

# Image Processing Service

## Application Programming Interface

Version 18.08.2010

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# 1. Authentication

## Constructing the authentication string

In order to use the API you need an API USER and an API KEY; they are both provided when signing up.

Each resource can handle one or more of the following HTTP methods : GET, PUT, DELETE, POST.

There are several required HTTP headers :

- **Date** - for example: Wed, 01 Feb 2008 12:00:00 GMT
- **X-IPS-Client** - for example: test-account
- **X-IPS-Accept** - it can take 2 values: xml or json
- **X-IPS-Auth** - for example: 90a6d325e982f764f86a7e248edf6a660d4ee833

The value of X-IPS-Auth header is used for authentication of the request. See below the way this header is constructed:

**step 1** : signature\_string = concatenate strings (HTTP verb , Query String , X-IPS-Client header value , Date header value)

**step 2** : X-IPS-Auth header value = HMAC-SHA1 (API KEY, signature\_string)

The HMAC-SHA1 algorithm is explained in detail

here <http://en.wikipedia.org/wiki/HMAC#Implementation>

## Possible authentication errors

- AuthHeaderMissing - this means that the X-IPS-Auth header was not detected in your request
- AuthTimeDifference - this means that the time difference between the request time and our server time is greater than 20 seconds. Please read the important note below
- ClientHeaderMissing - this means that the X-IPS-Client header was not detected in your request
- DateHeaderMissing - this means that the X-IPS-Date header was not detected in your request
- InvalidClient - the supplied API USER is not registered with our system
- InvalidSignature - the supplied signature in X-IPS-Auth header is wrong. Possible reasons are: the *signature\_string* was not properly computed, the HMAC algorithm was not properly calculated, the API KEY is wrong or not valid

**Important:** because the signature string relies on a timestamp it is very important to have your server/system time synchronized with a NTP server. The web service allows only a 20 seconds difference between request and server time.

Example for getting all images:

- request : images
- signature\_string : GETimages/test-accountTue, 14 Oct 2008 09:25:06 GMT

## 2. API Reference

The following terminology will be used along the documentation:

- Sample Request - indicates a sample HTTP request sent to web service
- Sample Response - indicates a sample HTTP response returned by the web service
- Exception - the possible errors that the specific method can return

Responses are shown here in XML format but the web service can also return data in JSON.

### **Important:**

- the header values in request/response samples do not contain valid data, this means that you cannot rely on X-IPS-Auth header to contain a correct/valid signature
- the response body is sometimes truncated when it contains repetitive structures

### **Change log**

- added a "date shot" attribute for images to determine when the photo has been taken

## **Authenticate**

### **Authenticate**

#### **Sample Request:**

```
HEAD /authenticate/ HTTP/1.1
```

```
Host: ips.videopublishing.com
```

```
Date: Thu, 17 Jul 2008 14:52:54 GMT
```

```
X-IPS-Client: test-account
```

```
X-IPS-Accept: xml
```

```
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

#### **Sample Response:**

HTTP/1.1 200 OK

Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing  
Content-Length: 795  
Connection: close  
Content-Type: text/xml

## Images

### Get all images

Will return a list with source images and the formats available for each one of them.

#### Parameters:

- tags
  - the associated values must be either a string or an array of tags
  - the method will return all images whose tags match the specified value (or, in case an array of tags is provided, at least one of the values)
  - ex: test
- defaultSearch
  - the associated value must be a string
  - the method will return all images whose name or tags march the specified value
  - ex: my\_first\_image
- any of the attributes returned in the response
  - the value must match the returned value of the attribute

#### Sample Request:

```
GET /images/ HTTP/1.1
```

```
Host: ips.videopublishing.com  
Date: Thu, 17 Jul 2008 14:52:54 GMT  
X-IPS-Client: test-account  
X-IPS-Accept: xml  
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

#### Sample Response:

HTTP/1.1 200 OK

Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing  
Content-Length: 795  
Connection: close  
Content-Type: text/xml

```
<images>  
  <image>  
    <item>4c3853c264a0ae693af9e43673c86593</item>  
    <name>test-image</name>  
    <tags>  
      <tag>test</tag>
```

```

</tags>
<type>png</type>
<formats>
  <format>cbd132e41dc0a41dc137da86bd276ed8</format>
  <format>907f675db983529f10e02c1cc883e617</format>
</formats>
<rules>
  <rule>

cbd132e41dc0a41dc137da86bd276ed8|4c3853c264a0ae693af9e43673c86593
  </rule>
  <rule>

907f675db983529f10e02c1cc883e617|3649f343d68ad58aaa6679823aa4c2fe
  </rule>
</rules>
<width>360</width>
<height>480</height>
<size>877482</size>
<date_shot>2010-07-02</date_shot>
<thumbnail>
  http://ips.static.videopublishing.com/zitec/test_image-
thumbnail.png
</thumbnail>
<preview>
  http://ips.static.videopublishing.com/zitec/
test_image-preview.png
</preview>
<source>
  http://ipws-sources.s3.amazonaws.com/zitec/test_image.jpeg
</source>
<added>2009-05-19T07:27:01+00:00</added>
<number_of_pages>2</number_of_pages>
</image>
.....
</images>

```

## Get the image info

### Sample Request:

```
GET /images/3649f343d68ad58aaa6679823aa4c2fe HTTP/1.1
```

```
Host: ips.videopublishing.com
```

```
Date: Thu, 17 Jul 2008 14:52:54 GMT
```

```
X-IPS-Client: test-account
```

```
X-IPS-Accept: xml
```

```
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response:

HTTP/1.1 200 OK

Date: Thu, 17 Jul 2008 14:52:55 GMT

Server: ImageProcessing

Content-Length: 795

Connection: close

Content-Type: text/xml

```
<image>
  <item>4c3853c264a0ae693af9e43673c86593</item>
  <name>test-image</name>
  <tags>
    <tag>test</tag>
  </tags>
  <type>png</type>
  <raw_formats>
    <raw_format>57120d69aa2079f4621bd06adbe9b836</raw_format>
    <raw_format>e209f4a4d1186d973f67dd2823879a7d</raw_format>
  </raw_formats>
  <date_shot>2010-07-02</date_shot>
  <formats>
    <format>
      &nbsp;      <item>4c3853c264a0ae693af9e43673c86593</item>
      <image>385e23a1e01d206d0cfc872836410932</image>
      <rule>698b62cd1d6e5cbf9cce4c9d7d026181</rule>
      <name>test-image</name>
      <width>320</width>
      <height>480</height>
      <type>jpg</type>
      <state>3</state>
      <size>877482</size>
      <scale_to_fill>1</scale_to_fill>
      <crop>1</crop>
      <link>
        http://ips.static.videopublishing.com/zitec/test_image-
small_format.jpg
      </link>
      <added>2009-05-19T07:27:01+00:00</added>
    </format>
    ...
  </formats>
  <rules>
    <rule>

cbd132e41dc0a41dc137da86bd276ed8|4c3853c264a0ae693af9e43673c86593
  </rule>
  <rule>

907f675db983529f10e02c1cc883e617|3649f343d68ad58aaa6679823aa4c2fe
  </rule>
  </rules>
  <width>360</width>
```

```
<height>480</height>
<size>877482</size>
<thumbnail>
  http://ips.static.videopublishing.com/zitec/test_image-
thumbnail.png
</thumbnail>
<preview>
  http://ips.static.videopublishing.com/zitec/test_image-preview.png
</preview>
<source>
  http://ipws-sources.s3.amazonaws.com/zitec/test_image.jpeg
</source>
<added>2009-05-19T07:27:01+00:00</added>
</image>
```

## Get all formats for an image

### Sample Request:

```
GET /images/3649f343d68ad58aaa6679823aa4c2fe/formats/ HTTP/1.1
```

```
Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response:

```
HTTP/1.1 200 OK
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: ImageProcessing
Content-Length: 795
Connection: close
Content-Type: text/xml
```

```
<formats>
  <format>
    <item>4c3853c264a0ae693af9e43673c86593</item>
    <image>385e23a1e01d206d0cfc872836410932</image>
    <rule>698b62cd1d6e5cbf9cce4c9d7d026181</rule>
    <name>test-image</name>
    <width>320</width>
    <height>480</height>
    <type>jpg</type>
    <state>3</state>
    <size>877482</size>
    <scale_to_fill>1</scale_to_fill>
    <crop>1</crop>
    <link>
```

```
        http://ips.static.videopublishing.com/zitec/test_image-
small_format.jpg
        </link>
        <added>2009-05-19T07:27:01+00:00</added>
    </format>
    ...
</formats>
```

## Get a format's details

### Notes:

- the state attribute can have the following values:
  - 0 - Processing Error
  - 1 - Processing Queue (the format is waiting to be processed)
  - 2 - Processing (the format is currently being processed)
  - 3 - Ready (the format has been processed and is ready to be used)

### Sample Request:

```
GET /images/3649f343d68ad58aaa6679823aa4c2fe/formats/
73b9c82cec3319ad564e1b330691fd9d HTTP/1.1
```

```
Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response:

```
HTTP/1.1 200 OK
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: ImageProcessing
Content-Length: 795
Connection: close
Content-Type: text/xml
```

```
<format>
  <item>73b9c82cec3319ad564e1b330691fd9d</item>
  <image>385e23a1e01d206d0cfc872836410932</image>
  <rule>698b62cd1d6e5cbf9cce4c9d7d026181</rule>
  <name>test-image</name>
  <width>320</width>
  <height>480</height>
  <type>jpg</type>
  <state>3</state>
  <size>877482</size>
  <scale_to_fill>1</scale_to_fill>
  <crop>1</crop>
  <link>
```

```
    http://ips.static.videopublishing.com/zitec/test_image-
medium_format.jpg
  </link>
  <added>2009-05-19T07:27:01+00:00</added>
</format>
```

## Upload a new image

### Notes:

- the name of the images can only contain alphanumeric characters and '\_' (underscore)
- any other characters will automatically be converted to '\_'
- the name of the images must be unique; if an image with the same name already exists, the service will create a unique name by appending a number at the end
- ex: new\_image.png will become new\_image-1.png, then new\_image-2.png etc.
- this also applies when renaming an image
- For a full list of supported formats please see the [Supported Image Formats](#) section at the end of the document

### Sample Request:

```
PUT /images/new_image.png HTTP/1.1

Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833

Expect: 100-continue
100 Continue
```

the image content here

### Sample Response:

```
HTTP/1.1 201 Created

Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: ImageProcessing
Content-Length: 795
Connection: close
Content-Type: text/xml

<item>75e998c8f45bacea6b8418d9c1bc4623</item>
```

## Create a new image format

### Notes:

- type can be either 'plan' or 'rule'; in consequence item will be the ID of either a plan or a rule

### Sample Request:

POST /images/75e998c8f45bacea6b8418d9c1bc4623/formats HTTP/1.1

Host: ips.videopublishing.com  
Date: Thu, 17 Jul 2008 14:52:54 GMT  
X-IPS-Client: test-account  
X-IPS-Accept: xml  
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833  
type=plan&item=b9e21a3a1c831a0adb4dd79e82d77f1f

### Sample Response:

HTTP/1.1 201

Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: VideoPublishing  
Connection: close

## Update the image info

### Notes:

- changing the image name will cause the image to be renamed on the disc (as well as all associated formats)
- when attempting to rename an image, if the preview and thumbnail haven't yet been created, or if a format is currently being processed the renaming will be cancelled and an 409 error will be sent (if tags have been provided they will still be saved)
- the "date\_shot" attribute should have this format: "yyyy-mm-dd"

### Sample Request:

POST /images/75e998c8f45bacea6b8418d9c1bc4623 HTTP/1.1

Host: ips.videopublishing.com  
Date: Thu, 17 Jul 2008 14:52:54 GMT  
X-IPS-Client: test-account  
X-IPS-Accept: xml  
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833  
name=image\_name&tags[]=test&tags[]=new&date\_shot=2010-07-02

### Sample Response:

HTTP/1.1 204 NO CONTENT

Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing  
Connection: close

## Delete an image

### Notes:

- when an image is deleted all associated formats will also be deleted (and removed from any gallery that might contain them)

### Sample Request:

```
DELETE /images/55ecafc74e562ab83c82efabf7f72441 HTTP/1.1
```

```
Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response:

```
HTTP/1.1 204 No Content

Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: VideoPublishing
Connection: close
```

## Delete an image format

### Note:

- delete image formats will be removed from any gallery that might contain them

### Sample Request:

```
DELETE /images/55ecafc74e562ab83c82efabf7f72441/formats/
e4b765f549fc368f82fcfe737cf8818b HTTP/1.1
```

```
Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response:

```
HTTP/1.1 204 No Content

Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: VideoPublishing
Connection: close
```

## Galleries

### Get all galleries

### Sample Request:

GET /galleries/ HTTP/1.1

Host: ips.videopublishing.com  
Date: Thu, 17 Jul 2008 14:52:54 GMT  
X-IPS-Client: test-account  
X-IPS-Accept: xml  
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833

### Sample Response:

HTTP/1.1 200 OK

Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing  
Content-Length: 795  
Connection: close  
Content-Type: text/xml

```
<galleries>
  <gallerie>
    <item>52c053b0ce97355f0cfd81d190b6a140</item>
    <name>My first image gallery</name>
    <tags>
      <tag>test</tag>
      <tag>first</tag>
    </tags>
    <cover>http://ips.videopublishing.com/zitec/testimage-
thumbnail.png</cover>
    <added>2009-05-19T07:27:01+00:00</added>
    <number_of_pages>3</number_of_pages>
  </gallerie>
  ...
</galleries>
```

## Get information about a gallery

### Sample Request:

GET /galleries/00b3c0c5ba030dc271458228df008499 HTTP/1.1

Host: ips.videopublishing.com  
Date: Thu, 17 Jul 2008 14:52:54 GMT  
X-IPS-Client: test-account  
X-IPS-Accept: xml  
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833

### Sample Response:

HTTP/1.1 200 OK

Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing

Content-Length: 795  
Connection: close  
Content-Type: text/xml

```
<gallery>
  <item>52c053b0ce97355f0cfd81d190b6a140</item>
  <name>My first gallery</name>
  <tags>
    <tag>test</tag>
    <tag>first</tag>
  </tags>
  <cover>http://ips.videopublishing.com/zitec/image-1_360x480.png</cover>
  <formats>
    <format>8e68ef2af67e06e4846a45db781295ac</format>
    <format>2b3930bcefb4a82cd1a4fd6ceae94034</format>
    <format>e88185dded7ac9a451bc6b03995bea55</format>
  </formats>
  <added>2009-05-19T07:27:01+00:00</added>
</gallery>
```

## Get all the images of a gallery

### Sample Request:

```
GET /galleries/52c053b0ce97355f0cfd81d190b6a140/formats HTTP/1.1
```

```
Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response:

```
HTTP/1.1 200 OK
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: ImageProcessing
Content-Length: 795
Connection: close
Content-Type: text/xml
```

```
<formats>
  <format>
    <item>4c3853c264a0ae693af9e43673c86593</item>
    <image>385e23a1e01d206d0cfc872836410932</image>
    <name>test-image</name>
    <width>320</width>
    <height>480</height>
    <type>jpg</type>
    <state>3</state>
    <size>877482</size>
```

```
        <link>
            http://ips.static.videopublishing.com/zitec/test_image-
medium_format.jpg
        </link>
        <thumbnail>
            http://ips.static.videopublishing.com/zitec/test_image-
thumbnail.png
        </thumbnail>
    </format>
    ...
</formats>
```

## Create a new gallery

### Notes:

- if tags are provided, the images with those tags will automatically be added to the gallery
- if tags are provided it is mandatory to also provide a rule ID
- if both tags and a list of images are provided, the list of images will be ignored
- if no tags are provided it is mandatory to provide at least one image

### Sample Request:

```
POST /galleries/ HTTP/1.1
```

```
Host: ips.videopublishing.com
```

```
Date: Thu, 17 Jul 2008 14:52:54 GMT
```

```
X-IPS-Client: test-account
```

```
X-IPS-Accept: xml
```

```
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

```
name=gallery+1&rule=ead9e917812c4d740f28f8bf667aea7e&tags[]=test&tags[]=new
OR
```

```
name=my+first+gallery&formats[]=ead9e917812c4d740f28f8bf667aea7e
```

### Sample Response:

```
HTTP/1.1 100 Continue
```

```
HTTP/1.1 201 Created
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT
```

```
Server: ImageProcessing
```

```
Content-Length: 795
```

```
Connection: close
```

```
Content-Type: text/xml
```

```
<item>81c0d3bb869afc9dca803fcbalf35d25</item>
```

## Edit the gallery info

### Notes:

- editing the tags will change the content of the gallery - it will only contain the images with the specified tags;
- galleries where tags are provided will be automatically populated with images; manually adding / removing images will not be possible;
- only galleries that don't have tags can be populated manually
- if a list of images is provided for a manual gallery, the existing images will be replaced with the new ones

### Sample Request:

POST /galleries/81c0d3bb869afc9dca803fcbaf35d25/ HTTP/1.1

Host: ips.videopublishing.com

Date: Thu, 17 Jul 2008 14:52:54 GMT

X-IPS-Client: test-account

X-IPS-Accept: xml

X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833

name=updated+gallery\_+name&tags[]=update

OR

name=updated+manual+gallery&formats[]=b78dc0b802044e559a2767546b0a9eeb

### Sample Response:

HTTP/1.1 204 NO CONTENT

Date: Thu, 17 Jul 2008 14:52:55 GMT

Server: ImageProcessing

Connection: close

## Add formats to a gallery

### Notes:

- the provided formats will be added to the existing list;
- if a format is already part of the gallery, it will not be added again;
- optionally a new gallery name can be provided, this will update the gallery name to the new one;

### Sample Request:

POST /galleries/81c0d3bb869afc9dca803fcbaf35d25/add HTTP/1.1

Host: ips.videopublishing.com

Date: Thu, 17 Jul 2008 14:52:54 GMT

X-IPS-Client: test-account

X-IPS-Accept: xml

X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833

name=updated+manual+gallery&formats[]=b78dc0b802044e559a2767546b0a9eeb

### Sample Response:

HTTP/1.1 204 NO CONTENT

Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing  
Connection: close

## Remove formats from a gallery

### Sample Request:

```
POST /galleries/81c0d3bb869afc9dca803fcb1f35d25/remove HTTP/1.1
```

```
Host: ips.videopublishing.com  
Date: Thu, 17 Jul 2008 14:52:54 GMT  
X-IPS-Client: test-account  
X-IPS-Accept: xml  
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

```
formats[]=b78dc0b802044e559a2767546b0a9eeb
```

### Sample Response:

```
HTTP/1.1 204 NO CONTENT
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing  
Connection: close
```

## Delete a gallery

### Notes:

- when a gallery is deleted the images it contains will not be affected; they will be kept and can be used in other galleries

### Sample Request:

```
DELETE /galleries/81c0d3bb869afc9dca803fcb1f35d25 HTTP/1.1
```

```
Host: ips.videopublishing.com  
Date: Thu, 17 Jul 2008 14:52:54 GMT  
X-IPS-Client: test-account  
X-IPS-Accept: xml  
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response:

```
HTTP/1.1 204 No Content
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing  
Connection: close
```

## Processing plans

### Get all plans

#### Sample Request:

```
GET /plans/ HTTP/1.1
```

```
Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

#### Sample Response:

```
HTTP/1.1 200 OK
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: ImageProcessing
Content-Length: 795
Connection: close
Content-Type: text/xml
```

```
<plans>
  <plan>
    <item>b9e21a3a1c831a0adb4dd79e82d77f1f</item>
    <name>Processing plan 1</name>
    <rules>
      <rule>ead9e917812c4d740f28f8bf667aea7e</rule>
      <rule>659958caeb8f280832d710c044e58c46</rule>
    </rules>
    <added>2009-05-19T07:27:01+00:00</added>
    <number_of_pages>2</number_of_pages>
  </plan>
  ...
</plans>
```

### Get information about a plan

#### Sample Request:

```
GET /plans/b9e21a3a1c831a0adb4dd79e82d77f1f/ HTTP/1.1
```

```
Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

#### Sample Response:

HTTP/1.1 200 OK

Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing  
Content-Length: 795  
Connection: close  
Content-Type: text/xml

```
<plan>
  <item>b9e21a3a1c831a0adb4dd79e82d77f1f</end>
  <name>Processing plan 1</image>
  <rules>
    <rule>ead9e917812c4d740f28f8bf667aea7e</rule>
    <rule>659958caeb8f280832d710c044e58c46</rule>
  </rules>
  <added>2009-05-19T07:27:01+00:00</added>
</plan>
```

## Get all the rules in a plan

### Sample Request:

GET /plans/b9e21a3a1c831a0adb4dd79e82d77f1f/rules HTTP/1.1

Host: ips.videopublishing.com  
Date: Thu, 17 Jul 2008 14:52:54 GMT  
X-IPS-Client: test-account  
X-IPS-Accept: xml  
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833

### Sample Response:

HTTP/1.1 200 OK

Date: Thu, 17 Jul 2008 14:52:55 GMT  
Server: ImageProcessing  
Content-Length: 795  
Connection: close  
Content-Type: text/xml

```
<rules>
  <rule>
    <item>ead9e917812c4d740f28f8bf667aea7e</item>
    <name>Processing rule 1</name>
    <width>320</width>
    <height>480</height>
    <type>jpg</type>
  </rule>
  ...
</rules>
```

## Create a processing plan

### Sample Request:

POST /plans/ HTTP/1.1

Host: ips.videopublishing.com

Date: Thu, 17 Jul 2008 14:52:54 GMT

X-IPS-Client: test-account

X-IPS-Accept: xml

X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833

name=Processing+plan+1&rules[]=ead9e917812c4d740f28f8bf667aea7&rules[]=659958caeb8f2808

### Sample Response :

HTTP/1.1 100 Continue

HTTP/1.1 201 Created

Date: Thu, 17 Jul 2008 14:52:55 GMT

Server: ImageProcessing

Content-Length: 795

Connection: close

Content-Type: text/xml

<item>ead9e917812c4d740f28f8bf667aea7e</item>

## Edit the plan info

### Notes:

- images already processed with this plan will not be affected

### Sample Request:

POST /plans/ead9e917812c4d740f28f8bf667aea7e HTTP/1.1

Host: ips.videopublishing.com

Date: Thu, 17 Jul 2008 14:52:54 GMT

X-IPS-Client: test-account

X-IPS-Accept: xml

X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833

name=Processing+plan+1&rules[]=ead9e917812c4d740f28f8bf667aea7&rules[]=659958caeb8f2808

### Sample Response:

HTTP/1.1 204 NO CONTENT

Date: Thu, 17 Jul 2008 14:52:55 GMT

Server: ImageProcessing

Connection: close

## Delete a processing plan

### Notes:

- images already processed with this plan will not be affected

### Sample Request:

```
DELETE /plans/ead9e917812c4d740f28f8bf667aea7e HTTP/1.1
```

```
Host: ips.videopublishing.com
```

```
Date: Thu, 17 Jul 2008 14:52:54 GMT
```

```
X-IPS-Client: test-account
```

```
X-IPS-Accept: xml
```

```
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response :

```
HTTP/1.1 204 No Content
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT
```

```
Server: ImageProcessing
```

```
Connection: close
```

## Processing rules

## Get all processing rules

### Sample Request:

```
GET /rules/ HTTP/1.1
```

```
Host: ips.videopublishing.com
```

```
Date: Thu, 17 Jul 2008 14:52:54 GMT
```

```
X-IPS-Client: test-account
```

```
X-IPS-Accept: xml
```

```
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response :

```
HTTP/1.1 200 OK
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT
```

```
Server: ImageProcessing
```

```
Content-Length: 795
```

```
Connection: close
```

```
Content-Type: text/xml
```

```
<rules>
```

```
  <rule>
```

```
    <item>ead9e917812c4d740f28f8bf667aea7e</item>
```

```
    <name>Processing rule 1</name>
```

```
    <width>320</width>
    <height>480</height>
    <type>jpg</type>
    <auto_fit>1</auto_fit>
    <scale_to_fill>1</scale_to_fill>
    <crop>1</crop>
    <added>2009-05-19T07:27:01+00:00</added>
  </rule>
  ...
</rules>
```

## Get information about a processing rule

### Sample Request:

```
GET /rules/ead9e917812c4d740f28f8bf667aea7e HTTP/1.1

Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response:

```
HTTP/1.1 200 OK

Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: ImageProcessing
Content-Length: 795
Connection: close
Content-Type: text/xml
```

```
<rule>
  <item>ead9e917812c4d740f28f8bf667aea7e</item>
  <name>Processing rule 1</name>
  <width>320</width>
  <height>480</height>
  <type>jpg</type>
  <auto_fit>0</auto_fit>
  <scale_to_fill>1</scale_to_fill>
  <crop>1</crop>
  <added>2009-05-19T07:27:01+00:00</added>
</rule>
```

## Create a processing rule

### Notes:

- in order to resize an image and keep its aspect ratio, one of the dimensions can be 0

- ex: if the width is 480, the height is 0 and the aspect ratio of the original image is 4:3, the width of the image will be 480 pixels and the height will automatically be set to 360 pixels
- the name of the rule can only contain alphanumeric characters and '\_' (underscore) and it has to be unique
- if auto\_fit is 1, the image will be resized so it fits within the given dimensions and keeps the aspect ratio
- ex: if the width and height provided for the rule are 480 and 380, the aspect ratio of the original image is 4:3 and auto\_fit is 1 than the width of the formatted image will be 480 but the height will be automatically set to 360 pixels
- compression is an optional attribute and will only be considered if the type is jpeg; the default compression value is 80
- the maximum value for width and height is 65,500 pixels
- the "scale\_to\_fill" parameter scales the image based on the smallest dimension
- it is only used in conjunction with the "auto\_fit" parameter (if auto\_fit = 1)
- ex: "width" is set to 480, "height" to 320, "auto\_fit" to 1 and "scale\_to\_fit" to 1; in this case, if the image is in portrait mode, it will be resized so that the width is 480px and the aspect ratio is kept; if the image is in landscape mode, it will be scaled to the height becomes 320px and the aspect ratio is kept;
- for the same example as above, if the "crop" parameter is set to 1, the image will be cropped so its final dimensions are "width"x"height"
- For a full list of supported formats please see the [Supported Image Formats](#) section at the end of the document

### Sample Request:

```
POST /rules HTTP/1.1
```

```
Host: ips.videopublishing.com
```

```
Date: Thu, 17 Jul 2008 14:52:54 GMT
```

```
X-IPS-Client: test-account
```

```
X-IPS-Accept: xml
```

```
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

```
name=Processing_rule_1&width=320&height=480&type=jpg&auto_fit=1&compression=60&scale_to
```

### Sample Response:

```
HTTP/1.1 100 Continue
```

```
HTTP/1.1 201 Created
```

```
Date: Thu, 17 Jul 2008 14:52:55 GMT
```

```
Server: ImageProcessing
```

```
Content-Length: 795
```

```
Connection: close
```

```
Content-Type: text/xml
```

```
<item>ead9e917812c4d740f28f8bf667aea7e</item>
```

## Delete a processing rule

### Notes:

- images already processed with this rule will not be affected
- when a rule is deleted it will be removed from any processing plans that might contain it

### Sample Request:

```
DELETE /rules/ead9e917812c4d740f28f8bf667aea7e HTTP/1.1
```

```
Host: ips.videopublishing.com
Date: Thu, 17 Jul 2008 14:52:54 GMT
X-IPS-Client: test-account
X-IPS-Accept: xml
X-IPS-Auth: 90a6d325e982f764f86a7e248edf6a660d4ee833
```

### Sample Response :

```
HTTP/1.1 204 No Content

Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: ImageProcessing
Connection: close
```

## 3. Pagination, sorting and filtering

### Pagination

#### Sample request:

```
GET /rules?filters[page]=2
```

#### Expected parameters:

- filters[page] - contains the number of the requested page

#### Sample Response :

```
HTTP/1.1 200 OK

Date: Thu, 17 Jul 2008 14:52:55 GMT
Server: ImageProcessing
Content-Length: 795
Connection: close
Content-Type: text/xml
```

```
<rules>
  <rule>
    <item>ead9e917812c4d740f28f8bf667aea7e</item>
    <name>Processing rule 1</name>
    <width>320</width>
    <height>480</height>
    <type>jpg</type>
    <auto_fit>1</auto_fit>
```

```
        <added>2009-05-19T07:27:01+00:00</added>
        <number_of_pages>2</number_of_pages>
    </rule>
    ...
</rules>
```

## Sorting

### Sample request:

```
GET /images?filters[order_by]=title&filters[order_direction]=desc
```

### Expected parameters:

- filters[order\_by]
  - mandatory
  - the name of the field by which to sort
- filters[order\_direction]
  - optional
  - the direction in which to sort (ascending or descending)
  - can be *asc* or *desc* (default to *asc*)

## Filtering

### Sample request:

```
GET /images?filters[name]=test_image&filters[added]=2009-08-26
```

### Expected parameters:

- an array of filters where the key is the filter name and the value is the filter value

## Data consistency

After a database operation is performed (insert, update, delete), for a very short period of time the data returned by the API might not reflect the latest changes.

If it's important to get the latest changes after such an operation, the API can perform a consistent read. However, this might be slightly slower than a regular read.

### Sample request:

```
GET /images?filters[consistent_read]=1
```

### Notes:

- to do consistent reads, the 'consistent\_read' filter must be applied and its value must be "1" (see the example above)
- consistent reads can be performed only on GET requests

- due to the fact that a consistent read operation can take slightly longer we recommend using this option only after requests that resulted in a change in the database

## 4. Exceptions

Error Code	Error Message	HTTP Status Code
AuthHeaderMissing	Authentication failed because the authorization header is missing	400
AuthTimeDifference	Authentication failed because of an authorization time difference	400
ClientHeaderMissing	Authentication failed because the client identifier is missing	400
DateHeaderMissing	Authentication failed because the date header is missing	400
DuplicateItem	An item with the same attributes already exists	400
DuplicateName	An item with the same name already exists	400
ImageIsProcessing	You can not delete an image while one of its formats is still being processed.	400
InsufficientData	The data you provided is insufficient for performing the requested operation	400
InvalidClient	Authentication failed because the client identifier is not valid	400
InvalidFile	No file was provided for upload	404
InvalidFileType	The supplied file format is not supported	415
InvalidSignature	Authentication failed because the provided signature is not valid	400
InternalServerError	The service encountered an internal error. Please try again in a few moments	500
InvalidParameter	Invalid parameter specified (" + value + ")	404
InvalidResource	Invalid resource specified	400
NoSuchItem	The item you have requested does not exist	404
ReadOnlyFormat	(" + value + ") is a read-only image format. You can not convert images in this format	400
RenameConflict	The file could not be renamed at this time because it is being processed	409
RequestTimeout	The maximum execution time has been exceeded	408

## 5. Supported Image Formats

Tag	Mode	Description
ART	R	PFS: 1st Publisher
ARW	R	Sony Digital Camera Alpha Raw Image Format
AVI	R	Microsoft Audio/Visual Interleaved
AVS	RW	AVS X image
BMP	RW	Microsoft Windows bitmap
CALS	R	Continuous Acquisition and Life-cycle Support Type 1 image
CGM	R	Computer Graphics Metafile
CIN	RW	Kodak Cineon Image Format
CMYK	RW	Raw cyan, magenta, yellow, and black samples
CMYKA	RW	Raw cyan, magenta, yellow, black, and alpha samples
CR2	R	Canon Digital Camera Raw Image Format
CRW	R	Canon Digital Camera Raw Image Format
CUR	R	Microsoft Cursor Icon
CUT	R	DR Halo
DCM	R	Digital Imaging and Communications in Medicine (DICOM) image
DCR	R	Kodak Digital Camera Raw Image File
DCX	RW	ZSoft IBM PC multi-page Paintbrush image
DIB	RW	Microsoft Windows Device Independent Bitmap
DJVU	R	
DNG	R	Digital Negative
DOT	R	Graph Visualization
DPX	RW	SMPTE Digital Moving Picture Exchange 2.0 (SMPTE 268M-2003)
EMF	R	Microsoft Enhanced Metafile (32-bit)
EPDF	RW	Encapsulated Portable Document Format
EPI	RW	Adobe Encapsulated PostScript Interchange format
EPS	RW	Adobe Encapsulated PostScript
EPS2	W	Adobe Level II Encapsulated PostScript
EPS3	W	Adobe Level III Encapsulated PostScript
EPSF	RW	Adobe Encapsulated PostScript
EPSI	RW	Adobe Encapsulated PostScript Interchange format
EPT	RW	Adobe Encapsulated PostScript Interchange format with TIFF preview
EXR	RW	High dynamic-range (HDR) file format developed by Industrial Light & Magic
FAX	RW	Group 3 TIFF
FIG	R	FIG graphics format
FITS	RW	Flexible Image Transport System

FPX	RW	FlashPix Format
GIF	RW	CompuServe Graphics Interchange Format
GPLT	R	Gnuplot plot files
GRAY	RW	Raw gray samples
HALD	R	Identity Hald CLUT Image
HPGL	R	HP-GL plotter language
HRZ	RW	Slow Scane TeleVision
HTML	RW	Hypertext Markup Language with a client-side image map
ICO	R	Microsoft icon
INFO	W	Format and characteristics of the image
INLINE	R	Base64-encoded inline image
JBIG	RW	Joint Bi-level Image experts Group file interchange format
JNG	RW	Multiple-image Network Graphics
JP2	RW	JPEG-2000 JP2 File Format Syntax
JPC	RW	JPEG-2000 Code Stream Syntax
JPEG	RW	Joint Photographic Experts Group JFIF format
MAN	R	Unix reference manual pages
MAT	R	MATLAB image format
MIFF	RW	Magick image file format
MONO	RW	Bi-level bitmap in least-significant-byte first order
MNG	RW	Multiple-image Network Graphics
MPEG	RW	Motion Picture Experts Group file interchange format (version 1)
M2V	RW	Motion Picture Experts Group file interchange format (version 2)
MPC	RW	Magick Persistent Cache image file format
MRW	R	Sony (Minolta) Raw Image File
MSL	RW	Magick Scripting Language
MTV	RW	MTV Raytracing image format
MVG	RW	Magick Vector Graphics.
NEF	R	Nikon Digital SLR Camera Raw Image File
ORF	R	Olympus Digital Camera Raw Image File
OTB	RW	On-the-air Bitmap
P7	RW	Xv's Visual Schnauzer thumbnail format
PALM	RW	Palm pixmap
PAM	W	Common 2-dimensional bitmap format
PBM	RW	Portable bitmap format (black and white)
PCD	RW	Photo CD
PCDS	RW	Photo CD
PCL	W	HP Page Control Language
PCX	RW	ZSoft IBM PC Paintbrush file
PDB	RW	Palm Database ImageViewer Format

PDF	RW	Portable Document Format
PEF	R	Pentax Electronic File
PFA	R	Postscript Type 1 font (ASCII)
PFB	R	Postscript Type 1 font (binary)
PFM	RW	Portable float map format
PGM	RW	Portable graymap format (gray scale)
PICON	RW	Personal Icon
PICT	RW	Apple Macintosh QuickDraw/PICT file
PIX	R	Alias/Wavefront RLE image format
PNG	RW	Portable Network Graphics
PNG8	RW	Portable Network Graphics
PNG24	RW	Portable Network Graphics
PNG32	RW	Portable Network Graphics
PNM	RW	Portable anymap
PPM	RW	Portable pixmap format (color)
PS	RW	Adobe PostScript file
PS2	RW	Adobe Level II PostScript file
PS3	RW	Adobe Level III PostScript file
PSD	RW	Adobe Photoshop bitmap file
PTIF	RW	Pyramid encoded TIFF
PWP	R	Seattle File Works multi-image file
RAD	R	Radiance image file
RAF	R	Fuji CCD-RAW Graphic File
RGB	RW	Raw red, green, and blue samples
RGBA	RW	Raw red, green, blue, and alpha samples
RLA	R	Alias/Wavefront image file
RLE	R	Utah Run length encoded image file
SCT	R	Scitex Continuous Tone Picture
SFW	R	Seattle File Works image
SGI	RW	Irix RGB image
SHTML	W	Hypertext Markup Language client-side image map
SUN	RW	SUN Rasterfile
SVG	RW	Scalable Vector Graphics
TGA	RW	Truevision Targa image
TIFF	RW	Tagged Image File Format
TIM	R	PSX TIM file
TTF	R	TrueType font file
TXT	RW	Raw text file
UIL	W	X-Motif UIL table
UYVY	RW	Interleaved YUV raw image

VICAR	RW	VICAR rasterfile format
VIFF	RW	Khoros Visualization Image File Format
WBMP	RW	Wireless bitmap
WMF	R	Windows Metafile
WPG	R	Word Perfect Graphics File
X	RW	display or import an image to or from an X11 server
XBM	RW	X Windows system bitmap, black and white only
XCF	R	GIMP image
XPM	RW	X Windows system pixmap
XWD	RW	X Windows system window dump
X3F	R	Sigma Camera RAW Picture File
YCbCr	RW	Raw Y, Cb, and Cr samples
YCbCrA	RW	Raw Y, Cb, Cr, and alpha samples
YUV	RW	CCIR 601 4:1:1