



Clipstream

Playerless video and audio streaming

Clipstream™ Video 2.2 Technical Guide – Section 18 Minimum Requirements And Compatibility

Disclaimer: All content presented herein is subject to change without notice and is deemed as accurate as possible at time of publication. Please consult with Clipstream™ Video Support at <http://clipstream.com/help> for clarification if you encounter any erroneous or inconsistent material in this document.

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Minimum Requirements and Compatibility

Upgrading from 1.0 to 2.x– Backwards Compatibility

Clipstream Video 2.x was designed to be backwards compatible with previous versions of Clipstream Video. This means that content encoded with the Clipstream Video 1.0 Plugin for Adobe Premiere will playback using the Clipstream Video 2.x player applet.

There are a few limitations:

- 1.0 encoded content will not be able to utilize the Seek features of 2.x
- 1.0 encoded content will no be able to utilize the Security features of 2.x
- 1.0 encoded content must use the new applet parameter set when using the 2.x applet

To take advantage of all of the new features of Clipstream Video 2.x it is recommended to re-encode video content with the Clipstream Video 2.x Plug-in for Adobe Premiere or the Clipstream Video Stand Alone Encoder.

Minimum Video Requirements

Viewing Requirements

- A device capable of connecting to the internet
- Java compatible browser, email reader or other java compatible software application
- Sound generating hardware (i.e. computer sound card)
- Sound producing hardware (i.e. speakers or headphones)

On a PC

- Win95 and up
- P166 and up
- 64 MB RAM or higher

On a Mac

- PowerPC Processor (200MHz or faster)
- Internet Explorer 4.5 (or newer) with current MRJ
- 64 MB Ram or higher
- OS 8.1 or higher

NOTE: CPU speed drastically affects playback. 450MHz plays back the 500 stream nicely with a fast cable connection but with the same connection using a P166, 96MB RAM, the 300 sample would be the maximum for a smooth experience.

Encoding/Creation Process Requirements

- Java compatible browser
- Text editor software for inserting applet code
- 28.8 or faster internet connection
- Win 95,98,NT or above
- Sound card
- Pentium 166Mhz CPU or better

- 32MB RAM
- Hard disk storage for encoded content

Serving Requirements

- Any standard web server software
 - Adhere to minimum requirements as set out by your web server software developer
- Any standard web server hardware
 - Adhere to minimum requirements as set out by your web server hardware developer
- Bandwidth – as with any web server, the more bandwidth you have available, the more visitors you can serve.

Java Compatibility

In order to view Clipstream™Video, your browser needs the following:

- Java Virtual Machine (VM) or MRJ (this is stock in most browsers)
- The Java option enabled

Clipstream™Video should support most 3.x and higher browsers. If you or your website visitors are seeing text instead of the Clipstream™Video player, Java and JavaScript must be enabled in the browser.

Netscape 4.51-4.61 versions prior to 6.0 for the Macintosh were shipped with a faulty version of Java that would not play Java audio. This has been fixed in subsequent versions of Netscape 6.0 for Mac. There is no similar trouble on the Windows platform.

NOTE: For Macintosh users MRJ required (Macintosh OS Runtime for Java). **Currently the only browser which supports for the MRJ is MS IE4.5 or higher.**

Browser / Email Compatibility Chart

Operating System	Browser (Audio)	Browser (Video)	Email Client (Audio)	Email Client (Video)
Windows 95/98/NT/2000	IE 3+ NN 2+ IBM Homepage Reader 3.0	IE 4+ NN 4+ IBM Homepage Reader 3.0	OE 5.0 Outlook 2000 Netscape Messenger Eudora Pro 4.3	Same as Audio
Mac OS9 OSX	Netscape 4+ IE 4+	Netscape 6+ IE 4+Same as Audio	Netscape Messenger none	Same as Audio
Linux	Netscape 3+ HotJava 1+	Same as Audio	Netscape Messenger	Same as Audio
Solaris	Netscape 3+ HotJava 1+	Same as Audio	Netscape Messenger	Same as Audio

Enabling Browsers to View Clipstream™

Netscape Navigator 3.x

1. From the menu bar, choose Options > Network Preferences.
2. Select the Languages tab.
3. Check boxes labeled Enable Java and Enable JavaScript.

Netscape Navigator 4.x and 6.x

1. From the menu bar, choose Edit > Preferences.
2. Select the Advanced category.
3. Check boxes labeled Enable Java and Enable JavaScript.

NOTE: With some old video card drivers, Java VM may fail to start if the video card is set to 32bit color. If the browser freezes when loading a web page with Clipstream or if video playback is jerky, try changing the color depth to 16 bit. Netscape Navigator 3.x and Higher

1. From the menu bar, choose Options > Network Preferences.
2. Select the Languages tab.
3. Check boxes labeled Enable Java and Enable JavaScript.
4. If you are using Netscape Navigator 4.x:
5. From the menu bar, choose Edit > Preferences.
6. Select the Advanced category.
7. Check boxes labeled Enable Java and Enable JavaScript.

NOTE: If your display is set to greater than 16 bit color, you will see TEXT instead of a VideoClipstream™ player on most ads viewed in Netscape 4.x.

Internet Explorer 3.x

1. From the menu bar, choose View > Options.
2. Select the Security tab.
3. Check the boxes labeled Run ActiveX scripts and Enable Java programs.

Internet Explorer 4.x

1. Internet Options.
2. Select the Security tab.
3. Set your security level to either Medium or Low.

Internet Explorer 5.x and 6.x

1. From the menu bar, choose Tools > Internet Options.
2. Select the Security tab.
3. Use the slider to set your security level to either Medium, Medium-low or Low.

Internet Explorer 3.x and Higher

1. From the menu bar, choose View > Options.
2. Select the Security tab.
3. Check the boxes labeled Run ActiveX scripts and Enable Java programs.
4. If you are using Internet Explorer 4.x:
5. From the menu bar, choose View > Internet Options.
6. Select the Security tab.

7. Set your security level to either Medium or Low.
8. If you are using Internet Explorer 5.x:
9. From the menu bar, choose Tools > Internet Options.
10. Select the Security tab.
11. Use the slider to set your security level to either Medium, Medium-low or Low.

AOL Browser

1. Launch AOL Browser.
2. After the browser loads, go to the Settings Menu on the top of the browser.
3. Click on the pull-down window and click on Preferences
4. Click on the Internet Properties (WWW) link in the Preferences dialogue
5. Click on the Security TAB in the AOL Internet Properties dialogue
6. Choose 'Medium' Security Level or lower.

Enabling Java in Email Clients

Eudora

1. From the menu bar, choose Tools > Options.
2. In the Options window, scroll down and choose Viewing Mail
3. In the Viewing Mail box, make sure that "Allow executables in HTML content" is checked

Outlook

1. From the menu bar, choose Tools > Internet Options.
2. Select Receive Email tab
3. **Enable HTML** as the email format to be sent (also refers to the format that email is read in)

Outlook Express

1. From the main menu bar, choose Tools > Options > Security.
2. Under the heading 'Virus Protection' and subheading 'Select the Internet Explorer security zone to use': Select "**Internet Zone** (less secure but more functional)"

Netscape Messenger

1. From the menu bar, choose Edit > Preferences
2. Select Advanced in list
3. Make sure that Automatically Load Images, Enable Java, and Enable JavaScript are checked.

*** Messenger 6.0 currently does not support Java.

AOL email

Unfortunately, the AOL email client does not yet support Java. We recommend using one of the more powerful, full featured email clients that are available such as Eudora, Outlook, or Messenger.

Note: The AOL email web interface log-on will support your Java emails as will any Java enabled browser.

WebTV

Unfortunately, WebTV does not support Java, among other things.

Netscape Messenger

1. From the menu bar, choose Edit > Preferences
2. Select Advanced in list
3. Make sure that Automatically Load Images, Enable Java, and Enable JavaScript are checked.

Java 2.0

Java 2.0 is the next step in quality for audio in Clipstream Video. It promises to deliver 8- and 16-bit audio data, in mono and stereo, with sample rates from 8 kHz to 48 kHz. The significance of Java 2.0 will be realized in superior audio quality approaching CD reproduction. However, this superior quality will be bandwidth intensive.

The proliferation of Java 2.0, and its integration and support in Clipstream Video technology will be driven primarily by browser support (at time of publication, only Netscape 6 and the latest Opera browsers supported Java 2.0) and the availability of high bandwidth to the majority of web users.

Lotus Notes Compatibility

Overview

We have experienced extensive problems with the compatibility of HTML in the Lotus Notes email viewer. What we have seen or have had reported:

- HTML not appearing at all
- HTML improperly formatted or laid out
- HTML coding removed from the email, but applet code remaining
- HTML email not being able to be forwarded
- Applet not playing or appearing in email
- Images not appearing in HTML email
- Send to a friend function working, but producing errors
- Audio applet standard buttons can be forwarded, but custom sets produce error

Since we have been unable to get in front of a prospects system to debug first hand, we have downloaded beta release 5.0.8 from Lotus to test with. The prospect is using version 5.0.3. Version 5.0.8 was able to handle HTML emails and our products with a standard install, although we did encounter problems with custom button sets in the audio applet, and there were distinct formatting issues with Lotus. It should be noted that our testing was done with the Notes client alone and not the Notes server, which could also be affecting the emails. It should also be noted that HTML support in Lotus is a very new concept and at slight odds with the structure of their document and communications management system.

Online help is minimal and not helpful. Support calls have been placed to Lotus, and after a long run around, we found that we cannot get the answers we need (if they even exist) without paying a minimum of \$2000 US for a support package. Our research has focused around the Lotus site, and Third party developer and discussion sites, with no official word from Lotus.

It is possible that this problem does not have a solution that can be developed by Destiny. We have not been able to test on the prospects system (5.0.3), thus **all of our recommendations here are pure speculation.**

Possible Remedies

Using Lotus Notes R5 Client Beta Release V.5.0.8

- Set the notes browser setting to use MSIE
- Change mail viewing preference to HTML and Plain Text, or No Preference
- Make sure you are running Server 5.0.3 or higher with bug fixes and updates (less than release 5 will not support HTML)
- Enable SMTP 8-bit MIME extensions on the server
- Make sure Domino Server is not set to Notes Rich Text Conversion

Outlook Issues

Crash on Close

Outlook has a bug that causes it sometimes to crash when the email window containing Clipstream Video is closed. To reduce this risk, the website author or sender of the Clipstream Video email should insert the following tag into their <body>.

```
<BODY onUnload="this.focus()" >
```

This tag keeps the focus of the email client on the email window instead of the Java applet.

A workaround has been developed in recent builds of the videoclipstream.zip file but we still recommend using that tag to be sure.

Double Play

In some instances a user will experience what they think is the Clipstream Video applet playing twice at the same time, doubling up, or echoing. A clip set to auto play while Outlook is using the email preview window could cause this situation. In this instance, when the user double clicks an email entry in their email list to open it, Outlook not only opens up a new window with the email message that auto plays, but it also populates the Outlook preview window with another instance of the applet which auto plays. Hence, two versions of the same streaming audio clip will be playing simultaneously, in separate windows, out of sync. This situation can be remedied in a few ways:

1. Turn off auto play in the source code of the message prior to emailing,
2. Construct a multi-part email message that will recognize the non-scripting capability of the preview window and display an alternate applet that is not set to auto play. This fix option is much more complex to construct than a normal HTML email.

Have users not use the preview functionality in Outlook, or

Construct a multi-part email message that will recognize the non-scripting capability of the preview window and display an alternate applet that is not set to auto play. This fix option is much more complex to construct than a normal HTML email.

Mac Memory Issues

The MacOS and its various hardware platforms (IMac, G3, G4, etc) introduce several playback compatibility issues, mostly due to the way Java is integrated (or not integrated, to be precise) into the MacOS, which is only aggravated by memory issues on the lower level hardware platforms.

The primary problem is that the Java Virtual Machine, as it's known in the PC world, is not resident in the browser or the MacOS from version 9 and lower. The MRJ requires at least 8 meg of available RAM for the System heap to expand into. This is *not* part of Internet Explorer's memory partition. This is described by Apple TIL 22133, which can be viewed on the Web at:

<http://til.info.apple.com/techinfo.nsf/artnum/n22133>

According to Apple:

“MRJ may display error messages, fail to load images or fail to play sounds if there is not enough memory available to run, as described in the Memory Usage section above. In rare cases, MRJ may crash or hang if it cannot get enough memory to run.”

Apparently, this problem is resolved in OS X.

Hotmail, Yahoo Mail and Other Free Email Service Issues

Free web email viewers are widely used, but unfortunately, no substitute for a client based viewer that supports a wide range of presentation formats. Currently, free email packages such as Hotmail and Yahoo do not support Java applets in their viewers, and either do not process the applet, or strip it out completely. There are two things a Clipstream Video author can do.

First, when the applet is not processed, make sure you edit the alternate messaging of the applet (see section Alternate Messaging) to point to another web location to hear the content. This can be accomplished with a link or other mechanism.

Second, when the email viewer strips out the applet all together, you will need to provide a link outside the constraints of the applet to a place on the web where

the audio can be heard. Remember, this link cannot be placed between <APPLET> and </APPLET> or it will not be seen. And also remember that the link will always show on the page, so be sure your design and placement is appropriate to the page.

In addition, when linking from a package like Hotmail, the link will be opened in a separate framed window with Hotmail's branding. Some of your business clients will not want this. To prevent this, Place the following code into the <head> of the target HTML document to break out the frames:

```
<script language="JavaScript">
<!--
if (parent.frames.length != 0) {
    top.location.href=this.location;
}
// -->
</script>
```

Hosted Web Page Issues

Free web pages hosted by sites such as Angelfire have a tendency to cause implementation problems due to restrictive server settings on file types such as .exe and .zip and in some instances, failure to support all non-registered file types.

To implement on a system that will not serve or accept the .zip format is most common. Hosting companies wish to prevent download sites from popping up and eating up their bandwidth. This presents a problem for the videoclipstream.zip file, which will not be served from these systems. Some minor alterations to the applet and the applet code can be made to make Clipstream work on these servers.

Change the extension of videoclipstream.zip to videoclipstream.jar and upload it to the server.

1. In the first line of the applet code change ARCHIVE="videoclipstream.zip" to ARCHIVE="videoclipstream.jar"
2. Add a CODEBASE="[http://link to your site](#)" statement to the first line of the applet code.

These minor changes should allow Clipstream Video to work on these sites.

Non-Registered File Type Issues

For systems that will not allow the upload of unregistered file types (the .vcs files for instance), there is not much that can be done with the code to accommodate this. You will need to contact the Network Administrator and have these file types permitted.