

网络视频解码器机架

用户手册

SPD-1660R



网络视频解码器机架 用户手册

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- ❖ 设计和规格可能会随时更改，恕不提前通知。
- ❖ 初始管理员 ID 是“admin”，密码应在首次登录时设置。
请每隔三个月更改密码以保护个人信息并避免因信息失窃造成损失。
请注意，用户应负责安全以及密码管理不善导致的其他问题。

概述

重要安全说明

使用装置前请仔细阅读这些操作说明。
请按照下面列出的安全说明操作。
请将这些操作说明放在方便处、以供将来参考。

- 1) 请阅读这些说明。
- 2) 请妥善保管这些说明。
- 3) 注意所有警告。
- 4) 请遵循所有说明。
- 5) 切勿在近水处使用本设备。
- 6) 使用柔软干布或湿布清洁产品表面的污染区域。
(请勿使用含有酒精、有机溶剂或表面活性剂、或含油成分的清洁剂或化妆品，此类物质可能使产品变形或受损。)
- 7) 请勿堵塞任何通风口。根据厂商的说明进行安装。
- 8) 不要将本设备安装在任何靠近热源例如电暖炉、暖气片、或其他(包括扩音器)会产生热气的设备。
- 9) 请勿忽略极化或接地型插头的安全保护用途。极化型插头具有两边、有一边较另一边宽。
接地型插头具有两 边和第三端接地插脚。该宽边或第三端插脚是为您的安全而提供的。
如果所提供的插头不适用于您的插座、请联系电工更换旧插座。
- 10) 保护电线以防践踏或被挤压、特别是插头处、便利插座处以及设备接出处的电线。
- 11) 只使用厂商指定的附加装置/附件。
- 12) 仅可使用厂商指定或随设备出售的运载车、支脚、三脚架、支架或工作台。
使用运载车 时、请小心避免在移动运载车/设备组合时翻覆。
- 13) 在雷雨天气或长时间不用的情况下、请拔下本设备的插头。
- 14) 所有维修应由合格的维修人员执行。设备在具有任何方式的损坏时需要维修服务、如电源线或插头损坏、设备内溅入液体或落入杂物、设备曾淋雨或浸水无法正常操作、或是跌落。



使用前须知

本手册提供使用产品所需的操作信息、并且包含关于每个零部件及其功能和菜单或网络设置的说明。
您必须牢记下列注意事项：

- Hanwha Vision 保留对本手册的版权。
- 如果没有事先得到 Hanwha Vision 的书面允许、严禁复制本手册。
- 对于由于使用非标准产品或不按照本手册中的说明使用产品而造成的任何损失、我们概不负责。
- 如果您要打开系统的机箱检查是否存在问题、请咨询购买产品所在商店的专家。

警告

电池

在产品中换用不正确的电池可能会导致爆炸。因此、您必须使用与产品中正在使用的电池同类的电池。
以下是您现在正在使用的电池的规格。

- 标准电压：3V
- 标准容量：210mAh
- 连续标准负载：0.4mA
- 操作温度：-20°C ~ +60°C (-4°F ~ +140°F)

注意

- 设备上不应放置诸如花瓶一类的装满液体的物品。
- 接入本设备的有线网络天线必须与保护接地隔离,否则可能会引起着火等危险。
- 将电源线连接到接地的插座。
- 将市电插头用作断开连接设备、它应该随时都可操作。
- 不应该将电池放在强热中、例如阳光下、火上或类似的物体中。
- 如果换用类型不正确的电池、那么会有发生爆炸的风险。 请按照说明处置用过的电池。

操作温度

本产品的允许操作温度范围是 0° C ~ 40° C (32° F ~ 104° F)。
若在低于允许温度下长时间存储、本产品将无法立即正确操作。
当要使用在低温下长时间存储后的设备时、请将产品放置在室温中一段时间、然后再运行。
请确保产品存储在适宜的温度条件下。



仅适用于海拔2000m以下地区安全使用

概述

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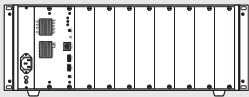
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特性

- 本产品可监控网络摄像机捕获到的视频和音频。
提供可在 PC 上设置本产品的环境。
- 用户友好界面
 - 支持多种 4K 摄像机分辨率 3840x2160@60HZ/30HZ （仅 HDMI-HDMI 1）
 - 最多支持 16 台监视器（每个解码器 2 个输出端 (4K, 1080P) 和一个单独的 VGA（克隆））
 - HDMI 输入（PC 输入 / 仅 1 个端口）
 - 支持 ONVIF Profile S 标准和 RTP / RTSP 协议
 - 可注册最多 128 个通道
 - 警报输入/输出
 - 支持监视器间合并
 - 支持各种用户最定义的布局

包装内容

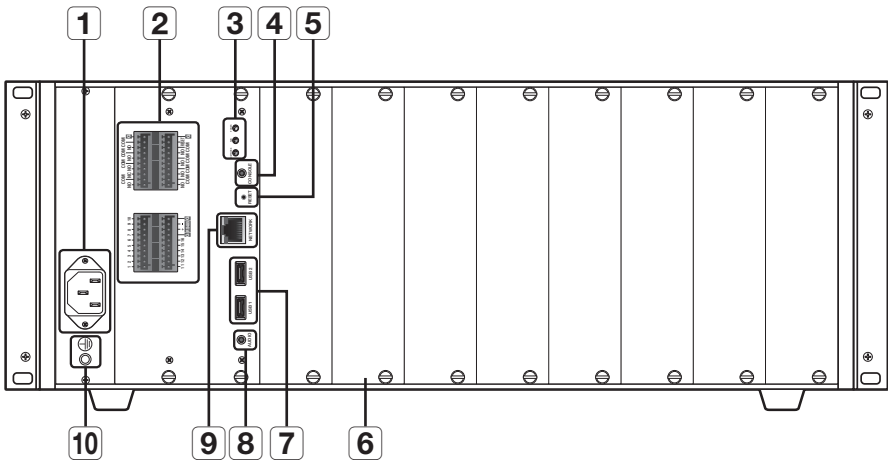
请拆开产品的包装、将产品放在平坦的位置或待安装位置。
请检查除了主装置之外、是否包括下列内容。

		
解码器	电源线	简介
		
接线端子		

概述

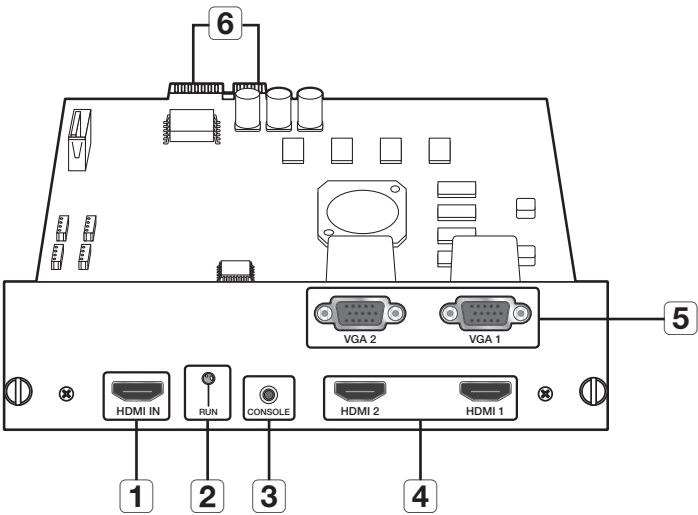
部件名称与功能

SPD-1660R



部件名称		功能
1	Power	电源线连接到的端子。
2	ALARM	- ALARM IN : 警报输入端口。(1~16 CH) - ALARM RESET : 警报重置端口 - ALARM OUT : 警报输出端口。(1~8 CH)
3	LED 指示灯	POWER : 显示电源打开/关闭状态。
		RUN : 显示操作状态。
		NETWORK : 显示网络连接状态。
4	CONSOLE	这是供售后服务使用的设备。（用户不可使用）
5	RESET	重置密码。
6	SPD-260B 安装插槽	这是用于安装叶片 (SPD-260B) 的插槽。 从最左侧插槽开始分别为 1 至 8 插槽，安装叶片 (SPD-260B) 时，规定要从插槽1 开始按顺序使用。
7	USB	这是供售后服务使用的设备。（用户不可使用）
8	AUDIO OUT	音频信号输出口(RCA 插孔)。
9	NETWORK	此端口用于摄像机连接和 web 查看器连接。
10	接地连接	用于连接独立接地电缆的终端。 ■ 添加一根接地电缆，保证设备的安全使用性。

SPD-260B



部件名称		功能
1	HDMI IN	HDMI 视频输入终端
2	RUN	显示操作状态。
3	CONSOLE	这是供售后服务使用的设备。
4	HDMI 1/2	HDMI 连接器端口。 ■ HDMI 1 (支持的最大分辨率：2160P) ■ HDMI 2 (支持的最大分辨率：1080P)
5	VGA 1/2	VGA 视频信号输出口。 ■ 支持的最大分辨率 1080P
6	插孔连接器	在插入叶片 (SPD-260B) 模块时，此端子用于连接叶片和机架。

 ■ SPD-260B 单独销售。

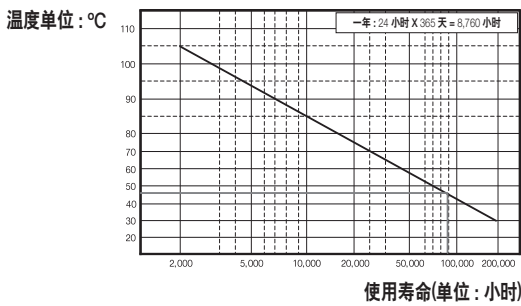
安装

在使用产品之前、请了解下列事项。

- 切勿在室外使用本产品。
- 切勿使水或液体溅湿产品的连接部件。
- 切勿使系统处于震动或摇晃激烈的环境。
- 切勿强行拔出电源线。
- 切勿自行拆解本产品。
- 切勿超出额定的输入/输出范围。
- 仅使用通过认证的电源线。
- 对于输入接地的产品、使用接地的电源插头。

检查安装环境

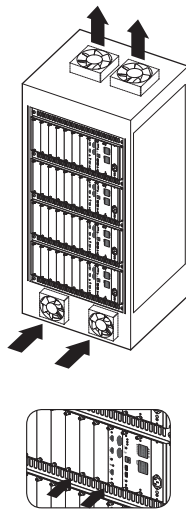
请注意、产品内部温度过高可能会导致系统故障或产品寿命缩短(请参见右图)。在安装产品之前、须牢记下列说明。



[图 1]

当将本产品安装在支架上时、请按照下面的说明操作。

1. 请确保机架内部不是密封的。
2. 请确保空气可以通过进风口和出风口循环。
3. 如果象图 2 所示那样层叠安装产品或其他支架安装式设备、请确保留出通风的空间或安装通风口。
4. 为了形成空气自然对流、请将进风口放到机架的底部、将出风口放在顶部。
5. 强烈建议在进风口和出风口处安装风扇马达、加强空气循环。(请在进风口处安装滤网、过滤出灰尘或异物。)
6. 请让机架内部和周围区域的温度保持在 0°C 到 40° C (32° F 到 104° F) 之间、如图 1 所示。

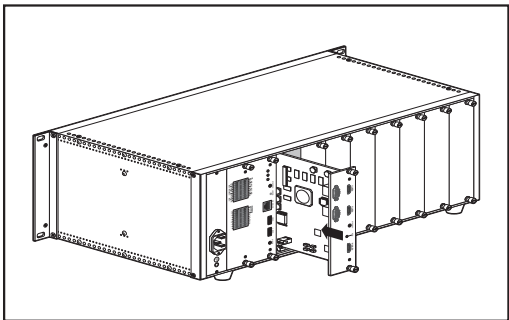
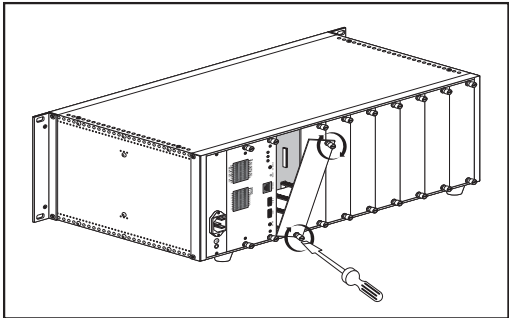


[图 2]

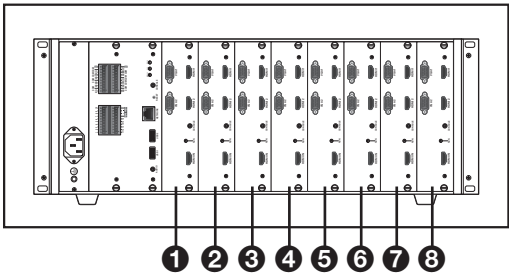
在 SPD-1660R 中安装 SPD-260B 的步骤

! 关闭 SPD-1660R 电源后安装叶片 (SPD-260B)。

1. 拧松 SPD-1660R 叶片 (SPD-260B) 安装插槽盖两侧的螺丝。
2. 如图所示, 将叶片 (SPD-260B) 插入滑槽, 并按箭头方向推动。
3. 将叶片 (SPD-260B) 滑入机架, 直至机架末端对齐, 然后拧紧螺丝。

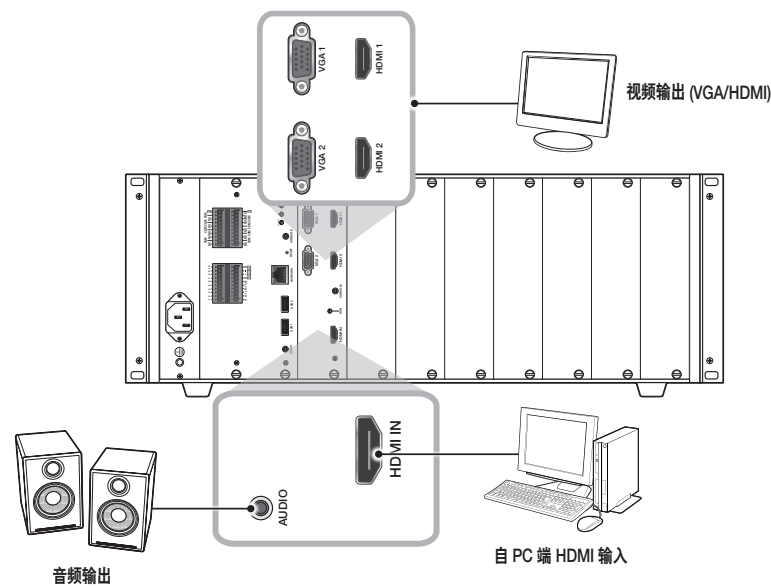


- ✍
- 安装所有叶片 (SPD-260B) 时适用。
 - 自左侧开始按顺序安装叶片 (SPD-260B) (图 1)。



连接其他设备

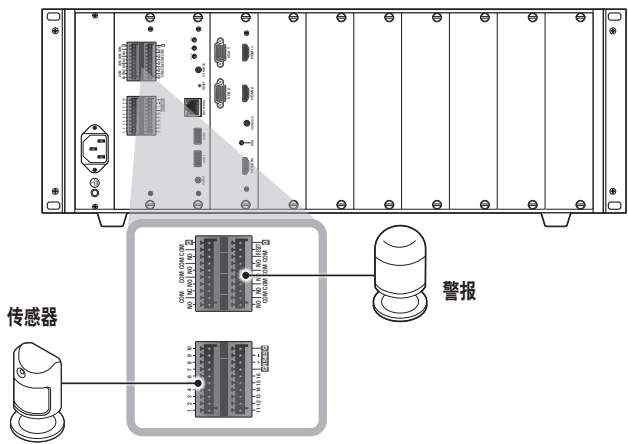
连接至外部设备



-
- 非额定或不正确的电源可能会导致损坏系统。在按“电源”按钮之前、请确定您仅使用额定电源。
 - HDMI 不支持音频输出。

连接警报输入/输出

背面的警报输入/输出端口由下列各项组成。



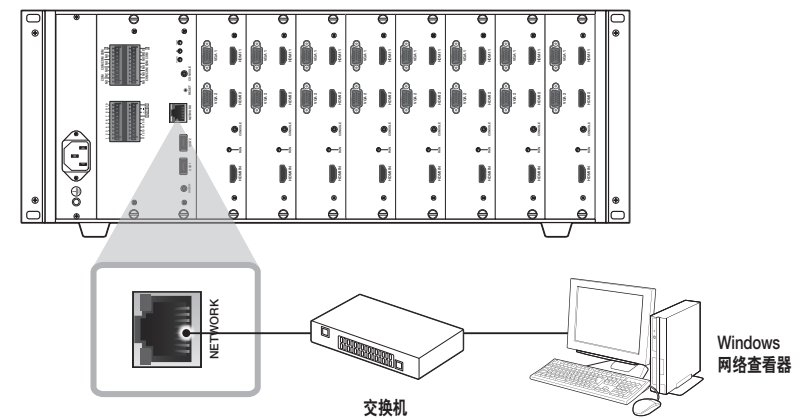
- ALARM IN 1 ~ 16 : 警报输入端口
- ALARM RESET : 接收到警报重置信号时、系统取消当前警报输入并继续感应。
- ALARM OUT 1 ~ 8 : 警报输出端口

网络连接和设置

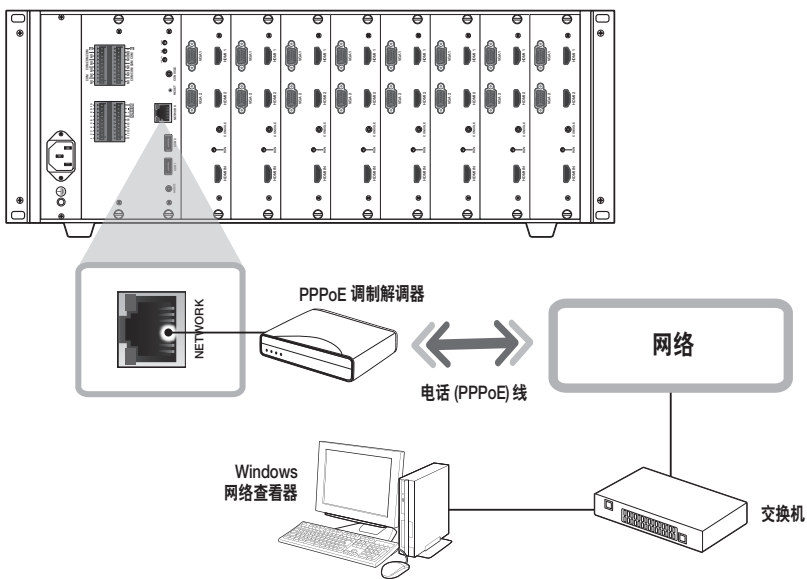
连接网络

有关网络连接的更多信息，请参阅“网络配置”。(第 24 页)

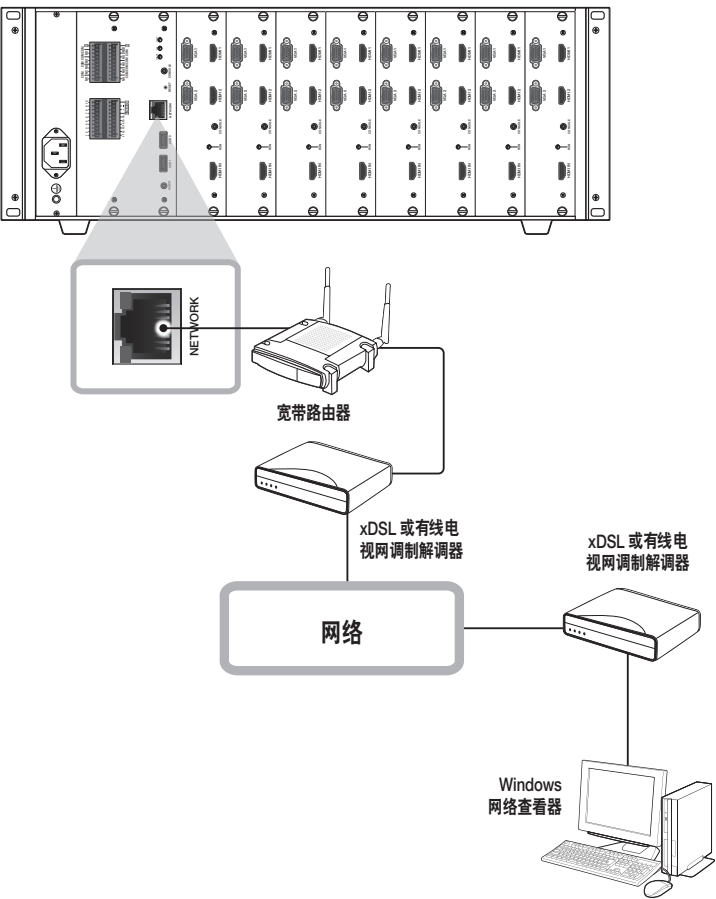
通过以太网进行的网络连接 (10/100/1000BaseT)



通过 PPPoE 连接至网络



通过路由器进行的网络连接



网络连接和设置

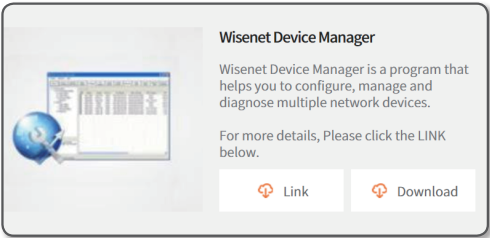
如何使用“DEVICE MANAGER”

使用Wisenet Device Manager可设置、操作网络，并可轻松检查网络状态。

如何安装“Device Manager”

“Device Manager”可以访问Hanwha Vision网站（<http://www.HanwhaVision.com>）进行下载。

1. 访问Hanwha Vision网站后，在<Technical Guides> - <Online Tool>中下载“Device Manager”程序。
2. 请安装已下载的“Device Manager”程序。
 - “Device Manager”程序安装成功后将自动开始运行。
 - 您可以在主页的<Help>菜单中查看如何使用“Device Manager”。



查看“Device Manager”视频指南

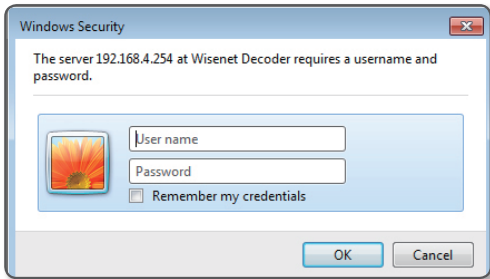
请在“Device Manager”程序下载界面中点击<  Link >。可通过视频确认以下内容。

- “Device Manager”概要
- 产品登录及密码变更
- 项目管理
- 更改产品IP
- 产品信息报告确认
- 产品设置保存/复原
- 摄像机视频设置
- 摄像机设置
- 固件下载/更新

连接至网络解码器的步骤

通常，您应该

1. 启动Web浏览器。
2. 用户可打开互联网浏览器并在地址栏中输入网络解码器的 IP 地址。
 - 例) • IP 地址 (IPv4) : 192.168.1.200 → <http://192.168.1.200>
 - 将会出现登录对话框。
 - IP 地址 (IPv6) : 2001:230:abcd:ffff:0000:0000:ffff:1111 → [http://\[2001:230:abcd:ffff:0000:0000:ffff:1111\]](http://[2001:230:abcd:ffff:0000:0000:ffff:1111])
 - 将会出现登录对话框。



如果 HTTP 端口为除 80 以外的值

1. 启动Web浏览器。
2. 在地址栏中输入网络解码器的 IP 地址和 HTTP 端口号。
 - 例) IP 地址 : 192.168.1.200:HTTP 端口号(8080) → <http://192.168.1.200:8080>
 - 将会出现登录对话框。

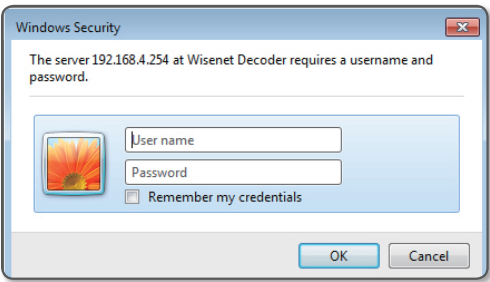
登录

购买后首次连接时，ID 是"admin"，密码是"4321"。

- 1. 在 <用户名> 输入框中输入 “admin”。
- 2. 在<Password>字段中输入 “4321”。首次使用时会出现密码设置窗口。如更改了密码，请输入新密码。
- 3. 点击[OK]按钮。完成登录时，将出现视频墙设置屏幕。

- 
- 为安全起见，务必要在设置屏幕中的<用户>-<管理员>项下更改密码。
 - 输入用户名和密码，然后勾选 ‘将密码保存在密码列表中’ 复选框，下次您连接时将自动为您设置用户名和密码。

- 
- 纵横比为 100% 时 Internet Explorer 的图像显示效果最佳。如减小纵横比，屏幕可能看似经过 ‘裁剪’。
 - 不能使用"admin"帐号重复登录。
 - 从断开"admin"帐号连接到访问用户帐号需要约五分钟时间。



系统要求

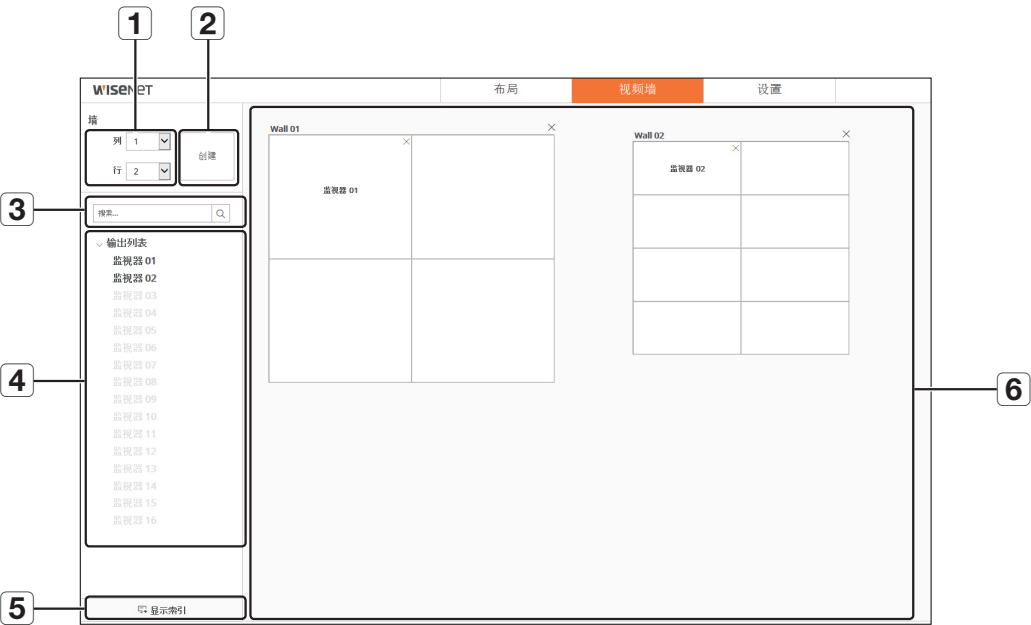
运行 web 查看器的最低硬件和操作系统要求是：

名称	最低要求
OS	- 受支持的 OS: Windows7、Windows8、Windows10、Mac OSX 10.11、10.12 - 受支持的浏览器：2017（或 2016）年以后发布的、Edge38、Chrome/Firefox，适用于 Mac OSX 10 或 11 的 Safari。
网络	10/100/1000 Ethernet NC

视频墙

视频墙设置

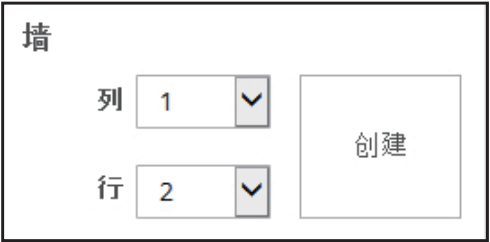
设置已连接监视器的定位和布局。



菜单名称		功能描述
1	列/行	设置要创建的视频墙的行数和列数。
2	视频墙创建	按照您的设置数量创建视频墙。
3	搜索	从输出列表中搜索监视器。
4	输出列表	显示已连接的监视器的列表。将启用已连接的监视器。
5	显示索引/隐藏索引	选择是否在相关监视器上显示索引。
6	背景	分配生成的视频墙。

设置视频墙的步骤

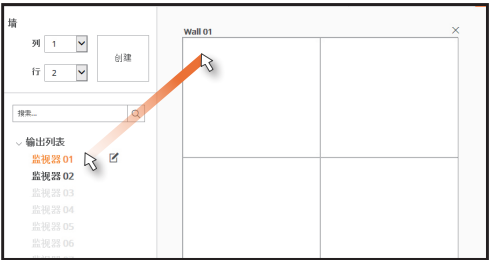
- 在视频墙屏幕的左上方设置行/列数。
 - 按列/行创建的视频墙可构成 N（解码器数量）X 2（支持两台解码器铃声监视器）台监视器。
例）安装 4 个解码器时，最多可使用由 8 (4x2) 列X行组成的 8 台监视器。
- 点击 <创建>按钮。
- 设置的视频墙将在屏幕右侧进行注册。



如分配至所创建的适配器的监视器超过一台，您将无法输入布局菜单。

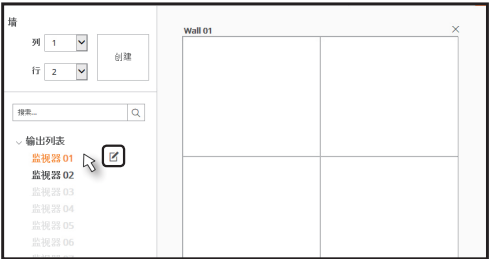
分配监视器的步骤

- 从屏幕左侧的已连接监视器的列表中，选择您想要分配给视频墙的监视器，然后点击并将其拖动至对应位置。
- 要删除已分配至视频墙的监视器，点击已分配监视器右上角的 [X]。



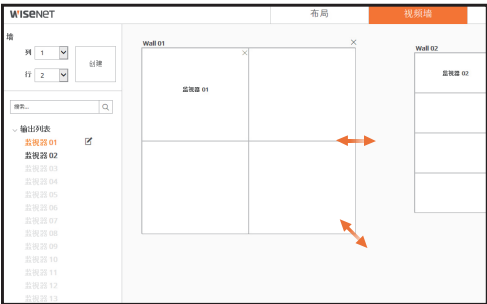
编辑监视器的步骤

- 从监视器列表中选择监视器时，将出现编辑监视器按钮。
- 点击 [编辑] 按钮设置监视器的分辨率。
 - 分辨率：HDMI 1 监视器可设置为 1280*1024 720P、1080P、1440P 和 2160P。HDMI 2 监视器可设置为 1280*1024 720P 和 1080P。

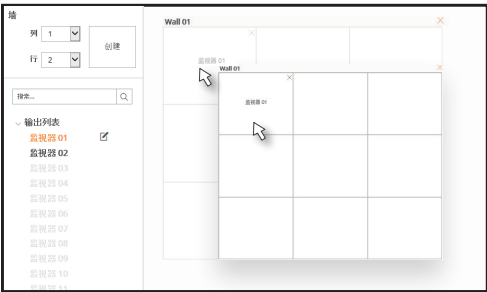


编辑视频墙

1. 鼠标光标悬浮在视频墙边缘时，鼠标光标将发生变化，视频墙可以执行放大和缩小操作。视频墙可以被放大，与其他视频墙重叠。



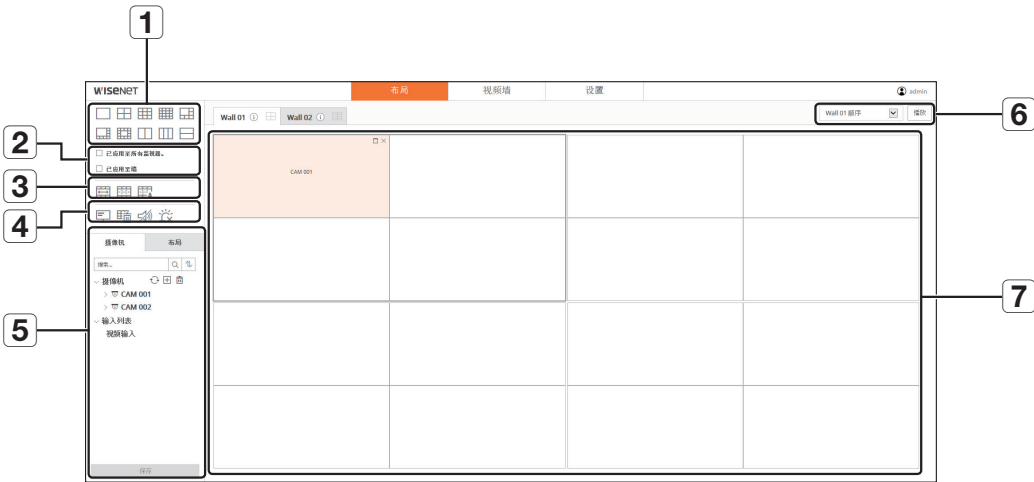
2. 点击并拖动即可移动视频墙。
3. 点击视频墙右上角的 [×] 按钮将弹出确认消息。选择<确定>删除视频墙。



布局

布局

-
- 从视频墙菜单创建墙。您创建的每个视频墙必须分配到至少一台监视器。请参阅“视频墙设置”菜单（第 14 页）。



菜单名称		功能描述
1	分屏	为每台监视器选择分屏。
2	已应用至所有监视器。	将选定的分屏设置同时应用至所有监视器。
	已应用至墙	将选定的分屏设置应用至所有视频墙。
3		选择两台或更多监视器然后合并
		选择已合并的图块并释放。
		释放所有已合并的图块。
4		选择是否使用 OSD 显示功能。选择了 OSD 显示时，监视器屏幕左上角将显示摄像机信息。
		将删除分配至监视器的所有摄像机。
		选择音频开/关。 如音频开启，当鼠标光标悬浮其上时，可使用工具提示框查看当前已开启的音频通道。
		警报声响起时解码器传感器警报停止。

菜单名称		功能描述
5	摄像机	添加、编辑和删除摄像机。
	布局	添加、编辑和删除布局。
6	序列播放	选定的视屏墙的布局将按照顺序播放。 在播放之前必须创建至少两个布局。
7	视频墙监视器	显示设定的视频监视器。

更改分屏

选择分屏时点击按钮，则屏幕会变为分屏。



• 将分屏同时应用至所有监视器

例）将包含 4 台监视器的视频墙 (2x2) 批量设置为 1+5 分屏



• 将分屏应用至视频墙

例）将包含 4 台监视器的视频墙 (2x2) 批量设置为 1+5 分屏的单一屏幕



合并/拆分监视器图块

合并监视器图块

1. 选择两个或更多要合并的监视器图块，然后点击 [⌘] 按钮。



2. 选定的图块将合并为一个图块。

- ! 仅当屏幕等分为 NxN (2x2, 3x3, 4x4) 时可在监视器之间合并分屏。



释放监视器图块

1. 选择合并的图块并点击 [⌘] 按钮。



2. 选定的图块将分为原始状态。
3. 如未选择已合并的具体图块便点击 [⌘] 按钮，所有已合并的图块将被拆分。



注册摄像机

网络摄像机可注册并被分配给各监视器。

自动搜索和注册网络摄像机

1. 按摄像机条目上的 [⊕] 按钮。
2. 搜索已连接的网络摄像机。
 - 已注册的摄像机将在列表中标记为蓝色。
 - 如果重新搜索或摄像机IP因为DHCP服务器无法分配IP 而一直维持相同IP时(例-192.168.1.200), 单击 <刷新> 按钮检查是否已分配IP。如果仍然相同, 则可以选择分配 IP 地址直接进行分配。
3. 单击列表上方的标题部分即可重新排列搜索列表。
 - 通过 ONVIF 搜索到的摄像机不提供预览。
4. 选中您希望连接到的网络摄像机旁的复选框。
 - 您可以选中列表中的所有网络摄像机并一次性分配 <ID> 和 <密码>。
 - 单击列表上方的标题部分即可重新排列搜索列表。

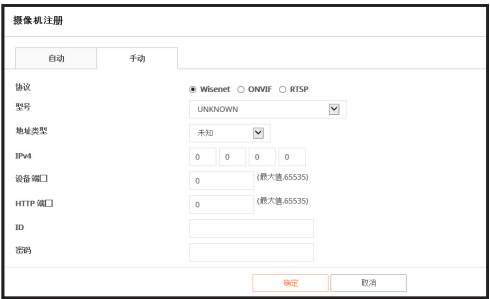
- ! 在摄像机 web 查看器中更改摄像机 ID/密码时, 如摄像机已在解码器中注册, 也要更改在解码器中注册的摄像机 ID/密码信息。

5. 单击 <ID/密码> 按钮来输入所选网络摄像机的 <ID> 和 <密码>。
6. 单击 <连接测试> 按钮来连接到摄像机。
7. 单击 <确定> 来注册所选的摄像机。



手动搜索和注册网络摄像机

1. 按 <手动>按钮。
2. 手动搜索窗口将会出现。
3. 选择频道以及用于连接到摄像机的协议。
输入项目可能会因选择的协议而异。
 - Wisenet：符合 Hanwha Vision 采用的内部网络协议。
 - ONVIF：表示摄像机支持 ONVIF 协议。当连接在列表中找不到其名称的摄像机时，请选择 <ONVIF>。



- 如 ONVIF 摄像机和解码器的时间差不是 2 分钟，二者将无法连接。此时，解决方法是更改 ONVIF 摄像机事件，或将摄像机和解码器的时间同步至 NTP 服务器（时区相同的情况下），或者将解码器用作 NTP 服务器。
- RTSP：符合 RFC 2326，其为实时流的其中一种“**实时流协议**”。
4. 如果选择 <Wisenet>协议，请根据需要选择选项。
 - 型号：选择摄像机型号。
 - Wisenet 网络摄像机/编码器：表示摄像机/编码器支持 Hanwha Vision 的 SUNAPI, SVNP 协议。连接未出现在摄像机列表中的摄像机时，请选择 Wisenet 网络摄像机/编码器。
 - 地址类型：选择摄像机的地址类型。
地址类型可能会因所连接的产品型号而异。
 - 静态 (IPv4)：用于手动提供摄像机的 IP 地址。
 - Wisenet DDNS：仅当已向 Wisenet DDNS(ddns.hanwha-security.com) 服务器注册摄像机时，此项才可用。提供 DDNS ID 的已注册域。
例如) http://ddns.hanwha-security.com/snb5000 → provide "snb5000" for Wisenet DDNS
 - URL：用于 URL 地址输入。

请参阅所连接摄像机的用户手册，并检查摄像机支持的 DDNS 规范。

- IPv4：输入摄像机的 IP 地址。
- 设备端口：提供摄像机的设备端口。
- HTTP 端口：提供摄像机的 HTTP 端口。
- ID：提供要注册的摄像机的 ID。
- 密码：输入要注册的摄像机的密码。

5. 选择 <ONVIF> 或 <RTSP> 作为协议并为出现的每个字段输入值。
 - ONVIF Address/RTSP URL：输入支持 ONVIF 或 RTSP 的摄像机的 RTSP 访问地址。
 - IPv4：输入摄像机的 IP 地址。
 - ONVIF 端口：输入摄像机的 ONVIF 地址。
 - RTSP 访问地址：输入支持 ONVIF 或 RTSP 的摄像机的 RTSP 访问地址。请参阅摄像机手册，了解关于具体 RTSP 访问地址的信息。
 - ID：输入用于通过 ONVIF/RTSP 协议进行访问的 ID。
 - 密码：输入用于通过 ONVIF/RTSP 协议进行访问的密码。
- 更多详细信息：如点击<更多详细信息>，将出现设置窗口。选择在 RTSP 连接模式下网络摄像机支持的模式。
 - TCP：与网络摄像机进行的连接类型将切换为“基于 TCP 的 RTP”。
 - UDP：与网络摄像机进行的连接类型将切换为“基于 UDP 的 RTP”。
 - HTTP：与网络摄像机进行的连接类型将切换为“基于 TCP (HTTP) 的 RTP”。
 - HTTPS：与网络摄像机进行的连接类型将切换为“基于 TCP (HTTPS) 的 RTP”。

如果要检查摄像机注册的错误详细信息

如果您无法注册摄像机，将会显示失败的原因。

- **由于未知错误导致连接失败。**：如果由于未知连接状态导致无法注册摄像机，则此消息将会出现。
- **由于摄像机账户锁定，访问失败。**：如果登录摄像机账户时输入错误 ID/密码 5 次，即显示该消息。请在 30 秒后尝试重新登录。如果仍然出现该消息，您可能需要查看是否有人尝试从外部访问您的摄像机。
- **已成功连接。**：如果摄像机已成功连接，则此消息将会出现。
- **型号信息不正确。请提供正确的型号信息。**：如果提供用于注册摄像机的型号信息不正确，则此消息将会出现。
- **身份验证失败**：如果提供用于注册摄像机的 ID 或密码不正确，则此消息将会出现。
- **连接失败（并发用户太多）。**：如果并发用户数超过上限，则此消息将会出现。
- **由于 HTTP 端口信息不正确，连接失败。**：如果摄像机的 HTTP 端口号无效，则此消息将会出现。
- **连接失败。未知连接状态。**：如果由于未知错误导致无法连接摄像机，则此消息将会出现。

编辑已注册摄像机的步骤

对摄像机列表排序

点击搜索的右侧 <[🔍]> 按钮，可按照名称/IP 对摄像机列表排序。

- 选择“按 IP 排序（升序）”时，摄像机按照 IPv4 顺序排序，通过 URL/IPv6 注册的摄像机在列表后排序。



编辑摄像机

- 从摄像机列表中选择想要编辑的摄像机。

- 点击 [↻] 按钮再次更新摄像机访问信息。



- 点击已选定摄像机右侧的 [✎] 按钮时，将弹出摄像机修改窗口。
- 编辑想要更改的信息，然后点击 <确定>。



视频配置文件

您可以对已连接网络摄像机的视频配置文件进行设置。

- 可仅设置为摄像机支持的配置文件。

- 分别设置高分辨率和低分辨率后，可在布局中分配所需的分辨率。
 - 请参见“分配摄像机”。（第 20 页）



摄像机名称

可设置摄像机名称。



删除摄像机

选择想要删除的摄像机，并点击 [🗑️] 按钮即可删除摄像机。

- 如点击摄像机右侧 [🗑️] 按钮，可从摄像机整体列表中删除该摄像机。

编辑视频输入

- 选择视频输入并点击 [✎] 按钮。
- 可选择已连接的监视器输入的分辨率。（1080HDMI、720HDMI、1080DVI、720DVI）



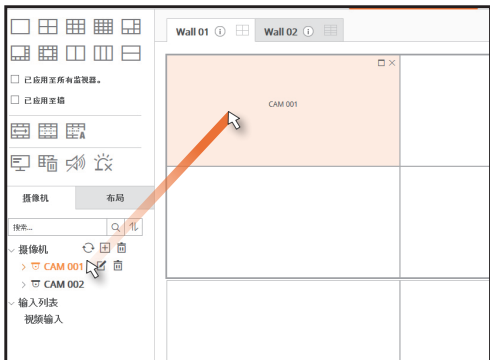
布局

分配摄像机

1. 从屏幕左侧的已连接摄像机列表中拖动您想要分配至监视器的摄像机。
2. 要删除已分配的摄像机，点击已分配监视器右上角的 。



- 如通过点击拖动的方式分配摄像机，多于 4 屏分的布局将自动分配到低分辨率配置文件，4 屏分或更少屏分的布局将自动分配到高分辨率配置文件。
- 如在点击摄像机列表左侧的  箭头按钮时拖动出现的高分辨率和低分辨率配置文件，可直接将它们分配至对应的配置文件。
- 点击  按钮时，视频墙将扩大至全屏。
点击  按钮时，视频墙缩放比例更改为原始大小。



设置布局

注册摄像机后如未添加或保存布局，不会出现该屏幕。

添加布局的步骤

1. 点击 **[田]** 按钮。
2. 设置想要添加的布局的名称，勾选是否使用序列。
选择序列使用后，如设置序列切换时间，将在设置的时间间隔播放序列。
3. 点击 **<确定>** 按钮添加布局。



- 使用<搜索>字段可搜索已注册的布局。



编辑布局的步骤

1. 选择想要编辑的布局并点击 [] 按钮。
2. 修改想要更改的信息之后，点击<确定>。



删除布局的步骤

1. 选择想要删除的布局并点击 [] 按钮。
2. 点击 <确定>。



- 如未按<保存>按钮，所做更改不予保存。



菜单设置

可设置系统环境、用户、摄像机设备（SSM 模式）、事件和网络。

系统设置

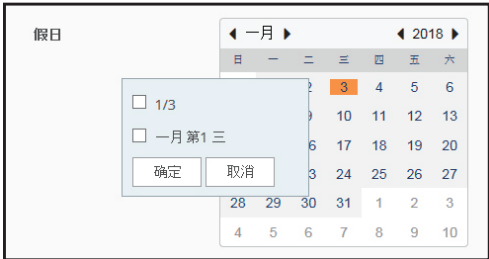
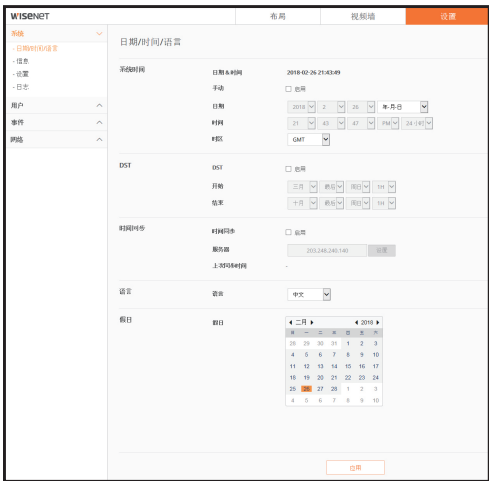
可设置日期/时间/语言、系统环境和日志信息。

日期/时间/语言

设置日期/时间/语言

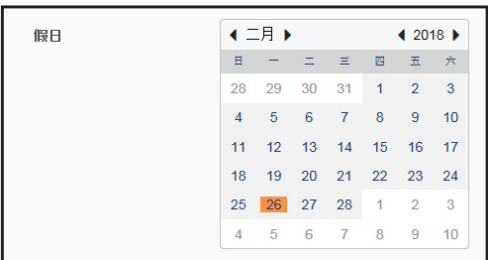
您可以检查和设置当前日期/时间和与时间相关属性，以及屏幕界面所用的语言。

- 系统时间设置：设置要应用至系统的时间。
 - 日期&时间：设置将出现在屏幕上的日期及其格式。
 - 手动：手动设置系统时间。
 - 日期：设置要应用至系统的日期。
 - 时间：设置要应用至系统的时间。
 - 时区：基于标准时间 (GMT) 设置解码器安装地所在的居住区域的时区。
 - GMT（林威治标准时间）是标准的世界时间和世界时区的基础。
- DST：设置夏令时及其时间段，在设置的时间段内，使时间比时区内的 GMT 快 1 小时。
- 时间同步：指定使用与时间服务器的同步。
 - 如果您选择使用 <服务器>，将依据定义为 <服务器> 的服务器定期同步当前时间。
 - 如果是这种情况，您不能手动更改时间设置。
 - 时间同步：指定使用与时间服务器的同步。
 - 服务器：输入时间服务器的 IP 地址或 URL。
 - 上次同步时间：显示最近与选定的时间服务器同步的时间。
- 语言：选择您的语言。设置界面语言。
 - 支持英语、法语、德语、西班牙语、意大利语、汉语、俄语、韩语、波兰语、日语、荷兰语、葡萄牙语、土耳其语和瑞典语。
- 假日：用户可以根据自己的偏好选择某些日期为假日。相同设置适用于<警报输出预约>假日设置。
 - 例如，如果您选择 1 月 3 日并选中 <1/3>，各年份的第一天即设置为假日；如果您选中 <1/3> 和 <一月第1三>，各年份的第一天和 1 月的第一个星期三即设置为假日。



使用日历

1. 选择年份和月份。
 - 在年份和月份的结束日期选择 <◀ ▶> 键，向后/向前移动到上一/下一年度或之前/之后一个月。
2. 选择所需日期，然后单击 <确定> 按钮。
 - 执行系统日志时，要检索的日期数据将显示为红色。



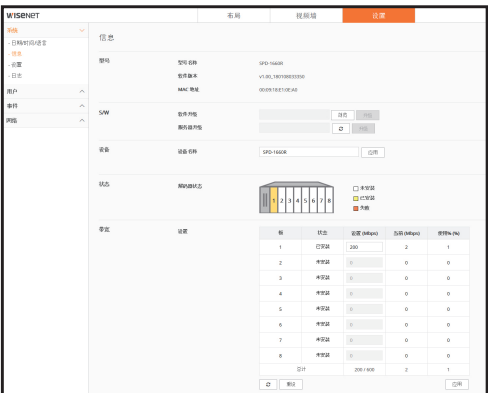
系统管理

您可以查看系统版本、更新到新版本以及执行数据备份和初始化。

检查系统信息

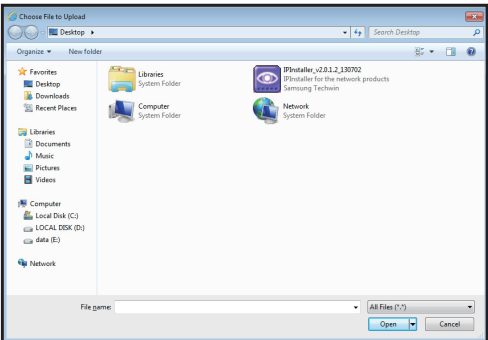
在升级之前，您可以检查当前软件版本和 MAC 地址。

- 型号：显示当前系统的信息。
 - 用户不能更改这些值。
- 软件升级：通过浏览器找到您想要升级的固件文件，选择该文件以升级。
 - 点击 <浏览> 搜索按钮时，会弹出允许您选择上传文件的窗口。
- 服务器升级：点击 [] 按钮即可升级至任一新固件。
- 设备名称：在网络查看器中连接至解码器时出现的名称。
- 解码器状态：显示解码器和 SPD-260B 的连接状态。
- 带宽：显示每台解码器板可为用户处理的数据量。如已安装解码器板，每台解码器可设置最高速度为 20-200Mbps，总体处理速度可达 600Mbps。



升级当前软件版本

1. 点击 [浏览] 按钮。
2. 选择要升级的软件并点击<Open>按钮。
3. 点击[升级]按钮。



菜单设置

设置

在解码器中设置的信息同样适用于使用此存储介质的其他解码器。

- 操作模式：操作模式作为视频墙控制和配置的方式，可选择独立式 <独立式> 或 <SSM>。选择操作模式并点击更改<更改> 按钮后，将初始化至对应的模式并重启。
 - 在 SSM 模式下连接至 web 查看器时，web 查看器中仅可激活 <设置>功能。详细布局和视频墙设置可在 SSM 模式下配置。
 - 在 SSM 模式下连接至 web 查看器时，将添加“设置 > 设备”设置项。如需了解详情，请参阅“设备” (第 23 页)。



- 导出：解码器中设置的信息将保存至连接到 PC 的存储介质。
- 导入：应用存储在连接到 PC 和解码器的存储介质中的设置信息。
 - 取消选中您所希望导入项目的复选框。仅除选定设置项之外的项目可应用至解码器。
 - <导出>和<导入>设置必须在相同软件版本中使用。导入不同版本的软件创建的设置文件可能导致异常操作。
- 载入出厂默认值：可将解码器的设置状态更改为初始状态。取消选中您所希望重设项目的复选框。然后只有所选项目之外的其他项目才会恢复工厂默认值。如果选择 <初始化>，将出现“载入出厂默认值”的确认对话框。单击 <确定> 将系统初始化为出厂默认值。
- 关闭电源：如果关闭电源，则会生成第一个警报。选中复选框之后，如果按下 <应用> 按钮，则会解除设置为第一个警报输出的所有事件警报，之后其他警报输出将无法选择第一个警报。
 - 如果设置了该功能，则第一个警报输出复选框以及警报设置屏幕中的所有警报都将被禁用，状态变为“关”。

- 如重置用户，需要重置密码。

日志信息

可检查与系统相关的历史记录信息。

检查系统日志

系统日志显示在系统每次启动、关闭和更改系统设置时的日志和时间标记。

- 搜索日期：单击日历图标来显示日历窗口，或者使用方向按钮指定系统日志的搜索期间。
 - 有关使用日历的信息，请参阅“使用日历”。（第 21 页）
- 搜索：指定日期，然后单击该按钮显示日志列表中的搜索结果。
- 类型：如果日志太多，可以通过选择类型来显示所需格式的日志。
- 导出：将解码器中记录的所有日志信息存储在与 PC 相连的存储介质中。



用户

各用户分配到的解码器具体功能或设置优先项可能有所不同。

设置管理员

您可以设置或更改管理员的 ID 和密码。管理员可以使用和设置所有菜单项和功能。

- ID：更改管理员 ID。
- 密码：查看当前密码。
- 新密码：输入新密码。
- 确认密码：确认新密码。
 - 如选中<查看密码>当您输入密码时，屏幕上将不再隐藏密码符号。



- 初始管理员 ID 是 admin，密码可在初次登录时重置。
- 请每隔三个月更改密码来保护个人信息，并预防信息失窃造成的损失。请注意，安全性以及密码管理不善导致的任何问题须由客户负责。

添加用户

- 点击 [添加] 按钮时，将出现添加用户窗口。
- 勾选 <使用>，然后输入姓名和 ID/密码。
- 按 <应用>。注册的用户信息已保存。



删除用户信息的步骤

- 选择想要删除的用户信息，然后按 [删除] 按钮。
- 将删除选定的用户信息条目。

使用用户帐号访问

使用用户帐号登录时仅可更改布局。

设备

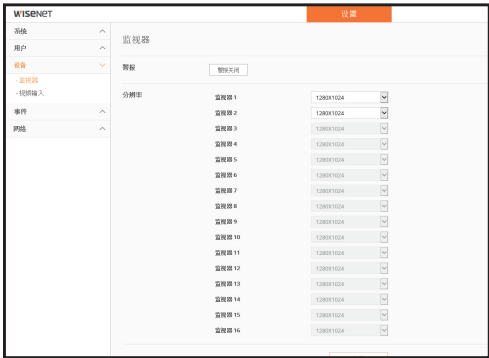
设置 PC 输出分辨率和监视器分辨率



- 仅当“操作模式”设置为<SSM>时，<设备>显示为设置项菜单。
- 该功能与在<独立式>模式下“布局选项卡”左下方视频输入编辑窗口管理的功能相同。

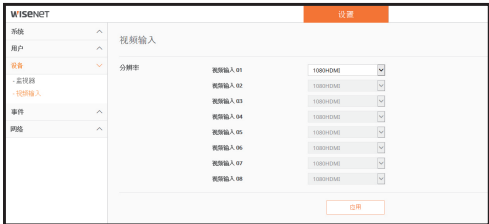
设置监视器

此处设置的是每台解码器的监视器分辨率。
HDMI1 输出支持 1280*1024、720p、1080p、1440p 和 2160p 分辨率，HDMI2 输出支持 1280*1024、720p 和 1080p 分辨率。



视频输入

PC 输入至解码器时，可设置 PC 输出的分辨率。



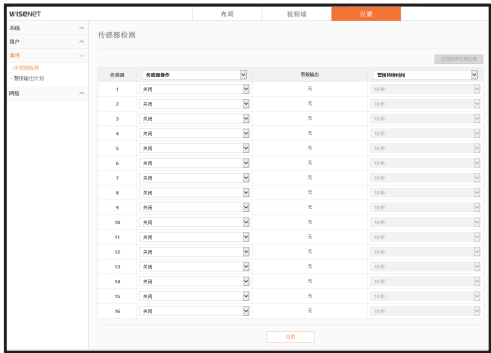
设置事件

发生传感器检测事件时，连接至解码器的传感器可生成所需的警报输出。

传感器检测

可设置传感器工作条件、警报输出方式和时间。

- 传感器操作：设置传感器的操作模式。
 - <常开 (N.O)>：传感器处于打开状态。如果传感器被关闭，会发出警报。
 - <常闭 (N.C)>：传感器处于关闭状态。如果传感器被打开，会发出警报。
- 警报输出：设置警报输出方式。
 - 如选择<全部>，将同时听见警报输出声和嘟嘟声。
 - 如选择<嘟嘟声>，将能听见嘟嘟声。
 - 如选择<1>、<2>、<3>、<4>、<5>、<6>、<7> 或 <8>，信号将输出至警报输出端子。
- 警报持续时间：设置警报信号和警报声音的持续时间。



警报输出计划

您可以设置计划警报的条件和操作时数。

- 警报输出：设置警报输出方式。
 - <打开>：以黄色显示。警报将始终在设定的时间输出。
 - <关闭>：以白色显示，即使发生事件，也不会输出警报。
 - <事件同步>：以橙色标记，仅当发生事件时产生警报。
- 应用于所有警报输出：将配置的计划应用于所有警报。



- 当警报在计划的时间内产生时，您可以通过取消计划停止警报。



菜单设置

网络配置

可配置使用网络功能相关的设置。

网络

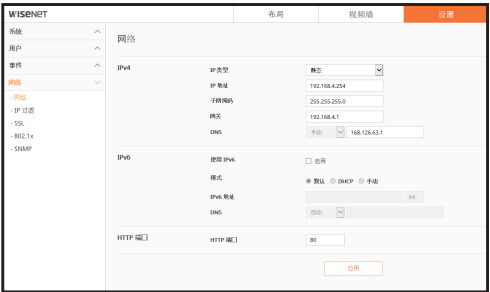
您可以设置网络连接路由和协议。

设置网络连接

用于摄像机连接和 web 查看器/SSM 访问和连接。

- IP 类型：选择网络连接类型。
- IP 地址、子网掩码、网关、DNS
 - <静态>：您可以手动输入 IP 地址、子网掩码、网关和 DNS。
 - <DHCP>：将自动设置 IP 地址、子网掩码和网关的值。
 - <PPPoE>：将自动设置 IP 地址、子网掩码和网关的值。
- 用户 ID、密码：如果将连接模式设置为 PPPoE，您需要输入“用户 ID”和“密码”来在 PPPoE 中注册。

■ 如果将其选择为 <手动>，您可以手动输入 <DHCP> 和 <PPPoE> 的 DNS。



连接和设置网络

网络可能不同于连接方式，请在设置连接模式前检查您的网络环境。

不使用路由器时

- 静态模式
 - 互联网连接方式：可使用固定 IP 和租赁线路连接，也可以在 LAN 环境中将解码器与远程用户连接起来。
 - 设置解码器网络的步骤：将已连接的解码器的<网络>菜单中的<网络>设置为<静态>。
 - 请咨询您的网络管理员以获取 IP、网关和子网掩码。
- DHCP 模式
 - 互联网连接方式：可直接将解码器连接至线缆调制解调器，直接将解码器连接至基于 DHCP 的调制解调器，或者也可直接将解码器连接至光纤 LAN。
 - 设置解码器网络的步骤：将<网络>菜单中的<网络>设置为<DHCP>。

- PPPoE
 - 互联网连接方式：PPPoE 调制解调器直接被连接至解码器，PPPoE 连接要使用 ID 和密码。
 - 设置解码器网络的步骤：将已连接的解码器的<网络>菜单中的<网络>设置为<PPPoE>。
 - PPPoE 的 <用户 ID> 和 <密码> 应与 PPPoE 用户信息相同。如果您不知道该 ID 和密码，请咨询您的 PPPoE 服务提供商。

使用路由器时

■ 要避免解码器的静态 IP 冲突，查看以下内容。

使用静态 IP 设置解码器

- 互联网连接方式：可将解码器连接至已连接 PPPoE/线缆调制解调器的 IP 路由器，或将解码器连接至本地网络 (LAN) 环境中的 IP 路由器。

设置解码器网络

1. 将已连接的解码器菜单中的<网络>设置为<静态>。
2. 检查设置的 IP 地址是否在宽带路由器提供的静态 IP 范围之内。
IP 地址、网关和子网掩码：请咨询您的网络管理员。
 - 检查设置的 IP 地址是否在宽带路由器提供的静态 IP 范围之内。

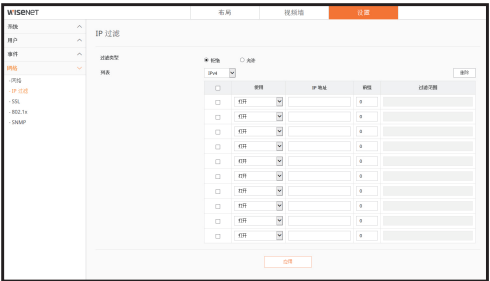
■ 如果 DHCP 服务器配置了开始地址 (192.168.0.100) 和结束地址 (192.168.0.200)，您应在配置的 DHCP 范围 (192.168.0.2 ~ 192.168.0.99 和 192.168.0.201 ~ 192.168.0.254 之外) 设置 IP 地址。

3. 检查网关地址和子网掩码是否与设置在宽带路由器中的相同。

IP 过滤

您可以准备 IP 地址列表来允许或阻止对某个 IP 地址的访问。

- 过滤类型：
 - 拒绝：如果选择拒绝，将限制对所注册 IP 地址的访问。
 - 允许：如果选择允许，则只能访问所注册的 IP 地址。
- 使用：为将使用 IP 过滤的 IP 地址选中该复选框。
- IP 地址：输入要过滤的 IP 地址。
- 过滤范围：如果输入 IP 地址或前缀，将显示阻止或允许的 IP 地址的范围。



■ 如果某摄像机的 IP 地址没有包括在“允许”列表中，或者位于“拒绝”列表中，系统将拒绝对它的访问。

SSL

您可以选择安全连接系统或安装公共证书。

- 安全连接系统：您可以选择一种类型的安全连接系统。
 - HTTP（非安全连接）
 - HTTPS（使用唯一证书的安全连接）
 - HTTPS（使用公共证书的安全连接）

- ! 将解码器设备连接至外部互联网时，建议使用安全连接或在安全性高的环境中进行。

- 安装公共证书：您可以浏览和注册要安装的公共证书。如果您希望使用证书，您需要安装证书文件以及加密文件。
 - 只有存在已注册公共证书的情况下才能选择 <HTTPS（使用公共证书的安全连接）> 菜单。



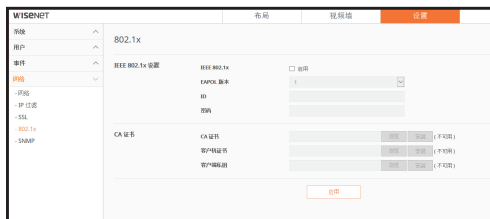
802.1x

连接至网络时，您可以选择是否使用 802.1x 协议并安装相应的证书。

802.1x 是服务器和客户端的一种证书系统。它可以保证可靠运行，保护网络收发数据免受黑客窃用并防范病毒或信息泄漏。

通过使用该系统，您可以阻止未经认证的客户端的访问，只允许与认证用户通信，从而提高安全级别。

- EAPOL 版本：选择要用作协议的 EAPOL 版本。
 - 如果设置为版本 <2>，某些交换机集线器可能不工作。选择版本 <1>。
- ID：输入 RADIUS 服务器管理员提供的 ID。
 - 如果输入的 ID 与客户端证书中的 ID 不匹配，则不能正确处理。
- 密码：输入 RADIUS 服务器管理员提供的密码。
 - 如果输入的密码与客户端证书中的私钥不匹配，则不能正确处理。
- CA 证书：仅当您的公共证书包含公共密钥时选择此项。
- 客户机证书：在公共证书包含客户端的身份验证密钥的情况下选择此项。
- 客户端私钥：在公共证书包含客户端私钥的情况下选择此项。



- 为了成功实施 802.1x 运行环境，管理员必须使用 RADIUS 服务器。此外，连接到服务器的交换机集线器必须是支持 802.1x 的设备。
- 如果 RADIUS 服务器、交换机集线器和 NVR 设备的时间设置不匹配，它们之间的通信可能失败。
- 如果为客户端私钥分配了密码，服务器管理员应确认该 ID 和密码。ID 和密码的长度都是最多 30 个字符。（只能使用字母、数字以及特殊字符“-”、“_”和“.”。）允许不输入密码来访问未使用密码保护的文件夹。
- 解码器单元支持 802.1x 的协议是 EAP-TLS。
- 您需要安装所有三个证书来使用 802.1x。
- <启用 IEEE 802.1x>取消此选项时，可能无法断开连接，具体情况取决于所连接的交换机的设置。

SNMP

SNMP 协议允许系统或网络管理员远程操作网络设备设置。

- 启用 SNMP v1：使用 SNMP 版本 1。
- 启用 SNMP v2：使用 SNMP 版本 2。
 - 读取社区：输入只读社区的名称来访问 SNMP 信息。默认设置为 <private>。
 - 写入社区：输入只写社区的名称来访问 SNMP 信息。默认设置为 <public>。
- 启用 SNMP v3：使用 SNMP 版本 3。
 - 密码：设置 SNMP 版本 3 的初始用户密码。
- 启用 SNMP 陷阱：SNMP 报文用于将重要事件和情况发送到管理员系统。
 - 陷阱管理器：输入消息将发送到的 IP 地址。

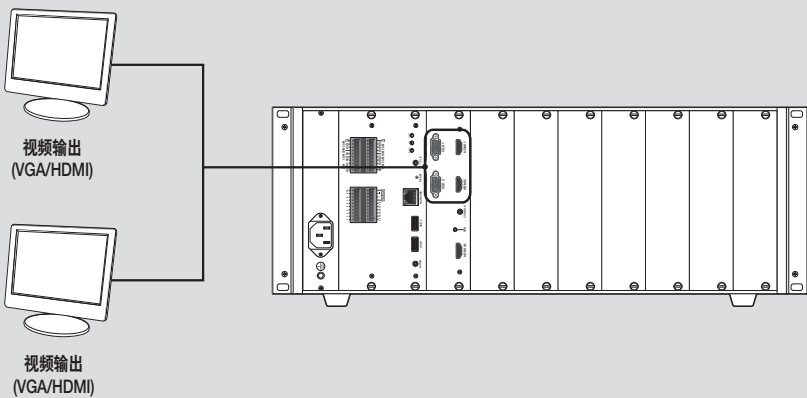


- 仅当安全连接方式设置为 HTTPS 模式时，才能设置 SNMP v3。详情请参阅“SSL”。（第 25 页）

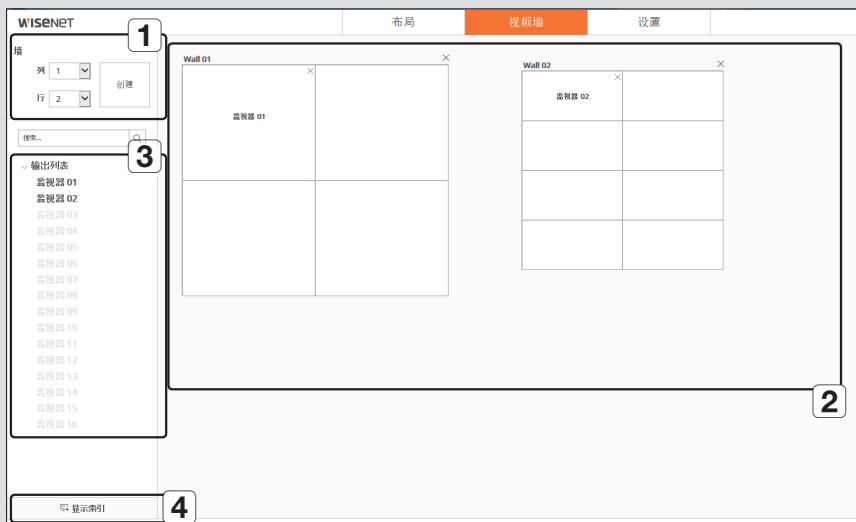
视频墙配置指南

视频墙配置指南

1. 设置启动后监视每台解码器的输出



2. 配置视频墙并分配监视器。



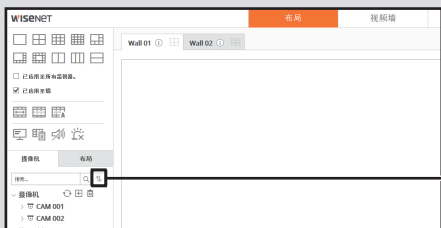
- 1 创建视频墙。
- 2 添加视频墙 (墙 01 2x2, 墙 02 2x4)
- 3 分配监视器。
- 4 查看实际已连接的监视器索引
(显示索引: 监视器编号检查; 隐藏索引: 视频模式)

3. 注册摄像机

1 添加摄像机



2 使用自动/手动注册添加摄像机。



3 选择摄像机列表排序功能。

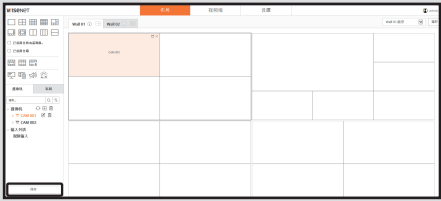
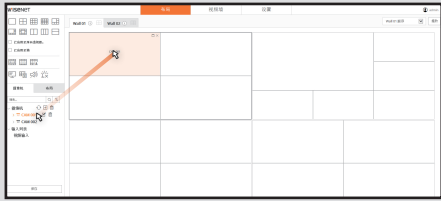
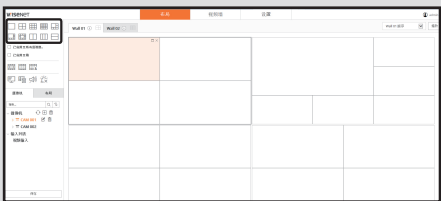
4 按名称(↑)/IP 或升序(↓)降序排序

4. 设置视频墙布局

1 点击即可指定要应用的视频墙对应的监视器。



2 选择并应用分屏模式至选定的监视器。 (可应用至每台监视器)



3 用鼠标在摄像机列表中将其分配至对应的图块。

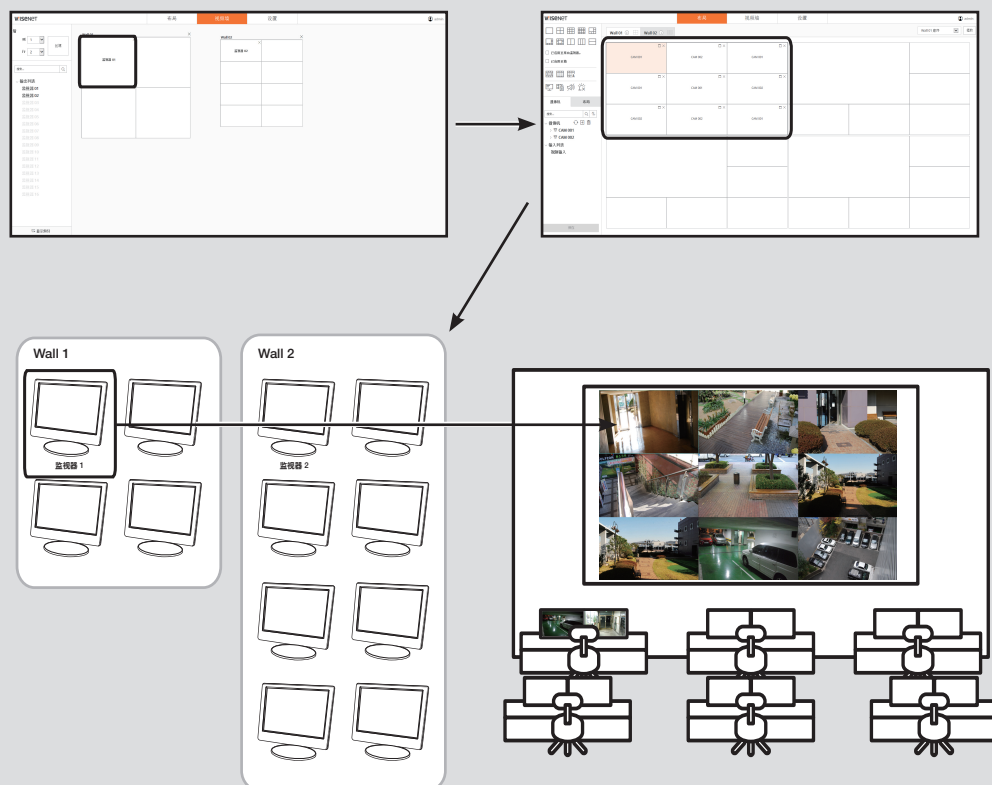
4 保存布局后, 添加一个新布局并重复步骤 1 - 4。

5. 通过视频墙监视

① 监视器 1 被分配给墙 O1 (2x2)

② 在布局设置中将摄像机分配至 3x3 分屏模式。

- 点击 [□] 按钮时，视频墙将扩大至全屏。
- 点击 [×] 按钮时，视频墙缩放比例更改为原始大小。



③ 实际 #1 监视器上的 3x3 视频输出

附录

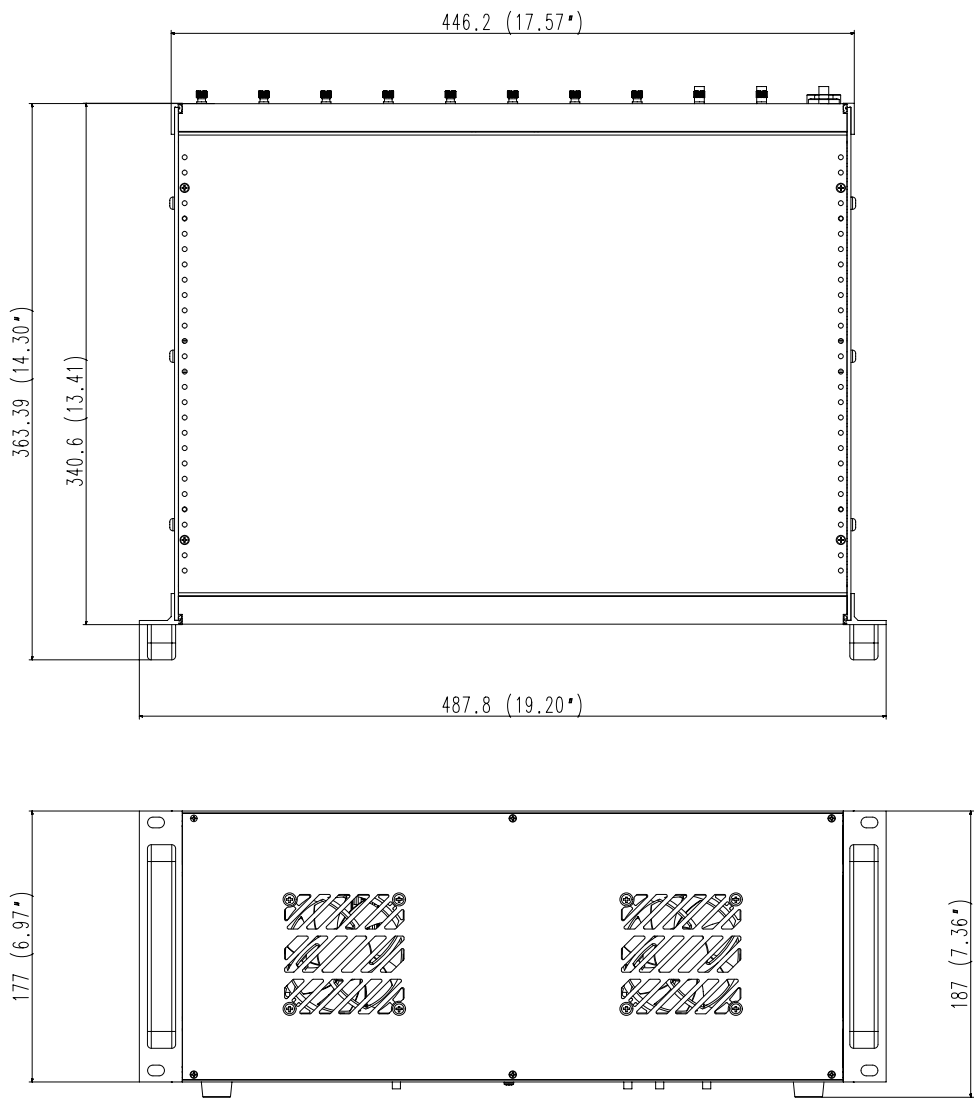
产品规格

项目			详细信息
H/W	视频输出	HDMI	最多 16 (8: 最多 4K, 8: 最多 1080P)
		VGA	最多 16 (最多 1080P)
		格式	HDMI1 : 3840*2160@60HZ/30HZ, 2560*1440@60HZ/30HZ, 1920*1080@60HZ 1280*1024@60H, 1280*720@60Hz HDMI2 : 1920*1080@60HZ, 1280*1024@60H, 1280*720@60Hz VGA1/VGA2 : 1920*1080@60HZ, 1280*1024@60H, 1280*720@60Hz
	视频输入	HDMI	1个
		格式	1920*1080@60Hz, 1280*720@60Hz
	外部	外部	1ea (10/100/1000BASE-T)
		串行	一个 RS-485（预约），半双工
		USB	USB 2.0 2个（预约）
		音频输出	1个
		警报输入/输出	16个 / 8个
		LED	电源、解码操作和网络
	电气	电源	100 到 240 VAC ±10%; 50/60 Hz
		功耗	最多 90W（安装有 8 个 SPD-260B）
	环境	工作温度	0° C 到 +40° C (+32° F 到 +104° F)
		湿度	20% ~ 85% RH
	机械	颜色/材料	黑色/金属
		尺寸（宽 x 高 x 深）	宽487.8 X 高187 X 深363.4 (mm) (19.20" x 7.36" x 14.31")
		重量	6.79 kg（未安装 SPD-260B）

项目			详细信息
S/W	操作系统		嵌入式 Linux
	视频	压缩方式	H.265/H.264/MJPEG
		显示性能	32CH 4K@30fps, 48CH 5M@30fps, 64CH 4M@30fps, 80CH 3M@30fps, 128CH 2M(1080P)@30fps
		摄像机分辨率	30fps@8MP, up-to 12MP
		带宽	512Mbps
		显示带宽	600bps
		分屏	(HDMI) 1/4/6/8/9/13/16/2V/3V/2 ※ VGA 与 HDMI 同屏输出
		布局	每台监视器最多支持 20 个。支持序列。
	音频	Codec	G.711/G.726/AAC
	合并监视器		1x2, 2x1, 2x2, 2x3, 3x2, 2x4, 2x5, 4x2, 3x3, 3x4, 4x3, 4x4, 3x5, 5x3, 5x2
	管理软件		SSM, Web-Viewer
	时间设置		NTP/手动
	配置信息备份		配置信息备份
	日志		最多 20000 (系统日志)
	协议		SUNAPI 2.3 或更高版本及 SVNIP

产品视图

单位：毫米(英寸)



默认设置

要重置系统、请移至“系统管理 > 设置 > 载出厂默认值”、然后按 <初始化> 按钮。这将恢复出厂默认设置。

- 当使用所包含的<权限管理设置>进行初始化时，必须重新启动摄像机并重置密码。
- 初始管理员 ID 是“admin”，密码应在首次登录时设置。
- 请每隔三个月更改密码以保护个人信息并避免因信息失窃造成损失。请注意，用户应负责安全以及密码管理不善导致的其他问题。

类别	详细信息			出厂默认值
系统	日期/时间/语言	系统时间	手动	关闭
			日期	年-月-日
			时间	24 小时制
			时区	GMT
			时间同步	关闭
		DST	DST	关闭
		时间同步	时间同步	关闭
		语言	语言	英语
		假日	假日	关闭
	信息	设备	设备名称	SPD-1660R
用户	设置	操作模式		独立式
	日志		类型	查看全部
事件	传感器 检测	更改管理员密码	ID	管理员
			传感器操作	关闭
			警报输出	无
	警报输出计划		警报持续时间	10 秒
网络	网络	IPv4	警报输出 1	事件同步
			IP 类型	静态 IP
			IP 地址	192.168.1.200
			子网掩码	255.255.255.0
			网关	192.168.1.1
			DNS	168.126.63.1
		IPv6	使用 IPv6	关闭
			模式	默认
		HTTP 端口	HTTP 端口	80
	IP 过滤		过滤类型	拒绝
	SSL		安全连接系统	HTTP（非安全连接）
	802.1x	IEEE 802.1x 设置	启用 IEEE 802.1x	关闭
	SNMP		启用 SNMP v1	关闭
			启用 SNMP v2	关闭
			启用 SNMP v3	关闭
			启用SNMP报文	关闭

附录

疑难解答

症状	对策
现场视频将变得缓慢或者被切断。	- 在摄像机或网络环境中设置的用于多个数据传输的帧编号可能与实际的传输速率不同。 点击布局左侧的 OSD 图标，查看摄像机的具体设置和要播放的帧数。注册摄像机时，创建名称为 Live4NVR 的配置文件，并将 HL264 800*600 30fps 设置为默认设置。如已存在 Live4NVR，使用该配置文件即可，无需更改设置。必要时，使用摄像机网页或其他已连接的设备更改摄像机中的帧数。 - 如果您总是看到视频速度缓慢或者被切断，请检查网络环境或摄像机条件。
系统打不开、且前面板上的指示器根本不工作。	- 检查电源系统是否已正确连接。 - 检查系统以查看电源的输入电压是否适当。 - 如果在您采取以上措施之后问题仍存在、请检查电源、必要时要更换新电源。 - 检查内部以了解电线是否正确连接。(SMPS、前面)
一些频道即使接收到了视频源也只显示黑色屏幕。	- 检查摄像机是否与电源正确连接。 - 检查连接摄像机的 Web Viewer 的视频输出。 - 检查网络端口是否正确连接、以及网络设置是否正确设置。 - 更改集线器支持千兆位、可能可以解决问题。
监视器屏幕上仅会重复显示标识。	连接至 web 查看器后，查看“设置 > 信息 > 解码器状态”以了解当前监视器信息是否存在问题。
在连接的监视器上未播放任何视频。	- 检查是否将必要的电缆正确连接至监视器。 - 确认设置的分辨率超过监视器的输出要求。 - 每台解码器最大 HDMI1 分辨率，支持两个 HDMI 输出：2160p。最大 HDMI2 分辨率：最高可设置/输出分辨率为 1080。确保已连接的监视器支持此处设置的分辨率。 - 对于 VGA 而言，如监视器分辨率设置高于 1080P，将无法显示。如以较低分辨率显示，请确认监视器支持此分辨率。
未连接摄像机、或者计算机无法连接至产品。	- 检查网线是否正确连接。 - 请确保已设置“网络 – 连接模式”。 - 检查计算机或摄像机的 IP 设置。 - 尝试 Ping 测试。 - 检查产品附近是否有不同的设备使用相同的 IP。

症状	对策
我注册了摄像机，但是在监视器上看不到任何视频。	- 检查摄像机是否已连接。（连接图标在左侧可见。） - 对于已分布局的视频墙而言，必须在"视频墙 (Video Wall)"选项卡中分配监视器。
在 Web Viewer 中，屏幕没有自动切换。	确保左侧的序列布局设置已勾选。。
现场屏幕太亮或太暗。	检查已注册摄像机的视频设置。
弹出窗口提示因电池问题需重置时间。	解码器内置时钟的时间设置错误或时钟相关内部零件出现问题时显示此窗口。联系服务中心或经销商进行检查。
使用路由器设置网络太困难了。	- 有关详情、请参阅用户手册。 - 如果您使用路由器来进行网络连接、请参阅本手册中的“使用路由器连接至互联网”一节。
我忘记了密码。	按机身背面的凹槽可以重置密码。（参见第 6 页步骤 5 的描述）
通过 HDMI 连接的监视器未输出任何音频。	音频仅通过音频输出端口输出。（参见第 6 页步骤 8 的描述）
VGA 屏幕好像倾斜了。	如屏幕背景为黑色，屏幕可能无法自动调整，这取决于监视器。如在分屏上显示所有图像且执行了监视器自动调整操作，可在监视器屏幕中心处显示图像。
看不到 HDMI 视频输入屏幕。	检查 PC 是否检测以 PC 屏幕分辨率执行的显示。如否，按检测按钮，可由 PC 进行检测。

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- **Apache 2.0 License:** RLLib
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Version 2, June 1991

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(which makes passes at compilers) written

by James Hacker.

signature of Ty Coon, 1 April 1989

Ty Coon, President of Vice

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3. [3]Viraj Bais <vbais@mailman1.intel.com> and [4]Clayton Kirkwood <kirkwood@striderfm.intel.com> port to WindowsNT 3.5

4. [5]Michael Barone <michael.barone@lmco.com> GPSVME fixes

5. [6]Karl Berry <karl@owl.HQ.ileaf.com> syslog to file option

6. [7]Greg Brackley <greg.brackley@bigfoot.com> Major rework of WINNT port. Clean up recvbuf and iosignal code into separate modules.

7. [8]Marc Brett <Marc.Brett@westgeo.com> Magnavox GPS clock driver

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12. [13]Sven Dietrich <sven_dietrich@trimble.com> Palisade reference clock driver, NT adj. residuals, integrated Greg's Winnt port.

13. [14]John A. Dundas III <dundas@salt.jpl.nasa.gov> Apple A/UX port

14. [15]Torsten Duwe <duwe@immd4.informatik.uni-erlangen.de> Linux port

15. [16]Dennis Ferguson <dennis@mrbill.canet.ca> foundation code for NTP Version 2 as specified in RFC-1119

16. [17]Glenn Hollinger <glenn@herald.usask.ca> GOES clock driver

17. [18]Mike Iglesias <iglesias@uci.edu> DEC Alpha port

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23. [26]William L. Jones <jones@hermes.chpc.utexas.edu> RS/6000 AIX modifications, HPUX modifications

24. [27]Dave Katz <dkatz@cisco.com> RS/6000 AIX port

25. [28]Craig Leres <leres@ee.lbl.gov> 4.4BSD port, ppsclock, Magnavox GPS clock driver

26. [29]George Lindholm <lindholm@ucs.ubc.ca> SunOS 5.1 port

27. [30]Louis A. Mamakas <louie@ni.umd.edu> MD5-based authentication

28. [31]Lars H. Mathiesen <thorinn@diku.dk> adaptation of foundation code for Version 3 as specified in RFC-1305

29. [32]David L. Mills <mills@udel.edu> Version 4 foundation: clock discipline, authentication, precision kernel; clock drivers: Spectracom, Austron, Arbiter, Heath, ATOM, ACTS, KSI/Odetics; audio clock drivers: CHU, WWW/H, IRIG

30. [33]Wolfgang Moeller <moeller@gwdgv1.dnet.gwdg.de> VMS port

31. [34]Jeffrey Mogul <mogul@pa.dec.com> ntptrace utility

32. [35]Tom Moore <tmoore@fievel.daytonoh.ncr.com> i386 svr4 port

33. [36]Kamal A Mostafa <kamal@whence.com> SCO OpenServer port

34. [37]Derek Mulcahy <derek@toybox.demon.co.uk> and [38]Damon Hart-Davis <d@hd.org> ARCRON MSF clock driver

35. [39]Rainer Pruy <Rainer.Pruy@informatik.uni-erlangen.de> monitoring/trap scripts, statistics file handling

36. [40]Dirce Richards <dirce@zk3.dec.com> Digital UNIX V4.0 port

37. [41]Wilfredo Sánchez <wsanchez@apple.com> added support for NetInfo

38. [42]Nick Sayer <mrapple@quack.kfu.com> SunOS streams modules

39. [43]Jack Sasportas <jack@innovativeinternet.com> Saved a Lot of space on the stuff in the html/pic/ subdirectory

40. [44]Ray Schnitzler <schnitz@unipress.com> Unixware1 port

41. [45]Michael Shields <shields@tembel.org> USNO clock driver

42. [46]Jeff Steinman <jss@pebbles.jpl.nasa.gov> Datum PTS clock driver

43. [47]Harlan Stenn <harlan@pfcs.com> GNU automake/autoconfigure makeover, various other bits (see the ChangeLog)

44. [48]Kenneth Stone <ken@sdd.hp.com> HP-UX port

45. [49]Ajit Thyagarajan <ajit@ee.udel.edu> IP multicast/anycast support

46. [50]Tomoaki TSURUOKA <tsuruoka@nc.fukuoka-u.ac.jp> TRAK clock driver

47. [51]Paul A Vixie <vixie@vix.com> TrueTime GPS driver, generic TrueTime clock driver

48. [52]Ulrich Windl <Ulrich.Windl@rz.uni-regensburg.de> corrected and validated HTML documents according to the HTML DTD

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Brian Gladman Alternate License

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