# About the API

in Basics

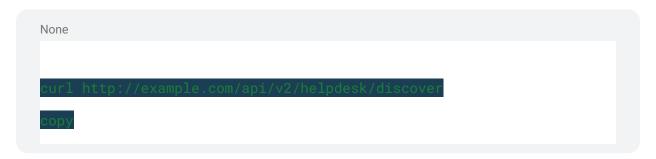
### **Authors list**

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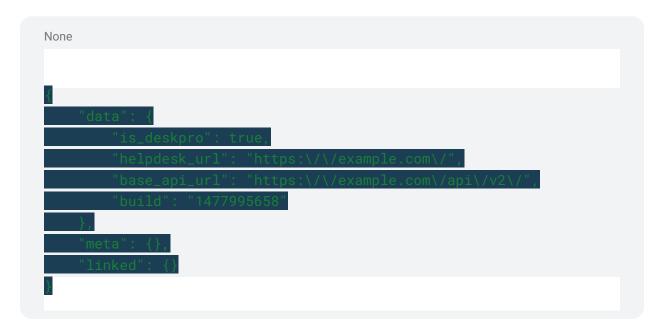
The Deskpro API is a *REST* API that runs over HTTP(S). All API requests are made to a URL that begins with <a href="http://example.com/api/v2/">http://example.com/api/v2/</a>.

The API uses *JSON* for requests and responses. There are a few exceptions to this rule where an API is explicitly designed to return a specific kind of resource. Those will be noted within the documentation.

Here's an example call made to the <a href="helpdesk/discover">helpdesk/discover</a> endpoint:



The response will look something like this:



# Request Format

in Basics

#### Authors list

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The Deskpro API is completely JSON.

- You SHOULD send a Accept: application/json to confirm that your app is expecting JSON back from the API.
- You MUST send POST/PUT requests with a Content-Type: application/json header and send a well-formed JSON payload.

## **HTTP Verbs**

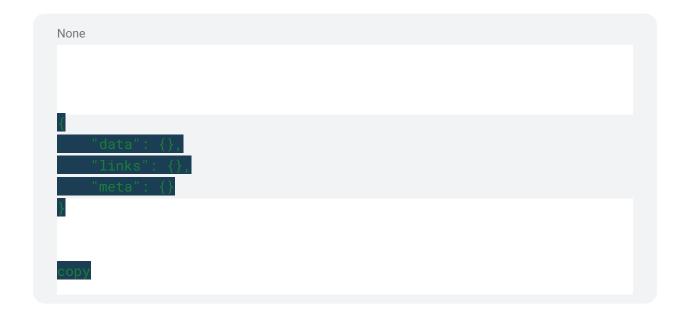
The HTTP verb you use is meaningful. Here's a summary of the HTTP verbs you can use with the Deskpro API and what they mean:

Verb	Description	Example
GET	Get a single resource or collection	GET /tickets or GET /tickets/13

DELETE	Delete a single resource	DELETE /ticket/13
POST	Create something new	POST /tickets
PUT	Update an existing resource	PUT /tickets/13

# **Response Format**

When you perform a **GET** request to load a resource or a collection, you'll get a response like this.



data is the JSON representation of the resource requested, or an array of objects if you requested a collection

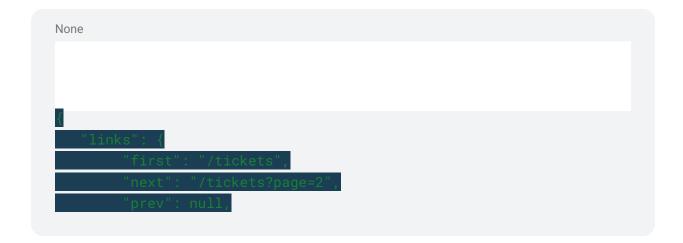
- links optional; when specified, it is an array of useful links. Resource collections always include links for "next", "prev", "first", "last".
- meta optional; misc information that varies based on endpoint. Resource collections should include "count", "total\_count\*, "page", "total\_pages".

## **Collection Responses**

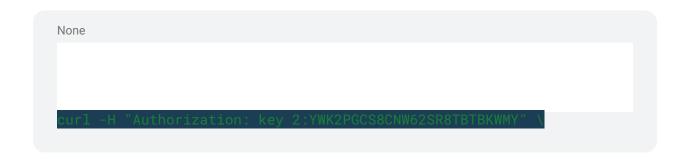
Example request to /tickets which is a collection resource:



Example response of a collection resource



Example fetching ticket objects for 3 specific ticket IDs



http://example.com/api/v2/tickets?ids=123,456,789

During a resource collection request, you can specify the following optional query parameters:

- count the number of results to return
- pagethe page you are requesting

Collection responses are always an array of objects inside of data.

links will contain some useful links to help you paginate:

- next URL to the next page of results
- prev URL to the previous page of results
- self URL to the page you requested
- first URL to the first page of results
- last URL to the last page of results

meta will contain some useful data:

- total is the total count (all matching resources)
- page is current page number
- per page is a count of the number of resources returned to you on this page
- total pages is the total number of pages for this request

Tip: Most collections accept a ids parameters

Most collection resources accept an ids parameter where you can provide specific IDs for resources you want to retrieve. This makes it easy to load multiple objects at once.

### **Creating and Updating Content**

When you create a resource with POST, the API will return a 201 Created response. When you update a resource with a PUT request, the API will simply return a 204 No Content empty response to acknowledge that the request succeeded.

In both cases, a Location header will be supplied with the full URL to the API endpoint where you can GET the resource.

TIP: If you would rather your POST/PUT request return the full resource automatically (i.e. you want to use it right away), you can submit your request with the ?follow\_location=1 query string parameter. This will cause the API to return the resource as if you did the GET yourself.

### **Common HTTP Status Codes**

The HTTP status codes that the API returns is significant. Here is a list of common return codes.

Code	Verbs	Example

200	GET	found and returned response is described above
404	Any	resource not found
201	POST	created resource the created entity is in the response (including "self" and "data" links)
204	PUT	updated resource no body will be in the response
400	Any	Bad Request malformed request or invalid input
401	Any	unauthorized you are not authenticated
403	Any	forbidden we accept your token, but you can't perform this action, no resource has been updated

405	Any	method not allowed
429	Any	too many requests throttle/rate-limit hit
423	Any	Locked Special code we use when the helpdesk is offline for maintenance

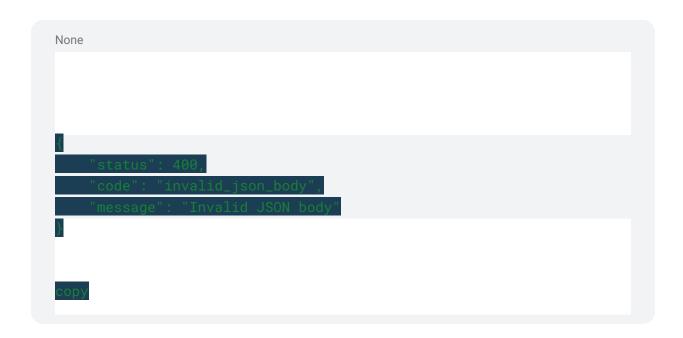
### **API Key Limits**

You can specify API limits on every API key you create. For example, it is not uncommon to set an upper limit on an API key to prevent some kind of mistake in its use (such as a flood or infinite loop situation). You can define these limits in terms of an hourly limit or a daily limit.

For cloud customers, there is also a default global limit to prevent abuse. You can raise this on request by contacting us at support@deskpro.com.

When you hit a rate limit, requests will begin to fail with an HTTP status code 429 Too Many Requests error.

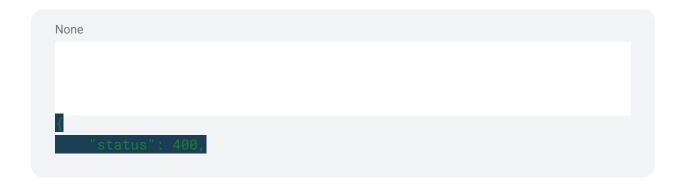
## **Error Responses**

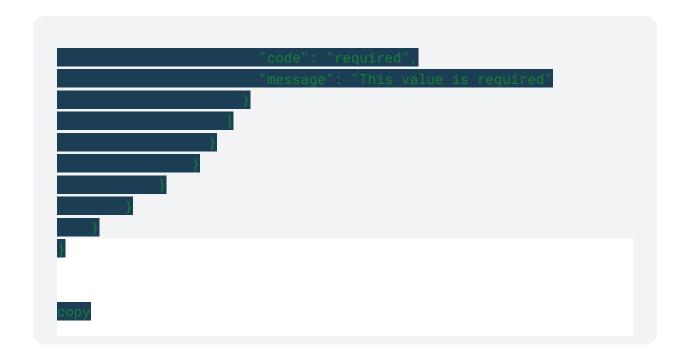


Error responses are also JSON and follow the shape described here.

- The status will be the HTTP status code that most closely matches the error.
- The code is a Deskpro-specific string to represent the specific error that happened. You may wish to use this value in your code in an if/switch etc to base your error handling on.
- The message is a human-readable English string that describes what went wrong. This value is typically only useful for developers.

### **Detailed Errors**





In some cases, detailed error messages are available, such as when there are form validation errors.

The root errors property is an object that has two properties:

- errors is a JSON array of error objects that happened on a global level (not specific to any one input).
- errors.fields is a JSON object that has a property for every expected input name that had an error. Inside of each field is a property named "errors" which is an array of error objects (code/message).

# **Batch Requests**

in Basics

#### **Authors list**

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Sometimes you want to perform multiple queries all at once. For example, maybe you need to load a few collections to populate a form. Normally you would need to submit multiple HTTP requests which could be slow.

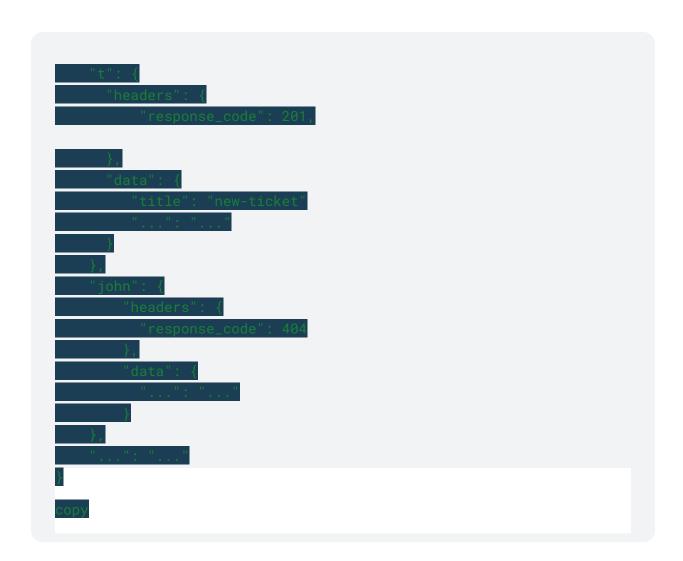
You POST a map to the /batch endpoint describing the requests you want to submit. The system will process all of your requests at once, and send you back a single result object. The keys of the result will be the same keys you submitted.

Example request using a key-value map of requests to execute in a batch:



Example response where each response uses the same key you sent in the request:

None			
{			



# **POST /batch**

## Post an object/map

Property	Description	Example
Note: KEY	Any arbitrary string you want to use to identify the request.	req_1, department_info, foobar, 12

KEY.url	The API endpoint you want to call. You can also specify query-string params here.	<pre>/api/v2/me, /api/v2/tickets?page=2</pre>
KEY.method	(optional) GET, POST, DELETE, PUT	Defaults to GET
KEY.payload	(optional) When using POST/PUT, this is the JSON object you want to submit as the payload itself.	{"foo": "bar"}

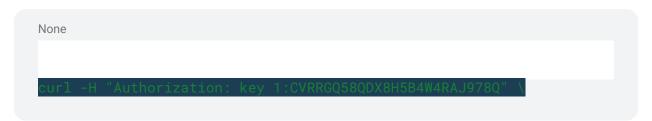
# **GET /batch -- Short GET Syntax**

You can also use the short GET syntax to process multiple GET requests all at once by specifying multiple get[KEY] = endpoint\_path parameters.

Property	Description	Example
Note: KEY	Any arbitrary string you want to use to identify the request.	<pre>req_1, department_info, foobar, 12</pre>
get[KEY]	The API endpoint to fetch	/api/v2/me, /api/v2/tickets

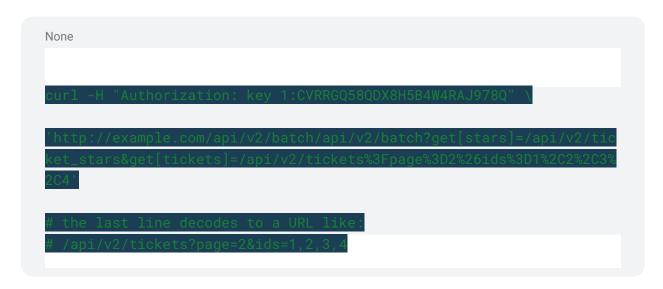
If you need to specify parameters for any of the <code>get[KEY]</code> calls (for example, to specify a page number), you can use the extended syntax.

## Example GET call:





Here's an example where the endpoint contains parameters. You need to encode '?' and '&' so they don't get read by the main batch request itself.



# Sideloading

in Basics

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Most objects in Deskpro have other objects that are related to them. For example, a ticket has various users associated with it such as the creator, the assigned agent and any followers or CC'd users.

By default, the API will only return the IDs of these related objects and if you needed more information, you would need to use the API again to fetch the objects you wanted (for example, to get the actual title of the department a ticket was in).

However, this is tedious if you are doing it a lot. For this reason, the Deskpro API has the idea of *side-loading* which instructs the API to return related objects of certain types. You do this by specifying the type of object you want to side-load in the request as a query parameter: <a href="include=type1">include=type1</a>, type2, type3.

### Examples:

- /tickets/123?include=department
- /tickets/123?include=department, person, category, product, workflow
- /people/456?include=usergroup

When you specify an include parameter, the related objects are returned in the response under the linked object. You'll get properties like linked.TYPENAME.ID.

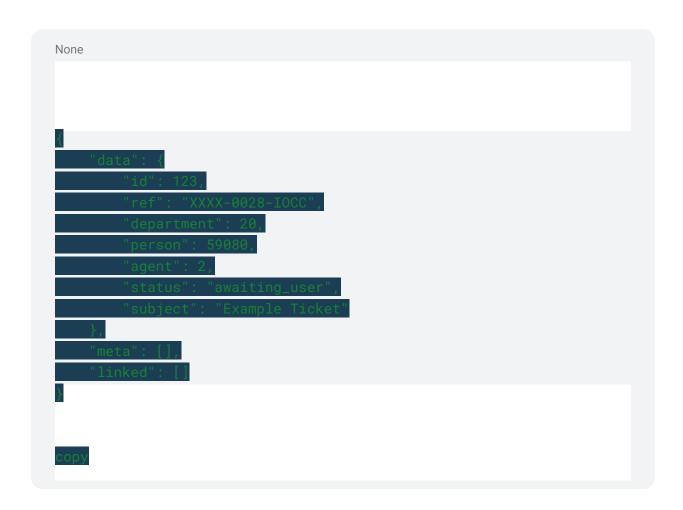
(Note that the actual data response stays the same. Your own app logic will need to connect the ID from the data to the object returned in the linked section.)

Example ticket response without side loading

curl -H "Authorization: key 1:CVRRGQ58QDX8H5B4W4RAJ978Q" \	"Authorization: key 1:CVRRGQ58QDX8H5B4W4RAJ978Q" \	
http://example.com/api/v2/tickets/123	p://example.com/api/v2/tickets/123	

copy

Example response. Notice how we have IDs for various relationships such as the person, agent, or department.



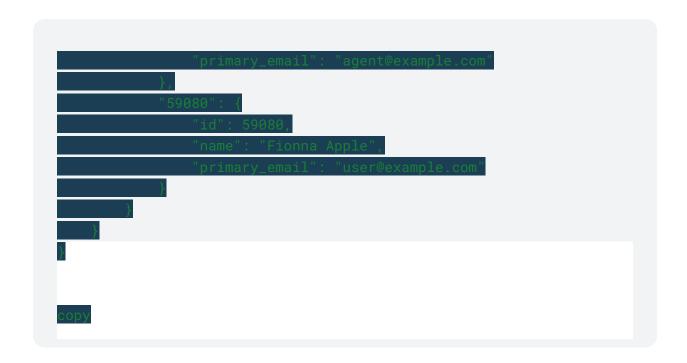
Example WITH sideloading on department and person

None

```
curl -H "Authorization: key 1:CVRRGQ58QDX8H5B4W4RAJ978Q" \
    http://example.com/api/v2/tickets/123?include=department,person
copy
```

Example response with sideloaded objects

```
None
```



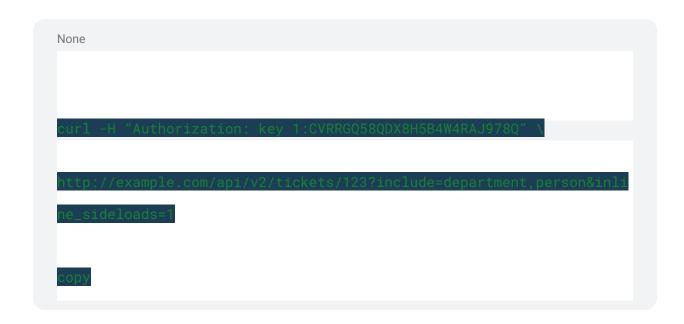
## **Inline Sideloading**

Above you saw that sideloading loads related resources into the linked key in the response. That means it's still up to you, the developer, to map an ID from the data to the correct value in linked.

To make this even easier, you can choose to *inline* the data. This replaces the IDs with the actual object itself, making consuming requests very very easy.

To enable inlining, you specify a query parameter inline sideloads=1.

Same example above but with inlining enabled:



Example response with sideloaded objects

```
None

"data": 4

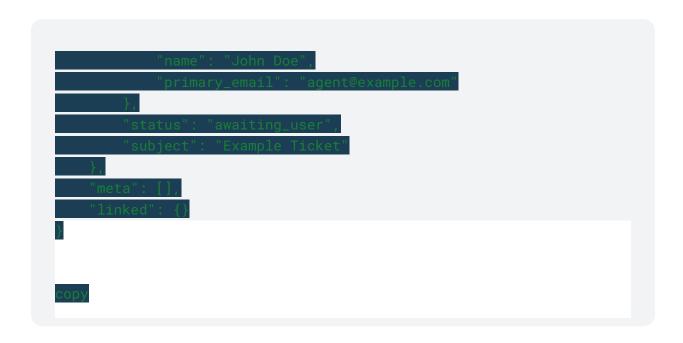
"id": 123

"ref": "XXXX-0028-IOCC",

"department": {
        "id": 20,
        "title": "Support
}

"person": {
        "id": 59080
        "name": "Fionna Apple"
        "primary_email": "user@example.com"
}.

"agent":
        "id": 2,
```



Inlining can make your life easier, but it comes at the cost of *data duplication*. For example, if you loading a list of 100 tickets, then the same agent might be assigned to many different tickets. Inlining would copy the agent data in multiple places which would increase the size of the response considerably.

So it's often beneficial to keep the default behavior and link IDs to linked objects in your application logic.