granicus.

White Papers

Media Formats

Overview

Granicus understands that government is held to the highest standard of accessibility. Providing live or archived audio/video is not enough. Media formats are an integral part of providing your constituents with access to the beneficial content you are creating.

Our Media Format Philosophy

Accessibility
Content must be available to a large majority of your constituency. Meeting this need requires that content is viewable on multiple operating systems, browsers, stand-alone players and mobile devices. Furthermore, the viewer should not be required to go through a complex process before getting access to the data.

Neutrality
Granicus is committed to vendor neutrality. Format selections are based on technologies leading the market, not vendor relations. Rapidly changing technologies may put neutrality and accessibility in contradiction with one another and therefore must be balanced. Using open source formats, for example, is the most neutral stance possible; however, the open source options currently available do not meet the standard of accessibility. Until open source options evolve, Granicus ensures neutrality by supporting operating systems and browsers from a variety of vendors.

Flexibility
Our philosophy on flexibility dictates that we are responsive to both the end user and the industry. Today, our end users' computer settings range greatly depending on their personal preferences. By supporting multiple platforms, individuals watch your content the way they want to, with as few clicks as possible. We are also consistently evaluating the technical trends in preparation for tomorrow. New innovations that strengthen our core philosophies continue to emerge, and Granicus is committed to bringing them to you when market adoption warrants it.

Compliance
Granicus content is Section 508 compliant. As we continue to evaluate technical trends, new format contenders are only considered if they meet this same level of compliance.

What is a Format?

Codec stands for Compression/ Decompression. The Codec provides information to the media player about how the file was encoded. Granicus uses standard codecs, such as H.264 and Streaming 9 for video and AAC and Lame for audio.

Container or Wrapper is what people are generally referring to when they discuss formats. A container is a detailed description of the file, including its structure and the data it contains. Granicus content is provided in the following standard containers: FLV, MP4, WMV/WMA and MP3.

Streaming Protocol is the method by which a stream is delivered. Like the container, the streaming protocol provides information about how the content being delivered is organized. Granicus uses these widely recognized and accepted streaming protocols: HTTP, RTSP, MMSand RTMP.

From Format to User

Formats are relevant because end users are required to have the software elements necessary for rendering data into an accessible form. For example, one user may watch all video content in a Firefox browser on a desktop, while another may listen to content on an iPhone. It is the responsibility of Granicus to ensure that your content is delivered in a way that is viewable using existing preferences. Granicus meets approximately 99% of the market by supporting the user preferences detailed below.
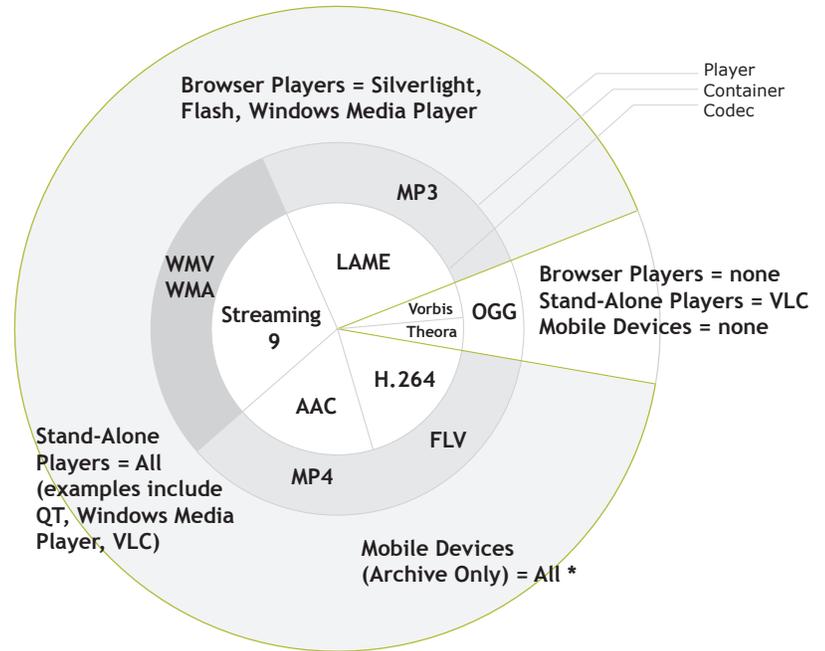
Devices
Granicus content is viewable on all desktops, laptops and mobile devices.*

Browser Players
Granicus content is viewable in Silverlight, Flash and Windows Media Player, thus supporting viewers using any of the following browsers: Internet Explorer, Firefox, Safari and Chrome. From an operating system perspective, all Windows machines are pre-packaged with Internet Explorer and all Mac machines include Safari. Firefox is not pre-packaged in an operating system, but is manually selected by almost 30% of all users and is the most common

Players, Containers, Codecs: Formats used by Granicus versus Open Source

selection of those running a Linux operating system. Together, Windows, Mac and Linux cover over 99% of the operating system market for desktops/laptops, with Windows carrying over 90% of the market.

Stand-Alone Players
Most Granicus content is accessed through a browser player or mobile device. However, Granicus content may be accessed using any stand-alone player for individuals preferring this method of access. Examples of stand-alone players include QuickTime, Windows Media Player or VLC. QuickTime is pre-packaged with the Mac operating system, and Windows Media Player is pre-packaged with the Windows operating system.

Why not Open Source?

Using an open source format would meet the highest standard of the neutrality philosophy. However, even the most predominant open source format, OGG, lacks enough market adoption to be a viable option at this time. The OGG format has a 0% default supportability rate among operating systems and browsers and does not currently support closed captioning. OGG does continue to evolve, and Granicus continues to monitor that progress during strategic reviews of our format offerings.

* Mobile devices with video playback support such as iPhone, iPod, Blackberry, Android.