

Pixel Fusion HTTP API Guide



Revision History

Version Number	Date Updated	Revision Author	Summary of Major Changes Made
1.0	11/11/08	R.Schnitzer	Initial document creation

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1 Overview

The Pixel Fusion Video Commander server provides an HTTP based API available to a client application. This guide describes the features available and how to use them.

The current feature set available via this API consists of the capability to view all live camera video streams. This includes both the overview (640x360) as well as the full resolution (1920x1080) streams.

Additionally, an HTML home page is available for informative and diagnostic purposes.

2 Context

This document applies as of the Fusion 1.8 release. Features may change in future releases that affect the validity of the current content.

3 Target Audience

This document is intended for anyone who wishes to interface other Vendor's applications to Pixel-Velocity's system. This audience includes system installers, service personnel, customers, and other Vendors.

Additionally, this document is intended for other Vendor's developers, who may programmatically implement HTTP based interfaces to Pixel-Velocity's system.

4 Licensing and Rights

Contact Pixel-Velocity for further information.

5 Compatibility

For live camera viewing, a standard HTTP based MJPEG stream is available from Video Commander. A compatible client application must of course be capable of forming the expected URL request, as well as consuming the resulting MJPEG stream. This is a typical industry implementation.

A candidate client application would typically fall into one of these categories:

- Pixel-Velocity's own ViewPorts surveillance client
- Other Vendor surveillance client application
 - Generic support – the client application provides generic support for entering a URL and displaying the resulting camera video stream
 - Explicit support – the client application provides explicit support, developed by the other Vendor's engineers, for ingesting and displaying a Pixel-Velocity camera video stream
- Other Vendor application
 - Another Vendor's application capable of ingesting a video stream and providing some value added.
- Standard internet browser
 - A browser with MJPEG support; e.g. Firefox, Safari, Chrome, etc

- As of this writing, Microsoft's Internet Explorer does not provide MJPEG support

Additionally, Video Commander's home page should be compatible with any browser, including Internet Explorer.

A "Basic" HTTP authorization protocol is required; this is normally handled by the application, e.g. an internet browser will present the user with a login dialog as necessary.

6 Server Configuration

Video Commander will not respond to a URL request in its factory default configuration (excepting Pixel-Velocity's ViewPorts surveillance client). To enable the HTTP API, a user login must be used with "Web Access" privilege.

Additionally, a full resolution stream will only be available for a user login with "Full Resolution Access" privilege.

See the ViewPorts User Manual for information on how to set up accounts and access privileges.

After the above configurations are complete, the easiest way to verify HTTP API operation is to attempt to open the Video Commander home page in any web browser, see section 4 for the proper URL syntax.

7 URL Syntax

7.1 Syntax Convention

The following applies to the URL syntax of section 7:

- Case sensitivity is important unless otherwise noted.
- A parameter requiring substitution will be denoted inside angle brackets, e.g. a substitutable server name will be denoted by <servername>.
- **IMPORTANT:** proper handling of URL special characters is required in any URL string, and coverage of this is beyond the scope of this document. It is suggested that the URL links formed in any internet browser (by the Video Commander home page) can be viewed and copied, literally if necessary, as these will generate the proper special character handling.

7.2 URL Syntax

For any of the following URLs in this section, note that a username and password must be entered when requested by the application.

The URL for the Video Commander home page is as follows:

<http://<servername>>

Where <servername> is the resolvable server name or IP address.

Note that links will be available in the resulting home page to open available live camera video streams.

The following syntax will open an MJPEG overview video stream:

<http://<servername>/video.mjpg?cameraname=<cameraname>>

where <cameraname> is the name of the camera.

For a Full Resolution video stream:

<http://<servername>/video.mjpg?cameraname=<cameraname>&fullRes=true>