DS-C10S Series Video Wall Controller

User Manual (V2.0)
User Manual of DS-C10S Series Video Wall Controller

User Manual
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This Manual is applicable to DS-C10S Series Video Wall Controller.
The Manual includes instructions for using and managing the product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version in the company website (http://overseas.hikvision.com/en/).

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**FCC compliance:** 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 his own expense.

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2. This device must accept any interference received, including interference that may cause undesired operation.

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2006/66/EC (battery directive): This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point. For more information see: www.recyclethis.info

**Industry Canada ICES-003 Compliance**

This device meets the CAN ICES-3 (A)/NMB-3(A) standards requirements.
Thank you for purchasing our product. If there is any question or request, please do not hesitate to contact us.

This manual is applicable to following product:

<table>
<thead>
<tr>
<th>Product Module</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-C10S</td>
<td>Video Wall Controller</td>
</tr>
<tr>
<td>iVMS-4200</td>
<td>Client Software for Video Wall Controller</td>
</tr>
</tbody>
</table>

To simplify the description in this user manual, we make conventions as follows in this manual:

- The DS-C10S series video wall controller client is defined as software.
- The video wall controller (DS-C10S) is defined as controller.
- Click refers to click by using the left key of mouse, double-click refers to quickly press the left mouse button twice, right-click refers to press the right mouse button once.
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Chapter 1  DS-C10S Series Controller

Introduction

1.1 Overview

Designed with the newest system architecture, data switching and processing method, DS-C10S is a high-performance image processing device that can realize the integrated processing for multiple types of video streams and network data. As the core display control device, it is mainly used in Video Wall system for dynamic displaying videos on multiple display units simultaneously.

Figure 1.1 Overview of DS-C10S Series Controller

1.2 Product Features

- A signal source can be displayed on the M×N (M ≥ 1, N ≥ 1, M×N ≤72) display units.
- Up to 10 kinds of signal sources are supported, including VGA, DVI, HDMI, BNC, SDI, YpbPr, Ultra HD, HDTVI, DP (DisplayPort) and IP camera input.
- An enhanced network decoding board can display network signal of 2-ch@800W, 2-ch@600W, 2-ch@500W, 8-ch@1080P, 16-ch@720P and 32-ch@D1. And display local record files.
- Supports 1/4/9/16 multi-screen layout.
- Up to 6 image layers can be displayed on one screen, including one virtual LED image layer and a
background layer.

- The LED font size, background color and moving type are adjustable. The resolution of background layer is up to 16384×8192.
- Users have the permission to manage the signal source and video wall.
- Provides dual link signal collection card whose input resolution is up to 4088×4088/15Hz.
- Build-in matrix feature for opening a signal source on several windows at the same time.
- Supports cross-window video roaming.
- Supports adjusting the output to match the virtual output of client software with real output of controller.
- Supports opening windows to display video signal for the purpose of adjusting signal.
- Up to 272 devices can be managed by a client server, including 256 devices and 16 SMSs (stream media server).
- Up to 4 virtual video walls can be displayed in a video wall controller.
- Remote control via IPAD client server and IE browser.
- Supports opening windows to display video signal, with the window location and size adjustable
- Supports SADP searching active IP address.
- Resets the password of administrator.

1.3 Product Introduction

1.3.1 Available Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Chassis</th>
<th>Motherboard</th>
<th>Description</th>
<th>Assembly</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-C10S-S11/E</td>
<td>4U chassis</td>
<td>DS-C10S-MSU</td>
<td>Core display control module.</td>
<td>Motherboard, chassis, fan and power supply.</td>
</tr>
<tr>
<td>DS-C10S-S22/E</td>
<td>8U chassis</td>
<td>DS-C10S-MSU</td>
<td>Core display control module.</td>
<td>Motherboard, chassis, fan and power supply.</td>
</tr>
<tr>
<td>DS-C10S-S41/E</td>
<td>13U chassis</td>
<td>DS-C10S-MSU</td>
<td>Core display control module.</td>
<td>Motherboard, chassis, fan and power supply.</td>
</tr>
</tbody>
</table>

1.3.2 Assembly Introduction

Input Module (Optional Module)

<table>
<thead>
<tr>
<th>Model</th>
<th>Module</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DS-C10S-DI/4</td>
<td>DVI Input Board</td>
<td>4 DVI input connectors.</td>
</tr>
<tr>
<td>DS-C10S-DI/E</td>
<td>DVI Input Board</td>
<td>4 DVI input connectors.</td>
</tr>
<tr>
<td>DS-C10S-DI/2</td>
<td>DVI Dual link</td>
<td>2 DVI input connectors.</td>
</tr>
<tr>
<td>DS-C10S-HDI/1</td>
<td>DVI Dual link Ultra-HD Input Board</td>
<td>1 DVI dual link input connector.</td>
</tr>
<tr>
<td>DS-C10S-HI/4</td>
<td>HDMI Input Board</td>
<td>4 HDMI input connectors.</td>
</tr>
<tr>
<td>DS-C10S-HI/2</td>
<td>HDMI Input Board</td>
<td>2 HDMI input connectors.</td>
</tr>
<tr>
<td>DS-C10S-HI/E</td>
<td>HDMI Input Board</td>
<td>4 HDMI input connectors.</td>
</tr>
<tr>
<td>(The adaptor for switch DVI to HDMI is needed.)</td>
<td>(The adaptor for switch DVI to HDMI is needed.)</td>
<td>(The adaptor for switch DVI to HDMI is needed.)</td>
</tr>
</tbody>
</table>
### Video Wall Controller User Manual

#### Module Description

<table>
<thead>
<tr>
<th>Model</th>
<th>Module</th>
<th>Description</th>
</tr>
</thead>
</table>
| DS-C10S-VI/4 | VGA Input Board | 4 VGA input connectors.  
              | (The adaptor for switch DVI to VGA is needed.)                             |
| DS-C10S-VI/2 |                 | 2 VGA input connectors.  
              | (The adaptor for switch DVI to VGA is needed.)                             |
| DS-C10S-BI/8 | BNC Input Board | 8 BNC input connectors.                                                     |
| DS-C10S-SDI/4 | SDI Input Board | 4 SDI input connectors.                                                     |
| DS-C10S-YI/2 | YPbPr Input Board | 2 YPbPr input connectors.                                                 |
| DS-C10S-SI/E | Network Decoding Board | Decode for network signal with resolution at 2@500W,  
                        | 4@1080P, 8@720P or 16@D1.                                               |
| DS-C10S-SI/E | Enhanced Network Decoding Board | Decode for network signal with resolution at 2@800W (low frame rate),  
                        | 2@600W (full frame rate), 2@500W (full frame rate), 4@500W (low frame rate),  
                        | 8@1080P, 16@720P or 32@D1.                                             |
| DS-C10S-DPI/4 | DP (DisplayPort) Input Board | 4 DP input connectors.                                                      |
| DS-C10S-TVI/4 | HDTV Input Board | 4 HDTV input connectors.                                                   |

#### Output Module (Optional Module)

<table>
<thead>
<tr>
<th>Model</th>
<th>Module</th>
<th>Description</th>
</tr>
</thead>
</table>
| DS-C10S-VO/4 | VGA Output Board | 4 VGA output connectors.  
              | (The adaptor for switch DVI to VGA is needed.)                             |
| DS-C10S-VO/2 |                 | 2 VGA output connectors.  
              | (The adaptor for switch DVI to VGA is needed.)                             |
| DS-C10S-DO/4 | DVI Output Board | 4 DVI output connectors.                                                    |
| DS-C10S-DO/2 | SDI Output Board | 2 DVI output connectors.                                                   |
| DS-C10S-SDO/4 |                 | 4 SDI output connectors.                                                   |
| DS-C10S-HO/2 | HDMI Output Board | 2 DVI output connectors.  
              | (The adaptor for switch DVI to HDMI is needed.)                             |
| DS-C10S-HDBO/4 | HDBaseT Output Board | 4 RJ45 output connectors.                                                  |
1.4 Panel Introduction

1.4.1 Front Panel

Figure 1.2 Front Panel of DS-C10S-S41/E

Figure 1.3 Front Panel of DS-C10S-S22/E
Table 1. Front View Description

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Indicator</td>
<td>Indicates the status of power supply.</td>
</tr>
<tr>
<td>Network Indicator</td>
<td>Indicates the status of network connection.</td>
</tr>
<tr>
<td>Board Indicator</td>
<td>Indicates the status of board status.</td>
</tr>
</tbody>
</table>
1.4.2 Rear Panel

Figure 1.5 Rear View of DS-C10S-S41/E
Figure 1. 6 Rear Panel of DS-C10S-S22/E

Figure 1. 7 Rear Panel of DS-C10S-S11/E

Table 1. 2 Interface Description of Rear View

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Motherboard</td>
<td>Includes USB, UTP, and RS-232 interfaces.</td>
</tr>
<tr>
<td>2</td>
<td>Network Decoding Board</td>
<td>With UTP interfaces.</td>
</tr>
<tr>
<td>3</td>
<td>BNC Input Board</td>
<td>With BNC Input interfaces.</td>
</tr>
<tr>
<td>4</td>
<td>DVI-I Input Board</td>
<td>With DVI-I input interfaces.</td>
</tr>
<tr>
<td>No.</td>
<td>Name</td>
<td>Description</td>
</tr>
<tr>
<td>-----</td>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5</td>
<td>DVI-I Output Board</td>
<td>With DVI-I output interfaces.</td>
</tr>
<tr>
<td>6</td>
<td>Power</td>
<td>Contains the physical power switch, power plug and power supply fan.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>NOTE</strong> Ensure that the site’s AC power supply is stable and within the rated voltage of the unit. If the site’s AC power is likely to have spikes or power dips, use power line conditioning or an uninterrupted power supply (UPS).</td>
</tr>
<tr>
<td>7</td>
<td>Fan</td>
<td>Hot-swap may cause damage to the fan. There are four indicators on the fan board. They are the POWER, RUN, ALARM and FAN. The RUN and POWER shows the working status of the fan, and the ALARM shows an abnormal status of the fan.</td>
</tr>
</tbody>
</table>

### 1.4.3 Motherboard

![Rear Panel of Motherboard](image)

**Figure 1. 8 Rear Panel of Motherboard**

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>COM 1</td>
<td>Debugging interface.</td>
</tr>
<tr>
<td>4</td>
<td>COM 2</td>
<td>Control interface for screen control, matrix linkage, and keyboard.</td>
</tr>
<tr>
<td>5</td>
<td>Network Interface</td>
<td>Interface for network transmission and control.</td>
</tr>
<tr>
<td>6</td>
<td>USB Interface</td>
<td>Reversed interface.</td>
</tr>
<tr>
<td>7</td>
<td>Synchronization Output</td>
<td>Input interface for synchronization signal. (reserved)</td>
</tr>
<tr>
<td>8</td>
<td>Synchronization Input</td>
<td>Input interface for synchronization signal. (reserved)</td>
</tr>
</tbody>
</table>
1.4.4 Input Module

DVI Input Board

![Figure 1. 9 Rear Panel of DS-C10S-DI/4 and DS-C10S-DI/E](image)

Table 1. 4 Interface Description of DVI Input Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>DVI-I Input Connector</td>
<td>DVI-I Input Connector (If you want to connect the VGA or HDMI signal, the adaptor is needed.)</td>
</tr>
</tbody>
</table>

DVI Dual Link Input Board

![Figure 1. 10 Rear Panel of DS-C10S-DI/2](image)

Table 1. 5 Interface Description of DVI Dual link Input Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>DVI-I Input Connector</td>
<td>DVI-I Input Connector.</td>
</tr>
</tbody>
</table>
SDI Input Board

Figure 1.12 Rear Panel of DS-C10S-SDI/4

Table 1.6 Interface Description of SDI Input Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>BNC Input Connector</td>
<td>BNC input connector for SDI high definition digital signal.</td>
</tr>
</tbody>
</table>

BNC Input Board

Figure 1.13 Rear Panel of DS-C10S-BI/8

Table 1.7 Interface Description of BNC Input Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>BNC Input Connector</td>
<td>BNC input connector for BNC analog signal.</td>
</tr>
</tbody>
</table>

YPbPr Input Board

Figure 1.14 Rear Panel of DS-C10S-YI/2
Table 1. 8 Interface Description of YPbPr Input Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>YPbPr Input Connector</td>
<td>RCA connector for YPbPr signal.</td>
</tr>
</tbody>
</table>

Network Decoding Board and Enhanced Network Decoding Board

![Image of Network Decoding Board]

Figure 1. 15 Rear Panel of DS-C10S-SI

Table 1. 9 Interface Description of Network and Enhanced Network Decoding Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>Network Interface</td>
<td>The decoding board needs to be connected to the network independently.</td>
</tr>
</tbody>
</table>

DP (DisplayPort) Input Board

![Image of DP Input Board]

Figure 1. 17 Rear Panel of DS-C10S-DPI/4

Table 1. 10 Description of DP Input Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>DP Input Connector</td>
<td>DP input connector for DP signal.</td>
</tr>
</tbody>
</table>
HDTVI Input Board

Table 1.11 Description of HDTVI Input Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>HDTVI Input Connector</td>
<td>BNC input connector for BNC signal.</td>
</tr>
</tbody>
</table>

HDMI Input Board

Table 1.12 Description of HDMI Input Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
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<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>HDMI Input Connector</td>
<td>HDMI input connector for HDMI signal.</td>
</tr>
</tbody>
</table>

1.4.5 Output Module

DVI Output Board

Figure 1. 18 Rear Panel of DS-C10S-TVI/4

Figure 1. 19 Rear Panel of DS-C10S-HI/E

Figure 1. 20 Rear Panel of DS-C10S-DO/4
Table 1. 13 Interface Description of DVI Output Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>DVI-I Output Connector</td>
<td>DVI-I output connector (If you want to connect the VGA output, the adaptor is needed.) HDMI output is supported.</td>
</tr>
</tbody>
</table>

SDI Output Board

Table 1. 14 Interface Description of SDI Output Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>BNC Output Connector</td>
<td>BNC output connector.</td>
</tr>
</tbody>
</table>

HDBaseT Output Board

Table 1. 15 Interface Description of HDBaseT Output Board

<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Power Indicator</td>
<td>When power on, the indicator is steady green.</td>
</tr>
<tr>
<td>2</td>
<td>Working Status Indicator</td>
<td>Flickering when the board is working.</td>
</tr>
<tr>
<td>3</td>
<td>HDBaseT Interface</td>
<td>HDBaseT output connector.</td>
</tr>
</tbody>
</table>
## 1.5 Specification

<table>
<thead>
<tr>
<th>Module</th>
<th>DS-C10S-S11/E</th>
<th>DS-C10S-S22/E</th>
<th>DS-C10S-S41/E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hardware</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slot No.</td>
<td>11 (6 × Input &amp; 5 × Output)</td>
<td>22 (12 × input &amp; 10 × output)</td>
<td>41 (23 × input &amp; 18 × output)</td>
</tr>
<tr>
<td><strong>Motherboard (DS-C10S-MSU)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Network</td>
<td>1; 10M/100M/1000M self-adaptive Ethernet interface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>USB</td>
<td>1 × USB2.0 (Reserved)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS-232</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Network Decoding Board (DS-C10S-SI)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decoding Performance</td>
<td>2-ch@5MP; 4-ch@1080p; 8-ch@720p; 16-ch@D1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Enhanced Network Decoding Board (DS-C10S-SI/E)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decoding Performance</td>
<td>2-ch@8MP (low frame rate), 2-ch@6MP (full frame rate), 2-ch@5MP (full frame rate), 8-ch@1080P, 16-ch@720P, or 32-ch@D1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>BNC Input Board (DS-C10S-BI)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td>8 × BNC interface; PAL/NTSC self-adaptive.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>VGA Input Board (DS-C10S-VI/2, DS-C10S-VI/4)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td>4/2 × VGA interface</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RGB Resolution</td>
<td>HD15 interface (DVI-HD15 adaptor is needed) 720P@60Hz, 1024×768@60Hz, 1024×768@75Hz, 1280×1024@60Hz, 1366×768@60Hz, 1400×1050@60Hz, 1080P@60Hz, UXGA@60Hz, 1920×1200@60Hz.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DVI Input Board (DS-C10S-DI/2, DS-C10S-DI/4, DS-C10S-DI/E)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DVI Resolution</td>
<td>DS-C10S-DI/2: 2 × DVI interface.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>DVI Dual Link Input Board (DS-C10S-HDI/1)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analog Signal Input Resolution</td>
<td>2048×1536@30Hz, 2560×1440@30Hz, 2560×1600@30Hz, 2560×2048@30Hz, 2800×2100@30Hz, 3072×2304@30Hz, 3840×2160@30Hz, 4088×4088@15Hz.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>HDMI Input Board (DS-C10S-HI/4, DS-C10S-HI/2, DS-C10S-HI/E)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input</td>
<td>DS-C10S-HI/4 and DS-C10S-HI/E: 4 × HDMI interface.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SDI Input Board (DS-C10S-SDI)</strong></td>
<td>4 × BNC interface</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>YPbPr Input Board</strong></td>
<td>2 × RCA interface</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Resolution

- **480i@60Hz, 480p@60Hz, 576i@50Hz, 576p@50Hz, 720p@50Hz, 720p@60Hz, 1080i@50Hz, 1080i@60Hz.**

## DP Input Board (DS-C10S-DPI/4)

### Input
- **4 x DP interface**

### Resolution
- 1024x768@60Hz, 1024x768@75Hz, 1280x720@50Hz, 1280x720@60Hz, 1360x768@60Hz, 1400x1050@60Hz, 1920x1200@60Hz, and 3840x2160@30Hz and 3840x2160@25Hz (3840x2160@30Hz and 3840x2160@25Hz are only support by No. 1 and 3 interfaces)

## HDTVI Input Board (DS-C10S-TVII/4)

### Input
- **4 x TVI interface**

### Resolution
- 1280x720@25Hz, 1280x720@30Hz, 1280x720@50Hz, 1280x720@60Hz, 1920x1080@25Hz, 1920x1080@30Hz

## VGA Output Board (DS-C10S-VO)

### Output
- **4/2 x VGA interface**

### RGB Resolution
- HD15 interface (DVI-HD15 adaptor needed); Resolution: 1024x768@60Hz, 1024x768@75Hz, 1360x768@60Hz, 1080P@60Hz, 1400x1050@60Hz, 1920x1200@60Hz, 720P@60Hz.

## DVI Output Board (DS-C10S-DO)

### Output
- **4/2 x DVI interface**

### DVI Resolution
- 1024x768@60Hz, 1024x768@75Hz, 1360x768@60Hz, 1080P@60Hz, 1400x1050@60Hz, 1920x1200@60Hz, 720P@60Hz.

## SDI Output Board (DS-C10S-SDO/4)

### Output
- **4 x BNC interface**

### SDI Resolution
- 720P@50Hz, 720P@60Hz, 1080P@50Hz, 1080P@60Hz.

## HDMI Output Board (DS-C10S-HO/2)

### Output
- **2 x DVI interface**

### HDMI Resolution
- 1024x768@60Hz, 1024x768@75Hz, 1360x768@60Hz, 1080P@60Hz, 1400x1050@60Hz, 1920x1200@60Hz, 720P@60Hz.

## HDBaseT Output Board (DS-C10S-HDBO/4)

### Output
- **4 x RJ45 interface**

### HDBaseT Resolution
- 1024x768@60Hz, 1024x768@75Hz, 1360x768@60Hz, 1080P@60Hz, 1400x1050@60Hz, 1920x1200@60Hz, 720P@60Hz.

## Other

### Power Supply
- 100 to 240 VAC, 50/60Hz
- A build-in power supply
- Build-in redundant power supply

### Consumption
- ≤ 250W (full-loaded)
- ≤ 450W (full-loaded)
- ≤ 800W (full-loaded)

### Working Temperature
- 0° C to 50° C (32° F to 122° F)

### Working Humidity
- 10 to 90% (non-condensing)

### Chassis
- Standard 4U chassis
- Standard 8U chassis
- Standard 13U chassis

### Dimension (DxHxW)
- 352x177x442.4 mm (13.9x7x17.4")
- 352x354x442.4 mm (13.9x13.9x17.4")
- 417x576.6x442.4mm (16.4x27.7x17.4")

### Weight
- ≤20KG (full-loaded)
- ≤35kg (full-loaded)
- ≤50kg (full-loaded)
Chapter 2 Overview of Client Software

The C10S series large-screen controller must be controlled and managed by the iVMS-4200 client software. iVMS-4200 is a versatile video management software for embedded DVR (Digital Video Recorder), H-DVR (Hybrid Digital Video Recorder), NVR (Network Video Recorder), IP camera, IP Dome, PC-NVR, decoding device and compression card. It provides the multiple functionality, including live view, remote configuration, record files storage, remote playback, downloading, log search, etc.

2.1 Features

- A user friendly GUI (Graphical User Interface). You can access to target interface with least steps.
- Centralized management for small-scale decentralized system.
- Up to 50 users, with 3 levels permission (super user, administrator and operator), can be added.
- Configure user permission in batch and retrieve password by super user.
- Compatible to configuration files generated by customized tools.
- Hide menu you do not need thus to save limited space on screen.
- Support channel management.
- A simplified switch method for multi-screen and signal screen.

2.2 Working Environment

**Operating System:** Microsoft Windows 7 / Windows Server 2008 (32/64-bit operating system); Windows Server 2003 or Windows XP (32-bit operating system).

**CPU:** Intel Pentium IV 3.0 GHz or models above.

**Memory:** 1G or above.

**Displayer:** 1024 × 768 or above.

*NOTE:* The software does not support 64-bit operating system; the above mentioned 64-bit operating system refers to the system which supports 32-bit applications as well.

2.3 Performance

- Up to 256 controllers can be managed.
- Many controllers can be added to the software; however, only one controller can be controlled at a time.
- One controller can be connected by 320 clients at a time.

*NOTE:* A higher hardware configuration is needed when viewing multiple channels or HD (High Definition) images.
Chapter 3  Client Software Installation and Uninstallation

3.1 Installing Software

Double-click the setup program to pop up InstallShield Wizard. Follow the steps and complete the installation.

![Software Installation](image1)

Figure 3.1 Software Installation

3.2 Uninstalling Software

Option 1:
Double-click the setup program again to enter uninstall menu. And follow the prompt to uninstall the iVMS-4200.

Option 2:
Enter Windows Start Menu and select uninstall iVMS-4200. Then follow the prompt to uninstall the iVMS-4200.

![Software Uninstallation](image2)

Figure 3.2 Software Uninstallation
3.3 User Registration and Login

3.3.1 Registration

For the first time to use iVMS-4200 software, you need to register a super user for login.

**Steps:**
1. Input the **user name**, **password** and **confirm password**.
2. Optionally, you can check the checkbox of **Auto-login** to log in automatically when running software next time.
3. Click **Register** to save the user and log in.

![Figure 3.3 Registration](image)

- User name and password can’t be empty and should not contain the following characters: / \ : * ? " < > |.
- The valid character of user name includes numerical (0 ~9) and letters (a ~ z, A ~ Z).
- The blank character before or behind the user name will be automatically deleted.
- The valid length of password for super user ranges from 6 to 16 characters. The valid length of password for other users should be less than 16 characters.
- Password cannot be copied and pasted.

3.3.2 Login

**Steps:**
1. Input the **user name** and **password**.
2. Optionally, check the checkbox of **Auto-login** to log in automatically when running software next time.
3. Click **Login** to log in.

![Figure 3.4 Login](image)
3.4 Using the Wizard for Basic Configuration

Purpose:
After login for the first time, the setup wizard pops up automatically. It can walk you through some basic settings of the video wall.

Steps:
1. Click **Open Wizard** to enter Add Video Wall interface.
   
   If you don’t want to use the setup wizard at the moment, click **X** to exit. You can also use the Setup Wizard next time by leaving the **Do Not Show Next Time** unchecked.

2. Draw a video wall by clicking and dragging the mouse to select the rows and columns, or inputting values in **Row** and **Column** text fields.

3. Input the video wall name in **Name** text field.

4. Click **Next** to save the settings and enter **Add Device** interface.
You can add, modify and delete devices here. Three types of devices can be added, including Video Wall Controller, MVC (Multifunction Video Center), and decoder.

- **Add Devices**
  1) Click **Add** to pop up adding interface.
  2) Select **Adding Mode** as **IP/Domain**, **IP Segment** or **HiDDNS**. We take adding via **IP/Domain** as an example.
  3) Input **Nickname**, **Address**, **Port**, **User Name**, **Password** and **Group** in the text fields.
  4) Click **Add** to add the device(s).

- **Modify Devices**
  1) Click to select an added device and click **Modify**.
  2) Edit the information.
  3) Click **Modify** to save the changes.

- **Delete Devices**
  Click to select an added device and click **Delete** to delete it.

- **Show Output No.**
  1) Click the **Show Output No.**
2) Select the device(s) you need to display the output No.
3) Click **Show** to enable the function. Thus the output No. of the selected device(s) will be shown in the video wall.

![Image of Show Output No.](image.png)

*Figure 3. 9 Show Output No.*

The function is only supported by video wall controller.

6. After the devices are configured, click **Next** to enter **Link Decoding Output** settings interface.

![Image of Link Decoding Output](image.png)

*Figure 3. 10 Link Decoding Output*

7. You can adjust the output window of the added video wall controller.
   1) Click **Cancel All** to clear the default settings. Or select a window and click **Cancel** to clear the linkage between the output and the window.
   2) Select and hold a decoding output in the Decoding Output list and drag it to a window to link the output to the window.
3) Repeat the above steps to configure for other outputs.

8. Click Done to save the settings.

## 3.5 GUI Introduction

![Software Interface](image)

**Figure 3.11 Software Interface**

<table>
<thead>
<tr>
<th>Region</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><strong>Menu Bar</strong></td>
<td>Menus include File, System, View, Tool, and Help.</td>
</tr>
<tr>
<td>2</td>
<td><strong>Quick Launch Bar</strong></td>
<td>Video Wall, Screen Control, Device Management, Account Management, and System Configuration.</td>
</tr>
<tr>
<td>3</td>
<td><strong>Maintenance and Management Area</strong></td>
<td>Configure and manage the video wall controller, and the software.</td>
</tr>
<tr>
<td>4</td>
<td><strong>Notification Bar</strong></td>
<td>Display information of current window and preview information list; View alarm channel information.</td>
</tr>
<tr>
<td>5</td>
<td><strong>Configuration List</strong></td>
<td>Manage Signal Source, Camera, Scene, Plan and PTZ.</td>
</tr>
</tbody>
</table>

### Detailed Description of Menu Bar

<table>
<thead>
<tr>
<th>Region</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td><strong>File</strong></td>
<td>Open log file save in computer and exit from the software.</td>
</tr>
<tr>
<td>(2)</td>
<td><strong>System</strong></td>
<td>Lock software, switch user, and import/export system configuration file.</td>
</tr>
<tr>
<td>(3)</td>
<td><strong>View</strong></td>
<td>Enter Video wall, Screen Control, Device Management, Account Management, and System Configuration interface.</td>
</tr>
<tr>
<td>(4)</td>
<td><strong>Tool</strong></td>
<td>Enter Log Search, Video Wall Linkage, and Device Arming Control interface.</td>
</tr>
<tr>
<td>(5)</td>
<td><strong>Help</strong></td>
<td>Open video wall wizard, open user manual, view software version, and switch language.</td>
</tr>
</tbody>
</table>
Chapter 4 Video Wall Client Management

4.1 Account Management

*Purpose:*
In default situation, there will be only one super user, registered when logging in. Besides the super user, you can add 50 users, including administrator and operator, with different permission.

*Steps:*
1. Click **Account Management** in the Quick Launch Bar.

2. Click **Add User** button to enter Add User interface.

![Figure 4.1 Account Management Interface](image-url)
3. Select User Type as Administrator or Operator.
4. Input User Name, Password, Confirm Password, Remark and specify user permission by checking or unchecking corresponding checkbox. Or you can click Copy from to copy from other user.

   ![Add User Figure]

   **Figure 4.2 Add User**

- User Name cannot contain: / * ? " < > |.
- The length of password should not less than 6 bits.

5. Click Save to add the account.
6. Optionally, click Edit User to modify its parameters or click Delete User to remove it.

   ![Copy from Note]

   **Note**: Super user cannot be deleted.

### 4.2 System Configuration

The frequently-used parameters, including the log expired time, file saving path, etc., can be set.

#### 4.2.1 General Settings

**Steps:**
1. Click System Configuration in the Quick Launch Bar to enter System Configuration interface.
3. Configure the general parameters. For details, see Table 4.1 General Parameters.

Table 4.1 General Parameters

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auto-login</td>
<td>Log in the client software automatically.</td>
</tr>
<tr>
<td>Keep Log files for</td>
<td>The time for keeping the log files, once exceeds, the files will be deleted. A Month, A Week, Half A Month and 6 Months are selectable. The default time is A Month.</td>
</tr>
<tr>
<td>Automatic Time Synchronization</td>
<td>Adjust the time automatically at a specified time point.</td>
</tr>
<tr>
<td>Automatic Time Synchronization</td>
<td>Check the checkbox to enable the function.</td>
</tr>
</tbody>
</table>

4.2.2 File Saving Path Settings

**Purpose:**
The video files of manual recording, the captured pictures and the system configuration files are stored on the local PC. The saving paths of these files can be set.

**Steps:**
1. Click **System Configuration** in the Quick Launch Bar to enter System Configuration interface.
2. Click the icon ![folder](image) and select a local path for the files.
3. Click **Save** to save the settings.

**Note:** You need to reboot software to activate the settings.
4.3 Device Management

4.3.1 Setting Admin Password for a Device

Purpose:
You are required to activate the video wall controller first by setting a strong password for it before you can use the video wall controller.

- Three types of devices can be added, including Video Wall Controller, MVC (Mulit-function Video Center), and decoder.
- You are required to modify the password of old version controller to a strong one.

Before you start:
Ensure your computer is in the same network segment with the controller.

Steps:
1. Click to select Device Management in the Quick Launch Bar to enter Device Management interface.
2. Select an inactive device and click Activate to enter Activation interface.

![Figure 4.4 Activating Video Wall Controller](image)

3. Create a password and input the password into the password field, and confirm the password.

**STRONG PASSWORD RECOMMENDED** - We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.
4. Click **OK** to save the password and activate the controller.

### 4.3.2 Adding a Device

**Steps for Latest Version Controller:**

1. Select the activated controller and click **Modify Netinfo** to set the IP address of the controller.

2. Input the **IP address**, **Gateway** and **Password**, and click **OK** to save the IP address.

3. Click the **Add to Client** button and input the **Nickname** for the controller.
4. Click **Add** to add it.

**Steps for Old Version Controller:**

1. Click the **Add Device** button.

2. Input the **Nickname**, **Address** and **Password**, and click **Add** to add it.

3. The **Security** of added controller will be shown. If the Security is not strong, you are required to modify the password. For detailed steps, please refer to the chapter **System Settings.**

---

**STRONG PASSWORD RECOMMENDED** - *We highly recommend you create a strong password of your own choosing (using a minimum of 8 characters, including upper case letters, lower case letters, numbers, and special characters) in order to increase the security of your product. And we recommend you reset your password regularly, especially in the high security system, resetting the password monthly or weekly can better protect your product.*
4.4 Remote Configuration

*Purpose:*

In remote configuration interface, the parameters of the added controller, including the system, network, etc., can be set.

*Step:*

Click to select an added device and click **Remote Configuration** to enter Remote Configuration interface.

![Remote Configuration Interface](image)

*Figure 4.12 Remote Configuration Interface*

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>System</td>
<td>View device information and status, configure general parameters and user, manage device, adjust time, search and backup log.</td>
</tr>
<tr>
<td>Network</td>
<td>Configure general network parameters.</td>
</tr>
<tr>
<td>Event</td>
<td>Configure exception linkage method.</td>
</tr>
<tr>
<td>Video Display</td>
<td>Upload background picture, configure video effect of input signal, adjust picture position, and configure background color.</td>
</tr>
<tr>
<td>Other</td>
<td>Configure parameter of LED, external decoder, external matrix and background colour.</td>
</tr>
</tbody>
</table>

### 4.4.1 System Settings

*Steps:*

1. Click **System** tab.
2. Configure parameters. For details, refer to **Table 4.3 Description of System**.
3. Click **Apply** to save the settings.
## 4.4.2 Network Settings

**Steps:**

1. Click **Network** tab.

![Network Configuration Interface](image)

2. Select **NIC Type** in the dropdown list.
3. Input **IPv4 address**, **Subnet Mask** and **Default Gateway**.
4. Click **Apply** to save the settings.

## 4.4.3 Event Settings

**Steps:**

1. Click **Event** tab.
2. Enable **Link Device Alarm Audio** by checking the corresponding checkbox.

3. Click **Apply** to save the settings.

### 4.4.4 Video Display Settings

**Steps:**

1. Click **Video Display** tab.

2. Select a page of **Background Picture Upload**, **Video Parameters**, **Picture Adjustment** or **Background Color** to configure parameters. For details, refer to **Table 4. 4 Description of Image Settings**.
### Table 4.4 Description of Image Settings

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Picture Upload</td>
<td>Upload local picture as the background of output screen.</td>
</tr>
<tr>
<td>Video Parameters</td>
<td>Adjust the video parameters of input signal.</td>
</tr>
<tr>
<td>Picture Adjust</td>
<td>Adjust the position of input signal.</td>
</tr>
<tr>
<td>Background Color</td>
<td>Set the background color of output.</td>
</tr>
</tbody>
</table>

### 4.4.5 Other Settings

**Steps:**

1. Click **Other** tab.

![Figure 4.16 Others Configuration Interface](image)

2. Select the page as **LED**, **Decoder**, **Matrix Linkage**, **Signal Source Collage** or **Motherboard Port**. For details, please refer to Table 4.5 Description of Other Settings.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LED</strong></td>
<td>Adjust the Width and Height of LED.</td>
</tr>
</tbody>
</table>
| **Decoder**     | Configure the general network parameters of decoder and view decoding board status.  
| **Matrix Linkage** | Add, edit and delete linkage matrix. The channel of added matrix will be listed in signal resource of video wall interface and you can display it in video wall.  
| **Signal Source Collage** | Collage several signal sources into one. For detailed steps, please refer to  |

---

**Note:** Decoding board needs be independently connected to network. And it does not decode the stream with frame rate below 1 fps.

**Note:** Before display the matrix signal sources, you need to perform following operations.

1. Connect the COM 2 of motherboard to the COM port of matrix.
2. Configure the board function of motherboard as matrix control.

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### Collaging Signal Sources

**Purpose:**
You can collage several signal sources into one.

**Steps:**
1. Enter Signal Source Collage to enter Signal Source Collage interface.
2. Click Add to collage signal source.
3. Input the **Collaged Signal Source Name**, input the **Row × Column** in corresponding text fields and select the **Group Name** the signal belongs.
4. Drag signal sources need to be collaged into the windows.
   - **NOTE**: IP camera does not support to be collaged.
   - Ensure each window links to a signal source.
5. Click **Apply** to save the settings.
6. Put the jointed signal source on the video wall.

### 4.5 Video Wall Introduction

Click **Video Wall** in the Quick Launch Bar to enter Video Wall interface. For detailed configuration, you can refer to **Chapter 5 Video Wall Management**.
Figure 4. 18 Video Wall Interface

Table 4. 6 Video Wall Description

<table>
<thead>
<tr>
<th>Region</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Menu List</td>
<td>Manage Signal Source, Camera, Scene, Plan, and PTZ.</td>
</tr>
<tr>
<td>2</td>
<td>Window Management Area</td>
<td>Open/close screens and move screens.</td>
</tr>
<tr>
<td>3</td>
<td>Window Management Toolbar</td>
<td>Start/stop decoding all signal sources and cameras, close/open windows, start/stop smart decoding for all signal sources and cameras, and refreshing live view screens are provided.</td>
</tr>
<tr>
<td>4</td>
<td>Advanced Setting Area</td>
<td>Setting area for advanced parameters.</td>
</tr>
<tr>
<td>5</td>
<td>Advanced Setting Menu Bar</td>
<td>Configure Window, Virtual LED, Logo and Background Picture.</td>
</tr>
</tbody>
</table>

Table 4. 6 Screen Control Toolbar Description

<table>
<thead>
<tr>
<th>Icon</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Start All Decoding</td>
<td>Start all the live view of signal sources. Thus to enable live view of real video wall.</td>
</tr>
<tr>
<td></td>
<td>Stop All Decoding</td>
<td>Stop all the live view of signal sources. Thus to disable live view of real video wall.</td>
</tr>
<tr>
<td></td>
<td>Close All Windows</td>
<td>Close all the screens displayed on the video wall.</td>
</tr>
<tr>
<td></td>
<td>Start All Smart Decoding</td>
<td>Start smart decoding for all live view signals. Once starts, the smart information can be viewed in live view.</td>
</tr>
<tr>
<td></td>
<td>Stop All Smart Decoding</td>
<td>Stop smart decoding for all live view signals.</td>
</tr>
<tr>
<td></td>
<td>Open Window</td>
<td>Draw a window according to your need. The size and position of the window are adjustable.</td>
</tr>
<tr>
<td></td>
<td>Refresh</td>
<td>Refresh the video wall status.</td>
</tr>
</tbody>
</table>
### Advanced Setting Bar Description

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window</td>
<td>Advanced settings for screens.</td>
</tr>
<tr>
<td>Virtual LED</td>
<td>Enable/disable virtual LED and edit virtual LED context.</td>
</tr>
<tr>
<td>Logo</td>
<td>Reserved function. Not supported by video wall controller.</td>
</tr>
<tr>
<td>Background Picture</td>
<td>Upload and enable/disable background picture.</td>
</tr>
</tbody>
</table>

### 4.6 Screen Control

**Purpose:**

In the screen control interface, you can set to turn on or off the monitors, and you can also configure the screen color and image position.

**NOTE:** You are not recommended to configure the screen control without professional instructors.

**Before you start:**

Connect the COM of screen to the COM2 of motherboard of video wall controller.

**Steps:**

1. Click **Screen Control** in Quick Launch Bar to enter Screen Control interface.

2. Drag to select a single window or multiple windows.
3. Select **Serial Port No.** as COM 2. Thus to specify transmitting port of screen control command.
4. Select **Screen Type** and **Input Source Type** according to actual cord connection.
5. Click **Save** to save the above settings.
6. Adjust **Image Parameters** and **Position Adjustment** by clicking [-] or [+].
7. Click **Open Screen** or **Close Screen** to turn on/off the screen. Or click **Open All** or **Close All** to turn on/off all the screens.
Chapter 5 Video Wall Management

5.1 Adding Video Wall

**Purpose:**
The software supports adding video wall. You can specify the row, column and decoding outputs of the video wall.

**Steps:**
1. Click the icon.

![Add Video Wall Interface](image1)

2. Select **Add Video Wall** to enter configuration interface.

![Adding Video Wall Interface](image2)

3. Input **Video Wall Name** in the text field.

4. Input **Row** and **Column** value in the respective text fields. Or click a grid and hold to drag a video wall.

5. Optionally, you can add, edit and delete devices.
   - **Add Devices**
     1) Click to pop up adding interface.
     2) Selecting **Adding Mode** as IP/Domain, IP Segment or HiDDNS.
     3) Input the other information in corresponding text fields.
     4) Click **Add** to add the device(s).
   - **Edit Devices**
     1) Click to select an added device and click .
     2) Edit the information.
     3) Click **Modify** to save the changes.
● Delete Devices
  Click to select a device and click \(\times\) to delete it.

● Show Output No.
  1) Click the \(\circ\).
  2) Select the device(s) you need to display the output No..
  3) Click Show to enable the function. Thus the output No. of the selected device(s) will be shown in the video wall.

NOTE The function is only supported by video wall controller.

6. Select a decoding output and drag it to a window.
7. Repeat Step 6 to link more decoding outputs to the video wall.
8. Click Add to add the video wall.

5.2 Displaying Signals on the Video Wall

The output screen of the controller supports being divided into 1, 4, 9 or 16 windows. And the input signal can be displayed in the divided window.

5.2.1 Preview Image

Steps:
1. Positioning the pointer on a signal for 2 to 3 seconds. Then the image will be displayed in a popup window.
2. Move the pointer out of the signal. Then the popup window will disappear.

5.2.2 Putting on Video Wall

Purpose:
A signal source can be put on multiple windows. Ultra HD and 500W signal only support to be displayed in a single window.

Steps:
1. Put signal sources on the video wall.
   ● Option 1
     1) Click to select a window.
     2) Double-click a signal source. So the signal will be displayed in the selected screen.

     NOTE Double-click another signal source will lead to the previous signal be replaced by this one.

     3) Repeat the step 1) to 2) to display more signals.
   ● Option 2
     1) Click to select a signal source in the signal source list.
     2) Click \(\text{OK}\) in Window Management Bar and drag to draw a screen in the video wall.
     3) Repeat the step 1) to 2) to display more signals.

     NOTE Repeat step 2) only will display the same signal in multiple windows.
4) After finishing settings, click \[\text{Release Function}\] again to release the function.

2. Drag a screen to overlap several screens. The screen can be dragged to any position of the video wall.

3. Double-click a screen to fill up the window(s) it overlaps.

4. Positioning the pointer on the screen and click \[\text{Close Signal Source}\] to close the signal source. Or click \[\text{Screen Control Bar}\] to close all the screens.

5.3 Configuring Signal Sources

*Purpose:*
The added video wall controllers and decoding devices will be listed in the signal source list of Video Wall interface. You can manage added controllers and add new controllers here.

*Besides in the Device Management interface, controller adding function is also provided in Video Wall interface.*

*Before you start:*
Activate the devices need to add. For detailed steps, please refer to 4.3.1 Setting Admin Password for.

*Steps:*
1. Click \[\text{+}\] button in Signal Source list.
2. Input needed information. For detailed steps, please refer to the step 4 of 3.4 Using the Wizard for Basic Configuration.
3. Click \text{Add} to add the controller.
5.4 Configuring Cameras

5.4.1 Adding a Camera

**Purpose:**
Besides in the Device Management interface, cameras adding function is also provided in Video Wall interface.

**Before you start:**
Activate the camera need to add. For detailed steps, please refer to 4.3.1 Setting Admin Password for.

**Steps:**
1. Click button in Camera list.
2. Input needed information. For detailed steps, please refer to the step 4 of 3.4 Using the Wizard for Basic Configuration.
3. Click **Add** to add the controller.
5.4.2 Adding a Group

*Purpose:* A camera can belong to multiple groups. You can manage its group(s) here.

*Steps:*
1. Click **Add** to pop up group adding interface.

![Add Group Interface](image)

2. Input **Group Name** and select which **Parent Area** it belongs.
3. Click **Add** and select signal sources, and click **OK** to add them.
4. Optionally, select a signal source, click **Rename** to rename it or click **Remove** to delete it.
5. Click **OK** to add the group.

5.4.3 Modifying the Group

*Purpose:* The name and signal resource of a group can be added.

*Steps:*
1. Click to select a group and click **Edit** button in Camera list.
2. Click the **Signal Source Settings** button to enter dialog box.

![Signal Source Settings Interface](image)

3. Input a new **Name** for signal source.
4. Click **Configure** to save the new name.
5.5 Creating and Displaying Scene

For one controller, if you expect to get a more convenient way to manage the screen layouts as there are different video wall layouts need to be set repeatedly, the Scene function may help to ease the burden. With this function, you are able to save the video wall layout configuration and show it by just clicking on the scene name.

The scene information is saved in the video wall controller. That is to say, you can obtain the scenes of a controller created by others via adding it.

5.5.1 Creating a Scene

Before you start:
Set the video wall layout first.

Steps:
1. Click the button after Scene in Menu list to show the Scene tab.

2. Click button and input the Name to create a scene.

3. Add a scene.
   - Adding new scene: select the created scene and click button to save the current video wall layout to it.
   - Replace existing scene: click button and select the Name you want to save the scene, and click OK to save it.

4. Optionally, you can click to edit a scene name. Or click to delete a selected scene.

5.5.2 Calling a Scene

Purpose:
You can call a scene which you have created to display it on the video wall.

**Steps:**
1. Positioning the pointer on a created scene.

![Figure 5. 10 Video Wall Interface](image)

2. Click to display the scene on video wall.

The calling scene will be marked as , instead other scenes are marked as .

### 5.6 Creating and Scheduling Plan

Sometimes, the video wall may be required to do auto-switch for displayed channels, or the screen need to be turn on/off automatically. Plan is a function to configure the schedule to switch the display of scenes on the video wall, and it can also automatically switch the screens.

#### 5.6.1 Creating a Plan

**Steps:**
1. Click the button after Plan in Menu list to show the Plan tab.

2. Click button.

![Figure 5. 11 Adding Plan Interface](image)

3. Input **Nickname** in the text field.
4. Select the **Mode** as Manual, Auto and Auto-Switch in the dropdown list.
   - **Manual**: If you set the Mode of the plan as Manual, you need to start and stop the plan manually. And plan will only be activated once if you start it. To call the manual plan, you need to right-click on the plan and click Call on the right-click menu.
● **Auto**: When setting the Mode of the plan as Auto, you can set the start time and executing times for the plan. The plan will be activated on the start time and stopped when finish the executing times.

● **Auto-Switch**: The Auto-Switch mode means that not only the times of executing can be set, the days on which the plan gets activated are also scheduled. The plan will be activated at the time of the day you configured and stopped after finishing the executing times.

5. Click **Plan Task** tab to add or edit plan task.

6. Click **Add** to enter adding task interface.

![Figure 5. 12 Operation Interface](image)

7. Select **Task Type**, **Scene**, and **Screen Type** in respective dropdown list. And set the **Dwell Time**.

8. Click **OK** to add the task.

9. Repeat the above steps 6 ~ 8 to add more tasks.

10. If the **Mode** is set as **Auto** or **Auto-Switch**, you need to click **Parameters** tab to configure schedule.

    For **Auto**: set the **Start Time** and input **Execution Times**.

    For **Auto-Switch**: set the execution time for each weekday and input **Execution Times**.

![Figure 5. 13 Adding Plan Interface](image)

11. Click **OK** to save the settings. And the added plan will be displayed in the plan list.

### 5.6.2 Calling a Plan

**Steps:**

1. Positioning the pointer on the added plan.

2. Click 🗓️ to call the plan. The calling plan will be marked as 🗓️, instead other plans are marked as ⏯️.

3. Click ⏯️ to stop calling.
5.7 Advanced Settings

If the video wall is required to display a certain background image, such as the picture of the company, you can configure the background picture on the Display Configuration page, and the virtual LED is also supported.

5.7.1 Configuring Screen Layout

*Purpose:* Each output screen can be divided into 1, 4, 9 or 16 screens.

*Steps:* 
1. Click to select a screen.
2. Click on the Advanced Setting Area to pop up screen layout interface.
3. Click to select a layout. So the window will be divided into the selected layout.
4. Click again and select to restore to single screen.

5.7.2 Adjusting Screens Position

*Purpose:* While multiple screens overlay in the same window, you can stick one of them on top or at bottom, without having to changing their coordinates.

*Step for sticking on top:* 
Click the screen you want to stick on top.

*Step for sticking at bottom:* 
Click the screen you want to stick at bottom and click in Advanced Settings Area.

5.7.3 Locking Screens

*Purpose:* You can lock a screen, thus to fix it and prevent it from being closed.

*Step:*
Select a screen and click in Advanced Setting Area. Click the again to unlock.

![Figure 5. 16 Advanced Setting Area](image)

### 5.7.4 Configuring Virtual LED

**Purpose:**
Virtual LED is the on-screen display of the text you want to show on the video wall. Only one text string is supported. The font color and background color are configurable.

**Steps:**
1. Click to select the Virtual LED tab in the bottom of video wall interface.

![Figure 5. 17 Virtual LED](image)

2. Click an online video wall controller and input the content you want to show on the video wall in the Current Virtual LED text field.

   **NOTE** The length of content cannot be longer than 256 characters.

3. Click Configuration to configure **Font** and **Background Colour** and **Moving Mode**.
4. Configure **Font and Background Color**.
   - Select the **Show Mode**, **Font Size**, **Font Color**, and **Background Color** in respective dropdown lists.

5. Configure **Moving Mode**.
   - Select **Moving Direction** and **Moving Speed** in respective dropdown lists.

6. Click **OK** to save the settings and back to video wall interface.

7. Click **Show** to display the virtual LED.

### 5.7.5 Editing Background Picture

**Purpose:**
Upload local picture as the background of output screen.

**Steps:**
1. Click **Background Picture** to enter background picture interface.

```
Figure 5. 19 Background Picture
```

2. Click ⌨️ to pop up selecting background picture interface.
3. Input the file path and click **Open** to upload the file. The uploaded picture will replaced the current picture.
4. Click and drag the background picture to the video wall.
5. Select the checkbox of **Show** to enable the background picture. Clear the checkbox to disable it.
The supported resolution of background picture ranges from 1280 × 720 to 16384 × 8192.

The supported formats of background picture are *.jpg and *.jpeg.

The picture name cannot contain more than 32 characters.
Chapter 6 Log Searching

The client log files of the controller can be searched for checking. The client logs refer to the log files of the client and are stored on the local PC.

6.1 Searching Log

Steps:
1. Click the Log Search item in the dropdown list of Tool.

   ![Dropdown List of Tool](image1)

2. Specify the start time and end time.

   ![Log Search Interface](image2)

3. Click Search. The log files meet the conditions be displayed on the list.

   You can check the Operation Time, Description and other information of the logs.

6.2 Filtering Log Files

Purpose:
The search results (log files) can be filtered by the keyword or condition, and thus you can find the logs that you want.

Steps:
1. Click Filter or the icon on the Log Search interface to expand the Log Filter panel.
6. Check the checkbox of Filter by Keyword, and then input keyword for filtering in the text field; 
   Or check the checkbox of Filter by Condition, and then specify log information in the drop-down list.
3. Click Filter to start filtering. You can click Clear Filter to clear the filtering.

6.3 Exporting Log Files

**Purpose:**
The log files, including the client logs and server logs, can be exported for backup.

**Before you start:**
Search out the log files first.

**Steps:**
1. Click Export Log to open the Log Backup dialog box.
2. Click the icon and select a local saving path.
3. Click Backup to export the log file.
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