

3D Hubs API documentation - V1.

Purpose

The purpose of the API will be to allow third parties to upload 3D models to the 3D Hubs website in order to enable production of the model by a connected Hub.

In order to achieve this the API offers two functionalities; uploading of STL-files and creating a cart. From there on the customer can be redirected to the 3D Hubs site and continue with his order.

Security and required credentials

Access to the API is restricted and is only accessible by trusted partners. All requests should be signed through OAuth with a consumer key and secret provided by 3D Hubs.

This means all uploaded content will be assigned to the user account of the party implementing the API. Carts will be tagged and traceable.

Technical details

The API works by posting data with Content-Type application/x-www-form-urlencoded to our service.

To specify the exact content type which your client can accept and parse, the Accept header in your request has to be set to one of supported encoding types:

- text/json
- application/json
- text/xml
- application/xml

Services

Uploading of models

Uploading of models is done by submitting a POST request to api/v1/model containing the following data:

Key	Type	Required	Description
file	string	required	Model file data. Base64 and url encoded.

			See file requirements below!
fileName	string	required	Model filename

File requirements are:

- File type is STL.
- Measurement units are millimeters.
- Minimum bounding box for models is 3mm x 3mm x 3mm.

Only the file type is checked on submission, the others will have to be checked by the client using the API.

Response

The service will respond with the following data:

Key	Type	Description
modelId	string	The model id that can later be used to add this model to a cart.
result	string	will read “success” in case of a successful call.

Creating a cart

Creating a cart is done by posting the following information to `api/v1/cart`:

Key	Type	Required	Description
items	array	required	Array like [[modelId => 123, quantity => 1], [modelId => 124, quantity=>5]]
location	struct	optional	Array like [lat => '54', 'lon' => '4.1']
third_party_id	string (255 char long)	optional	An arbitrary string to use at will. Can be used to cross-identify orders to a third party system.

Response

The service will respond with the following data:

Key	Type	Description
order_number	string	The order number.
url	string	The url the customer can be redirected to.
result	string	will read “success” in case of a successful call.

The url will contain a token with which the customer can “claim” the order as theirs. When this is done anonymously the cart will be tied to their session. If the user is already logged in at 3D Hubs it will be connected to that user account. The user can leave and revisit 3D Hubs without losing access to their cart.

Example

An example PHP application implementing this API can be found at:

https://bitbucket.org/bram_rongen/hubs3d_api_example