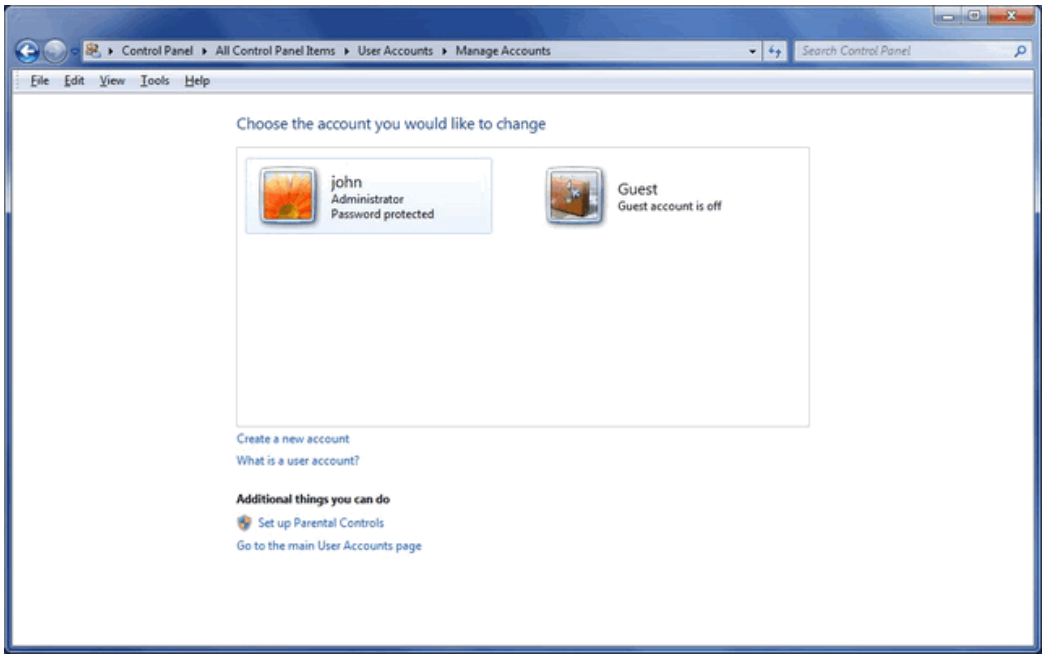
- Click ***OK*** button.
- Follow displayed instructions to restart computer.

4. **Enable User Guest Account**

- Enter ***Control Panel*** ➔ ***All Control Panel Items*** ➔ ***User Accounts*** to display administrator account.

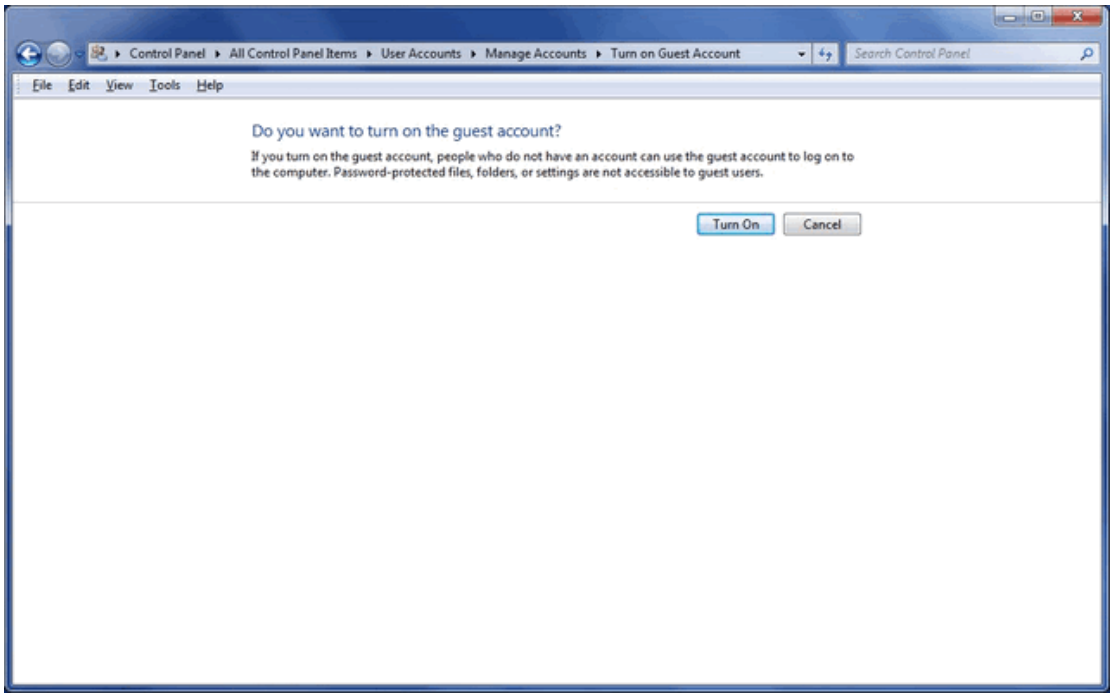


- Click on "***Manage another account***" to show Guest account.

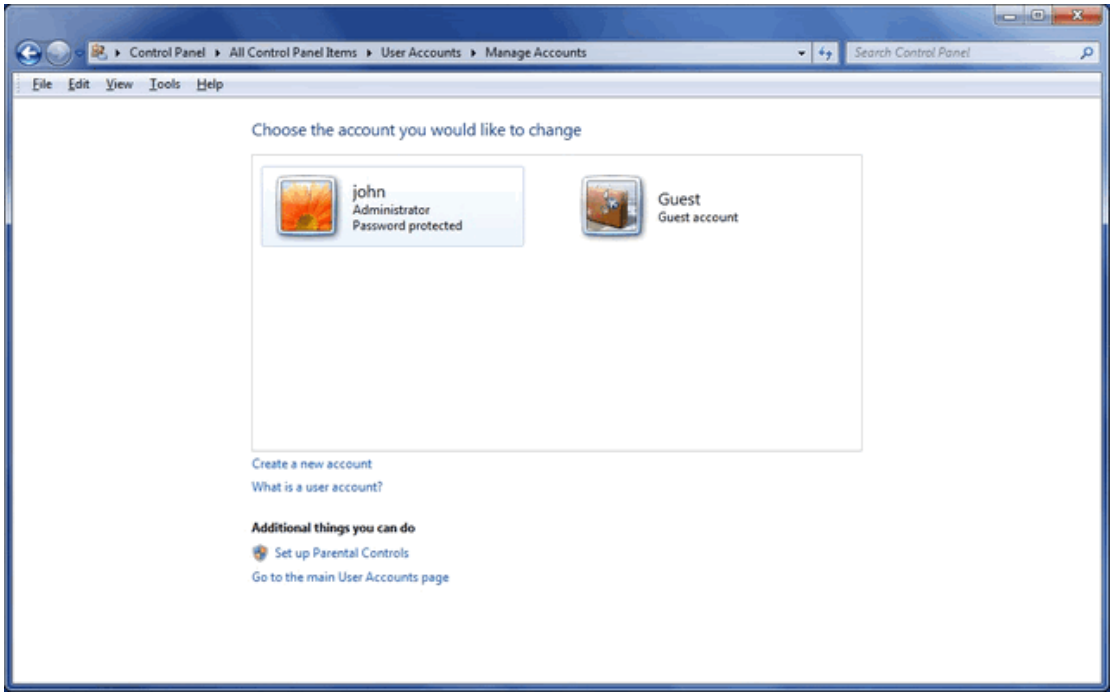


- If the ***Guest*** icon says ***Guest account is off***, click the ***Guest*** icon to display the following window.

- Click **Turn On** button to enable Guest account.



- Guest account should then be indicated as follows:

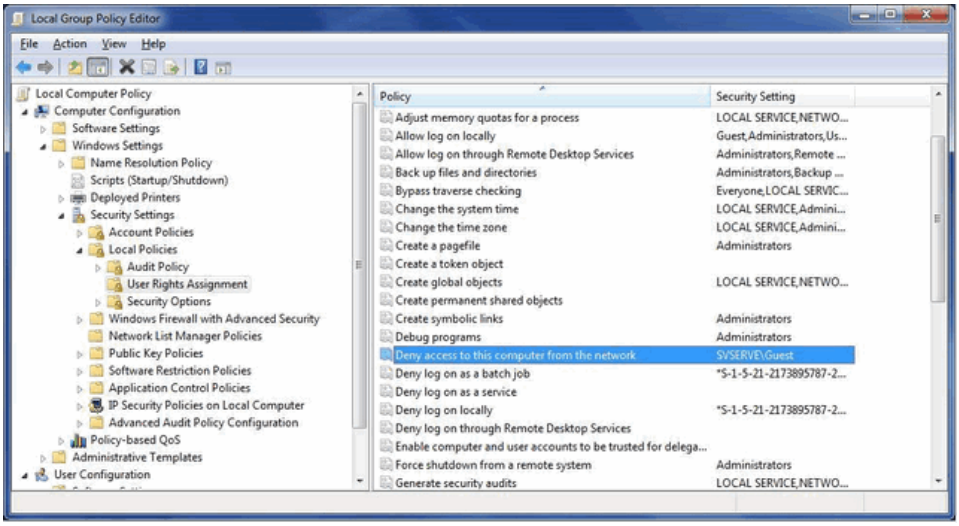


- Close the ***Manage Accounts*** window.

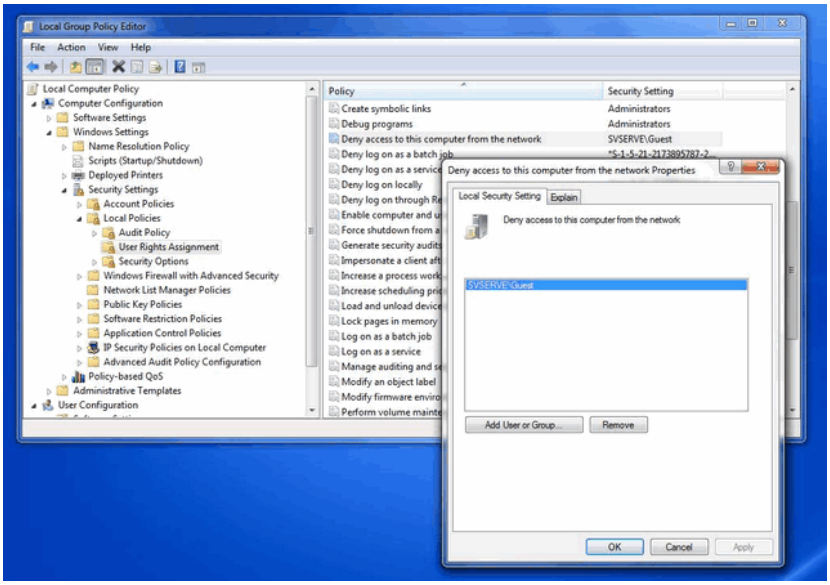
5. **Allow ScanVue "Guest" Account on Host Server Network**

   For Windows 7, Guest account is denied access on the network by default. This process removes Guest as a denied account from network server security settings policy.

   - Click "**Start**"
   - In **Search programs and files** field, type and enter **GPEDIT.MSC**. The **Local Group Policy Editor** will open.
     - Enter ***Computer Configuration*** ➔ ***Windows Settings*** ➔ ***Security Settings*** ➔ ***Local Policies*** ➔ ***User Rights Assignment***
     - Double-click on **Deny Access to the Computer from the Network**. (See window below)



   - Guest account may be shown as indicated below:



   - With **SVSERVE\Guest** highlighted, click **Remove** to remove **Guest** then click **OK**.
   - Close **Local Group Policy Editor**. Network setup is completed.

Part 3 – Demo Mode Test

Description

In the default (Demo Mode) configuration, the ScanVue® Kiosk will boot to the internal home pages ***HomeURL*** (Default URL: http://localhost/index1.html) and ***HomeURL2*** (Default URL: http://localhost/index2.html). The ScanVue® Kiosk will then be ready to accept the demo barcode scans and button presses while two home pages are cycled between two graphic images. The touch screen is active to demonstrate functionality.

For units that have been re-configured, scan the ***Return to Factory Defaults*** barcode tag then the ***Save and Reboot*** tag, which will return the ScanVue® Web Client Kiosk to its factory default ***Demo Mode*** operation.

Instructions

Scan sample barcodes shown below and verify represented sample graphic images. The internal (local) web server application will lookup the barcode number for the item scanned and display the graphic image or text data retrieved from the lookup tables.

To exit ***Demo Mode*** and setup for ***Interactive Mode*** to run on your network, reconfigure the Web Client and change the ***HomeURL*** and ***HomeURL2*** to your network home pages. Refer to ***Interactive Mode*** section in **Chapter 1** and **Web URL Configuration** section in **Chapter 4**.

DEMO & INTERACTIVE MODE TEST BARCODES

Contadina Sauce

0 50000 37126 6

Seeds

0 14100 07458 8

Stain

0 70662 03014 1

T-Shirts

0 24100 12021 5

Part 4 – Home Web Page (Interactive Mode) Test

Description

In the Interactive Mode configuration, the ScanVue® Kiosk will boot to the host server web pages ***HomeURL*** and ***HomeURL2***. The ScanVue® Kiosk will then be ready to accept test barcode scans and button presses while the two home pages are cycled between the two URL pages.

Sample Script / Image File Installation

1) Make a backup of your Host Web Server **htdocs** directory.
2) Copy the entire **htdocs-kiosk** folder and sub-folders into **htdocs** folder. **htdocs** folder will contain the example **HTML** and **php** scripts referencing sample images for the ScanVue® Web Client to display.

Test Procedure

1) Connect ScanVue® to Host Server Network as described in **Chapter 3**.
2) Apply power—the ScanVue® unit will start its boot–up sequence.
3) During boot up and connection to Host Server, note the IP address of the ScanVue® reported on the Info Screen.
4) Using UnitConfig or modified batch program using modeset utility (see **Application Examples/Modeset Examples/Sample Program** folder in SDK), change following mode settings as indicated (<Server IP Addr> is Host Server Address):

HomeURL =	http://<Server IP Addr>/faucet.html
HomeURL2 =	http://<Server IP Addr>/circle.html
URLPrefix =	http://<Server IP Addr>/barcode.php?val=
btPrefix =	http://<Server IP Addr>/buttons.php?val=

5) Commit settings and reboot ScanVue®. If Host Server has been set up as previously instructed, you should see alternating HomeURL (dripping faucet) and HomeURL2 (rainbow with bird) images directed by **faucet.html** and **circle.html** script files located in **htdocs** directory.
6) Scan sample barcodes shown on previous page and verify sample graphic images directed by **barcode.php** script and **HTML** script files located in **htdocs** directory.
7) Press all four pushbutton switches and verify sample graphic images (**button1.jpg** to **button4.jpg**) for each switch directed by **buttons.php** script file located in **htdocs** directory.

Chapter 3—ScanVue® Connections

Refer to (**Figure 2**) for ScanVue® rear connections.
Refer to (**Figure 3**) for Ethernet pin assignment.
Refer to (**Figure 4**) for +12Vdc power pin assignment.

Connections For (PoE Power / Communication)

PoE Hardwired connection requires only 1 cable:

- CAT-5 standard straight Ethernet cable 48 Vdc (IEEE 802.3af compliant)

Connections For (+12V Power / Ethernet Communication)

Ethernet only (non-PoE) connection requires 2 cables:

- +12 Vdc power to ScanVue® DIN8F connector.
- CAT-5 standard straight Ethernet cable to ScanVue® Ethernet Interface connector (or a "crossover" network patch cable when connecting directly to Host Server)

Connections For (+12V Power / Wi-Fi (802.11b/g) Communication)

Wi-Fi models require DIN8 power and hardwired Ethernet connection (required for network settings configuration):

- +12 Vdc power to ScanVue® DIN8F connector.
- CAT-5 standard straight Ethernet cable to ScanVue® Ethernet Interface connector (or a "crossover" network patch cable when connecting directly to Host Server)

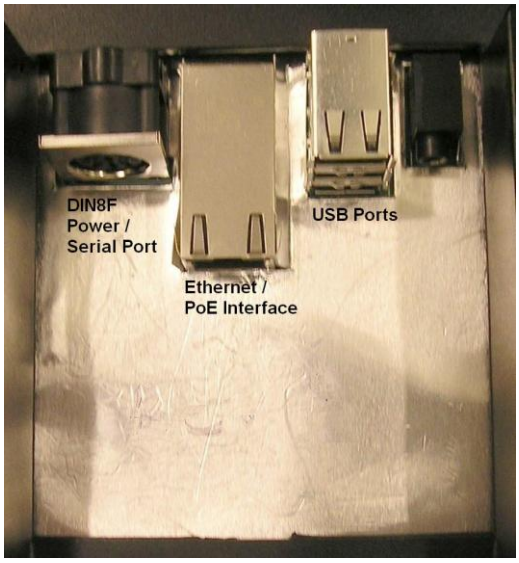


Figure 2—Connector Location—Rear of ScanVue®

Ethernet / PoE Connector (RJ45) Pin Assignments

The following table identifies the locations for the Ethernet port pins and PoE power pins (if used).

Ethernet RJ45 Pin Assignment

PIN. NO.	FUNCTION
1	TXD (+)
2	TXD (-)
3	RXD (+)
4	+ POWER
5	+ POWER
6	RXD (-)
7	- POWER
8	- POWER

8-Pin RJ45 Pinout

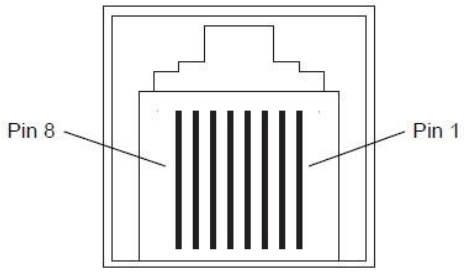


Figure 3—Ethernet / PoE Connector (RJ45) Pin Assignments

Power Connector (DIN8F) Pin Assignments

- The following table identifies the locations for the +12 Vdc Power pins.

Power DIN8F Assignment

PIN. NO.	FUNCTION
1	GND
2	POWER +12 VDC (2.5A)
3	INTERNAL CONNECTION
4	INTERNAL CONNECTION
5	INTERNAL CONNECTION
6	INTERNAL CONNECTION
7	POWER +12 VDC (2.5A)
8	GND

Power DIN8F Pinout

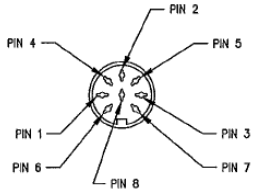


Figure 4—Power Connector (DIN8F) Pin Assignments

Mounting the ScanVue® (Web Client) Kiosk

Standard Wall Mount Installation

A single slimline wall mount bracket is provided as a standard item shipped with the ScanVue® 5000 Kiosk (See **Appendix B** for actual dimensions). The wall bracket can be mounted on any type of flat vertical surface using the 6 mounting bosses with holes. The bracket can also be mounted by a special double-sided tape to a glass column or wall. Mounting hardware is not provided as the material used in the vertical wall can vary depending on the location chosen and either wood screws or toggle bolts or equivalent are recommended. Do not use wood screws or sheet metal screws in drywall—they will not hold the weight of the unit.

Note: contact factory for recommendation of double sided tape—do not use the kind you might find in the local drug store or hardware store.

The wall mount bracket is removed from the rear of the unit, sliding it up and off of the 4 vertical tongues, and mounted to the wall, column or endcap. A hole is provided in the bracket for bringing the power and/or network connection through from the wall or column.

The ScanVue® unit is pushed close to the wall about 1" above the bracket tongues. Push it downward until the 4 tongues mate securely with their counterpart slots in the rear of the housing. Tighten the 2 locking screws through the slots in the housing until snug—this will prevent anybody from removing the unit from its mount.

Chapter 4—ScanVue® Web Client Configuration

UnitConfig Program

Configuring ScanVue® units over the network requires a GUI program called ***Unit Config*** or ***Modeset*** program described below. ***Unit Config*** provides a simple graphical way to query and configure any ScanVue® unit using mode commands.

Changes can also be made off–line that will allow the unit to connect to the network using **Configuring with Barcodes** method (See **Appendix A**) without requiring the PC. Generally, configuration by special barcode is kept for those occasions when a devices network configuration is incompatible with the local network. Once the unit is network compatible the rest of the configuration can be done through ***UnitConfig***.

Using UnitConfig

Start UnitConfig  program. When UnitConfig program is first started, all program fields are blank.

Button / Field	Instruction
	Enter the IP address of the ScanVue® unit you wish to change in the **Unit IP Address** field
Read Modes	Click the **Read Modes** button. All the ***Modes*** and their ***Content*** (values) will be read from the subject unit and displayed as shown in **Figure 5**
Set Mode	To change a mode value; highlight the **New Content** field in the same row as the mode you want to change by clicking on it. Enter the new value in the field and click the **Set Mode** button. If the value is accepted, the field and the button will turn green. If it is not accepted, the field and button will turn red. The light color area at the bottom of the screen will display context sensitive help message for each mode as the mode is highlighted. For some modes, the values available are indicated in this area.
Commit	Now click the **Commit** button. This will commit the change to memory in the ScanVue® unit. Multiple changes can be made before committing them. If any of the changes are not accepted, the **Set Mode** button will turn red and those changes marked in red were not made.
Close	Clicking the **Close** button will blank all fields allowing a new IP address for another unit to be entered
TextReset	Clicking the **TextReset** button will apply changes made to text modes so they can be seen immediately. As with other modes, the changes are not permanently stored until the **Commit** button is clicked
SaveToFile	The **SaveToFile** button will save the setup to a text file where it can be stored and printed if necessary. This is usually done for troubleshooting or maintaining hard copy records of each unit's configuration
Restart Unit	The **Restart Unit** button will cause a 'soft boot' of the selected unit
Exit	The **Exit** button closes the UnitConfig program

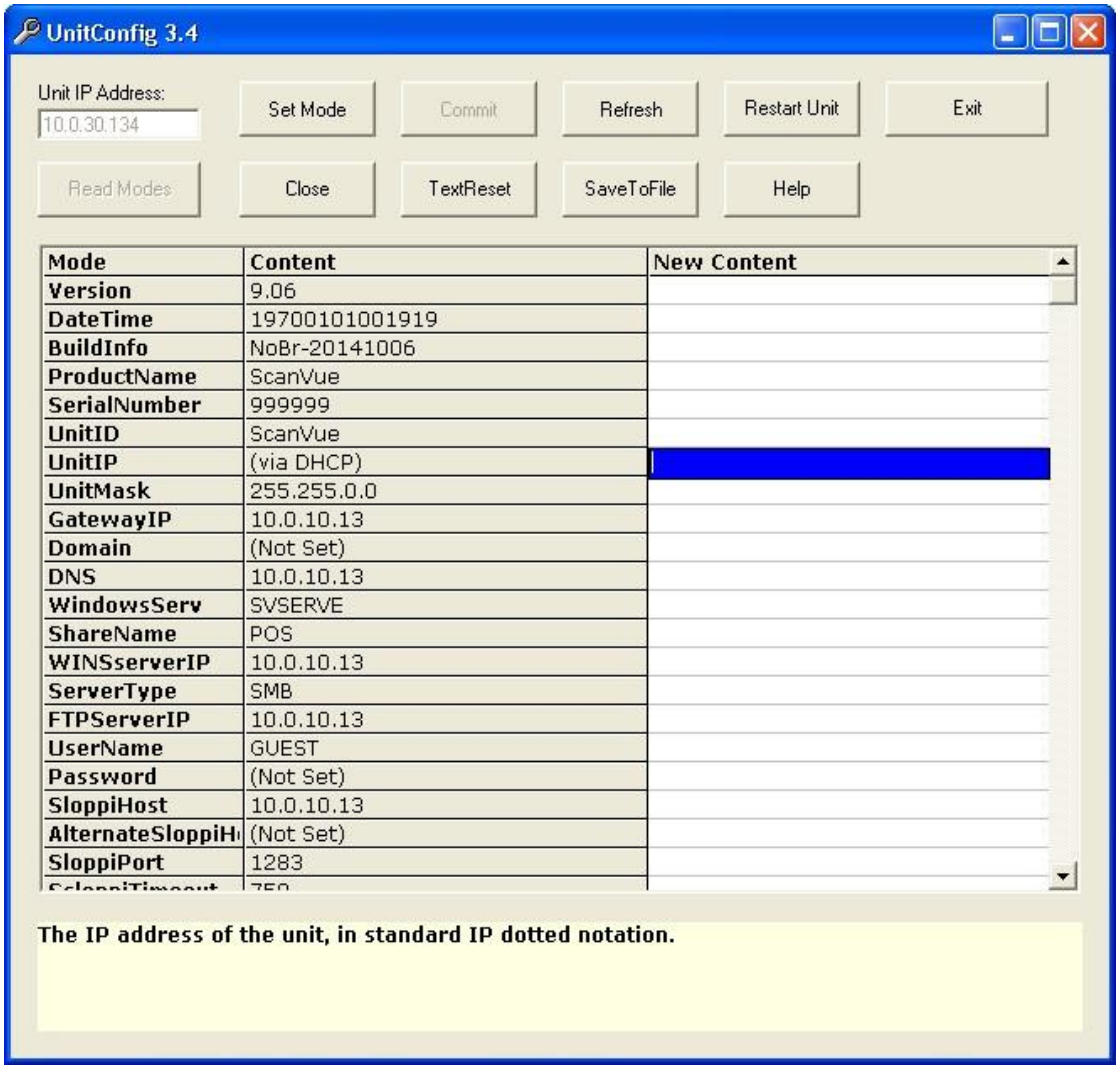


Figure 5—Unit Configuration (UnitConfig) Screen

Configuration Notes

1. Mode names are NOT case sensitive.
2. Set **DHCP** in ***unitIP*** to change to **(via DHCP)** for ScanVue® to obtain an IP Address from a network DHCP server.
3. Most modes can be set to factory default or (Not Set) value by entering double quote [**“”**] or [**–default–**] as the value.

Modeset Program

Modeset (a DOS command line program associated with ***UnitConfig***) may be used in place ***UnitConfig*** to query and set modes via a batch program file or directly from the DOS prompt.

Examples:

The following command sets ScanVue unit (IP address: 10.0.30.134) to values within **TEST01.INI** file, then commits change to memory and restarts ScanVue:

modeset -s -fTEST01.INI -c -r 10.0.30.134

The following command sets ScanVue to specific value (Wireless=TRUE):

modeset -iWireless=True 10.0.30.134

Modeset command can also be used to batch program a group of ScanVue units at one time. Refer to **Modeset Example** folder in the SDK.

Modeset command by itself lists all non-hidden modes and their values

ModeSet Options:

```
ModeSet [options] [IPAddress]
  -v verbose operation
  -s set modes according to modeset.ini
  -c commit to permanent storage
  -r restart unit when complete
  -f specify an .ini file, e.g. -fNewModes.ini
  -i set a single mode, e.g. -iUnitID=ScanVue5
  -g get a single mode, e.g. -gUnitID
  -l send literal text
  IP address of unit obtained from modeset.ini if not specified.
```

ScanVue® Web Client Kiosk Supported Modes

Notes:

1. Modes viewed in UnitConfig application that are NOT listed in this manual are used for other ScanVue models and do not apply to the Web Client Kiosk model.
2. Mode names are NOT case sensitive.
3. Set **DHCP** in ***unitIP*** to change to **(via DHCP)** for ScanVue® to obtain an IP Address from a network DHCP server.
4. Most modes can be set to factory default or (Not Set) value by entering double quote [**“”**] or [**–default–**] as the value.

Fixed Unit Identification

Configuration Mode	Description	Default
Version	Software version number; read–only	xx.xx
DateTime	**Not available!**	
BuildInfo	The date and time of the software release in the format YYYYMMDD; read–only.	YYYYMMDD
ProductName	Default “ScanVue”; read–only.	ScanVue
SerialNumber	Contains the unique serial number for the unit; read–only.	999999
QueryViaBrowser	IEE factory setup (Always TRUE for Web Client browser configuration) **Note:** This configuration setting is not available for ScanVue models containing software prior to version (11.01 - “ver. 1.008”).	TRUE

User Configurable Unit Identification

Configuration Mode	Description	Default
UnitID	The host name of the unit, 19 characters maximum	ScanVue
UnitIP	The IP address of the unit, in standard IP dotted notation. Unit IP default is 192.168.0.1 with no connection and with no DHCP server available.	(via DHCP) or… 192.168.0.1
UnitMask	The network mask for the unit, in standard IP dotted notation.	255.255.0.0
GatewayIP	The IP address of the gateway machine, in standard IP dotted notation. Required only if access to the various hosts must be routed on the LAN	10.0.10.13
UserName	The username ScanVue uses when logging into the file server	GUEST
Password	The password ScanVue uses when logging into the file server	(Not Set)

Web URL Configuration

Configuration Mode	Description	Default
HomeURL	Complete URL defining the primary home or start page. Must be a valid web page. Typically, this page might load an animated GIF "slideshow". With default HomeURL, the Web Client cycles between HomeURL and HomeURL2. Be sure to include the port number if other than port 80 (or 443 for https:// lookups), as in http://mysite.com:83/. Example: http://mysite.com/index.html	http://localhost /index.html
HomeURL2	Complete URL defining the secondary home or start page. Must be a valid web page. Typically, this page might load an animated GIF "slideshow". With default HomeURL, the Web Client cycles between HomeURL and HomeURL2. Be sure to include the port number if other than port 80 (or 443 for https:// lookups), as in http://mysite.com:83/. Example: http://mysite.com/index2.html	http://localhost /index2.html
HomeURLTimeout	Delay in seconds between HomeURL and HomeURL2 pages. (Timeout of 20 seconds is a fixed setting)	20
URLPrefix	Prefix for the barcode scanner. Any legal full or partial URL is acceptable. Example: http://mysite.com/barcode.php?val=	http://localhost /barcode.php? val=
URLSuffix	Suffix for barcode scanner. Any legal URL suffix will suffice. May be left blank.	(Not Set)
btPrefix	Prefix for 4 pushbuttons. Any legal full or partial URL is acceptable. Example: http://mysite.com/buttons.php?val=	http://localhost /buttons.php?v al=
btSuffix	Suffix for 4 pushbuttons. Any legal URL suffix will suffice. May be left blank.	(Not Set)
msrPrefix	Prefix for Magnetic Stripe Reader (MSR). Any legal full or partial URL is acceptable. Example: http://mysite.com/msr.php?val=	http://localhost /msr.php?val=
msrSuffix	Suffix for MSR. Any legal suffix will suffice. May be left blank.	(Not Set)

Wireless Encryption Configuration

Configuration Mode	Description	Default
WEPEncryption	WEP Encryption: Open40, Open128, Shared40, Shared128, None	None
WEPKey1	WEP Encryption Key 1: 10 or 26 hex digits	(Not Set)
WEPKey2	WEP Encryption Key 2: 10 or 26 hex digits	(Not Set)
WEPKey3	WEP Encryption Key 3: 10 or 26 hex digits	(Not Set)
WEPKey4	WEP Encryption Key 4: 10 or 26 hex digits	(Not Set)
WEPKeyIndex	Select the active WEP key, 1-4	1
UseWPA	WPA Enable: TRUE or FALSE	FALSE
wpaScanSsid	Scan for SSID (Usually set for TRUE)	TRUE
wpaKeyMgmnt	WPA Key management: WPA-EAP, WPA-PSK, IEEE8021X, None	None
wpaPairwise	WPA Pairwise: CCMP, TKIP, None	None
wpaGroup	WPA Group: CCMP, TKIP, WEP104, WEP40, None	None
wpaEAP	WPA EAP: TTLS, PEAP, TLS, None	None
wpaPSKPassphrase	WPA PSK passphrase (password)	(Not Set)
wpaIdentity	WPA identiry string	(Not Set)
wpaPassword	WPA SSH CA certificate path (ex: /etc/cert/ca.pem)	********
wpaCACert	WPA SSH client certificate path (ex: /etc/cert/user.pem)	(Not Set)
wpaPrivateKey	WPA SSH private key path (ex: /etc/cert/user.prv)	(Not Set)
wpaPrivateKeyPasswd	WPA private key password	********
wpaPhase1	WPA phase 1 string (ex: peaplabel=0)	(Not Set)
wpaPhase2	WPA phase 2 string (ex: auth=MSCHAPV2)	(Not Set)
wpaProto	WPA proto value: WPA2, WPA, None	None
wpaCACert2	WPA SSH CA certificate 2 path (ex: /etc/cert/ca2.pem)	(Not Set)
wpaClientCert2	WPA SSH client certificate 2 path (ex: /etc/cert/user.pem)	(Not Set)
wpaPrivateKey2	WPA SSH private key 2 path (ex: /etc/cert/user.prv)	(Not Set)
wpaPrivateKey2Passwd	WPA private key 2 password	********

Miscellaneous Configuration

<table>
<tr><th>Configuration Mode</th><th>Description</th><th>Default</th></tr>
<tr><td>Wireless</td><td>‘TRUE’ sets ScanVue® communications to wireless RF. ‘FALSE’ sets communications to 10baseT Ethernet</td><td>FALSE</td></tr>
<tr><td>EventStart</td><td>An 8 character string of hex digits (32 bit mask) which enables starting events for a specific device as defined in the table below. F results in all pushbuttons set active.
<table>
<tr><th>Mode</th><th>Value (mask setting)</th></tr>
<tr><td>Disable mask</td><td>00000000_h</td></tr>
<tr><td>Pushbutton 0 (leftmost)</td><td>00000001_h</td></tr>
<tr><td>Pushbutton 1 (2^{nd} from left)</td><td>00000002_h</td></tr>
<tr><td>Pushbutton 2 (3^{rd} from left)</td><td>00000004_h</td></tr>
<tr><td>Pushbutton 3 (rightmost)</td><td>00000008_h</td></tr>
</table>
Each button press generates message tokens with a similar message packet structure called EVENTS. Start event mask defines the beginning of a device activation.</td><td>0000000F</td></tr>
<tr><td>EventEnd</td><td>Not Required</td><td>0000000</td></tr>
<tr><td>Port2Function</td><td>Changes the function of the external RS232 port. Port parameters are fixed for each device (Value). The port passes data transparently in both directions. ScanVue® buffers all input characters until CR or LF received then sends entire string of characters to host. The port function can be changed with the UnitConfig utility.
<table>
<tr><th>Value</th><th>Function</th></tr>
<tr><td>OUTPUT</td><td>Printer - 9600 baud, 8 data, no parity, 1 stop (Output)</td></tr>
<tr><td>BIDIRECTIONAL</td><td>Printer - 19200 baud, 8 data, no parity, 1 stop (In/Out)</td></tr>
</table></td><td>SCANNER</td></tr>
<tr><td>Port3Function</td><td>Changes the function of the second external RS232 port #3. This physical port does not exist, but the settings are used for optional devices. Port parameters are fixed for each device (Value). The port passes data transparently in both directions. ScanVue® buffers all input characters until CR or LF received then sends entire string of characters to host. The port function can be changed with the UnitConfig utility
<table>
<tr><th>Value</th><th>Function</th></tr>
<tr><td>NONE</td><td>Disabled</td></tr>
</table></td><td>(unknown)</td></tr>
</table>

<table>
<tr><th>Configuration Mode</th><th>Description</th><th>Default</th></tr>
<tr><td>Wireless</td><td>‘TRUE’ sets ScanVue® communications to wireless RF. ‘FALSE’ sets communications to 10baseT Ethernet</td><td>FALSE</td></tr>
<tr><td>Port2Function</td><td>Changes the function of the external RS232 port. Port parameters are fixed for each device (Value). The port passes data transparently in both directions. ScanVue® buffers all input characters until CR or LF received then sends entire string of characters to host. The port function can be changed with the UnitConfig utility.
<table>
<tr><th>Value</th><th>Function</th></tr>
<tr><td>OUTPUT</td><td>Printer - 9600 baud, 8 data, no parity, 1 stop (Output)</td></tr>
<tr><td>BIDIRECTIONAL</td><td>Printer - 19200 baud, 8 data, no parity, 1 stop (In/Out)</td></tr>
</table></td><td>SCANNER</td></tr>
<tr><td>Port3Function</td><td>Changes the function of the second external RS232 port #3. This physical port does not exist, but the settings are used for optional devices. Port parameters are fixed for each device (Value). The port passes data transparently in both directions. ScanVue® buffers all input characters until CR or LF received then sends entire string of characters to host. The port function can be changed with the UnitConfig utility
<table>
<tr><th>Value</th><th>Function</th></tr>
<tr><td>NONE</td><td>Disabled</td></tr>
</table></td><td>(unknown)</td></tr>
</table>

Wireless Network Setup

Each wireless RF router or access point has a network name (called an ESSID) that consists of up to 32 letters and numbers. ScanVue® 5000 is shipped from the factory configured with a factory set ESSID "NetworkName". Before communicating with the wireless router or access point, ScanVue® 5000 must have a matching case sensitive ESSID entered into its memory to replace the default name. With ScanVue® Price Verifier setup for default Ethernet (Hardwired) communication, ESSID is typically entered using UnitConfig. This name may also be entered through the ScanVue® barcode reader using a user created barcode. See **Appendix B** for creating configuration barcodes.

Connect the 802.11b Wi-Fi router to your configuring computer LAN card with the patch cable and configure it using the manufacturers' instructions.

The IP Address and Input Mask of the router must be in the range of your computer and ScanVue®. The ESSID of the router and ScanVue® must match (note: the ESSID is case sensitive). Default settings are: IP=10.0.10.13, Mask=255.255.0.0, ESSID=INSTALL

ScanVue® wireless encryption settings (**WEP**, **WPA** or **WPA2**) must match the router.

WEP Encryption Settings

ScanVue5® supports 2 different types of WEP (Wireless Equivalent Privacy) encryption in software versions 4.12 and later. WEP encryption is set by the WEPEncryption mode.

Mode Setting	Function
NONE	WEP encryption off
OPEN40	Open System 40–bit encryption
OPEN128	Open System 128–bit encryption

There are 4 unique encryption keys **WEPKey1** through **WEPKey4**. Each key contains 10 hex digits for 40–bit encryption or 26 hex digits for 128–bit encryption. Default value of the keys is a string of zero digits of the appropriate length.

The mode **WEPKeyIndex** determines which of the 4 keys is used. The default is **WEPKey1**. The selected key must match the type of encryption selected. For example; if **WEPEncryption** is set to **SHARED128** and **WEPKeyIndex** is set to **WEPkey2**, then **WEPkey2** must contain 26 hex digits (or 128 bits). **WEPkeyindex** and the encryption data can be set by barcode.

WPA and WPA2 Encryption Settings

ScanVue® supports Wi-Fi Protected Access WPA and WPA2 (802.11i). The UnitConfig program provides the user interface to setup various WPA mode(s) for ScanVue's radio. Example ScanVue® settings are shown in the table below. For additional security requirements, refer to **Wireless Encryption Configuration** table located in **ScanVue® Supported Modes** section.

WPA (TKIP)			WPA2 (AES)	
UseWPA	TRUE		UseWPA	TRUE
wpaScanSsid	TRUE		wpaScanSsid	TRUE
wpaKeyMgmnt	WPA-PSK		wpaKeyMgmnt	WPA-PSK
wpaPairwise	TKIP		wpaPairwise	CCMP
wpaGroup	TKIP		wpaGroup	CCMP

Figure 6— Example WPA / WPA 2 Encryption Settings

Chapter 5—Interactive Device Options

ScanVue® options available are: Serial Printer, Magnetic Stripe Reader (MSR) and Digital Touch screen.

Serial Receipt Printer

Serial printer support is available as an option.

ScanVue® provides support for the following or equivalent external serial receipt printer model:
Fujitsu model FP-1000

Contact IEE Sales for this option.

Configuring the Serial Port

For serial printer communication, serial port 2 (Configuration Mode: **port2function**) must be set to **OUTPUT**. In **OUTPUT** mode, serial port 2 is a transparent RS232 data port. The port parameters are pre-configured for the co-located Communication is 9600 baud, 8 data bits, no parity, 1 stop bit.

Use the UnitConfig program or modeset utility to change the serial port configuration mode setting **port2function** to **OUTPUT**.

Printer Cable Wiring

(See **Figure 7** for Serial Printer Wiring Diagram and **Figure 8** for ScanVue® power/serial connector pin assignment)

Optional IEE cables available for printer interfacing to ScanVue®:

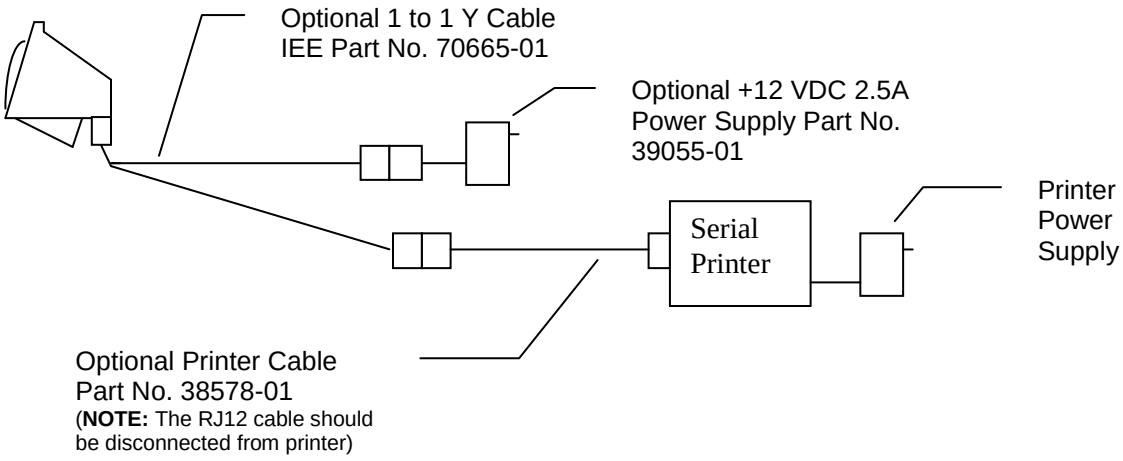
- Serial interface cable (IEE P/N 38578–01) connects to the supported serial printer D-Sub 25 Pin Female serial connector)
- Y cable (IEE P/N 70665–01) breaks out the ScanVue® DIN8 connector serial port for printer interface
- Printer extension cable (IEE P/N 37082–XX) where XX specifies the cable length

Other manufacturers serial printers may require a different Y cable or port settings. Check with IEE Sales before attempting to connect a different printer.

Printer Communication

Contact IEE Sales for communication requirements.

Serial Printer Wiring (Typical)



Serial Printer Wiring Diagram (with Extension Cable)

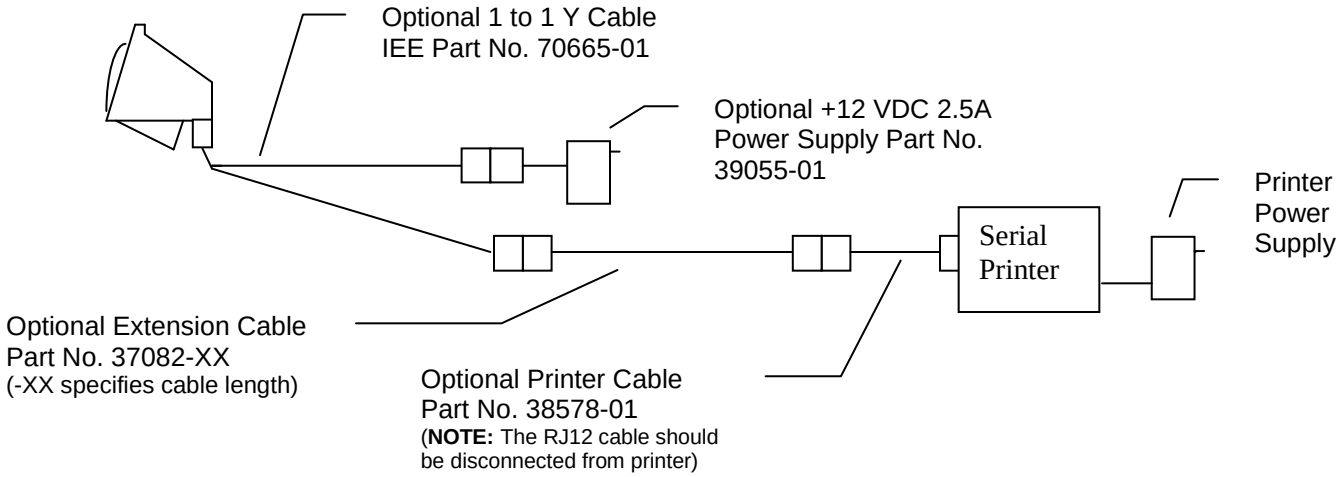


Figure 7—Wiring a Serial Printer

Magnetic Stripe Reader

Contact IEE Sales for this option.

Touch Screen

Contact IEE Sales for this option.

General Interactive Device Requirements

When one of the input devices is activated, an internal device driver converts the ASCII data read from the input device into a URL for the Web Client to send to the web server.

Each input device generates a unique URL as described previously. That URL is opened by the Web Clients' embedded browser and displayed for the POSTimeout value. The HomeURL page is the exception – it has no timeout assigned to it.

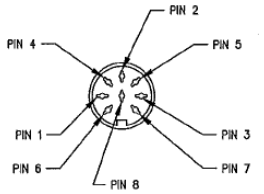
Additional pages may be linked to, creating an infinitely long chain of potential responses to inputs (up to the length of the POSTimeout). Once POSTimeout has been reached, the unit generates a call to the HomeURL again, and the process repeats itself.

Power / Serial Interface Connector (DIN 8) Pin Assignments

ScanVue® (Power / Serial) DIN8F

PIN. NO.	FUNCTION
1	GND
2	POWER +12 VDC (2.5A)
3	TXD (RS-232C)
4	DSR (RS-232C)
5	DTR (RS-232C)
6	RXD (RS-232C)
7	POWER +12 VDC (2.5A)
8	GND

ScanVue® Power/Serial DIN8F Pinout



Typical Supported Serial Printer
D-Sub 25 Pin (Female) Connector *

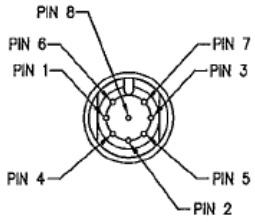
PIN NO.	FUNCTION
7	SIGNAL GROUND
3	RXD (RS-232C)
20	DTR (RS-232C)
6	DSR (RS-232C)
2	TXD (RS-232C)

* Citizen CBM-1000II, Fujitsu FP-1000 or equivalent printer

Serial Printer Cable 38578-01 DIN8M *

PIN. NO.	FUNCTION
1	SIGNAL GROUND
2	INTERNAL CONNECTION
3	RXD (RS-232C)
4	DTR (RS-232C)
5	DSR (RS-232C)
6	TXD (RS-232C)
7	INTERNAL CONNECTION
8	INTERNAL CONNECTION

Printer Cable DIN8M Pinout



* Optional for Citizen CBM-1000II
Fujitsu FP-1000 or equivalent printer

Figure 8—Interface Connector Pin Assignments

Appendix A—Configuring with Barcodes

Barcode Scanner Settings

The default settings of the barcode reader are preset for capturing any 1D and 2D bar codes including PDF417 codes. Refer to **Scanner Prefix ID Bar Codes** sheet for UPC and NCR prefix enable / disable barcodes.

Configuring ScanVue®

ScanVue® can be configured for the network by scanning barcodes with its barcode scanner instead of sending the commands over the network.

Create barcode labels in Code128 containing the network information as shown in **Table 1**. A program such as **'B–Coder Lite'** or **'B–Coder Pro'** from Taltech or **'Avery Label Pro'** can create these for you.

On-line barcode generators can also be used such as:

www.barcodesinc.com/generator/index.php

www.nationwidebarcode.com/barcode-generator

Follow the step–by–step procedure outlined in the following pages to configure ScanVue® using barcodes:

1. Power up the ScanVue® unit. Wait until it finishes booting, the 2 blue info screens have been displayed and the IEE logo clears. If you have an RF unit, a red connection diagnostic screen may appear if the unit doesn't connect to your network. Either way, you are ready to reconfigure.
2. Scan the specific labels (listed in Table 4) required to change the configuration to your network's parameters. ScanVue® will display the raw code, then the setup name and entered value.
3. When all the setup labels have been scanned in and visually verified, scan the following Bar code **Save Settings and Reboot**. This causes the complete configuration setup to be written to ScanVue® non–volatile memory and reboots for the changes to take effect.

Save Settings and Reboot

4. If it is required that you need to change barcode scanner configuration for your application, please contact IEE for Barcode Scanner configuration support.
5. This completes the network configuration for ScanVue®. If your network servers have already been set up, ScanVue® will start communication with the network.

Mode/Setting	Barcode	Description	Default Setting
Unit ID	**IDL**SS……S	A unique unit name, 19 characters maximum.	SCANVUE
Unit IP[1,4]	**UI**AAAAAAAA	IP Address. Each unit must have a unique address.	DHCP
Network Mask[1,4]	**UM**AAAAAAAA	IP Sub–net mask	255.255.0.0
Windows Server[2]	**WSL**SS……..S	Host name of the file server, 83 characters max.	SVSERVE
File Server IP[1]	**SF**AAAAAAAA	IP Address of the FTP–based file server.	Not Set
Network User Name[2]	**WUL**SS……..S	Used to connect to the file server, 19 characters	GUEST
Network Password[2]	**WPL**SS……..S	Used to connect to the file server, 31 characters	Not Set
Network Name[2]	**NNL**SS……S	ESS ID–network name for wireless networks	INSTALL
DNS IP[1]	**DN**AAAAAAAA	IP Address of DNS	Not Set
Gateway IP[1]	**GW**AAAAAAAA	IP Address for routed or segmented networks.	Not Set
WINS Server IP[1]	**WW**AAAAAAAA	Required for Windows networking.	Not Set
Domain/Workgroup[2]	**DWL**SS……S	Domain or workgroup name, 83 characters max.	IEE
Product Info Timeout[3]	**TO**nnnn	Duration (secs) product information is shown	30
Wireless RF[3]	**WN**0001	Selects wireless RF mode	Wireless=T, otherwise=F
10baseT Ethernet[3]	**WN**0000	Selects hard wired Ethernet	Hardwired=T, otherwise=F
Save Configuration	**KQ**0003	Save configuration in EEPROM.BIN file & reboot.	N/A
Factory defaults	**IN**123456789	Scan twice; restores factory default configuration	N/A
Reboot unit	**IN**987654321	Scan twice; reboot without saving config	N/A
Show config screen 1	**IS0001**	Displays 1st config status screen	N/A
Show config screen 2	**IS0002**	Displays 2nd config status screen	N/A
Show config screen 3	**IS0003**	Displays 3rd config status screen	N/A

Table 1—Barcode Configuration Labels

Barcode Configuration Label Notes:

[1] IP addresses ('XXXXXXXX') are in hex notation. Each of the quads in the address becomes a pair of hex digits (e.g., 10.0.0.10 is encoded as 0A00000A).

[2] String values start with the count of characters ('L') followed by the characters of the string ('SSSSSSS'). ScanVue® preserves the case of characters in strings even if it is not meaningful to the network or host. The length field is always 2 digits i.e., 3 must be 03.

[3] Numerical values ('L' and 'NNNQ') are decimal. Numerical values must be followed by a non–digit character. Purely numerical parameters (e.g., Product Info Port) should be followed by an upper–case alpha character to prevent confusion caused by check–characters and stop codes.

[5] Setting the Host name also sets SMB file–access mode. Setting the File Server IP also sets FTP file–access modes.

Command barcodes must be at least six characters long, including the two–character prefix but excluding the check character and any start and stop characters. Extra padding characters may be added to guarantee this. Padding characters should be upper case alpha characters and are ignored. Numerical values may be zero padded (e.g., '0001' instead of '1').

The following single and paired characters should NOT be used in barcodes: A, F, E0, FF, B1, B2, B3

Support Barcodes

INFO SCREEN BAR CODES

Info Screen 1

Info Screen 2

CONFIGURATION BAR CODES

Save Settings and Reboot

Unit IP (via DHCP)

Hardwired Network

Wireless

IEE DEFAULT BAR CODES

Factory Default Settings

Note: Scan Twice

Reboot Only

Note: Scan Twice

SCANNER PREFIX ID ENABLE BAR CODES

Enable UPC prefix IDs


CC003324

When enabled, the scanner will transmit a prefix before any UPC/EAN bar code.

The prefixes are as follows:
A (UPC-A),
E0 (UPC-E),
F (EAN-13), and
FF (EAN-8).

Enable NCR prefix IDs


CC003332

When enabled, the scanner will transmit a prefix before the following code types.

The prefixes are as follows:
A (UPC-A),
E0 (UPC-E),
FF (EAN-8),
F (EAN-13),
B1 (Code 39),
B2 (ITF) and
B3 (Code 128 & other codes).

Disable custom prefix IDs


CC003325

SCANNER UPC-A TO EAN-13 ENABLE CAR CODES

Unlock Settings

enable UPC-A to EAN-13

M10159_01

Save Settings

Lock Settings

Appendix B—Mounting Bracket Outline

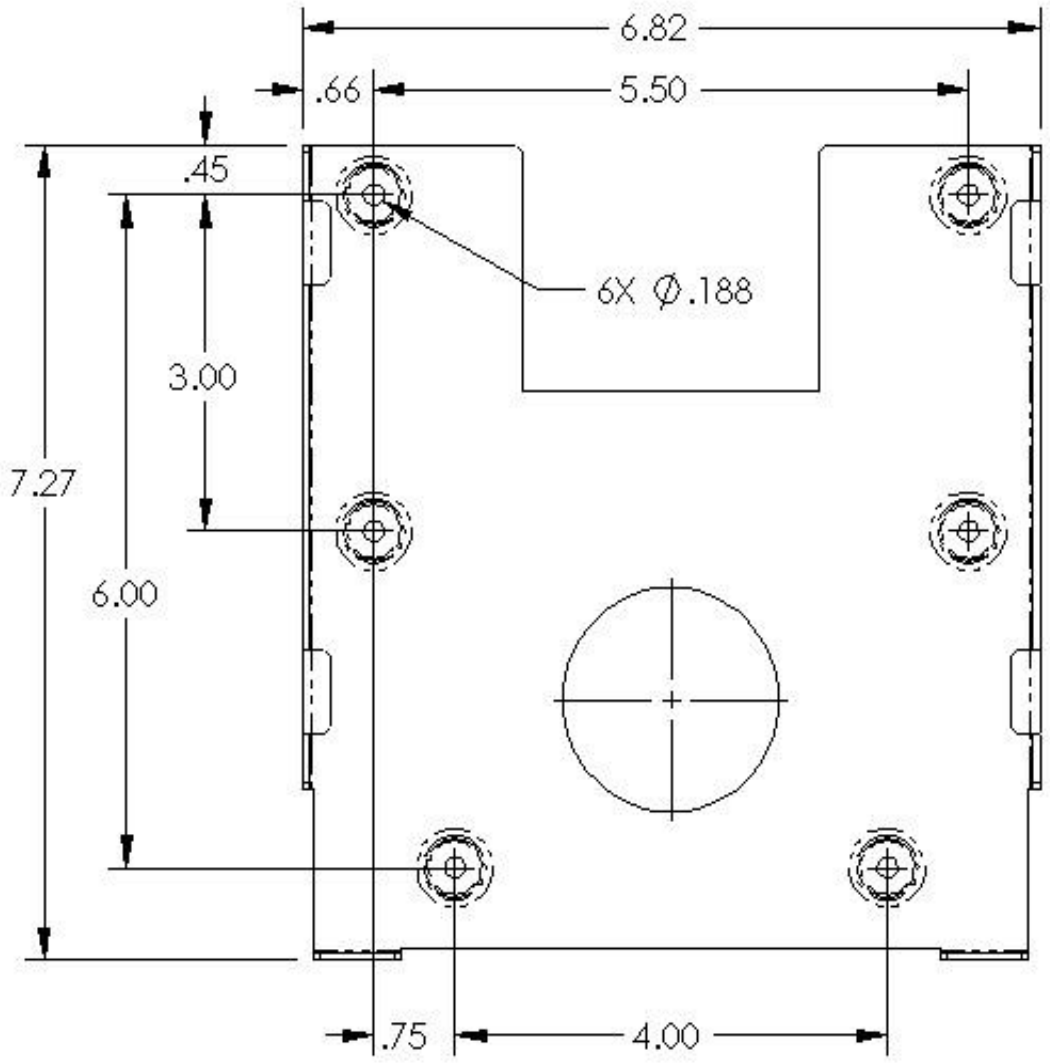


Figure 9—Slimline Wall Mount Bracket