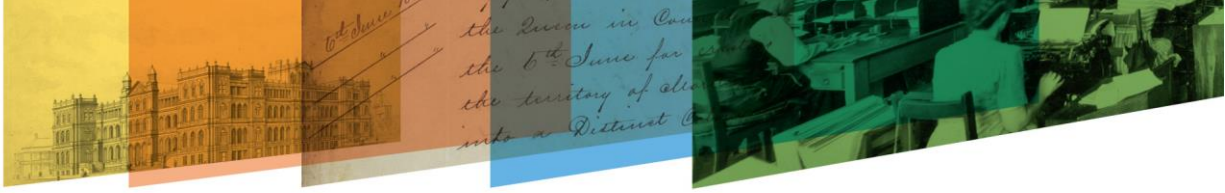


USING THE YOUTUBE API

Queensland State Archives

Capturing content from YouTube

If you want to export a list of the videos you've uploaded to YouTube, a simple way to do this is to use the YouTube API. Note that this method doesn't export the videos themselves, only the metadata about them.

YouTube API

The YouTube API is called the YouTube Data API. You can access it through your usual browser. If you query or call the API, you get formatted results that you can copy and paste into a document that you can then save into your internal recordkeeping system.

You don't need any special permissions or technical knowledge to query the YouTube API. Doing so may be a little off-putting to begin with, but the API is quite easy to use once you become familiar with the overall process.

One useability issue with the API is the pagination of results. You can only return a maximum of 50 results per page. If you have a large account with many videos, it will take a long time to navigate through the results pages, copying and pasting as you go.

YouTube Data API

To access the YouTube API, go to this page:

https://developers.google.com/apis-explorer/#p/youtube/v3/

The API provides a range of pre-formatted queries for you to use. They are listed on the API home page. All you have to do is click on the query or call you want to run, input the relevant information, and execute the call.

Useful API calls

If you want to capture content from YouTube, there are a couple of useful calls you can make. The first one is:

youtube.playlistItems.list

This call returns a list of all items in a playlist, including a channel's default playlist, which contains all the videos uploaded to that channel. The list returned includes the name and description of each video uploaded to the channel, the date and time the video was uploaded, the description of the video, and other information.

The second useful call is:

youtube.activities.list:

This call returns a list of activities on a YouTube channel, including the date and time videos were uploaded, comments were made, subscriptions were taken out, videos were sorted into playlists, and so on. Where relevant, the title of the videos affected by the activity, a description of the videos, and other information about them is also returned.

The number of results seems to be limited to 256 for each **activities.list** call, so it won't return a complete list of activities from the time the account was set up. But, unlike the **playlistItems.list** call, you can add date limits to the **activities.list** call, which makes it useful if you want to find out what was happening before or after a certain date or between certain dates.

Again, note that if the channel was subject to heavy activity before, after or between the date or dates in question, the call will not return a full list of activities. If you want a complete list of activities, you'll have to repeat the call more than once, adjusting the dates each time.

Finding your playlist and channel IDs

To make these calls you first need to find some information about your YouTube account. To make the first call you need your default playlist ID. To make the second call you need your default channel ID. These IDs are very similar. The only difference is that your channel ID has UC as a prefix while your playlist ID has UU as a prefix.

For example, the ID for the default playlist for the Queensland State Archives channel is:

UUfyUyyucBLnT5ZzEsF36_BQ

The channel ID for Queensland State Archives is:

UCfyUyyucBLnT5ZzEsF36_BQ

You can find these IDs for your own channel in a few different ways. One easy way is to click on the 'Videos' tab on your YouTube homepage, and then on any video in the list. The playlist ID appears in the URL after the second = sign. For example:

The channel ID is the same ID with UC instead of UU at the front.

PlaylistItems.list call

Now that you have your default playlist ID, you can use it to return a list of all videos uploaded to your YouTube account. Note that if the list is very long it will take some time to browse through it. This is because the API limits the number of results to 50 a page and if you want to go to the next page of results, you have to repeat the call, adding a **nextPageToken** reference ID when you do so. For this reason, it is important to make sure that you request the **nextPageToken** reference when you make the first call and later calls as well.

Another point to note is that the default call returns a lot of information, much of which you don't need to capture. You can limit the amount of information returned by adding some conditions to the call, as suggested below.

To make the call, first log in to YouTube or your other Google account, open another tab, and then go to this page, which has the query form on it:

https://developers.google.com/apis-explorer/#p/youtube/v3/youtube.playlistItems.list

The query form has eight boxes, four of which are important to fill in when you're making your first call. You can add different conditions to these boxes to tailor the type of information you want to return. If you fill in the form with the conditions listed below, the query will return a concise list of videos uploaded to your YouTube account. This list will include the date and time of upload, title, description, and the **nextPageToken** reference if there are more than 50 videos in the list. The conditions are:

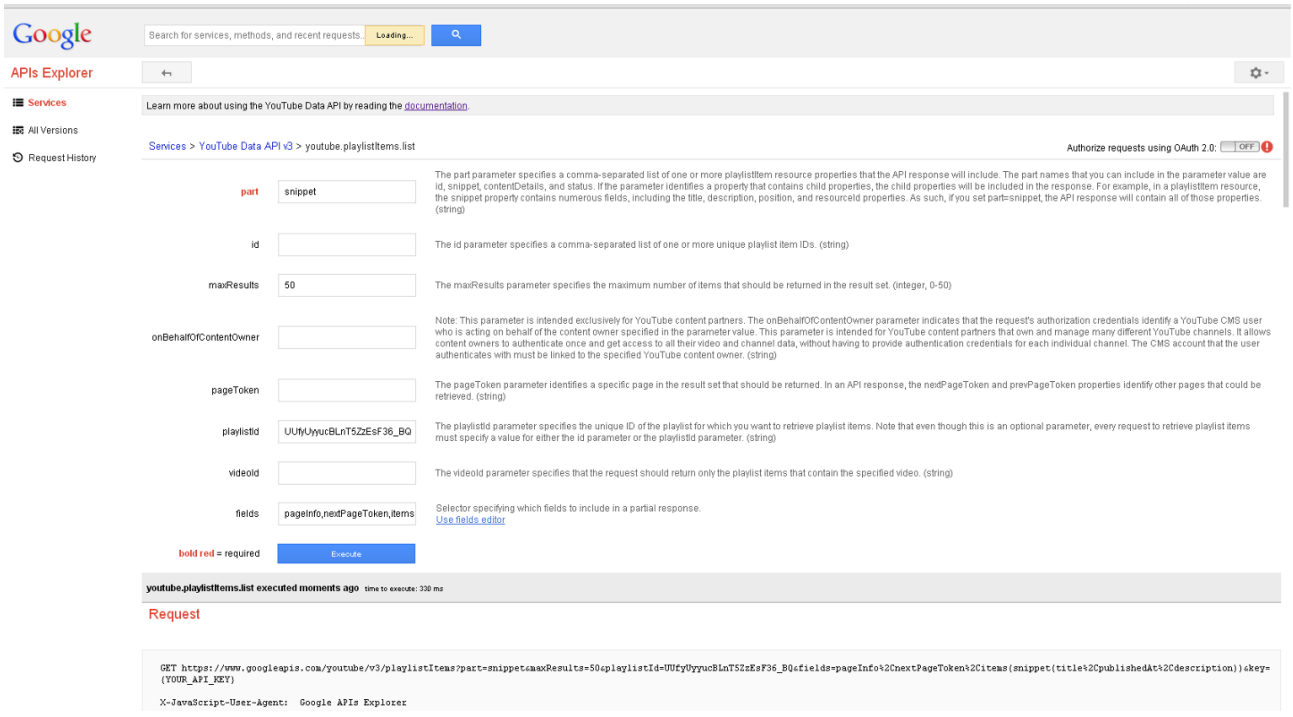
snippet in the **part** box

50 in **maxResults**

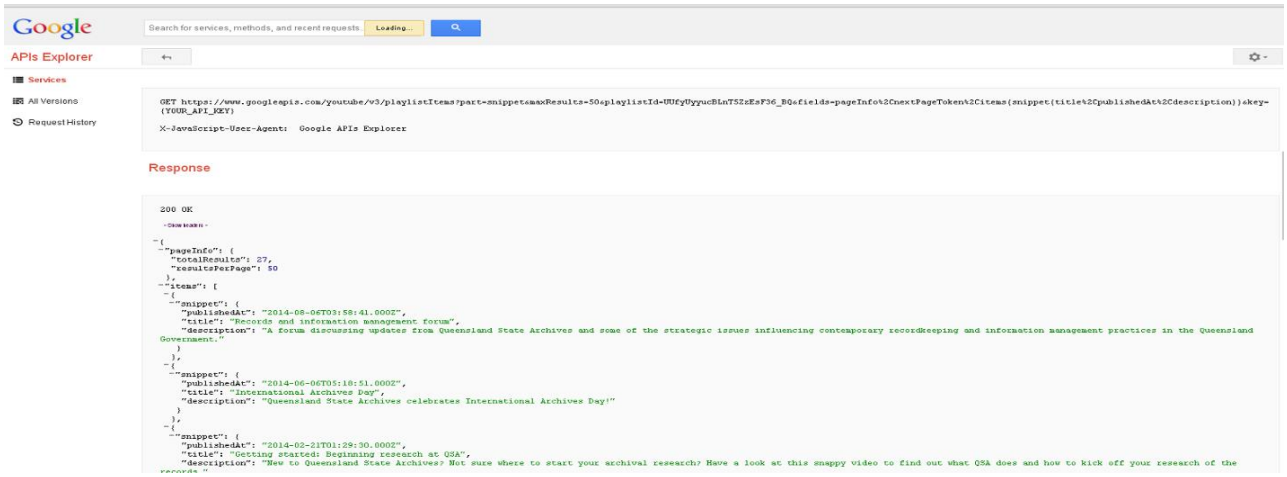
[yourplaylist ID] in **playlistID**

pageInfo,nextPageToken,items(snippet(title,publishedAt,description)) in **fields**

Make sure the information you enter in the form is exactly as written above, including capitalisation, commas and brackets. The filled-in form will look like this (Queensland State Archives' playlist ID has been used as an example):



Then click the blue Execute button and wait for the query to run. The results will look like this:



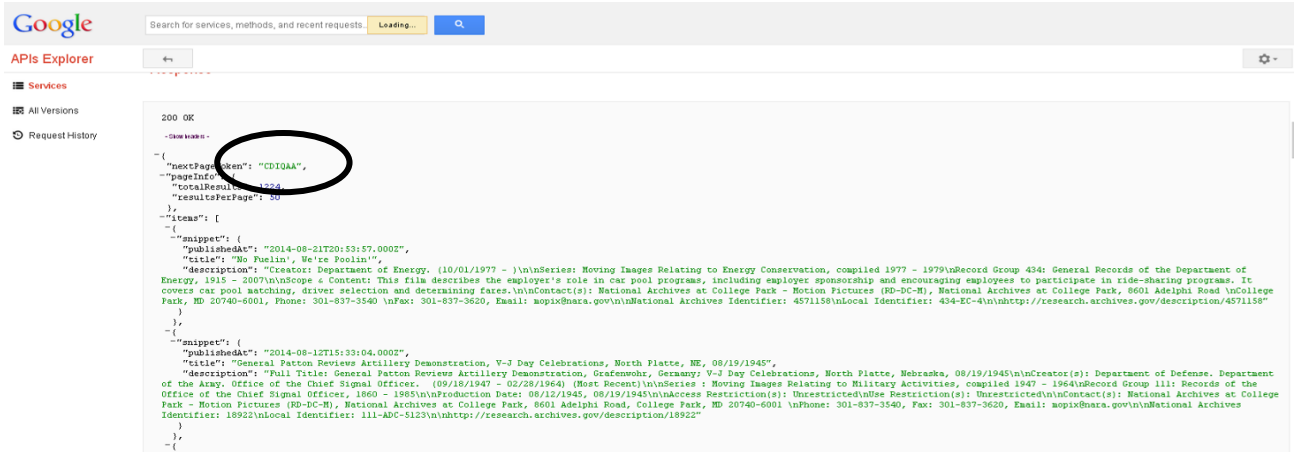
As you can see, for each video the date and time of upload, the title and the description are returned. These are all pieces of information that fall under the general heading of ‘snippet’ in the YouTube metadata table (the brackets in the query reflect this hierarchy). **PageInfo** and **nextPageToken** are separate higher-level categories.

You can change the amount and type of the information returned by changing the conditions you enter in the search boxes, within the limitations of the API. The **fields** box is the most flexible. You can choose some preselected conditions by clicking the ‘Use fields editor’ link next to the box or you can write your own queries. There is more guidance on tailoring this query in the API reference document:

https://developers.google.com/youtube/v3/docs/playlistItems

Navigating between pages

The first piece of information in the query response tells you that there are 27 videos in the list. This is less than the maximum of 50 per page, so no **nextPageToken** reference ID is returned. One would be if there were more than 50 videos in the list, for example:



To go to the next page of results, simply repeat the query with the same information as above, but this time adding the **nextPageToken** reference ID to the **pageToken** box. If there are several pages of information, you will have to repeat the process more than once, adding the **nextPageToken** reference ID each time. Note that it changes as you move from page to page.

Finding channel activities

Once you find your channel ID, you can use it to query the activities on your channel. This call is best used with fairly narrow date limits because, as noted above, it seems to return only about 256 results per call. If you wish to return a complete list of activities during a busy period, you might have to repeat the call several times, changing the date limits as you go.

The dates must be expressed in a specific format, like this: **YYYY-MM-DDTHH:MM:SSZ**. Make sure you include time information, even if you just use 00:00:00 as a placeholder. You also have to include the **T** and the **Z** as brackets for the time stamp. The query will not work otherwise. As an example, if you want to return a list of activities including and after 1 July 2014, you would write the date as **2014-07-01T00:00:00Z.**

As with the **playlistItems.list** call, the default **activities.list** call returns a lot of information, much of which you don't need to capture. You can limit the amount of information returned by adding some conditions to the call, as suggested below.

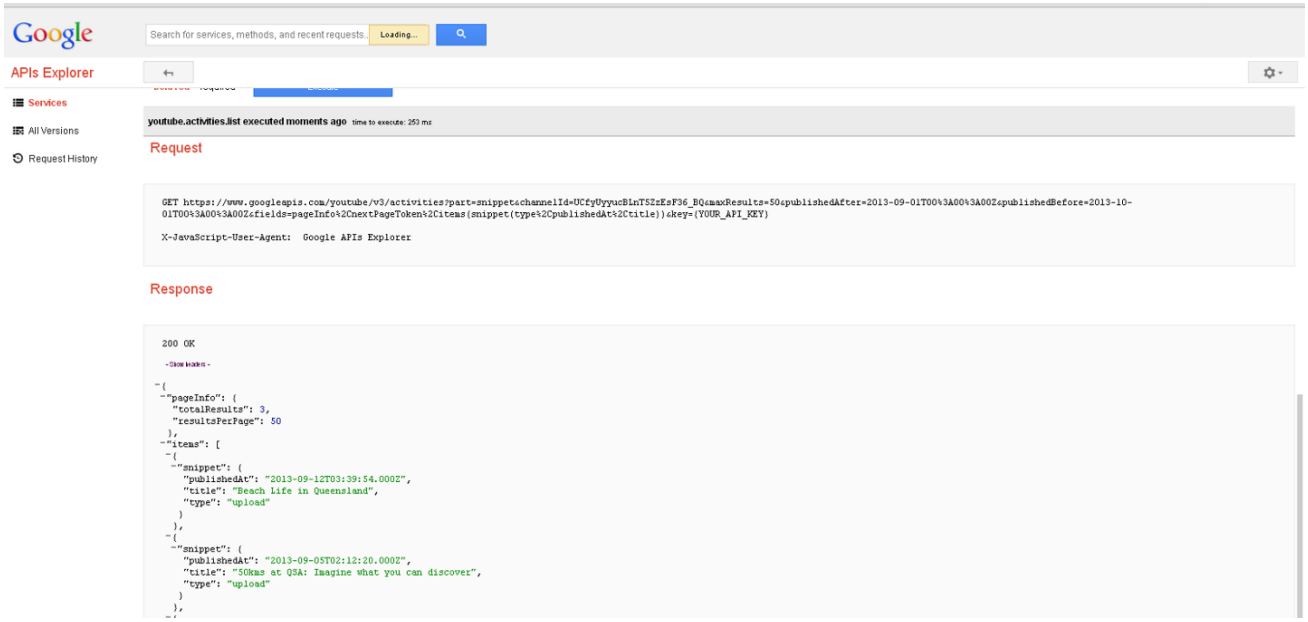
To make the **activities.list** call, go to this page:

> https://developers.google.com/apis-explorer/#p/youtube/v3/youtube.activities.list

and enter the following conditions in the query boxes:

> **snippet** in the **Part** box
>
> **[yourchannelID]** in **channelID**
>
> **50** in **maxResults**
>
> **[YYYY-MM-DDTHH:MM:SSZ]** in **publishedAfter** and/or **publishedBefore**
>
> **pageInfo,nextPageToken,items(snippet(type,publishedAt,title))** in **fields**

Click the blue Execute button and wait for the query to run. The results will look like this:



This example shows activity on the Queensland State Archives channel between 1 September and 1 October 2013. Note the number of activities at the top. Two videos were uploaded and one user liked a video.

If more than 50 results are returned, they will not all show up on a single page. In this case, as with the **playlistItems.list** call, you can repeat the call using the **nextPageToken** references to navigate through the list. Alternatively, you could change the date limits for the call.

Again, you can limit the kind and amount of information returned by changing the conditions you enter in the query boxes.

Saving calls

If you want to save the content you have called through the YouTube API, you have to manually copy and paste the results into a separate document, such as a .txt document. Note that you can only copy and paste one page of results at a time.

Further information

More information on the YouTube API can be found on the YouTube developers' website:

https://developers.google.com/youtube/v3/