

coolsign

Application Programming Interface v1.0 API Integrator's Guide

HVS-CS-API-IG-1.0
Issue 02

Haivision

Edition Notices

This edition notice provides important information regarding the documentation for version 1.0 of the CoolSign Application Programming Interface.

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Introduction

Haivision's CoolSign™ Application Programming Interface (API) provides a means for third parties to create their own products that integrate with CoolSign applications. The API client library is intended to provide programmatic access to many of the features of the CoolSign server.



NOTE Version 1.0 of this API is compatible with CoolSign version 4.5 and higher.

Audience

This guide is directed towards qualified developers and system integrators who are familiar with CoolSign software and Microsoft C#. Note that you can interface with the API using any programming language that can compile to MSIL, such as C# or VB.NET.

Terms and Definitions

The following table contains terms used in this document, along with their definitions.

Term	Definition
CRUD	Create, Read, Update, Delete (see http://en.wikipedia.org/wiki/Create,_read,_update_and_delete)

Related Documents

Before starting to work with the API, it is highly recommended that you become familiar with these CoolSign documents:

- CoolSign Content Creator User's Guide
- CoolSign Display Engine Quick Start Guide
- CoolSign Important Notice
- CoolSign Installation Manual
- CoolSign Network Manager User's Guide
- CoolSign Network Server Quick Start Guide
- CoolSign Personal Demo Server Quick Start Guide

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- CoolSign Player Quick Start Guide
 - CoolSign Standalone Player Quick Start Guide
 - CoolSign Web Interface User's Guide

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NOTE If this is your first visit to Haivision's Knowledge Base, you must register and set up an account to log into the download area.

Overview

The CoolSign API is delivered as a client library, a set of code samples, and an API on-line help file. The entire API package is available as a downloadable .zip archive through Haivision's Download Center at <http://www.haivision.com/download-center/> (login required).

The API can be used to accomplish a variety of tasks, such as creating a web interface to mimic some CNM behavior, or allowing a non-CoolSign player (such as a digital picture frame) to talk to CoolSign as a real CoolSign player would.

API Client Library

The API client library consists of two .NET assemblies, **CoolSign.API.dll** and **CoolSign.API.Media.dll** located in the *Bin* folder. Each of these libraries contains a number of classes which represent various server and client-side abstractions, and encapsulate all networking logic necessary for communicating with a CoolSign Agent server.

Code Samples

Bundled with the API client library is a Visual Studio 2010 solution containing a number of example projects which utilize the API in order to perform some common tasks. These samples are described in the table below:

Name	Description
AnalyzeMediaFiles	A Windows Presentation Foundation (WPF) application that demonstrates creating a window with a browse button which, when clicked, uses the CoolSign.API.Media DLL to analyze the selected media file and display the results to the window.
CRUD_NodeAttribute Definitions	A console application that demonstrates creating and deleting Node attribute definitions and setting Node attribute values.
DataTableEditor	A WPF application that demonstrates using a dialog to connect to a CoolSign NC, listing the Data Tables in the server, displaying the row data for a DataTable and adding/deleting/modifying rows in a DataTable
FileTransferStatusWidget	A WPF application that demonstrates visually representing the transfer status of files between the NC and descendent Nodes
FireTrigger	A console application that demonstrates reading a Trigger given its ID, finding the ID of its associated DataTable, adding/removing rows from that DataTable in order to activate or deactivate the trigger.
ImportContent	A console application that demonstrates importing a Content into a CoolSign NC.
ListContent	A console application that demonstrates reading Content objects from the server.
ProxyConnectionToPlayer	A console application which demonstrates creating a proxied connection to a remote player node, relayed through the server. This can be useful for communicating with a player node behind a firewall, since it relays along the outbound connection from player to parent node.
ReadNodeStatus	A console application which demonstrates reading status information about Nodes from the server

Name (Cont.)	Description (Cont.)
RetrieveNodeAttributesFrom ALocalNode	A console application that demonstrates reading node attribute values from a non-NC Node. This can be useful for applications co-located with a CoolSign player deployment, or using a proxied connection.
UpdateLocalDataTable	A console application that demonstrates communicating with a non-NC node to modify a local DataTable. Local DataTable changes are not communicated with the server, which can be useful when speed of updates is more important than distributing the updates to a large number of Nodes.

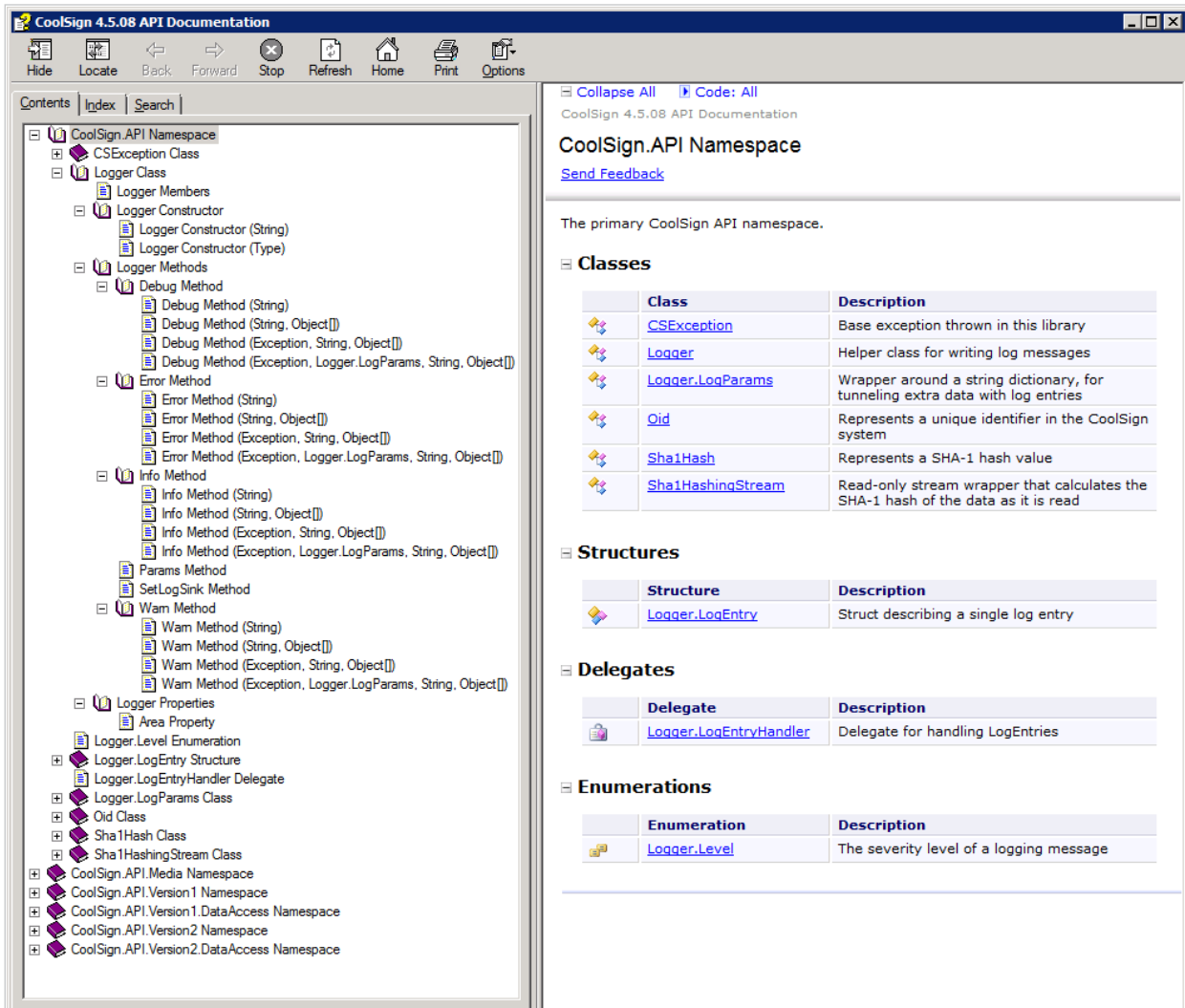
File Types

Each sample contains a project file (.csproj), a program file (.cs) and a Properties folder. The various types of files are described in the table below:

Extension	Description
.csproj	CoolSign project file
.xaml	Extensible Application Markup Language (see http://en.wikipedia.org/wiki/XAML)
.cs	CoolSign program file
.dll	Dynamic Linked Library
.swf	Flash object provided as sample content
.mpg	Digital audio/video image provided as sample content
.jpg	Bitmap image provided as sample content

API On-line Reference

The CoolSign API toolkit comes with a comprehensive on-line reference, in the form of a Windows help (.chm) file.

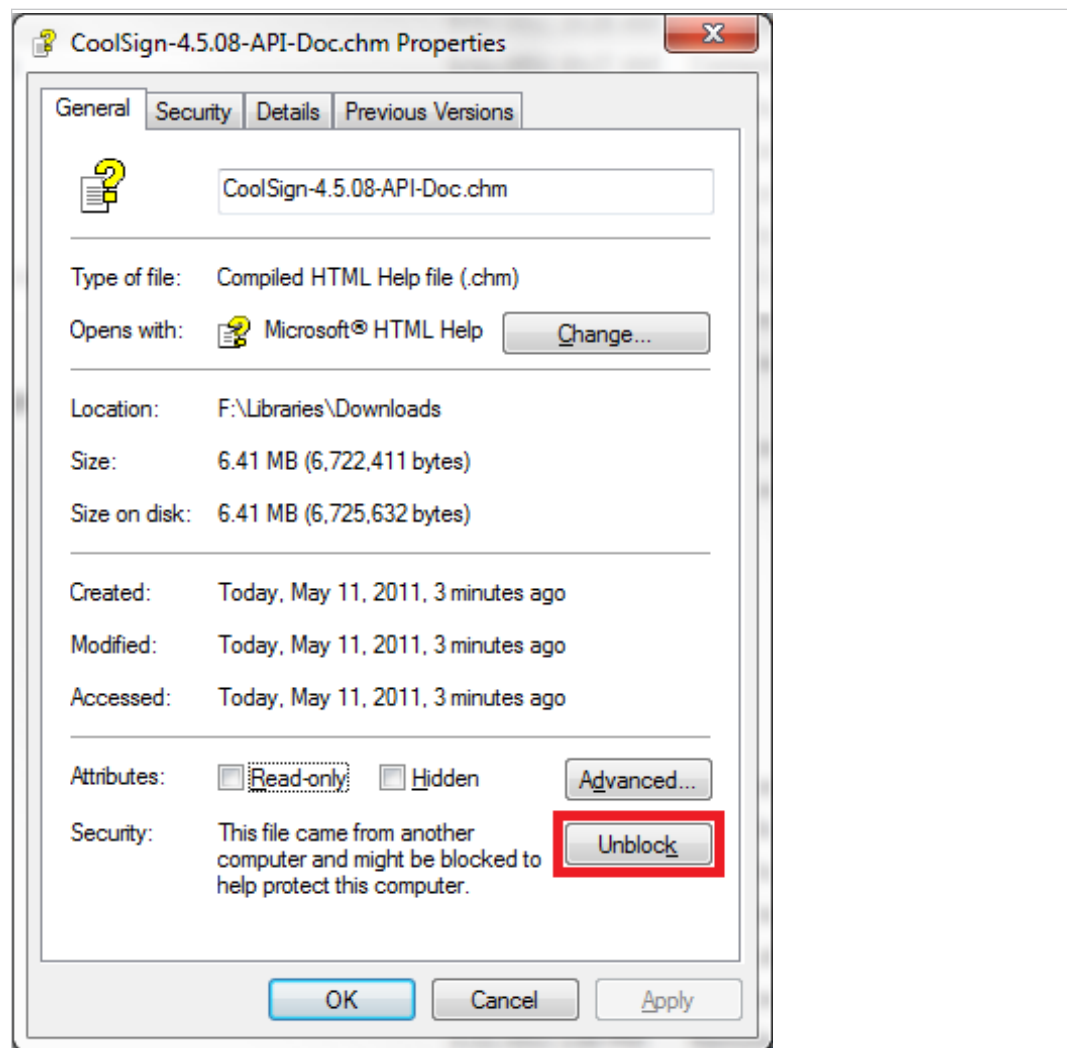


Troubleshooting

Unable to open the .chm file

On opening, you may see the message “Navigation to the webpage was cancelled”. This can happen if the .chm file is sent as an email attachment, not wrapped in a ZIP file. Windows flags the file as being at risk.

To remove the flag, right-click the .chm file, select **Properties**, and click **Unblock** under the **General** tab.



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- (a) 48 C.F.R. §227.7201 through 48 C.F.R. §227.7204, with respect to the Department of Defense and their contractors; or
 - (b) 48 C.F.R. §12.212, with respect to all other US Government licensees and their contractors.
- 6.16. **Notices.** All notices, requests, consents, claims, demands, waivers and other communications hereunder shall be in writing and shall be deemed to have been given:
- (a) When delivered by hand (with written confirmation of receipt);
 - (b) When received by the addressee if sent by a nationally recognized overnight courier (receipt requested);
 - (c) On the date sent by facsimile (with confirmation of transmission) if sent during normal business hours of the recipient, and on the next business day if sent after normal business hours of the recipient; or
 - (d) On the third day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid. Such communications must be sent to the respective parties at the addresses set forth on the Entitlement (or to such other address as may be designated by a party from time to time in accordance with this Section 6.16).

If you have questions, please contact Haivision Systems Inc., at 4445 Garand, Montréal, Québec, H4R 2H9 Canada or legal@haivision.com.

