

# Image4IO API Specification Doc

API Version	Doc Version	Date	Author	Description
v0.0.1	-	26-July-2018	Image4IO API Team	Not publicly available
v0.0.2	-	28-July-2018	Image4IO API Team	Not publicly available
v0.0.3	v0.0.1	03-Aug-2018	Image4IO API Team	The first documentation for public alpha testing
v.0.0.3	v0.0.2	09-Aug-2018	Image4IO API Team	Usage has been added

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# Usage

## Format

The requests are made in terms of a link. The format is:

- `https://api.image4.io/{version}/{request}`

An example of requesting to **GET** an image named sample.jpg on version v0.0.3 would look like

- `https://api.image4.io/v0.0.3/get?name=sample.jpg`

## Global Parameters

### **Ocp-Apim-Subscription-Key**

**Ocp-Apim-Subscription-Key** is the requestor's subscription key and must be sent in the header with all client requests. The **Ocp-Apim-Subscription-Key** helps the server to validate the request source.

# Methods

## Upload

Upload a chosen file or multiple files to a specified directory

### Request

Method	URL
POST	{version}/upload

Type	Params	Values
HEAD POST GET	Ocp-Apim-Subscription-Key multipart/form-data dir	string file string

#### multipart/form-data

`multipart/form-data` is the requestor's file and must be sent with all **Upload** requests. Length must be between 3 and 20 characters. The file must have one of the following extensions: **.jpg**, **.png**, **.gif**.

After uploading successfully, the file is assigned a unique id.

#### dir [optional]

`dir` is the full path and specifies the directory where the file will be stored. Length must be between 3 and 20 characters. If not specified, it defaults to the user's root folder.

### Response

Status	Response
200	<p>Response will be an object containing a list of the details of the file(s) as well as additional information. Each file has the following structure.</p> <pre>{   "original_name": &lt;original name of uploaded file&gt;,   "name": &lt;name of the file with assigned id&gt;,   "size_in_bytes": &lt;total size of the file in bytes&gt;,   "url": &lt;url of the file&gt;, }</pre>

	<pre> "status": &lt;status response&gt;, "created_at": &lt;date and timestamp of upload&gt; } </pre> <p><b>An example response could be:</b></p> <pre> [   {     "original_name": "sample1.jpg",     "name": "sample1_abcduniqueidxyz.jpg",     "size_in_bytes": "5500",     "url": "https://cdn.image4io/johndoe/sample1_abcduniqueidxyz.jpg",     "status": "uploaded",     "created_at": "2018-08-03T09:15:01.9555404Z"   } ] </pre>
400	There is no file to upload.
401	<pre> {   "statusCode": 401,   "message": "Access denied due to invalid subscription key. Make sure to provide a valid key for an active subscription." } </pre>
401	<pre> {   "statusCode": 401,   "message": "Access denied due to missing subscription key. Make sure to include subscription key when making requests to an API." } </pre>
426	Upgrade required.
500	Internal server error.

# Get

Get a file with a given name

## Request

Method	URL
GET	{version}/get

Type	Params	Values
HEAD GET	Ocp-Apim-Subscription-Key name	string string

name

The full name of the requested file, including path, original name, id and extension.

## Response

Status	Response
200	The requested content that matches the name. For example Content-Type: image/jpeg
400	The specified image does not exist.
400	'name' parameter is not valid.
400	'name' parameter is required.
401	{ "statusCode": 401, "message": "Access denied due to invalid subscription key. Make sure to provide a valid key for an active subscription." }
401	{ "statusCode": 401, "message": "Access denied due to missing subscription key. Make sure to include subscription key when making requests to an API." }

	}
500	Internal server error.

# Copy

Copy a file with a new name

## Request

Method	URL
PUT	{version}/copy

Type	Params	Values
HEAD	Ocp-Apim-Subscription-Key	string
GET	source	string
GET	newname	string

### source

`source` is the file which is going to be copied.

### newname

`newname` is the name of the new file. Length must be between 3 and 20 characters and must include extension.

## Response

Status	Response
200	<p>Response will be an object containing details of the copied file as well as additional information. The object has the following structure:</p> <pre>{   "source_name": &lt;original name of file to be copied&gt;,   "name": &lt;name of the new file with assigned id&gt;,   "size_in_bytes": &lt;total size of the new file in bytes&gt;,   "url": &lt;url of the new file&gt;,   "status": &lt;status response&gt;,   "date": &lt;date and timestamp of upload&gt; }</pre> <p>An example response could be:</p>



	<pre>{   "original_name": "sample_123abc.jpg",   "name": "sampleCopy_n3w1d.jpg",   "size_in_bytes": "5500",   "url":     "https://cdn.image4io/johndoe/sampleCopy_n3w1d.jpg",   "status": "copied",   "date": "2018-08-03T09:20:05.4525404Z" }</pre>
400	The specified image does not exist.
400	'newname' and 'source' parameters are required
400	File path is not valid
401	<pre>{   "statusCode": 401,   "message": "Access denied due to invalid subscription key. Make sure to provide a valid key for an active subscription." }</pre>
401	<pre>{   "statusCode": 401,   "message": "Access denied due to missing subscription key. Make sure to include subscription key when making requests to an API." }</pre>
500	Internal server error.

# Move

Move a file to a different directory

## Request

Method	URL
PUT	{version}/move

Type	Params	Values
HEAD	Ocp-Apim-Subscription-Key	string
GET	source	string
GET	newname	string

### source

`source` is the file which is going to be moved.

### newname

`newname` is the new destination. Length must be between 3 and 20 characters and must include extension.

## Response

Status	Response
200	<p>Response will be an object containing details of the copied file as well as additional information. The object has the following structure:</p> <pre>{   "new_url": &lt;the new complete url&gt;,   "status": &lt;status response&gt;,   "date": &lt;date and timestamp of upload&gt; }</pre> <p>An example response could be:</p> <pre>{   "new_url":     "https://cdn.image4.io/johndoe/moved_m0v3d1d.jpg",</pre>

	<pre> "status": "Moved", "date": "2018-08-03T09:25:25.4575201Z" } </pre>
400	The specified image does not exist.
400	'newname' and 'source' parameters are required
400	File path is not valid
401	<pre> {   "statusCode": 401,   "message": "Access denied due to invalid subscription key. Make sure to provide a valid key for an active subscription." } </pre>
401	<pre> {   "statusCode": 401,   "message": "Access denied due to missing subscription key. Make sure to include subscription key when making requests to an API." } </pre>
500	Internal server error.

# Delete

Delete a file

## Request

Method	URL
DEL	{version}/delete

Type	Params	Values
HEAD GET	Ocp-Apim-Subscription-Key name	string string

**name**

The file that is to be removed.

## Response

Status	Response
200	Deleted.
400	The specified image does not exist.
400	'name' parameter is required.
401	{ "statusCode": 401, "message": "Access denied due to invalid subscription key. Make sure to provide a valid key for an active subscription." }
401	{ "statusCode": 401, "message": "Access denied due to missing subscription key. Make sure to include subscription key when making requests to an API." }
500	Internal server error.



# Fetch

Fetch a source from a link

## Request

Method	URL
POST	{version}/fetch

Type	Params	Values
HEAD	Ocp-Apim-Subscription-Key	string
GET	from	string
GET	name	string

### from

The link that will be fetched from.

### name

The name the fetched file will be saved under. Length must be between 3 and 20 characters and must include extension.

## Response

Status	Response
200	<p>Response will be an object containing details of the fetched file as well as additional information. The object has the following structure:</p> <pre>{   "source_url": &lt;url of file to be fetched&gt;,   "name": &lt;name of the file with assigned id&gt;,   "size_in_bytes": &lt;total size of the file in bytes&gt;,   "url": &lt;url of the file&gt;,   "status": &lt;status response&gt;,   "created_at": &lt;date and timestamp of upload&gt; }</pre>

	<p><b>An example response could be:</b></p> <pre>{   "original_name":     "https://ntdstatic.azureedge.net/logo.png",   "name": "goFetch_f3tch1d.png",   "size_in_bytes": "2749",   "url":     "https://cdn.image4io/johndoe/goFetch_f3tch1d.png",   "status": "Fetched",   "created_at": "2018-08-03T09:30:15.7523401Z" }</pre>
400	Unauthorized image format.
400	'from' and 'name' parameters are required.
401	<pre>{   "statusCode": 401,   "message": "Access denied due to invalid subscription key. Make sure to provide a valid key for an active subscription." }</pre>
401	<pre>{   "statusCode": 401,   "message": "Access denied due to missing subscription key. Make sure to include subscription key when making requests to an API." }</pre>
426	Upgrade required.
500	Internal server error.

# Transformation

## Parameters

Width | `w`

The width of the resulting picture is denoted as `w`. If a transformation takes only one input, either `h` or `w`, but both are entered, it will take `w` as standard.

Height | `h`

The height of the resulting picture is denoted as `h`. If a transformation takes only one input but both are entered, it will disregard `h` and will take `w` instead.

Fit Mode | `fit`

The style of transformation that will be done to the image. Two modes possible:

- `saveratio` - saves the width-to-height ratio of the resulting image. Takes either `w` or `h`.
- `crop` - cuts off the edges. Takes both `w` and `h`. If only one parameter is specified, the cropped image will adjust the other to keep the width-to-height ratio of the original image.

If none specified, it defaults to `saveratio`.

Maximum Width, Minimum Width | `maxw`, `minw`

The maximum or minimum value `w` will be adjusted to if `w` is not specified. Only applicable if `fit` mode is set as `saveratio`.

Maximum Height, Minimum Height | `maxh`, `minh`

The maximum or minimum value `h` will be adjusted to if `h` is not specified. Only applicable if `fit` mode is set as `saveratio`.

Crop Region | `c`

The specified region the image will be cropped in is denoted in `c`. Only applicable if `fit` mode is set as `crop`. The region can be denoted as:

- `top, left`
- `top, right`
- `bottom, left`
- `bottom, right`
- `center`

If no valid region is entered, it defaults to `top, left`.

Format | `f`

The format of the resulting image is denoted in `f`. Formats must be one of the following:



- gif
- png
- jpeg

If none or different formats are entered, it defaults to jpeg.

**Note:** Transforming a gif image will always result in jpeg encoding and **Content-Type: image/gif** header.

**Quality | q**

The resulting quality of the image. Must be a value between 0 and 100. If entered outside of range or not specified, it defaults to 75.

# Important Notice for Alpha Testing

## **Server Cold Start Time**

In our alpha testing server, there is a latency for the first call to the API after a long period of time. Due to having few test users you may experience this latency. After the first successful call, however, successive responses will be more quickly.

# Glossary

## Conventions

- **Client** - Client application.
- **Status** - HTTP status code of response.
- All the possible responses are listed under 'Responses' for each method. Only one of them is issued per request server.
- All response are in JSON format.
- All request parameters are mandatory unless explicitly marked as **[optional]**

## Status Codes

All status codes are standard HTTP status codes. The below ones are used in this API.

**2XX** - Success of some kind

**4XX** - Error occurred in client's part

**5XX** - Error occurred in server's part

Status Code	Description
200	OK
400	Bad request
401	Authentication failure
426	Upgrade required
500	Internal server error