

VAPIX[®] VERSION 3

Introduction to VAPIX[®]



Introduction to VAPIX®

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1 Overview

1.1 Description

This document specifies general abbreviations, style conventions and interface specifications for the VAPIX® documentation.

VAPIX® is Axis' own open API (Application Programming Interface). VAPIX® provides functionality for requesting images, controlling network camera functions (PTZ, relays etcetera) and setting/retrieving internal parameter values.

1.2 Prerequisites

1.2.1 Identification

Property: `Properties.API.HTTP.Version=3`

Firmware: 5.00 and later.

1.3 References

All VAPIX® references are available at:

<http://www.axis.com/vapix>

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2 General Abbreviations

The following abbreviations are used throughout the VAPIX® documentation.

CGI - Common Gateway Interface – a standardized method of communication between a client (for example a web browser) and a server (for example a web server).

TBD - To be done/designed – signifies that the referenced section/subsection/entity is intended to be specified, but has not reached a level of maturity to be public at this time.

N/A - Not applicable - the feature/parameter/value is of no use in a specific task.

URL - A Uniform Resource Location (URL) is a compact string representation for a resource available via the Internet. RFC 1738 describes the syntax and semantics for a URL.

URI - A Uniform Resource Identifier (URI) is a compact string of characters for identifying an abstract or physical resource. RFC 3986 describes the generic syntax of URI.

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3 Introduction to CGI

3.1 Obsolete and Removed CGIs

The differences between VAPIX version 2 and VAPIX version 3 are described in the Migration Guide available at http://www.axis.com/techsup/cam_servers/dev/cam_http_api_index.php.

3.1.1 Obsolete

Some CGI requests, arguments and values in the VAPIX® documentation may be obsolete and are provided for backward compatibility. These might not be supported in the future.

3.1.2 Removed

The HTTP API version 1 (VAPIX 1) is no longer supported.

3.2 HTTP Status Codes

The Axis product returns standard HTTP status codes. See RFC 1945 and RFC 2616.

3.3 User Access Rights

User access rights for CGI requests are determined by group membership.

| Security level | Description |
|----------------|--|
| viewer | Users with <code>viewer</code> , <code>operator</code> or <code>admin</code> rights can access this functionality. |
| operator | Users with <code>operator</code> or <code>admin</code> rights can access this functionality. |
| admin | Users with <code>admin</code> rights can access this functionality. |

3.4 Parameter Value Convention

In tables defining CGI arguments and supported values, the default value for optional arguments is system configured.

3.5 Style Convention

3.5.1 Content to Be Replaced

In URL syntax and in descriptions of CGI arguments, text in italics within angle brackets denotes content that should be replaced with either a value or a text string. When replacing the text string, the angle brackets must also be replaced. For example, the name of the camera or video encoder is denoted by `<servername>` in the URL syntax description. In the URL syntax examples `<servername>` is replaced by the string `myserver`.

XML responses do not apply to this style convention. For this type of responses a text string within angle brackets (including the brackets) is a tag (start-tag or end-tag). XML response descriptions use text in italics inside square brackets to denote content that is replaced by the server. For example, `[int]` is replaced by an integer.

3.5.2 CGI Requests

CGI requests are written in lower-case. CGI arguments are written in lower-case and as one word. When the CGI request includes internal parameters, the internal parameters must be written exactly as named in the Axis product. For the `POST` method the

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parameters must be included in the body of the HTTP request. The CGIs are organized in function-related directories under the `axis-cgi` directory. The file extension is required.

URL syntax is written with the word "**Syntax:**" in bold face, followed by a box with the referred syntax, as shown below. The name of the Axis product is written as `<servername>`. This is intended to be replaced with the name of the actual Axis product. The name can either be a name, for example "thecam" or "thecam.adomain.net" or the associated IP number for the server, for example 10.10.2.139. Text within square brackets denotes content that can be omitted.

Syntax:

```
http://<servername>/axis-cgi/<subdir>[/<subdir>...]<cgi>.<ext>[?<argument>=<value>[&<argument>=<value>...]]
```

3.5.3 CGI Response

A description of the data response is written with "**Response:**" in bold face, followed by the HTTP status code, header fields and a box with the HTTP body. Carriage Return and Line Feed (CRLF) are not explicitly printed.

Response:

HTTP Code: 200 OK

Content-Type: image/jpeg

Body:

```
<JPEG image data>
```

Note

Response examples are examples only. The returned data will differ depending on product model and configuration.

3.5.4 CGI Example

URL syntax examples are written with **Example n:** in bold face, followed by a short description, "**Request:**" or "**Response:**" in bold face and a box with an example.

Example 1:

Request default image.

Request:

```
http://myserver/axis-cgi/jpg/image.cgi
```


