# Viewpoint Media Player 3.2.1 Release Notes for Macintosh

This document summarizes the new and enhanced features introduced in Viewpoint Media Player 3.2.1 for the Macintosh operating system. The new and upgraded features in this release encompass all those from the Viewpoint Media Player releases 3.0.11, 3.0.12, 3.0.13, 3.0.14, and 3.0.15 for the Windows operating system. With Viewpoint Media Player 3.2.1, content developers now can create content that renders the same for both Windows and Mac users.

This document includes only high-level descriptions of these new features and upgrades. For more in-depth information on each feature, including code samples, refer to the *Viewpoint XML Database* or the following documents from the **Reference** tab of Viewpoint Developer Central (http://developer.viewpoint.com):

- *Windows Viewpoint Media Player 3.0.12 Release Notes*
- *Windows Viewpoint Media Player 3.0.15 Release Notes*

## Minimum System Requirements for this Release

- Apple® Macintosh® Jaguar™ 10.2
- Microsoft® Internet Explorer 5.2 or Safari ™ 1.1
- 256 MB RAM
- PowerPC G3®

**IMPORTANT!** MTS3Interface.js version 4.0.8 or higher is required for content to be viewed with Viewpoint Media Player 3.2.1. The MTS3Interface dynamically builds an object embed and assigns a variable to it. It also facilitates interaction between Viewpoint Media Player and the web page, bi-directionally, across a variety of browsers and operating systems.

## Release 3.2.1 New and Enhanced Features

Viewpoint Media Player functions as a graphics operating system, a central hub comprised of mutliple components (.dll files) that enable disparate media types, such as Flash, audio streaming, and video, to seamlessly integrate into one scene. Due to its component design, Viewpoint Media Player downloads only those components that are required to view the content accessed by a user, thereby reducing download time and interruptions.

Viewpoint Media Player 3.2.1 includes several new feature components, such as video and sound streaming, and many enhancements of existing components, such as comprehensive Macromedia Flash support and robust Document Object Model (DOM) syntax support for content authoring.

**IMPORTANT!** Each Viewpoint scene must be assigned a scene version number via the `<MTSScene Version>` tag, which determines the version of the MTX / MTZ interpreter Viewpoint Media Player uses to process the scene. To leverage the new and enhanced features in Viewpoint Media Player 3.2.1, and to ensure your content behaves as specified below for both the Macintosh and Windows operating systems, assign your content `<MTSScene Version="315">` . For Mac-only content, use `<MTSScene Version="321">`

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## New Components

- SceneCapture — The newly released Viewpoint SceneCapture component makes it possible for you to create and save scene images in remote or local locations.
- Video — The newly released Viewpoint Video component enables the integration of video content with other media types, including Flash and 3D animation, taking advantage of immediate streaming or cached delivery.
- MTSLensflares — This component enables photo-real lighting effects to be added to computer generated images or animations. These effects overcome the lifelessness of computer-rendered scenes, bringing a more “natural” feel to a Viewpoint scene.
- TalkNow (Sound Streaming) — Viewpoint introduces the TalkNow component, which enables sound to be streamed from Viewpoint Media Player, providing for a completely synchronized speaking animation.

## New General Features

- Document Object Model (DOM) Syntax — The DOM syntax provides a new way to use and access properties (or attributes) of objects in a scene, giving content developers increased authoring freedom.
- VETCamera — The new `VETCamera` tag suite enables camera animation in a Viewpoint scene. The VETCamera model behaves exactly like a regular 3D instance in a scene, meaning it can be inserted anywhere in the instance hierarchy, having parents and children; and its location (the matrix) can be set in the same manner as an instance.
- MTSCookie — Just like browser cookies, the `MTSCookie` tag suite allows you to save variables or properties between runs of Viewpoint Media Player. This enables content to share its cookie information with other content, while providing security controls to prevent unauthorized content from reading the cookies.
- MTSCompareProperty — Tests whether two specified values are the same. This new tag suite allows you to execute conditional “if” logic in a scene to decide the actions to execute based on variable values.
- RemoveObjectAndDependencies — Removes a specified object and any dependent of this object (children, geometries, textures, and assets in general) from a scene and memory (RAM). This new feature relates to another new feature, the `MTSBaseComponent RemoveObject` function.
- VETOrbitManipulator — This tag suite manipulates any object in a scene that has a matrix property type, such as `VETCamera`. Viewpoint Instance Manipulator is declared in MTX code as `<VETOrbitManipulator Name="CameraManipulator" >`.
- VETSequencer — This tag suite synchronizes animations that do not run for the same length of time. `VETSequencer` is declared in MTX code as `<VETSequencer Name="coco" On="1" >`
- VETStreamCase — This tag suite dynamically chooses the MTX child node to execute based on the type of media file streamed from a host server, even if the exact file type is not known.
- Propagate — Extends the action commands, `MTSSetProperty` and `MTSAssignProperty`, to allow for property propagation throughout a scene hierarchy.

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- IgnoreActionError — Enables you to continue executing actions even if one of them fails.
- VETTimeInfo — Includes a tag suite that gets local and universal time information.
- VETRandomGenerator — Includes a tag suite that generates random strings based on range specifications.

## Enhanced General Features

- MTSTimeElem — Includes a host of enhancements, such as:
  - Two new properties, `Targets` (used for specifying targets) and `DownloadingAnimator` (for animator download information).
  - Support for a wider array of Emboss functionality enabling better text coloring and filling methods and more control when applying embossing to an alpha map or a texture.
  - Increased support for naming and organizing `MTSObjectMovie` animation.
- MTSInstance — Includes many new properties for use on geometry and materials.
- MTSMaterial — Includes three new properties (`DiffuseTexture`, `EnvTexture`, `BumpTexture`) for accessing texture information.
- MTSGeometry — Includes many new properties that enable access to geometry components, such as `UVs` and `Normals`.
- MTSInteractor — Includes a new property, `ActivationState`, that enables you to define a hierarchy of interactors.
- MTSPreload — Includes a new property, `Priority`, allowing the order in which preloaders load to be specified.
- MTSSceneParms — Includes two new properties, `FPS` and `Passclick`, for animator frame evaluation and mouse control in HTML.
- Viewpoint Media Player — Events Includes new and enhanced events and introduces a new syntax using the DOM to collect events.

**Note:** The following events, supported in this release, are NOT supported in Viewpoint Media Player 3.0.15 for Windows. Therefore, use these events for content authored SOLELY for the Mac:

- KillFocus — This event is fired when Viewpoint Media Player becomes an inactive window. This is useful for resetting the state of interactors.
- SetFocus — This event is fired when Viewpoint Media Player becomes the active window, a useful event for resetting the state of interactors.
- MTSAudioFailed — This event is fired by the Video or TalkNow components when sound fails. This allows you to catch this event in your content and display alternative content.

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## Flash and Scaleable Vector Graphics (SVG) Features

- Macromedia ® Flash™ Support — Viewpoint Media Player 3.2.1 supports more Flash 5.0 ActionScript objects and functions, allowing robust and effective communication between Flash 5.0 and Viewpoint Media Player. For the entire list of supported Flash 5.0 features, see *Windows Viewpoint Media Player 3.0.15 Release Notes*.
- Scalable Vector Graphics (SVG) Support — Viewpoint Media Player 3.2.1 introduces new and robust support of native SVG tags and new Viewpoint-enhanced SVG tags. For the entire list of supported native and enhanced SVG features, see *Windows Viewpoint Media Player 3.0.15 Release Notes*.

## HyperView Features

Viewpoint Media Player 3.2.1 introduces one new HyperView tag for the Macintosh, `Hyperview`, which enables a Viewpoint scene to initiate in HyperView mode. Two other HyperView tags, `DrawAnywhere` (Windows-only) and `RestrictMacHyperView` (deprecated) are not supported by the new release.

**Note:** Hyperview does not work on OS X when the monitor is set to 16-bit color; it works only under 32-bit (millions of) color.

## ZoomView Features

Viewpoint Media Player 3.2.1 introduces a host of new ZoomView tags and properties that enable better control over ZoomView images, enhancing rendering capabilities.

# Changed Behaviors in this Release

- Triggering an Animation — Two main changes in the triggering process from previous releases include:
  - Loading values into a wildcard
  - Handling the children on/off state
- Rewinding an Animation — Animation playing in reverse can be rewound to the end of the animation, allowing it to play from the end to the beginning, as specified.
- Pausing an Animation — Prior to this release, an animation set to pause could be triggered and remain paused. In Viewpoint Media Player 3.2.1, an animation set to pause cannot be triggered and remain paused; when the animation is triggered, the pause switches off (that is, the animation plays). To work around this functionality change, do not use `<MTSAction> <Trigger>` to start a paused animation; instread use `<MTSAction> <Start>`.
- Animation Hierarchy Relationships — Setting rewind, reset, or trigger to a parent animation affects only the parent animation.
- Animation Predeclaration — With `MTScene Version="315"` two like-named animators are merged into the .mtx file, but the animation is inserted only once into the hierarchy (at the first position), allowing predeclaration.
- Interaction Parsing — Interactors are parsed in the order they appear in MTX code.

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- MTSSetProperty/MTSAssignProperty/MTSCopyProperty — With the introduction of new DOM functionality in release 3.2.1, `MTSCopyProperty` has been deprecated and replaced with `MTSAssignProperty`.
- Keyframe Animator — With `MTScene Version="315"` or higher, animators containing only one keyframe now work.
- Changing a Property on Assets during Player Execution — With Viewpoint Media Player 3.2.1, changing a property on a material, texture, or geometry automatically re-renders the scene, even when using an action. You no longer have to set the property, `nerd`, on the scene to force the rendering of the scene.
- Degrees Replacing Radians — When `MTScene Version="310"` or lower, values must be provided in radians when setting Euler values (x, y, and z rotations) to a quaternion property. With `MTScene Version="315"` or higher, values must be provided in degrees instead of radians.
- Crash Detection *Unlike* — Viewpoint Media Player release 3.0.15 for Windows, release 3.2.1 DOES NOT contain a crash detection device.
- MTSImageStream Animations — With `MTScene Version="310"` or lower, defining an `MTSImageStream` animator with an invalid target did not stop Viewpoint Media Player from streaming the file and did not stop the `MTSLoadDone` event from firing when the streaming completed. With `MTScene Version="315"` or higher, if the target of an `MTSImageStream` animator is invalid, Viewpoint Media Player does not stream the file and the event is not triggered.
- MTSInteractor Hierarchy Relationships — With Viewpoint Media Player release version 3.2.1, interactors can be parented. This means that now you can create a hierarchy of interactors. As a result, if a parent interactor is inactive, its children automatically are inactive, too.
- The MTSRequireVersions Tag — With Viewpoint Media Player 3.2.1, the minimum version requirements for a scene's components can be specified in XML code, ensuring that the player's components and classes meet the specified requirements.

## Known Issues in this Release

- Video Display on the G3 Processor — With this release, Viewpoint Video content served to computers using the G3 processor WILL NOT display. Currently, there is no workaround for this issue; however, a patch enabling G3 to display Viewpoint Video content will be available in January, 2004.
- Integrating Vector Graphics with ZoomView — To integrate Macromedia Flash or SVG with ZoomView, you must keep the aspect ratios for both media types the same and the Flash/SVG size must be 1/20th of the ZoomView size (i.e., ZoomView Height/20 and ZoomView Width/20).
  For example, if the ZoomView image is 25000 x 10000, the Flash/SVG must be 1250 x 500.
- Setting Opacity Animation with ZoomView — In this release, Viewpoint Media Player interprets `Opacity="0"` as `Opacity="1"`; to workaround this, set `Opacity="0.00001"`.
- Flash Scripting — When using `fscommand()` to pass a variable string, send only one string. For example: `fscommand ("PostMessage Message="+myEvent);`
- Flash Dynamic Text

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  - Multiline/single line/word wrap parameter is ignored. It is always considered as multiline + wordwrap.
  - The scrolling function `maxscroll()` is unsupported. Moving a movie clip containing text behind a mask would be one way to implement text scrolling functionality within the bounds of what is allowed by 3.2.1.
  - Text is always antialiased, even system text as accessed by setting your font choice to `"_sans"` or `"_serif"`. Also, pixel fonts are antialiased. The only workaround is to substitute graphics for text.
  - Editable text is not supported.
  - Text spacing (except for dynamic text with the option, "test is HTML") and kerning are different, and there are some rendering differences with text between 3.2.1 and the Macromedia Flash player.

- Flash LoadMovie/LoadVariables — Some functions related to the loading of external movies or variables (such as, loadMovieNum()) are not supported. Variables can be passed from Viewpoint Media Player via JavaScript.
- Cursors with Flash — The hand cursor that normally displays when rolling over a clickable area, such as a button, does not display in Viewpoint Media Player unless a message is explicitly passed to Viewpoint Media Player to change the cursor.
- Animating Clips — When animating a limited number of clips, Viewpoint Media Player performance is comparable to the Macromedia Flash player. To animate a large number of clips without performance issues, use `rtim="1"` in the scene's MTX code.
- Color/Rendering with Flash — In release 3.2.1, the background of a .swf file is transparent by default. Use the property `FillBackground="1"` to show the background, or draw a rectangle of the right color on the bottom layer of the .swf file.

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## Viewpoint Content Authoring Checklist for New Release

1. Install the latest version of Viewpoint Media Player (version 3.2.1) from Viewpoint Developer Central: http://developer.viewpoint.com by clicking the **Get Player** link from the left navigation bar.

> **Note:** Users who participated in the beta test for Viewpoint Media Player 3.2.1 must first remove the beta version by following the instructions listed under the heading, "Unistall Viewpoint Media Player", below.

2. Update existing Viewpoint scenes and publish new Viewpoint scenes with the latest version of MTS3Interface.js (currently version 4.0.8) from the Developer Central Viewpoint Online Tools page.
   - Update existing web pages (.html) that use the object/embed tag to refer to the MTS3Interface.js file and the constructor tag by replacing the old MTS3Interface.js file with the new version.
   - Publish new web pages using Viewpoint Media Publisher, a free Viewpoint web publishing tool available from http://developer.viewpoint.com.

> **Tip:** To serve alternative content for Macintosh machines running any OS that is pre-Jaguar 10.2, modify your web page's constuctor call as follows.
>
> From the call, prior to declaring `vmp = new MTSPlugin()`, insert:
>
> ```
> if(VET_Mac && !VET_MacOSX)
>         document.write("<img src='my.gif'>")
> else
> ```
>
> This code states that if the MTS3Interface.js file detects an OS released prior to Jaguar 10.2, then the alternative content is served, which in this example is the `'my.gif'` file. To find out more about how to use MTS3Interface.js, review the *Viewpoint Rich Media Authoring Guide* from Viewpoint Developer Central: http://developer.viewpoint.com.

3. Update required settings for your web page's Viewpoint content. The type of rich media content you include in your web page dictates the components you must specify in your constructor call.
   See the *Viewpoint Rich Media Authoring Guide* for information on how to refer to these requirements for your content.
4. In your content, specify settings to open only one browser window containing Viewpoint content at a time. This helps avoid performance issues.

## Unistall Viewpoint Media Player

To unistall Viewpoint Media Player:

1. Close any open web brower.
2. Locate and delete the `Viewpoint Media Player` directory from `HD/Library/Application Support/Viewpoint Media Player`.
3. Locate and delete the `MTS2Runtime.dll` alias from `HD/Library/Internet Plug-ins/`.
4. Empty the deleted alias and directory from your computer's trash bin.

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