OSMF 1.5 Release Notes

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What's New Since 1.0

Feature Specifications for all features can be found on the OSMF Open Source site:

https://sourceforge.net/adobe/osmf/wiki/Specifications/

FMS 4.0 Multicast Support

OSMF now supports Multicast, a new feature in FMS 4.0, enabling publishers to reach audiences within and beyond their network without a CDN. The feature includes support for Native IP Multicast, Peer-to-Peer (P2P) Multicast, and Native IP Multicast with fallback to P2P Multicast (known as Fusion). Native IP Multicast uses the TCP/IP multicast feature and requires specific networking equipment. P2P Multicast uses Flash Players within the multicast group to route and relay data. Use the OSMFPlayer or Multicast Player sample to test this feature.

- The FLASH_10_1 OSMF compilation flag must be set to true to use this feature.

Multicast Best Practices:

- Publish video using H264 instead of VP6 format.
- The client should connect with a network cable instead of wireless for a better playback experience (to avoid pixilation and stuttering in the video).

FMS 3.5.3 Stream Reconnect Support

Stream Reconnect minimizes unnecessary playback interruptions by providing a grace period when the player loses its network connection. The player will continue to play out the buffer while it attempts to re-establish a network connection. Stream Reconnect is supported in FMS 3.5.3.

- A buffer time greater than 0 is recommended for the stream reconnect feature. This feature is on by default.

Getting Started Instructions

Using OSMF in Flash Builder 4

1. Open "Flash Builder 4" and choose File > New > Flex (Actionscript) Project. Name the project. Select web application as application type. Click Finish.
2. Select the project. Choose File > Properties. In the Properties window, select Flex (ActionScript) Compiler.

3. Verify the Flex SDK version to Flex 4.1.

3.1 To download the Flex SDK 4.1, go to http://opensource.adobe.com/wiki/display/flexsdk/Download+Flex+4

3. Set Require Flash Player version to 10.1.0.
   In order to install/update Flash player, please go to http://get.adobe.com/flashplayer

4. Do one of the following to use the OSMF source.
   Copy OSMF.swc on to your local machine.
   In your Properties window of your project, select the Flex (ActionScript)Build Path -> Library Path tab.
   Select Add SWC. Add OSMF and click Finish.
   OR
   Copy the OSMF source to your local machine.
   Open Flash Builder and choose Import > Existing projects into workspace. Next.
   Click browse to go to where the OSMF package is copied.
   Select OSMF and Click Finish.
   In the project Properties window of your project, select Flex Build Path and select the Library path tab.
   Click Add Project and browse to the folder that contains OSMF package.

Using OSMF in Flash CS5

1. Create your Flash project

2. File > Publish settings. Go to the Flash tab. Set the player version to Flash Player 10 and ActionScript3.0.

3. Click on Settings, move to Library path tab and click on swc file icon.

4. Add OSMF.swc.

5. If you choose to publish an HTML file that detects the version of Flash Player, detect version 10.0.0 or later.

Using OSMF in Flex Builder 3

1. Open Flex Builder and choose File > New > Flex (Actionscript) Project. Select Flex Builder, and then Flex Project. Name the project. Select web application as application type. Click Finish.

2. Select the project. Choose File > Properties. In the Properties window, select Flex Compiler.

3. Verify the Flex SDK version. The latest SDK from Flex3 is 3.5. OSMF itself is independent from any Flex SDK version, but OSMF and the sample apps that we ship with may be created with Flex SDK 4.1 or above.

3.1.1 To download the SDK, go to www.adobe.com/go/flex3_sdk.

4. OSMF supports Flash player version 10.1 as default. This may require you to update playerglobal.swc in your flex sdk that you are using. To do so, please following steps.

4.1.1 You may go here to download playerglobal.swc http://download.macromedia.com/pub/labs/flashplayer10/flashplayer10_globalswc.zip

4.1.2 Replace playerglobal.swc to the following folder . …/Flex Builder3/sdks/[your sdk version]/frameworks/libs/player/10/

4.1.3 In order to install/update Flash player, please go to http://get.adobe.com/flashplayer

5. Do one of the following to use the OSMF source.

5.1.1 Copy OSMF.swc on to your local machine.

5.1.2 In your Properties window of your project, select the Flex Build Path -> Library Path tab.

5.1.3 Select Add SWC. Add OSMF and click Finish.

OR

5.2.1 Copy the OSMF source to your local machine.

5.2.2 Open Flex Builder and choose Import > Existing projects into workspace.

5.2.3 Click browse to go to where the OSMF package is copied.

5.2.4 Select OSMF and Click Finish.

5.2.5 In your project Properties window, select Flex Build Path and select the Library path tab.

5.2.6 Click Add Project and browse to the folder that contains OSMF package.

6. For Flex3 users, it may require to do the following to avoid compiler issues due to the fact that OSMF that are shipped with is based on Flash builder 4 and Flex sdk 4.1

6.1.1 Remove -show-invalid-css-property-warnings=false from compiler option. In the project properties, select “Flex (Library) Compiler”. In Additional compiler arguments, remove the compiler option.

6.1.2 Add htmlPlayerVersion="10.0.0" to .actionscriptProperties in OSMF lib and any sample apps provided by OSMF.

Using OSMF with Flash Builder 4 and Flex 4.0 SDK

1. Flash Builder 4 users are recommended to change default SDK version to Flex 4.1 and not to check the “Use Flex 3 compatibility mode” checkbox to avoid flex unknown issues.

2. If you are using flex 4.0 sdk, you may update playerglobal.swc that is shipped with flex 4.0 sdk. To do so, follow the below steps.

   1.1 Download playerglobal.swc from the below link and copy it to the following folder:
   …/Adobe Flash Builder 4/sdks/4.0.0/frameworks/libs/player/
   http://download.macromedia.com/pub/labs/flashplayer10/flashplayer10_globalswc.zip

   1.2 If you have created 10.1 folder to copy the playerglobal.swc (…/Adobe Flash Builder 4/sdks/4.0.0/frameworks/libs/player/10.1), do the following.

   In your project properties, under Adobe Flash Player options, select “Use a specific version” and choose 10.1.0.

3. If you want to remove the older version of OSMF that is shipped with Flex 4 SDK, select File > Properties > Flex Build Path > Library path, select osmf.swc under Flex 4.0 SDK on the Library Path panel, and click the Remove button.

NOTE: To run OSMFTest (unit test suite) include the following files in your project library folder:

- FlexUnit.swc
- FlexUnitOptional.swc
- NetMocker.swc

You may also need to update the SWC file path when you import the OSMFTest project.

Sample Applications

There are a number of sample applications provided which demonstrate new and old features. Each sample application is located in apps/samples/framework (for framework samples), apps/samples/libs (for library samples), or apps/samples/plugins (for plug-in samples). The root directory of each sample project holds a readme.txt file with installation and usage instructions.

Sample apps include:

AkamaiPluginSample:
Demonstrates the use of plug-ins. Integrates with other OSMF-provided plug-ins (SMIL, captioning, Akamai, etc.).

CaptioningSample:
Demonstrates loading the OSMF captioning plug-in and using an external captioning document to show captions over a video. Specifically, the sample app loads the OSMF captioning plug-in, places the URL location of a WC3 Timed Text DFXP file on the metadata of the video resource, and listens for the metadata TemporalFacet to be added to the VideoElement. When the TimelineMetadata is added to the VideoElement, an event listener is added for events of type TimelineMetadataEvent. In that event handler, the caption data is included in the event and the sample app renders the caption using the style information found in the caption object that was passed to the event listener.

ControlBarPluginSample:
Demonstrates how to create a visual plug-in. In this particular example, the visual plug-in encapsulates a video control bar which controls playback of the video, and which is laid out using OSMF's layout system.

CuePointSample:
Demonstrates cue point support in OSMF.

DVRSample:
Demonstrates DVR support in OSMF.

DynamicStreamingSample:
Demonstrates dynamic streaming support in OSMF.

ExamplePlayer:
Demonstrates playback of a wide variety of media.

HelloWorld:
Demonstrates the simplest possible application that can be built with OSMF (see HelloWorld.as).

HTMLMediaContainerSample:
Demonstrates how to use the HTML Bridging feature.

LayoutSample:
Demonstrates how to use the Layout feature in OSMF.

MASTSample:

Demonstrates the use of the MAST ActionScript plug-in to retrieve a MAST document, parse it into a MAST object model, and play a pre-roll ad before a video. This sample integrates with the VAST library, which only support VAST 1.0.

MASTSampleNew:
Demonstrates the use of the MASTPluginNew ActionScript plug-in to retrieve a MAST document, parse it into a MAST object model, and play a pre-roll ad before a video. This sample integrates with the VASTNew library, which supports VAST 1.0 and VAST 2.0.

MediaContainerSample and NestedMediaContainersSample:
Demonstrates part of the framework's media container feature which allows media elements to be routed.

MediaPlayerSpriteSample:
Demonstrates the use of MediaPlayerSprite.

MulticastPlayerSample:
The MulticastPlayer application demonstrates how to use the multicast feature of OSMF. It provides samples of how to subscribe and unsubscribe to a multicast stream by using:

- An F4M file.
- Stream specific information including connection string, RTMFP Groupspec and RTMFP StreamName.

OSMFPlayer:
Defines an application that can be embedded on a web page in order to play back media. It contains a control bar that manages the various supported aspects of the media. It also uses the ChromeLibrary, which serves as a reference on implementing a user interface for an OSMF based player.

TransitionsSample:
Demonstrates the use of visual transitions within an OSMF application.

VASTSample:
Demonstrates the use of the VAST ActionScript library to retrieve a VAST document, parse it into a VAST object model, and generate one or more MediaElements that correspond to the playback instructions of that VAST document. Note that the VAST library only supports VAST 1.0.

VASTNewSample:
Demonstrates the use of the VASTNew ActionScript library to retrieve a VAST document, parse it into a VAST object model, and generate one or more MediaElements that correspond to the playback instructions of that VAST document. Note that the VASTNew library supports both VAST 1.0 and VAST 2.0.

VPAIDSample:
Demonstrates the use of the VPAID library.

Note: Flex 4.1 or higher is recommended to run the Flex sample applications.

Compatibility

Flash Player 10 is required.

Known Issues

Multicast:

- https://bugs.adobe.com/jira/browse/FM-968 - Multicast: No error event when stream name is incorrect.

Sample Applications:

- https://bugs.adobe.com/jira/browse/FM-1100 - Cue point sample only updates cue point data grid for the first video loaded.
- HTTP Streaming certification unit tests require Flex 4 to compile. To use Flex 3 environment for the HTTP Streaming player change htmlPlayerVersion to “10.0.0" to avoid Compiler error.
- OSMFIntegrationTest – A few integration tests will fail because they require access to the Adobe network.
- https://bugs.adobe.com/jira/browse/FM-1152 - Stop button in VPAIDAdSequencingUnitTest and VPAIDSample, stops video pre roll ad but video content starts playing.

Miscellaneous:

- https://bugs.adobe.com/jira/browse/FM-23 - RTMP Audio only streams do not have duration and do not support seeking.
- https://bugs.adobe.com/jira/browse/FM-1066 - Load time of progressive download delivered DRM content on minimum Macintosh systems is greater than our performance targets.
    - Work around: Use n-second unencrypted DRM content.
- https://bugs.adobe.com/jira/browse/FM-1013 - Explicit Edge server URL is not parsed properly.
- https://bugs.adobe.com/jira/browse/FM-1122 - Parallel compositions with 2 levels of nesting drops frames during video playback.
- https://bugs.adobe.com/jira/browse/FM-1140 - Videos using multi-byte characters in URL fail to play with progressive delivery.

Documentation

The API Reference and the OSMF Developer’s Guide (browsable HTML versions) are available on the open source site here: https://sourceforge.net/adobe/osmf/wiki/Documentation/

The Plug-in Developer’s Guide is available on the Developer Documentation section of the open source site here: https://sourceforge.net/adobe/osmf/wiki/Documentation/