

WALL CONTROLLER USER GUIDE

VSN450
VSN470

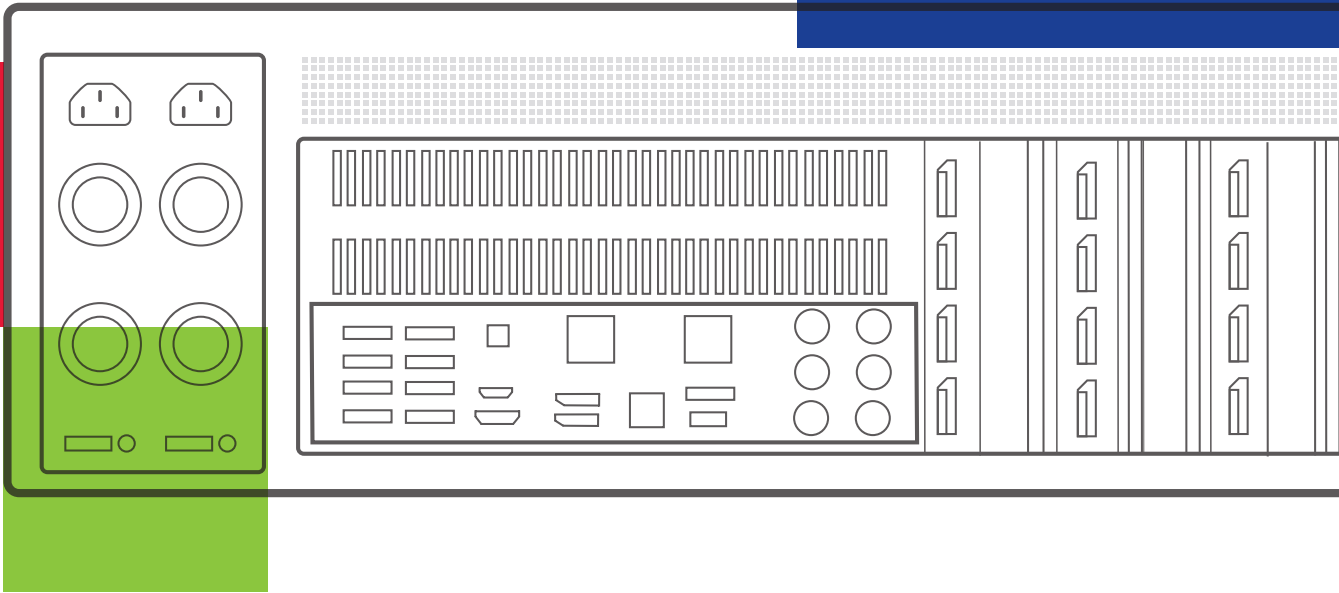


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Quick Start Guide

A version of the Quick Start Guide is included below for your convenience.

Contents

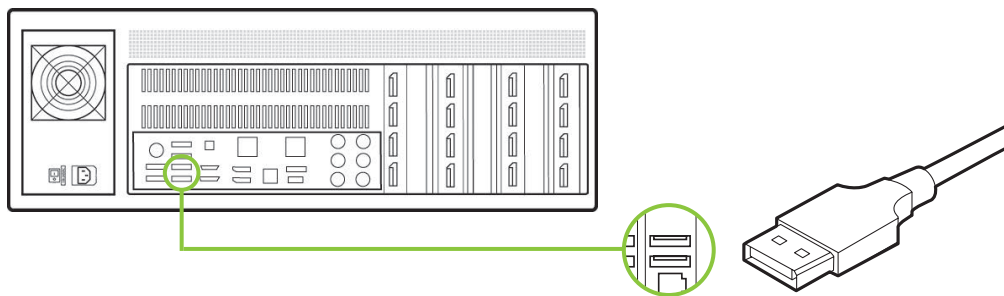
Main System

- VSN₄₅₀ or VSN₄₇₀ Main chassis
- Mouse/Keyboard
- Recovery Media
- Cables/Adapters
- Accessories Pack
 - Chassis Key
 - MAC Address Labels

Each Datapath system is custom built therefore the number and type of input and output cards will differ from system to system.

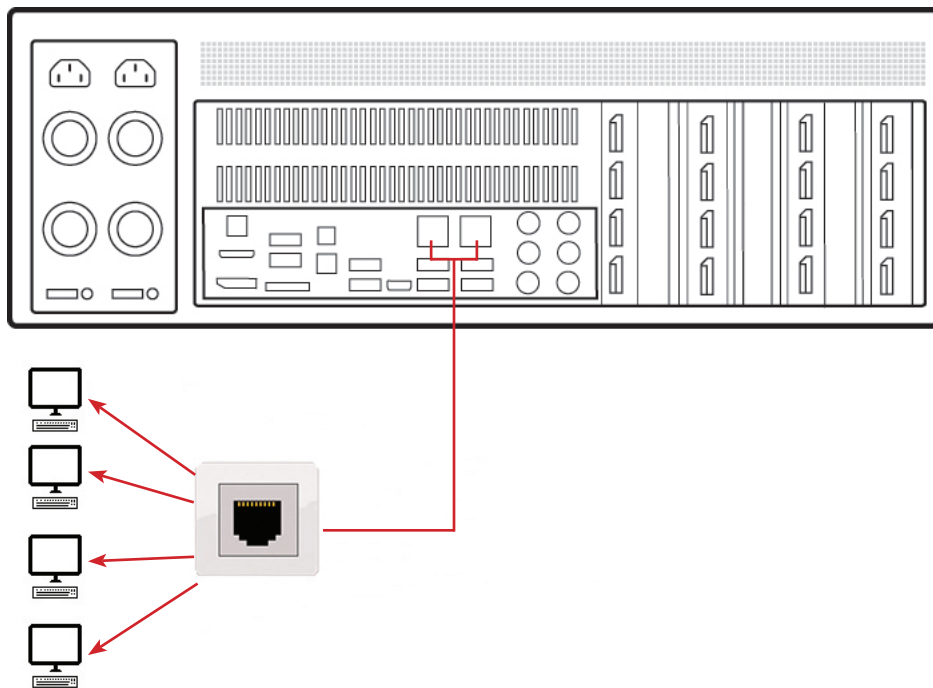
Accompanying this Quick Start Guide are PCIe card product leaflets which give details on how the cards are installed and any accessories supplied with them.

Step 1 - Keyboard and Mouse

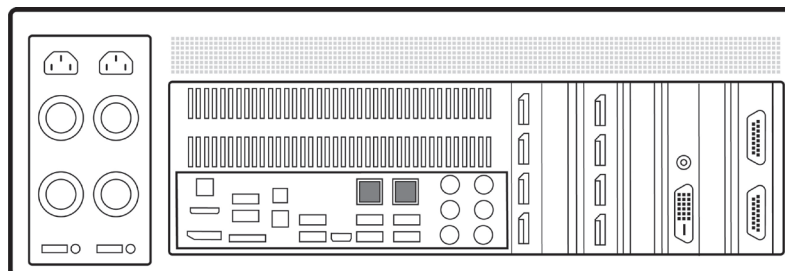


Connect Keyboard and Mouse to USB Ports.

Step 2 - Connect to a Network (Optional)



Step 3 - Connect Input Source

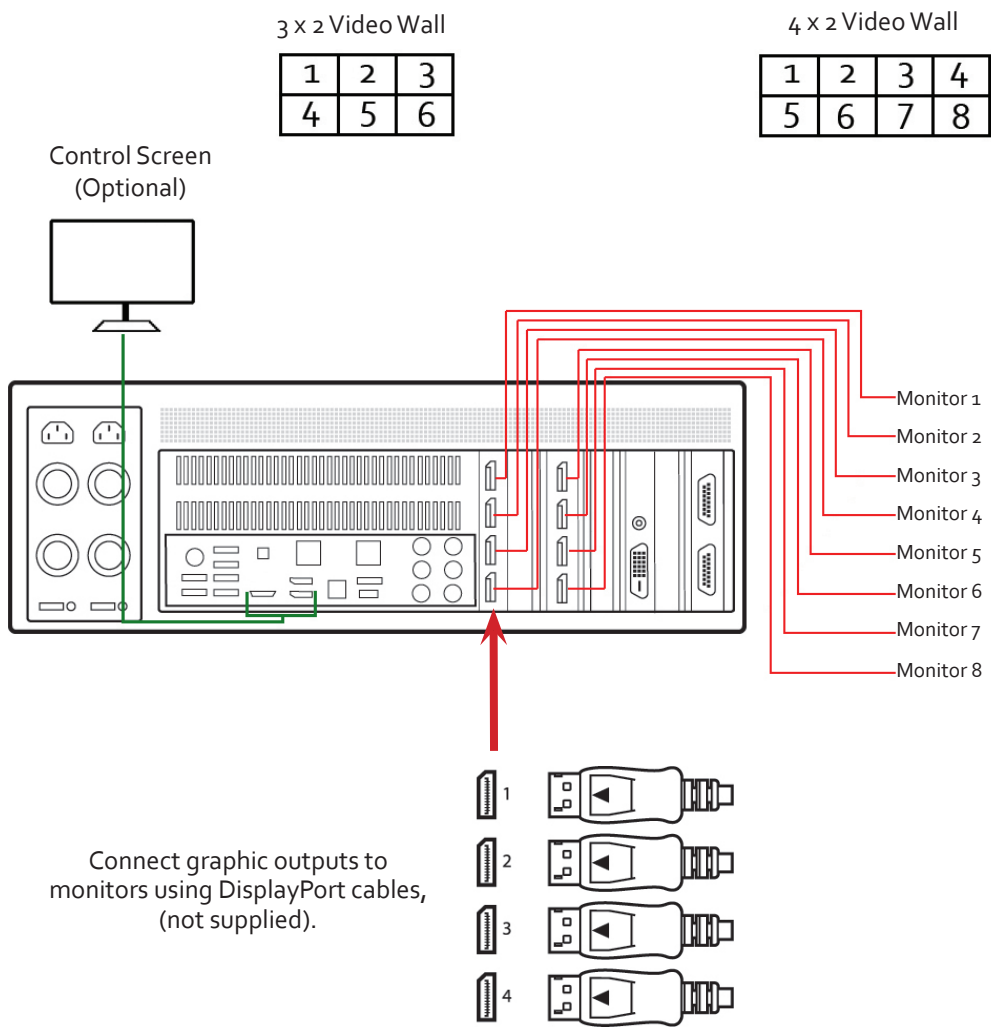


Each Datapath system is custom built. The number and type of inputs will differ from system to system.

Contained within the documentation pack are PCIe card product leaflets which give details on how the cards are connected.

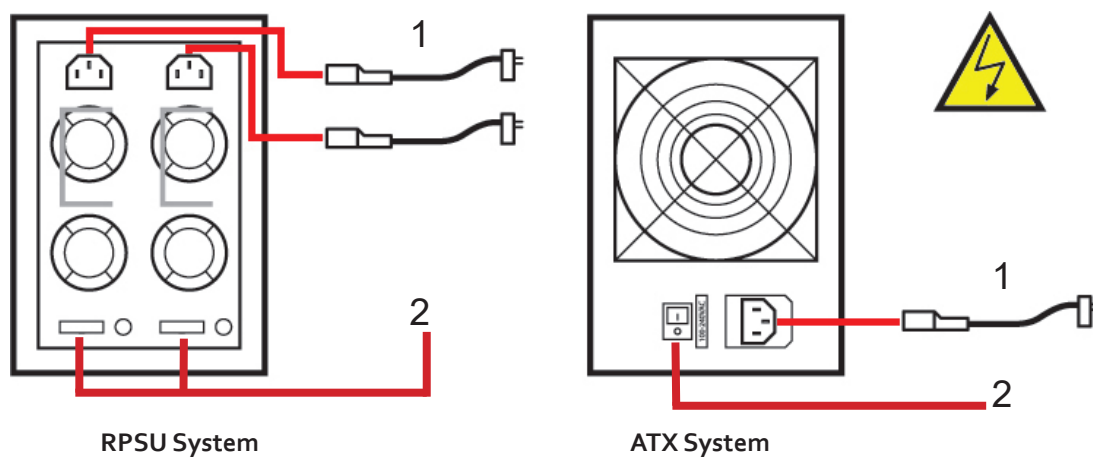
The I/O panel on your system may differ from the above illustration depending on which motherboard option you have purchased. Refer to the motherboard documentation for more details.

Step 4 - Connect Control Screen (Optional) and Monitors

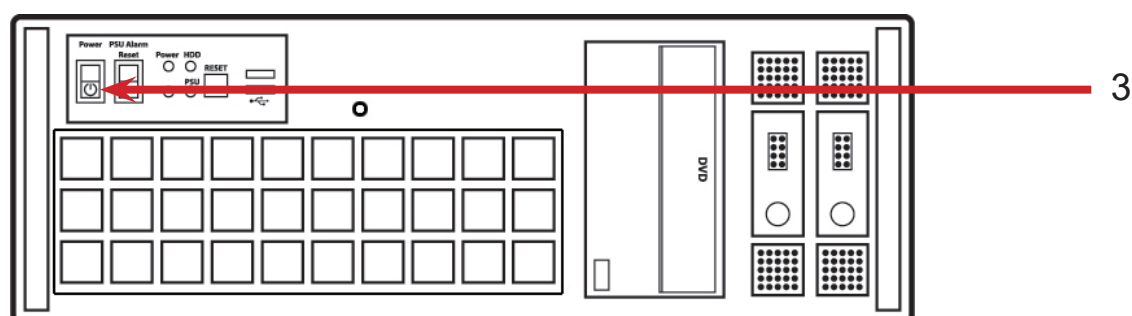


Many of our wall controllers are configured to use a control screen prior to leaving the factory. If required, connect the control screen to the motherboard as shown above. If a control screen is not required, the BIOS settings will require changing. See the motherboard User Manual in your accessories pack for details.

Step 5 - Powering up the System

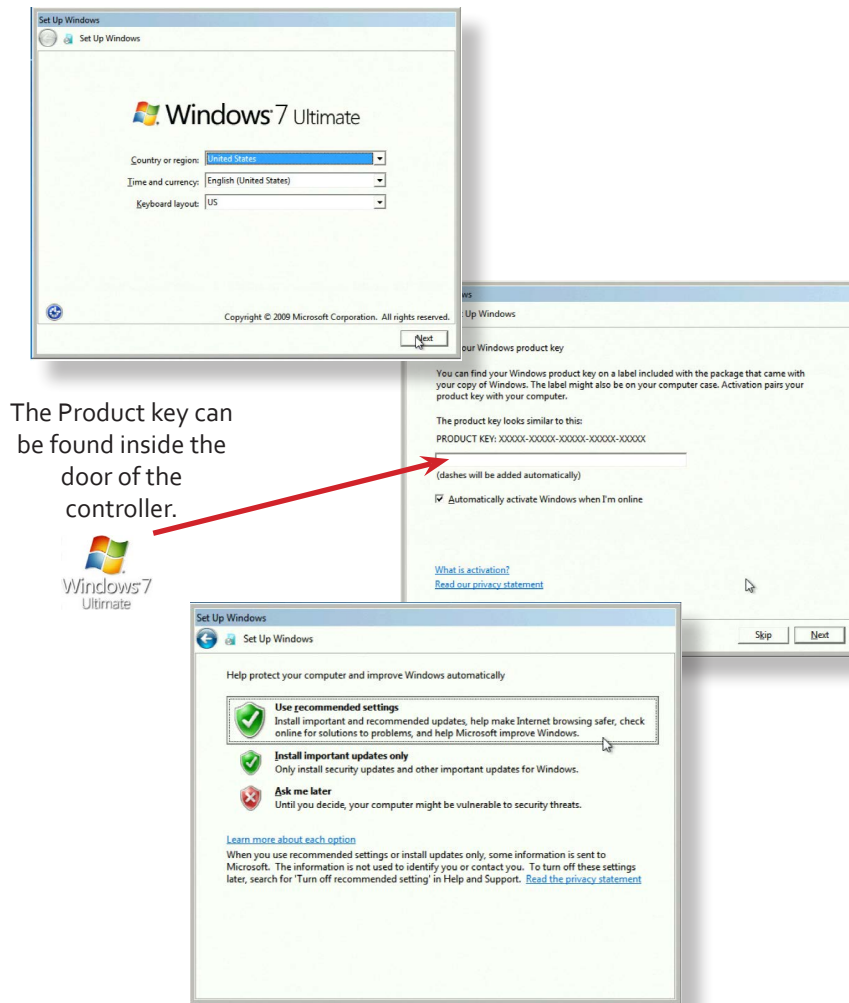


- 1 Connect power cables then plug into a mains supply.
- 2 Switch on the power supply units.



- 3 Switch on the system.

Step 6 - Windows®7 Setup



Computer Name:

It is recommended that only Internet-standard characters are used in the computer name. The standard characters are the numbers 0 through to 9, upper and lower-case letters from A through to Z and the hyphen character. Computer names cannot consist entirely of numbers, contain spaces or use special characters such as: < > ; : " ? * + = \ | ? , .

Step 7 - Activate Windows®7




Start | Computer | Properties | Activate Windows now.

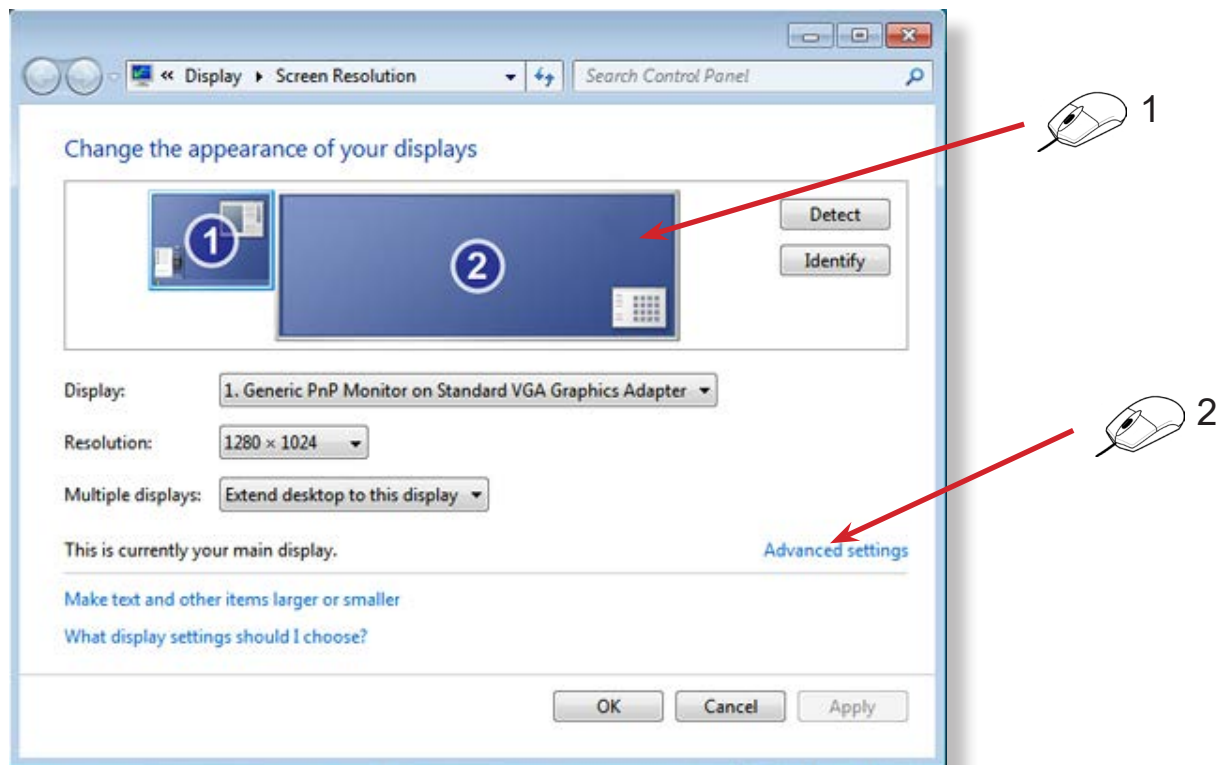
Select the appropriate method available.

To view the Product Key, open the front door panel. The Product Key label is displayed on the front panel of the system.

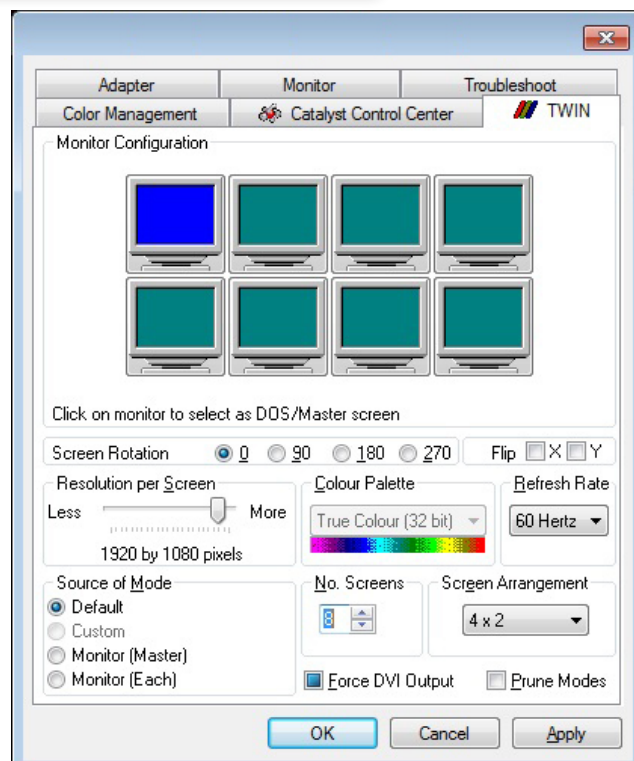
Step 8 - Display Setup

All Datapath wall controllers have pre-configured settings for the wall layout and screen resolution. Change settings using the TWIN tab:


 Start | Control Panel | Appearance and Personalization | Adjust screen resolution.




3 →

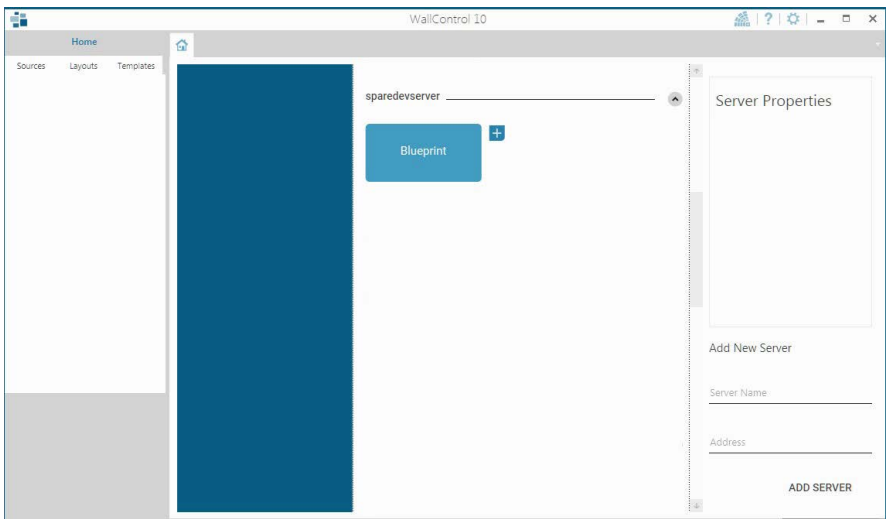


Step 9 - WallControl 10 (Optional)

 Start | All Programs | WallControl 10 - Server

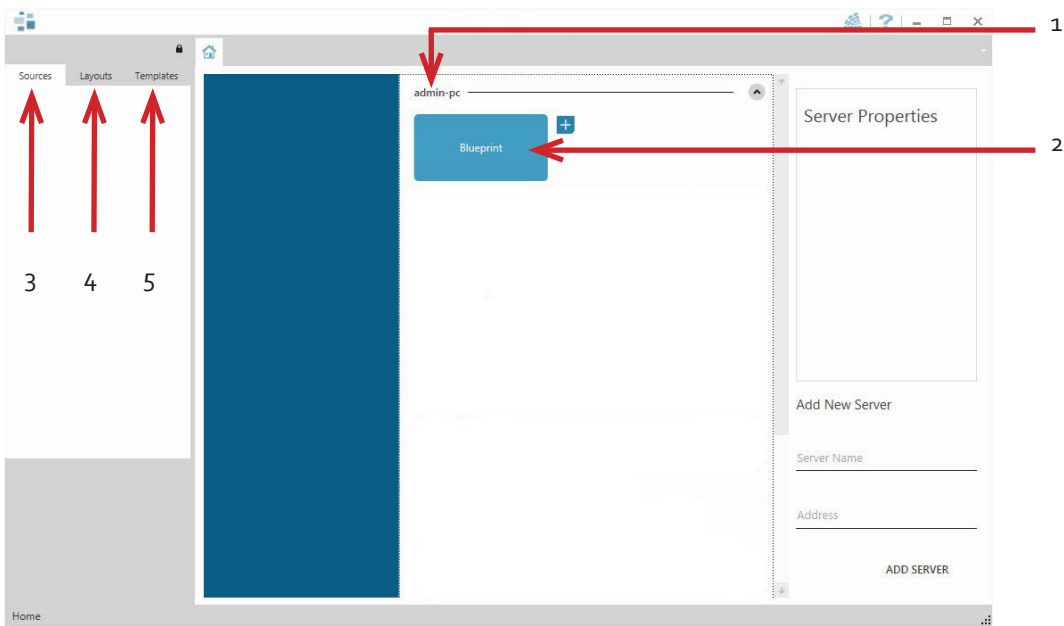
Before opening the Client and Security Administration Client interfaces you will need to start the Server by clicking on it in the Programs menu. Starting the Server loads both the WallControl 10 Server and the WallControl 10 Security Server. The WallControl 10 Client will only detect servers that are running.

 Start | All Programs | WallControl 10 - Client



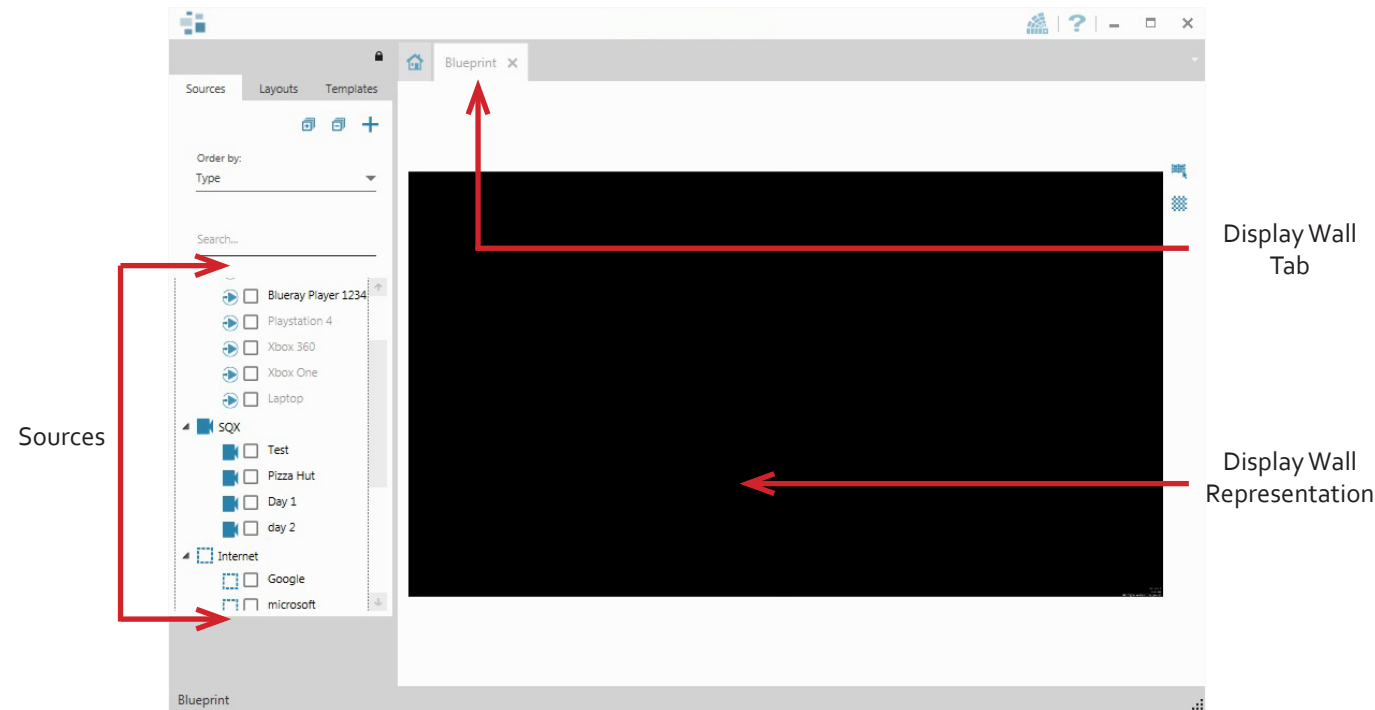
When WallControl 10 is opened for the first time you will be prompted to take a Quick Start Tour of the application. It is strongly recommended that you take the tour prior to using the application.

The WallControl 10 - User Interface



1	Indicates the server you are connected too.
2	A representation of the display wall(s) associated with the server.
3	Sources Tab - Displaying all the sources connected to the server for use on the display wall.
4	Layouts Tab - Used to save, recall and share display wall layout configurations.
5	Templates Tab - Use templates to assist in the design of specific display wall layouts.

Click on the display wall representation to open the display wall tab.



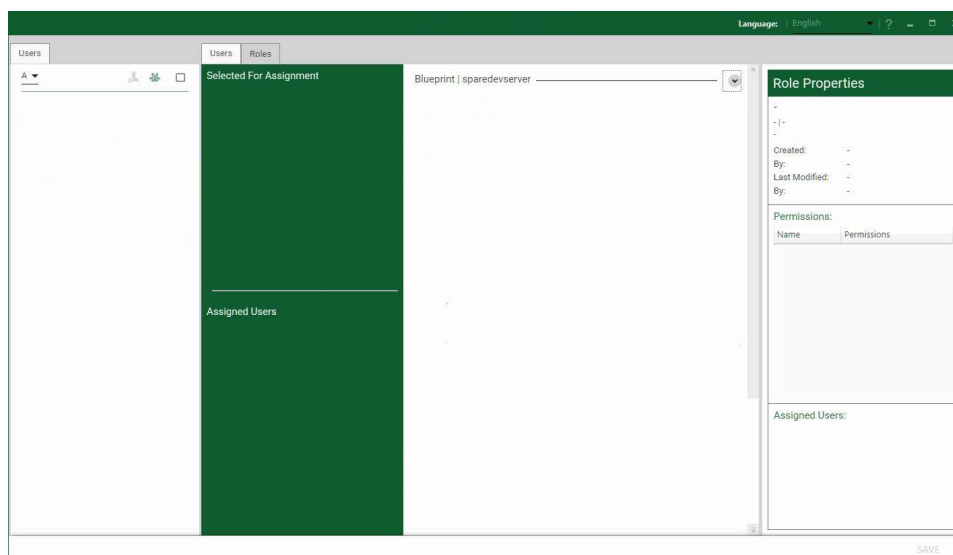
When opened, the display wall tab shows a live representation of the physical wall and the sources available to display on it. To place a source on the video wall, simply click on the required source in the sources tab and drag it onto the display wall representation.

The application help file contains information explaining how multiple sources can be selected, how to use and create templates and how to save, recall and share layout files.

The WallControl 10 - Security Administration Client (Only Available with Pro Version)



Start | All Programs | WallControl 10 - Security Administration Client



The WallControl 10 - Security Administration Client allows Administrators to assign specific users to roles on a wall by wall basis. For example, a User can be assigned a role allowing unrestricted access on one wall but assigned a role on another wall which only allows the opening of pre-determined layouts.

Prior to the Security Client being used for the first time, the SecurityOnOff.exe program must be run to enable security protection for the application. To run the SecurityOnOff.exe, ensure you are logged into Windows® with Administrator Rights.

Locate and double click on the SecurityOnOff.exe file:

Program Files (x86) \WallControl 10\ Security Server\SecurityOnOff

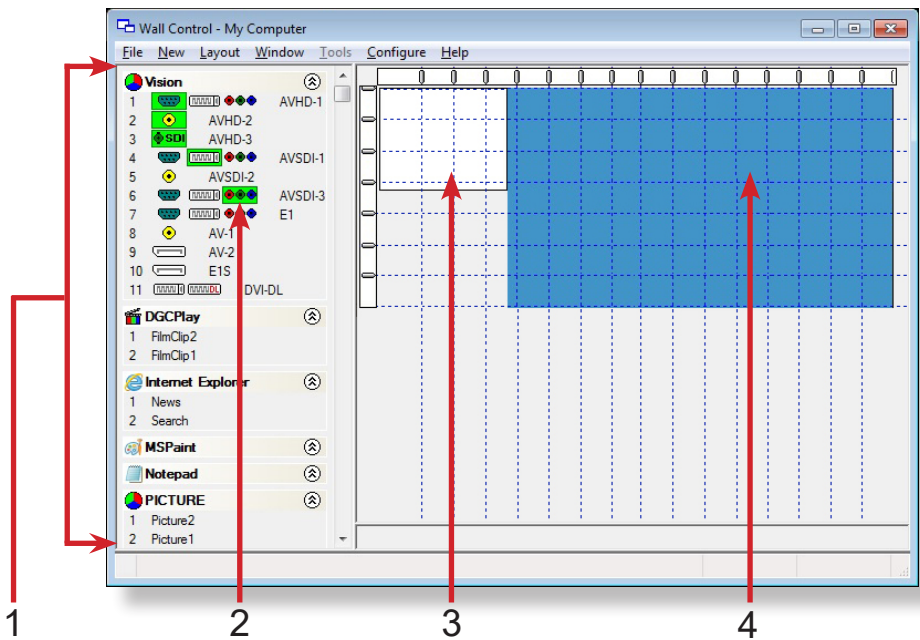
A WallControl 10-Pro serial dongle must be inserted into a vacant USB port. If the dongle is removed or swapped, the Security Client will not open and an error message is displayed, therefore it is important the dongle is not removed.

The WallControl 10 Security Application help file contains information on how to:

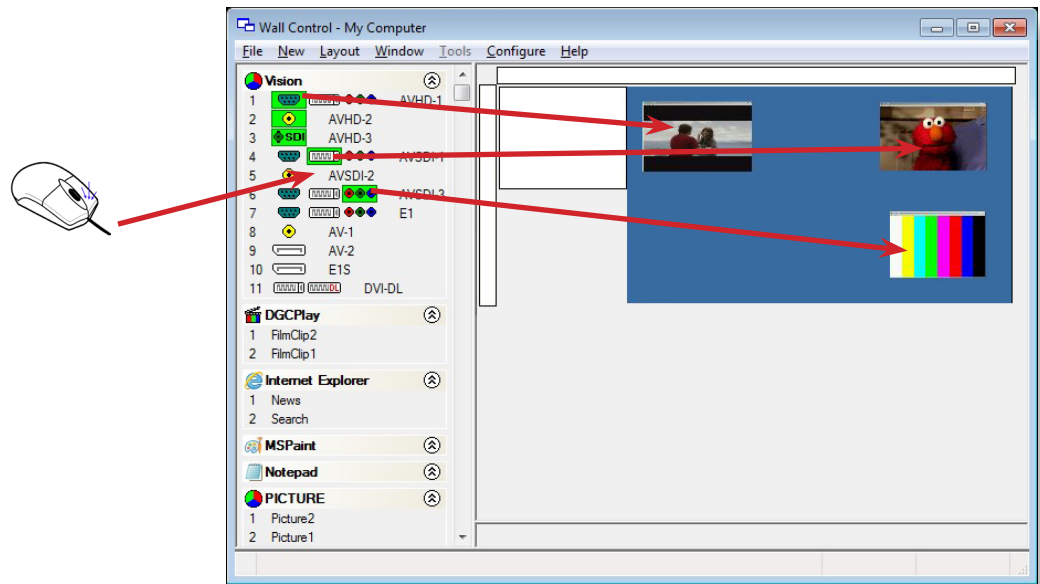
- Import users from the Windows® Active Directory into the database.
- Create and edit roles.
- Assign permissions to providers, layouts and sources giving specific roles access to them.
- Assign roles to walls.

Step 10 - Wall Control-red/SQX (Optional)

 Start | All Programs | Wall Control | Wall Control-My Computer



1	The Icons displayed in the application toolbar identify which type of source is available to each input
2	Icons highlighted green indicate an active capture for that particular input.
3	Representation of the control screen if one is being used.
4	Representation of the video wall desktop.



To open a video window click and drag an active capture into the Wall Control application.

Use the Help Menu for a comprehensive guide on the features of the Wall Control application.

Chapter 1 - Introduction

1.1 Introduction

Congratulations on your purchase of the Datapath Wall Controller system. The wall controller has been manufactured and tested to the highest standards offering unparalleled quality and reliability. The aim of this user guide is to assist you through the installation of the system safely and effectively and act as a reference guide for future use. Do not switch on the system until all the relevant cables have been connected.

1.2 Systems

The systems covered by this user guide are the VSN450 and VSN470 video wall controllers.

1.3 How the User Guide is Organised

The user guide is broken down into chapters and each chapter into sections. Chapters, sections and pages are numbered individually. Pages are numbered in Arabic numerals with the exception of the cover page (no numbering).

1.4 Fonts and Symbols

1.4.1 Fonts

The font used throughout the user guide is Corbel however the following font styles mean:

Bold = Used to describe menu titles, buttons in software or elements that you must type exactly as shown in the Command Line Interface

Ellipsis (...) - Parameter that can be repeated several times in a command line.

Between brackets ([]) - Optional items.

Between braces ({}) - Set of choices (separated by |) from which you must choose only one.

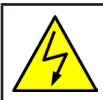



Italic = Information that must be supplied by the user

`Courier` = Indicates code or program output.

Blue Underlined = Indicates a hyper-link. Some hyper-links may be linked to external live websites.

1.4.2 Symbols

Symbols are used throughout this user guide to assist the user in quickly identifying important safety information and notes.

	Yellow triangle indicates that failure to observe the instructions could result in injury and/or damage to the system.
	Lifting precautions should be considered.
	White arrow in a blue box indicates a useful tip.
	White exclamation mark in a blue box indicates important information.

1.5 Terminology and Definitions

1.5.1 BIOS

Basic Input/Output System: Used during system boot up to initialise and test system hardware and load the operating system. Each BIOS is specifically designed to work with a particular motherboard.

1.5.2 Command Line Interface

Preferred means by advanced users of issuing commands and controlling an application or operating system. Programs with a Command Line Interface are generally considered easier to automate via scripting.

1.5.3 Control Screen

Some systems are shipped with the BIOS configured to boot the system off the onboard graphics device. This output can then be used as the Control Screen for a typical video wall. The content of the control screen is not displayed on the video wall desktop and can be used to host the Wall Control application window.

1.5.4 SDK

Software Development Kit: A set of software development tools which allows the creation of certain applications

1.5.5 Wall Control-red (Optional)

An optional software application for controlling and managing Vision, IP-Camera and third party application windows on a Datapath Wall Controller. Providing a graphical representation of the video wall and a toolbar through which to manipulate all available input sources and applications. Can also be used offline.

1.5.7 WallControl 10 (Optional)

An optional software application for controlling and managing Vision, IP-Camera and third party application windows on a Datapath Wall Controller. Providing a graphical representation of the video wall and a toolbar through which to manipulate all available input sources and applications.

1.5.8 WallControl 10 Security Administration Client (Optional)

The WallControl 10 Security Administration Client allows Administrators to assign specific users to roles on a wall by wall basis. The Security Administration Client is only available with WallControl 10-Pro.

1.5.9 Wall Monitor (Optional)

A software application that enables the user to monitor the temperatures and voltages of system components.

1.5.10 Screen Order

The order in which the screens appear on the display wall.

1.5.11 SQX

SQX is Datapath's collective name for its video streaming and compression technologies.

Chapter 2 - Safety



2.1 Safety Precautions

To prevent damage to your Datapath product or injury to personnel operating the equipment, please read the following safety precautions prior to operation. These instructions should be made available to all those who will use and operate Datapath products.

2.1.1 Power Supply

All Datapath products require a mains power supply. This power supply must be disconnected when equipment is being upgraded or relocated.

2.1.2 Cables

Do not expose cables to any liquids; doing so may cause a short circuit which could damage the equipment. Do not place heavy objects on top of any cables as this can cause damage and possibly lead to exposed live wires.

2.1.3 Ventilation

All computer equipment should be located in a well ventilated area. All ventilation holes on the computer casing must be kept clear of any obstruction at all times. Failure to do so will result in the system over heating and damaging your equipment.

2.1.4 Working Environment

The equipment should be located in an environment free from dust, moisture and extreme changes in temperature and should be placed on a stable and solid work surface. Liquids (hot/cold drinks etc) should not be placed near the equipment as spillage could cause serious damage.

2.1.5 Gas/Flammable Liquids

Electronic equipment should never be used in the presence of gas or any flammable liquid, doing so could result in an explosion or serious fire.

2.1.6 Smoke/Unusual Smells

Should you notice smoke or unusual smells being emitted from your system, turn off and unplug the system from the mains supply. The system should then be passed to a qualified technician for inspection. Continued operation could result in personal injury and damage to property.

2.1.7 Maintenance

Apart from what is detailed in this user guide, maintenance should only be carried out by competent technicians, any Datapath plug-in cards that are physically damaged should be returned to Datapath for repair using Datapath RMA procedures.

2.1.8 Replaceable Batteries

Caution: Risk of explosion if batteries are replaced by an incorrect type. Dispose of used batteries according to the local laws / regulations and manufacturer's instructions.

2.2 Rack Mount Safety Instructions

2.2.1 Temperature

If VSN_{450/470} systems are to be installed in a closed or multi-unit rack assembly, the installation should be such that the amount of air flow required for safe operation of the equipment is not compromised. The operating ambient temperature of the rack environment should be maintained below 35 degrees centigrade under all conditions. Appropriate cooling arrangements should be built into the cabinet to ensure that this specification is maintained.

2.2.2 Mechanical Loading

Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

2.2.3 Circuit Overloading

Consideration should be given to the connection of the equipment to the mains supply circuit and the effect that overloading of the supply might have on any over-current protection or supply wiring. Appropriate consideration of equipment nameplate ratings should be used.

2.2.4 Reliable Earthing

Reliable earthing of all rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

2.3 Unpacking and Initial Inspection

2.3.1 Unpacking



The system is heavy; lifting precautions should be considered.

To unpack the system follow the instructions provided on the outside of the packaging. All packaging materials should be retained for future transit.

2.3.2 Initial Inspection

All systems are carefully prepared for shipment and every effort is made to ensure you receive the product in pristine condition. On receipt, you should carefully inspect the outer packaging for any transit damage i.e. any signs that the system may have been dropped etc.

Use the packing list enclosed to establish that all the items are present. Should any items from the packing list be missing, contact Datapath for further instructions.

Check the chassis for damage that could have an adverse affect on the operation of the system or could cause injury to the operator. Should there be any physical damage to the power supply unit, for example damaged power sockets or exposed wiring do not connect to a power source, contact Datapath for further instructions.

Chapter 3 - General

3.1 Overview

Datapath's VSN450 system is a high quality, flexible solutions for smaller, more compact video wall and multi-screen display applications. The systems have been developed for installations that require a balanced number of HD video captures and HD video outputs and optimised to operate with the latest generation of our world leading PCI Express graphics and video capture cards, providing flexible solutions throughout the professional AV industry.

Each system has been designed for use in demanding environments. Each component has been subjected to rigorous testing to ensure the highest levels of performance and reliability.

In summary:

- High performance and reliability in demanding conditions
- Suited for 24/7 applications
- Can be operated via a network
- Wall Control software (optional) - Display video on the desktop in real time using an array of features
- Wall Monitor software (optional) - Provides monitoring of the temperature and voltage sensors on system components

3.2 Associated Output/Input Cards and Related Products

The following table lists the range of Datapath products associated with the VSN450/470 range of video wall controllers:

Product	Description
ImageDP4+	Quad output DisplayPort graphics card.
ActiveSQX	Dedicated IP Streaming decoding card.
VisionHD2-SQX	Triple channel capture and IP Streaming encoding card
VisionSC-DP2	Dual channel, 4K UHD DisplayPort capture card.
VisionSC-SDI4	Four channel 3G-SDI video capture card.
VisionSC-HD4+	Quad HDMI video capture card.
VisionAV-HD	Four lane PCI Express capture card with 2 x HD DVI-I and 1 SD channels.
VisionAV-SDI	Four lane PCI Express capture card with 1 x HD DVI-I, SD, SDI channels.
VisionHD4	Eight lane PCI Express capture card with four independent DVI-I HD channels.
VisionRGB-E1s	Single channel HD video capture card.
VisionAV	Single Channel HD and single channel SD video capture card.
VisionRGB-E2s	Dual channel HD video capture card.
VisionDVI-DL	Single channel Dual-Link video capture card.

VisionSD4+1s	Video capture card with four channels of SD and one of HD.
VisionSDI2	Dual channel HD-SDI video capture card.
VisionSD8	Eight channel SD video capture card.

We are constantly updating our product portfolio, for the latest details on our full product range please visit our website:
www.datapath.co.uk

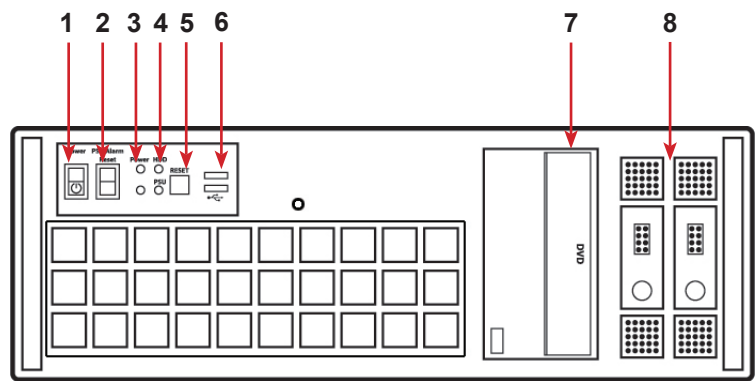
3.3 Product Datasheets

Product datasheets are available to download from www.datapath.co.uk

Chapter 4 - Hardware

4.1 VSN450 /VSN470

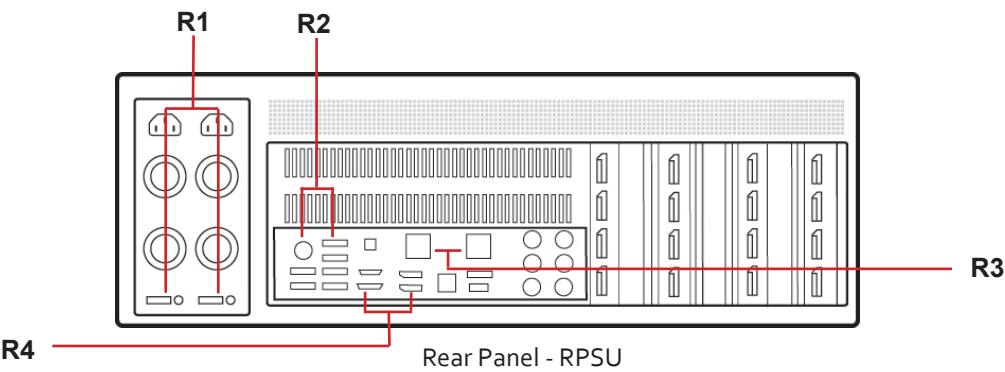
4.1.1 Front



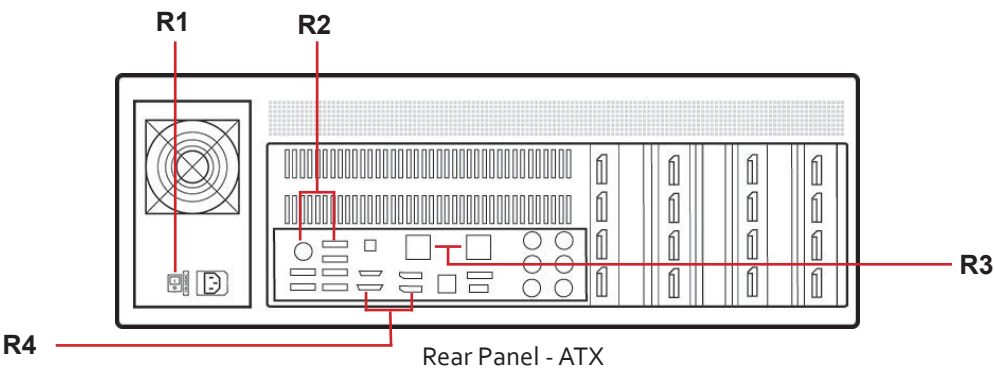
Front Panel

1 = Power, on-off	5= Reset Button
2= PSU Alarm Reset	6= USB Ports
3= Power LED	7= DVD +RW
4= HDD LED	8= Removable Hard Drives

4.1.2 Rear



Rear Panel - RPSU



Rear Panel - ATX

R1= Power Switch	R3= Ethernet Ports
R2= USB Ports	R4= HDMI/DisplayPort Outputs

Chapter 5 - Cabling

This Chapter will cover:

- Connecting keyboard and mouse
- Connecting to a network
- Connecting input sources
- Connecting a control screen
- Connecting monitors
- Connecting power cables

5.1 Connecting the Keyboard and Mouse

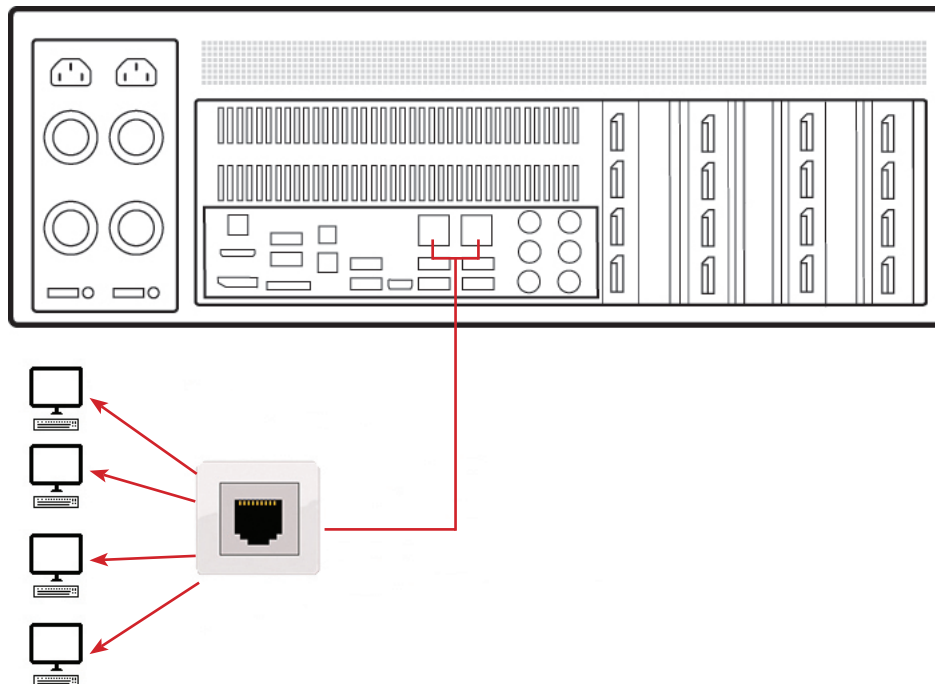
The keyboard and mouse supplied with your system both have a USB interface. Identify vacant USB ports on the chassis and plug them in.



The location of the USB ports are identified [here](#)

5.2 Connecting to a Network

The optional Wall Control software enables the user to operate and manage the video wall display remotely, via a network. The VSN450 has two Ethernet ports, plug in your network cable (not supplied) to a port and connect the wall controller to the LAN, as shown below:



5.2.1 Network Security

It should be noted that network ports have a potential vulnerability. If your system is working in a secure environment you probably don't need to worry about unauthorised access to the LAN port. If your system is on a network that is generally accessible, you will probably want to restrict access to the ports. The Wall Control software application enables you to configure access to the ports using a network access dialogue, see the Wall Control help file (located on the Recovery Media) for more detailed information.

5.3 Connecting Input Sources

Each system is custom built and each controller will differ depending on the number and models of input and output cards installed. The packing list enclosed with your system will enable you to establish which input cards you have installed in your wall controller.

Contained within the product documentation folder are PCIe card product leaflets which give details on how the cards are installed and any accessories which may accompany them. For detailed information on specific cards please consult the relevant User Manual. Each capture card manual can be located on the Datapath Recovery Media supplied with your system.

5.3.1 Cable Handling



Great care must be taken when connecting cables. Ensure the cable connectors are the correct type for the connector on the cards. Push the cable connector on squarely, there is no requirement to force the connector in place. Poor cable handling could result in damaged pins in the cable connector, this in turn could cause serious and irreversible damage to the printed circuit board. Any damage caused this way is not covered under the Datapath warranty.

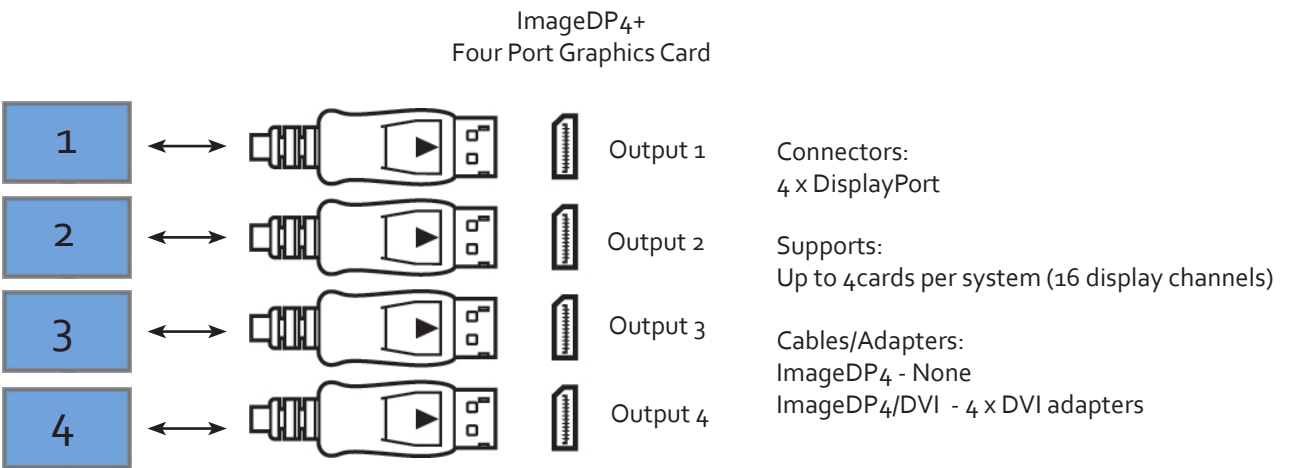
5.4 Connect Monitors and Control Screen (Optional)

Each system could support any number of screens from 4 to 16 depending on hardware, however the following information is a guide based on a 12 screen, 4x3 video wall system.

The number of graphics cards in your system determines how many screens will be available on your video wall. The ImageDP4 graphics cards each support a maximum of 4 screens, one output per screen.

5.4.1 Screen Order

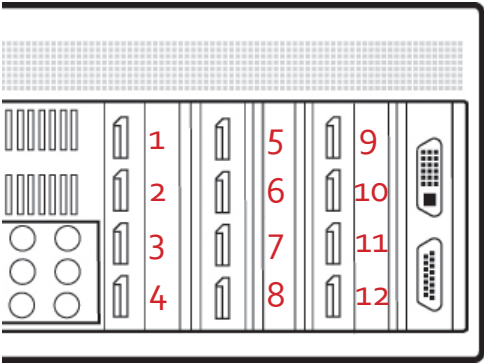
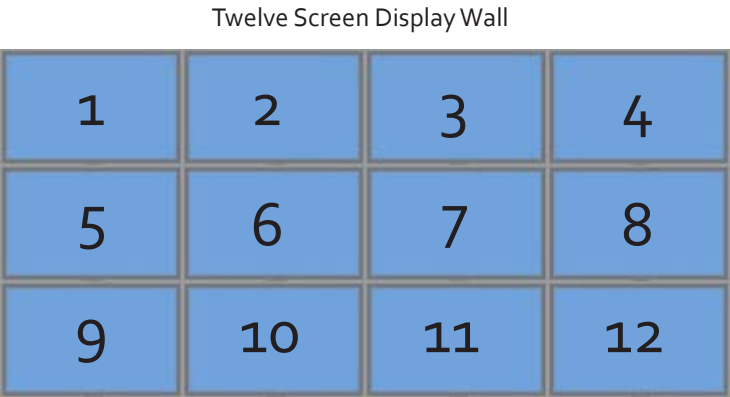
The screen order is determined by where the graphics cards are installed in the system. The card installed nearest to the processor is card 1 which is the first card to be initialised and will generate the desktop for the top left monitor on the video wall plus the 3 adjacent screens. The second card drives the next four screens and so on. Each graphics card has 4 connectors, numbered as follows:



For detailed information on the ImageDP4 graphics card please consult the User Manual which can be located on the Datapath Recovery Media supplied with your system.

The following illustration shows how to connect 12 monitors to 3 x ImageDP4 graphics cards to create a 12 screen video wall.

Connect the graphic outputs to your monitors using DisplayPort cables. (Not supplied)



Corresponding Graphics Outputs

1-4	Output connectors on card 1 - For screens 1 - 4
5-8	Output connectors on card 2 - For screens 5-8
9-12	Output connectors on card 3 - For screens 9-12

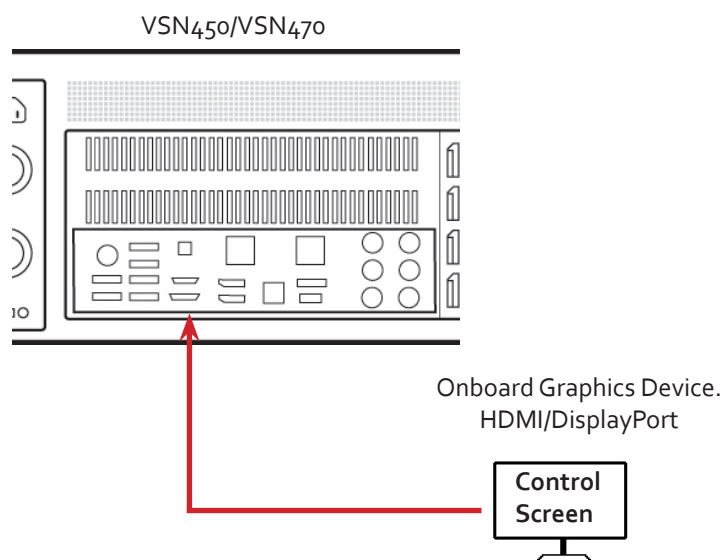
5.4.2 Changing the Order of the Screens

Changing the order in which the screens appear is possible using the Wall Control application. Select **Screen Order** from the Wall Control **Configure Menu** and in the displayed dialogue, click on the screens sequentially to establish the order you require. For detailed information on changing the screen order, click on the **Help** button in the **Configure Screen Order** dialogue.

5.4.3 Connecting the Control Screen (Optional)

Most Datapath systems are configured to boot off the onboard graphics device therefore there may be a requirement to connect a control screen. The control screen is a standalone monitor which is separate from the monitors on the display wall. The control screen is configured as the Primary monitor in the Windows® Display Settings and the display wall is configured as the Secondary monitor.

Connect the control screen as follows:

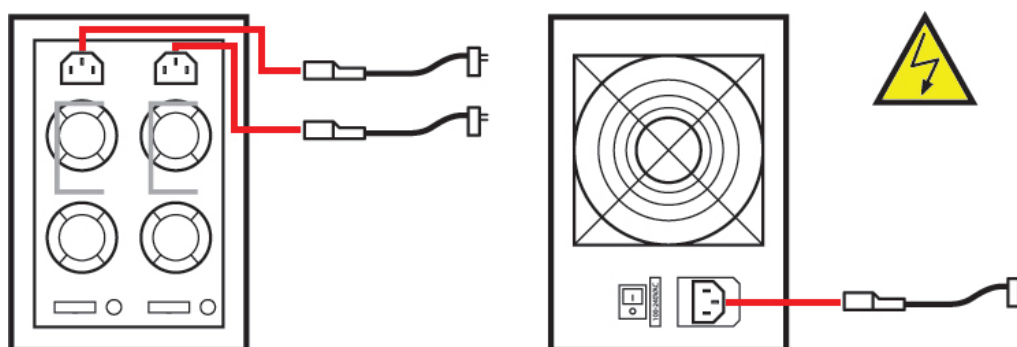


5.4.4 How to disable the Control Screen

If you do not require a control screen then you should disable the integrated graphics in the system BIOS. See the motherboard documentation for detailed instructions.

5.5 Connecting Power Cables

This section applies to both the RPSU and the ATX powered systems.



Ensure cables are fully inserted into the power supply sockets, failure to do so could result in the cable becoming dislodged and the system inadvertently shutting down.

In systems with an RPSU, both cables must be connected otherwise an audible alarm will be triggered when the system is switched on



Only use the power cables supplied with your system, for advice on replacements please contact Datapath.

Chapter 6 - Operation

This chapter will cover:

- Switching on
- Initial system boot on delivery
- Setting up the operating system
- Opening Wall Control
- Displaying video captures

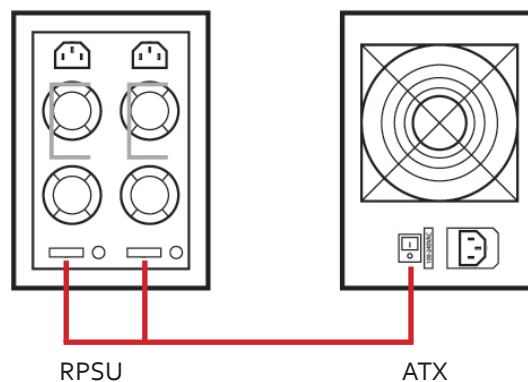
6.1 Switching On

When switching the system on for the first time you will need to complete the initial system boot steps as described in Initial System Boot on Delivery below.

6.1.1 Switching on the System

All systems are supplied with either RPSU or ATX power supplies, see [System Features](#) for details.

- Switch on the power supply units ensuring both units on the RPSU are switched on.



- Turn on the main system power switch which is located on the [front panel](#).

The BIOS and boot messages will be displayed on the control screen (if connected) as the system boots. Once the system boot up is complete, the display wall will open up into a Windows® desktop.

6.2 Initial System Boot on Delivery

Once the system has been configured in the factory the operating system is resealed, meaning that when switching on the system for the first time the operating system setup commences.

You will be asked to enter information to set up the controller.

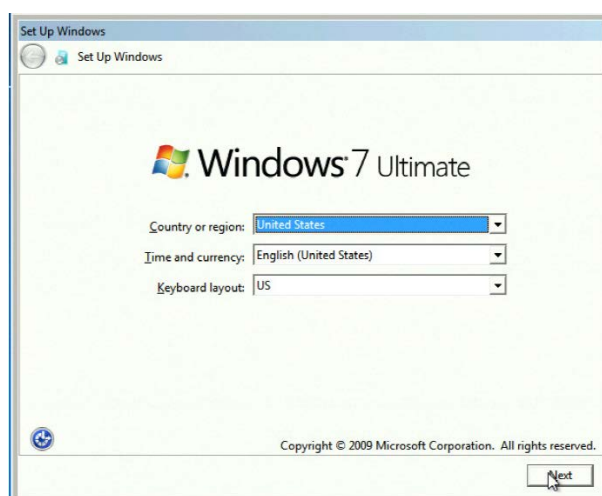
6.2.1 Select Language Pack

You will now be prompted to set up your Windows® 7 operating system starting with selecting the language option you require. Language selection is the responsibility of the customer and is not part of the system pre configuration prior to shipment. Windows® 7 language settings can be changed using **Control Panel/Region and Language** on the **Keyboard and Languages** tab. Language packs are available to download as optional updates through Windows Update. The following languages are pre-installed:

- Simplified Chinese

- English (USA)
- English (UK)
- French
- German
- Italian
- Japanese
- Polish
- Portuguese (Brazilian)
- Russian
- Spanish

6.2.2 Select Country and Region



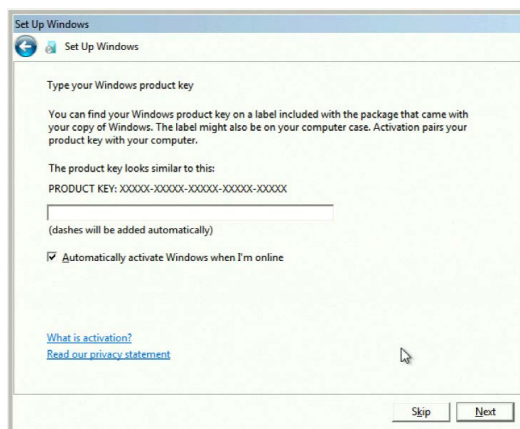
Use the dropdown menus to select the country and region, the time zone and currency and the keyboard layout. These localised settings can be changed if required using the dialogue in **Control Panel/Region and Language**.

6.2.3 Names and Password

Next you will be prompted to personalise your system by entering a user name, a computer name and a password.

It is recommended that only Internet-standard characters are used in the computer name. The standard characters are the numbers 0 through to 9, upper and lower-case letters from A through to Z and the hyphen character. Computer names cannot consist entirely of numbers, contain spaces or use special characters such as: < > ; : " ? * + = \ | ? , .

6.2.4 Enter the Product Key



Enter the Product key in the edit box, the Product Key is attached to the front panel of your system.

Once the Product key has been entered, read and accept the license agreement.

6.2.5 System Backup

It is strongly recommended that you create some form of system recovery media using the **MS Windows Backup and Restore Tool** once your system is up and running. This will enable you to restore to factory settings should serious problems occur.



Start | Control Panel | System and Security | Backup and Restore

6.3 Opening Wall Control-red (Optional)

Wall Control is an optional video/display wall management software application specifically designed for Datapath Wall Controllers. Wall Control consists of two separate elements that work together to enable you to control the display wall, the Wall Control Application and the Wall Control Server.

6.3.1 Wall Control-red Application

The Wall Control Application should be installed on the machine that has been identified to control the display wall. This could be any machine on the network including the machine driving the display wall. The application element of Wall Control is used to control the position, size and properties of each window displayed on the Server machine.

6.3.2 Wall Control-red Server

The Wall Control Server is used to display Vision/IP and application windows. The Server element of Wall Control needs to be installed on the machine from which you wish to create Vision/IP and application windows. To open Wall Control:



Start | All Programs | Wall Control

The Wall Control Start Menu offers two methods of opening the application, Wall Control and Wall Control-My Computer.

6.3.3 Wall Control-My Computer

Wall Control-My Computer refers to your system having both the Wall Control Application and the Wall Control Server installed. Selecting Wall Control-My Computer will open the Wall Control application window having activated both the Server and the Application. The application window will display all inputs available in the system.

6.3.4 Toolbar

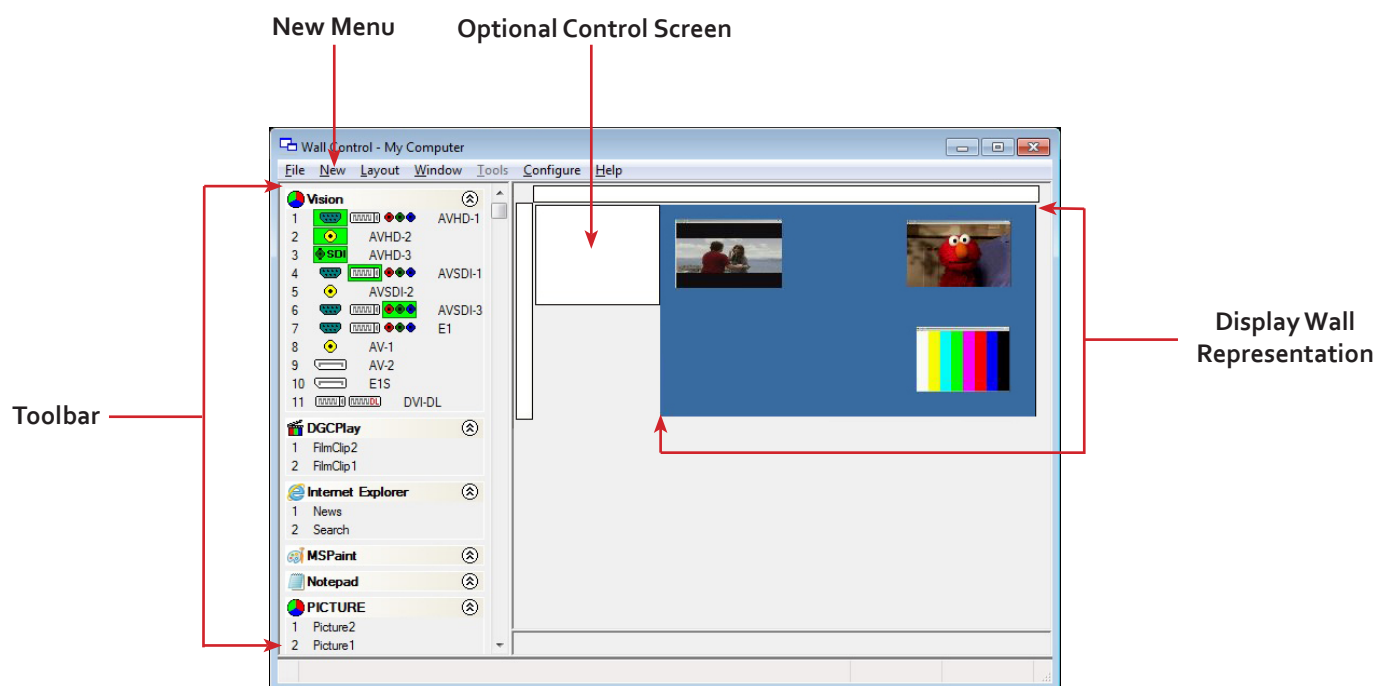
The application Toolbar displays a list of the type of windows that can be opened, depending on the hardware you have installed in your machine.

To open the required inputs:

Select the required input using the cursor and drag to a preferred position on the wall.

Double click on the required input and the window will open, positioned at the top left of the display wall.

Open multiple inputs by pressing the shift key and clicking the required number of inputs with the mouse.



6.4 Opening WallControl 10 (Optional)

WallControl 10 is an optional video/display wall management software application specifically designed for Datapath Wall Controllers. WallControl 10 consists of two separate elements that work together to enable you to control the display wall, the Client (application) and the Server.

6.4.1 WallControl 10 Server

The WallControl 10 Server is used to display Vision/IP and application windows. The Server element of WallControl 10 needs to be installed on the machine to which your video wall is connected.

6.4.2 WallControl 10 Client

The WallControl 10 Client should be installed on the machine that has been identified to control the display wall. This could be any machine on the network including the machine driving the display wall. The application element of WallControl 10 is used to control the position, size and properties of each window displayed on the Server machine.

The WallControl 10 Client can be installed on systems running up to and including Windows® 10 Operating Systems.



Start | All Programs | WallControl 10

The WallControl 10 Start Menu has four options, WallControl 10 Client, WallControl 10 Server, WallControl 10 Security Server and WallControl 10 Security Administration Client.

6.4.3 WallControl 10 - Server

The Server is the machine that drives your display wall, a Server can be located locally or via a network. WallControl 10 will automatically seek out and display all servers available to you. Each server can run multiple display walls depending on the version of WallControl 10 you have. Before opening the Client interface you will need to start the Server by clicking on it in the Programs menu. The WallControl 10 Client will only detect Servers that are running.

6.4.4 WallControl 10 - Client

WallControl 10 Client refers to the application that connects to the available servers.

6.4.5 WallControl 10 Security Server

The WallControl 10 User Rights Management application has a dedicated server that must be loaded prior to using the Security Application Client. Starting the WallControl 10 Server will load both the Server and Security Server. Both servers launch automatically when the system is booted, however to launch both servers manually, go to:



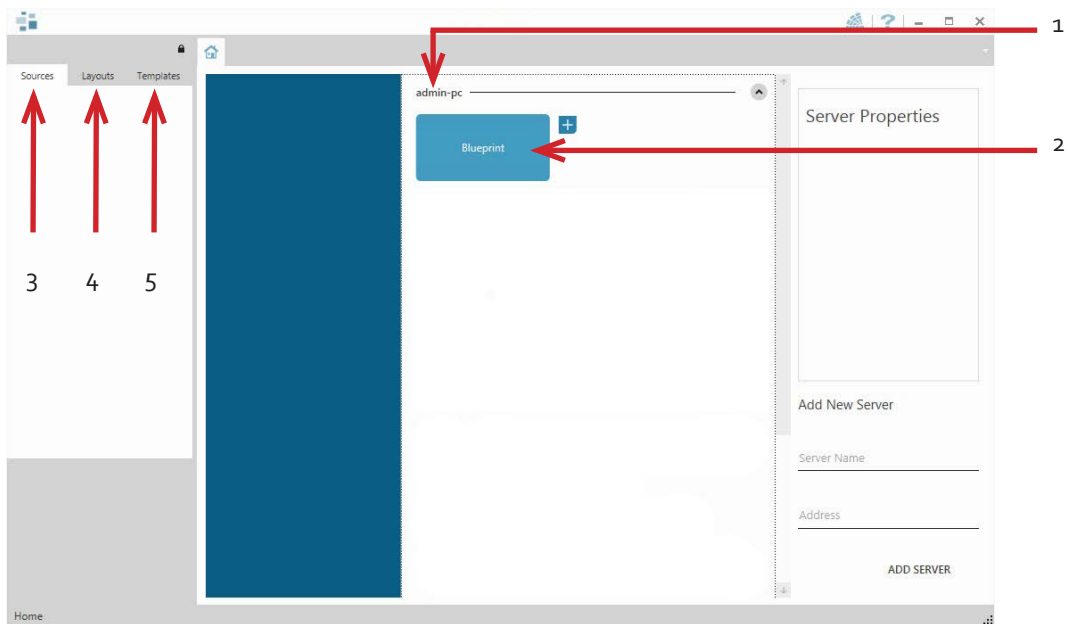
Start | All Programs | WallControl 10 | WallControl 10 Server

6.4.6 WallControl 10 Security Administration Client

The WallControl 10 Security Administration Client allows Administrators to assign specific user roles on a wall by wall basis. Users are assigned Roles based on their Windows® login. Roles can be structured to allow only specific tasks to be carried out on a wall using the WallControl 10 Client. For example, a user can be assigned a role allowing unrestricted access on one wall but assigned a role on another wall which only allows the launching of pre-determined layouts.

The application allows you to carry out the following User Rights Management Tasks:

- Import users from the Windows® Active Directory into the application database
- Create and edit roles
- Assign permissions to providers, layouts and sources giving specific roles access to them
- Assign Roles to walls.



1	Indicates the server you are connected too.
2	A representation of the display wall(s) associated with the server.
3	Sources Tab - Displaying all the sources connected to the server for use on the display wall.
4	Layouts Tab - Used to save, recall and share display wall layout configurations.
5	Templates Tab - Use templates to assist in the design of specific display wall layouts.

Chapter 7 - Software

This chapter will cover:

- Wall Control
- WallControl 10
- Wall Monitor
- Utilities

7.1 Wall Control-red (Optional)

The optional Wall Control-red software application (Wall Control-red /Wall Control-SQX depending on your order) is pre-installed and tested prior to shipment of your system therefore no installation of the software is required.

Wall Control displays the desktop of the machine that is being controlled. It allows you to remotely display Vision, IP-Camera (Wall Control-SQX required) and Application windows across a network on another machine or locally on the same machine.











You can use Wall Control to interactively move, size and position application windows and control Vision and IP-Camera windows by using the Windows Properties sheet. Wall Control also has a guide and grid function to aid the positioning of windows on the display wall.

Wall Control allows you to save specific wall layouts as .lay files enabling them to be re-called when required.

There is an area of the application around the desktop where windows can be dragged allowing them to be manipulated without being displayed on the video/display wall.

7.1.1 Icons displayed in the Wall Control Toolbar

The Icons displayed in the application toolbar identify which type of source is available to each input:

	Composite Source.
	S-Video Source.
	Analogue Source.
	Component Source.
	DVI Source.
	Dual-Link DVI Source.
	DisplayPort Source.
	SDI / HD-SDI / 3G Source.
	IP-Camera Source. (Wall Control-SQX required).
	If an Icon is displayed with a green surround, this indicates the type of source currently being captured for that particular input.

7.1.2 Wall Control-red - Features and Tools

Wall Control-red has a range of advanced features to enable you to manage your video/display wall either locally or remotely over a network. The following list provides a brief summary of the features and tools contained within the application. However, all the features and tools are documented in depth in the Wall Control-red help file which can be accessed through the **Help** menu or by pressing **F1** when the application is active.

7.1.3 Layout Files

Save and recall specific desktop configurations using layout files. Window properties including the position, size and any On Screen Displays are also saved in layout files.

7.1.4 Offline Configuration

The Wall Control offline layout editor allows layout files to be created and edited without physically displaying any windows on the display wall. Wall Control can be connected offline on either the server machine or a machine without any display wall hardware, for example a laptop.

An offline connection in Wall Control is initiated by opening a configuration file. This file must have been exported from a server machine and will contain a snapshot of the hardware and software configuration on that machine.

7.1.5 Vision and IP Window

Control over presenting captured video and IP camera streams on the display wall. Configure window properties including:

- Position and size of windows
- Aspect ratio enforcement
- Exclude window borders and menu bar
- Create on screen display captions
- Control capture rate

7.1.6 Application Windows

Support for controlling applications such as Internet Explorer, Microsoft Powerpoint. Application can be opened direct from the Wall Control Toolbar, through the Command Line Interface or from previously saved layout files.

7.1.7 On Screen Display (OSD)

Highly configurable OSD function to overlay bitmaps (not on all types of window) and text over Vision and IP-Camera windows. Add descriptions and logos with transparency support and create specific display variables such as frame rates.

7.1.8 Carousel Support

The Carousel function can automatically cycle through configured lists of different inputs for Vision and IP-Camera windows over defined time periods. A double buffering mechanism will automatically start IP-Camera streams prior to the carousel input switch.

7.1.9 Split into Sub-Windows

Divide an active Vision window into sub-windows. Each sub-window will display a cropped portion of the original Vision window.

7.1.10 Audio Support

Control digital and analogue audio content associated with specific Vision windows.

7.1.11 Command Line Interface

Wall Control comes with a powerful Command Line Interface to enable you to automate almost any operation from opening layout files, moving windows around the display wall and changing specific input settings.

7.1.12 Support for Crestron /AMX Controllers

- Remote Command Line Interface for automation via Crestron/AMX Controllers:
- Control the display wall remotely from a Crestron/AMX controller
- Access to the full local Command Line Interface
- Support for RS-232 (via serial cable) and TELNET (via a local network)
- Integrated user interface support to configure and monitor the Remote Command Line

7.2 WallControl 10 (Optional)

WallControl 10 provides users with interface required to quickly and effectively manage content that includes video captures, IP streams and local applications. Users are able to place any input source on any part of the video wall using a simple drag and drop operation. Precise positioning of each piece of content can be achieved through the mouse and keyboard, or via the template tool.

The Template Tool allows users to not only place their own templates across an entire wall which evenly distributes content but WallControl 10 also allows users to apply a template to an individual window so multiple windows can be grouped together and moved as a single item.

WallControl 10 also introduces a tabbed interface that will allow a single user to seamlessly manage multiple video walls, user can see unique walls side by side to ensure things are running smoothly.

WallControl 10 allows multiple walls to be delivered by a single VSN system. Walls in separate areas of a building can be independently driven from a single location. Multiple walls can be easily set up using the WallCreator wizard and if required each wall can be assigned a unique set of sources or video resources.

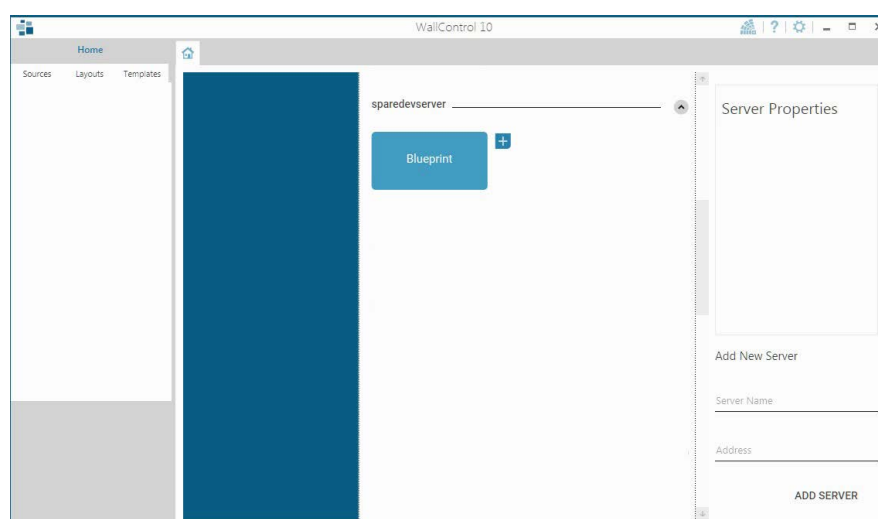


Start | All Programs | WallControl 10 - Server

Before opening the Client and Security Administration Client interfaces you will need to start the Server by clicking on it in the Programs menu. Starting the Server loads both the WallControl 10 Server and the WallControl 10 Security Server. The WallControl 10 Client will only detect servers that are running.

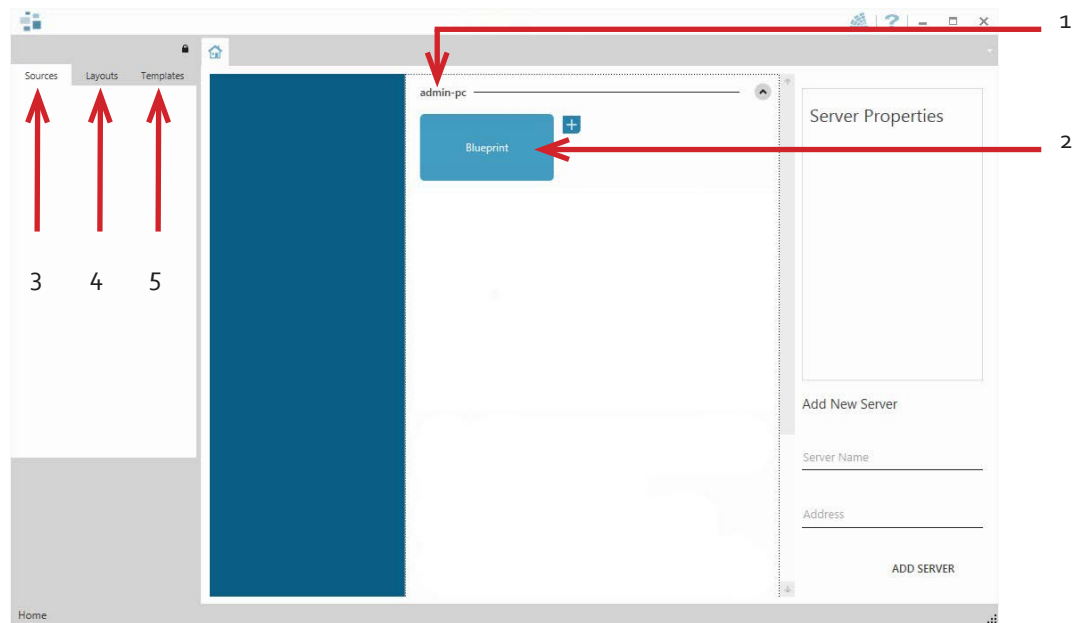


Start | All Programs | WallControl 10 - Client

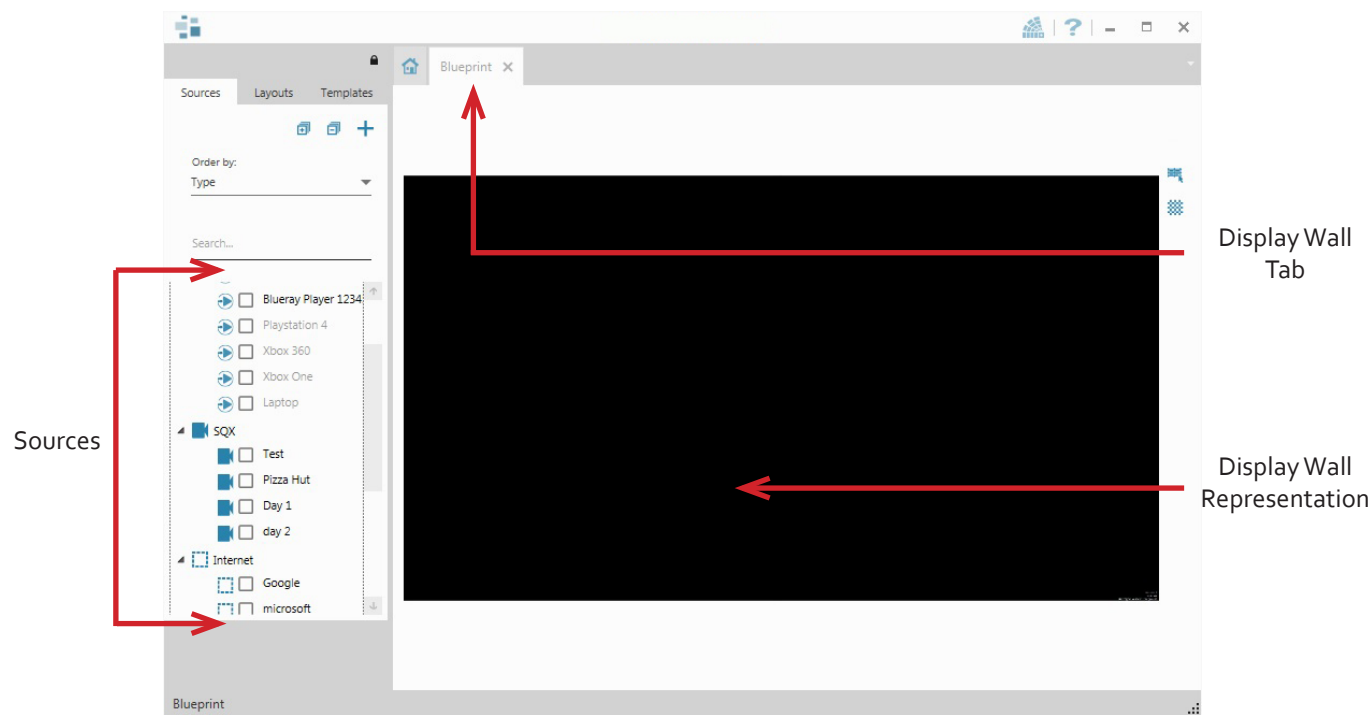


When WallControl 10 is opened for the first time you will be prompted to take a Quick Start Tour of the application. It is strongly recommended that you take the tour prior to using the application.

The WallControl 10 - User Interface



1	Indicates the server you are connected too.
2	A representation of the display wall(s) associated with the server.
3	Sources Tab - Displaying all the sources connected to the server for use on the display wall.
4	Layouts Tab - Used to save, recall and share display wall layout configurations.
5	Templates Tab - Use templates to assist in the design of specific display wall layouts.



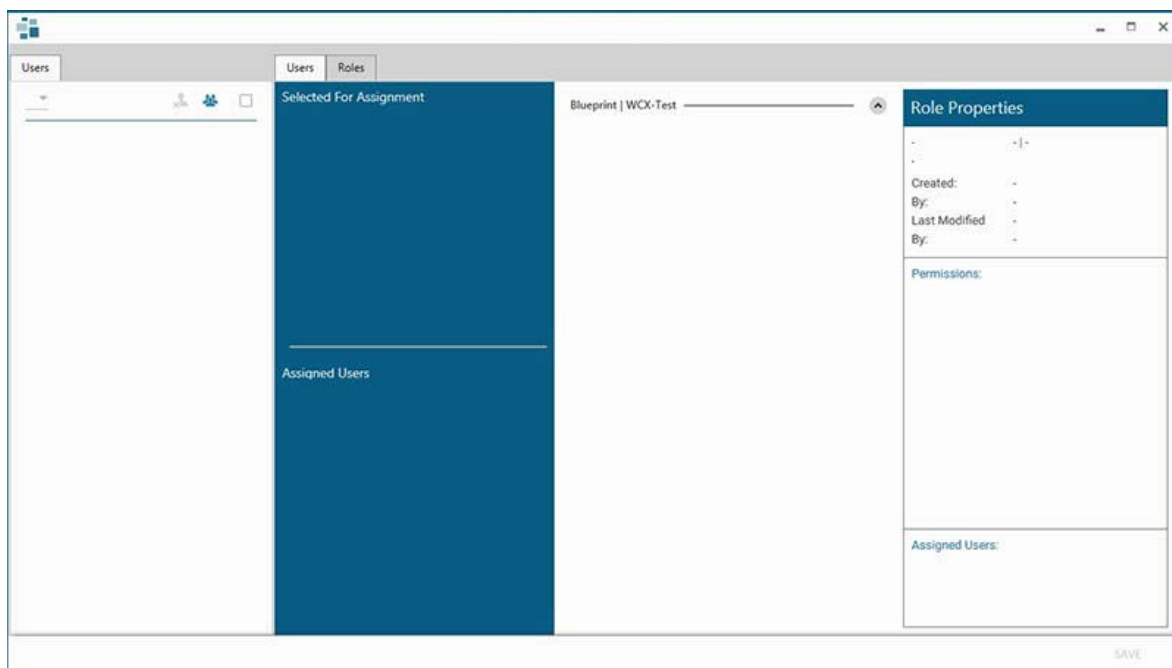
When opened, the display wall tab shows a live representation of the physical wall and the sources available to display on it. To place a source on the video wall, simply click on the required source in the sources tab and drag it onto the display wall representation.

The application help file contains information explaining how multiple sources can be selected, how to use and create templates and how to save, recall and share layout files.

The WallControl 10 - Security Administration Client (Only Available with WallControl 10-Pro)



Start | All Programs | WallControl 10 - Security Administration Client



The WallControl 10 - Security Administration Client allows Administrators to assign specific users to roles on a wall by wall basis. For example, a User can be assigned a role allowing unrestricted access on one wall but assigned a role on another wall which only allows the opening of pre-determined layouts.

Prior to the Security Client being used for the first time, the SecurityOnOff.exe program must be run to enable security protection for the application. To run the SecurityOnOff.exe, ensure you are logged into Windows® with Administrator Rights.

Locate and double click on the SecurityOnOff.exe file:

Program Files (x86) \WallControl 10\ Security Server\SecurityOnOff

A WallControl 10-Pro serial dongle must be inserted into a vacant USB port. If the dongle is removed or swapped, the Security Client will not open and an error message is displayed, therefore it is important the dongle is not removed.

The WallControl 10 Security Application help file contains information on how to:

- Import users from the Windows® Active Directory into the database.
- Create and edit roles.
- Assign permissions to providers, layouts and sources giving specific roles access to them.
- Assign roles to walls.

7.3 Wall Monitor (Optional)

The optional Wall Monitor software application enables you to monitor the temperatures and voltages of the following system components:

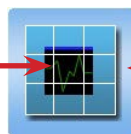
- Backplanes
- Capture Cards
- SQX Cards
- Motherboard
- CPU Cores
- Graphics Cards

Should any overheating or voltage surge be imminent within the system, the Wall Monitor application will alert the user via a pre-configured alarm.

When running, the Wall Monitor application can display a transparent floating icon which can be placed anywhere on the desktop.

Cursor tooltips are available throughout the application offering information and advice. Hover the cursor over different areas of the application to reveal the tooltips. The application also has a help file to assist you, click on any help button or press F1 on your keyboard to access the help files.

Left click the centre of the icon to open the application or right click to display the application menu.



Wall Monitor Icon

Left click and hold on the border of the icon to move it around the desktop.

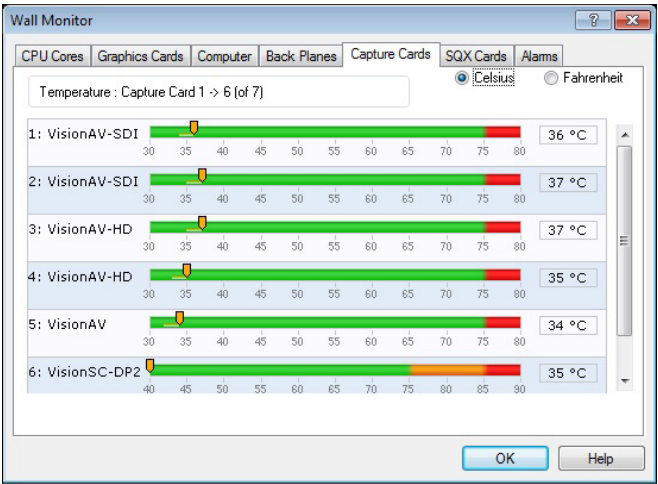
7.3.1 Monitoring System Components

Each of the system components listed above have built in temperature and/or voltage sensors which enables the Wall Monitor application to display any increase or decrease in voltage and temperature. The temperature and voltage ranges are graded as follows:

Green = Normal operating conditions

Amber = An indication that voltages or temperatures are operating outside of normal thresholds and if configured and alarm will activate.

Red = Indicates that the voltages or temperatures have exceeded the acceptable working thresholds and a system shutdown is imminent.



7.3.2 Wall Monitor Application Window

The Wall Monitor application window (above) is displaying the temperature of the capture cards in the system. To view different components, click on the relevant tabs. Temperatures can be displayed in either degrees Fahrenheit or degrees Celsius.

7.3.3 Configuring Alarms

Wall Monitor allows you to configure three types of alarm to warn of impending problems:

System Buzzer - The system buzzer can be configured to determine the amount of time the buzzer will be audible up to a maximum of 5 seconds, an audio alarm is activated within the system. On some systems, speakers may have to be connected.

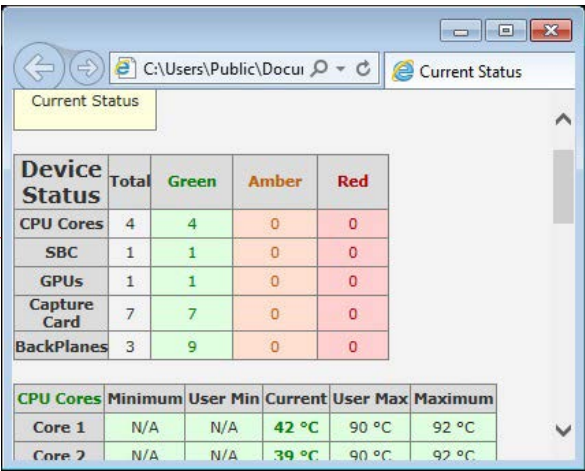
Email - Should you not be in the proximity of your system and email warning can be configured. An email is sent to a nominated email address giving details of impending problems.

On Screen - Text is displayed on screen to warn of impending problems with the system. The Wall Monitor icon adopts an amber border when the alarm is issued.

7.3.4 Current Status

At any time you can check the current status of the monitored components by selecting **Show Current Status in Browser** from the **Application** menu. This will display a browser window, similar to the following:

Summary of the status of all monitored devices



7.4 Vision Application (Optional)

When purchased separately, Vision capture cards are supplied with a powerful software application for configuring the format of input sources and displaying the data.

7.4.1 Video Streaming

DirectShow drivers for WDM Streaming driver supports the following applications, to encode, record and stream video over networks or the Internet:

- Microsoft Media Encoder®
- VLC
- VirtualDub
- Any other DirectShow encoding software

For streaming applications, Vision cards can be used with Windows Media Encoder to compress and stream captured video. To replay the video, use Windows® Media Player.

Any application compatible with Windows® DirectShow technology can use Vision capture cards due to their built-in WDM support.

7.4.2 Vision Software Capabilities

Timestamp support for streaming synchronisation:

- Synchronisation of multiple inputs across multiple cards
- Synchronise systems using network clock synchronisation
- For edge blending and other applications

Flexible and configurable EDID Management:

- Allows programming of custom EDID parameters for capture cards

Low Input to Output Capture Latency.

DMA to third party graphics vendors back and front buffers via Direct3D:

- Compatibility with AMD DirectGMA
- Compatibility with Nvidia GPUDirect

User Mode filter for source selection:

- Enables cropping support in DirectShow on all inputs
- Supports Start and Stop trigger interface on all Vision inputs

Datapath Unified Vision Driver:

- Multiple cards per system, 16 streams per input
- Frame sync and time stamping

- DirectShow interface
- The RGBEasy API for advanced audio and video control
- Fully integrated for use with Datapath Wall Control software for video wall applications

7.4.3 MultiStream

Datapath's MultiStream feature is available on all Datapath capture cards and enables multiple, independently formatted video streams to be set up in parallel.

Each stream can be formatted completely independently and individual selection of resolution, colour space and cropping region can be set for each stream. This maximises bandwidth utilisation of the capture card and PCIe interface, and also simplifies development tasks for application developers who do not need to implement video stream reformatting separately.

7.4.4 Vision Application Overview

The application displays the connected source in a window; it has the following features:

- Scales the data to fit in the window
- Ability to set up sources accurately (settings automatically saved)
- Save a single frame to a file in one of the following formats: BMP, JPEG, GIF, TIFF, PNG
- Print a single frame
- Maintain the aspect ratio of the displayed captured data
- Cropping
- Display text over the data (on-screen display)
- Command line interface
- HDCP supported (not supported in SQX encoding)
- Help file documenting all features

Note:

The supplied drivers and software require you are using :

- Up to and including Windows® 10
- DVD ROM Drive

7.5 Software Utilities

Datapath provides a group of software utilities designed to assist you fine tune your system for specific individual system requirements. All the software utilities can be found on the Recovery Media that was shipped with your system, alternatively, you can download the most up-to-date versions from the Datapath website.

7.5.1 Desktop Utility

Used to define a desktop resolution which can compensate for display bezels or projector overlap.

7.5.2 Custom Mode Utility

A utility for defining custom display timings for video modes not available in the display driver or EDID.

7.5.3 Multi Resolution Configuration Tool (MultiResConfig)

Developed to assist in the design and configuration of a video wall that contains a mixture of multi resolution displays.

7.5.4 Diagnostic Tool (diagtool)

A diagnostic tool that gathers information to assist in diagnosing problems with hardware and software configurations. Information is gathered and compressed into a zip file for onward transmission to the Datapath Support Team.

7.5.5 PCICFG Tool

A diagnostic program that prints out the PCI configuration information. Note, this tool must be run from either a USB or MSDOS boot disk, it cannot be run from Windows®.

7.5.6 Sleep Utility

Designed to generate a pause within a script. This can be used when sequencing the loading of files or application windows.

Chapter 8 - Troubleshooting

8.1 Frequently Asked Questions (FAQs)

8.1.1 I can't Save a Layout file?

The server does not have a USB License Dongle installed and so Wall Control is working in limited Demo mode.

8.1.2 Access is denied

This message means that the attempt to connect to the server application failed because the authentication information provided was not acceptable.

One of the following has occurred:

The user name, the password or the machine/domain that you have entered are not correct. Try entering the details again.

If the machine to which you are connecting is running Windows XP Service Pack 2 and you have not entered a password, you will need to change your account so that you have a password.

If the machine you are connecting to is running Windows XP and it is not participating in a domain, you will need to change the Network Authentication settings on the machine.

8.1.3 RPC Server Unavailable

This message means that the attempt to connect to the server failed.

If you are connecting to My Computer:

Is the server application running?

Did an error occur that prevented the server application starting the RPC server?

Are you using the correct port name?

If you are connecting across a network:

Has the Wall Control-red server been activated?

When Wall Control-red is installed on the server, a serial number must be entered to enable the networking features.

If the server is running Windows XP Service Pack 2, is the firewall blocking the port for the server component? See Windows XP Service Pack 2 .

Is the Wall Control-red server configured for network access?

Is the server application running?

Did an error occur that prevented the server application starting the RPC server?

Are you using the correct port?

If a connection is possible with the Wall Control application either remotely or locally, you can use the Server Application Manager dialogue to find out if the server application has been installed, is running and which port and port name it is using and if an error occurred. In the Wall Control application, go to the Configure menu and select Server Applications.

If a connection is not possible with the Wall Control application, you will need to look at the application event viewer on the Wall Control Server.

8.1.4 The endpoint is a duplicate

This error message suggests that an attempt to open a communication port failed because it is already in use.

If the Wall Control server has not been activated or the networking has been disabled in the Wall Control Administrator dialogue or Wall Control has not been activated, the problem is with the port name.

If networking is enabled, the problem could be with either the port number or the port name.

You can find out the port number and the port name that the server application is using through the Server Application Manager dialogue or the application event viewer.

You can find out which port numbers are in use on a machine with the netstat command. There is no way to find out which port names are in use.

Use **Wall Control | Configure Menu | Server Application Manager** to change the port number and/or port name and restart the server application.

8.1.5 The remote procedure call failed and did not execute

This is displayed when trying to contact a server application that has been stopped after it had been connected to successfully. Go to the Server Application Manager dialogue and start the server application again.

8.1.6 Changing Screen Resolution

Prior to making any changes to the resolution, it is recommended that the Vision server be stopped beforehand. This can be done using **Wall Control | Configure Menu | Server Application Manager**.

The servers retain resources on the graphics card which may not be available if the resolution is changed.

8.1.7 How do I connect a remote command controller via RS-232 or IP-Telnet? E.G. Crestron or AMX controllers.

Support for RS-232 and IP remote control of Datapath machines is provided through our Wall Control - red software. This package includes a 'remote command line interface' that can be used to select and configure the required method of control. This can be accessed under the 'Configure->Remote Command Line' menu option while Wall Control is connected to the server. Once configured, the Wall Control program does not need to remain open and the system will process remote commands until the configuration is changed.

In order to use the remote command line you must first select the required method of control via the 'Active Server' drop down list in the 'remote command line' dialogue. This allows you to select between 'Com Port Command Line Interface' (RS-232) and 'Telnet Command Line Interface' (IP network based control). Once a server has been selected, its settings can be configured by pressing the 'Settings' button and it must also be enabled via the 'Enabled' checkbox; the server specific settings include options such as ports and transmission speed. Once the selected server has been activated then the 'Status' on the 'Remote Command Line' dialogue should change to 'Connected'. At this point the software should be ready to receive remote commands and the Wall Control software can then be closed.

RS-232 and Telnet commands can be sent by any suitable remote device, including Crestron Controllers or PCs. Please note that we do not provide any client software or support for the configuration or usage of these remote devices themselves though.

The commands sent to the controller via the remote command line interface should be in the format of Wall Control's local command line interface. The command usage includes the ability to open and close layout files, manipulate individual windows properties and to change capture sources. These commands, which are detailed in the help file topic 'Command Line Interface', can be tested by executing them locally on the server machine via the Windows command prompt 'CMD.EXE'. When using the 'Com Port Command Line', each command will be executed when a carriage return or line feed character is encountered. For Telnet, a carriage return immediately followed by a line feed is used to signify that the command should be executed. When testing usage of the remote command line, the 'Monitor' window in the 'Remote Command Line' dialogue will display all commands as they are received.

Full information on usage of the Remote Command Line interface can be found in the Wall Control help file by either searching for 'remote command line' or pressing the 'Help' button on the 'Remote Command Line' dialogue itself.

8.1.8 When I recall a Fire Fox or Chrome web browser page, the window is not positioned where I saved it?

Wall Control only supports Internet Explorer. Full functionality is not available using any other web browser.

8.2 Technical Support

Registered users can access our technical support using email and the Support Enquiry Form on our website, usually with a response within 24 hours (excluding weekends).

8.2.1 Email

Send an email to support@datapath.co.uk with as much information about your system as possible. To enable a swift response our support team will need to know the following details:

- Specification of the PC - including processor speed.
- Operating system.
- Application Software.
- Datapath Hardware/Software.
- The exact nature of the problem - please be as specific as possible.

Please quote version and revision numbers of hardware and software wherever possible.

8.2.2 Support Procedures

During the support process you may be asked by one of our support staff to carry out certain tasks and procedures to assist them in solving any problem you may encounter. Details and up to date instructions can be found in the support section of the Datapath website.

Chapter 9 - Maintenance

9.1 Filter Maintenance

The system filter is an integral part of the wall controller and as such it needs to be maintained correctly. Failure to maintain the filter can result in the system overheating and causing it to fail. In normal operating conditions the filter should be removed and cleaned every 3 months. However, this 3 month period is a guide only and it can be increased to every 6 months or decreased to one month depending on the levels of dust in the environment the system is operating in.

It is recommended that the condition of the filter is checked at regular intervals.

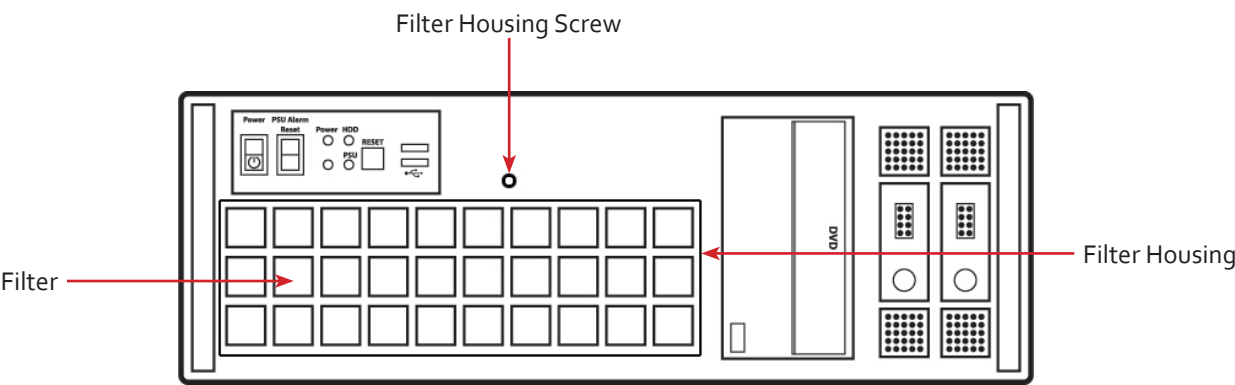
The filter can be removed and cleaned whilst the system is in operation, system shut-down is not necessary.

Note:

Failure to maintain the system filter could result in damage to your system and invalidate the warranty.

9.1.1 Remove the Filter

Open the front panel door and locate the filter housing screw, remove the screw and lift the filter housing away from the front panel.



Remove the filter from the housing and shake it to remove any dust particles, this should not be done in close proximity to the system to avoid dust ingress. Ideally, the filter should be cleaned using a vacuum cleaner.



Note: The filter should never be immersed in water or any other cleaning liquid.

For advice on replacement filters, please contact Datapath Ltd.

Chapter 10 - Environmental

10.1 Certification and Compliances

10.1.1 CE



EU- Class A Declaration of Conformity

Datapath Ltd declares that this VSN Wall Controller complies with the essential requirements and other relevant provisions of Directives 2014/30/EU, 2014/35/EU and 2011/65/EU.

A copy of our Declaration of Conformity is available on request:

Datapath Ltd
Bemrose House
Bemrose Park
Wayzgoose Drive
Derby, DE21 6XQ
United Kingdom

10.1.2 FCC

These devices comply with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) These devices may not cause harmful interference, and (2) these devices must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.



Caution. Changes or modifications to the equipment not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

10.1.3 Disposal

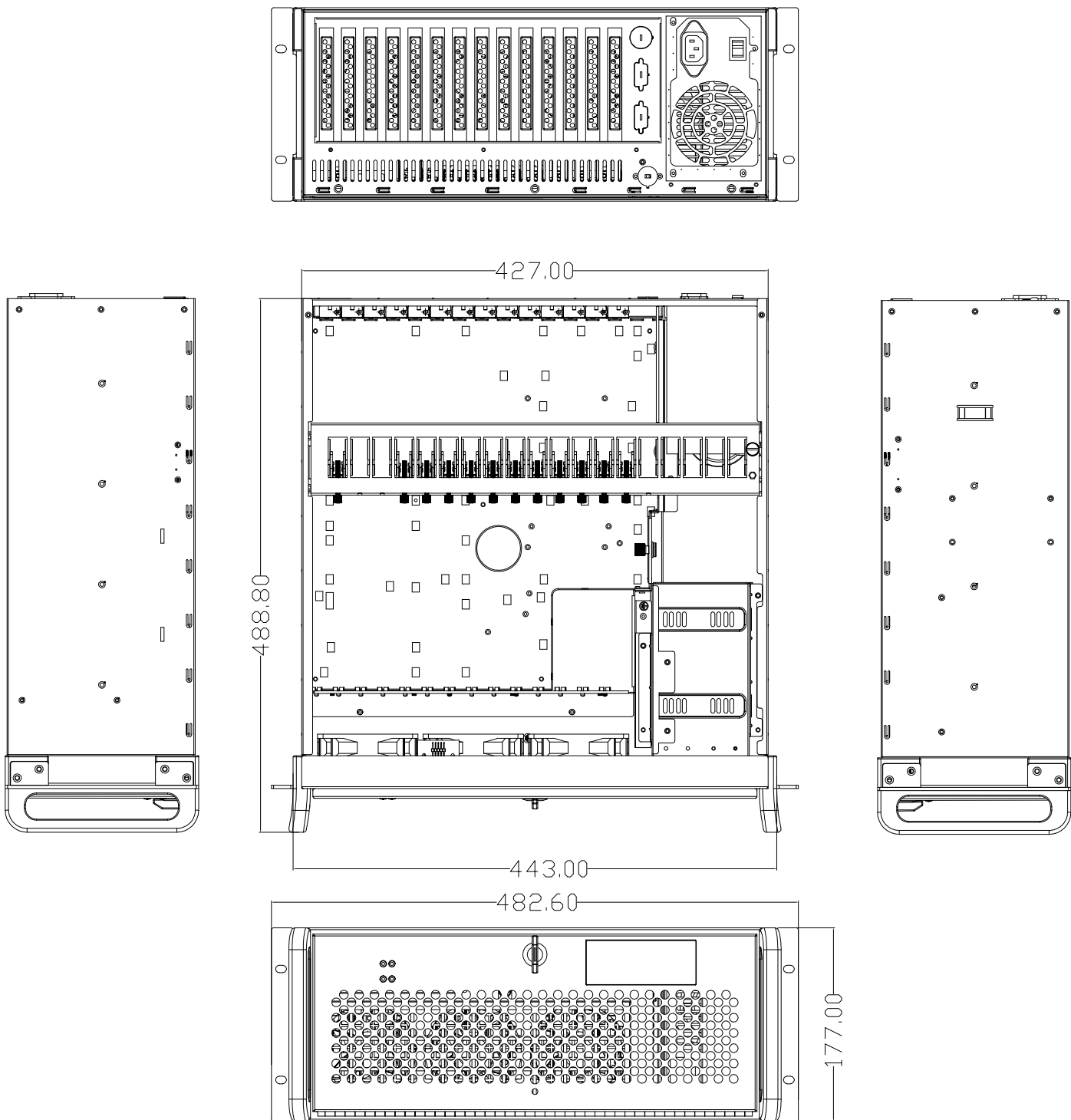
At the end of life all Datapath products should be disposed of as per local laws and regulations dictate. In the UK contact Datapath to arrange disposal. Our WEE registration number is WEEE/AA0005ZR.

Chapter 11 - Specifications

This chapter will cover:

- Technical drawings of the chassis
- Technical specification of the VSN450/VSN470

11.1 Technical Drawings



11.2 Technical Specification - VSN450/VSN470

19" 4U Industrial PC chassis
Dimensions (approx) Length 500mm (incl handles, Height 177mm, Width 481mm (incl mounting brackets)
Four slot ASUS Core i5 motherboard - VSN450 Four slot ASUS Core i7 motherboard - VSN470
8GB 1333Mhz DDR3 Non-EEC registered system memory - VSN450 16GB 1333Mhz DDR3 Non-EEC registered system memory - VSN470
4 x PCIe 3.0/2.0 x 16 or x16/x8/x8 or quad x8*
Multi-VGA Output support: HDMI/DisplayPort/Mini DisplayPort
Two 750GB Western Digital Red removable SATA hard drives - RAID 1
One DVD/RW combo drive
Dual 10BASE-T/100BASE-TX/BASE-T Ethernet PCI Express x1 interface based Gigabit Ethernet Dual RJ-45 connector with two LED indicators
500 Watt ATX Power supply, or 600 Watt Dual Redundant RPSU - VSN450 600 Watt RPSU Power Supply - VSN470
Includes keyboard and mouse
Windows 7 Ultimate 64bit,
Operating temperature: 0 to 35 Deg C
Weight - 19 to 25Kgs, Shipping Weight - 30 to 35 Kgs

Chapter 12 - Warranty

12.1 Warranty Statement

Datapath provides a return to manufacturer warranty on all its products for a standard 36 month period, see the table below for non standard warranty periods. It is important that RMA procedures are followed prior to products being returned as often issues can be resolved quickly without the need for products being returned.

Component	Standard 36 Month Warranty	12 Month Warranty
Image DP4+ Graphics Cards	X	
Vision Capture Cards (including ActiveSQX)	X	
Power Supply Units		X
Hard Drives, RAM, Fans		X

12.2 RMA Returns Policy

If your Datapath product is not working as you expect, we recommend that you contact Datapath Ltd in the first instance for support, since many issues that may first appear as hardware faults, are actually installation or set-up problems and can normally be resolved without having to ship any hardware back to us. This route is therefore often the quickest, easiest and cheapest way of solving the problems that you are experiencing. Please email support@datapath.co.uk including as much detail regarding the failure as possible (for example: system description, signal types, input or output resolutions and any other relevant background information).

It is essential for you to know the serial number of the product(s) when contacting us.

If it appears that the fault is most likely to be hardware related, please email rma@datapath.co.uk stating the serial number and as much additional information regarding the nature of the failure as possible. Detailed explanation of the fault will help us to better identify the problem and will direct additional focused testing if necessary. We will then issue an "RMA Number" to you.

At the time that the "RMA Number" is issued we will inform you of the warranty status of the product and the cost of the repair, if appropriate - see paragraph (b) below. The product should then be returned, at your cost, too Datapath Ltd following the steps below.

There are 4 possible scenarios when a product is returned to us:

- (a) The product is in warranty and is either found to be genuinely faulty or no fault is found. In these cases, the product will be repaired as necessary, or replaced by a new or previously repaired product, and returned to you at our cost.
- (b) The product is out of warranty and is found to be faulty. The product if possible will be repaired or replaced at fixed cost, as stated in the RMA authorisation email. To cover this payment, you will be required to either provide a Purchase Order or Credit Card details, when the product is returned to us. (However, we will not issue an invoice or charge the credit card until the repair has been completed and is about to be returned to you)
- (c) The product is in warranty but is found to be damaged by misuse. This will be treated as (b) above.
- (d) The product is out of warranty and is obsolete. In the unlikely situation that the product can be neither repaired nor replaced, because some of it's components are obsolete and we have no swap-out stock left, then the product will either be returned to you, or disposed of at your request, with no charge.

PLEASE NOTE: Datapath will not accept responsibility for the safety, integrity or security of any programmes, data or other content held on hard drives or any other type of rewritable media which is sent to us either separately or as part of any equipment returned to us for repair or for any other purpose. Customers are advised to take back-ups of anything that they deem to be valuable or important before returning the equipment to us and anything which is confidential should be erased from the media before it's returned.

Once the RMA Number has been issued, you need to raise your Purchase Order, or supply your credit card details, and return the product to: Datapath Ltd, Bemrose House, Bemrose Park, Derby DE21 6XQ, United Kingdom - securely packed and with the RMA Number clearly displayed on the outside of the box. To prevent unnecessary carriage and handling please only send back products or accessory items you believe to be faulty.

In the case of paragraph (c) , the fixed charge will be levied after we have seen the product and identified the misuse. In this case we will request you to issue a purchase order or provide credit card details before any repairs are completed.

Our policy is to return the repair (or swap-out) to you within 10 days of receipt.

Chapter 13 - Advanced Users

This chapter is aimed towards advanced users and covers the following:

- Wall Control Command Line Interface
- Software Development Kit (SDK)?
- RAID
- ImageDP4 Video BIOS
- Replacing Cards
- Updating Firmware
- System Recovery

13.1 Command Line Interface

13.1.1 Wall-Control-red

The Wall Control-red command line interface allows you to open layout files.

Example Usage

- Open the Layout file "c:\layouts\layout.lay" and exit without showing the Wall Control-red application window.
`"C:\Program Files (x86)\Wall Control\wallctl.exe" -Layout="c:\layouts\layout.lay" -exit`
- Connect to a computer named VideoWall and close all existing windows.
`"C:\Program Files (x86)\Wall Control\wallctl.exe" -Machine=VideoWall -CloseWindows=Yes`
- Connect to a computer named VideoWall without showing the Wall Control-red application window and save the configuration to a layout file named "c:\layouts\snapshot.lay".
`"C:\Program Files (x86)\Wall Control\wallctl.exe" -Machine=VideoWall -Save="c:\layouts\snapshot.lay" -exit`

Commands

-Layout=*layout file*

- This command line argument specifies the layout file to be loaded.
- If the layout file name or path contains spaces then enclose the path in quotes, for example:
`-layout="C:\Documents and Settings\user\Desktop\file.lay"`
- -layout is not compatible with -machine.

-Exit

- When used with the -layout option, -Exit will cause the Wall Control-red application to load the layout file without the application window being displayed and to terminate once the layout file has been loaded.
- Use this option to open a layout file without displaying the Wall Control-red application.
- When -Exit is specified on the command line, an exit code is returned.

-Quiet

- Used in conjunction with -Exit to suppress user interface dialogue boxes.

-CloseWindows={Yes|No}

- Use -CloseWindows=Yes to close existing windows.
- Use -CloseWindows=No to keep existing windows open.
- When the -layout command line option is specified, the default value for -CloseWindows is Yes.
- When the -machine command line option is specified, the default value for -CloseWindows is No.

-ShowState={Minimised|Restored|Maximised}

- Controls the appearance of the Wall Control-red application window.

-Window=[top],[left],[width],[height]

- This option enables the Wall Control-red application window to be positioned.
- If a number is left out of the list then the value saved when the application was last terminated is used.
- To change the position of the window without changing the size:

```
-window=100,200
```

- To change the size of the window without changing the position:

```
-window=, ,800,600
```

-AlwaysOnTop={True|False}

- This sets the Always on Top state of the Wall Control-red application window.
- To enable the window to behave normally, the value should be set to false.
- To force the window to be displayed on top of all other normal windows the value should be set to true.
- 1 or on can be substituted for true.
- 0 (zero) or off can be substituted for false.

-Save= *Layout file*

- Allows the saving of a layout file from the command line. It's not compatible with the -layout or -closewindows options but can be used with -exit

Networking Options

To control a machine other than the one you are working on you will need some of the following options:

-Machine=*{machine name|IP address}*

- This option specifies the machine to connect too.
- If the machine name contains spaces then enclose the name in quotes, for example:

`-machine="My Computer"`

- You can also specify an IP address, for example:

`-machine=10.0.0.21`

- `-machine` is not compatible with `-layout`.

If the server requires a User Name and Password the following options should be used:

-UserName=*user name*

Password=*password*

If the machine is not participating in a domain, the account must be on the machine you are connecting to.

If the machine is participating in a domain, you have a choice:

- The account can be on the machine you are connecting to.
- It can be an account on the domain.

If the account is on the domain, the domain name must be specified with the following option:

-Domain=*domain name*

-Port=*port number*

You need specify the port if you are attempting to connect to another machine and Wall Control-red has been configured to listen on a port other than the default port.

A port number is any integer between 1 and 65535.

13.1.2 IP Camera

The command line interface allows you to create, modify or close IP-Camera windows. The command line interface can be accessed in a number of ways:

- From a shortcut specifying IPCAMCMD.EXE as the target followed by the command line options separated by spaces.
- From a command prompt by specifying the full path of IPCAMCMD.COM or by having the folder where the IP-Camera software was installed on the path.
- From a batch file. The same rules as command prompt apply.

-ID=*number*

- When a window is created it can be allocated an ID. To modify or close a window, specify its ID so the correct window is modified or closed.
- An ID is any integer between 1 and 65535. The ID is specific to IP-Camera windows.

-Input=*camera name*

- Specifies the name of a camera. This camera must already have been configured in Wall Control

-Close

- If this command line option is specified with an ID, the window with that ID is closed.

-ShowState={Minimised|Restored|Maximised|Show|Hide}

- Sets the show state of the window.
- To activate a window use Restored.

-AlwaysOnTop={On|Off}

-AspectRatio=[{On|Off}],*[width]*,*[height]*

- Switch the maintain aspect ratio feature on or off and specify the ratio of the width and height of the window.
- All the values are optional but the commas must be used.

-Caption=

- Set the caption of the window. To include spaces, enclose the string in double quotes (").

-ShowFrameRate={On|Off}

- Display or remove the current frame rate in the title bar,

-ShowMenuBar={On|Off}

- Use to specify if the menu bar is to be displayed.

-Window=[*top*],*[left]*,*[width]*,*[height]*

- Change the position and size of the window.
- All the values are optional but the commas must be used.

-WindowStyle={BorderAndTitleBar|BorderOnly|NoBorderOrTitleBar}

The following command line options allow changes to the appearance of the IP-Camera source. The numbers correspond to the values displayed on the Input Settings sheet.

Networking Options

To control a window on a machine other than the one you are working on you will need some of the following options:

-Machine={*machine name*|*IP address*}

- Use this option to specify the machine to connect to.

-Port=*port number*

- You need to specify the port if you are attempting to control a window on another machine and the server has been configured to listen on a port other than the default port 1049.

- A port number is any integer between 1 and 65535.
- If the server requires a User Name and Password, the following options should be used:

-UserName=*user name*

-Password=*password*

If the machine is not participating in a domain, the account must be on the machine you are connecting to.

If the machine is participating in a domain you have a choice:

- The account can be on the machine you are connecting to.
- It can be an account on the domain.

If the account is on the domain, the domain name must be specified with the following option:

-Domain=*domain name*

13.1.3 Vision Windows

The Vision command line interface allows you to create, modify or close Vision windows.

-ID=number

- When a window is created it can be allocated an ID. To modify or close a window, specify its ID so the correct window is modified or closed.
- An ID is any integer between 1 and 65535. The ID is specific to Vision windows.

-Close

- If this command line option is specified with an ID, the window with that ID is closed.

-ShowState={Minimised|Restored|Maximised|Show|Hide}

- Sets the show state of the window.
- To activate a window use Restored.

-AlwaysOnTop={On|Off}

-AspectRatio=[{On|Off|Source}], [width], [height]

- Switch the maintain aspect ratio feature on or off and specify the ratio of the width and height of the window.
- If Source is specified, the width and height of the source are used as the aspect ratio.
- All the values are optional but the commas must be used.

-Caption=

- Set the caption of the window. To include spaces, enclose the string in double quotes (").

-ShowFrameRate={On|Off}

- Display or remove the current frame rate in the title bar,

-ShowMenuBar={On|Off}

- Use to specify if the menu bar is to be displayed.

-Window=[top], [left], [width], [height]

- Change the position and size of the window.
- All the values are optional but the commas must be used.

-WindowStyle={BorderAndTitleBar|BorderOnly|NoBorderOrTitleBar}

-ExcludeBorders={On|Off}

-DisplayMessageAfter=time in milliseconds

-CaptureFormat={Automatic|5-5-5|5-6-5|8-8-8}

-TransferData={ViaSystemMemory|DirectToGraphicsCard}

-Scaling={Fast|Slow}

-ActiveCaptureRate=percentage

- Select one of the following percentages: 1, 5, 10, 15, 20, 25, 33, 50 or 100. If you use a number that is not in the list, it will be rounded down to the closest number lower in the list.

-InactiveCaptureRate=percentage

- Select one of the following percentages: 1, 5, 10, 15, 20, 25, 33, 50, 100. If you use a number that is not in the list, it will be rounded down to the closest number lower in the list.

-DifferentCaptureRate={On|Off}

-Input=input number

-Reset

- Discards the capture settings for the mode the Vision source is currently generating.

-ShareCaptureSettings={On|Off}

- With ShareCaptureSettings switched on, the changes made to the capture settings controls are shared with other Vision windows. The capture settings are saved automatically so that the next time a Vision window is created, the capture settings can be used.
- With ShareCaptureSettings switched off, the changes made to the capture settings controls are applied to this Vision window only.
- When switching ShareCaptureSettings on, the capture settings for the Vision window will be discarded.
- By default, ShareCaptureSettings is switched on.

-Cropping=[{On|Off}], [top], [left], [width], [height]

-Deinterlace={Weave|Bob|Fieldo|Field1}

- Select Weave for sources with little or no motion.
- Select Bob for sources displaying motion.
- Select Field for a single field to be displayed.

The following command line options allow changes to the appearance of the Vision source. The numbers correspond to the values displayed on the Input Settings sheet.

-CaptureWidth=number

-CaptureHeight=number

-HorizontalPosition=number

-HorizontalSize=number

-Phase=number

-VerticalPosition=number

-BlackLevel=number

-Brightness=number

-Contrast=number

-Saturation=number

-Hue=number

-Rotation={0|90|180|270}

- Sets the orientation for the current input signal.

-Information

- Creates a text file called information.ini in the current directory. The file contains details of the minimum and maximum values and supported features that can be used with the command line.
- The information.ini file is over written every time the –information is used.

-CursorStyle=Show

- Always shows the cursor within the client area of the window

-CursorStyle=Hide

- Always hide the cursor within the client area of the window

-CursorStyle=HideWhenActive

- Only hide the cursor within the client area of the window when the window is the active window on the desktop.

Networking Options

To control a window on a machine other than the one you are working on you will need some of the following options:

-Machine={machine name|IP address}

- Use this option to specify the machine to connect to.

-Port=port number

You need specify the port if you are attempting to control a window on another machine and the Vision server has been configured to listen on a port other than the default port 1049.

A port number is any integer between 1 and 65535.

If the server requires a User Name and Password, the following options should be used:

-UserName=user name

-Password=*password*

If the machine is not participating in a domain, the account must be on the machine you are connecting to.

If the machine is participating in a domain you have a choice:

- The account can be on the machine you are connecting to.
- It can be an account on the domain.

If the account is on the domain, the domain name must be specified with the following option:

-Domain=*domain name*

13.1.4 Application Windows

The command line interface allows you to create, modify or close Application windows, it can be accessed in a number of ways:

- From a shortcut specifying APPCMD.EXE as the target followed by the command line options separated by spaces.
- From a command prompt by specifying the full path of APPCMD.COM or by having the folder where the software was installed on the path.
- From a batch file. The same rules as command prompt apply.

Non-Configured Applications

The command line interface can be used to control windows for third-party applications that have not been specifically configured in . See Starting Non-Configured Applications below.

Configured Applications

An abbreviated version of the command line is available for starting applications that are already configured in Wall Control. See Starting Configured Applications below. This includes pre-supported applications automatically configured during installation and also custom applications added by the user after installation. See Configuring Applications in Wall Control .

Example Usage – Configured Applications

- Open the Internet Explorer application 'iexplore.exe with the configured input ID 1.
`"C:\Program Files (x86)\Wall Control\appcmd.exe" -AppName="Internet Explorer" -Input="Search" -ID=1`
- Dynamically switch input for an Internet Explorer window with the ID of 1.
`"C:\Program Files (x86)\Wall Control\appcmd.exe" -ID=1 -Input="News"`

Example Usage – Non-Configured Applications

- Open the application 'notepad.exe' to display the file "c:\info.txt".
`"C:\Program Files (x86)\Wall Control\appcmd.exe" -AppName="notepad.exe" -CmdArgs="c:\info.txt"`
- Open the Internet Explorer application 'iexplore.exe' with the URL "http://www.google.com" and assign the ID 1.
`"C:\Program Files (x86)\Wall Control\appcmd.exe" -AppName="C:\Program Files\Internet Explorer\iexplore.exe" -CmdArgs="-nomerge http://www.google.com" -ID=1`

- Dynamically switch inputs for an Internet Explorer window with the ID of 1.

"C:\program files (x86)\Wall Control\appcmd.exe" -ID =1 -CmdArgs="http://www.google.com/news"

- Move the application window with the ID 1 to the origin of the desktop without changing its size.

"C:\Program Files (x86)\Wall Control\appcmd.exe" -ID=1 -Window=0,0,,

- Close the application with the ID 1.

"C:\Program Files (x86)\Wall Control\appcmd.exe" -ID=1 -Close

-ID=number

- When a window is created it can be allocated an ID. To modify or close a window, specify its ID so the correct window is modified or closed.
- An ID is any integer between 1 and 65535. The ID is specific to windows.

-Close

- If this command line option is specified with an ID, the window with that ID is closed.

-ShowState={Minimised|Restored|Maximised|Show|Hide}

- Sets the show state of the window. To activate a window use Restored.

-AlwaysOnTop={On|Off}

-ShowMenuBar={On|Off}

- Use to specify if the menu bar is to be displayed.

-Window=[top],[left],[width],[height]

- Change the position and size of the window.
- All the values are optional but the commas must be used.

-WindowStyle={BorderAndTitleBar|BorderOnly|NoBorderOrTitleBar}

Starting Non-Configured Applications

A non-configured application involves any application that has not been added to Wall Control's list of configured applications: See Configure Applications.

-AppName="application name"

- The full path of the application must be specified (eg. "C:\Program Files\Internet Explorer\iexplore.exe")

-CmdArgs="Command line arguments"

- Specifies optional parameters for the application. Many applications accept the name of a file to be opened. For details of command line arguments, refer to your application documentation.
- -CmdArgs can only be used in conjunction with -AppName for non-configured applications. If -AppName contains the name of a pre-configured or custom application then -Input should be used instead.

-CmdArgs="File=\"C:\My Pictures\picture.jpg\""

Starting Configured Applications

Configured applications include pre-supported applications automatically added during Wall Control installation and custom applications added by the user after installation: See Configure Applications.

-AppName="application name"

- The name of a pre-configured or custom configured application in Wall Control must be specified (eg. "DGCPlay").

-Input="input name"

- The input name must specify the name of an input that has been configured for the application (eg. "FilmClip1").

Networking Options

To control a window on a machine other than the one you are working on you will need some of the following options:

-Machine={machine name|IP address}

- Use this option to specify the machine to connect to.

-Port="port number"

- You need specify the port if you are attempting to control a window on another machine and the Application server has been configured to listen on a port other than the default port 1049.
- A port number is any integer between 1 and 65535.
- If the server requires a User Name and Password, the following options should be used:

-UserName="user name"

-Password="password"

If the machine is not participating in a domain, the account must be on the machine you are connecting too.

If the machine is participating in a domain you have a choice:

- The account can be on the machine you are connecting to.
- It can be an account on the domain.

If the account is on the domain, the domain name must be specified with the following option:

-Domain="domain name"

Dynamically Switching Inputs for Configured Applications

The -Input command can be used to change the input displayed in a window for a configured application without closing and re-opening either the window or the application. This is an application specific feature that requires the window to be in a visible state and not obstructed by other windows on the desktop.

-Input="input name"

- The input name must specify the name of an input that has been configured for the application that owns the window.
- The -Input switch must be used with the -ID switch to specify the target window.

Example of dynamically switching the input for an Internet Explorer window with the ID of 1.

```
"C:\Program Files (x86)\Wall Control\appcmd.exe" -ID=1 -Input="News"
```

Dynamically Switching Inputs for Non Configured Applications

-CmdArgs can be used to change the open file/URL displayed in a window for a non configured application without closing and re-opening either the window or the application. This is an application specific feature that requires the window to be in a visible state and not obstructed by other windows on the desktop.

-CmdArgs="File pathname or URL"

- The value in -CmdArgs must specify the full pathname or URL.
- -CmdArgs must be used with the -ID command to specify the target window.
- The value in -CmdArgs should only include the pathname/URL and should not include any application specific commands that were used to start the application.

Example of dynamically switching inputs for an Internet Explorer window with the ID of 1.

```
"C:\program files (x86)\Wall Control\appcmd.exe" -ID =1 -CmdArgs="http://www.google.com/news"
```

13.1.5 On Screen Display

-OSDType={Disabled|SimpleText}

- Switches the OSD on or off

-OSDText=

- Specifies the on screen display text.
- If the text includes spaces, the text must be enclosed in double quotes.
- Line breaks are indicated by the characters \n. If you wish to include a \ in the text, it must be preceded by a \.

For example -OSDText="The quick\nbrown fox\njumps over\nthe lazy dog." Gives the on screen display:

The quick

brown fox

jumps over

the lazy dog

-OSDScaling={FixedSize|ScaleWithWindow}

- Allows you to specify how the OSD is scaled. When FixedSize is specified, the OSD is displayed at the same size regardless of the size of the window. When ScaleWithWindow is specified, the OSD is scaled up or down according to the size of the window.

-OSDFontName=font name

- Specifies the name of the font to be used for OSD text. If the font name includes spaces, the name must be enclosed in double quotes.

-OSDFontSize=number

- Specifies the point size of the font to be used for OSD text.

-OSDFontStyle={Regular|Bold }

-OSDFontItalic={On|Off}

-OSDFontStrikeout={On|Off}

-OSDFontUnderline={On|Off}

-OSDFontColour=red,green,blue

- Specifies the colour of the text in red, green and blue components. Each of the components is a number from 0 to 255.

-OSDBackground={Transparent|Opaque}

- When Transparent is specified, the Vision capture in the area behind the text is visible.
- When Opaque is specified the area behind the text is displayed in the colour specified using the OSDBackgroundColour option.

-OSDBackgroundColour=*red,green,blue*

- When OSDBackground is set to Opaque, this option specifies the colour displayed behind the text in red, green and blue components. Each of the components is a number from 0 to 255.

-OSDMargins=[*top*],[*left*],[*right*],[*bottom*]

- The margins define the area in which OSD is displayed.
- If ScaleWithWindow is specified, the margins are measured in pixels of the Vision source. If FixedSize is specified, the margins are measured in pixels of the interior of the Vision window.
- Any part of the OSD that falls outside the margins is not displayed.

-OSDTextWrap={*On*|*Off*}

- When text wrapping is switched on, if the text does not fit between the left and right margins, spaces between words are replaced with line breaks to produce shorter lines.
- When text wrapping is switched off, the text is displayed with the same spaces and line breaks as it has been entered.

-OSDHorizontalAlignment={*Left*|*Centre*|*Right*}

- If you specify Left, the left edge of the OSD will be positioned against the left margin and each of the individual lines will be left aligned.
- If you specify Centre, the centre of the OSD will be positioned half way between the left and right margins and each of the individual lines will be centred.
- If you specify Right, the right edge of the OSD will be positioned against the right margin and each of the individual lines will be right aligned.

-OSDVerticalAlignment={*Top*|*Centre*|*Bottom*}

- If you specify Top, the top edge of the OSD will be displayed against the top margin.
- If you specify Centre, the centre of the OSD will be positioned half way between the top and bottom margins.
- If you specify Bottom, the bottom edge of the OSD will be displayed against the bottom margin.

13.1.6 Audio

The Audio command line interface controls analogue, digital and line out audio streams.

-AudioEnable={*On*|*Off*}

- Enable or disable for the specified window.

-AudioFocusMute={*On*|*Off*}

- Use to mute audio for the specified window unless it has focus.

-AudioLineOutMute={*On*|*Off*}

- Mute line out in hardware.

-AudioLineOutGain=*gain*

- Specify the numeric gain value to be applied to the line out.

-AudioLineOutSource={Digital|Analog}

- Set line out source to as digital or analogue line out source .

-AudioDigitalMute={On|Off}

- Mute digital input in hardware.

-AudioDigitalPair={0|1|2|3}

- Select the stereo channel pair sampling for a digital input.

0: 0-1

1: 2-3

2: 4-5

3: 6-7

-AudioUnbalancedMute={On|Off}

- Mute unbalanced input in hardware.

-AudioUnbalancedGain= gain

- Specify the numeric gain to be applied to the unbalanced input.

-AudioBalancedMute={On|Off}

- Mute balanced input in hardware.

-AudioBalancedBoost={On|Off}

- Add a 20dB boost to the balanced input.

-AudioBalancedGain= gain

- Specify the numeric gain to be applied to the balanced input.

-AudioADCMute={On|Off}

- Mute the output mixer in hardware.

-AudioADCGain= gain

- Specify the numeric gain to be applied to the output mixer.

13.2 Verify RAID

To verify the RAID set up on your Wall Controller follow these instructions.

13.2.1 Enter the BIOS Setup

Restart the Wall Controller and press the keyboard delete button when the Boot-Up splash screen is displayed. This will direct you to the BIOS Setup Utility.

Use the keyboard arrows to navigate across to the Advanced Tab:

- Confirm that **Configure SATA#1** is set to RAID.
- Press F10 to save and exit the BIOS Utility.

When the wall controller restarts press CTRL+i at the BIOS splash screen to enter the RAID BIOS utility.

13.2.2 Degraded RAID Array

If a RAID array degrades this does not necessarily mean that the hard drive or any other hardware within the system is faulty. What it does mean is that there is an inconsistency in DATA across the array. This could be caused by many different factors including a BSOD, the system hanging, an application conflict or power outage.

As stated above, the degrade of a RAID array does not necessarily mean hardware failure but should the problem occur on a regular basis then further diagnostics should be performed/undertaken. It is recommended, as with any system, that regular backups are made to safeguard information.

If a RAID array is degraded take note of the physical port number and the drive serial number of the degraded disk. The degraded disk will normally be highlighted with an error in red in the RAID BIOS Utility. Working drives are normally set to green.

Use the keyboard arrow keys and navigate to Reset disks to Non-RAID and press enter.

Use the keyboard arrow keys to select the degraded disk and press the keyboard spacebar to assign it for Reset.



Warning! Ensure the correct disk is selected before continuing.

Once a disk has been reset the BIOS RAID Utility will detect the disk as a new one and a prompt will appear asking if you want to use the selected disk to repair the RAID. Accept and continue.

Both disks should now be displayed as **Member Disk (x)** with the status highlighted in yellow as Rebuild.

Exit the Utility by clicking Esc and RAID will commence the rebuild process once the operating system has loaded.

13.3 Installing CODEC Packs to Play Video

DGCPlay utilises the DirectShow codecs installed on the computer to playback a video file. A standard installation of Windows includes codecs for playing WMV files, plus some AVI and MPG files. Many video files require additional 3rd party codec files.

For many of AVI and MPG formats the open source ffdshow package will contain codecs which will allow playback using DGCPlay. ffdshow is available from:

<http://ffdshow-tryout.sourceforge.net>

MOV files are supported through QuickTime. By default QuickTime is not available through DirectShow. With additional software it is possible to make QuickTime video files available however. There are a number of codecs which do this, for instance:

http://www.codecguide.com/download_kl.htm

<http://www.riverpast.com/en/prod/quicktime/>

http://www.medialooks.com/products/directshow_filters/quicktime_filter.html

SWF and FLV files are supported by Flash. In the same manner as QuickTime these are not natively supported by DirectShow, although it is possible to use additional software to enable playback. A suitable codec for this might be:

http://www.medialooks.com/products/directshow_filters/flash_source.html

Datapath do not provide any warranty or assurance that these examples will be suitable for commercial use. We simply list them as an example of those available through 3rd parties. Before deployment we advise that any of the above, and any other codec selected, is thoroughly evaluated to confirm their suitability.

13.4 Firmware Updates

The procedures for updating the firmware of your cards can be found in the relevant user guide which is available on your Datapath Recovery Media. Check the Datapath website for the latest version of the user guides.

13.5 System Recovery/Restoring to Factory Settings

To restore your wall controller to its factory settings you will need the recovery media supplied with your system. If you no longer have your recovery media, contact sales@datapath.co.uk for advice in obtaining a replacement.

Ensure your wall controller is turned off and insert the recovery media (USB Stick) into a USB port.

13.5.1 Selecting a Boot Device

With the USB recovery media inserted, switch on your wall controller and press F8 when the Splash Screen is displayed to enter the **Select Boot Device** screen.

From the list of boot devices, select the **NON UEFI USB media** and click on OK.



At this point, if Windows® fails to start this indicates that the wrong boot device was selected. In this instance, select Esc to exit and start the process again.

The wall controller will reboot with the boot messages appearing on your control screen (if set) or the first screen on your video wall. When prompted, accept the terms and conditions and then follow the instructions to restore your wall controller.

13.5.2 Reactivate Windows®

When the wall controller has been restored the Windows® operating system will need to be re-activated. The software key can be found on the front panel of your wall controller.

13.5.3 Install Display Drivers and Software

Once the Windows® re-activation process is complete the Display Drivers need to be re-installed and if required, the Wall Control application software. The Display Drivers and Wall Control software can be found in the **Driver and Tools** folder on the recovery media.

For the latest drivers and software go to www.datapath.co.uk

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