DIGIMERGE

QUICK INSTALLATION GUIDE

HI-RESOLUTION
FOR SUPERIOR IMAGE QUALITY

DNS1010
## DUAL-CODEC VIDEO SERVER

PACKAGE CONTENTS

This installation guide provides instructions for installing the Digimerge DNS1010 Dual-Codec Video Server on your network. For all other aspects of using the product, please refer to the user manual available at www.digimerge.com or on the Installation CD included with this product.

Package Contents:

- 1 x Dual-Codec Video Server
- 1 x Installation CD with manuals and software
- 1 x Quick Installation Guide
- 1 x Warranty Card
- 1 x Ethernet Cable (1m / 3.3ft)
- 1 x Power Adapter
- 1 x mini-DIN/Terminal Block Conversion Cable (Serial/GPIO)

BNC video output

BNC video input

Audio input

VIDEO OUT   VIDEO IN   AUDIO IN

Serial / GPIO Port

Ethernet port

Power indicator

DC input

Network indicator

COM/GPIO   DC 12V
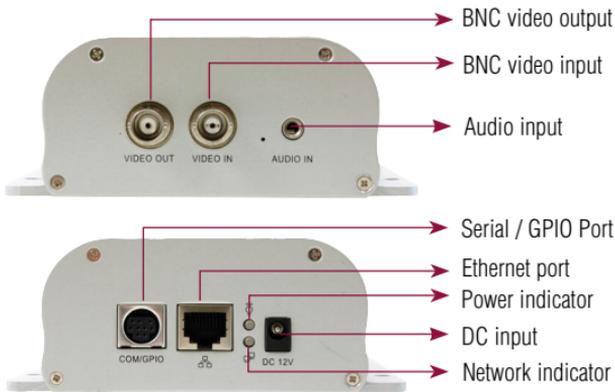
IMPORTANT!
This product must be installed in compliance with local laws and regulations.

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A

Mounting Instructions: Run the cables to the desired location. Securely mount the device to a wall or other surface using 4 metal screws (not provided).

WALL MOUNT   TABLE MOUNT

B

Connect the network cable to the Video Server's RJ45 network connector.

C

Connect a BNC camera (not included) to the Video Server's BNC Input port (left port). Optionally, an audio input device (i.e. Microphone) can be connected to the Audio In port. The Video Out port can be used to connect a local monitor (no audio).

D   **OPTIONAL**

Connect the mini-DIN Terminal Block cable to the Video Server's DIN connector. For more details on the available Terminal Block connections, please check the hardware user manual.

E

Connect the supplied power adapter to the power connector on the Video Server.

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A

The Digiconsole application loads from the CD included with your package, and provides you with the following:

1. Web links to various resources and documentation
2. Discovery of all the Digimerge IP devices on the network
3. Provides Network configuration of IP Devices
4. Installs DigiConsole and Surveillance application on your local PC
5. Warranty information and DDNS registration

digiconsole

DiGiMERGE DIGICONSOLE SETUP UTILITY

| Home | Find Devices | Register | Install |

Setup Guide

Click Find Devices to locate IP video cameras and server devices on your local network. Once the devices are found, you can:
Edit the network parameters

• Open a viewer to view the streaming image - requires Apple Quick-Time 7.0 or higher (www)
• Open the device in a web browser.

Click **Register** for information on warrantee registration as well as Digimerge's Dynamic DNS service.

Click **Install** to install this application (DigiConsole) on your computer.

Product Resources

• DNS1010 Quick Start Guide (pdf)
• DigiClient Application Manual (pdf)
• Online Support (www)

DigiConsole 1.0 (c) 2007 Digimerge Technologies Inc.

B

Digiconsole Utility screen consists of the following menus:

1. Home
2. Find Devices
3. Register
4. Install

DiGiMERGE DIGICONSOLE SETUP UTILITY

| Home | Find Devices | Register | Install |

A

Home:
Provides basic Digiconsole operating instructions, links to product information/documentation as well as 3rd party software support links.

B

Find Devices:
Locates all available Digimerge IP devices on your network and displays a snapshot of the results. Click on any available device to display image on the right side screen display.

NOTE: You may need to press the Find Devices button several times as some devices may not respond immediately. If you do not see a camera image, please check that all cables running from the Video Server to the Camera are connected properly. A camera must be connected and networked to view live images.

C

Menu:
The Menu Button or right clicking on a device icon provides access to device specific settings:
• Edit Network Parameters
• View Live Image
• Open Device in Browser
• Update Firmware in Video Device
• Refresh the device list - in order to remove inactive and disconnected devices

NOTE: It is recommended that you record the device specific MAC and IP address for DDNS registration purposes. If you have multiple cameras on a local network, only one camera needs to be configured for DDNS.
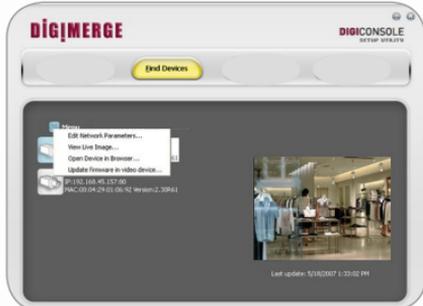
MAC: _____

IP: _____

C1 OPTIONAL

Edit Network Parameters:
The Network Parameters are automatically assigned to the Device by the network router (by using DHCP). These settings can be manually changed if desired.

1. Select the IP device you would like to edit by clicking on its icon.
2. Click on the MENU button or right click the icon for the device to access the menu. Select "Edit Network Parameters" from the menu.
3. Make the necessary changes and click OK to save changes or click CANCEL to close the window without saving any of the changes made.

NOTE: If a user name and password were set-up on the IP Device previously, you will be required to enter this authentication information when attempting to access the device.

Manually Set Network Parameters

DIGICONSOLE
SETUP UTILITY

Device 0 Network Settings

Enter the fixed network parameters for the video device. These settings must be compatible with your network addressing plan.

Note that by changing the network settings you may affect applications already set up for this device.

IP Address: 192.168.45 .132   Port: 80

Subnet Mask: 255.255.255.0

Gateway Address: 192.168.45 .45

Domain Name Server 1: 0 .0 .0 .0

Domain Name Server 2: 0 .0 .0 .0

OK   Cancel

Set User Credentials

DIGICONSOLE
SETUP UTILITY

192.168.45.132

This video device requires user authentication. Enter the user name and password below;

User Name: admin

Password: *****

OK   Cancel

C2

View Live Image:
View live video from the IP Device using the Apple Quicktime program. If this application is not installed on your system, please download it (no charge) at
http://www.apple.com/quicktime

If by clicking VIEWING LIVE IMAGE the image is not automatically shown in Quicktime, follow these steps in Quicktime:
1. Go to FILE
2. Choose OPEN URL
3. Enter the following: rtsp://<device IP address> (i.e. rtsp://192.168.2.102) A device IP address can be obtained from the Digiconsole device list.

File Edit View Window Help

00:00:06   Live Broadcast
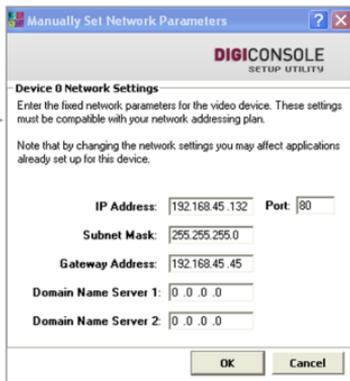
NOTE: Minimum Quicktime version installed should be **7.1.6**. If you cannot install Quicktime, use Microsoft Internet Explorer to view the device. See step **C3** for details.

C3

Open Device in Browser:
Opens up the DigiViewer Video Browser using your default web browser (e.g. Internet Explorer).

The DigiViewer browser allows the user to view streaming video from the device as well as change certain settings on the device depending on the level of access set by the administrator.

Once user names and passwords are set up by the administrator, the users (except for a VIEWER level user) are required to enter this information every time they access the DigiViewer.
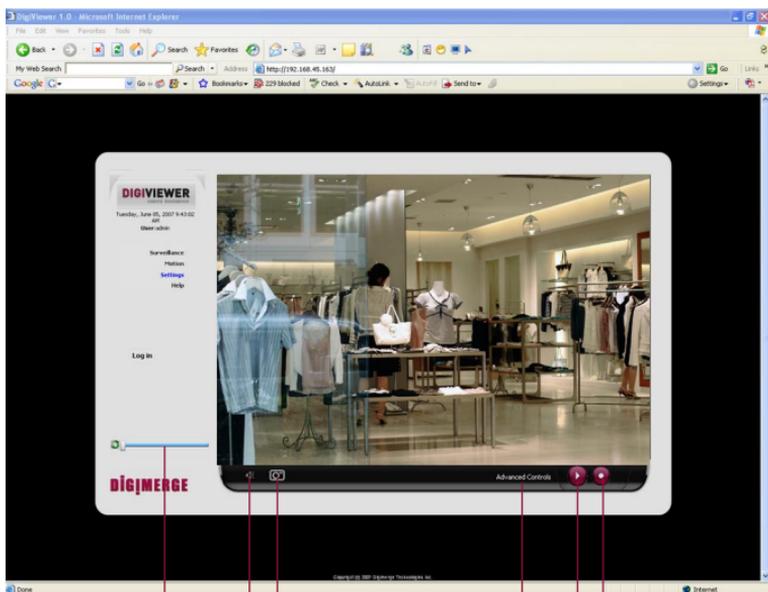
Click to capture a snapshot image in a new browser window.

Click (during streaming mode) to mute the audio.

By default, the image refresh rate is set to OFF. Move slider to the right to set image refresh rate.

Click to capture a video clip and send it to a FTP site. FTP must be configured in the SETTINGS screen

Click to bring up image brightness and contrast controls

Click here to start streaming video

3 Levels of User Access:

• Administrator (current user)
• Operator (general user)
  Default User Name: guest
  Password: *<leave blank>*
• Viewer (anonymous guest)

Creating Current User Account:
1. Click SETTINGS
2. Select ACCOUNTS
3. Fill in a user name and
   password in the assigned fields
4. Reconfirm password
5. Click UPDATE ACCOUNTS

1. Administrator: Administrator has unrestricted access to all the settings of the device. The interface will only permit creation of ONE administrator account.

2. Operator: Operator has restricted access to the settings of the server. The interface will only permit creation of FIVE operator accounts.

Note: Restrictions - View images. Requires username and password.

3. Viewer: The interface will permit the creation of ONE viewer account (i.e. Anonymous Guest). This account does not require a password.

Note: Viewer Restrictions - View images if permission is granted by administrator. Note that the permission in this case refers to providing the IP address to someone. Whomever receives the IP address can view the camera remotely as a anonymous guest. No password is required.

Multiple users can access the device at the same time, however this will limit the quality and speed of the video as the feed is shared between all connected users.
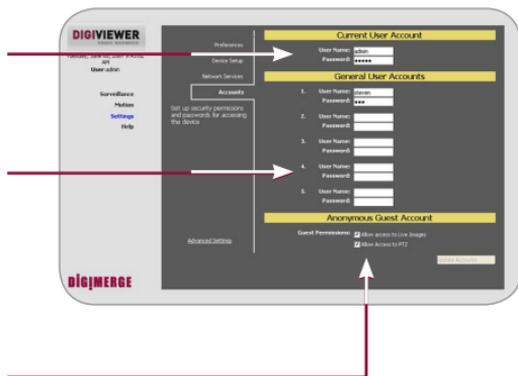
This page is intentionally left blank.

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C4 **OPTIONAL**

Update Firmware in Video Device:
Opens up a window to search your computer for downloaded firmware (with .bin extension).

NOTE: This product will not automatically check for firmware updates. Please visit the Digimerge website to download the most current firmware for your product.
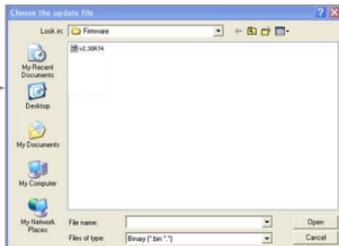
D

Register:
Provides you with information on the device warranty and/or free DDNS service.

E **OPTIONAL**

Install:
Click the Install button to install the Digiconsole application software on your computer. Click NEXT and follow the instructions to complete the installation. Once the installation is complete you can access the software by clicking
START--->PROGRAMS---> DIGIMERGE TECHNOLOGIES---> DIGICONSOLE

NOTE: When you install Digiconsole on a PC, it will also install Surveillance Software (see section F for further details).

For detailed set-up information, please refer to the user manuals available on the Digimerge website or on the Installation CD included with the device.

NOTE: Installation is not required, however installing the software on your local computer allows you to use the utility to locate and update cameras on the network from your PC.

F OPTIONAL

Surveillance Software:

Digimerge provides a complimentary 32 channel surveillance application. The application allows you to

- View multiple cameras simultaneously on the same screen
- Record video from multiple cameras to PC hard drive
- Scheduled recording

The application is optional as we offer software solution compatibility with some of the premier IP software developers in the industry. Visit the Digimerge website for the most up to date information on compatible software solutions.

Application Installation:

When you install the Digiconsole software on your PC, it will also prompt you to install additional software components: Click NEXT to install Microsoft DirectX 9 (is required to run the Surveillance application). Follow instructions on the Installer application window. When the installation is completed, click NEXT again to install the surveillance application on your PC hard drive. Follow the instructions on the Installer application window. Now the Surveillance application is ready to be used.

Go to START/PROGRAMS/32 CH SURVEILLANCE SYSTEM.... to run the application.

For information on using the application, please refer to the software manual (32 Channel Surveillance System) on the Digimerge website or included on the installation CD.
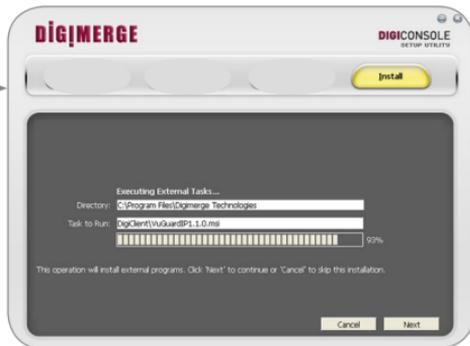
Surveillance Application Hardware Recommendation:

No. of Channels Used	32 ch	16 ch	8 ch	4 ch
CPU	Intel Core 2 Duo	Intel Pentium D 930	Intel P4 2.8 GHz	Intel P4 2.4 GHz or equivalent
RAM	1 GB	1 GB	512 MB	512 MB
Mother-board	Intel 845 or 865 chip or above, Intel chipset recommended			
Display	ATI Radeon 9200, nVIDIA GeForce FX-5200, Intel 845G/865G or above (ATI recommended)			
Ethernet	100 baseT or Gigabit LAN			
Hard disk	Min. 320GB	Min. 160GB	Min. 80GB	Min. 80GB
OS	MS Windows 2000/XP Pro Sp2 / 2003			

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Port forwarding on your router and the creation of a DDNS account with Digimerge is required in order for you to have remote internet access.

A Open your Web Browser.
Enter **http://ddns.digimerge.net**

B Select the **Create Account** Option

http://ddns.digimerge.net
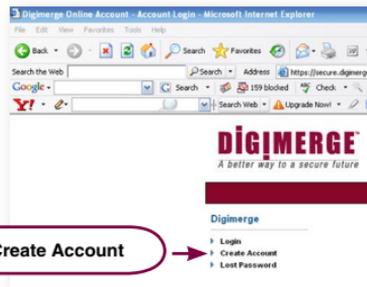
Create Account

C Complete **Account Information**

D Select the **Create New Account** Link

By clicking on "Create New Accour

System Information

Product License   Select Product Code   -

URL Request   .strategic

Create New Account

1. For Product License: Select your Product Model Number from the drop down menu (DNS1010)
2. For Product Code enter the MAC address (without any space) recorded earlier
3. For URL Request choose a URL Name (not to exceed 15 characters) (e.g. your name, your company etc.)

WWW.DIGIMERGE.COM

E An Automated Confirmation email will be sent to you. Make sure to Record the following information.

- Your account name is: (e.g.) myhouse1
- Your account password is: (e.g.) password
- Your Digimerge license number is: (e.g.) IPNC-000000000000

You can visit http://ddns.digimerge.net to change your account information and to set up additional Digimerge devices.

Set up your IP product to use this service as follows:

1. Use a web browser to access the Settings screen of the camera.
2. Select the Network Services tab.
3. Enter the following settings:

DDNS Domain: myhouse (.digimerge.net)
Account Name: myhouse1

4. When you have finished entering the correct information for the DDNS service, check-on the 'Enable Digimerge Dynamic DNS Service' checkbox.

Remote Access

☑ Enable Digimerge Dynamic DNS Service

DDNS Domain: ddns   myhouse1   digimerge.net
Account Name: umaradhakrishnan1

register with DDNS service

To verify that your camera is properly set up for DDNS, click on the 'register with DDNS service' link. This will bring up the Digimerge DDNS Account login screen. Log in using the account information given above and then click on the 'System Logs' link on the left hand menu. If the Recent Activity log includes the message 'Automatic IP update' and the date/time of the message is very recent, then your camera has updated the server correctly.

NOTE: Please note that normal latencies in the update protocol and Internet propagation delays require you to wait between 5 and 15 minutes and sometimes even longer for your network URL to become fully available and operational over the Internet. This is normal for the DDNS system. Attempting to use the URL within the first 5 minutes of registration may also prolong the URL update time.

The URL for accessing your video is: (e.g. myhouse.digimerge.net). When setting up Internet Explorer for remote access, use this URL in place of the IP Address.

If you set up a router for port forwarding to your IP Product, note that the default web port is 80 and the default streaming video port is 554.

For more information, please refer to the owner's manual.

F **Port Forward your Router:** You will need to Forward ports 554 (default video port), 80 (default web port). All routers are different. To Port Forward your Router: Refer to your Router's manual for specific instructions on port forwarding or check DNS1010 product page on Digimerge website **www.digimerge.com** to view the router configuration guide.

Power over Ethernet, also known as PoE, is a technology for carrying power along with data on standard CAT5 network cables, allowing devices to be powered via their network ports. It is supported by some devices directly (i.g. 802.3af compliant or "PoE Enabled" devices) while other devices require PoE accessories, such as PoE Endspans, PoE Midspans, power injectors and/or active splitters, in order to make use of the technology.

Power is injected on the Ethernet Cable Data Pairs using:

• PoE Endspan – PoE enabled Ethernet switch

• PoE Midspan - PoE multi port injector for use with non-PoE Ethernet switches

• PoE Injectors – Adapter that injects Power into an Ethernet cable. Can be used in combination with an active splitter (for connecting to non-PoE devices) or used on its own (for connecting to PoE enabled devices)

• Active Splitter – An adapter that splits the Date and Power transmissions over a single Ethernet cable (PoE) into a separate Date (using RJ45 connector) and power stream (using power barrel connector) for use strictly with non-PoE devices.

NOTE that PoE allows devices to be powered with a power rating of up to 12.9W. Devices that consume more then 12.9W but less than 39W require use of High Power PoE (IEEE-802.3at) devices. High Power PoE devices like the 8000 series from Microsemi are readily available. An example of an IP camera that would require High Power PoE to power it up would be PTZ Speed Dome cameras which consume a lot of power.

A detailed description of the 802.3af standard is available in IEEE publication SS95312

(http://standards.ieee.org/getieee802/download/802.3af-2003.pdf).

The main benefits of PoE technology are as follows:

Lower Costs

• Eliminate the need to run A/C power wires

• Utilize existing IT infrastructure investments

More Flexible

• Locate device where it truly needs to be located (Not constrained by the location of an AC outlet)

Centralize vs Localize Power Source

• Allow use of a centralized UPS (Uninterruptible power supply) to guarantee power to the device even during a power failure

Manageability

• PoE devices that are Simple Network Management Protocol (SNMP) manageable can be remotely monitored and controlled

The main benefits of PoE Midspan use over PoE Endspan use are:

• Improve ROI on current installations
• Minimize capital expenditure
  - Keep the existing Switches
• Lower purchase price
  - 30% less than Enterprise PoE switch
• Easy and simple to install
  - Lower installation costs - 20% less than Enterprise PoE switch
  - Enable higher productivity - Negligible downtime
• PoE investment is protected
  - Switch technology changes
  - Why pay for PoE every time you upgrade your switch?
• Gain flexibility to power also pre-standard terminals

Examples of PoE installations using…

PoE Endspan
Endspan –≫IP camera (PoE enabled)
Endspan–≫Active Splitter–≫IP Camera (non-PoE)

PoE Midspan
Non-PoE Ethernet Switch–≫Midspan–≫IP Camera (PoE enabled)
Non-PoE Ethernet Switch–≫Midspan–≫Active Splitter–≫IP Camera (non-PoE)

PoE Injector
Non-PoE Ethernet Switch–≫PoE Injector–≫IP Camera (PoE enabled)

Poe Injector + Splitter
Non-PoE Ethernet Switch–≫PoE Injector–≫Active Splitter –≫IP Camera (non-PoE)

Digimerge IP Devices are certified for use with Microsemi PoE hardware solutions. Visit www.microsemi.com/PowerDsine for details on all available PoE hardware solutions.

- Full Range of High Resolution (520TVL+) Cameras
- Hardware Solutions to Fit Most Common CCTV Applications (Day/Night/PTZ/ WDR/ Weatherproof/ Vandalproof/PoE)

- Dual Codec (MPEG4/MJPEG)
- Full D1 Resolution (@ up to 30fps)
- Complete Software Solution Included

DNP5220E
High Resolution Low Light IP Professional Camera with PoE

DNS1010
Dual Codec Video Server

DNP5320E
High Resolution Weatherproof IP Day / Night Camera with 90ft IR Range & PoE

DND7220V
High Resolution IP Day / Night Dome Camera with 30ft IR Range & Vandal Resistant Case

DNB6300V
High Resolution Weatherproof IP Day / Night Bullet Camera with Varifocal Lens & 300ft IR Range

**DNZ9320W**
High Resolution WDR IP PTZ Speed Dome Camera with 25X Optical Zoom

FOR MORE INFORMATION, PLEASE VISIT

www.digimerge.com

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☐ Product Information

📖 User Manuals

🕐 Quick Start Guides

📄 Specification Sheets

💻 Software Updates

🔄 Firmware Upgrades

For additional information or troubleshooting help, refer to your owners manual for assistance. You can also call or email for further support.

Toll Free Technical Support: 1-866-344-4674 or +905-946-8477
Email Support: tech@digimerge.com
Website: www.digimerge.com