



HAIVISION

CoolSign 5.2
Installation Guide

HVS-ID-INS-CS-5.2

Edition Notice

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About This Document

Conventions

The following conventions are used to help clarify the content.

Typographic Conventions and Elements

<i>Italics</i>	Used for the introduction of new terminology, for words being used in a different context, and for placeholder or variable text.
bold	Used for strong emphasis and items that you click, such as buttons.
Monospaced	Used for code examples, command names, options, responses, error messages, and to indicate text that you enter.
>	In addition to a math symbol, it is used to indicate a submenu. For instance, File > New where you would select the New option from the File menu.
...	Indicates that text is being omitted for brevity.

Action Alerts

The following alerts are used to advise and counsel that special actions should be taken.



Tip

Indicates highlights, suggestions, or helpful hints.



Note

Indicates a note containing special instructions or information that may apply only in special cases.



Important

Indicates an emphasized note. It provides information that you should be particularly aware of in order to complete a task and that should not be disregarded. This alert is typically used to prevent loss of data.

⚠ Caution

Indicates a potentially hazardous situation which, if not avoided, may result in damage to data or equipment. It may also be used to alert against unsafe practices.

⚠ Warning

Indicates a potentially hazardous situation that may result in physical harm to the user.

Obtaining Documentation

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Getting Service Support

For more information regarding service programs, training courses, or for assistance with your support requirements, contact Haivision Technical Support using our Support Portal at: <https://support.haivision.com>.

Introduction

Thank you for choosing CoolSign, the expert's choice in digital signage software. Before installing, configuring, and using the CoolSign software. Please read and understand the following information. This content covers:

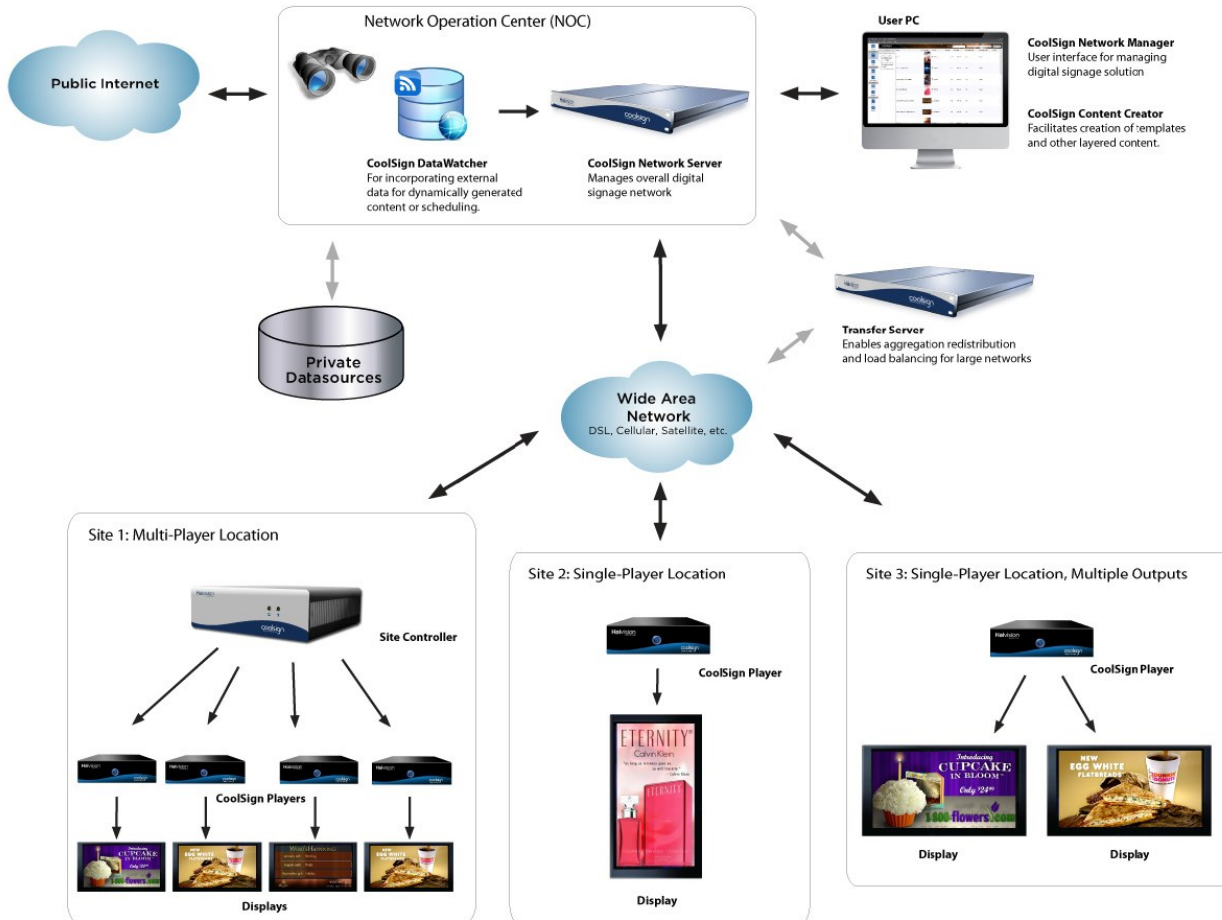
- Basic definitions for the various software components that constitute a CoolSign digital signage network.
- Insight into best practices in designing your CoolSign network.
- Preparation for the actual installation of the CoolSign software.

Planning your Installation

When designing your CoolSign network, you will want to consider the network components (hardware and software) and the user roles. All of these can play a factor in determining your network topology.

CoolSign Network Components

The CoolSign platform includes the following set of network devices and software programs, each of which plays a distinct role in managing and playing back content on your digital signage network.



Hardware

The hardware makes up your physical network. A basic network can consist of:

- Network Controller
- Transfer Node
- Networked Player

Network Controller

A CoolSign Network Controller serves as the central repository for all data related to a CoolSign network. All content, schedules, logs, and other data are stored on the network controller.

Note

Every CoolSign network must have a single network controller.

Transfer Node

CoolSign Transfer Nodes act as intermediate data hubs in a CoolSign network. These nodes allow the aggregation of both data and network connections to provide scalability and load balancing in a large network. A transfer node automatically caches the content and objects sent to its child nodes, and aggregates log and status information sent from the child nodes.

A Transfer node connects to the Network Controller or to another Transfer node. For locations with multiple players, you can use a transfer node to provide a single WAN access point.

Networked Player

A player is a network service that displays scheduled CoolSign content on one or more connected display engine (DE) devices. Players must connect to the network controller either directly or through a transfer node to download content and receive schedules for playback.

Software

A number of software tools are provided to help you create and administer your CoolSign network, as well as to manage the content being displayed.

CoolSign Network Manager

CoolSign Network Manager (CNM) acts as a window into the CoolSign network controller, and provides a Graphical User Interface (GUI) to manage the overall CoolSign network. You use the CNM to configure the signage network, handle content insertion and deletions, and access reports and status notifications.

CoolSign Network Manager Lite

The CoolSign Network Manager (CNM) includes an easy-to-use, web-based interface, or *CNM Lite*, that allows:

- Designated users a limited set of CoolSign functionality via their browsers.
- Network Administrators sophisticated management of CNM Lite users.

Designed to access the CoolSign network from any PC platform, mobile device, or tablet; users can simply open their browser and perform basic content insertion/deletion and scheduling tasks. Limited to 25 Players and 50 channels per CNM Lite account.

Data Watcher

CoolSign Data Watcher module enables you to import external data sources to populate data tables. The imported data can be central or local and is used to display dynamic content or to trigger specific content schedules. Examples of external data sources are URLs, RSS feeds, text files, and so forth. The Data Watcher requires that the Network Controller has been installed. The Data Watcher is a separate installation:

- **Data Watcher Service** — installs on a player node, transfer node, or network controller where the CoolSign Agent is running.
- **Data Watcher Editor** — installs on a system running the CoolSign Network Manager (CNM).

Content Wizard

CoolSign Content Wizard enables you to prepare standard media for insertion into the CoolSign network. Content elements, such as video and still images, are processed in the content wizard to provide user-

maintained metadata (such as transition types, orientation and thumbnails) before being published into the CoolSign network.

Content Creator

CoolSign Content Creator is a design tool that enables you to create *dynamic content*, or content that changes based upon user-defined parameters, that can pull data from data tables within the CoolSign network controller.

Users (Roles)

In general, there are three types of users who access a CoolSign network:

- CoolSign Administrator
- Content Administrator
- Content Designer

Note

Individuals who are serving in multiple roles should install all packages required for each role.

CoolSign Administrator

A CoolSign Administrator can perform a number of different operations, including but not limited to scheduling content for playback, running reports to monitor playback, configuring CoolSign network nodes, or administering user rights for other administrators on the network. For users in this role, the following packages should be installed:

- **CoolSign Network Manager (CNM)**—Required for full access into the CoolSign network.
- **Content Wizard**—Required if content from a content designer is not provided in the CoolSign format (in other words, not prepared using Content Creator).

Content Administrator

A Content Administrator can perform a limited set of tasks. Once a CoolSign Administrator has established permissions and assigned channels, the Content Administrator can manage the channels, upload and place content on the channels, and perform basic scheduling (such as, in-order and random). The Content Administrator role is usually performed by an office administrator, charge nurse, or entry-level user who accesses the network using the web-based interface, CNM Lite, from a browser on their computer, tablet, or mobile device.

Content Designer

A content designer is someone who prepares content for distribution on the CoolSign network, usually a graphic/video artist. For users that perform this role, the following packages should be installed:

- **Content Wizard**—Required for anyone who prepares any content that is not developed in Content Creator for use on the CoolSign network.
- **Content Creator**—Optional, for those developing dynamic content for the CoolSign network.

CoolSign Components and Configuration

The previous section introduced the components of a CoolSign network (hardware and software) and the typical user roles. This section discusses where each of those components resides in the network. There are two main classes of CoolSign software components:

- [User-Controlled Software](#)
- [Back-End Services and Playback Software](#)

User-Controlled Software

The supported user control software and tools include: CoolSign Network Manager, Content Creator, Offline Updater, and DataWatcher. Install these user control software and tools on a computer that can connect via your network to the network controller using one of the following 32-bit or 64-bit operating systems: Microsoft Windows® 7, Microsoft Windows 8.1¹, Microsoft Windows Server® 2008 R2, Microsoft Windows Server® 2012 R2, or Windows 10.²

1. As of version 5.1, the CoolSign applications can be installed under Microsoft Windows 8.1. The DataWatcher is the only application that can be installed on any of the three CoolSign node types (Network Controller node, Transfer node, CoolSign Player). Authoring client applications such as the Content Creator and the Content Wizard should not be installed on any CoolSign nodes. The Network Manager application can be installed on a Network Controller or Transfer node (a dedicated Windows 7/8 PC is recommended). ↩
2. As of version 5.2, CoolSign can be installed on Windows 10. ↩

Back-End Services and Playback Software

In addition to the content-related roles previously discussed, the CoolSign network also includes PC nodes that perform back-end services and manage playback such as content distribution, external data collection, and content playback.

Content Distribution

In a CoolSign network, two types of nodes are dedicated to content distribution: the network controller and the transfer node(s). These nodes act in a dual role, serving as repositories for content and content rules within the CoolSign network, and also as distributors of the content and content rules to the individual end-points on the network.

- **Network Controller**—The network controller is the main server on a CoolSign network. It stores all content and content rules and then distributes it to the appropriate child nodes on its network.
- **Transfer Node**—Transfer nodes act as intermediary data hubs, distributing content and content rules from the network controller to the individual player nodes on the network. A transfer node is installed as a separate machine between player nodes and the CoolSign network controller.

External Data Collection

If you're importing external data to populate dynamic content pieces, or using external data points to trigger playback of content, you can create instances of the Data Watcher to collect the necessary data and distribute it accordingly. There are two types of Data Watcher modules:

- **Central Data Watcher**—The central data watcher service can run either on the same machine as the network controller or on a separate machine on the network. Data collected from a central data watcher instance is collected by the network controller and then distributed to the appropriate child nodes on the network.
- **Local Data Watcher**—To provide immediate data transfers, you can install localized data watcher services on transfer nodes or player nodes. Data from a local data watcher instance is collected by

the transfer node or player node and then distributed to the appropriate child nodes on the network. When a local data watcher instance runs on a player node, only that node is aware of the collected data.

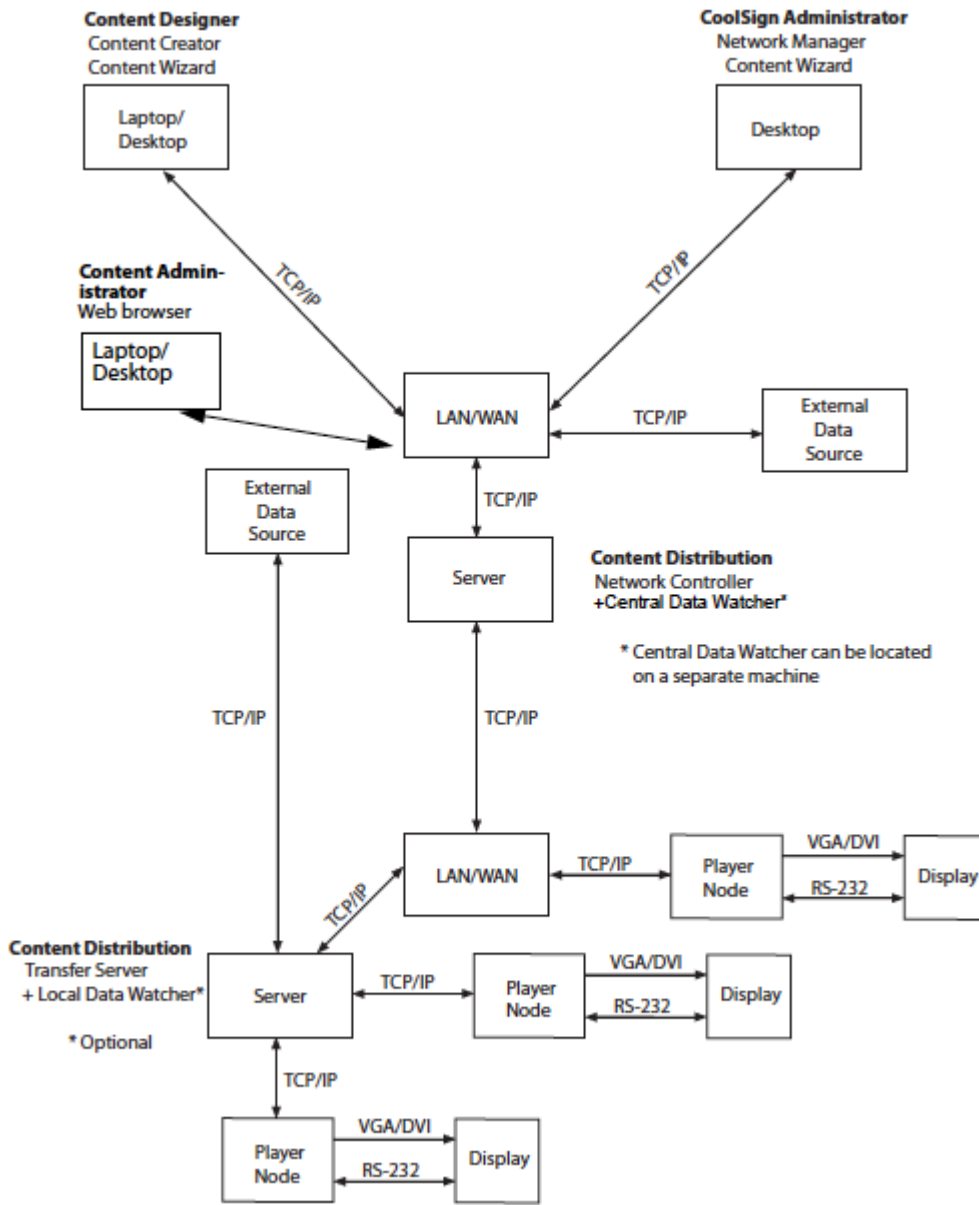
Content Playback

Player nodes perform content playback. A player node normally has only the player node software and, if required, the local data watcher software running on its system.

CoolSign Distributed Network Architecture

The following diagram illustrates an example of a recommended topology for a distributed CoolSign network.

Sample Topology for a CoolSign Distributed Network



Preparing to Install CoolSign

Once you've determined the correct network topology for your specific CoolSign installation, you should ensure that you have the appropriate hardware and product licenses to run each of the individual components.

- [Hardware Requirements](#)
- [Software Requirements](#)
- [Licensing Requirements](#)

Hardware Requirements

General Hardware Specifications

Specification	CoolSign Server			CoolSign Display Engine
	Base (50 to 200)	Mid-Range (200 to 1000)	Premium (1000 to 1500)	
Operating System	Windows Server 2008 R2	Windows Server 2008/2012 R2 64-Bit	Windows Server 2008/2012 R2 64-Bit	Windows 7 Embedded
Processor	Intel Dual Core Xeon 3 GHz	Intel Quad Core Xeon 3 GHz	3 x Intel Quad Core Xeon 3 GHz	i3 NUC 1.8 GHz
RAM	8 GB +	16 GB +	32 GB +	4 GB
Hard Drive	SATA RAID 5, 4x80 GB, 10KRPM	SATA RAID 5, 4x80 GB, 10KRPM	SATA RAID 5, 4x160 GB, 10KRPM	60 GB mSATA SSD
Graphics	—	—	—	Intel HD Graphics 4000 with 128 MB of onboard RAM — 2x HDMI ports
LAN	—	—	—	10/100 Mbps or Gigabit Ethernet

Note

The latest hardware and software recommendations for CoolSign network controllers, transfer nodes, and players are provided on the CoolSign datasheet, available at: http://www3.haivision.com/coolsign_datasheet.

Important

As of CoolSign version 5.1, hexadecimal RS-232 control commands are supported.

Software Requirements

The following software requirements are the prerequisites for a CoolSign installation:

- An appropriate operating system (32-bit or 64-bit operating systems: Microsoft Windows® 7, Microsoft Windows® 8.1¹, Microsoft Windows Server® 2008 R2, Microsoft Windows Server® 2012 R2, or Windows 10²)
- Microsoft .NET 4.0 Framework (available from the [Haivision Support Portal](#))
- Microsoft .NET 3.5 (needed for Windows 8.1 only)
- Microsoft Silverlight
- Microsoft DirectX 9.0c
- Adobe Flash
- Microsoft Internet Explorer v7 or later³

- Microsoft Windows Media Player (CoolSign uses the application's WM9 Codecs)²

The latest hardware and software recommendations for CoolSign network controllers, transfer nodes, and players are provided on the [CoolSign datasheet](#).

1. As of version 5.1, the CoolSign applications can be installed under Microsoft Windows 8.1. The DataWatcher is the only application that can be installed on any of the three CoolSign node types (Network Controller node, Transfer node, CoolSign Player). Authoring client applications such as the Content Creator and the Content Wizard should not be installed on any CoolSign nodes. The Network Manager application can be installed on a Network Controller or Transfer node (a dedicated Windows 7/8 PC is recommended). ↗
2. As of version 5.2, CoolSign can be installed on Windows 10. ↗
3. Typically included in the installation of the operating system. If you customized your operating system, you may need to install this application. ↗

Licensing Requirements

You need to fill out the CoolSign License Request Form to request the appropriate licenses. For more details, see [Requesting CoolSign Licenses](#). The following product licenses are available from Haivision:

- **Network Controller (NC):**
 - **Enterprise Class Server**—Has no built-in limits on player or CNM/client counts.
 - **Multi-tenant Server**—Enables the use of domains and sub-domains to support multi-tenancy.
 - **Transfer Node** (No license required)
- **Networked Players**—Player access licenses.

The CoolSign licensing model requires MAC addresses to create unique license keys for each installation. The number of MAC addresses needed is determined by the version of CoolSign, and by the software components needed.

Acquiring MAC Addresses

For CoolSign software release v5.1 and higher, the Network Controller software component requires you to submit a MAC address.

To determine the MAC address of Windows PC, do the following:

1. Click the START MENU.
2. Type `cmd` into the Search box, then click **Enter**.
3. At the prompt, enter:

```
ipconfig /all | more
```

4. Once the command executes, locate the line under your specific network card that reads something similar to the following:

```
Physical Address. . . . . : 00-CC-44-79-C3-AA This is the MAC address.
```

Requesting CoolSign Licenses

Once you've collected the appropriate MAC addresses, you need to complete the [CoolSign License Request form](#).

Note

If this is your first visit to this site, you must register and set up an account to gain access to the request form.

The form requires the following information:

- Reseller Company Information (*if applicable*)
- End-User Company and Contact Information
- Purchase Order Number (*if applicable*)
- Version of CoolSign Software
- Total number of Player Nodes
- MAC addresses as required

Important

When upgrading an existing CoolSign network, please be sure to reference the most recent previous order for the CoolSign network to be upgraded, and include the total number of player nodes to be licensed post-upgrade. For example, if you are adding five player nodes to an existing network controller that is currently servicing 30 player nodes, you would enter 35 player nodes in the appropriate field. If this information is not readily available, contact Haivision technical support for assistance.

Note

All CoolSign players and servers are shipped with a label identifying the version of the software installed at factory. This information will help you with the installation and/or upgrade of software on your CoolSign network.

Downloading CoolSign Software

To download CoolSign software requires a Haivision account with a valid user name and password. If you do not have an account, you can request one when you access the site. Once the request is submitted and processed, you'll receive your account credentials via email.

To download CoolSign software, do the following:

1. Open your web browser to the [Haivision Support Portal](#).
2. Login with your Haivision account credentials (e-mail address and password) that you created.
3. Under COOLSIGN DISPLAY ENGINE, download the minimum required software packages:
 - CoolSign Node Installer
 - Network Manager Installer
 - Direct X 9.0c
 - Microsoft .NET4 Framework Update Package
 - Microsoft .NET3.5 Framework Update Package (needed in Win 8.1 PN installation)
4. Download additional packages as needed. For example, if you want to create and update dynamic content, download the following:
 - Content Wizard Installer
 - Content Creator Installer
 - DataWatcher Service Setup
 - DataWatcher Editor Installer

5. Once the software packages are downloaded, please refer to the rest of this installation document and the [CoolSign Network Manager User's Guide](#) for more detailed information.

Preparing a PC for CoolSign Installation

! Important

In most cases, you should dedicate a PC to running only the CoolSign software. Running non-CoolSign software on a CoolSign node (especially a player) can result in poor performance or other issues and is not recommended or supported.

i Note

This installation guide assumes that you are working with a freshly installed Microsoft Windows 8, or Microsoft Windows 7 operating system.

Before running the CoolSign Node installer, you should follow these steps as necessary:

1. Install required 3rd-party software which includes:
 - Microsoft DirectX 9.0C, July 2007 or later (for player nodes only, available from our [Support Portal](#)).
 - [Microsoft WMP9 Codex](#) (for player nodes only, available from Microsoft).
 - Microsoft .NET Framework 4 (make sure you see both "Client Profile" and "Extended" in the program list).
 - Microsoft .NET Framework 3.5 (needed in Win 8.1 PN installation).
 - Latest Microsoft Windows Operating System updates.
2. Install the latest video drivers for the video card make and model (see the manufacturer's web site for details).
3. Install the latest audio drivers for the audio card make and model (see the manufacturer's web site for details).
4. Disable the Windows firewall.
5. Disable the Windows Automatic Update application.
6. Disable any antivirus software.
7. Ensure the Windows user account has FULL system administrator rights. Specifically, the Windows account in use must belong ONLY to the Administrators Group.
8. Download the latest release version of all necessary CoolSign installers and applications (see [Downloading CoolSign Software](#)).
9. Install Microsoft .NET 2.0 (ONLY required when installing the Network Controller (NC) on Windows XP).
10. Install Microsoft Internet Explorer version 7 or higher.

About the Installation Process

i Note

Although you can install a complete CoolSign environment on just one computer, it is recommended that you use two computers to better understand the separate components and their functions.

- [Installing a Distributed CoolSign Network](#)

Installing a Distributed CoolSign Network

To install a distributed CoolSign network:

- Important**

If you're connecting to a Microsoft SQL server, install the database before you install the network controller.
- Note**

If there is an existing Microsoft SQL Server Express 2005 installed, the node Installer tries to create a CoolSign database using integrated security. If the database cannot be accessed, it prompts you for valid credentials.
- Install CoolSign Network Manager on the same computer as the CoolSign Network Controller.
- Connect to the network controller by starting Network Manager and then import the appropriate license keys.
- Note**

All CoolSign nodes require this package and should receive it via the software inheritance mechanism.
- Before installing a transfer node or networked player, turn off Windows time synchronization on *each* player as follows:
 - Double-click on the time in the Taskbar.
 - When the Date and Time Properties dialog appears, select the **Internet Time** tab and then uncheck the box labeled "Automatically synchronize with an Internet time server."
 - Click **OK**.
- Install a CoolSign Transfer Node on a separate computer (no license required).
- Install a CoolSign Networked Player on a separate computer.
- Install the CoolSign Content Wizard.
- Install CoolSign Local or Central Data Watcher (*if necessary*). For more information, see [Installing the CoolSign Data Watcher](#).

Installing CoolSign Software

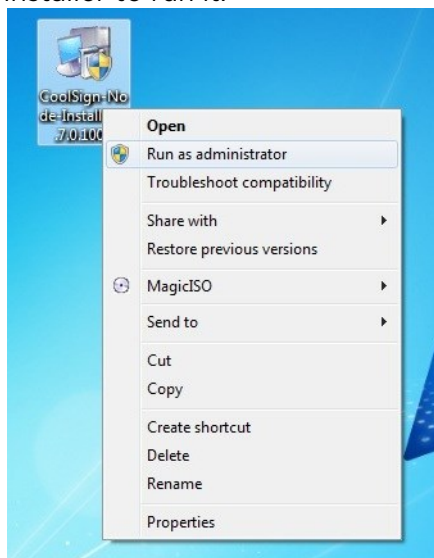
The CoolSign software you downloaded (See [Downloading CoolSign Software](#)) comes in the form of a self-extracting archive, containing the software components and an installation wizard called the CoolSign Node Installer. This wizard enables you to install one or more CoolSign software components on the PCs in your network.

- [Installation with the CoolSign Node Installer](#)
- [CoolSign Node Installation Wizard Instructions — Step by Step](#)
- [Using a Configuration File During Installation](#)
- [Installing the CoolSign Content Wizard](#)
- [Installing the CoolSign Content Creator](#)
- [Installing the CoolSign Data Watcher](#)
- [Installing the CoolSign Offline Update Imager](#)

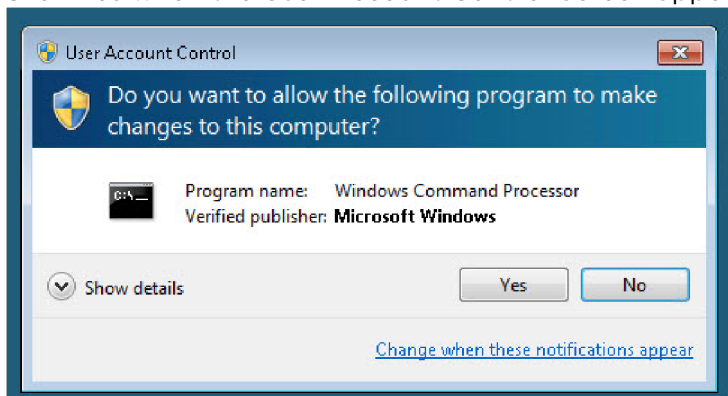
Installation with the CoolSign Node Installer

To run the CoolSign Node Installer:

1. Double-click the archive to extract its contents to your hard disk.
2. To launch the CoolSign Node Installer, right-click the file icon `CoolSign_Node_Installer.exe` and select RUN AS ADMINISTRATOR from the popup menu.
3. If the option is unavailable or grayed out (User Access Control is disabled), double-click the installer to run it.



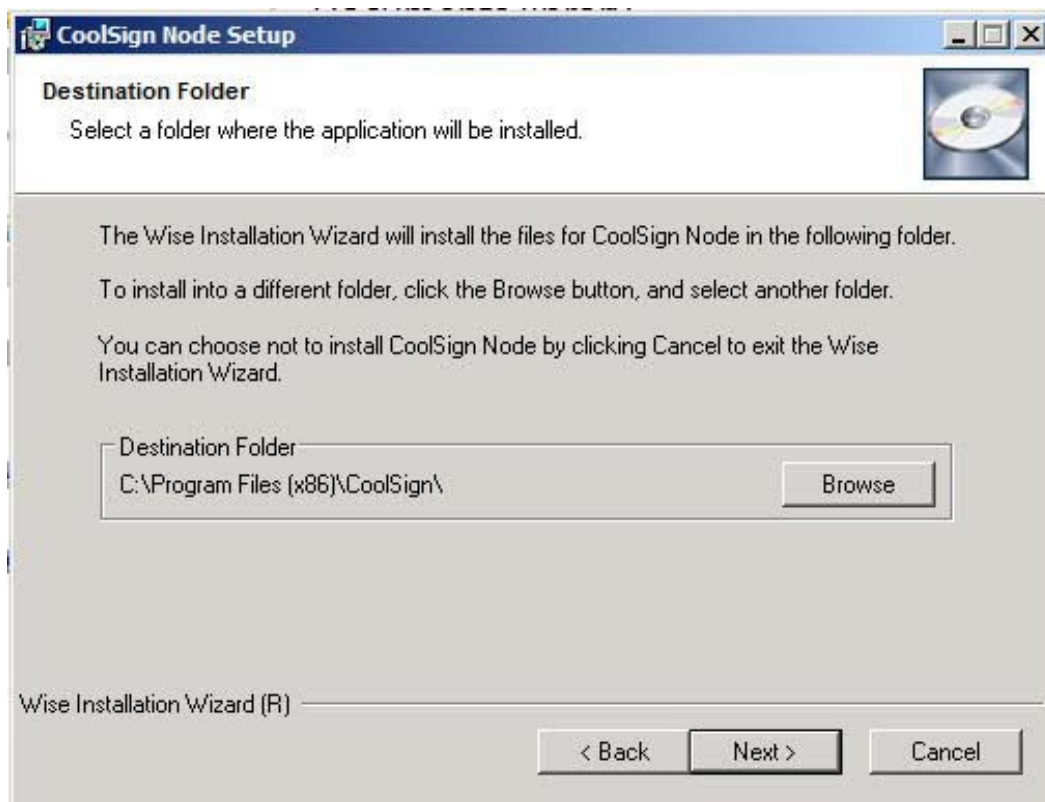
4. Click **Yes** when the User Account Control Screen appears.



5. Follow the CoolSign Node Installation Wizard instructions.

CoolSign Node Installation Wizard Instructions – Step by Step

Step 1: Select the Destination Folder



When prompted, select the folder where you want your CoolSign software installed. The default location is `C:\Program Files (x86)\CoolSign\`.

To change the installation folder:

1. Click **Browse**.
2. Select the desired folder location.
3. Click **Next** to continue.

Note

If you want to install other CoolSign software on this PC, you should use the same installation folder.

Step 2: Select the Installation Type

To select your installation type:

1. Choose the installation type you want to install.
 - **Network Controller**—is the central server and database repository for a CoolSign network and should be installed first.
 - **Transfer Node**—can be used to improve the network performance over larger networks.

Note

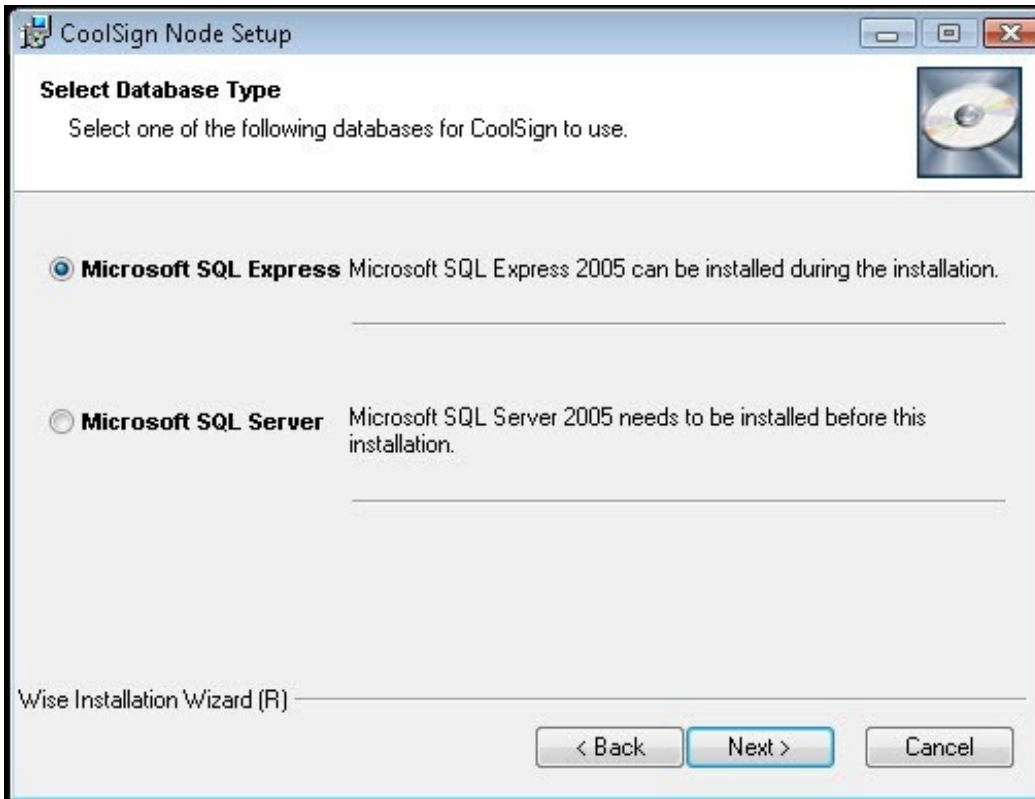
If installing a transfer node or networked player, the installer immediately copies the necessary installation files onto your PC.

- **Networked Player**—plays back CoolSign content and can be managed as part of a network.
- Click **Next** to continue.

Step 3: Select Database Type

To select the database type:

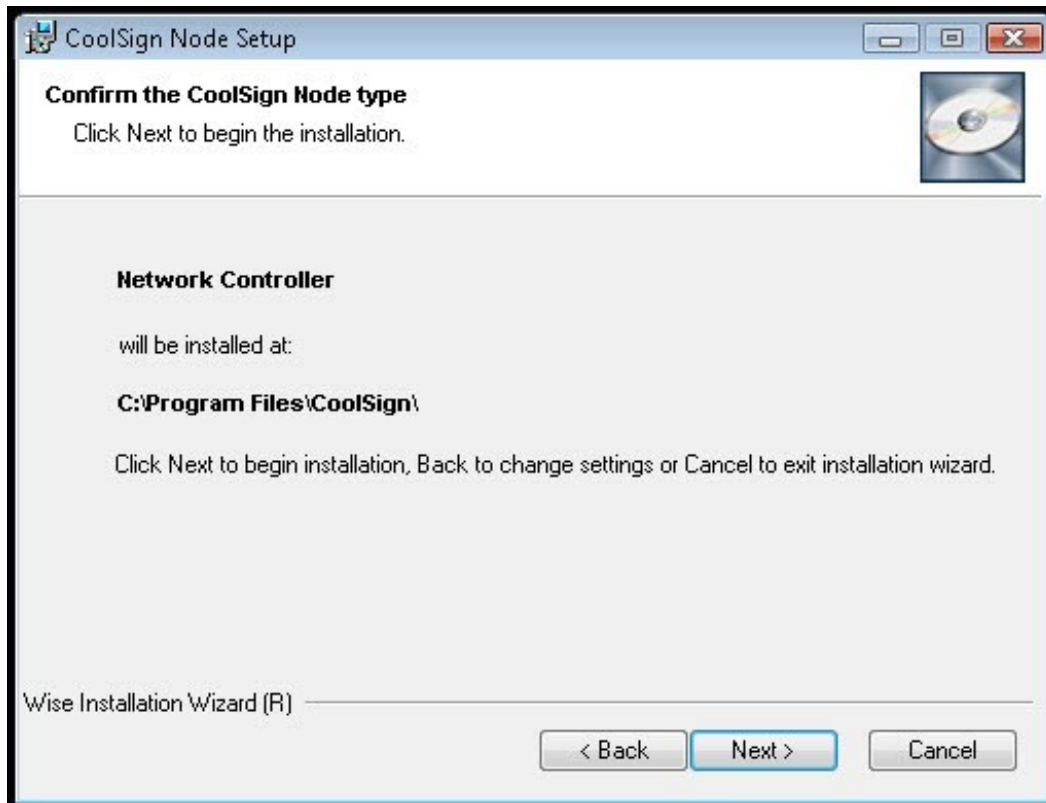
1. Select one of the following databases for CoolSign to use.
 - Microsoft SQL Express—ideal for small to moderate systems, you can install the network controller on the same machine where the database was installed.
 - Microsoft SQL Server—recommended for large systems where you run the database and network controller on separate machines. In this instance, the Microsoft SQLServer needs to already be installed before performing this installation.

**Note**

For information on configuring the database connection, see [Connecting a Network Controller to an SQL Server](#) .

2. Click **Next** to continue.

3. Click **Next** to begin the installation.



4. You can select various options for the CoolSign software being installed or you can accept the defaults and then change them later to fit your specific needs. For details about setting these options, see [Step 7: Set Installation Options](#).

Step 4: Finish Installation

To finish the installation:

1. Verify that all install settings and configuration options are set correctly.
2. When you are ready to install the software, click **Finish**.

Note

This might take a few minutes to complete, including installing SQL Server Express.

Step 5: Run CoolSign Network Manager

Run CoolSign Network Manager to connect to a CoolSign network. See "[Connecting to a CoolSign Network](#)".

To complete this installation you'll need to:

1. Run Network Manager.
2. Supply the connection information for your network.
3. Accept the license agreement.

4.

Note

The CoolSign Network Manager Lite, or Web Interface, is bundled with the CoolSign software. Once the Network Controller is installed and running, enter the URL:

`<IPAddress:NCLISTENPORT>/web/index.html` to access the web interface.

For example: <http://50.34.128.10:4444/web/index.html>.

Step 6: Install a Networked Player

Note

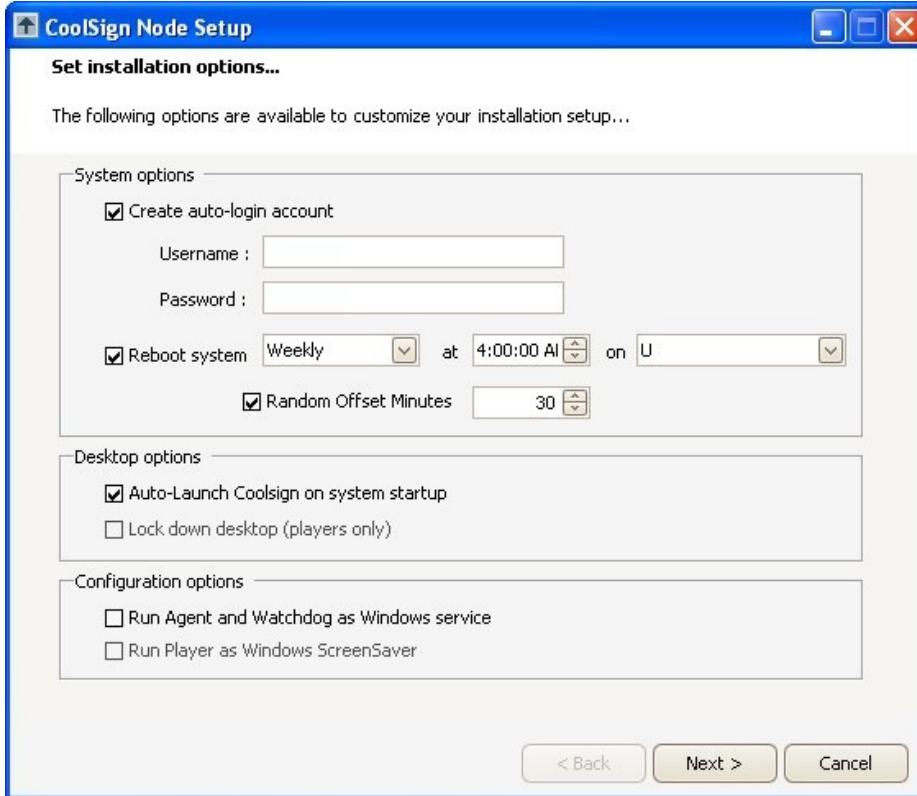
During installation, you might see the networked player's status change from *initializing* to *stopping* and then to *starting*. This is normal behavior as it takes a little time for the initializing and configuring process to complete. Once complete, the networked player's status turns green and is labeled "OK." Afterwards, a default image (the CoolSign logo) appears on the Network Player.

To install a Networked Player:

1. Double-click `CoolSign_Node_Installer.exe` and from the popup menu select NETWORKED PLAYER.
2. Accept the default settings as they appear until you get to the Configure CoolSign software screen.
3. Enter the IP address or URL of the computer where you installed the Network Controller and Network Manager, or click on "Find Available Networks" and choose a network.
4. When the installation is complete, the Player computer reboots, configures itself with the settings you specified, and then attempts to connect to the Network Controller (or Transfer Node). When the connection is made, the new player appears in the CNM application (under NETWORK MANAGER > PLAYERS). A default CoolSign channel is downloaded to the Player once it has joined the network.

Step 7: Set Installation Options

In this step, you can select various options for the CoolSign software being installed.



Note

The Run Player as Windows ScreenSaver is only available with Windows XP and Server 2003.

Create Auto-Login Account—Creates a new local administrator login account using the supplied login credentials and sets it to automatically log in during startup. We recommend that you check this box; otherwise, the CoolSign node requires you to manually log in after each restart.

Reboot System—Determines how often the CoolSign PC should automatically be rebooted.

- Network Controller—we recommend that you reboot the server once a week.
- Players and transfer nodes—we recommend that you reboot on a daily basis.

Random Offset Minutes—When checked, offsets the reboot schedule time randomly so that all of your nodes don't reboot at exactly the same time. You can set a maximum number of minutes before or after the scheduled reboot time, during which nodes can be rebooted randomly.

Auto-Launch CoolSign on system startup—When checked, the CoolSign application is launched automatically every time the system starts up. You should only uncheck this option when installing a demo system, or when installing on a shared PC where you want to manually start up CoolSign.

Lock down desktop (players only)—When checked, sets the desktop to black and hides any icons. We recommend that you keep this setting checked so that the Windows desktop is not visible during startup or software update.

Run Agent as Windows Service—When checked, the CoolSign agent is installed as Window service

processes. This enables you to remotely manage the agent software and doesn't require auto-login for this network controller or transfer node.

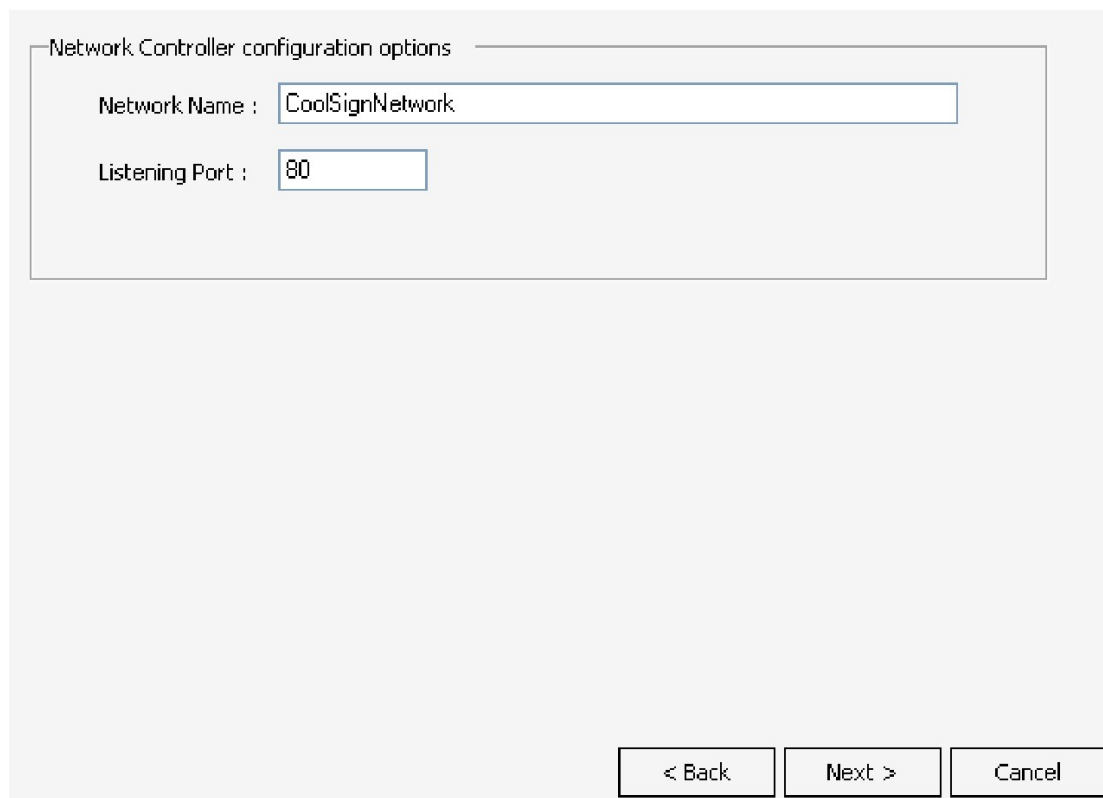
Note

This option is disabled for player nodes because some organizations require this for security reasons.

When you're done setting these options, click **Next** to define the configuration options that apply to the type of node being installed.

- If you're installing the network controller, continue to [Configure the Network Controller](#).
- If you're installing a transfer node, continue to [Configure a Transfer Node](#).
- If you're installing a player node, continue to [Configure a Player Node](#).

Configure the Network Controller



The screenshot shows a configuration dialog box titled "Network Controller configuration options". It contains two input fields: "Network Name" with the value "CoolSignNetwork" and "Listening Port" with the value "80". At the bottom of the dialog are three buttons: "< Back", "Next >", and "Cancel".

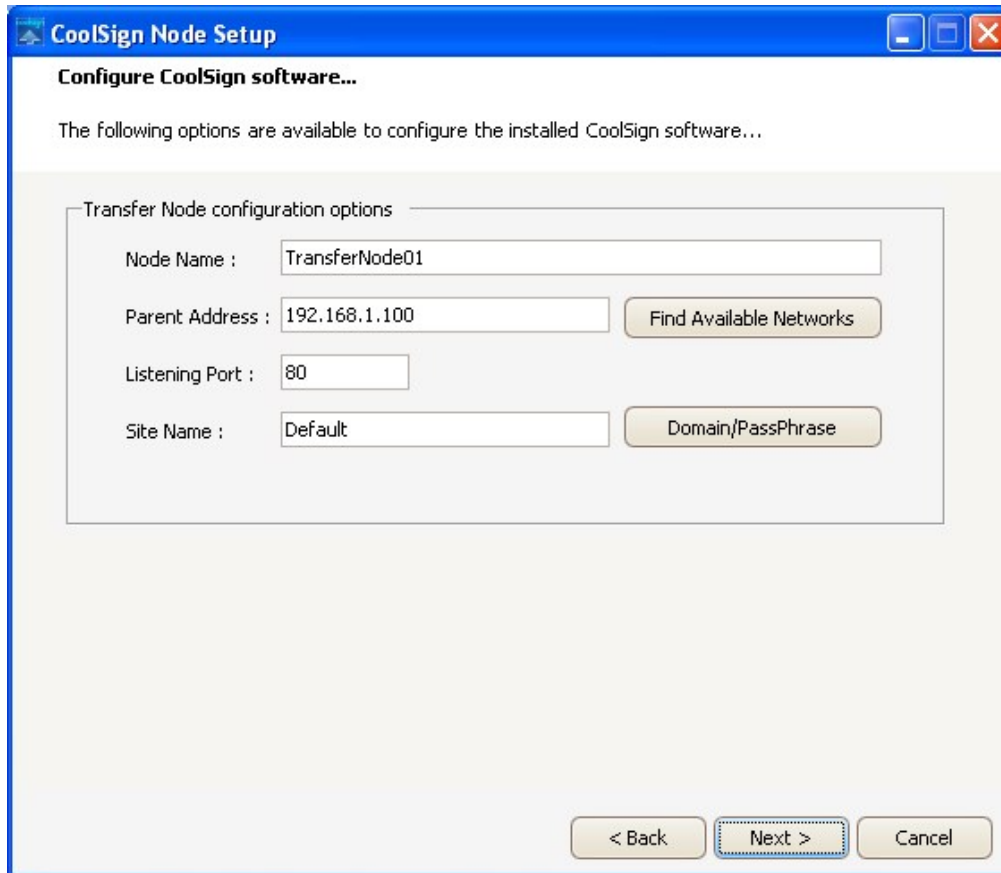
- Network Name—Sets the name of your network as it appears when connecting with CoolSign Manager and other applications.
- Listening Port—Defines the port number that the node should use to receive incoming requests from other nodes. The default listening port is 80. You can change the listening port if your networking infrastructure requires it or another application is already using the default port.

After selecting your configuration options:

1. Click **Next** to continue the installation process.

2. Click **Save Settings**. The node installer verifies your connection information again before saving the settings.
3. Click **Close** to continue the installation process.

Configure a Transfer Node



CoolSign Node Setup

Configure CoolSign software...

The following options are available to configure the installed CoolSign software...

Transfer Node configuration options

Node Name :

Parent Address :

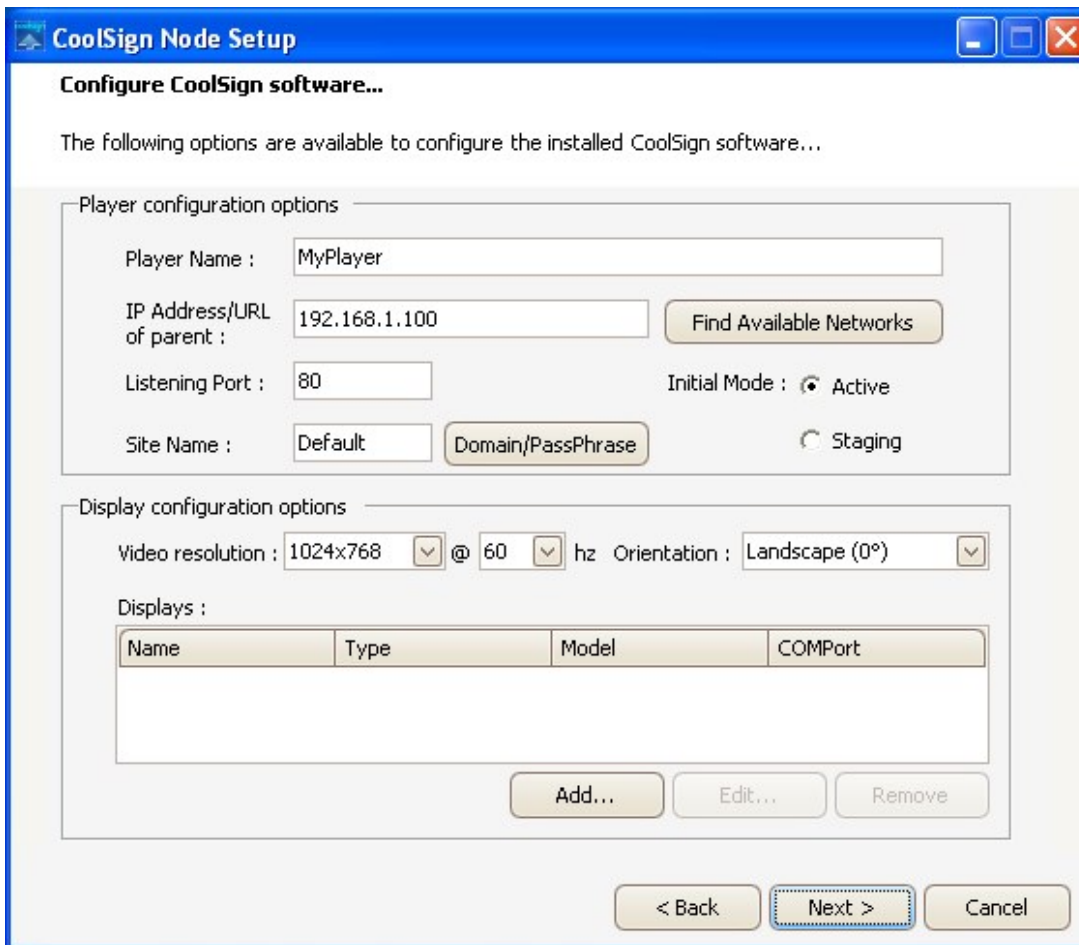
Listening Port :

Site Name :

- **Node Name**—Sets the name of this transfer node. The node name is used within CoolSign Manager and to reference the node.
- **Parent Address**—Sets the IP address of the node to which this transfer node should connect. The parent address can be the DNS name (Machine01, AcmeJewelry01, etc.) or an IP address (for example, 192.168.50.01 or 127.10.2.4) of either the network controller or another transfer node. If the parent node is listening on a non-default port, you must include the port number in the address, preceded by a colon, for example: 192.168.1.100:555.
- **Listening Port**—Defines the port number that the node should use to receive incoming requests from other nodes. The default listening port is 80. You can change the listening port if your networking infrastructure requires it or another application is already using the default port.
- **Site Name**—If you enter the site name during installation, the node appears as a member of that site when you view it within CoolSign Manager. Alternatively, you can subsequently use CoolSign Manager to assign the node to a new site. For more information, see [Managing Sites](#) in the *CoolSign Network Manager User's Guide*.
- **Domain/Passphrase**—Defines the domain/passphrase associated with the transfer node.

When you've finished specifying these configuration options, click **Next** to continue the installation process.

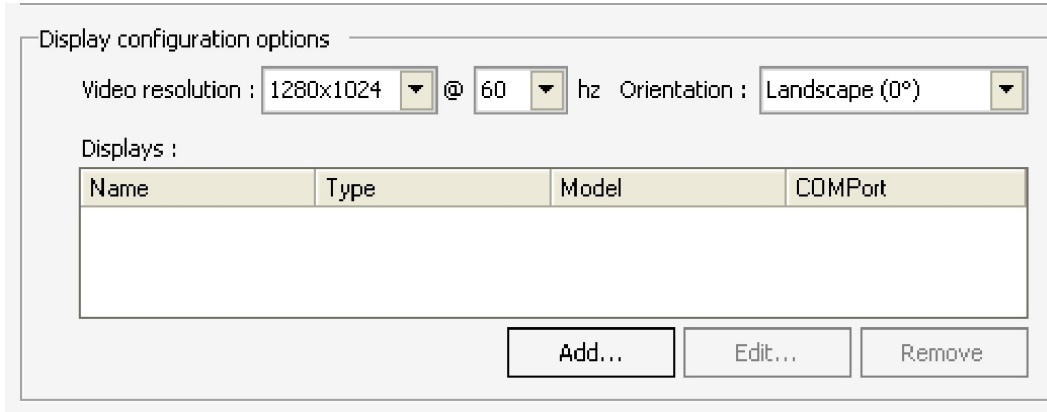
Configure a Player Node



- **Player Name**—Sets the name of this player node. The node name is used within CoolSign Manager and to reference the node.
- **IP Address/URL of Parent**—Sets the IP address of the network controller or transfer node to which this node should connect. The parent address can be the DNS name (Machine01, AcmeJewelry01, etc.) or an IP address (for example, 192.168.50.01 or 127.10.2.4). If the parent node is listening on a non-default port, you must include the port number in the address, preceded by a colon, for example: 192.168.1.100:555.
- **Find Available Networks**—Displays any available CoolSign Networks that are currently running (available Network Controllers and /or Transfer nodes).
- **Listening Port**—Defines the port number that the node should use to receive incoming requests from other nodes. The default listening port is 80. You can change the listening port if your networking infrastructure requires it or another application is already using the default port.
- **Site Name**—If you enter the site name during installation, the node appears as a member of that site when you view it within CoolSign Manager. Alternatively, you can subsequently use CoolSign Manager to assign the node to a new site. For more information, see the "[Managing Sites](#)" chapter of the *CoolSign Network Manager User's Guide*.
- **Domain/Passphrase**—Defines the domain/passphrase associated with the player node.
- **Initial Mode (Active/Staging)**—Choose Active mode for immediate, on-line use of the player. Choose Staging mode for off-line pre-production or testing purposes.

Display Configuration Options

For networked players, you can configure the video output resolution and orientation and add any displays which you intend to remotely control and monitor via a serial interface.



You can define the following display configuration options:

- Video Resolution—Sets the video card resolution and refresh rate at which the player should run. You can use CoolSign Manager to modify these settings after installation if desired.
- Orientation—Sets the orientation to match the physical orientation of the display device connected to the player. The options are:
 - LANDSCAPE (0°)—The display is in its normal TV orientation where the top of the screen is the top.
 - PORTRAIT (-90°)—The display is rotated 90 degrees counter-clockwise so that the right-side of the screen is now the bottom.
 - PORTRAITCW (+90°)—The display is rotated 90 degrees clockwise so that the rightside of the screen is now the top.
 - UPSIDEDOWN (180°)—The display is rotated so that it is upside down.

The orientation setting also defines the format of your player. Landscape and UpsideDown orientations install a landscape-format player. Portrait and PortraitCW orientations install a portrait-format player. If required, you can use CoolSign Manager to modify the orientation and format of a player after installation.

- Displays—The CoolSign player can control supported display devices via a serial cable. With serial control of a display, you can use CoolSign Manager to remotely turn on or off the display, set the display to an alternate input, and monitor status for the device. You can add as many displays as you have available COM ports. Most PCs only include one available serial port. You can purchase a serial port extender to add additional COM ports to your player PC.

The following procedures explain how to add, edit, and remove displays during node configuration. When you're done, click **Next** to continue the installation process.

Important

Before adding a display through this dialog, you should first connect the display physically to the player PC with a serial cable. Adding a display before establishing the physical connection causes a display status error.

1. In the Display Configuration Options area, click **Add**. The Display Properties dialog appears:

Display properties

Name :

Brand : Model :

Type : LCD

COM Port : Display ID :

Inputs Available	Name
Analog	CoolSign
Component	
DVI	
Composite	
S-Video	

Disable panel buttons

Comments :

2. Enter a name for the new display.

3. **Important**

The brand and model must exactly match the display connected to the player. Otherwise the display control will most likely not work and report an error status.

4. Set the COM port to the player that the PC will use to communicate with the display.
5. Set the Display ID (if your display device supports daisy-chaining multiple devices).
6. Enter a name for each available input that you intend to use. You must keep one input labeled as CoolSign. For example, Component = DVD player, DVI = Satellite, and so forth.
7. If the display supports disabling the control buttons, you can check **Disable panel buttons**.
8. If the display supports auto-calibration, you can set the auto-calibration properties.
9. Click **OK** to close the Display Properties dialog.

To Edit a Display:

1. Select the display in the DISPLAY CONFIGURATION OPTIONS area.
2. Click **Edit** to open a Display Properties dialog.
3. Change any of the display's properties as appropriate.
4. Click **OK** to close the Display Properties dialog.

To Remove a Display:

1. Select the display in the Display Configuration Options area.
2. Click **Delete**.

CoolSign Null Displays

Note

The CoolSign null display does not cause any status conditions or provide any feedback to determine if the actual display is working or not.

To Add a CoolSign Null Display:

1. In the Display Configuration Options area, click **Add**.
2. When the Display Properties dialog appears, select the following values:
 - Brand = CoolSign
 - Model = Null
3. Click **OK** to continue.

After Installation

When the installation process completes, click **Finish** to exit the installer.

- If this the first time that you've installed the CoolSign software, Microsoft SQL Express automatically loads after the system reboots.
- For the network controller or transfer nodes, if your installation created an auto-login account or if you are running the Agent and Watchdog as network services (see "[Step 7: Set Installation Options](#)"), the PC reboot does not require you to login.

Important

If you are installing a CoolSign player on a Windows Vista system with User Account Control (UAC) enabled, a confirmation dialog appears after the first reboot. You must click the dialog within two minutes after it appears; otherwise, you'll need to manually reboot the system to complete the installation process.

- Player nodes automatically reboot a second time after installation. After the second reboot, the CoolSign player software launches and connects to the network.

Using a Configuration File During Installation

Throughout this section, the installation procedure describes how to enter CoolSign configuration settings interactively during installation. You can also install CoolSign using an external configuration file.

When you install a CoolSign node, the installer creates a configuration file named

```
installSettings.xml
```

in the CoolSign folder. That file includes information about the type of CoolSign node along with all other information necessary to create an identical node.

Warning

You can only reuse the `installSettings.xml` file between like operating systems. For example, the `installSettings` for Windows XP does not work on Windows 7.

To use an installation configuration file:

1. Copy the CoolSign installation file (`CoolSign_Node_Installer.exe`) and configuration file (`installSettings.xml`) onto your PC where you want to install the new node.
2. From the **Start** menu, select **RUN**, then type `cmd` to open a DOS command window.
3. In the command window, navigate to the folder that contains the CoolSign installation file.
4. To run the installer, issue the following command:

```
CoolSign_Node_Installer.exe /qb /quiet  
CONFIGFILE="<full_path\installSettings.xml>"
```

For example, if your `installSettings.xml` file is in the directory `c:\temp`, you would issue the following command:

```
CoolSign_Node_Installer.exe /qb /quiet  
CONFIGFILE="c:\temp\installSettings.xml"
```

5. After the installation process completes, your node reboots with the new CoolSign software installed.

CoolSign Commands on the Start Menu

After you have installed CoolSign, the following commands are present on your Windows Start menu:

- **START ADPLAYER**—Not used under normal circumstances. For details, contact Customer Support.
- **START AGENT**—Not used under normal circumstances. For details, contact Customer Support.
- **START WATCHDOG**—Restart CoolSign after you've issued the Stop All command.
- **STOP ALL**—Stop the CoolSign network controller and all related processes.
- **STOP WATCHDOG**—Not used under normal circumstances. For details, contact Customer Support.
- **COOLSIGN CONFIGURATOR**—Launch the CoolSign Node Configurator so that you can reconfigure your installed nodes as needed. For details, see [Configuring Installed Nodes](#).
- **Data Watcher Configurator**—Use the Data Watcher Configurator to configure the Data Watcher.

Installing the CoolSign Content Wizard

The CoolSign® Content Wizard enables you to quickly convert existing digital media assets into content that you can use in a CoolSign network. This tool is intended for simpler content creation needs where you only want to use one media asset in each CoolSign content. Content created with this wizard can also be used on any CoolSign Network using version 5.1 of the CoolSign software.

- [Hardware and Software Recommendations](#)
- [Installing the Content Wizard](#)
- [About Digital Video Codecs](#)

Hardware and Software Recommendations

The suggested hardware and software for the CoolSign Content Wizard include:

- Pentium 4 1.8 GHz or better
- DirectX 9.0-compatible video card set to 1280 x 1024 (32-bit color) or higher
- DirectX 9.0c or higher
- 256 MB RAM

- 20 GB hard disk
- Microsoft .NET Framework 2.0 SP1

You can download the latest hardware and software recommendations for CoolSign Content Wizard from Haivision's website at: <https://www.haivision.com/products/digitalsignage/coolsign>.

Installing the Content Wizard

Note

To perform this procedure requires admin privileges.

To install the Content Wizard:

1. If you have not already done so, download the Content Wizard Installer onto the PC where you wish to install it. See [Downloading CoolSign Software](#)
2. Open the Content Wizard folder.
3. Double-click on `SContentWizard-<version>.msi` to launch the installer application.
4. In the Welcome to Content Wizard Setup window, click the **Next** button.
5. In the Select Installation Folder window, verify that the destination folder is correct, then click **Next**.
6. In the Confirm Installation window, click **Next** to begin the installation process.
7. In the Installation Complete window, click the **Close** button.

About Digital Video Codecs

By default, the CoolSign Content Wizard only provides support for the following digital video file types:

- MPEG-1, 2, 4, H.264 support
- WMV , AVI support
- MOV, MP4 support

Important

If you plan to use Windows Media Player 9 files, you must install the appropriate software to play back those file formats.

Windows Media-player 9 —To use WMV files with Content Wizard, you must install Windows Media Player 9 or higher on your system. Windows Media Player 9 is available for download from <https://www.microsoft.com/en-us/>

Related Topics

- [About Content](#) in the *CoolSign Network Manager User's Guide*
- [Managing Content](#) in the *CoolSign Network Manager User's Guide*
- [Content Creation Basics](#) in the *CoolSign Content Creator User's Guide*
- [Advanced Content Creation](#) in the *CoolSign Content Creator User's Guide*

Installing the CoolSign Content Creator

The CoolSign® Content Creator is a full-featured application for creating content for a Digital Media Network. It is specially designed to aid in the design and creation of content that uses dynamic data, but can be used as a general-purpose content animation tool as well.

- [Hardware and Software Considerations](#)
- [Installing the Content Creator](#)

Hardware and Software Considerations

CoolSign Content Creator has the following requirements:

- Pentium 4 1.8 GHz or better
- DirectX 9.0-compatible video card set to 1280 x 1024 (32-bit color) or higher
- DirectX 9.0c or higher
- 256 MB RAM
- 20 GB hard disk
- Microsoft .NET Framework 2.0 SP1

You can download the latest hardware and software recommendations for CoolSign Content Wizard from Haivision’s website at: <https://www.haivision.com/products/digital-signage/coolsign>

Supported Media Formats

Video	Data	Streaming
<ul style="list-style-type: none"> • MPEG 1,2,4, H.264 • WMV, AVI • MOV, MP4 • JPG, GIF, BMP, PNG support • PSD support • HTML5 support (no plug-ins) • Adobe Flash (plugin required) • 608/708 Closed Captions (in transport stream) • Alternative audio track/language (up to 16 in transport stream) • Streaming support (TS, RTMP, HLS) • Dynamic Data support from URLs (including XML and JSON), Files, FTP locations, and SQL and ODBC sources • Multiscreen support (per graphics card) • Vistar Media content support 	<ul style="list-style-type: none"> • HTML5 • Flash • Dynamic Data • Vistar Data 	<ul style="list-style-type: none"> • Transport stream (with multiple audio tracks and closed caption support)

Installing the Content Creator

To install the Content Creator:

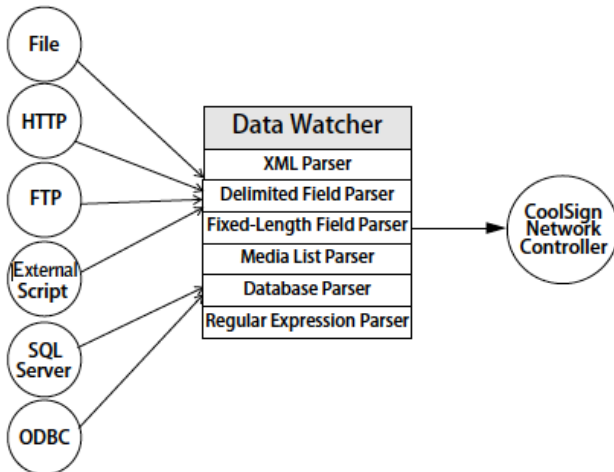
1. If you have not already done so, download the Content Creator Installer onto the PC where you wish to install it. See [Downloading CoolSign Software](#).
2. Open the Content Creator folder.
3. Double-click on `Content-Creator-xxxx.msi` to launch the installer application.
4. In the Welcome to the CoolSign Content Creator Setup Wizard window, click the **Next** button.
5. In the Select Installation Folder window, verify that the destination folder is correct, then click **Next**.
6. In the Confirm Installation window, click **Next** to begin the installation process.
7. In the Installation Complete window, click the **Close** button.

Installing the CoolSign Data Watcher

The CoolSign Data Watcher allows you to bring dynamic data from external data sources into your CoolSign network.

Note

The Data Watcher Manager is not initially installed with CNM. You must install it separately.



Installing the Data Watcher Manager is a two-step process:

- Installing the Data Watcher service (see [Installing the Data Watcher Service](#)).
- Installing the Data Watcher Editor—the tool that you'll use to configure Data Watchers to serve as a bridge between the data source and the CoolSign network (see [Installing the Data Watcher Editor](#)).

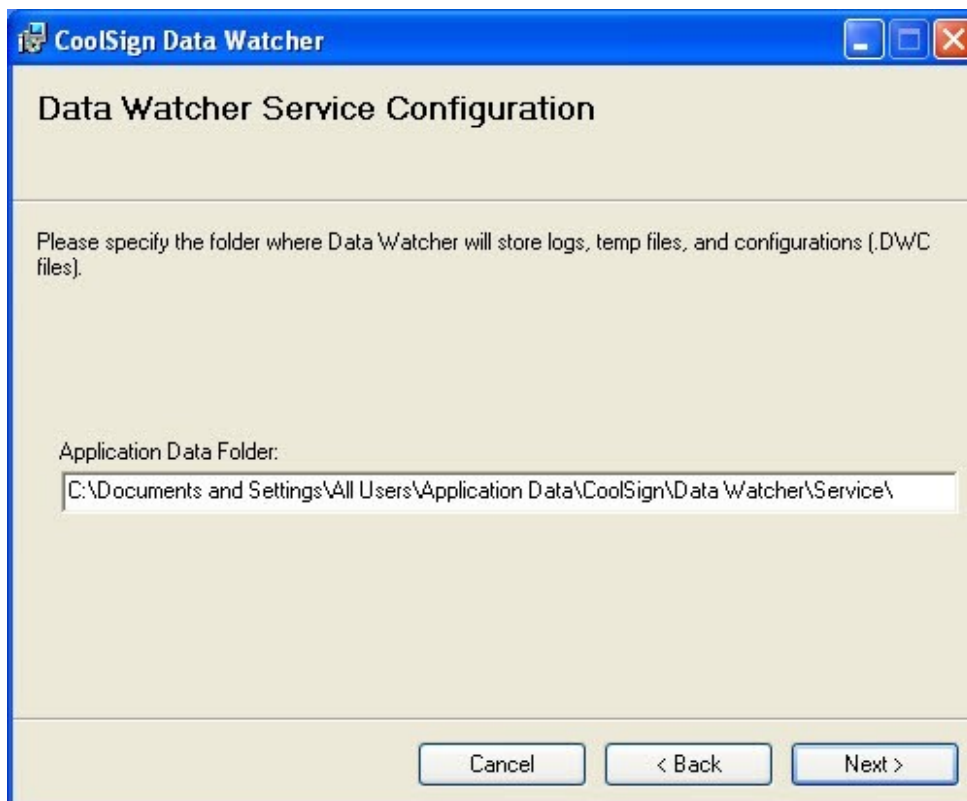
Installing the Data Watcher Service

Note

Connectivity to the CoolSign Network Controller is necessary to establish the initial Data Watcher account with appropriate privileges.

To install the Data Watcher service, perform the following steps:

1. On the machine where you are installing the Data Watcher service, open the file `ServiceInstaller.msi` .
2. When the CoolSign Data Watcher Setup Wizard appears, click **Next** to continue.
3. Select the folder where you want to install the Data Watcher service. The default location is `C:\Program Files\CoolSign\DataWatcher\Service` . Click **Next** to continue.
4. Specify the folder where Data Watcher will store logs, temp files, and configurations (.DWC files). Click **Next** to continue.



5. Confirm your installation details. Click **Next** to continue. The CoolSign Data Watcher installation begins.
6. Before finishing, the installer verifies that a Data Watcher account exists with the necessary permissions to access files on the network share.
7. If the account already exists, a confirmation window appears, click **OK** to dismiss. Skip to Step 9. If the account does not exist, you are prompted to connect to an existing Network Controller. Click **Connect**.
8. When prompted, supply your user name and password and select the network to which the Data Watcher service will connect. Then, click **Login**.

Note

Because the Data Watcher is a service, you must run it from an account that has the necessary permissions to access files on the network share. Once the Data Watcher service is connected to the network, it creates a special user with the name *DataWatcher3*. This special user has limited capabilities and is used by the Data Watcher for all subsequent logins to the network.

Caution

If you modify or delete the *DataWatcher3* user via CNM or any other means, the Data Watcher service may become unable to connect to the network. In this case, you must either reinstall the Data Watcher service to re-create the *DataWatcher3* user, or else edit the Data Watcher service configuration ([Editing the Data Watcher Service Configuration](#) in the *CoolSign Network Manager User's Guide*) and log into the network again.

9. When the installation process completes, click **Close** to exit the setup wizard.

The Data Watcher service is now running. For more information on the Data Watcher, refer to your user's guide.

Installing the Data Watcher Editor

Note

Before installing the Data Watcher Editor, be sure that you have already installed CNM version 5.1 or later.

To install the Data Watcher Editor, perform the following steps:

1. On the machine where CNM is installed, open the file `DWEditorInstaller.msi`.
2. When the CoolSign Data Watcher Editor Setup Wizard opens, click **Next** to continue.
3. When prompted to do so, indicate whether you are installing the Data Watcher Editor for use with CNM, or as a standalone editor. Some users prefer to install a standalone version of the Data Watcher Editor on the transfer node or player where the Data Watcher service is running. Select the folder in which you will install the Data Watcher Editor and click **Next**. (The default location is `C:\Program Files\CoolSign\DataWatcher\Editor`.)
4. Confirm your installation details, then click **Next**.

After installation is complete, start the Data Watcher service, then restart CNM. Once you've done that, you can use the Data Watcher Manager to perform dynamic data management in CNM.

Related Topics

- [Using the Data Watcher Manager](#) in the *CoolSign Network Manager User's Guide*
- [About Dynamic Data](#) in the *CoolSign Network Manager User's Guide*
- [Managing Data Tables v5.1](#) in the *CoolSign Network Manager User's Guide*

Installing the CoolSign Offline Update Imager

The CoolSign System allows you to manage a network of digital signs from a central location. Sometimes the sites or Player nodes needing changes to their schedules are not connected to the network. The Offline Update Imager application allows you to make these changes, to save them to media (such as a CD, DVD or USB thumb drive), and then to easily update the offline systems.

The Offline Update Imager application allows you to make schedule or content changes to an offline site or Player node. Some of the changes you can make with this application are:

- Adding/ deleting/ updating content.
- Assigning a new channel to a Player.
- Changing the duration of content.
- Changing the frequency setting for content.

Important

Any changes made to content, including adding content or changes to content settings in the CoolSign Content Manager, will require that the content be included when the update image is created.

System Requirements

To create the update image, you will need to have Agent version 5.0.0.841 or later on the network controller on which the content and schedule reside. This version of the Agent is not needed to update offline nodes.

Installing the Offline Update Imager

To install the Offline Update Imager application, follow these steps:

1. Download the Offline-Updater from the [Haivision Support Portal](#).
2. Double-click the `OfflineUpdater-X.X.X.nnn.msi` to start the installation.
3. Click **Next** to continue with the *Offline Update Imager Setup Wizard*.
4. Specify where the Offline Update Imager will be installed, and then click **Next**.

Important

It is highly recommended that you install the Offline Update Imager in the default directory. Running the Offline Update Imager from a user-defined install path can cause it to not work properly.

In the lower part of this dialog, you have the option to install this application for *Everyone* or *Just me* (the recommended setting is selected by default).

5. Click **Next** to begin the installation. You can follow the progress of the installation in this window.
6. When the installation is finished, the message *Installation Complete* appears. Click the **Close** button.

After the installation is completed, you will notice that the Offline Update Imager application is available in the **START** menu.

Related Topics

- [Using the Offline Update Imager](#) in the *CoolSign Network Manager User's Guide*

Upgrades

This section describes the procedures for upgrading a:

- CoolSign network from version 4.5.x (or higher) to version 5.2

! Important

If you are upgrading from a version of CoolSign prior to 4.5, or if your network nodes are not all at the same version level, please contact Haivision Technical Support before attempting to upgrade.

! Important

If you are running SQL Express 2005, you must upgrade your database to SQL 2008 or later for CoolSign 5.2.

- [Prerequisites](#)
- [Preparing for the Upgrade](#)
- [Upgrading your CoolSign Network](#)

Prerequisites

The following software requirements are the prerequisites for a CoolSign v5.2 installation:

- Windows Server 2008 R2, Windows 7, Windows 8.1, or Windows 10 ¹ with all applicable service packs applied.
- SQL Express/Standard 2008 or above
- Microsoft .NET Framework v4.0 (available from the [Haivision Support Portal](#)).
- Microsoft DirectX (available from the [Haivision Support Portal](#)).
- Adobe Flash (available from the [Haivision Support Portal](#)).
- Microsoft Windows Media Player ² (CoolSign uses the application's WM9 codecs).
- Microsoft Internet Explorer v7 or later **[Network Manager Only]**

1. With version 5.2, CoolSign can be installed on Windows 10. ↗

2. Typically included in the installation of the Windows operating system. However, if you customized your operating system, you may need to install this application. ↗

Preparing for the Upgrade

The tasks in this procedure focus on ensuring that the software is current and that all data is properly backed up.

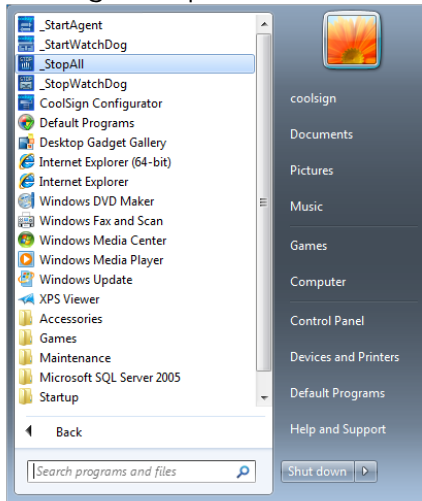
1. Ensure that the operating system on your devices is up-to-date:
 - Windows Server 2008 (64-bit or 32-bit) — SP2

- Windows Server 2008 R2 (64-bit or 32-bit) – SP1
 - Windows Server 7 (64-bit or 32-bit) – SP1
2. Ensure that the running DB is SQL Express 2008 or above. To determine your specific edition of SQL Server, visit <https://support.microsoft.com/en-us/kb/321185>.

! Important

If you are running a version of SQL Express prior to 2008 you must first upgrade your database (see [SQL Express 2005 Upgrade](#)). If you are running SQL 2008 or above, then continue with the upgrade as described below.

3. Run the "STOPALL" script from the Windows START menu to stop the Network Controller's CoolSign components.



4. Create a backup of the CoolSign SQL database using SQL Server Management Studio.
 - **MSSMSE 2005 Express Edition** - <http://www.microsoft.com/en-us/download/details.aspx?id=8961>
 - **MSSMSE 2008 Express Edition** - <http://www.microsoft.com/en-us/download/details.aspx?id=7593>
5. Login to the SQL database instance using SQL SERVER MANAGEMENT STUDIO > DATABASES.
6. Right-click on the CoolSign database and from the popup menu select TASKS > BACK UP.
7. Select Backup type as "Full", set the destination path, and click **OK**.
For detailed steps on creating the backup, please refer to the following Microsoft article: **Create a Full Database Backup (SQL Server)** <http://msdn.microsoft.com/en-us/library/ms187510.aspx>
8. Create a backup of the entire CoolSign directory. For devices running Windows Server 2008 R2 or Windows 7, backup all files in: `C:\ProgramData\CoolSign.`

i Note

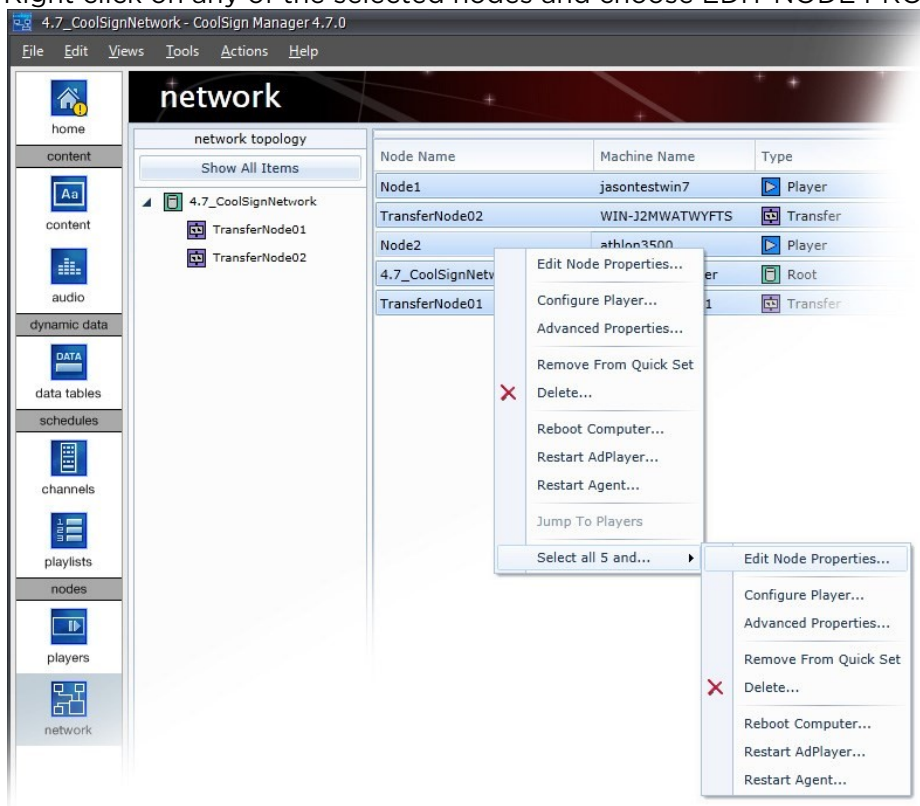
Both the CoolSign database and directory backups must be in sync.

9. Once the backups are completed, you can restart the Network Controller's CoolSign components.
10. Schedule a downtime period for your CoolSign network, during which you will perform the upgrade. There should not be any changes made to the network during this period.

Upgrading your CoolSign Network

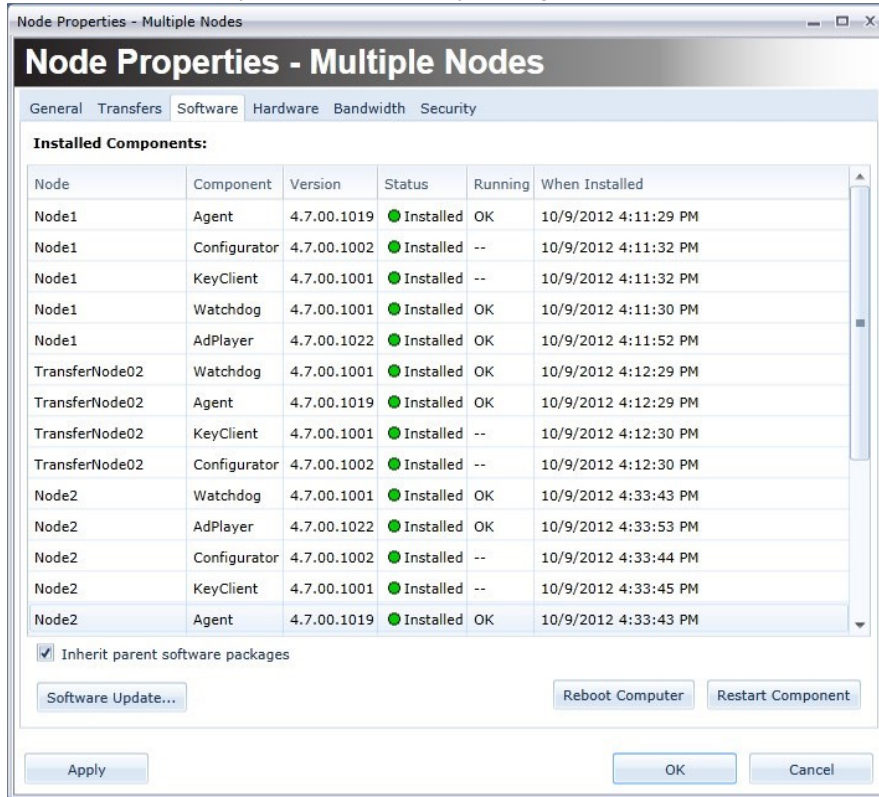
Before you begin:

1. In the CoolSign Network Manager in the Network window, select all nodes.
2. Right click on any of the selected nodes and choose EDIT NODE PROPERTIES.



3. When the Node Properties window appears, click on the **Software** tab.

4. Check the Inherit parent software packages checkbox, and click **OK**.



5. If the Microsoft .NET4 Framework Update Package has not already been installed, download it from the Haivision Support Portal, and install it: <https://support.haivision.com>(login required).

Note

All CoolSign nodes require this package and should receive it via the software inheritance mechanism.

- Acquire a new CoolSign 5.2 License Key by completing and submitting the form "CoolSign License Key Request - SOFTWARE UPGRADE" (for existing installations), available from this page: <https://www.haivision.com/eform/submit/licence-request> (login required).
- Obtain a copy of the CoolSign 5.2 upgrade packages, including the CoolSign Network Manager (CNM) installer, from the [Haivision Support Portal](#) (login required)
 - CoolSign Network Manager (`NetworkManager-5.n.n.msi`)
 - Content Creator (`Content-Creator-5.n.n.msi`)
 - Content Wizard (`SContent-Wizard-5.n.n.msi`)
 - Data Watcher Editor (`Data-Watcher-5.n.n.msi`)

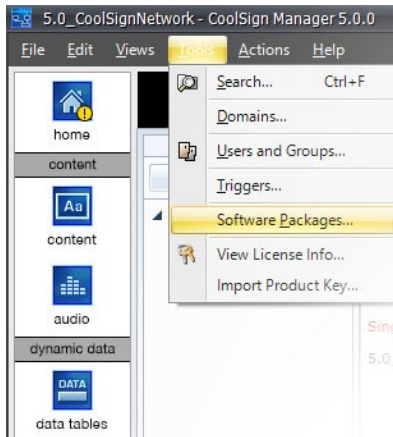
Upgrading the Network Controller

Note

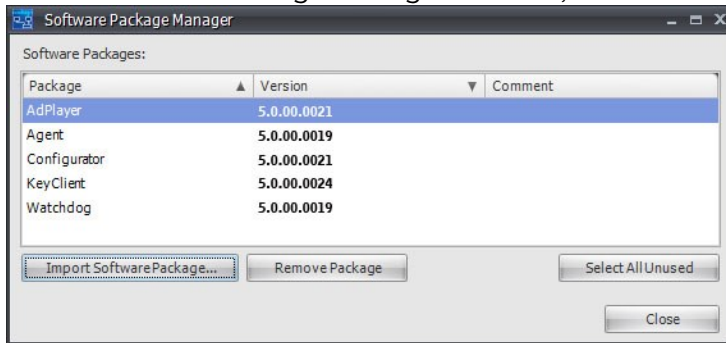
Please allow all child nodes to download a software package from the Network Controller (NC) before applying the next package.

In each case, to **import** the software package do the following:

1. Choose TOOLS > SOFTWARE PACKAGES.



2. In the Software Package Manager window, click "IMPORT SOFTWARE PACKAGE."



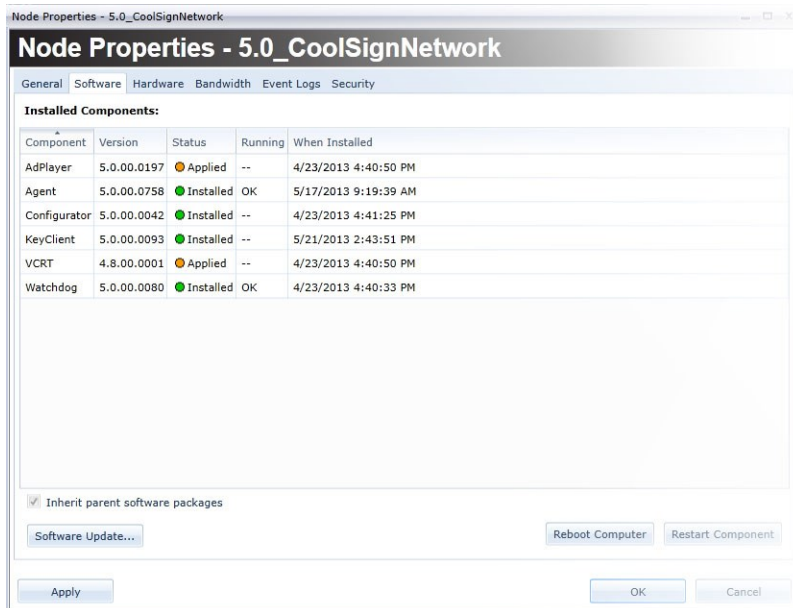
3. In the Open dialog, select the "`Package.xml`" file from the folder containing the software packages you had previously downloaded ([Downloading CoolSign Software](#)).
4. Click **OK**.

In each case, to **apply** the software package, do the following:

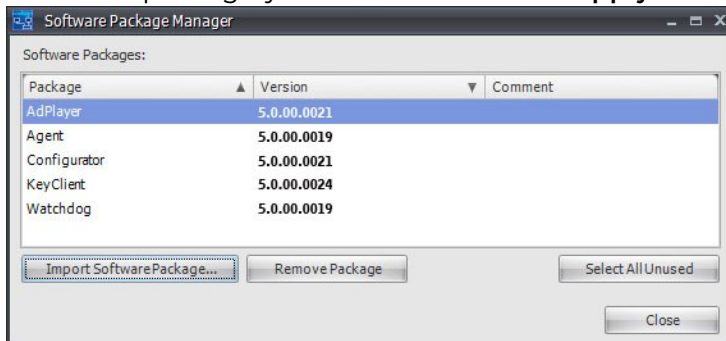
Note

Please allow all child nodes to download a software package from the Network Controller (NC) before applying the next package.

1. In the Node Properties window, click the **Software** tab, and then click the **Software Update...** button.



2. Select the package you want and click the **Apply** button.



Important

You must import and apply the packages **in the order specified** below to ensure a successful upgrade. Be sure to allow all child nodes to download a software package from the Network Controller (NC) before applying the next package.

1. Using the CoolSign Network Manager (CNM), import and apply the following version 5.2 packages to the NC (main server):
 - Microsoft .NET4 Framework Update package
 - KeyClient package
 - WatchDog package
 - AdPlayer package
 - Configurator package
 - Agent package
 - Data Watcher package (if appropriate)
 For information about the DataWatcher, see [Installing the Data Watcher Service](#) in the *CoolSign Network Manager Installation Manual*.

- Uninstall the existing CoolSign Network Manager using the Windows "ADD/REMOVE PROGRAMS" control panel.
- Double click the `Network Manager-5.n.n.msi` to install the CoolSign 5.2 Network Manager and follow the installation wizard's instructions.
- Using the CoolSign Network Manager (CNM), import and apply the DataWatcher (if appropriate), see [Installing the Data Watcher Service](#) in the *CoolSign Network Manager Installation Manual*.
- Launch the CoolSign 5.2 Network Manager, connect to the Network Controller, and apply the 5.2 license key when prompted. See [Requesting CoolSign Licenses](#).

Upgrading Transfer Nodes

Note

If you are installing on nodes that are using different versions of CoolSign software, please verify that they have been updated with the Microsoft .NET 4 Framework Update Package.

Upgrading Player Nodes

Note

If you are installing on nodes that are using different versions of CoolSign software, please verify that they have been updated with the Microsoft .NET 4 Framework Update Package.

Updating the CoolSign Network Manager (CNM)

To update the CoolSign Network Manager:

1. Remove the existing CoolSign Network Manager using the Windows "ADD/REMOVE PROGRAMS" control panel *prior* to installing the 5.2 version.
2. Double-click the `Network Manager-5.n.n.msi` installation package to open the setup wizard.
3. Follow the instructions for the install.
4. When finished, launch the CoolSign Network Manager.
5. At the logon window, connect to the appropriate network and supply the license product key when prompted. See [Licensing Requirements](#).

Upgrading CoolSign Applications

To upgrade the CoolSign applications:

1. If the Microsoft .NET4 Framework Update Package has not already been installed, download it from the [Haivision Support Portal](#), and install it on the machine(s) hosting the CoolSign application(s): <https://support.haivision.com> (login required).
2. For each of the CoolSign applications below, you must uninstall the existing version(s) via the Windows "ADD/REMOVE PROGRAMS" control panel *prior* to installing the 5.2 version.
3. Obtain the installation packages from the [Haivision Support Portal](#) (login required):
 - CoolSign Network Manager (`Network Manager-5.n.n.msi`)
 - Content Creator (`Content-Creator-5.n.n.msi`)
 - Content Wizard (`Content-Wizard-5.n.n.msi`)
 - Data Watcher Editor (`Data-Watcher-5.n.n.msi`)

4. Double-click the installation package (*.msi), to open the setup wizard and follow the instructions.

Getting Started

CoolSign Network Manager (CNM) is your primary tool for controlling, managing, and monitoring the activities of your CoolSign digital media network. You can use CNM to:

- Import and manage CoolSign content.
- Create channels and playlists to schedule content for playback.
- Configure and manage CoolSign players connected to your network.
- Create and populate dynamic data tables to provide rich data sources for dynamic content.
- Remotely configure and monitor many aspects of your network including status, play history, bandwidth usage, and security settings.
- Connect to your network directly from your desktop PC over a local or wide-area network connection. Or use your browser to access the web-based interface.

Topics Discussed

- [Prerequisites for CoolSign](#)
- [Connecting to a CoolSign Network](#)
 - [Managing your Available Networks](#)
 - [Auto-Discovering Available CoolSign Networks](#)
 - [Manually Managing Available CoolSign Networks](#)
- [About Product Keys](#)
 - [Keying your Network Controller](#)
 - [Importing Product Keys](#)
- [Product Licenses](#)
- [Multi-Tenancy](#)
 - [Initial Account and Password](#)
 - [About Domains](#)
 - [About Sub-Domains](#)
 - [Managing Domains](#)
 - [Users and Groups](#)
- [CoolSign Configurator](#)
 - [Configuring a Multi-Output AdPlayer](#)

Prerequisites for CoolSign

If you haven't installed the necessary CoolSign software or set up your CoolSign network controller or players, you'll need to do this before using CNM. For detailed installation and setup instructions, download the *CoolSign Digital Media Network Installation Manual*, <https://support.haivision.com>

Note

All current CoolSign software requires Microsoft's .NET Framework 4.0 or later.

Connecting to a CoolSign Network

When you launch CNM, a login dialog prompts you to enter your user credentials and to select the available CoolSign network to which you wish to connect.

- If this is your first time running CNM, you'll be prompted to accept the CNM EULA agreement as well as enter the connection information for your network. For details, see [Managing your Available Networks](#).
- If you want to allow users to log into the CoolSign network from an existing Windows domain account, you can streamline the user logon process ONLY if the Windows domain accounts are in the same domain as the CoolSign Network Controller node. For details, see [Using Windows Domain Security to Connect to CoolSign](#).

Tip

If you're set up to connect to the CNM using your Windows credentials and instead you want to use CoolSign account credentials, you can hold down the left CTRL key while starting the CNM. Note that the following login window appears even if you are using domain security.

To connect to a CoolSign network:

Important

When your CoolSign Network is initially installed, it comes with one user account already created. The credentials for the account are provided in the *Important Notice* document. When you first log in to your network, you should immediately create new user accounts and change the password for the admin account. For more information see [About Security](#) in the *CoolSign Network Manager User's Guide*.



1. Enter your user name.
- 2.

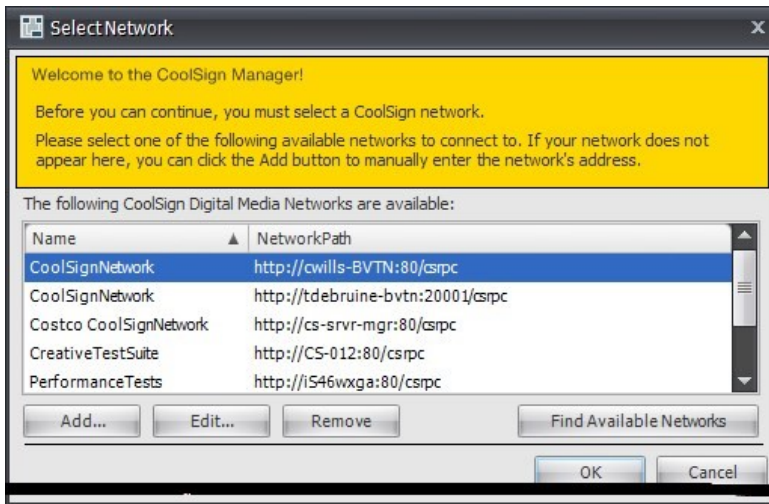
Note

Passwords are case-sensitive. Make sure you don't accidentally have the **Caps Lock** key depressed when entering your password. Select the network to which you want to connect.

3. Select the network to which you want to connect.
4. Click the **Login** button.

Managing your Available Networks

The first time you launch CNM, or if you have more than one network that you want to manage, you'll need to use the Select Network dialog to add to your list of available CoolSign digital media networks. You can use this dialog to manually add, edit, or remove CoolSign networks from your list of available networks or you can attempt to auto-discover any networks.



Opening a Select Network Dialog

To open the *Select Network* dialog:

- From the Login dialog, click the **Edit Networks** button.

Auto-Discovering Available CoolSign Networks

Note

A CoolSign network can only be auto-discovered if its Network Controller is located within the same network domain as your PC.

To auto-discover available *CoolSign* networks:

- Click the **Find Available Networks** button.

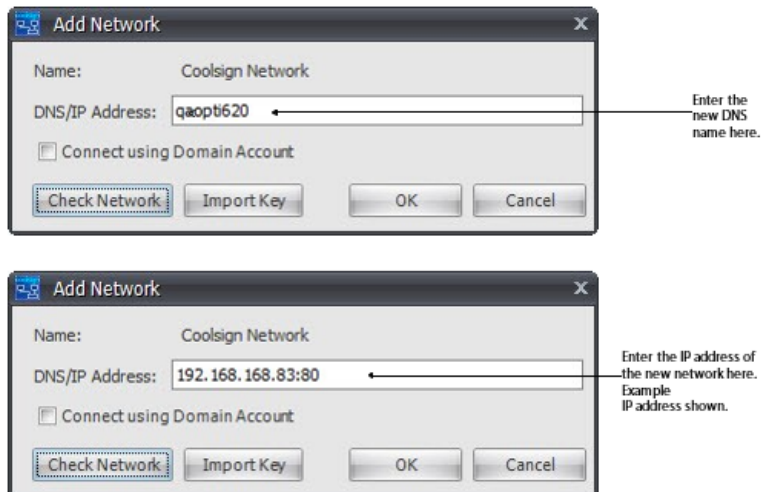
Manually Managing Available CoolSign Networks

If CNM cannot discover a Network Controller on the CoolSign network to which you wish to connect, you must manually add the network to the list of available networks.

Adding a New Network

To add a new network:

1. From the Select Network dialog, click the **Add** button. The Add Network dialog appears.



2. Enter the IP address or DNS name of the Network Controller. For example, `192.168.1.10`.
3. Click the **Check Network** button. If a network is online and available at the specified address, its name automatically appears.

Note

You cannot add a network that is not currently online. If you are having trouble connecting to a valid address, make sure that the Network Controller agent is running.

4. To connect using Domain Accounts, check the **Connect using Domain Account** box. This option causes CNM to use the Windows Domain account to log into the CoolSign network without displaying the Login dialog.

For more information on using domain accounts, see [Linking CoolSign Users/groups to Active Directory Groups](#) of the *CoolSign Network Manager User's Guide*.

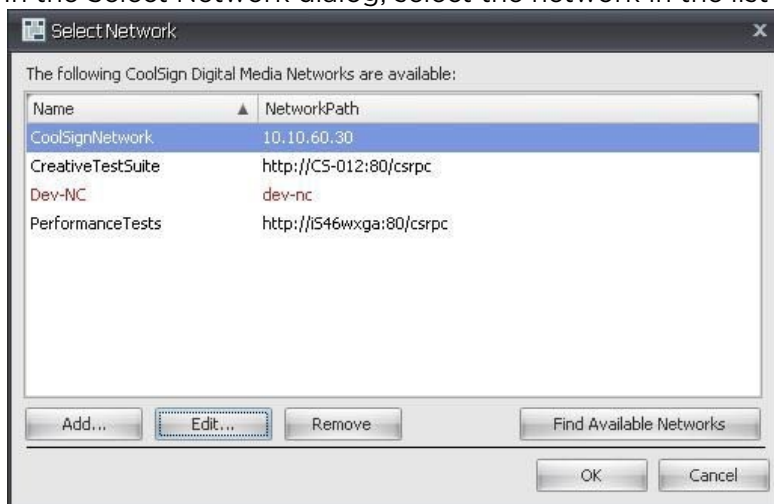
5. To import your license key from a valid product key file, click **Import Key**. For details, see [About Product Keys](#).

6. Click **OK**.

Editing the Properties of an Existing Network

To edit the properties of an existing available network:

1. In the Select Network dialog, select the network in the list of available networks.



2. Click the **Edit** button.
3. Enter a new IP address or modify any properties.
4. Click **OK**.

Removing an Available Network

To remove an available network:

1. In the Select Network dialog, select the network in the list of available networks.
2. Click the **Remove** button.

About Product Keys

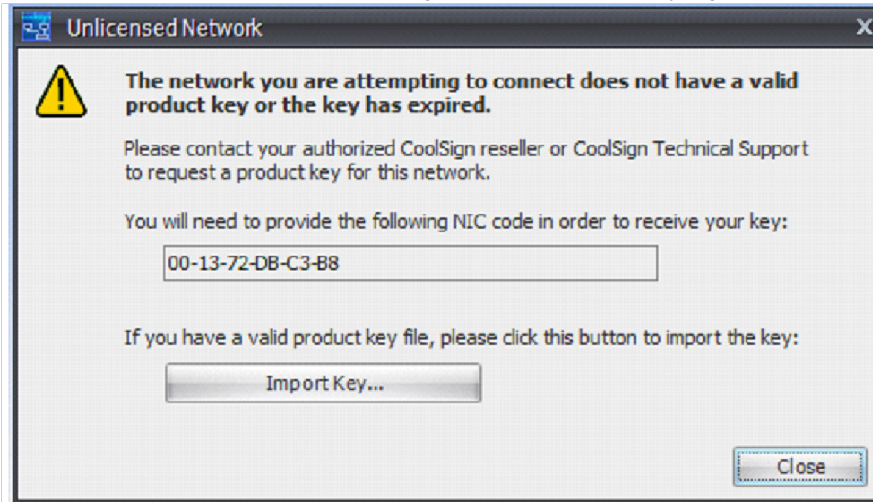
CoolSignCoolSign uses a product key system to license the functionality and features of the CoolSign Network Controller. If you are trying to connect to a CoolSign Network Controller that does not have a valid CoolSign product key, you must obtain one from either your authorized CoolSign reseller or from CoolSign Technical Support. The product key is provided as a small text file. Visit <http://haivision.com/license> for more details.

Note

The NIC address is sometimes referred to as a MAC address or as the physical address of your NIC.

Keying your Network Controller

When CNM connects to an unkeyed network, it displays this warning dialog:



The dialog provides the NIC address that you must provide when requesting a key for your Network Controller. If you already have a product key for your Network Controller, you can import the key through this dialog.

To import a network product key:

1. Click the **Import Key** button.
2. Select the Product Key file provided to you using the Select File dialog.
3. Click **OK**. You should be able to connect to your network after a few moments.

To view license info for your network:

- Choose **TOOLS > VIEW LICENSE INFO**. See [Product Licenses](#).

Importing Product Keys

You can import the product keys provided by CoolSign Technical Support directly into CNM to remotely key your nodes.

To import a product key:

1. Choose **TOOLS > IMPORT PRODUCT KEY**.
2. Select the product key text file provided to you by CoolSign Technical Support.
3. Click **OK**. The import tool lets you know how many valid keys were imported.

Product Licenses

This section describes how to view current product license information and import product licenses. Product licenses can only be imported using product keys that are available from CoolSign Technical Support.

The following product licenses are now available from CoolSign:

Note

Only the network controller and the player require licenses.

- Network controller:
- Enterprise Class Server—has no built-in limits on player or CNM/client counts
- Multi-tenant Server—Enables the use of domains and sub-domains to support multi-tenancy
- Transfer nodes: No license required
- Networked Players—Player access licenses

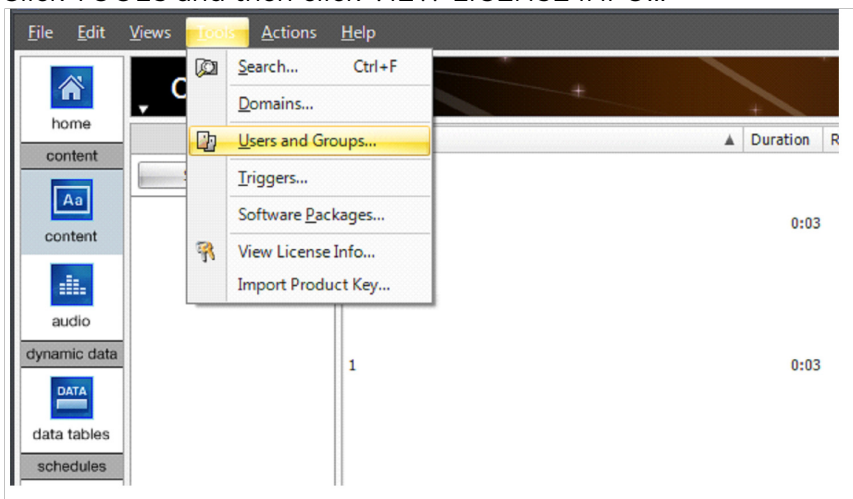
For more details on transfer nodes, see [Managing Nodes](#).

Note

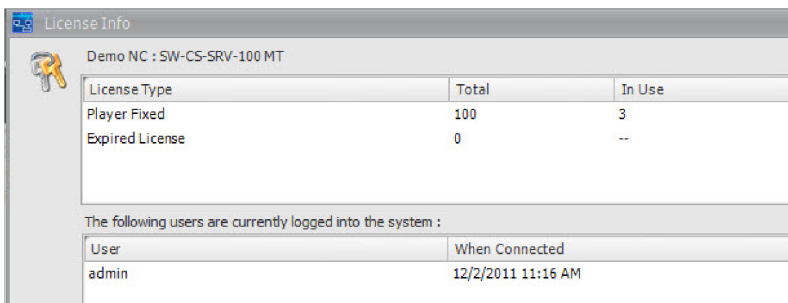
See “[CoolSign Distributed Network Architecture](#)” for the recommended topology for a distributed CoolSign network. This information can be found in the *CoolSign Network Installation Guide*.

To view license information on your network:

1. Click TOOLS and then click VIEW LICENSE INFO...



This screen lists all the fixed Client Access Licenses (CALs) as well as any expired licenses. For details, see [Managing Domains](#).



Note

For details about Fixed licenses, see [Managing Domains](#).

2. If necessary, purchase your product licenses and import your product key(s). For details, see [Importing Product Keys](#).

Multi-Tenancy

This section describes how to log in as a CNM administrator and set up domains for *tenant* users. If a Multi-Tenancy product license was purchased, a CNM administrator can assign the necessary security settings to limit access among domains so customers can each have a CoolSign network that looks as though they are the sole client on the server. In other words, users can "share" a single CoolSign network in a secure way so that each one can safely think of the network as "their network."

Note

A domain is a sub-network made up of a group of clients and servers under the control of one central security database. Within a domain, users authenticate once to a centralized server (known as a domain control) rather than repeatedly authenticating to individual servers and services. Individual servers and services accept this user-based control on the approval of the domain controller.

Initial Account and Password

When your CoolSign Network is initially installed, it comes with one account, "admin," already created. The credentials for the admin account are provided in the Important Notice document (note that passwords are case sensitive).

When you first log in to your network, you should immediately create new user accounts and change the password for the Admin account because being a member of the Master domain automatically makes you a member of the Everyone group in all other domains. Being a member of the Administrators group in the Master domain gives you full administrative (super user) access to all domains. For details about how to control who has access to your CoolSign Network, see [Security Strategies](#) in the *CoolSign Network Manager User's Guide*.

About Domains

Keep the following in mind when setting up domains:

- When reading a list of users or roles, only users and roles from the user's domain are visible, unless the user is a member of the Master domain, in which case all users and roles in all domains are visible.
- Only members of the Master domain can read a list of domains.
- Only members of the Administrators group in the Master domain can create, update, and delete domains.

About Sub-Domains

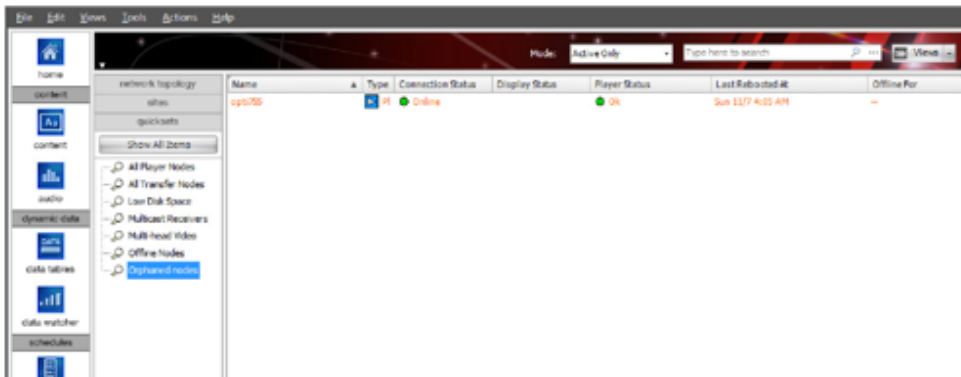
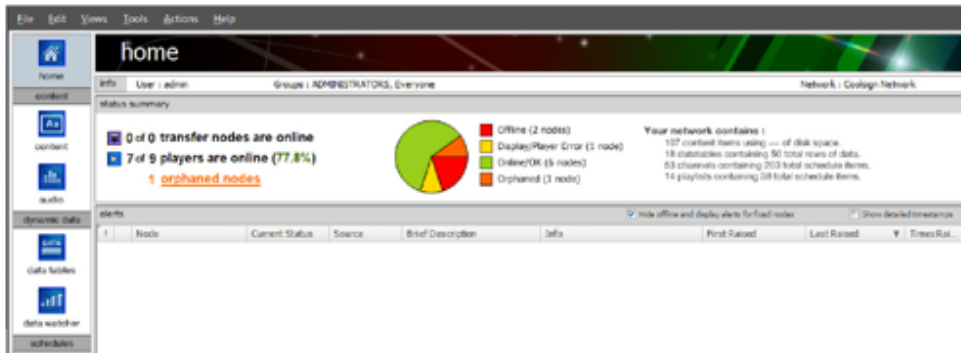
Keep the following in mind when setting up sub-domains (for tenants):

- The master administrator is the only one who can assign licenses and distribute, create sub-domains and pass phrases, and assign permissions.
- Tenants must get access to their respective sub-domains and pass-phrases from the master administrator.

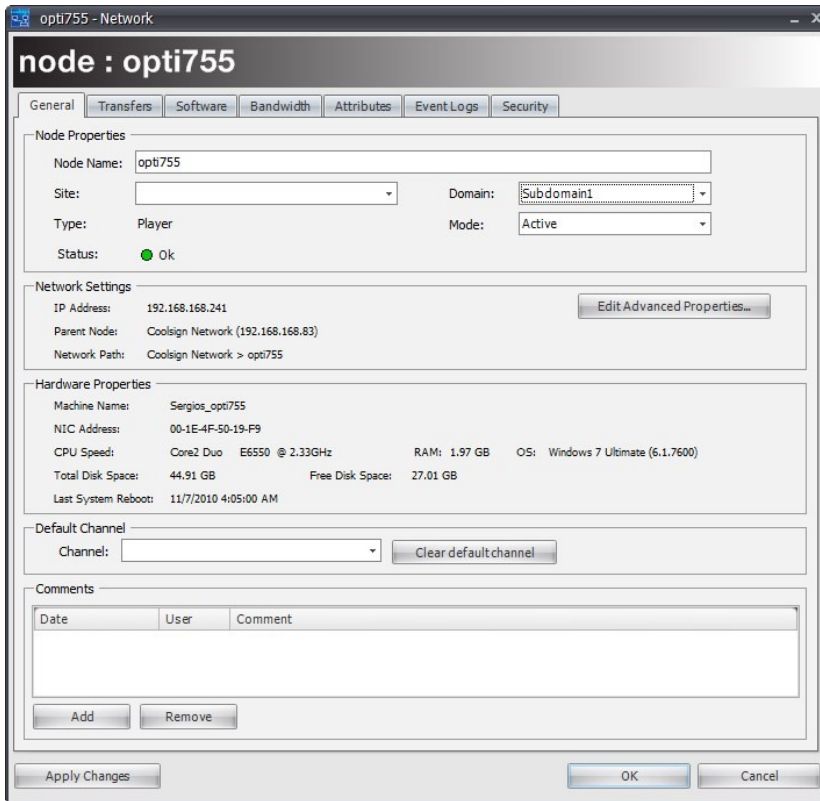
- If a tenant mis-types a sub-domain pass phrase or a node pass phrase while attempting to join a sub-domain, that sub-domain is not accessible and instead joins a special domain that only the master administrator can see and have access to.

In order for the node to join the assigned tenant sub-domain, the master administrator must move it from the special domain into the assigned tenant domain.

To do this, the master administrator either clicks the Orphaned Nodes link on the home window or selects the Orphaned Nodes pre-defined quickset from the CNM.



- The master administrator must edit the orphaned node properties and set the domain field to the correct sub-domain.



Managing Domains

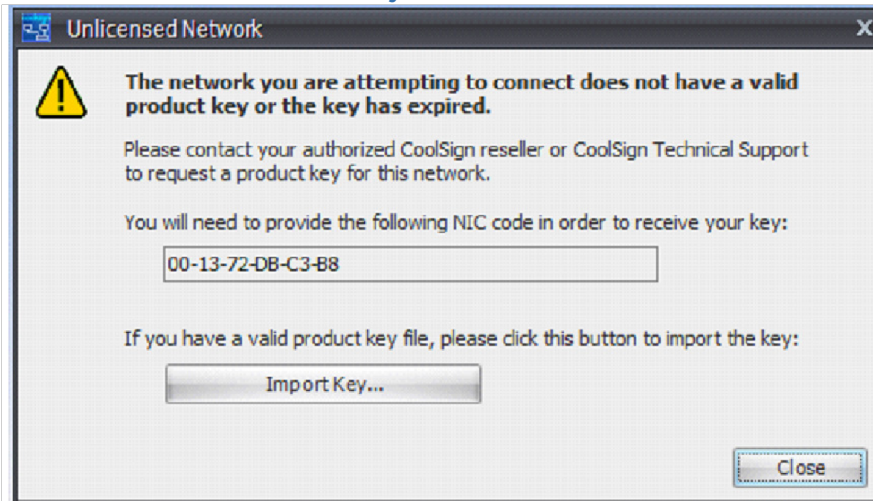
Following is a simplified domain structure based on the displayed groups and users. For details on how to add, edit, or update users and groups see [Managing Users and Groups](#) in the *CoolSign Network Manager User's Guide*.



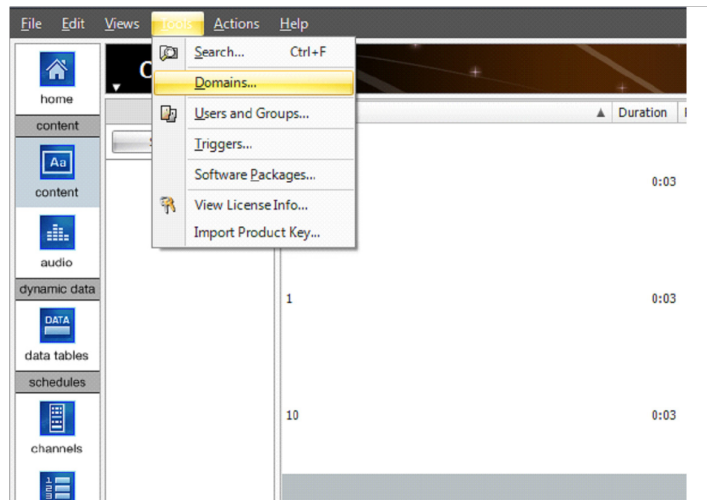
To add domains:

1. Login to the CNM. For details, see [Connecting to a CoolSign Network](#).

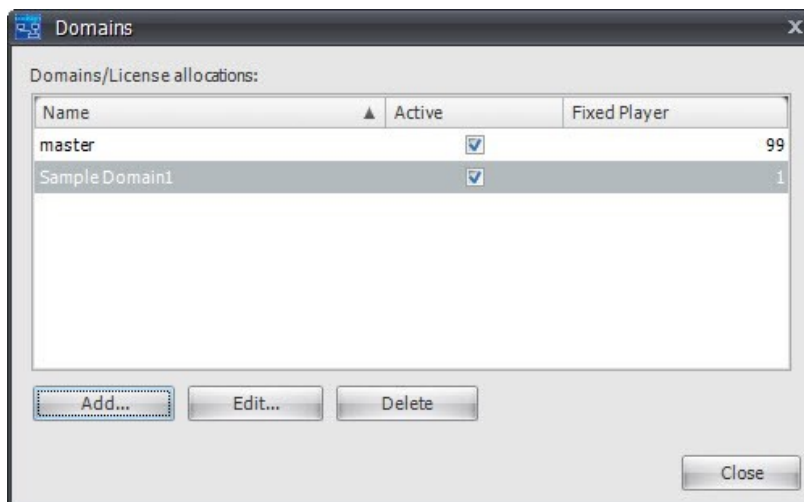
- If you haven't purchased and imported your product licenses, the following screen appears. For details see [About Product Keys](#) and [Product Licenses](#).



- Click **Tools** and then click **DOMAINS**.



A current list of Domains and License Allocations appears. Note that if this is the first time accessing this screen only the "master" domain appears. In this example, master appears, it is active, and has a player license assigned.

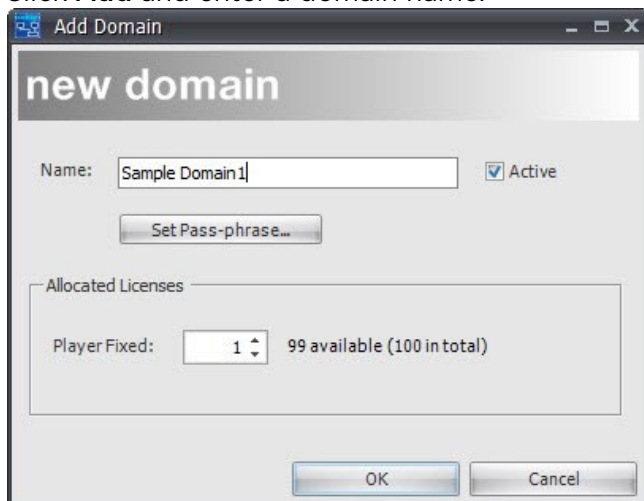


- **Active**—Displays whether or not a domain is active.
- **Fixed Client Access Licenses**—The number of client licenses that the server has available for assigning to network nodes. These licenses are consumed and assigned to nodes as they network. These licenses can be re-assigned a certain number of times (in the current implementation of the server, they can be re-assigned five times).

Note

If a node is deleted from the server’s database but then subsequently reconnects, the node re-acquires the same client access license that it had previously been assigned (if any), provided that this license has not already been reassigned to another node. The server attempts to assign all previously unassigned client access licenses before it reassigns previously used client access licenses.

1. Click **Add** and enter a domain name.



Note

Domain names are limited to a maximum of 32 characters and cannot contain the characters !, &, <, \, ", or @.

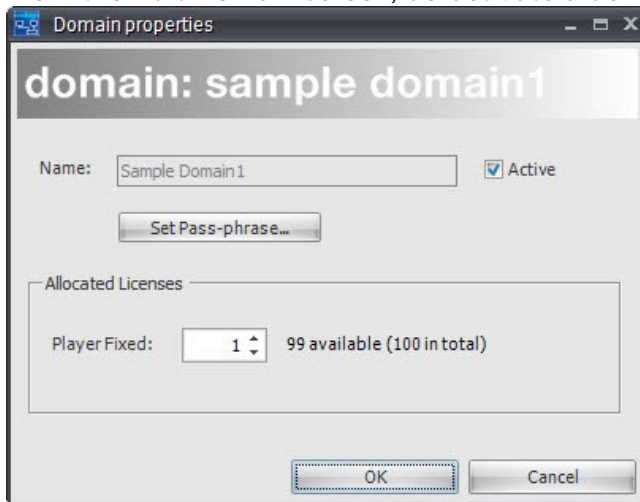
2. Click **Set Pass-phrase...** to enter and confirm a new pass-phrase.

Note

A domain must have a specific pass phrase associated with it. This prevents tenants from accessing domains other than their own. Pass phrases should be unique enough so they can't be easily guessed or mistakenly entered. Also note that a pass phrase is not the same as a password when setting up your CNM network.

To edit domains:

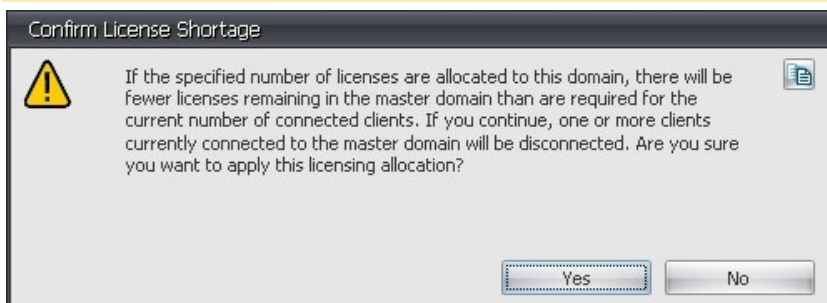
1. Click **Edit** from the Domains screen.
2. From the Edit Domain screen, de-activate a domain and/or modify any allocated licenses.



3. Press **OK** to apply your changes.

Note

If you attempt to allocate more licenses than there are available, the following screen appears explaining that the specified number of domain licenses exceeds the number of players that are connected to your network.

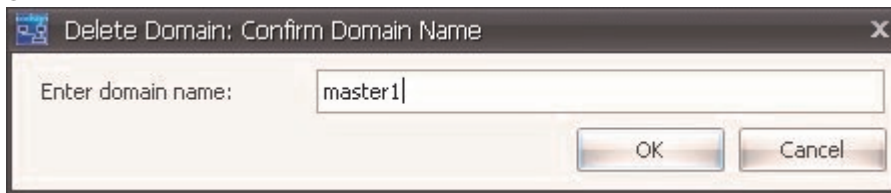


To delete domains:

Warning

When you delete a domain everything associated with that domain (content, audio, data tables, channels, playlists, players, user accounts, capabilities, and security) will be lost. So to make sure that you really want to delete the domain, you have to enter the name as shown.

1. If you're sure you want to delete the domain, Click **Delete**, enter the domain name, and then click **OK**.



2. Click **Yes** to finish.

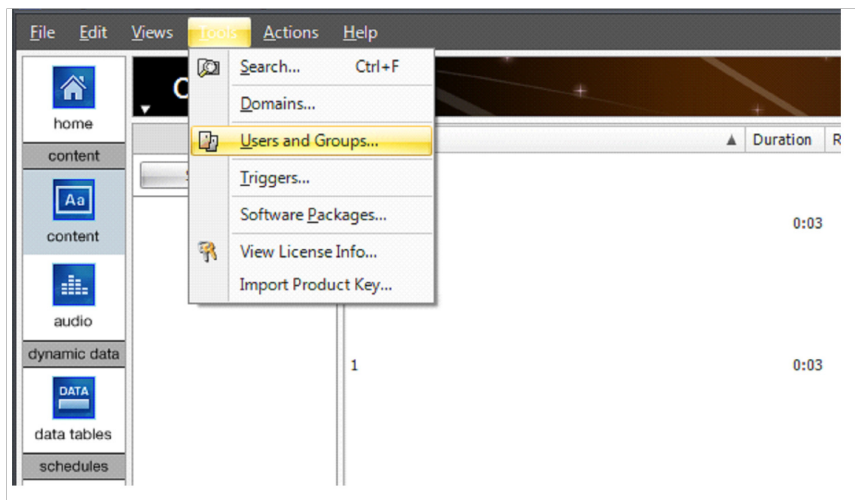
Users and Groups

You can manage the users and groups that are allowed access to domains and sub-domains from the User and Groups dialog. For more details, see [Managing Users and Groups](#) in the *CoolSign Network Manager User's Guide*.

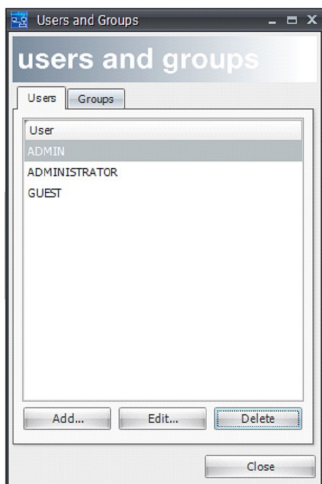
This section explains how to manage users, groups, and special groups including how to assign capabilities to control access as well as password management. This section also explains security strategies to help you manage the security access to your CoolSign network.

To add a new user:

1. Click **Tools** and then click **USERS AND GROUPS**.



A current list of Users and Groups appears. Note that if this is the first time accessing this screen only "User", "ADMINISTRATOR", "ADMIN, and "GUEST" appear.



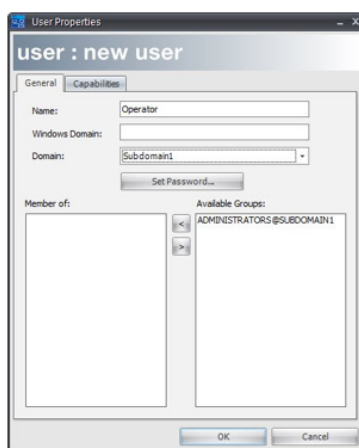
2. Click **Add**.

Note

Only tenant users with "Administrator" rights can create users and groups within their own sub-domains.



Master Domain



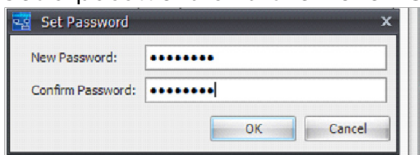
Tenant Domain

When creating a tenant user, the tenant username becomes [UserName]@[SubDomainName]. If it is a master domain user, then it's just the user name.

For example, if the Name input here is Operator and the domain is the master, then the user name is Operator; however, if the domain is a tenant domain (Subdomain1), then the user name becomes Operator@Subdomain1.

3. Select a domain from the "Domain" drop-down menu.

4. Set a password and then click **OK**.



5. Select an available group (or groups) and then click the right-arrow to move it (or them) to the "Member of:" column.

6. Click **OK**.



Once the tenant's credentials are created, the tenant can use them to log into the appropriate sub-domain network via CNM:

- **user:** user_name@domain_name
- **password:** user_password

Note

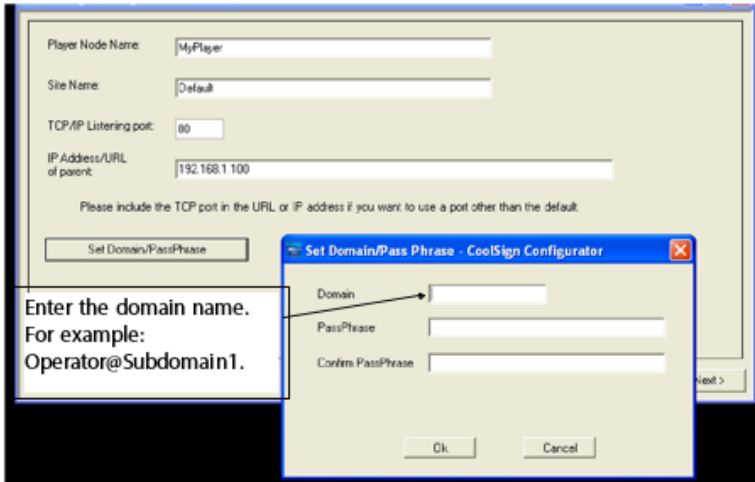
Users in the master domain don't need to specify the @domain_name.

To Edit or Delete Users and Groups:

For details, see [Managing Users and Groups](#) in the *CoolSign Network Manager User's Guide*.

CoolSign Configurator

CoolSign Configurator is used to join player nodes to domains during configuration. Player nodes must be configured with the name of the Domain and a specific pass phrase associated with that domain. They should be made simple so technicians are able to easily enter them but unique enough so they can't be easily guessed or mistakenly entered. For example, you wouldn't want tenant A to be able to configure a player to connect to the network in such a way that it shows up as a player for tenant B.



Note

Acceptable domain character names are limited to: a-z, A-Z, 0-9, a dash (-), underscore (_), and period (.). Also note that you cannot use spaces.

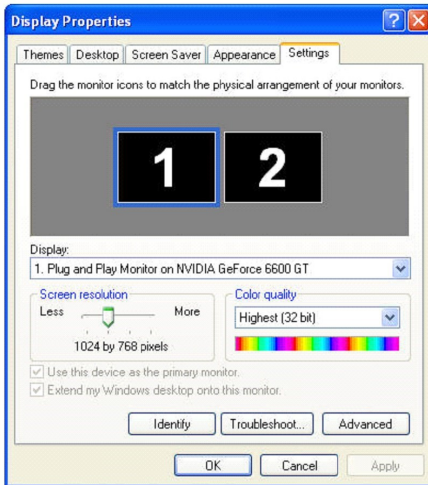
Configuring a Multi-Output AdPlayer

With CoolSign Configurator and software release 5.1 or later, you can take advantage of dual and quad-output video cards with the ability to provide a separate channel to each output (multi-output) or span a single channel across multiple video outputs (spanned). Setting up a multi-output player is accomplished using the CNM only and is independent of the video card in use. Setting up a spanned AdPlayer requires the configuration of the manufacturer-provided software specific to each video card. Instructions are illustrated using a recommended video card from ATI.

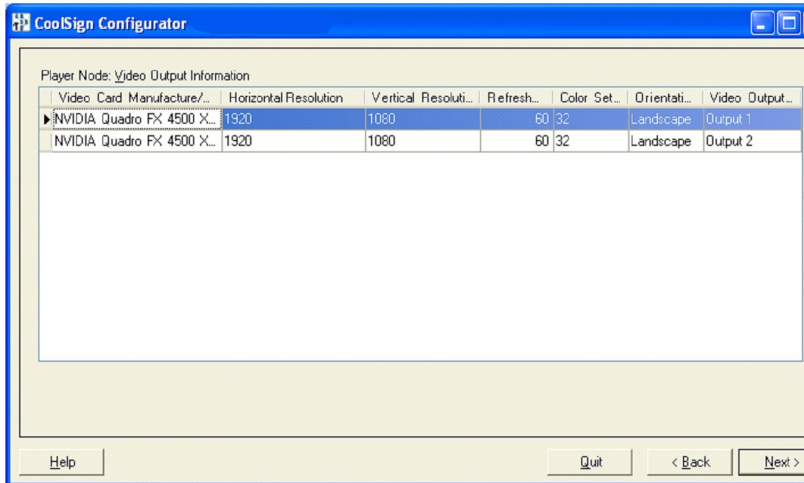
To configure a multi-output AdPlayer:

1. Open the Display control panel located in the **START > SETTINGS > CONTROL PANEL**.
2. From the Settings tab of the Display Properties window, confirm that all needed outputs are active on the video card. Enable any disabled outputs by selecting the display and checking the box

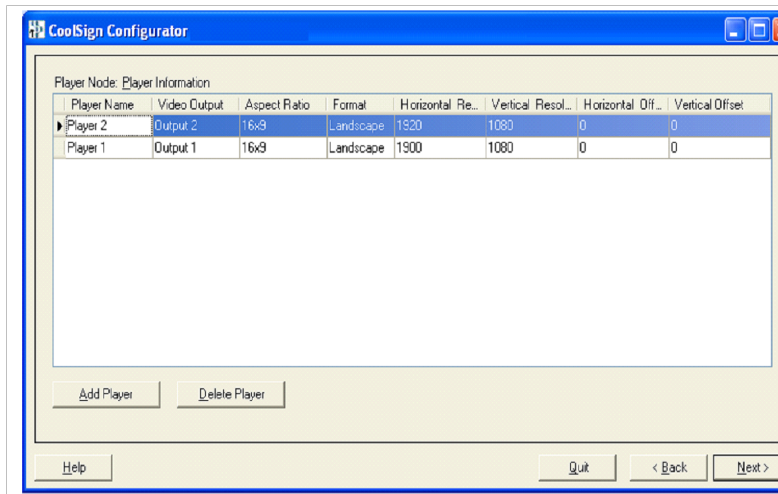
labeled "Extend my Windows desktop onto this monitor". Click **OK** to save these changes.



3. Open the CoolSign Configurator from the Start menu. Click **Next** to advance to the second window labeled Player Node: Video Output Information. Enter the Horizontal and Vertical Resolution, Refresh, Color Set, Orientation, and Video Output Name for each output.



4. Click **Next** to advance to the third window labeled Player Node: Player Information. Click **Add Player** and select an output to associate with the player. Enter the Aspect Ratio, Format, Horizontal and Vertical Resolution, Horizontal and Vertical Offset.
5. Click **Quit** to exit.



Configuring Installed Nodes

After you have installed your CoolSign system, you might want to configure it differently. For example, you might want to connect to a different network controller on a different network.

The following topics explain how to use the CoolSign Configurator to reconfigure your installed nodes as needed.

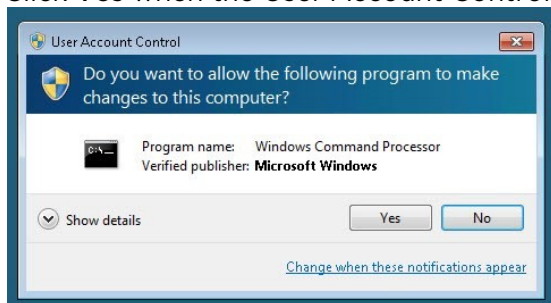
- [Launch the CoolSign Node Configurator](#)
- [Configuring the Network Controller](#)
- [Configuring a Transfer Node](#)
- [Configuring a Player Node](#)

You can use CoolSign Manager to change some of the settings in this chapter. For details, see [Managing Nodes](#) in the *CoolSign Network Manager User's Guide*.

Launch the CoolSign Node Configurator

To launch the CoolSign Node Configurator:

1. Click **Yes** when the User Account Control Screen appears.

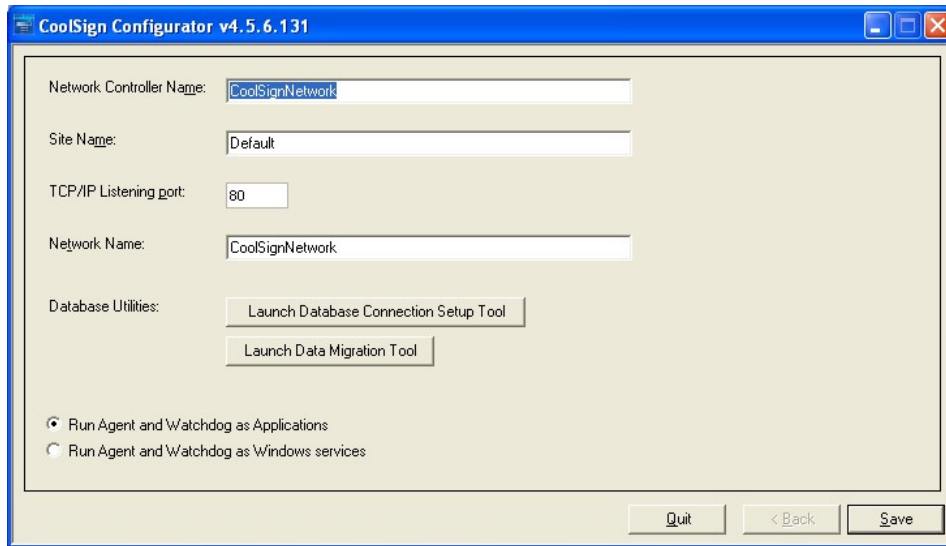


Note

This screen only appears with Windows Vista and Windows 7 if the User Access Control (UAC) option is selected. If turned off, proceed to Step 2.

2. Open the Windows Start menu and select COOLSIGN CONFIGURATOR. Note that to use the Configurator, you must have a keyboard attached to the node.

Configuring the Network Controller



The screenshot shows the 'CoolSign Configurator v4.5.6.131' window. It contains the following configuration fields and options:

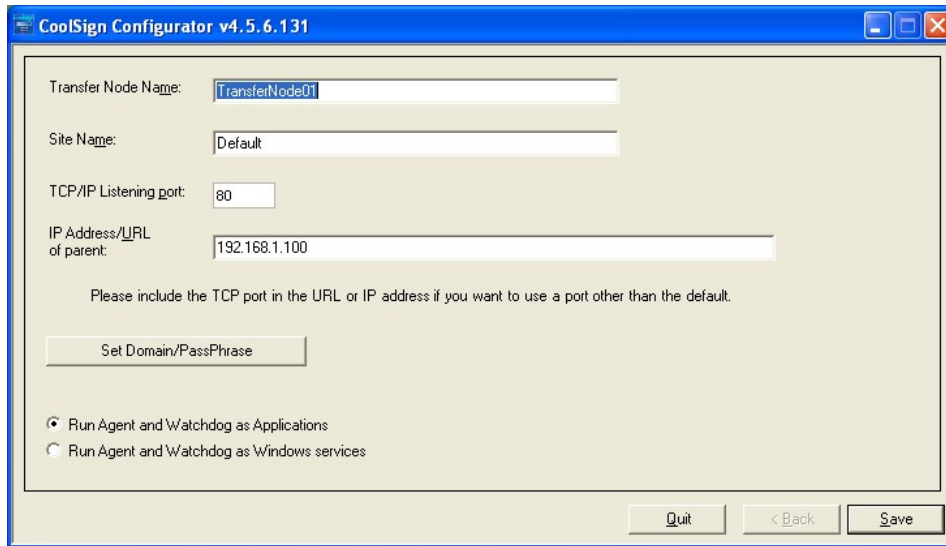
- Network Controller Name: CoolSignNetwork
- Site Name: Default
- TCP/IP Listening port: 80
- Network Name: CoolSignNetwork
- Database Utilities: Launch Database Connection Setup Tool, Launch Data Migration Tool
- Run Agent and Watchdog as Applications (selected)
- Run Agent and Watchdog as Windows services
- Buttons: Quit, < Back, Save

You can define the following display network controller configuration options:

- Network Controller Name—The name of the network controller node, as displayed in CoolSign Manager. Note that you can use CoolSign Manager to change the network controller name.
- Site Name—The name of the site that the network controller node is associated with, and appears in CoolSign Manager. For network controllers, this name might not be necessary, since you'll probably not need to associate it with a site. Note that you can use CoolSign Manager to change the site name. You can also create new site names, as described in [Managing Sites](#) in the *CoolSign Network Manager User's Guide*.
- TCP/IP Listening Port—The port number that the network controller uses to receive incoming requests from other nodes, as well as any CoolSign Manager applications. The default listening port is 80. You can change the listening port if your networking infrastructure requires it or another application is already using the default port.
- Network Name—The name of your network as it appears when connecting with CoolSign Manager and other applications.
- Database Connection Setup —Click this button to connect your CoolSign network controller to a SQL Server database. For details, see [About the Installation Process](#).
- Run Agent and Watchdog as Windows services—If you want to install the CoolSign Agent and Watchdog as Windows service processes, select this radio button. This configuration enables you to remotely manage the Agent software and doesn't require auto-login for this network controller. Note that some organizations require this for security reasons.

*To save your changes to the network controller configuration, click **Save**. The configurator then reboots the network controller node.*

Configuring a Transfer Node



You can define the following display transfer node configuration options:

- **Transfer Node Name**—The name that is displayed for the transfer node in CoolSign Manager. Note that you can use CoolSign Manager to change the node name.
- **Site Name**—The name of the site that the transfer node is associated with. Usually, this is a descriptive term that indicates the site's geographic location, such as "San Francisco, CA". Note that you can use CoolSign Manager to change the site name. You can also create new site names, as described in [Managing Sites](#) in the *CoolSign Network Manager User's Guide*.
- **TCP/IP Listening Port**—The port number that the transfer node should use to receive incoming requests from other nodes. The default listening port is 80. You can change the listening port if your networking infrastructure requires it or another application is already using the default port.
- **IP Address or URL of parent**—The IP address or URL of the node to which this transfer node should connect. The parent node is either the network controller or another transfer node, depending on your network configuration. If the parent node is listening on a non-default port, you must include the port number in the address, preceded by a colon, for example: 192.168.1.100:555.
- **Run Agent and Watchdog as Windows services**—If you want to install the CoolSign Agent and Watchdog as Windows service processes, select this radio button. This configuration enables you to remotely manage the Agent software and doesn't require auto-login for this transfer node. Note that some organizations require this for security reasons.

To save your changes to the transfer node configuration, click **Save**. The configurator then reboots the transfer node.

Configuring a Player Node

Configuring a player node is a 6-step process:

1. **Node Information** (see [Node Information](#))—Define the name of the node; the site with which it is associated; the IP address it connects to; and the port that it listens on.
2. **Video Output Information** (see [Video Output Information](#))—Identify the video card settings and calibration interval, and assign a name to the video output.
3. **Audio Output Information** (see [Audio Output Information](#))—Set the volume and assign a name to the audio output.
4. **Player Information** (see [Player Information](#))—Name the player and specify the resolution and location of the image that CoolSign is delivering.

5. **Displays Information** (see [Displays Information](#))—Specify the configuration of the displays, the display inputs, the COM ports, and the video outputs (only applies if you are using serial control for the displays).

This process applies to networked players.

Node Information

CoolSign Configurator v4.5.6.131

Player Node Name:

Site Name:

TCP/IP Listening port:

IP Address/URL of parent:

Please include the TCP port in the URL or IP address if you want to use a port other than the default.

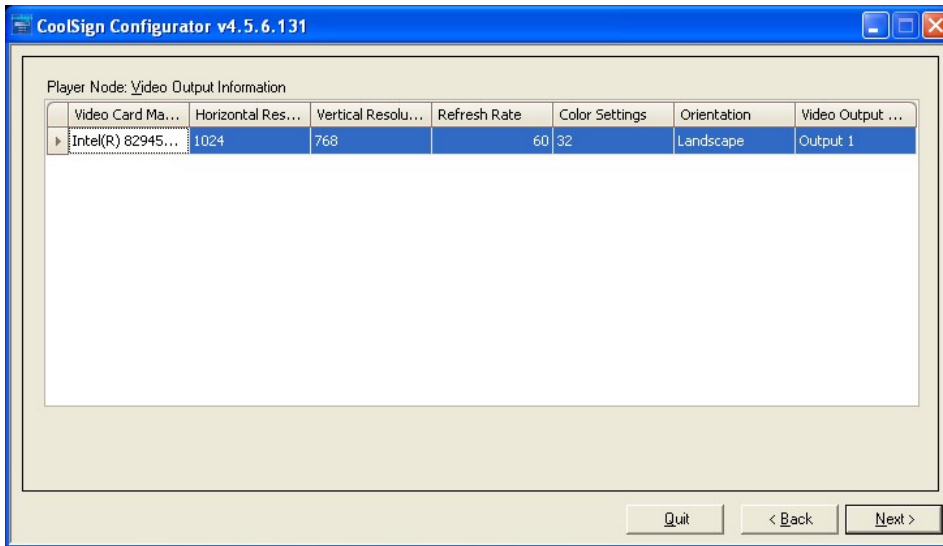
You can define the following configuration options in this screen:

- **Player Node Name**—The name of this player node. The node name is used within CoolSign Manager and to reference the node. Note that you can use CoolSign Manager to change the node name.
- **Site Name**—The name of the site that this node will be associated with. Usually, this is a descriptive term that indicates the site’s geographic location, such as “San Francisco, CA”. Note that you can use CoolSign Manager to change the site name. You can also create new site names, as described in Chapter 13, [Managing Sites](#) of the *CoolSign Network Manager User’s Guide*.
- **TCP/IP Listening port**—**For networked players**, this is the port number that the node should use to receive incoming requests from other nodes. The default listening port is 80. You can change the listening port if your networking infrastructure requires it or another if application is already using the default port.
- **IP Address or URL of parent**—**For networked players**, the parent node is either the network controller or another transfer node, depending on your network configuration. If the parent node is listening on a non-default port, you must include the port number in the address, preceded by a colon, for example: 192.168.1.100:555.

*When you’re done, click **Next** to continue the player node configuration process.*

Video Output Information

In this screen, you identify the video card settings and calibration interval, and assign a name to the video output.



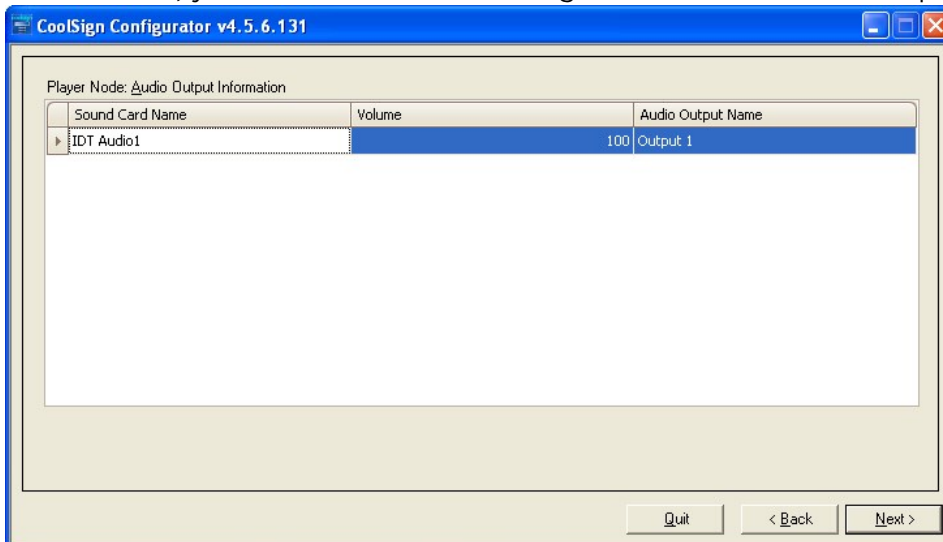
You can define the following configuration options in this screen:

- **Horizontal Resolution and Vertical Resolution**—These fields must match the horizontal and vertical resolution settings that are displayed in the Windows Display control panel for the video card.
- **Refresh Rate**—The refresh rate (also called vertical frequency) that has been set for the video card.
- **Color Settings**—Select the bit depth for the video card: 32 or 16.
- **Orientation**—The orientation of the displays attached to the player node. All players running on a player node must have the same orientation.
- **Video Output Name**—If the video card has more than one output, assign a name to each output.

When you're done, click **Next** to continue the player node configuration process.

Audio Output Information

In this screen, you set the volume and assign a name to the audio output.



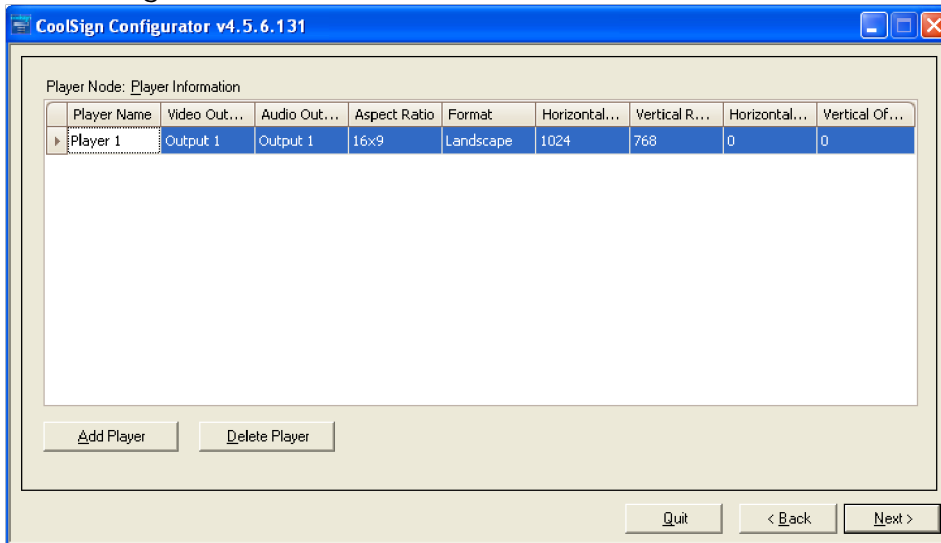
You can define the following configuration options in this screen:

- **Volume**—Click to change the volume for this audio output, with 0 being no audio and 100 being the maximum volume. If your speakers are connected, you can hear the sound as you increment or decrement.
- **Audio Output Name**—If the audio card has more than one output, assign a name to each output.

When you're done, click **Next** to continue the player node configuration process.

Player Information

In this screen, you can name the player and specify the resolution and location of the image that CoolSign is delivering.



You can define the following configuration options in this screen:

- **Player Name**—You can use CoolSign Manager to change this setting.
- **Video Output Name**—If the player has only one video output, you can just use the default setting.
- **Audio Output Name**—If the player has only one audio output, you can just use the default setting.
- **Aspect Ratio**—Select the appropriate format for the displays that are attached to this player node.
- **Format**—Landscape, Portrait, or Audio (only allow audio content such as MP3 files to be scheduled on this player node).
- **Horizontal Resolution and Vertical Resolution**—These are the logical resolutions for the player and are dependent on the orientation of the displays attached to this player.
 - If the player is driving displays in portrait orientation, the vertical resolution is the larger of the two resolution numbers. For example, for a portrait-oriented display showing content with a 848 x 480 resolution, the horizontal resolution for the player should be 480 and the vertical resolution for the player should be 848.

Note

In most cases, there is only one player and one video output for a player node, and the CoolSign content fills the entire screen of the displays attached to the player. In this case, the horizontal and vertical resolutions for the player should be the same as, or the reverse of (depending on the orientation), the resolution settings for the video card.

- **Horizontal Offset and Vertical Offset**—These settings determine where to place the upper left-hand corner of the player window—how many pixels (horizontally and vertical) from the upper left of the display (in landscape mode). These settings are always relative to the orientation that you are using. These offsets are typically used only if the CoolSign content occupies a portion of the screen,

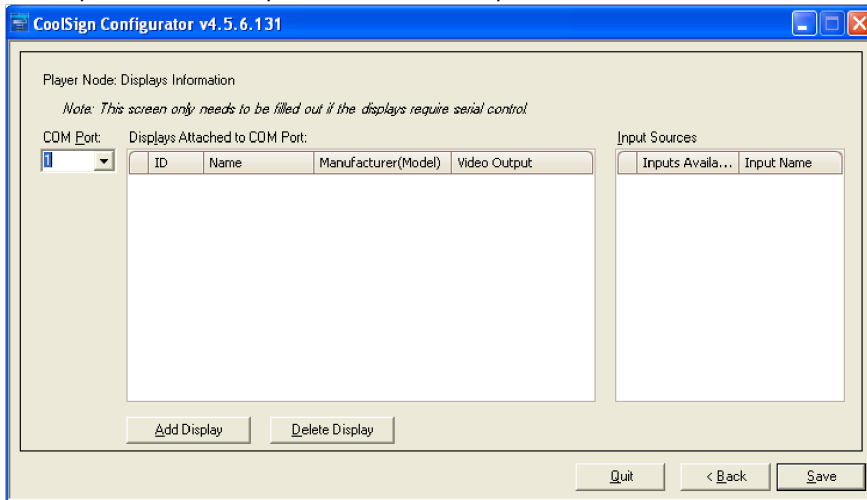
or if the display has unusual requirements. If the CoolSign content is expected to fill up the display screen (as is normally the case), these offsets should usually be set to zero.

When you're done, click **Next** to continue the player node configuration process.

Displays Information

The CoolSign player can control support display devices via a serial cable. With serial control of a display, you can use CoolSign Manager to remotely turn on or off the display, set the display to an alternate input, and monitor status for the device.

You can add as many displays as you have available COM ports. Most PCs only include one available serial port. You can purchase a serial port extender to add additional COM ports to your player PC.



Note

You can skip this section if you are not using serial control for the displays.

You can define the following configuration options in this screen:

- **COM Port**—The number of the COM port that you want to configure. After selecting the COM port, you can click Add Display and configure the displays that are connected to it.
- **ID**—Select the ID number of the display you are configuring. It must match the ID number that you specified when you set up the display. See "**Managing Players**" of the *CoolSign Network Manager User's Guide*.
- **Name**—Enter a descriptive name for the display (such as, "South Mall Entrance"). This name makes it easier to identify the location of the display within CoolSign Network Manager.
- **Manufacturer/Model**—Select the display brand and model from the pull-down menu.

Note

The manufacture (brand) and model must exactly match the display connected to the player. Otherwise, the display control will most likely not work and will report an error status.

- **Video Output**—If the player node only has one video output, you can skip this step.

- **Input Name**—In the Input Sources panel, enter a name for each available input that you intend to use. You must keep one input labeled as "CoolSign". If you are using CoolSign to switch between other video sources, enter a descriptive name (such as "TV") for the input that is connected to the video source(s).

Each input name must be unique, and none of them can be "Off". These names appear in CoolSign Manager and are used to schedule the displays attached to this player node. If this display uses more than one video source, make sure that the input names are sufficiently descriptive, as this makes it easy to identify the video source that you are scheduling. You only need to name those inputs that you are actually connecting a video source.

- If more than one display is attached to a COM port, click **Add Display** again, then configure the next display.
- If you are using more than one COM port, select the next COM port, then click **Add Display** again and configure the next display.

Note

Only displays that use the same serial commands can use the same COM port. This means that the displays must be from the same manufacturer and usually must also be the same model.

*To save your changes to the player configuration, click **Save**. The configurator reboots the player node twice, then opens the AdPlayer with a blank screen.*

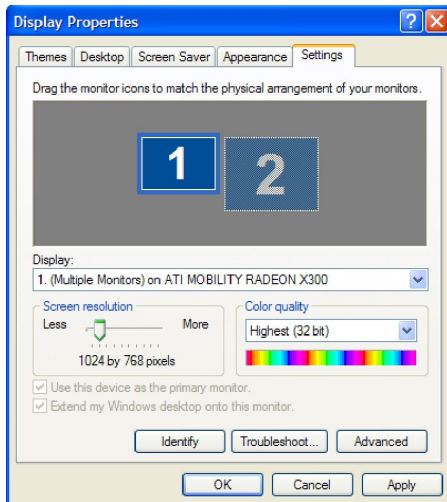
Configuring a Player Node for Multi-Output

CoolSign takes advantage of dual and quad-output video cards with the ability to provide a separate channel to each output (multi-output) or to span a single channel across multiple video outputs (spanned). While setting up a multi-output player is accomplished using the CoolSign Network Manager only and is independent of the video card in use, setting up a spanned player node requires you to configure the manufacturer-provided software specific to each video card. The examples in this section use a recommended video card from ATI.

To configure a player node for multi-output:

1. From the Windows Start menu, open the Control Panel.
2. Open the Display control panel.

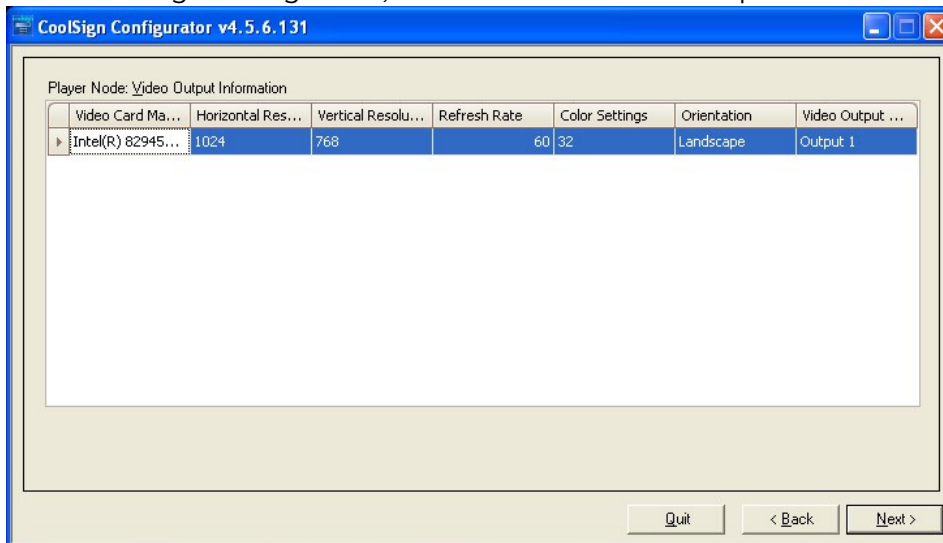
3. In the DISPLAY PROPERTIES window, select the **Settings** tab:



4. **Note**
 To enable any disabled outputs, select the display and choose "Extend my Windows desktop onto this monitor".

5. To save your changes, click **OK**.

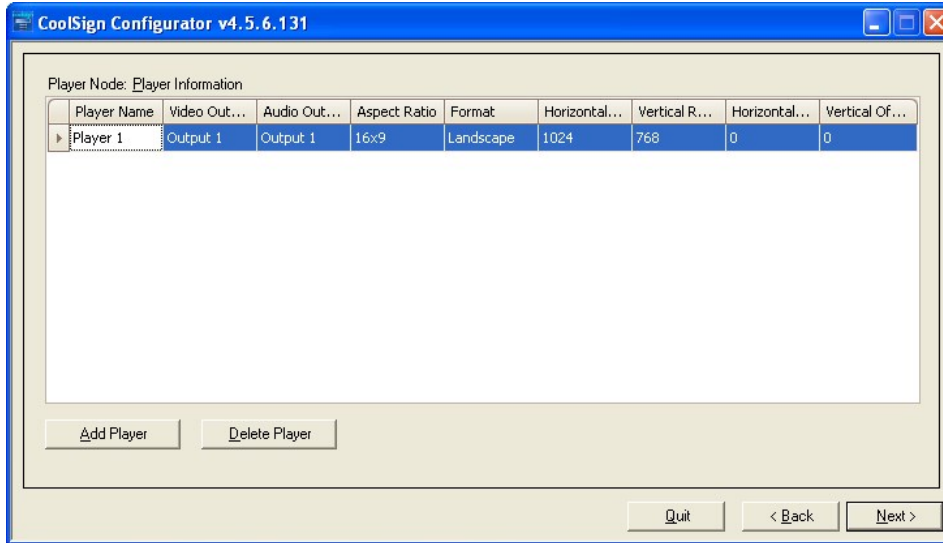
6. In the CoolSign Configurator, advance to the Video Output Information screen:



7. For each output, specify the Horizontal and Vertical Resolution, Orientation, and Video Output Name. For details about these settings, see "[Video Output Information](#)".

8. When you're done, click **Next**.

9. In the Player Information window, add a player. Then specify the following values for the new player: associated Video Output, Aspect Ratio, Format, Horizontal and Vertical Resolution, and Horizontal and Vertical Offset. For details about these settings, see "[Audio Output Information](#)".



10. When you're done, click **Next**, then click **Save** to save your changes.

Keyboard Navigation Tips

Configurator Keyboard Shortcuts

While using the CoolSign Configurator, you can perform many tasks from the keyboard.

To do this . . .	Press . . .
<i>From any screen</i>	
Go to the next field	TAB
Open a drop-down menu	ALT- ▼
Move through a pull-down menu	Use the arrow keys
Select an item from a pull-down menu	ENTER
Advance to the next screen	ALT-N
Go back to a previous screen	ALT-B
Save configuration settings	ALT-S ¹
<i>From the Player Information screen on the Player Node</i>	
Add a player node	ALT-A
Delete the selected player node	ALT-D
<i>From the Displays screen on the Player Node</i>	
Add a display	ALT-A
Delete the selected display	ALT-D

AdPlayer Keyboard Shortcuts

The following keyboard commands are available when the AdPlayer window is in the front of all other windows on a screen.

To do this . . .	Press . . .
Toggle the cursor	V
Toggle the taskbar	T
Toggle calibration mode	C
Toggle FPS display	F 2
Capture the screen image	CTRL-S ² (image file is located at AdPlayer\Thumbnail.jpg)
Capture the screen image (scaled to 1/4 of the original size)	CTRL-SHIFT-S ² (image file is located at AdPlayer\Thumbnail.jpg)

1. For Player Nodes, *only* available from the Displays screen. ↗
2. Not available on legacy machines while video is running. ↗

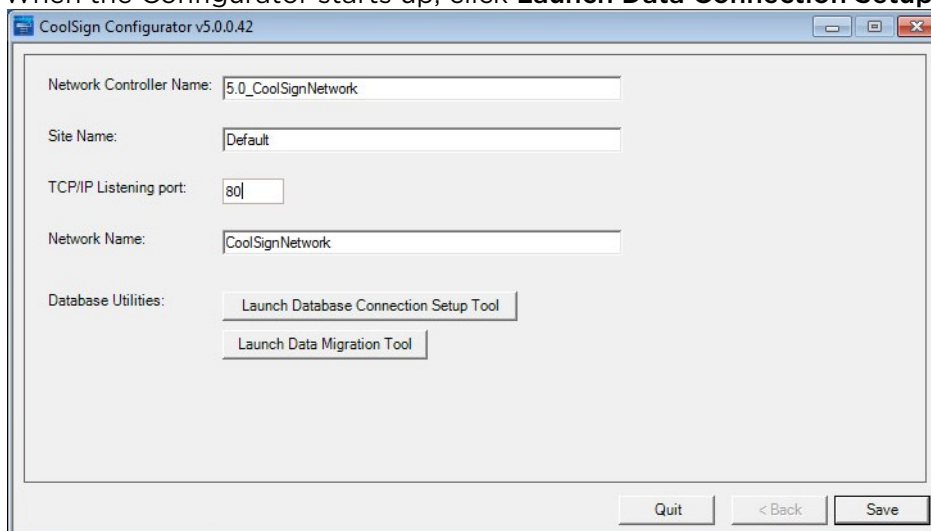
Connecting a Network Controller to an SQL Server

! Important

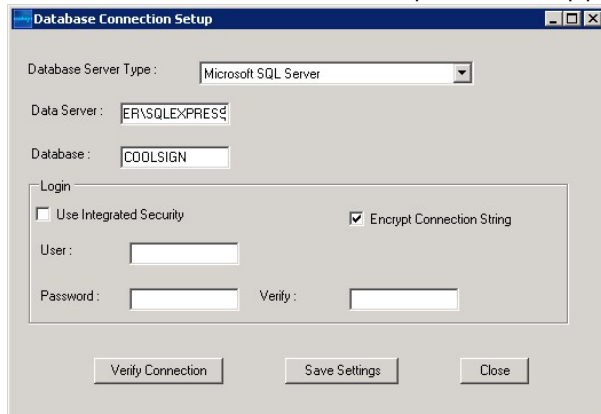
If this is a migration process, you must first restart the database before it can accept connections.

To connect a Network Controller to an SQL Server, do the following:

1. From the Windows Start menu, open the CoolSign Configurator.
2. When the Configurator starts up, click **Launch Data Connection Setup Tool**.



3. The Database Connection Setup window appears enter the appropriate data in the fields.



- In the Data Server field, enter the location of the database server, in the form `machine_name\DB_instance` (for example, DEMO_SERVER\SQLEXPRES\$).

- In the Database field, enter the name of the CoolSign database (for example, CoolSign).

- **Note**

You must have READ/WRITE permissions for the specified database.

- To check if the connection settings are correct, press the **Verify Connection**.
- Once the connection to the database server is verified, click **Save Settings**, then **Close**.

Troubleshooting CoolSign

This section explains how to repair or uninstall your CoolSign system.

- [Repair Your Installation](#)
- [Uninstalling CoolSign](#)
- [Uninstalling the CoolSign Database](#)

Repair Your Installation

Caution

Be aware that this procedure restores CoolSign to the original installation state. All changes to settings since the initial installation are lost.

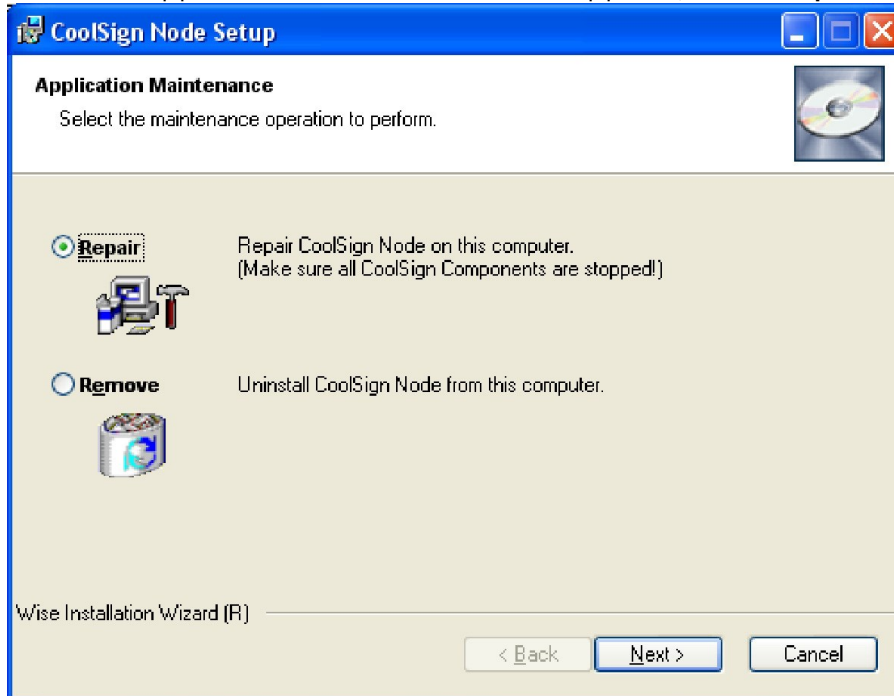
To repair a CoolSign node:

1. Make sure that all CoolSign components are stopped.
2. In the CoolSign installation directory, double-click:

```
CoolSign_Node_Installer.exe
```


Repairing CoolSign

1. When the Application Maintenance screen appears, select **Repair**. Then click **Next**.



1. Follow the on-screen instructions that guide you through the repair process.
2. When the wizard concludes the repair process, click **Finish**. The CoolSign system reboots.

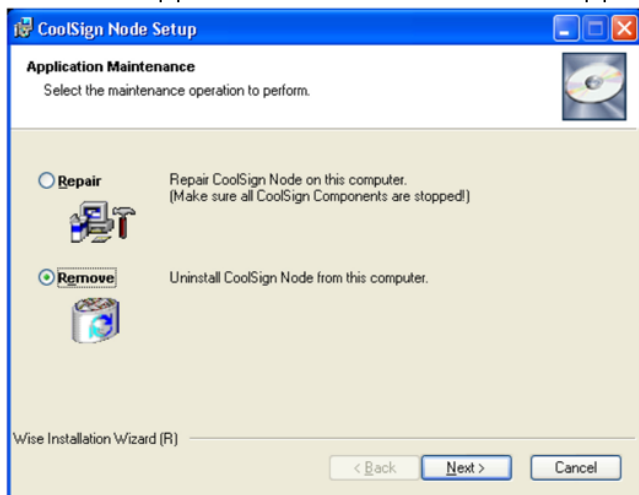
Uninstalling CoolSign

To uninstall CoolSign:

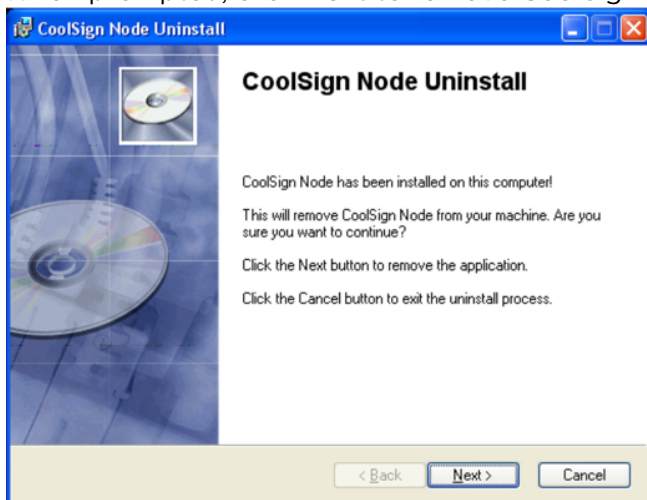
1. Make sure that all CoolSign components are stopped.
2. In the CoolSign installation directory, double-click:

`CoolSign_Node_Installer.exe.`

3. When the Application Maintenance screen appears, select **Remove**. Then click **Next**.



4. When prompted, click **Next** to remove CoolSign from the node.



Note

After the uninstall script finishes, you must uninstall the CoolSign database, as described in ["Uninstalling the CoolSign Database"](#).

Uninstalling the CoolSign Database

Important

Uninstalling CoolSign does not remove the CoolSign database from the server. It is your responsibility to remove the database.

To remove SQL Express from your PC:

1. Use any SQL client tool to delete the CoolSign database.
2. Remove the database server from the computer:
 - In the Windows Control Panel, select *Add/Remove Programs*.
 - Remove the database server from the list of programs.

Keyboard Shortcuts

- [CoolSign Configurator Shortcuts](#)
- [Ad Player Shortcuts](#)

CoolSign Configurator Shortcuts

While using the CoolSign Configurator, you can perform many tasks from the keyboard.

To do this . . .	Press . . .
<i>From any screen</i>	
Go to the next field.	TAB
Open a drop-down menu.	ALT + ▼
Move through a pull-down menu.	Arrow Keys
Select an item from a pull-down menu.	ENTER
Advance to next screen.	ALT + N
Go back to previous screen.	ALT + B
Save configuration settings.	ALT + S
<i>From the Player Node Player Information screen</i>	
Add a player node.	ALT + A
Delete the selected player node.	ALT + D
<i>From the Player Node Displays screen</i>	
Add a display.	ALT + A
Delete the selected display.	ALT + D

Ad Player Shortcuts

The following keyboard commands are available when the AdPlayer window is in the front of all other windows on a screen.

To do this . . .	Press . . .
Toggle the cursor	V
Toggle the taskbar	T
Toggle calibration mode	C
Toggle FPS display ¹	F
Capture the screen image ¹	CTRL+S (the image file is located at AdPlayer\Thumbnail.jpg).

Capture the screen image (scaled to 1/4 of the original size)¹

CTRL+SHIFT+S
(the image file is located at AdPlayer\Thumbnail.jpg).

1. Not available on legacy machines while video is running. ↩

Warranties

1-Year Limited Hardware Warranty

Haivision warrants its hardware products against defects in materials and workmanship under normal use for a period of ONE (1) YEAR from the date of equipment shipment ("Warranty Period"). If a hardware defect arises and a valid claim is received within the Warranty Period, at its option and to the extent permitted by law, Haivision will either (1) repair the hardware defect at no charge, or (2) exchange the product with a product that is new or equivalent to new in performance and reliability and is at least functionally equivalent to the original product. A replacement product or part assumes the remaining warranty of the original product or ninety (90) days from the date of replacement or repair, whichever is longer. When a product or part is exchanged, any replacement item becomes your property and the replaced item becomes Haivision's property.

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Haivision does not warrant that the operation of the product will be uninterrupted or error-free. Haivision does not guarantee that any error or other non-conformance can or will be corrected or that the product will operate in all environments and with all systems and equipment. Haivision is not responsible for damage arising from failure to follow instructions relating to the product's use.

This warranty does not apply:

- (a) to cosmetic damage, including but not limited to scratches, dents and broken plastic on ports;
- (b) to damage caused by accident, abuse, misuse, flood, fire, earthquake or other external causes;
- (c) to damage caused by operating the product outside the permitted or intended uses described by Haivision;
- (d) to a product or part that has been modified to alter functionality or capability without the written permission of Haivision; or
- (e) if any Haivision serial number has been removed or defaced.

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EXCEPT AS PROVIDED IN THIS WARRANTY AND TO THE EXTENT PERMITTED BY LAW, HAIVISION IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO LOSS OF USE; LOSS OF REVENUE; LOSS OF ACTUAL OR ANTICIPATED PROFITS (INCLUDING LOSS OF PROFITS ON CONTRACTS); LOSS OF THE USE OF MONEY; LOSS OF ANTICIPATED SAVINGS; LOSS OF BUSINESS; LOSS OF OPPORTUNITY; LOSS OF GOODWILL; LOSS OF REPUTATION; LOSS OF, DAMAGE TO OR CORRUPTION OF DATA; OR ANY INDIRECT OR CONSEQUENTIAL LOSS OR DAMAGE HOWSOEVER CAUSED INCLUDING THE REPLACEMENT OF EQUIPMENT AND PROPERTY, ANY COSTS OF RECOVERING, PROGRAMMING, OR REPRODUCING ANY PROGRAM OR DATA STORED OR USED WITH HAIVISION PRODUCTS AND ANY FAILURE TO MAINTAIN THE CONFIDENTIALITY OF DATA STORED ON THE PRODUCT. THE FOREGOING LIMITATION SHALL NOT APPLY TO DEATH OR PERSONAL INJURY CLAIMS, OR ANY STATUTORY LIABILITY FOR INTENTIONAL AND GROSS NEGLIGENT ACTS AND/OR OMISSIONS.

OBTAINING WARRANTY SERVICE

Before requesting warranty service, please refer to the documentation accompanying this hardware product and the Haivision Support Portal <https://support.haivision.com>. If the product is still not functioning properly after making use of these resources, please contact Haivision or Authorized Reseller using the information provided in the documentation. When calling, Haivision or Authorized Reseller will help determine whether your product requires service and, if it does, will inform you how Haivision will provide it. You must assist in diagnosing issues with your product and follow Haivision's warranty processes.

Haivision may provide warranty service by providing a return material authorization ("RMA") to allow you to return the product in accordance with instructions provided by Haivision or Authorized Reseller. You are fully responsible for delivering the product to Haivision as instructed, and Haivision is responsible for returning the product if it is found to be defective. Your product or a replacement product will be returned to you configured as your product was when originally purchased, subject to applicable updates. Returned products which are found by Haivision to be not defective, out-of-warranty or otherwise ineligible for warranty service will be shipped back to you at your expense. All replaced products and parts, whether under warranty or not, become the property of Haivision. Haivision may require a completed pre-authorized form as security for the retail price of the replacement product. If you fail to return the replaced product as instructed, Haivision will invoice for the pre-authorized amount.

APPLICABLE LAW

This Limited Warranty is governed by and construed under the laws of the Province of Quebec, Canada.

This Limited Hardware Warranty may be subject to Haivision's change at any time without prior notice.

EULA - End User License Agreement

READ BEFORE USING

THE LICENSED SOFTWARE IS PROTECTED BY COPYRIGHT LAWS AND TREATIES. READ THE TERMS OF THE FOLLOWING END USER (SOFTWARE) LICENSE AGREEMENT ("AGREEMENT") CAREFULLY BEFORE ACCESSING THE LICENSED SOFTWARE. BY SCANNING THE QR CODE TO REVIEW THIS AGREEMENT AND/OR ACCESSING THE LICENSED SOFTWARE, YOU CONFIRM YOUR ACCEPTANCE OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THESE TERMS, HAIVISION IS UNWILLING TO LICENSE THE LICENSED SOFTWARE TO YOU AND YOU ARE NOT AUTHORIZED TO ACCESS THE LICENSED SOFTWARE.

Click the following link to view the Software End-User License Agreement: [Haivision EULA.pdf](#)

If you have questions, please contact legal@haivision.com

SLA - Service Level Agreement

1. Introduction

This Service Level and Support supplement forms a part of and is incorporated into the Service Agreement (the "Agreement") between You and Haivision Network Video Inc. ("Haivision"). Capitalized terms used but not otherwise defined in this supplement shall have the meaning ascribed to them in the Agreement. Haivision may, upon prior written notice to You, amend this supplement to incorporate improvements to the service levels and support commitments at no additional cost to You. This supplement applies only to those products and services set forth below.

2. Definitions

- "Audience Member" means an individual or entity that accesses Your Published Media Objects through a public URL.
- "Access Service" means the service provided by Haivision VCMS that verifies an Audience Member's credentials.
- "Digital Media File" means a computer file containing text, audio, video, or other content.
- "Outage" is a 12-minute period of consecutive failed attempts by all six agents to PING the domain on the Haivision Streaming Media network.
- "Published Media Object" means a Digital Media File with a public URL.
- "Transaction" means the creation of a right for an Audience Member to access a Media Object and the completion of an order logged in the order history service.

3. Service Levels for the Video Content Management System

The service levels in this [Section 3](#) apply only to the hosted version of Haivision VCMS and the Haivision VCMS development kit (collectively, the "Standard Hosted Components" of Haivision Video Cloud Services). Subject to the exceptions noted in [Section 4](#) below, the aforementioned components of Haivision Video Cloud Services will be available for use over the course of each calendar month as follows:

Type of Access	Definition	Availability Level
Write Functions	<ul style="list-style-type: none"> • Access to all functions through the administrative user interface. • Ability to add or modify objects and metadata through the application programming interface (“API”) • Ability of ingest service to check for new or updated files or feeds 	99.999%
Read-Only Functions	<ul style="list-style-type: none"> • Ability to retrieve data through the API • Ability for Audience Members to authenticate through the Access Service • Ability for Audience Members to play Published Media Objects • Ability for Audience Members to play Haivision VCMS-authenticated or entitled Published Media Objects • Ability to complete Transactions 	99.999%

4. Exceptions to Availability for the VCMS

The Standard Hosted Components may not be available for use under the following circumstances, and in such case such periods of unavailability shall not be counted against Haivision Video Cloud for purposes of calculating availability:

- a. Normal Maintenance, Urgent Maintenance and Upgrades as defined in the table below;
- b. Breach of the Agreement by You as defined in the Agreement;
- c. The failure, malfunction, or modification of equipment, applications, or systems not controlled by Haivision Video Cloud;
- d. Any third party, public network, or systems unavailability;
- e. Acts of Force Majeure as defined in the Agreement;
- f. Modification of software made available to You as part of Haivision Video Cloud Services by You or a third party acting on Your behalf; and
- g. Any third party product or service not incorporated into Haivision Video Cloud Services or any third party plug-in.

Haivision Video Cloud shall make commercially reasonable efforts to notify, or work with, applicable third parties to repair or restore Haivision VCMS functionality affected by such exceptions.

Type of Maintenance	Purpose	Write Functions Available	Read Functions Available	Maximum Time Per Month	Continuous Time in Mode (Max)	Window (Central Time)	Min Notice
Normal	<ul style="list-style-type: none"> • Preventive maintenance on the software/hardware components of Haivision VCMS • Addition of new features/functions • Repair errors that are not immediately affecting Your use of Haivision VCMS 	No	Yes	10 Hours	6 Hours	10:00p m - 5:00a m	48 Hours
Urgent	<ul style="list-style-type: none"> • Repair errors that are immediately affecting Your use of Haivision VCMS 	No	Yes	30 Minutes	15 Minutes	Any Time	3 Hours

Type of Maintenance	Purpose	Write Functions Available	Read Functions Available	Maximum Time Per Month	Continuous Time in Mode (Max)	Window (Central Time)	Min Notice
Upgrades	<ul style="list-style-type: none"> Perform upgrades on software or hardware elements necessary to the long term health or performance of Haivision VCMS, but which, due to their nature, require that certain components of Haivision VCMS to be shut down such that no access is possible 	No	No	1 Hour	1 Hour	12:00am - 4:00am M-F	5 Days

5. Credits for Downtime for the VCMS

Haivision Video Cloud will grant a credit allowance to You if You experience Downtime in any calendar month and you notify Haivision Video Cloud thereof within ten (10) business days after the end of such calendar month. In the case of any discrepancy between the Downtime as experienced by You and the Downtime as measured by Haivision Video Cloud, the Downtime as measured by Haivision Video Cloud shall be used to calculate any credit allowance set forth in this section. Such credit allowance shall be equal to the pro-rated charges of one-half day of Fees for each hour of Downtime or fraction thereof. The term “Downtime” shall mean the number of minutes that Standard Hosted Components are unavailable to You during a given calendar month below the availability levels thresholds in [Section 3](#), but shall not include any unavailability resulting from any of the exceptions noted in [Section 4](#). Within thirty (30) days after the end of any calendar month in which Downtime occurred below the availability levels thresholds in [Section 3](#), Haivision Video Cloud shall provide You with a written report detailing all instances of Downtime during the previous month. Any credit allowances accrued by You may be offset against any and all Fees owed to Haivision Video Cloud pursuant to the Agreement, provided that a maximum of one month of credit may be accrued per month.

6. Support Services for the VCMS

Support for Haivision Video Cloud Services as well as the Application Software (defined as the VCMS application software components that Haivision licenses for use in conjunction with the Video Cloud Services) can be reached at hvc-techsupport@haivision.com and shall be available for all Your support requests. Haivision Video Cloud will provide 24x7 monitoring of the Standard Hosted Components.

Cases will be opened upon receipt of request or identification of issue, and incidents will be routed and addressed according to the following:

Severity Level	Error State Description	Status Response Within	Incident Resolution within
1 - Critical Priority	Renders Haivision VCMS inoperative or causes Haivision VCMS to fail catastrophically.	15 minutes	4 hours
2 - High Priority	Affects the operation of Haivision VCMS and materially degrades Your use of Haivision VCMS.	30 minutes	6 hours
3 - Medium Priority	Affects the operation of Haivision VCMS, but does not materially degrade Your use of Haivision VCMS.	2 hours	12 hours

Severity Level	Error State Description	Status Response Within	Incident Resolution within
4 - Low Priority	Causes only a minor impact on the operation of Haivision VCMS.	1 business day	3 business days

7. Service Levels for Haivision Streaming Media Service

Haivision agrees to provide a level of service demonstrating 99.9% Uptime. The Haivision Streaming Media Service will have no network Outages.

The following methodology will be employed to measure Streaming Media Service availability:

Agents and Polling Frequency

- a. From six (6) geographically and network-diverse locations in major metropolitan areas, Haivision’s Streaming Media will simultaneously poll the domain identified on the Haivision Streaming Media network.
- b. The polling mechanism will perform a PING operation, sending a packet of data and waiting for a reply. Success of the PING operation is defined as a reply being received.
- c. Polling will occur at approximately 6-minute intervals.
- d. Based on the PING operation described in (b) above, the response will be assessed for the purpose of measuring Outages.

If an Outage is identified by this method, the customer will receive (as its sole remedy) a credit equivalent to the fees for the day in which the failure occurred.

Haivision reserves the right to limit Your use of the Haivision Streaming Media network in excess of Your committed usage in the event that Force Majeure events, defined in the Agreement, such as war, natural disaster or terrorist attack, result in extraordinary levels of traffic on the Haivision Streaming Media network.

8. Credits for Outages of Haivision Streaming Media Service

If the Haivision Streaming Media network fails to meet the above service level, You will receive (as your sole remedy) a credit equal to Your or such domain’s committed monthly service fee for the day in which the failure occurs, not to exceed 30 days of fees.

9. No Secondary End User Support

UNDER NO CIRCUMSTANCES MAY YOU PROVIDE CONTACT INFORMATION FOR HAIVISION SERVICES TO CUSTOMERS OR AUDIENCE MEMBERS OR OTHER THIRD PARTIES WITHOUT HAIVISION’S EXPRESS PRIOR WRITTEN CONSENT.

Getting Help

<p>General Support</p>	<p>North America (Toll-Free) 1 (877) 224-5445</p> <p>International 1 (514) 334-5445</p> <p><i>and choose from the following:</i> Sales - 1, Cloud Services - 3, Support - 4</p>
<p>Managed Services</p>	<p>U.S. and International 1 (512) 220-3463</p>
<p>Fax</p>	<p>1 (514) 334-0088</p>
<p>Support Portal</p>	<p>https://support.haivision.com</p>
<p>Product Information</p>	<p>info@haivision.com</p>

