
Hasty API client library

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Hasty GmbH

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INSTALLATION GUIDE

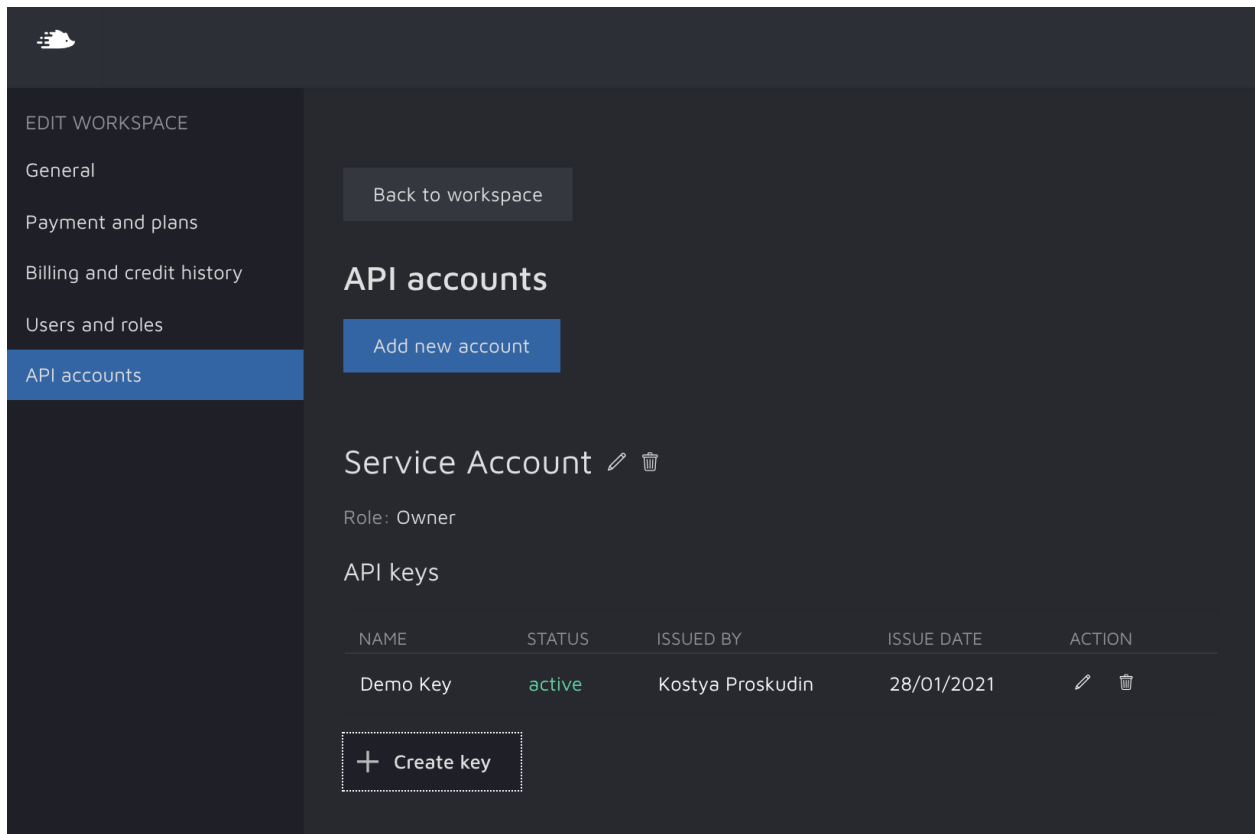
```
pip install hasty
```


QUICK START

2.1 Authentication

In order to communicate with your Hasty server via the API, you must provide valid API Key. The Key can be generated on Edit Workspace page (Hasty -> Edit Workspace -> API Accounts)

You will need to create a service account, define it's role and finally generate API Key:



The screenshot shows the 'API accounts' section of the Hasty interface. On the left is a sidebar with navigation links: 'EDIT WORKSPACE', 'General', 'Payment and plans', 'Billing and credit history', 'Users and roles', and 'API accounts' (which is highlighted). The main content area has a 'Back to workspace' button at the top. Below it is the 'API accounts' heading and an 'Add new account' button. A 'Service Account' is listed with a role of 'Owner'. Underneath, the 'API keys' section contains a table with one key, 'Demo Key', which is 'active' and was issued by 'Kostya Proskudin' on '28/01/2021'. The table has columns for NAME, STATUS, ISSUED BY, ISSUE DATE, and ACTION. Below the table is a '+ Create key' button.

NAME	STATUS	ISSUED BY	ISSUE DATE	ACTION
Demo Key	active	Kostya Proskudin	28/01/2021	 

2.2 Create a Hasty API Client instance

This example shows how to create establish your initial connection to Hasty:

```
from hasty import Client

API_KEY =
↳ "bNZ09SA2hFSZGHa6jfMK2Ywo7GoActTXNCvJR1wEkVDtKv19EMTLRvknwmwUz7Hj11jPwxYBkyGF8BcWV3y9rg
↳ "

h = Client(api_key=API_KEY)
```

2.3 Managing projects

Below you can find an example of how the projects can be created, retrieved, updated or removed. Please note, that every project should belong to some workspace.

```
# Get workspaces that the user account can have access to
workspaces = h.get_workspaces()
print(workspaces)
>> ['Workspace(id="57d9a50e-73a2-47c5-a130-a652fa98d244", name="Hasty Python Library_
↳Workspace")']

# Create new project
default_workspace = workspaces[0]
new_project = h.create_project(workspace = default_workspace,
                               name = "My Awesome Project",
                               description = "Awesome description")
print(new_project)
>> Project(id="75472e11-d6f2-403c-80f6-f0fc83c97041", name="My Awesome Project")

# Get Projects
print(h.get_projects())
>> ['Project(id="75472e11-d6f2-403c-80f6-f0fc83c97041", name="My Awesome Project")']

# Get project by id
h.get_project(new_project.id)
>> Project(id="75472e11-d6f2-403c-80f6-f0fc83c97041", name="My Awesome Project")

# Edit project
new_project.edit(name="Super Awesome Project", description="Amazing description")

# Delete project
new_project.delete()
```


2.4 Managing images

Images in hasty stored in datasets. Similar to folders on your computer, every image should have a unique image name inside the dataset. You can upload image from local file or using url.

```
# Create dataset
train_dataset = new_project.create_dataset("train")
print(train_dataset)
>> Dataset(id="7a55886d-e695-4693-9a3d-7add75c5e74", name="train")

# Upload image from file
image = new_project.upload_from_file(dataset=train_dataset,
                                     filepath='../Datasets/African Wildlife/rhino/001.jpg'
                                     ↪ ')
print(image)
>> Image(id="b58860f1-8da0-4c94-bff7-b7476c3c8f50", dataset_name="train", name="001.jpg")

# Upload from URL
image = new_project.upload_from_url(dataset=train_dataset,
                                    filename='4.jpg',
                                    url='https://www.gstatic.com/webp/gallery/4.jpg')
print(image)
>> Image(id="2dae09ce-ca8a-416f-90e2-a4024515ae95", dataset_name=None, name="4.jpg")

# Retrieve the list of projects images
images = new_project.get_images()
print(images)
>> ['Image(id="b58860f1-8da0-4c94-bff7-b7476c3c8f50", dataset_name="train", name="001.jpg'
    ↪ '),
    'Image(id="2dae09ce-ca8a-416f-90e2-a4024515ae95", dataset_name="train", name="4.jpg")'
    ↪ '']
```

2.5 Managing label classes

Every label in hasty should belongs to some label class.

```
# Create label classes
rhino_class = new_project.create_label_class(name="rhino", color="#6a3d9a", class_type=
    ↪ "object")
sky_class = new_project.create_label_class(name="sky", color="#6a3d9a", class_type=
    ↪ "background")

# Edit label class
sky_class.edit(name="sky", color="#f0e928", class_type="background")

# Get label classes
label_classes = new_project.get_label_classes()
print(label_classes)
>> ['LabelClass(id="1201c994-c0dc-4efa-9892-f9d030320c5d", name="rhino", color="#6a3d9a",
    ↪ type="object", norder=10.0)',
    'LabelClass(id="2c8097bc-6dbf-4753-9485-683aff6171f9", name="sky", color="#f0e928",
    ↪ ']
```

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```
↪ type="background", norder=11.0)']
```

```
# Delete label class  
sky_class.delete()
```

2.6 Managing labels

```
# Create label  
image.create_label(label_class=rhino_class, bbox=[20, 30, 300, 400])  
lbl.edit(label_class=rhino_class, bbox=[120, 130, 300, 400])  
lbl.delete()
```

3.1 Client

```
class hasty.Client(api_key, base_url='https://api.hasty.ai')
```

Client for Hasty API

```
__init__(api_key, base_url='https://api.hasty.ai')
```

Initialize the client

api_key

Your API key

```
get_workspaces()
```

Returns the list of workspaces that the user can have an access to :returns: A list of `Workspace` objects.

```
get_projects()
```

Returns the list of projects :returns: A list of `Project` objects.

```
get_project(project_id)
```

Returns project `Project` by id

Parameters

project_id (*str*) – Project id

```
create_project(workspace: Union[str, Workspace], name: str, description: Optional[str] = None) →  
Project
```

Creates new project `Project`

Parameters

- **workspace** (`Workspace`, *str*) – Workspace object or id which the project should belongs to
- **name** (*str*) – Name of the project
- **description** (*str*, *optional*) – Project description

3.2 Project

```
class hasty.Project(requester, data, obj_params=None)
```

```
    property id
```

```
        type: string
```

```
    property name
```

```
        type: string
```

```
    property description
```

```
        type: string
```

```
    property workspace_id
```

```
        type: string
```

```
    edit(name, description)
```

```
        Edits projects properties
```

```
        Parameters
```

- **name** (*str*) – Name of the project
- **description** (*str*, *optional*) – Project description

```
    delete()
```

```
        Removes project
```

```
    get_datasets()
```

```
        Returns projects datasets Dataset objects.
```

```
    get_dataset(dataset_id: str)
```

```
        Get dataset by id, returns ~hasty.Dataset object
```

```
        Parameters
```

```
        dataset_id (str) – Dataset id
```

```
    create_dataset(name: str, norder: float = 0)
```

```
        Creates a new dataset, returns ~hasty.Dataset object
```

```
        Parameters
```

- **name** (*str*) – Name of the dataset
- **norder** (*float*, *optional*) – Order in the list

```
    get_images(dataset=None, image_status=None)
```

```
        Retrieves the list of projects images.
```

```
        Parameters
```

- **dataset** (*str*, *~hasty.Dataset*, list of *str*, list of *~hasty.Dataset*) – filter images by dataset
- **image_status** (*str*, list of *str*) – Filters images by status, valid values are:
 - "NEW"
 - "DONE",
 - "SKIPPED"
 - "IN PROGRESS"

- "TO REVIEW"
- "AUTO-LABELLED"

get_image(*image_id*)

Retrieves the image by its id.

Parameters

image_id (*str*) – Image ID

upload_from_file(*dataset*, *filepath*, *external_id*: *Optional[str] = None*)

Uploads image from the given filepath

Parameters

- **dataset** (*~hasty.Dataset*, *str*) – Dataset object or id that the image should belongs to
- **filepath** (*str*) – Local path
- **external_id** (*str*) – External ID (optional)

upload_from_url(*dataset*: *Union[Dataset, str]*, *filename*: *str*, *url*: *str*, *copy_original*: *bool = True*, *external_id*: *Optional[str] = None*)

Uploads image from a given URL

Parameters

- **dataset** (*~hasty.Dataset*, *str*) – Dataset object or id that the image should belongs to
- **filename** (*str*) – Filename of the image
- **url** (*str*) – Image url
- **copy_original** (*str*) – If True Hasty makes a copy of the image. Default True.
- **external_id** (*str*) – External ID (optional)

get_label_classes()

Get label classes, list of *LabelClass* objects.

get_label_class(*label_class_id*: *str*)

Get label class by id, returns *~hasty.LabelClass* object

Parameters

label_class_id (*str*) – Label class id

create_label_class(*name*: *str*, *color*: *Optional[str] = None*, *class_type*: *str = 'object'*, *norder*: *Optional[float] = None*, *external_id*: *Optional[str] = None*)

Create label class, returns *LabelClass* object.

Parameters

- **name** (*str*) – Label class name
- **color** (*str*, *optional*) – Color in HEX format #0f0f0faa
- **class_type** (*str*, *optional*) – Class type [object or background] (default object)
- **norder** (*float*, *optional*) – Order in the Hasty tool
- **external_id** (*str*, *optional*) – External Identifier

get_tag_classes()

Get tag classes, list of *TagClass* objects.

get_tag_class(*tag_class_id: str*)

Get tag class by id, returns *~hasty.TagClass* object

Parameters

tag_class_id (*str*) – Tag class id

create_tag_class(*name: str, norder: Optional[float] = None*)

Create tag class, returns *TagClass* object.

Parameters

- **name** (*str*) – Tag class name
- **norder** (*float, optional*) – Order in the Hasty tool

get_attributes()

Get label classes, list of *Attribute* objects.

create_attribute(*name: str, attribute_type: str, description: Optional[str] = None, norder: Optional[float] = None, values: Optional[List[str]] = None*)

Create attribute, returns *Attribute* object.

Parameters

- **name** (*str*) – Attribute name
- **attribute_type** (*str*) – Attribute type ['SELECTION', 'MULTIPLE-SELECTION', 'TEXT', 'INT', 'FLOAT', 'BOOL']
- **description** (*str, optional*) – Attribute description
- **norder** (*float, optional*) – Order in the Hasty tool
- **values** (*list of str*) – List of values for SELECTION and MULTIPLE-SELECTION attribute type

get_attribute_classes()

Get attributes - class mapping. Returns list of dict with a keys:

- **attribute_id** - Attribute ID
- **class_id** - Class ID
- **attribute_order** - Order of attributes within the class
- **class_order** - Order of classes within the attribute

set_attribute_classes(*attribute_classes*)

Set attribute - class mapping

Parameters

- **attribute_classes** (*dict*) –
- **ID** (- *class_id* - *Class*) –
- **ID** –
- **class** (- *attribute_order* - *Order of attributes within the*) –
- **attribute** (- *class_order* - *Order of classes within the*) –

delete_attribute_classes(*attribute_classes*)

Removes attribute - class mapping

Parameters

- **attribute_classes** (*dict*) –
- **ID** (- *class_id* - *Class*) –
- **ID** –
- **class** (- *attribute_order* - *Order of attributes within the*) –
- **attribute** (- *class_order* - *Order of classes within the*) –

export(*name: str, export_format: str, dataset: Optional[Union[Dataset, str, List[Dataset], List[str]]] = None, image_status: Union[str, List[str]] = 'DONE', sign_urls: bool = False, semantic_format: str = 'gs_asc', labels_order: Optional[List[str]] = None*)

Initiate export job. Returns `ExportJob` object.

Parameters

- **name** (*str*) – Name of the export file
- **export_format** (*str*) – Export format one of ["json_v1.1", "semantic_png", "json_coco", "images"]
- **dataset** (*~hasty.Dataset, str, list of ~hasty.Dataset, list of str*) – List of the datasets to export
- **image_status** (*list of str, str*) – List of the image statuses to export. Default DONE
- **sign_urls** (*bool*) – Whether to generate sign urls for images. Default False
- **semantic_format** (*str*) – Format for semantic_png export. ["gs_desc", "gs_asc", "class_color"]
- **labels_order** (*list of str*) – Draw order for semantic_png export ["z_index", "class_type", "class_order"]

get_detector()

Returns object detection model. Returns `Detector` object.

get_instance_segmentor()

Returns instance segmentation model. Returns `InstanceSegmentor` object.

get_semantic_segmentor()

Returns semantic segmentation model. Returns `SemanticSegmentor` object.

get_attributer()

Returns active attributer model for the project. Returns `Attributer` object.

get_automated_labeling_jobs()

Get automated labeling jobs, list of `AutomatedLabelingJob` objects.

get_automated_labeling_job(*job_id: str*)

Get automated labeling jobs, list of `AutomatedLabelingJob` objects.

Parameters

- **job_id** (*str*) – Automated labeling job id

```
create_automated_labeling_job(experiment_id: str, confidence_threshold: float = 0.8,  
                             max_detections_per_image: int = 100, num_images: int = 0,  
                             masker_threshold: float = 0.5, dataset_id: Optional[str] = None)
```

Create automated labeling job, returns AutomatedLabelingJob object.

Parameters

- **experiment_id** (*str*) – ID of an experiment, that would be used for automated labeling
- **confidence_threshold** (*float, optional*) – Confidence threshold of the predictions that should be applied (default 0.8)
- **max_detections_per_image** (*int, optional*) – Max number of labels that should be created, default 100
- **num_images** (*int, optional*) – Total number of images that should be used for automated labeling (default all)
- **masker_threshold** (*float, optional*) – Threshold for mask head (default 0.5)
- **dataset_id** (*str, optional*) – Filter images by dataset

3.3 Dataset

```
class hasty.Dataset(requester, data, obj_params=None)
```

```
    property id
```

```
        type: string
```

```
    property name
```

```
        type: string
```

```
    property project_id
```

```
        type: string
```

```
    property norder
```

```
        type: float
```

```
    edit(name: str, norder: float)
```

```
        Edit dataset properties
```

Parameters

- **name** (*str*) – Name of the dataset
- **norder** (*float*) – Order in the list

```
    delete()
```

```
        Removes dataset
```


3.4 Image

```
class hasty.Image(requester, data, obj_params=None)
```

property id

type: string

property name

type: string

property project_id

type: string

property dataset_id

type: string

property dataset_name

type: string

property width

type: int

property height

type: int

property status

type: string

property public_url

type: string

property external_id

type: string

get_labels()

Returns image labels (list of ~hasty.Label objects)

create_label(label_class: Union[LabelClass, str], bbox: Optional[List[int]] = None, polygon: Optional[List[List[int]]] = None, mask: Optional[List[int]] = None, z_index: Optional[int] = None, external_id: Optional[str] = None)

Create label

Parameters

- **label_class** (LabelClass, str) – Label class or label class ID of the label
- **bbox** (list of int) – Coordinates of bounding box [x_min, y_min, x_max, y_max]
- **polygon** (list) – List of x, y pairs [[x0, y0], [x1, y1], ..., [x0, y0]]
- **mask** (list of int) – RLE Encoded binary mask, (order right -> down)
- **z_index** (int) – Z index of the label. A label with greater value is in front of a label with a lower one.
- **external_id** (str, optional) – External Identifier

create_labels(labels)

Create multiple labels. Returns a list of *~hasty.Label* objects

Parameters

labels (*list of dict*) – List of labels, keys: class_id: Label class ID of the label bbox: Coordinates of bounding box [x_min, y_min, x_max, y_max] polygon: List of x, y pairs [[x0, y0], [x1, y1], ... [x0, y0]] mask: RLE Encoded binary mask, (order right -> down) z_index: Z index of the label. external_id: External Identifier

edit_labels(labels)

Updates multiple labels. Returns a list of *~hasty.Label* objects

Parameters

labels (*list of dict*) – List of labels, keys: label_id: Label id class_id: Label class ID of the label bbox: Coordinates of bounding box [x_min, y_min, x_max, y_max] polygon: List of x, y pairs [[x0, y0], [x1, y1], ... [x0, y0]] mask: RLE Encoded binary mask, (order right -> down) z_index: Z index of the label. external_id: External identifier

delete_labels(label_ids: List[str])

Removes multiple labels

Parameters

label_ids (*list of str*) – Returns list of ids

set_status(status: str)

Set image status

Parameters

status – New status one of [“NEW”, “DONE”, “SKIPPED”, “IN PROGRESS”, “TO RE-VIEW”]

download(filepath: str)

Downloads image to file

Parameters

filepath (*str*) – Local path

rename(new_name: str)

Rename image

Parameters

new_name (*str*) – New image name

move(dataset: Union[Dataset, str])

Move image to another dataset

delete()

Removes image

get_tags()

Returns image tags (list of *~hasty.Tag* objects)

add_tags(tags: List[Union[Dict, TagClass]])

Create multiple tags. Returns a list of *~hasty.Tag* objects

Parameters

tags (list of dict/*~hasty.TagClass*) – List of tags, keys: tag_class_id: Tag class ID

delete_tags(tags: List[Union[Dict, Tag, TagClass]])

Removes multiple tags

Parameters

tags (list of dict/~hasty.Tag/~hasty.TagClass) – List of tags, keys: tag_id: Tag ID of the label (optional if tag_class_id is specified) tag_class_id: Tag class ID of the label (optional if id is specified)

3.5 LabelClass

class hasty.LabelClass(requester, data, obj_params=None)

property id

type: string

property name

type: string

property project_id

type: string

property color

type: string

property class_type

type: string

property norder

type: float

property external_id

type: string

edit(name, color=None, class_type='object', norder=None, external_id=None)

Edit label class properties

Parameters

- **name** (str) – Label class name
- **color** (str, optional) – Color in HEX format #0f0faa
- **class_type** (str, optional) – Class type [object or background] (default object)
- **norder** (float, optional) – Order in the Hasty tool
- **external_id** (str, optional) – External identifier

delete()

Deletes label class

3.6 TagClass

```
class hasty.TagClass(requester, data, obj_params=None)

    property id
        type: string
    property name
        type: string
    property project_id
        type: string
    property norder
        type: float
    edit(name, norder=None)
        Edit tag class properties

        Parameters
        • name (str) – Ta class name
        • norder (float, optional) – Order in the Hasty tool
    delete()
        Deletes tag class
```

3.7 Attribute

```
class hasty.Attribute(requester, data, obj_params=None)

    property id
        type: string
    property name
        type: string
    property project_id
        type: string
    property attribute_type
        type: string
    property description
        type: string
    property norder
        type: float
    property values
        type: Dict
```

edit(*name: str, attribute_type: str, description: Optional[str] = None, norder: Optional[float] = None, values: Optional[List[str]] = None*)

Edit attribute properties

Parameters

- **Args** –
- **name** (*str*) – Attribute name
- **attribute_type** (*str*) – Attribute type ['SELECTION', 'MULTIPLE-SELECTION', 'TEXT', 'INT', 'FLOAT', 'BOOL']
- **description** (*str, optional*) – Attribute description
- **norder** (*float, optional*) – Order in the Hasty tool
- **values** (*list of str*) – List of values for SELECTION and MULTIPLE-SELECTION attribute type

delete()

Deletes attribute

3.8 Label

class hasty.Label(*requester, data, obj_params=None*)

property id

type: string

property project_id

type: string

property image_id

type: string

property class_id

type: string

property bbox

type: string

property polygon

type: string

property mask

type: string

property z_index

type: string

property external_id

type: string

edit(*label_class, bbox=None, polygon=None, mask=None, z_index=None, external_id=None*)

Update label properties

Parameters

- **label_class** (*LabelClass*, *str*) – Label class or label class ID of the label
- **bbox** (*list of int*) – Coordinates of bounding box [x_min, y_min, x_max, y_max]
- **polygon** (*list*) – List of x, y pairs [[x0, y0], [x1, y1], ..., [x0, y0]]
- **mask** (*list of int*) – RLE Encoded binary mask, (order right -> down)
- **z_index** (*float*) – Z index of the label. A label with greater value is in front of a label with a lower one.
- **external_id** (*str*, *optional*) – External Identifier

delete()

Delete label

get_attributes()

Get attributes values, list of *LabelAttribute* objects.

set_attribute(*attribute*, *value*)

Set label attribute

Parameters

- **attribute** (*~hasty.Attribute*, *str*) –
- **value** (*str*, *float*, *int*, *bool*, *list of str*) –

3.9 Tag

class *hasty.Tag*(*requester*, *data*, *obj_params=None*)

property *id*

type: string

property *tag_class_id*

type: string

property *project_id*

type: string

property *image_id*

type: string

property *tag_class_name*

type: string

3.10 Attributer

class *hasty.Attributer*(*requester*, *data*, *obj_params=None*)

discover_model()

Performs model discovery and loads model to GPU

predict (*image_url*: *Optional[str] = None*, *image_path*: *Optional[str] = None*, *bboxes*: *Optional[List[List[str]]] = None*, *confidence_threshold*: *float = 0.5*)

Returns predictions for provided image.

Parameters

- **image_url** (*str*) – Image URL
- **image_path** (*str*) – Path to local image file
- **bboxes** (*list of list of int*) – List of bounding boxes [x_min, y_min, x_max, y_max]
- **confidence_threshold** (*float*) – Confidence threshold [0, 1] (default 0.5)

Returns

- **bbox** (list of int): Coordinates of bounding box [x_min, y_min, x_max, y_max]
- **attribute_id** (str): Attribute id
- **lov_ids** (list of str): List of attribute values

Return type

List of List of dict

3.11 Detector

class `hasty.Detector`(*requester*, *data*, *obj_params=None*)

discover_model()

Performs model discovery and loads model to GPU

predict (*image_url*: *Optional[str] = None*, *image_path*: *Optional[str] = None*, *confidence_threshold*: *float = 0.5*, *max_detections_per_image*: *int = 100*)

Returns predictions for provided image.

Parameters

- **image_url** (*str*) – Image URL
- **image_path** (*str*) – Path to local image file
- **confidence_threshold** (*float*) – Confidence threshold [0, 1] (default 0.5)
- **max_detections_per_image** (*int*) – Maximum detections per image (default 100)

Returns

- **bbox** (list of int): Coordinates of bounding box [x_min, y_min, x_max, y_max]
- **score** (float): Confidence score
- **class_id** (str): Label class ID

Return type

List of dict

3.12 InstanceSegmentor

```
class hasty.InstanceSegmentor(requester, data, obj_params=None)
```

```
    discover_model()
```

Performs model discovery and loads model to GPU

```
    predict(image_url: Optional[str] = None, image_path: Optional[str] = None, confidence_threshold: float = 0.5, max_detections_per_image: int = 100)
```

Returns predictions for provided image.

Parameters

- **image_url** (*str*) – Image URL
- **image_path** (*str*) – Path to local image file
- **confidence_threshold** (*float*) – Confidence threshold [0, 1) (default 0.5)
- **max_detections_per_image** (*int*) – Maximum detections per image (default 100)

Returns

- **bbox** (list of int): Coordinates of bounding box [x_min, y_min, x_max, y_max]
- **mask** (list of int): RLE Encoded binary mask, (order right -> down)
- **score** (float): Confidence score
- **class_id** (str): Label class ID

Return type

List of dict

3.13 SemanticSegmentor

```
class hasty.SemanticSegmentor(requester, data, obj_params=None)
```

```
    discover_model()
```

Performs model discovery and loads model to GPU

```
    predict(image_url: Optional[str] = None, image_path: Optional[str] = None, min_size: float = 0.0)
```

Returns predictions for provided image.

Parameters

- **image_url** (*str*) – Image URL
- **image_path** (*str*) – Path to local image file
- **min_size** (*float*) – Ignore prediction with an area less than min_size

Returns

- **bbox** (list of int): Coordinates of bounding box [x_min, y_min, x_max, y_max]
- **mask** (list of int): RLE Encoded binary mask, (order right -> down)
- **class_id** (str): Label class ID

Return type

List of dict

LABEL UTILS

`hasty.label_utils.rle_encoding(x: array)`

Encode binary mask to RLE

Parameters

x (*np.array*) – numpy array of shape (height, width), 1 - mask, 0 - background

Returns run length as list

`hasty.label_utils.rle_decode(mask_rle: List[int], shape: Tuple[int])`

Decodes mask from RLE format to binary mask. Returns numpy array, 1 - mask, 0 - background

Parameters

- **mask_rle** (*list*) – run-length as string formatted (start length)
- **shape** (*tuple*) – (width, height) of array to return

`hasty.label_utils.yolo2hasty(yolo_bbox: List[float], image_width: int, image_height: int)`

Converts normalized YOLO bbox format (Xn_center, Yn_center, Wn, Hn) to Hasty format (x_min, y_min, x_max, y_max)

Parameters

- **yolo_bbox** (*list of floats*) – Normalized coordinates [X_center, Y_center, W, H] example [0.3, 0.4, 0.1, 0.25]
- **image_width** (*int*) – Image width
- **image_height** (*int*) – Image height

`hasty.label_utils.polygon2box(polygon: List[List[int]])`

Converts polygon to bounding box [x_min, y_min, x_max, y_max]

Parameters

polygon – List of x, y pairs [[x0, y0], [x1, y1], ... [x0, y0]]

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