Cloudinary

SAP Commerce Cloudinary Extension Integration

Functional Guide

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Introduction

The SAP Commerce Cloudinary Extension provides rich features such as media management, transformations, optimizations and advanced delivery features exposed via the SAP Commerce platform with a plug and play integrated extension.

This document describes the steps for the business users to utilize the features of the extension.

SAP Commerce supported versions, 1811 or later.

The SAP Commerce Cloudinary extension enables you to improve the user experience and performance of your online store. You can automatically deliver images and videos that are enhanced and optimized for customers on every screen, browser, and connection. **We ensure that your product images and videos are high quality and load fast on any product catalog page, including product detail pages.** With Cloudinary, you get a rich set of functionalities including cropping, resizing, transcoding, personalization, and creative transformations, like adding overlays - at scale and in real time. Cloudinary delivers all rich media through global content delivery networks (CDNs).

Cloudinary is trusted by over a million developers globally and thousands of customers ranging from small businesses to enterprise clients. Iconic ecommerce brands including Walmart Labs, Neiman Marcus, Lululemon Athletica, WholeFoods, and StubHub rely on Cloudinary's media manipulation, storage and delivery solutions.

Cloudinary Configuration in Backoffice

The Cloudinary Configuration section in the SAP Backoffice is where the setup of the extension starts. By default, the Cloudinary Configuration section is visible only to users with admin privileges, however this can be customized according to your project needs.

The Backoffice Cloudinary Configuration section is composed of multiple tabs:

- Cloudinary Configuration
- Product Catalog Transformation
- Product Gallery
- Administration (default SAP Backoffice tab)

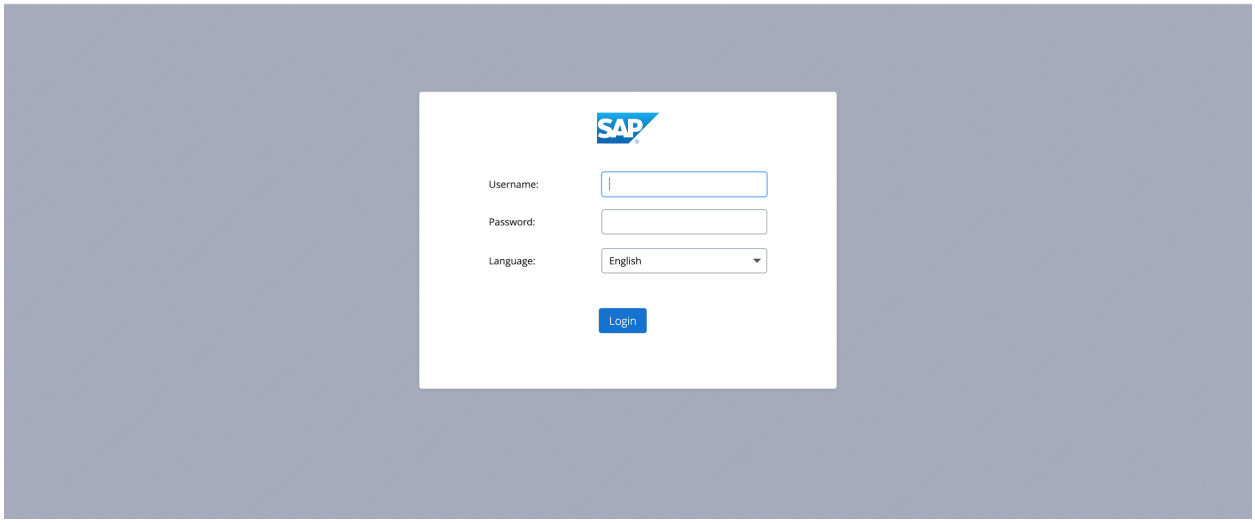
A setup wizard guides the admin through the sections making sure that all the necessary fields/attributes are populated in order to create the Cloudinary Configuration item.

Once the Cloudinary Configuration item is created for the project, the admin user is able to check the status of the extension (enabled/disabled), update the Cloudinary connection string and synchronization target folder, review the status of the Cloudinary plan associated with the Cloudinary account and manage all the customizable attributes available in each of the Cloudinary Configuration tabs.

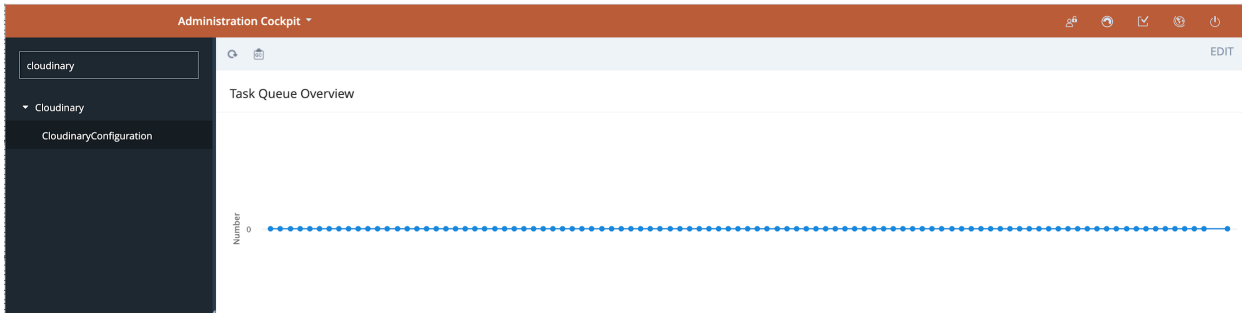
Add a New Cloudinary Configuration

To add a new Cloudinary Configuration item or update the values of an existing one:

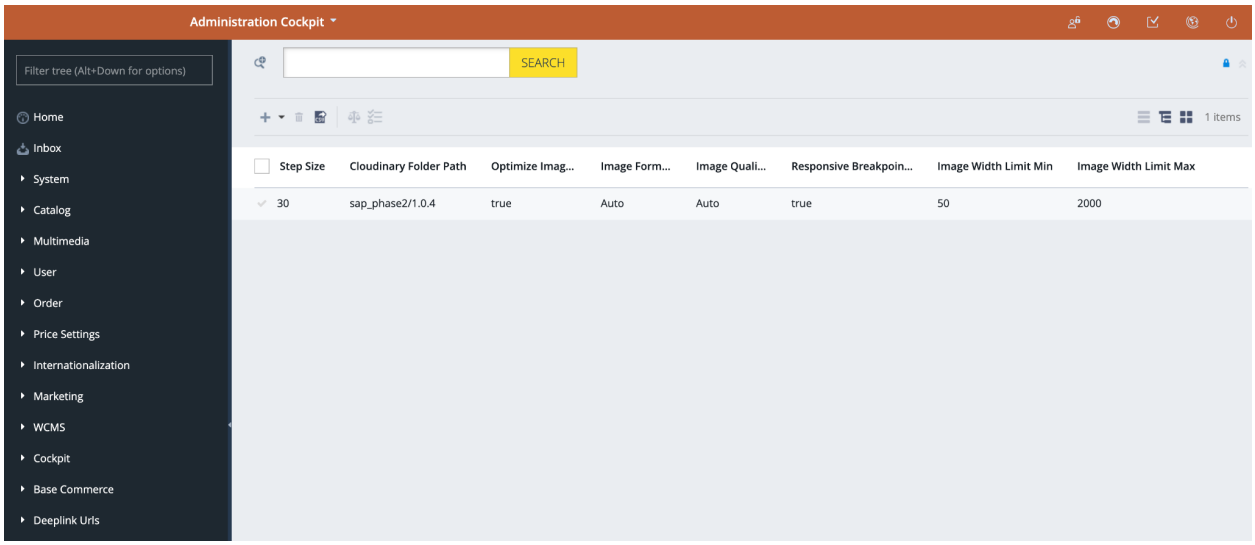
1. Log into Backoffice as an admin user.



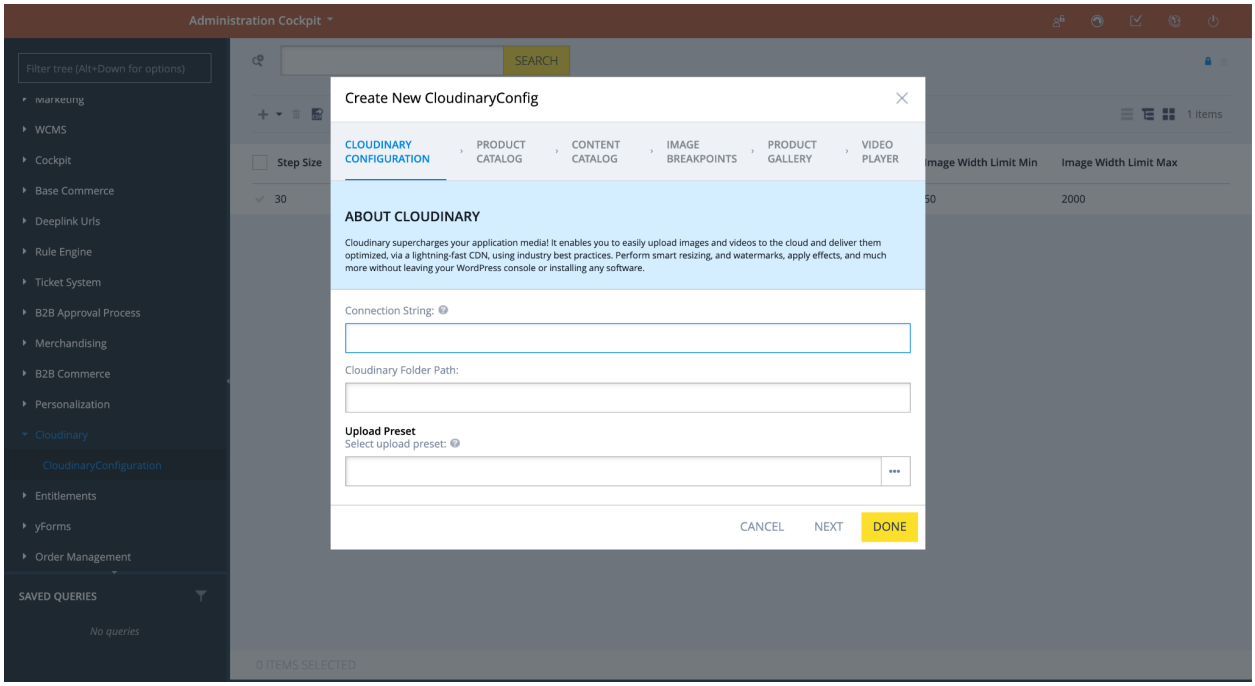
2. Search for *cloudinary* in the search box in the left-hand navigation tree.



3. Click on CloudinaryConfiguration, then click the “+” button to create a new configuration.

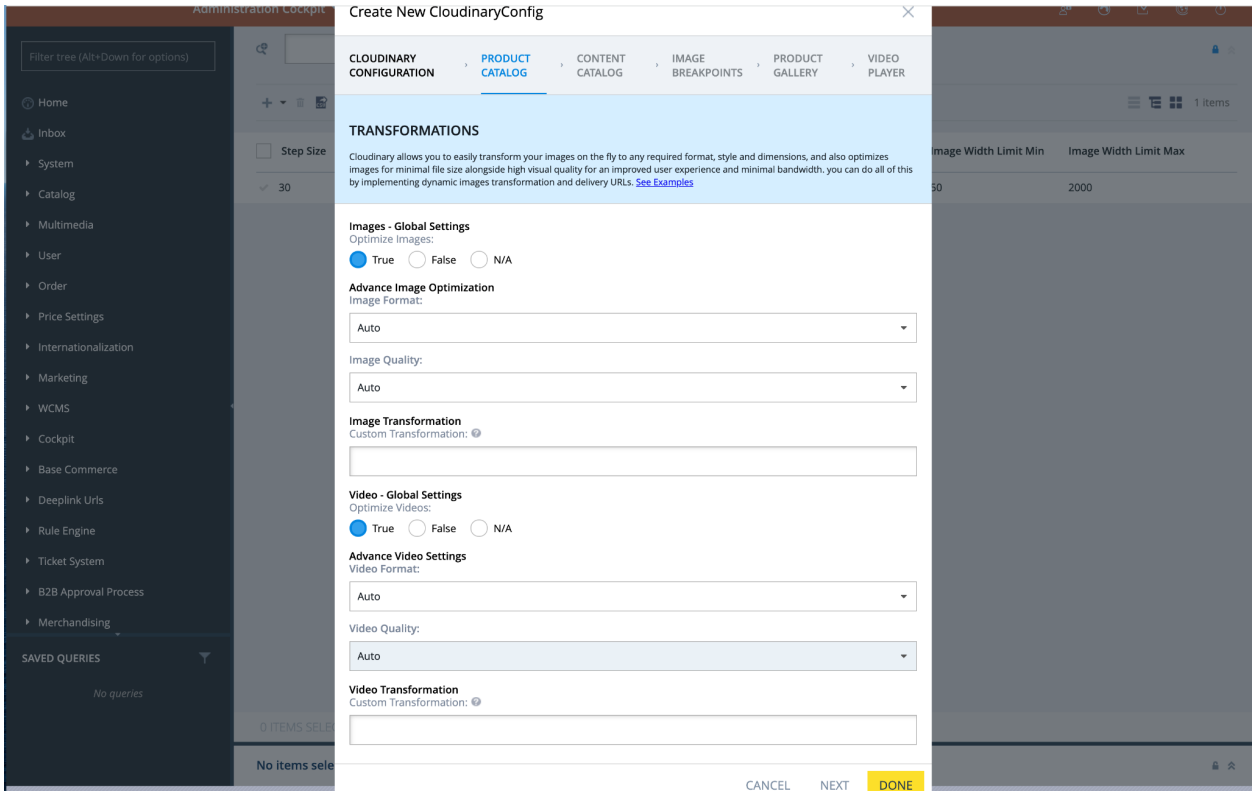


4. Clicking the “+” button opens a wizard to add the configuration details.

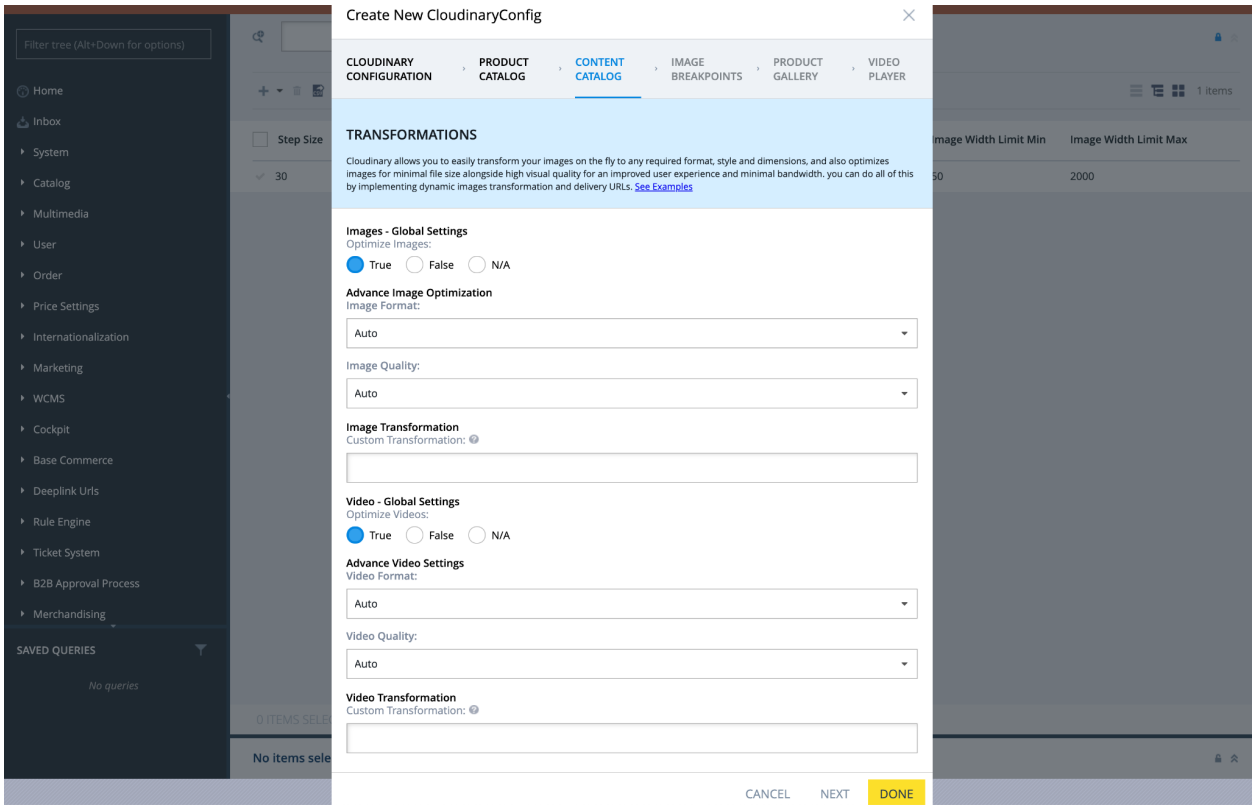


In the Cloudinary Configuration tab, you need to specify the connection string and set the folder path where all the assets will be uploaded. There is also the option of choosing the “upload preset” set on Cloudinary’s account.

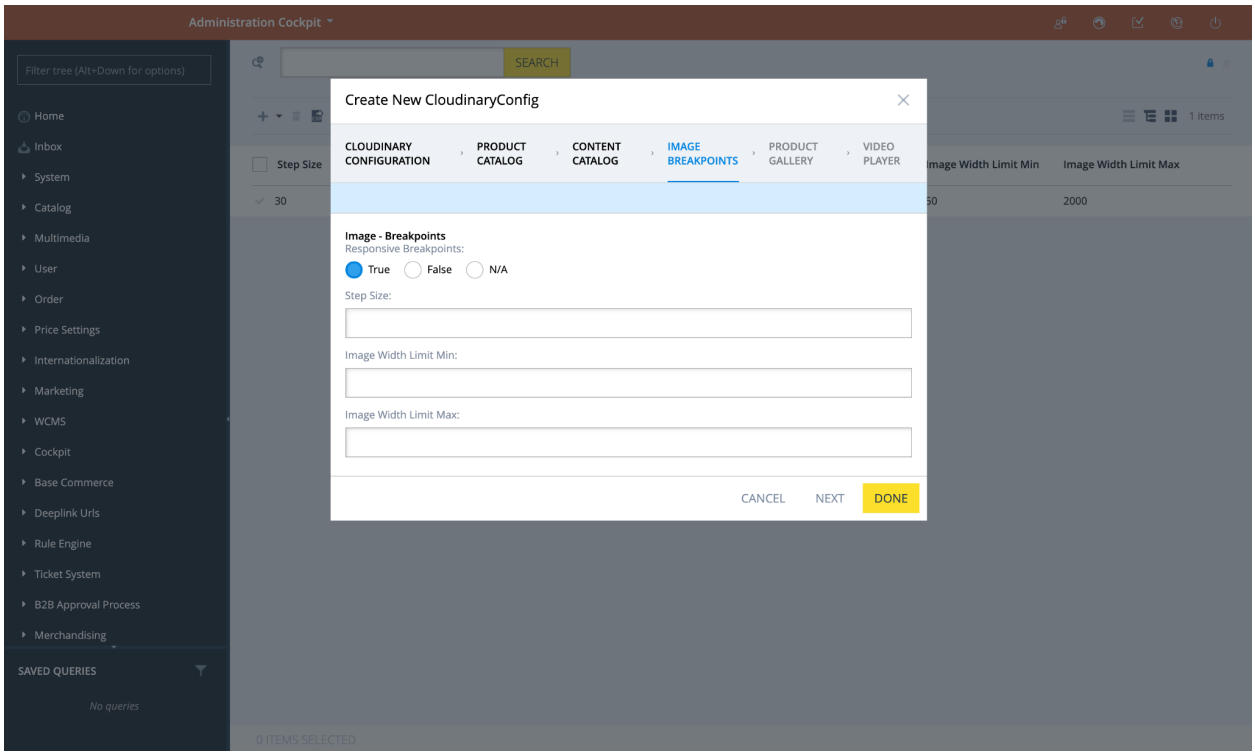
In the Product Catalog step, you can specify transformations to apply globally to all the assets served by Cloudinary and belonging to the Product Catalog.
They can be specified for images and for videos.



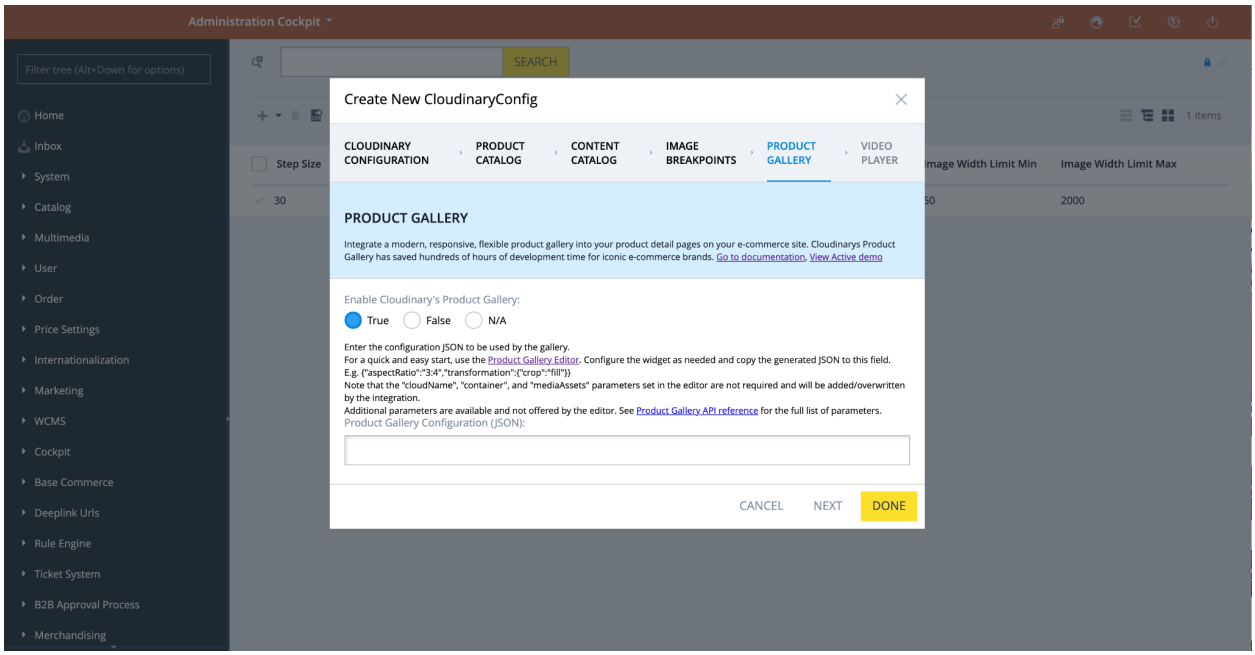
In the Catalog Catalog step, you can specify transformations to apply globally to all the assets served by Cloudinary and belonging to the Content Catalog.
They can be specified for images and for videos.



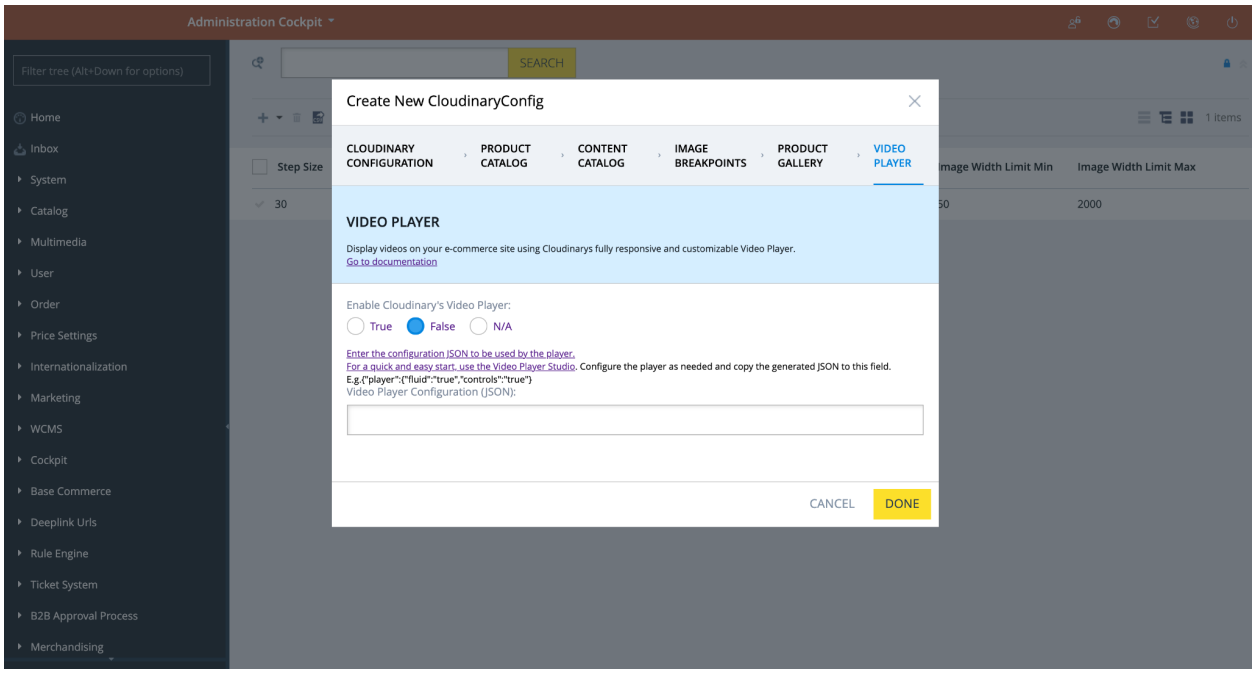
In the Image Breakpoints tab, you can enable/disable cloudinary responsive breakpoints and can specify the Cloudinary breakpoint configuration settings.



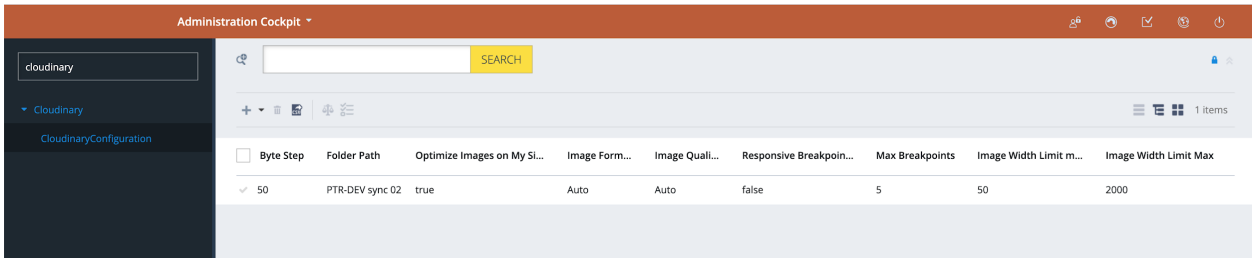
The Product Gallery step allows you to enable/disable the usage of the Product Gallery, by default embedded in the Product Detail Page.



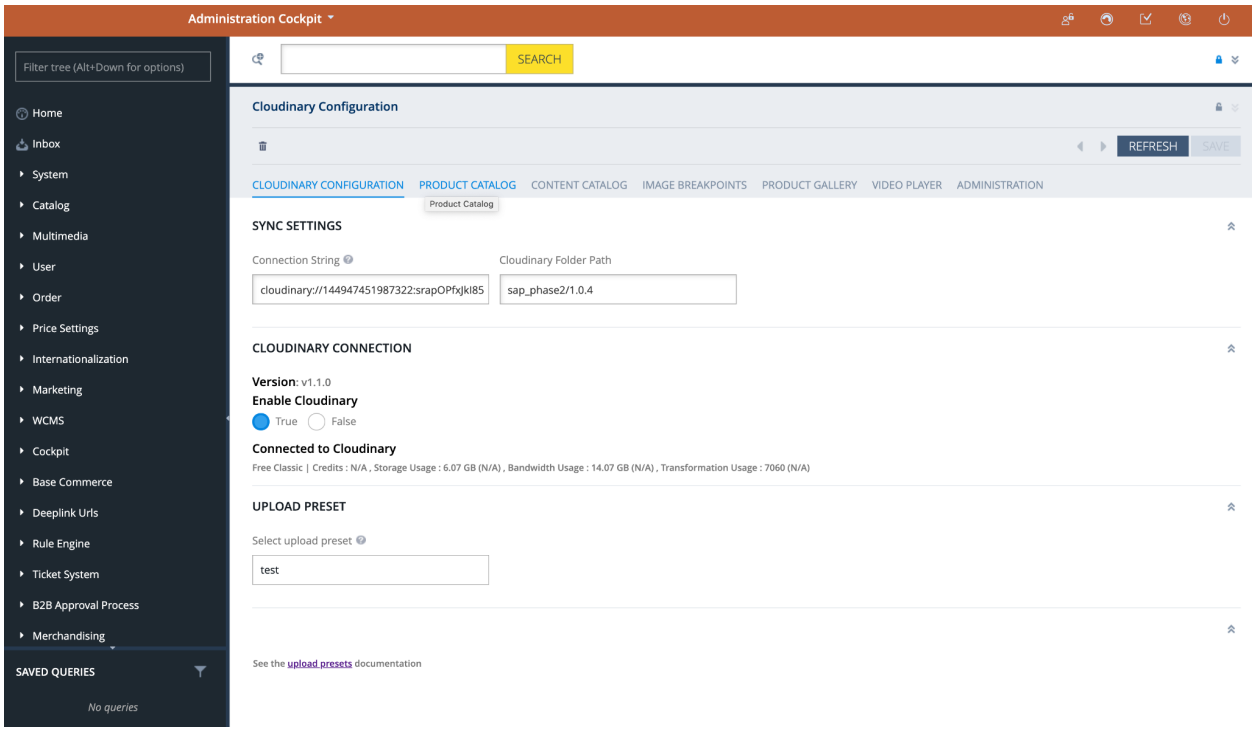
The Video Player step allows you to enable/disable the video component of Cloudinary to be displayed on storefront. You can also add the json string to apply transformations on the video player.



5. Once the Cloudinary Configuration item is created successfully it is displayed similar to this:

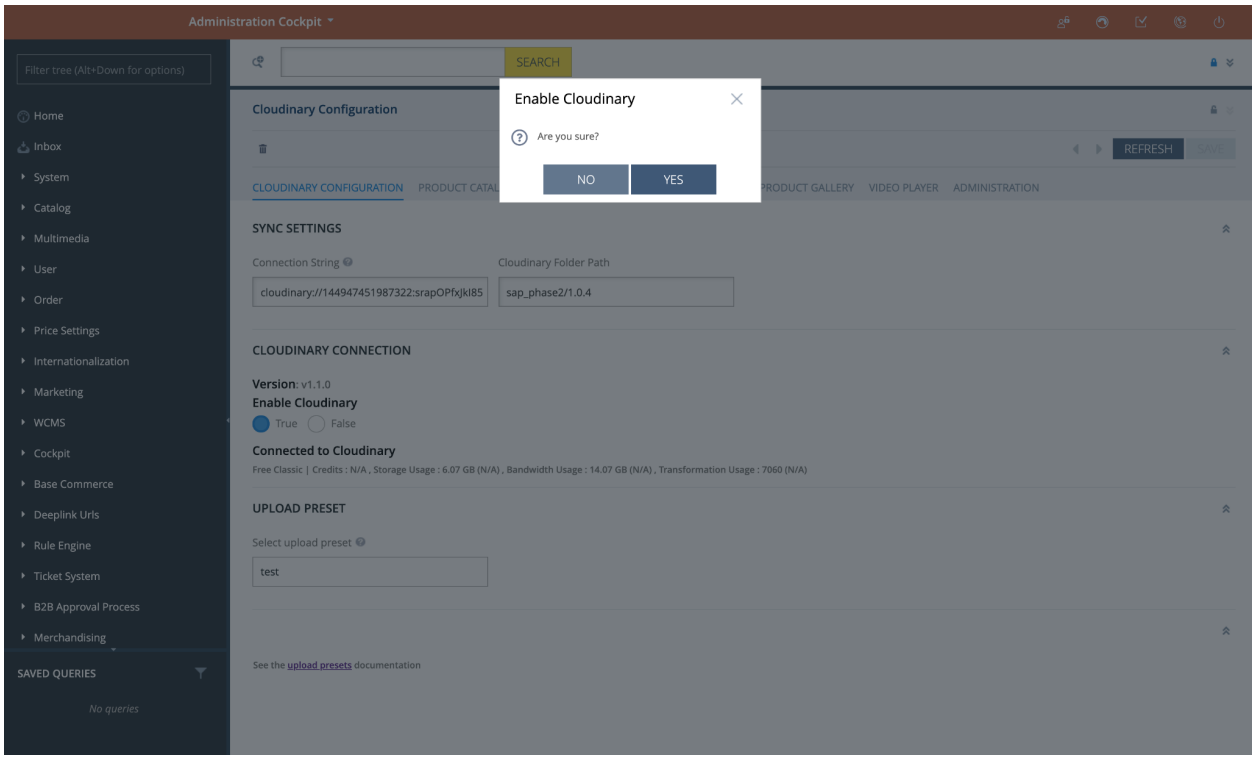


6. You can open the configuration to view the configuration details.

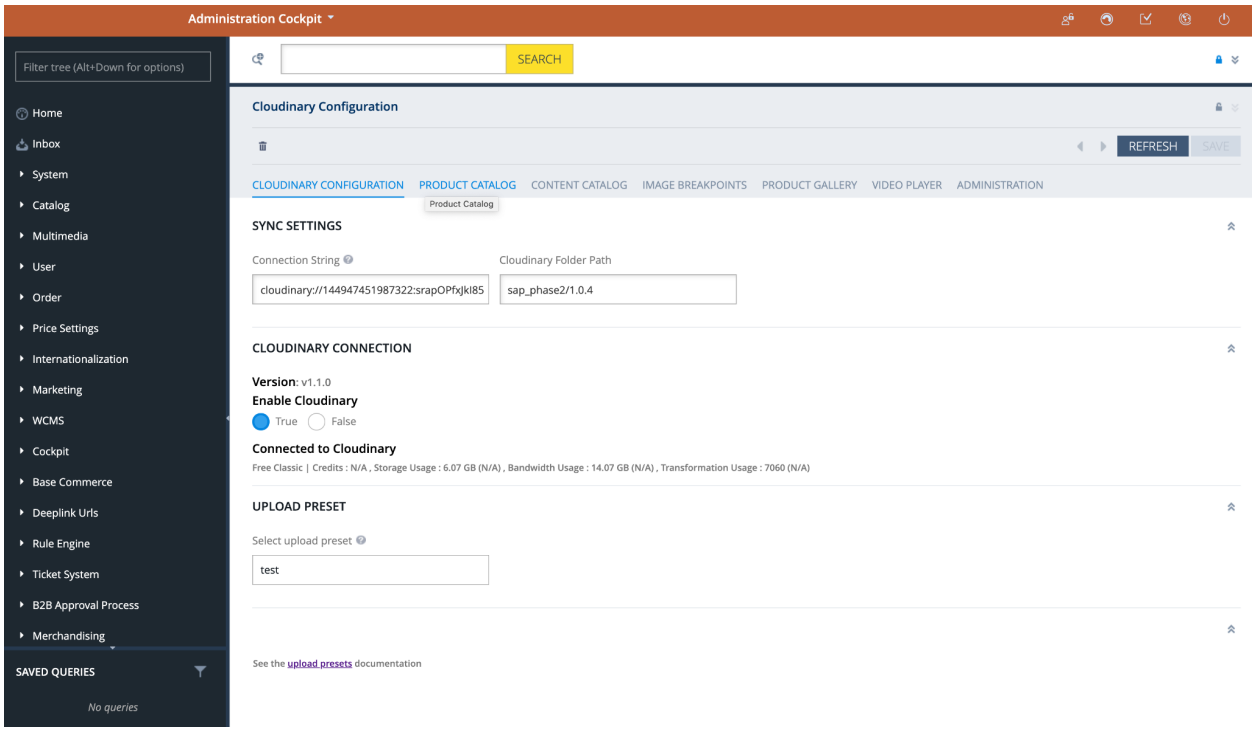


7. To modify/add any configuration value, update the value, then click the “save” button.

8. To enable/disable the usage of the Cloudinary extension, use the “Enable Cloudinary” switch:
    a. *False* - disables the Cloudinary connection; the status changes to “Not Connected to Cloudinary” and the plan details are not displayed.
        Note: with the Cloudinary extension disabled, assets are still delivered from Cloudinary and include transformations in the URL.



b. *True* - enables the Cloudinary connection; the status changes to “Connected to Cloudinary” and the plan details are displayed.



Note - Ensure at any time you have one single Cloudinary Configuration with Cloudinary enabled.

Configuration Attributes

The table below groups all the attributes that have been introduced as part of the SAP Commerce Cloudinary extension implementation and that can be found in the Backoffice.
For each attribute, you can see the DataModel name, the label used in the Backoffice and the purpose of usage.

DataModel Attribute Name	Attribute Backoffice Label	Attribute Usage
cloudinaryURL	Connection String *	Your Cloudinary Connection string, which you can find in your Cloudinary console dashboard. It is used to connect to your Cloudinary account. Refer to the tooltip in the SAP Backoffice for information on where to get the Connection String from for your Cloudinary account.
cloudinaryFolderPath	Folder Path *	The folder path in Cloudinary to which media files are uploaded when syncing them from SAP Commerce. Make sure the folder path/name does not contain the symbols ?&#\%<>
enableCloudinary	Enable Cloudinary	This switch lets you enable/disable the Cloudinary connection. When enabled, all the features provided by the Cloudinary extension will be available. If disabled, media will still be delivered from your Cloudinary account and will include transformations that are part of the URLs. Other Cloudinary features will not be available (for example, Cloudinary breakpoints or Product Gallery).

mediaUploadPreset	Select Upload Preset	The upload preset to use to upload assets to Cloudinary.
cloudinaryImageFormat	Image Format	The global image format used for all images. The default value after the extension is installed is “Auto”, meaning Cloudinary’s algorithms determine the best image format to deliver based on the requesting browser. Therefore, different users can receive different formats of the same image, which Cloudinary creates on the fly. Refer to the Cloudinary Image Transformation guide.
cloudinaryQuality	Image Quality	The global image quality used for all images. The default value after the extension is installed is “Auto”, meaning Cloudinary’s algorithms determine the best level of compression to apply, whilst retaining acceptable visual quality. The image format plays a part in determining the quality compression level so this could be different for different users based on their browser. Refer to the Cloudinary Image Transformation guide.
globalCloudinaryImageTransformation	Custom Transformation	A global transformation to be applied to images.
globalCloudinaryVideoTransformation	Custom Transformation	A global transformation to be applied to videos.
enableOptimizeImage	Optimize Images	A flag to enable image optimization. When *true*, the manual configuration for image format and quality will

		be applied. If *false*, no values will be set for image format and quality.
enableOptimizeVideo	Optimize Videos	A flag to enable video optimization. When *true*, the manual configuration for image format and quality will be applied. If *false*, no values will be set for image format and quality.
cloudinaryVideoFormat	Video Format	The global video format used for all videos. The default value after the extension is installed is “Auto”, meaning Cloudinary’s algorithms determine the best format to deliver based on the requesting browser. Therefore, different users can receive different formats of the same video, which Cloudinary creates on the fly. Refer to the Cloudinary Video Optimization guide.
cloudinaryVideoQuality	Video Quality	The global video quality used for all videos. The default value after the extension is installed is “Auto”, meaning Cloudinary’s algorithms determine the best type of encoding to apply, whilst retaining acceptable visual quality. Refer to the Cloudinary Video Optimization guide.
cloudinaryContentImageFormat	Image Format	The global image format used for all images. The default value after the extension is installed is “Auto”, meaning Cloudinary’s algorithms

		determine the best image format to deliver based on the requesting browser. Therefore, different users can receive different formats of the same image, which Cloudinary creates on the fly. Refer to the Cloudinary Image Transformation guide.
cloudinaryContentImageQuality	Image Quality	The global image quality used for all images. The default value after the extension is installed is “Auto”, meaning Cloudinary’s algorithms determine the best level of compression to apply, whilst retaining acceptable visual quality. The image format plays a part in determining the quality compression level so this could be different for different users based on their browser. Refer to the Cloudinary Image Transformation guide.
cloudinaryContentGlobalImageTransformation	Custom Transformation	A global transformation to be applied to images.
cloudinaryGlobalContentVideoTransformation	Custom Transformation	A global transformation to be applied to videos.
enableOptimizeContentImage	Optimize Images	A flag to enable image optimization. When *true*, the manual configuration for image format and quality will be applied. If *false*, no values will be set for image format and quality.
enableOptimizeContentVideo	Optimize Videos	A flag to enable video optimization. When *true*, the manual configuration for image format and quality will

		be applied. If *false*, no values will be set for image format and quality.
cloudinaryContentVideoFormat	Video Format	The global video format used for all videos. The default value after the extension is installed is “Auto”, meaning Cloudinary’s algorithms determine the best format to deliver based on the requesting browser. Therefore, different users can receive different formats of the same video, which Cloudinary creates on the fly. Refer to the Cloudinary Video Optimization guide.
cloudinaryContentVideoQuality	Video Quality	The global video quality used for all videos. The default value after the extension is installed is “Auto”, meaning Cloudinary’s algorithms determine the best type of encoding to apply, whilst retaining acceptable visual quality. Refer to the Cloudinary Video Optimization guide.
cloudinaryResponsive	Responsive Breakpoints	Flag to enable/disable responsive breakpoints.
cloudinaryByteStep	Step Size	The user defined step size between breakpoints, expressed in pixels.
cloudinaryImageWidthLimitMax	Image Width Limit Max	The maximum image width for the breakpoint.
cloudinaryImageWidthLimitMin	Image Width Limit Min	The minimum image width for the breakpoint.
enableCloudinaryGalleryWid	Enable Cloudinary’s Product	This lets you enable/disable

get	Gallery	the Product Gallery.
cloudinaryGalleryConfigJsonString	Product Gallery Configurations (JSON)	Use this to provide configuration JSON for the Product Gallery.
enableCloudinaryVideoPlayer	Enable Cloudinay's Video Player	This lets you enable/disable the Video Player.
videoPlayerTransformation	Video Player Configuration (JSON)	Use this to provide configuration JSON for the Video Player.

*** *Connection String* and *Folder Path* notes**

- Only one Cloudinary account at a time should be used with your SAP Commerce installation.
- If your Cloudinary connection string changes, make sure to update it accordingly in the SAP Backoffice.
- When copying your connection string from your Cloudinary dashboard, you must be logged into Cloudinary as an admin user.
- The folder path is the location in your Cloudinary account where all your assets from SAP Commerce are synced to.
  DO NOT change, rename or delete the folder in your Cloudinary account when your site is live.

Media Assets Synchronization to Cloudinary

The synchronization of the media assets from SAP Commerce to Cloudinary allows you to upload all the existing SAP Commerce media to your Cloudinary account.

During the first setup of the extension you might have a lot of media already present in your SAP Commerce Backoffice. This media is uploaded to your Cloudinary account as part of the **cloudinaryMediaUploadSyncCronjob** execution.

Note - During your Cloudinary account setup and before starting the first synchronization of your SAP Commerce media, make sure that for any default Cloudinary upload preset, the files will be uploaded with a unique public ID. This means that if the “Use filename or externally defined public ID” option is enabled, the “Unique filename” option must also be enabled.

After the first setup, the sync cronjob uploads a new media file to Cloudinary every time one is created in SAP Commerce Backoffice via the OOB upload step (refer to the *Upload Media Assets* section below).

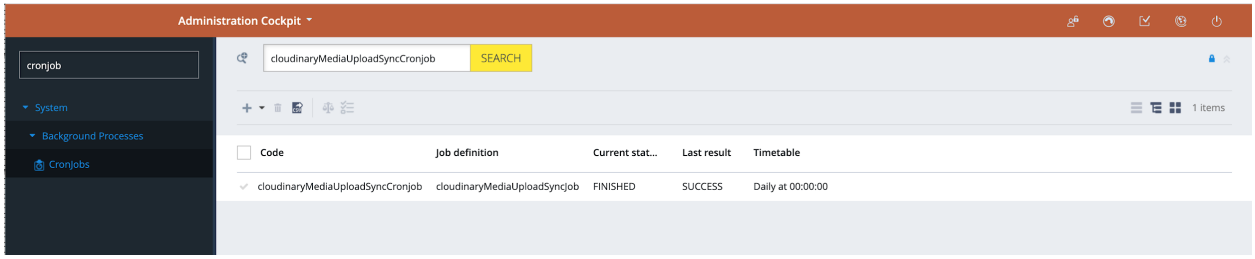
Note - The synchronization is one-way. After the assets have been synchronized/uploaded to your Cloudinary account, the SAP media will refer to the *media URL* as the *Cloudinary URL* and the media will be delivered using this URL.

Do not delete/move/rename any of the media files from your Cloudinary account that are associated with a media URL in SAP Commerce. Doing so will make the asset not accessible from your site storefront.

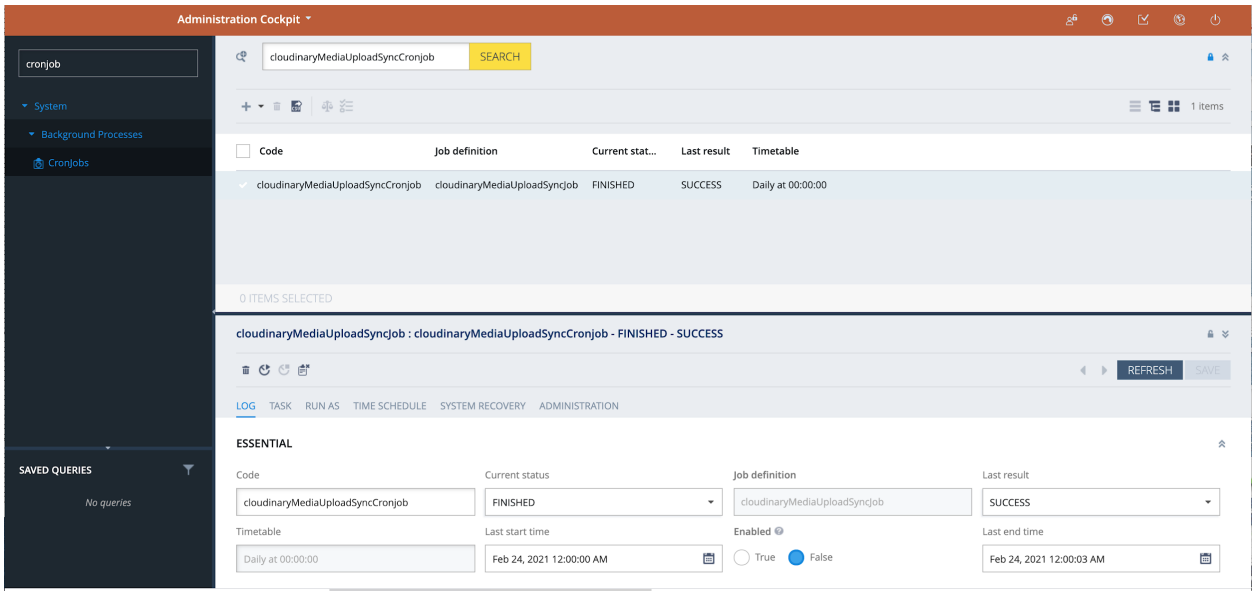
Sync Media Assets to Cloudinary

To sync the media assets from SAP Backoffice to Cloudinary:

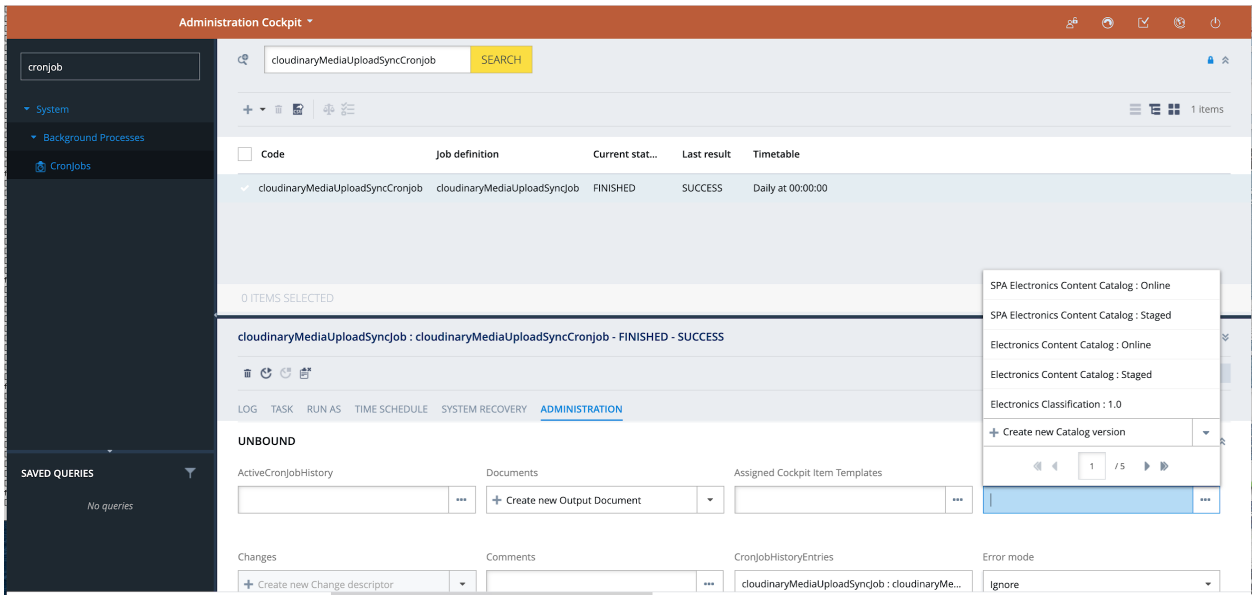
1. Log into Backoffice as an admin user.
2. Search for *cronjob* in the search box in the left-hand navigation tree.
3. Search for *cloudinaryMediaUploadSyncCronjob* in the search box at the top.



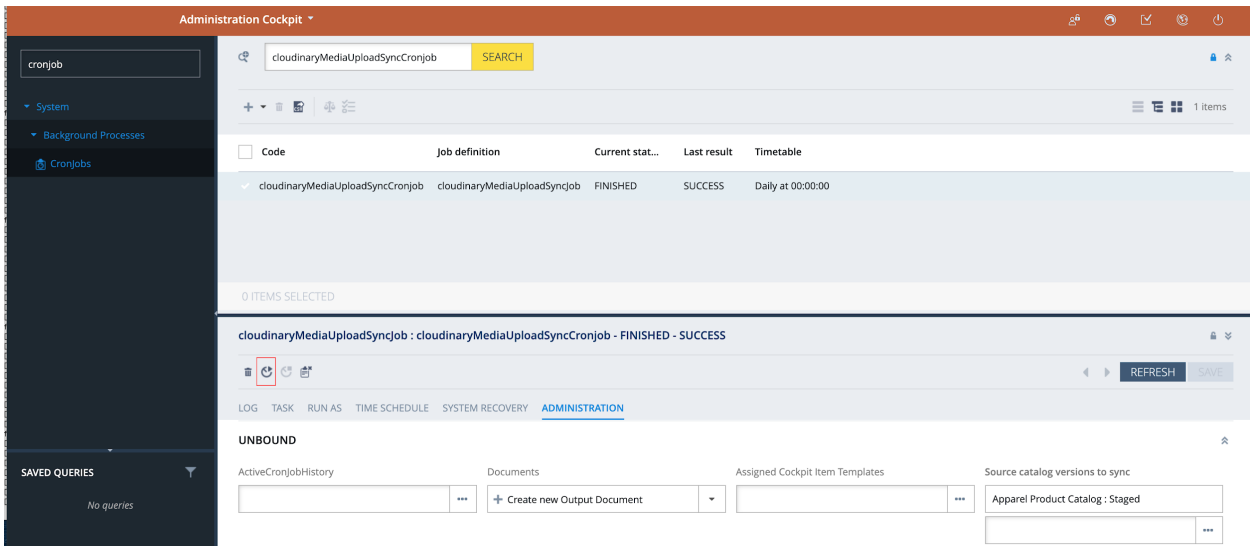
4. Open the editor area of the “**cloudinaryMediaUploadSyncCronjob**” cronjob.



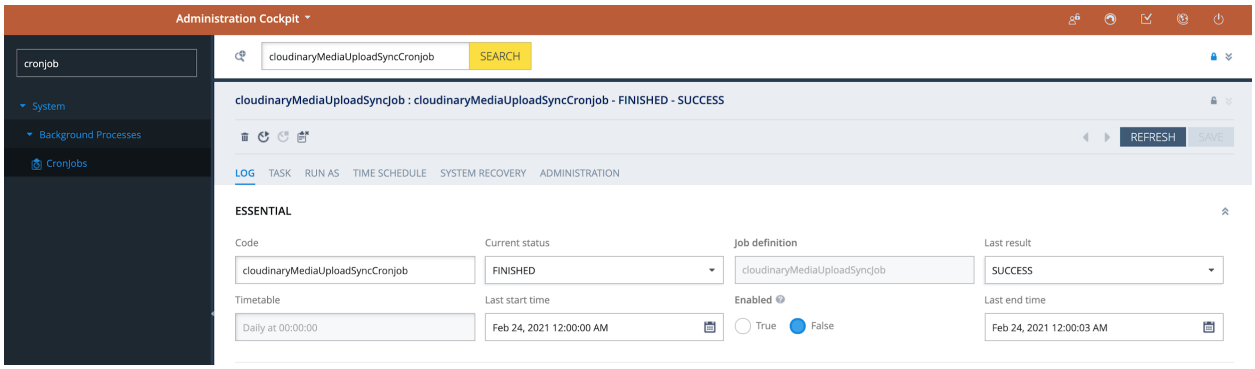
5. Go to the “**Unbound**” section of the “**Administration**” tab and select the catalog version for which you want to sync the media assets to Cloudinary.



6. Click on the Sync icon to trigger the cronjob.



7. You can verify if the cronjob is completed, in the “**Log**” tab.



Note - During the first setup of the extension, and every time after an initialization of the system is performed, the **cloudinaryMediaUploadSyncCronjob** will take some time to complete the media upload to Cloudinary, depending on how much media there is to upload. Subsequent runs of the cronjob will sync to your Cloudinary account only the newly added media so the execution will be quicker.

Upload Media Assets

The upload functionality allows you to directly upload an asset to your Cloudinary account while creating a media item in the SAP Commerce Backoffice. Cloudinary's Media Library, which is embedded into the SAP Commerce Backoffice, provides this functionality.
Whether you are creating a new media item/new product or you are editing an existing one, the OOB flows present an additional step allowing you to load the Cloudinary Media Library and perform any action without leaving the SAP Backoffice.

You need to log into your Cloudinary account to access the Media Library.

Note - The SAP Backoffice is cookie aware, so if you have accessed your Cloudinary account and got a cookie in your browser, you will be able to load the Media Library within Backoffice, without having to enter your credentials again.

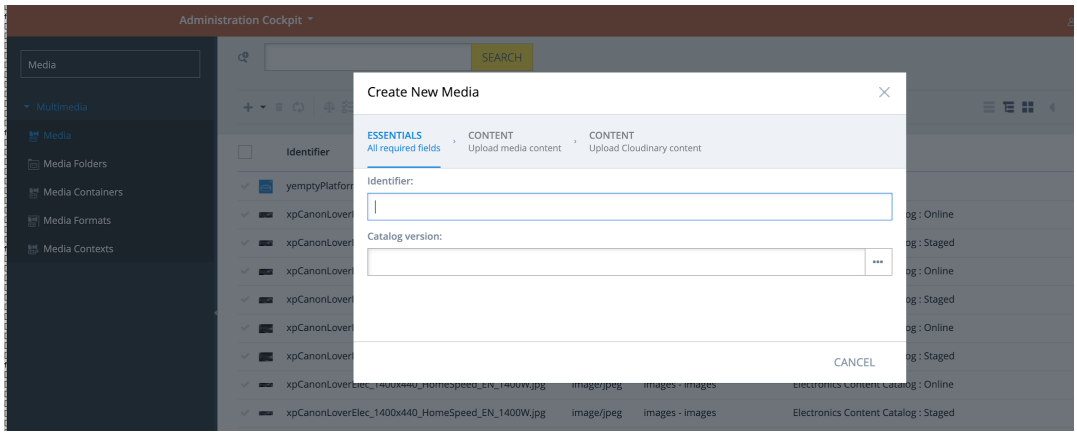
Media Creation

To create a media in SAP Commerce and associate it with a Cloudinary asset using the SAP Backoffice *Create Media Wizard*:

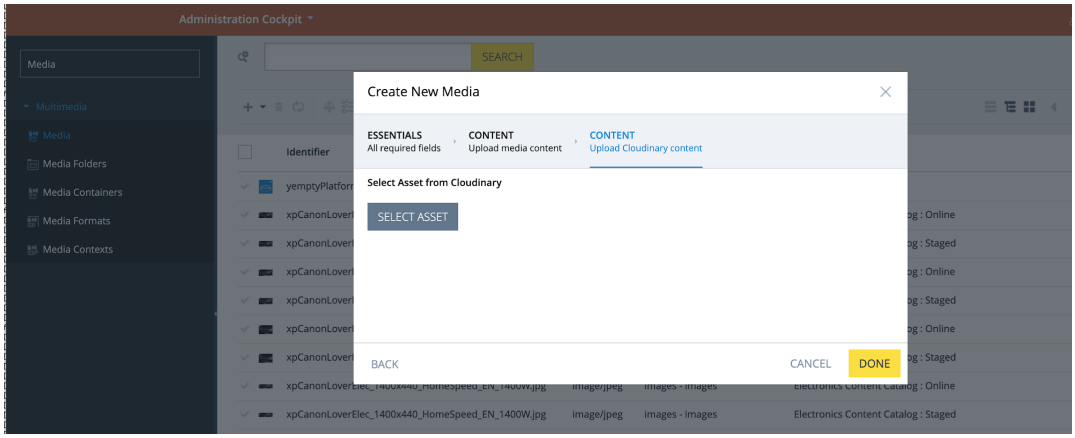
1. Log into SAP Backoffice as an admin user.

2. Search for *media* in the search box in the left-hand navigation tree and expand the *Multimedia* node. Click on Media.

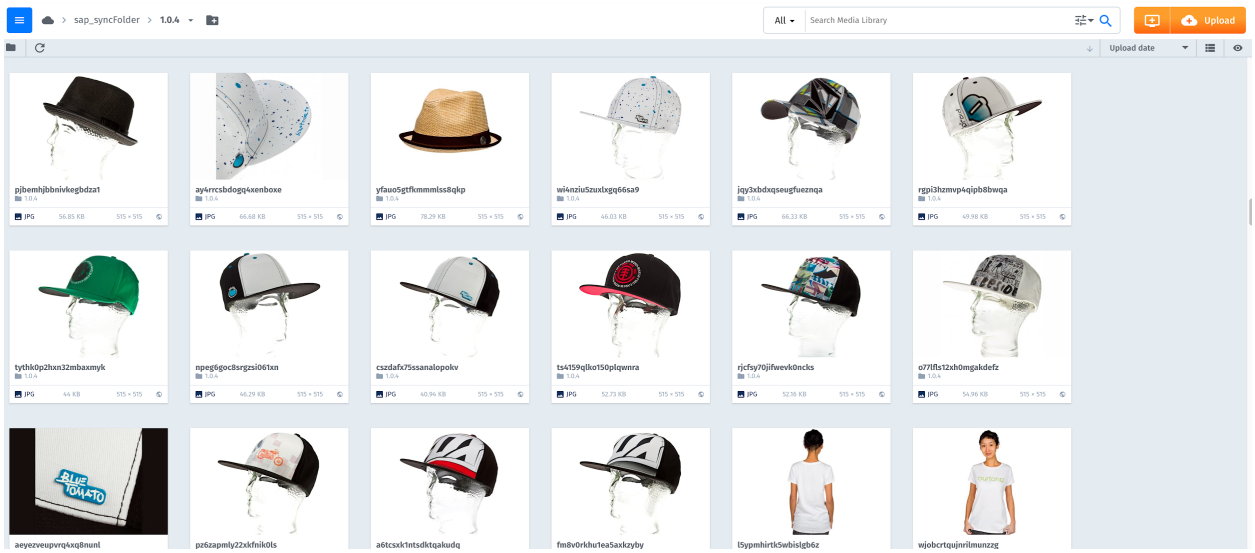
3. Click the "+" button to open the *Create New Media* wizard. Fill in the unique identifier field and select the catalog version (**note** - the SAP Commerce Cloudinary extension fully supports the SAP Product catalogs). Click the "Next" button.



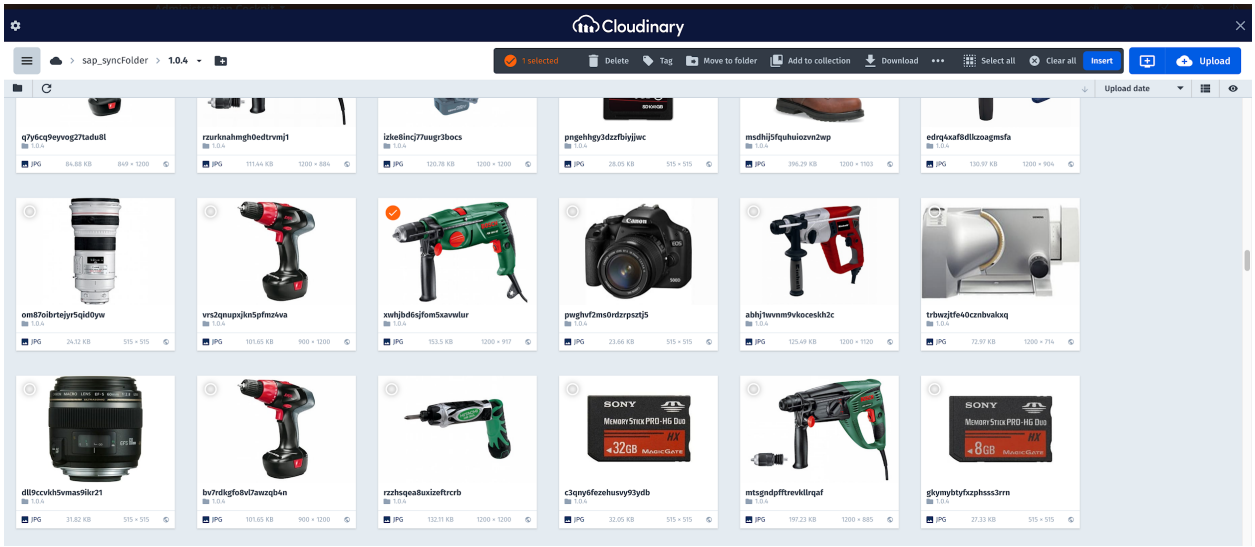
4. To associate the media with an asset from the Cloudinary Media Library, go to the "**CONTENT - Upload Cloudinary content**" tab, then click the "**SELECT ASSET**" button.



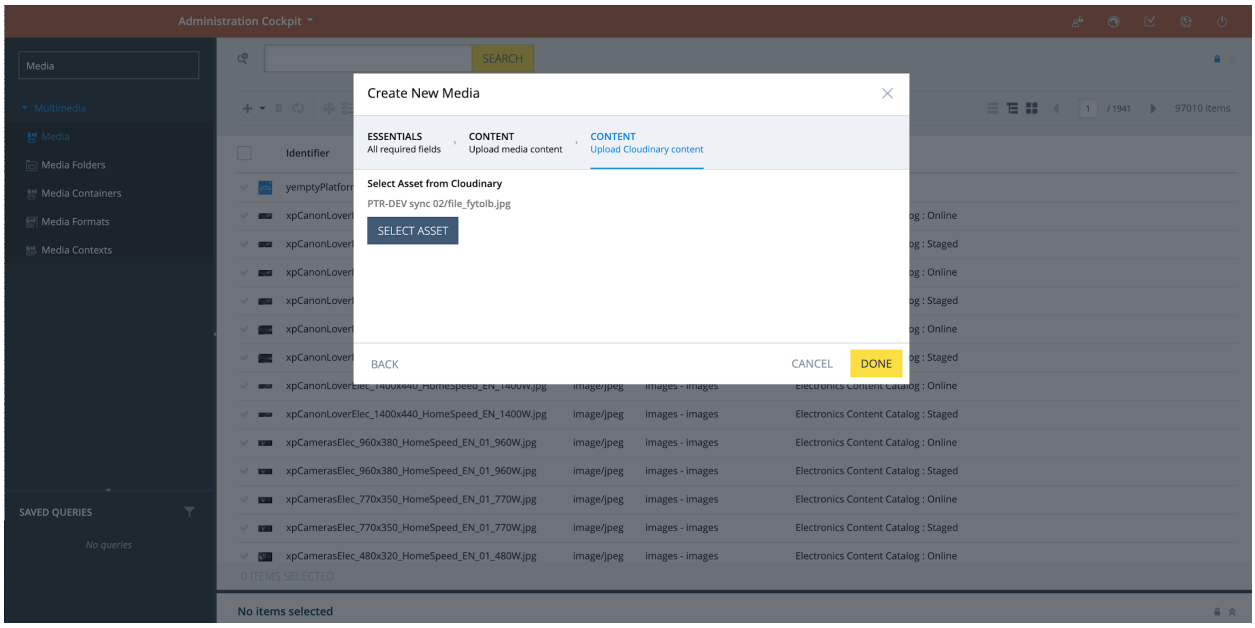
5. On clicking the "**SELECT ASSET**" button the Cloudinary Media Library opens.



6. Select an asset and then click the “**Insert**” button to upload the asset.



7. After a successful upload, the media asset's public ID will appear as shown in the screen below.



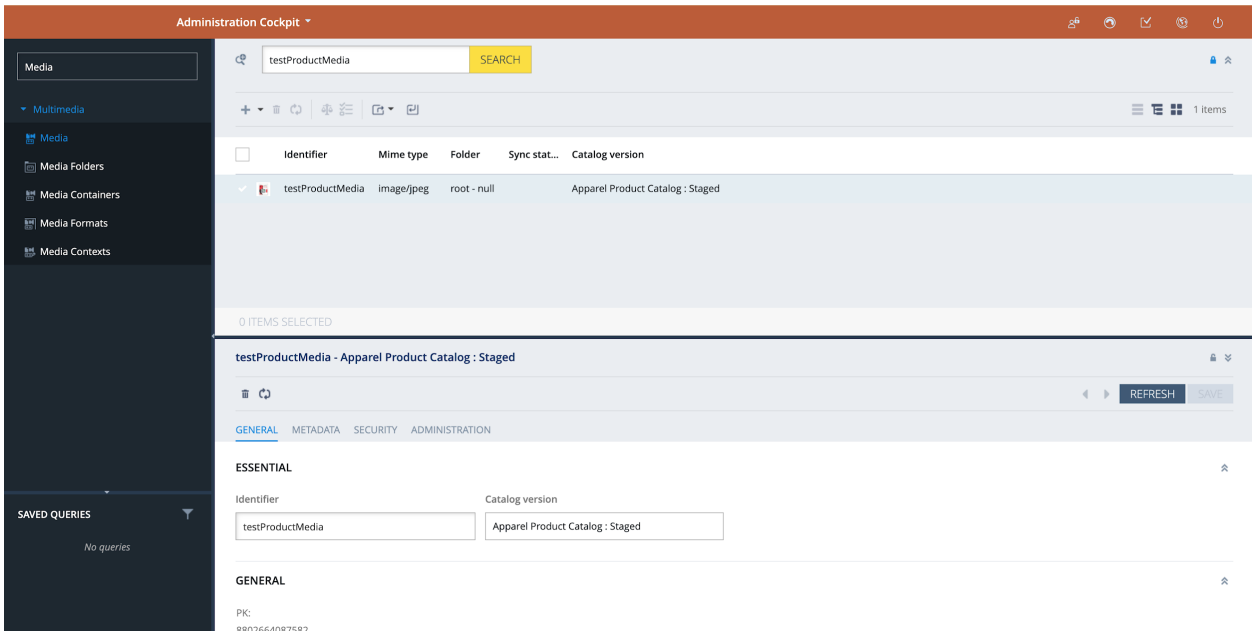
Note - In line with SAP Commerce concept of Media, you can upload/associate only one asset at a time.

8. Clicking the "**Done**" button creates media in SAP Commerce.

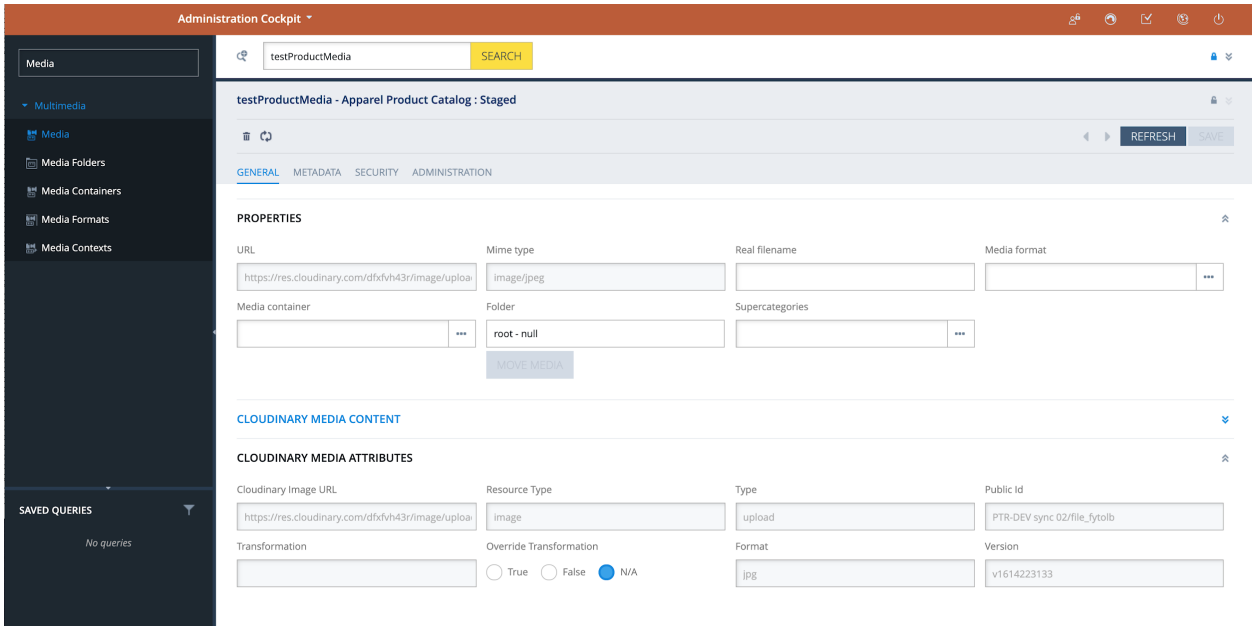
Media Update

To update an existing media:

1. Search for the media to update.



2. Click on the media to open the editor area.
Scroll down to see the section named “**CLOUDINARY MEDIA ATTRIBUTES”** where the Cloudinary response data is saved.

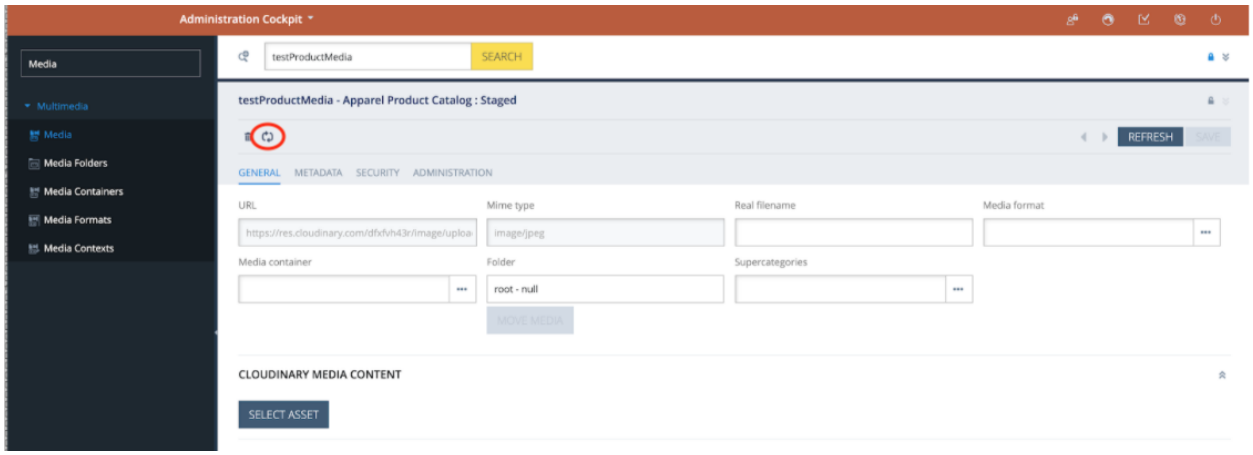


The following table shows the list of attributes populated from the Cloudinary response.

DataModel Attribute Name	Attribute Backoffice Label	Purpose of Attribute
cloudinaryURL	Cloudinary Delivery URL	The URL required to access the asset in Cloudinary.
cloudinaryResourceType	Resource Type	The resource type of the asset, for example, “image” or “video”.
cloudinaryType	Type	The Cloudinary delivery type, for example, “upload”.
cloudinaryPublicId	Public Id	The public ID of the Cloudinary asset.
cloudinaryTransformation	Transformation	The transformation string(s) associated with the media.
isCloudinaryOverride	Override Transformation	The switch to override the Product Catalog and/or Category level transformation(s) with Media/Asset level transformation(s).
cloudinaryMediaFormat	Format	The media format, for example, “jpg” or “png”.
cloudinaryVersion	Version	The version of the asset in Cloudinary.

3. To update the media asset, click the “**SELECT ASSET**“ button from the editor area.

4. To sync media from the staged to the online version of the catalog, click the *Sync* button as shown below.

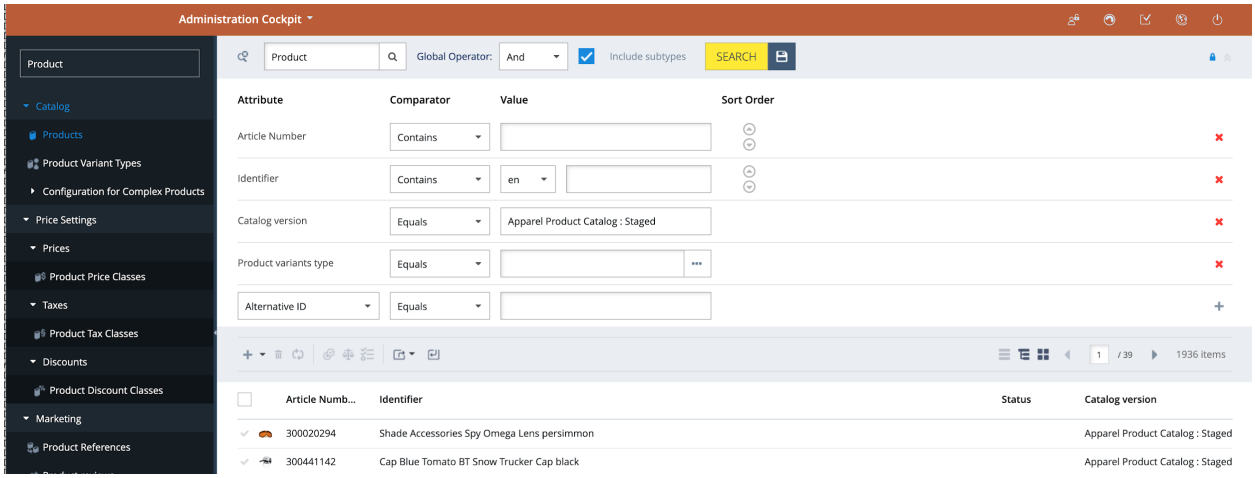

Administration Cockpit
Media
Multimedia
Media
Media Folders
Media Containers
Media Formats
Media Contexts
testProductMedia
SEARCH
testProductMedia - Apparel Product Catalog : Staged
REFRESH
SAVE
GENERAL
METADATA
SECURITY
ADMINISTRATION
URL
Mime type
Real filename
Media format
https://res.cloudinary.com/dfxfvh43r/image/uploa
image/jpeg
Media container
Folder
Supercategories
root - null
MOVE MEDIA
CLOUDINARY MEDIA CONTENT
SELECT ASSET

Associate Media to Existing Product

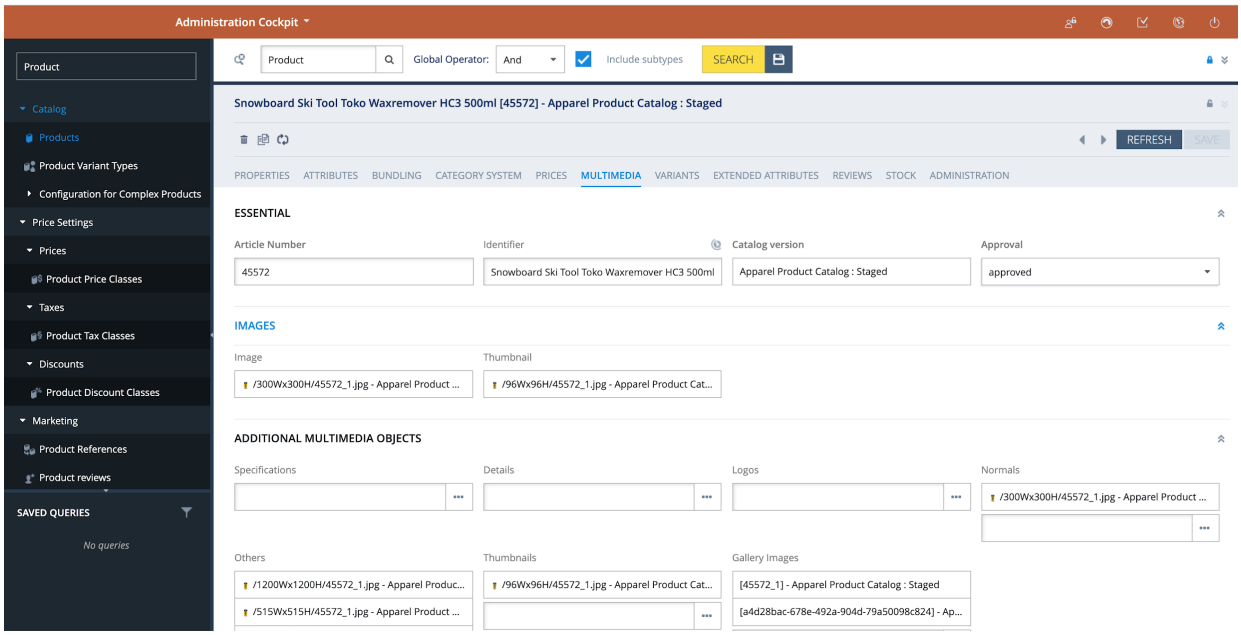
The steps below describe how to associate an existing media to a product. This is a key step that will trigger the tagging of the media in the Cloudinary account.

Once a media is associated with a product and has been correctly tagged, it will be displayed in all the pages where the product images are required e.g. in the product details page within the Cloudinary Product Gallery.

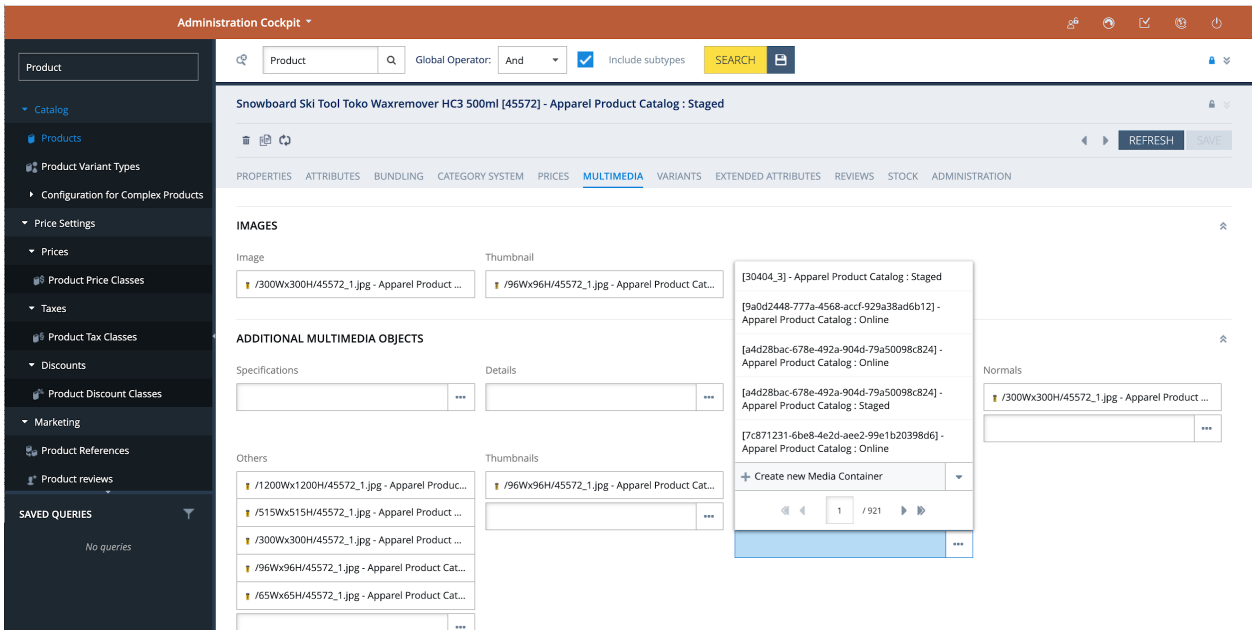
1. To associate a media to a product, navigate to the product tab and search for any product from the same catalog of the media (e.g. Apparel Product Catalog).

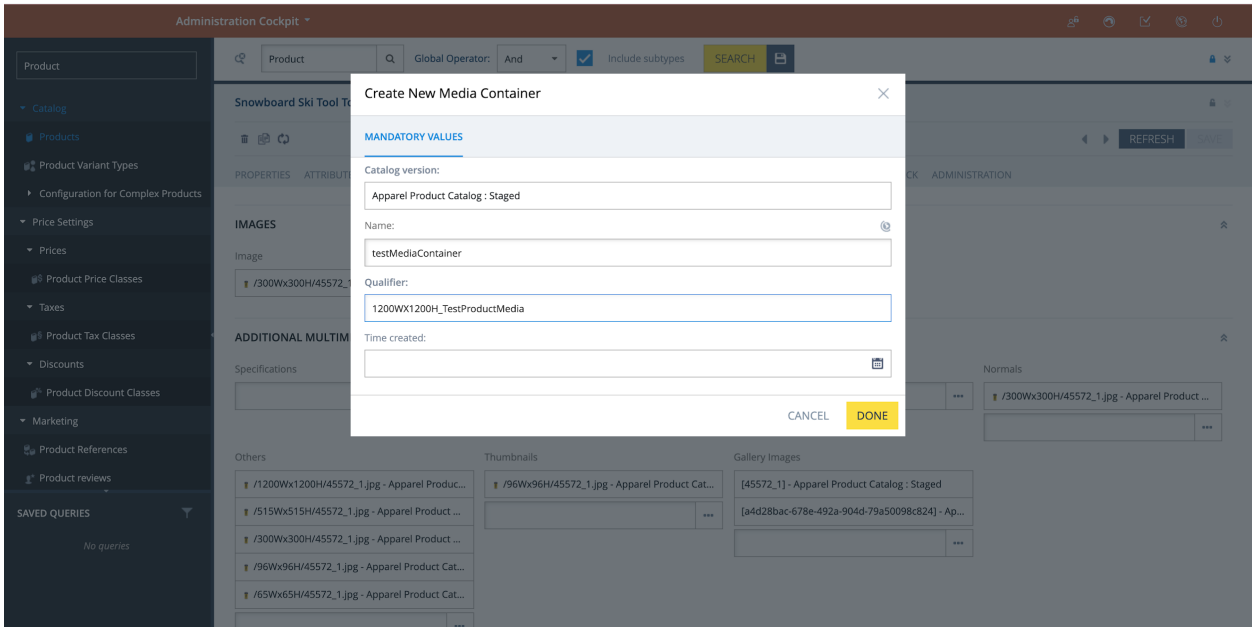


2. Select a product to open the editor area and go to the "*Multimedia*" tab.

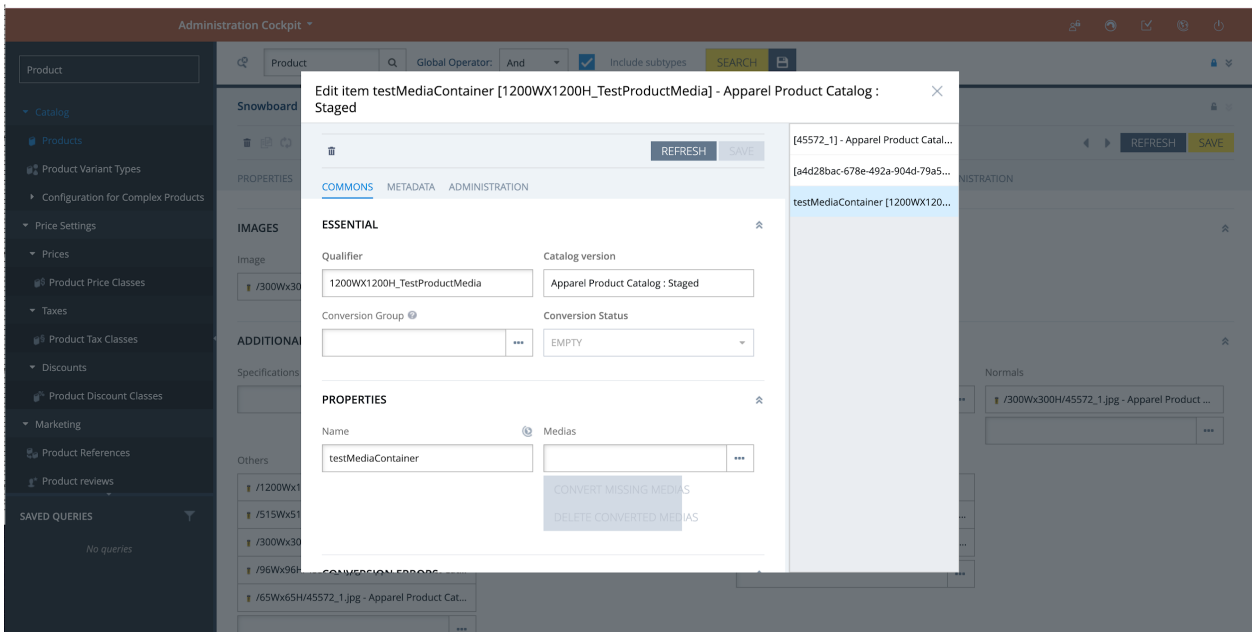


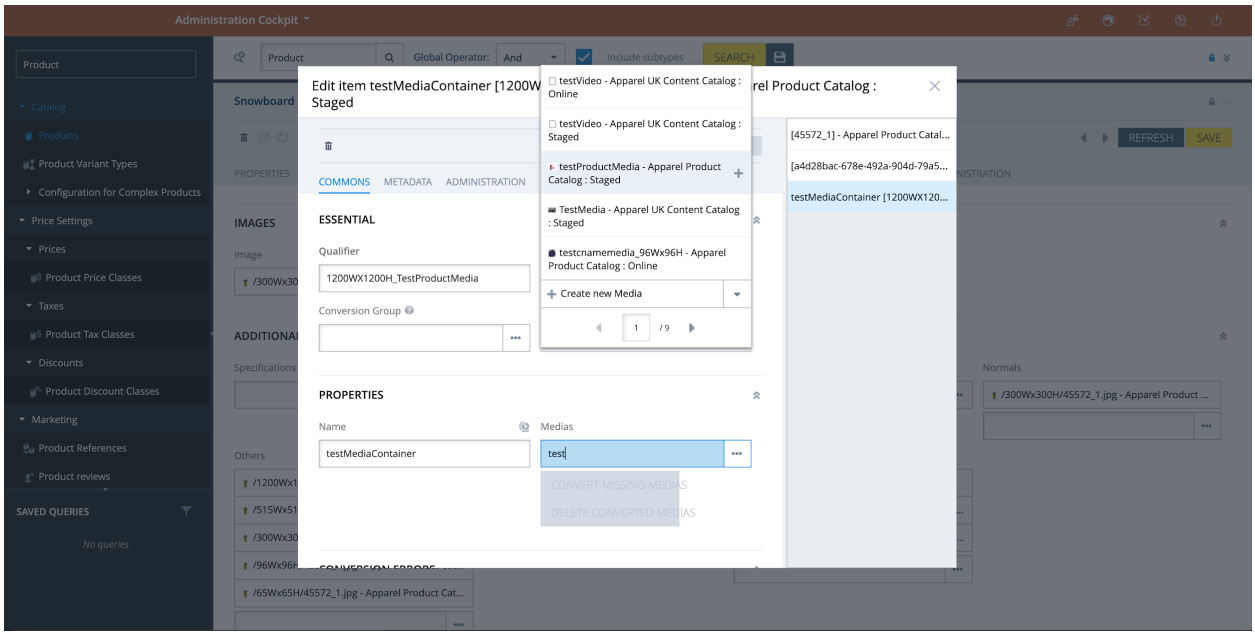
3. From the "**Gallery Images**" attribute, create a new media container and assign the desired media to the media container, as shown:



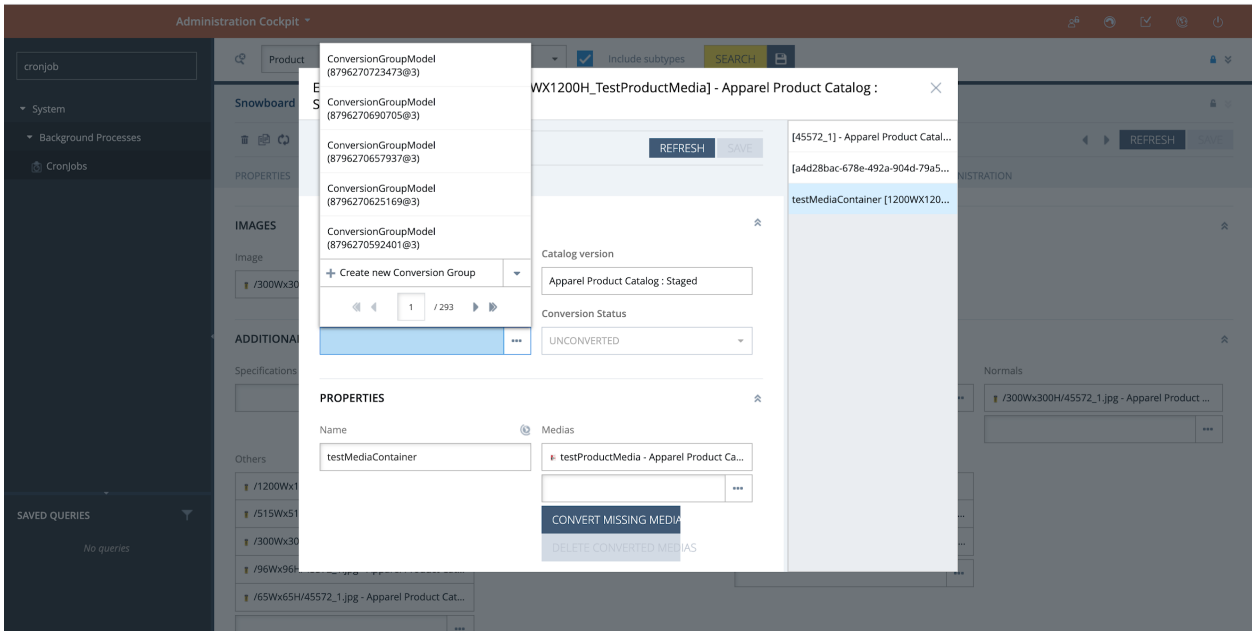


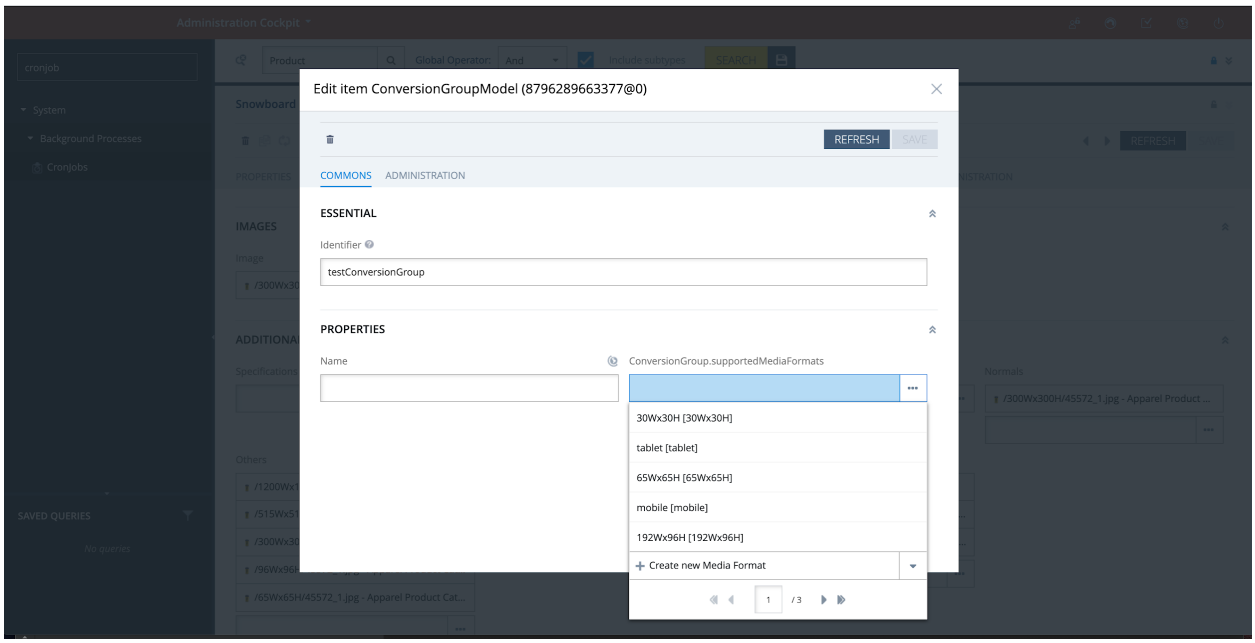
4. Make sure to use the same catalog version used to create media.



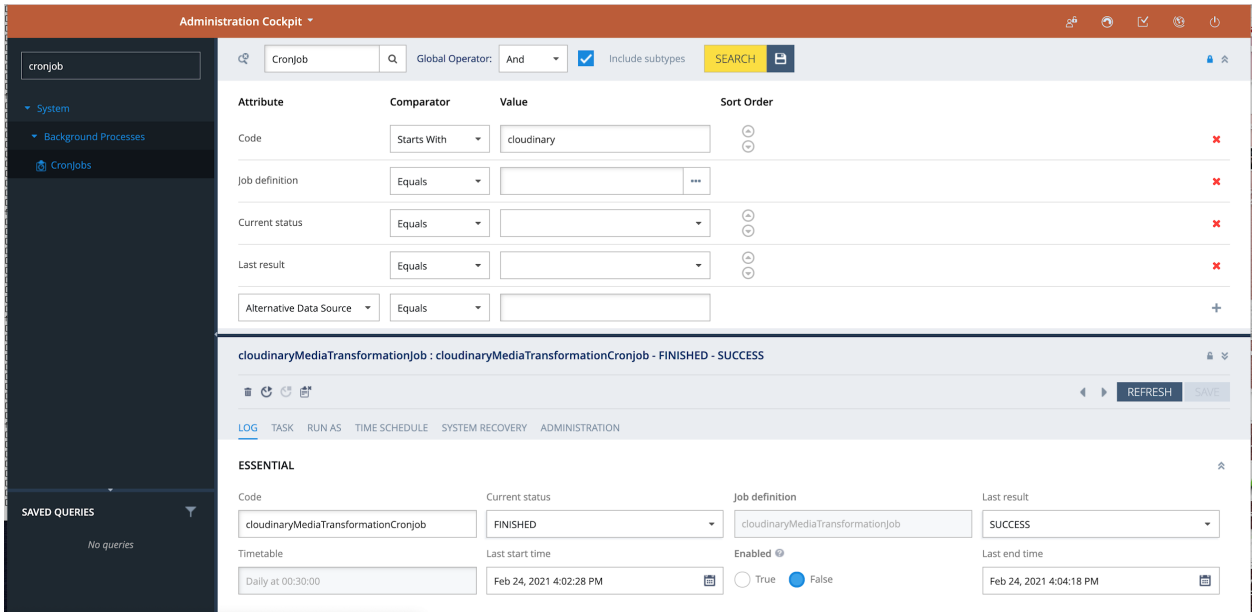


5. Now create a conversion group, add the media formats for which you want to generate media and attach it to the media container, as shown:

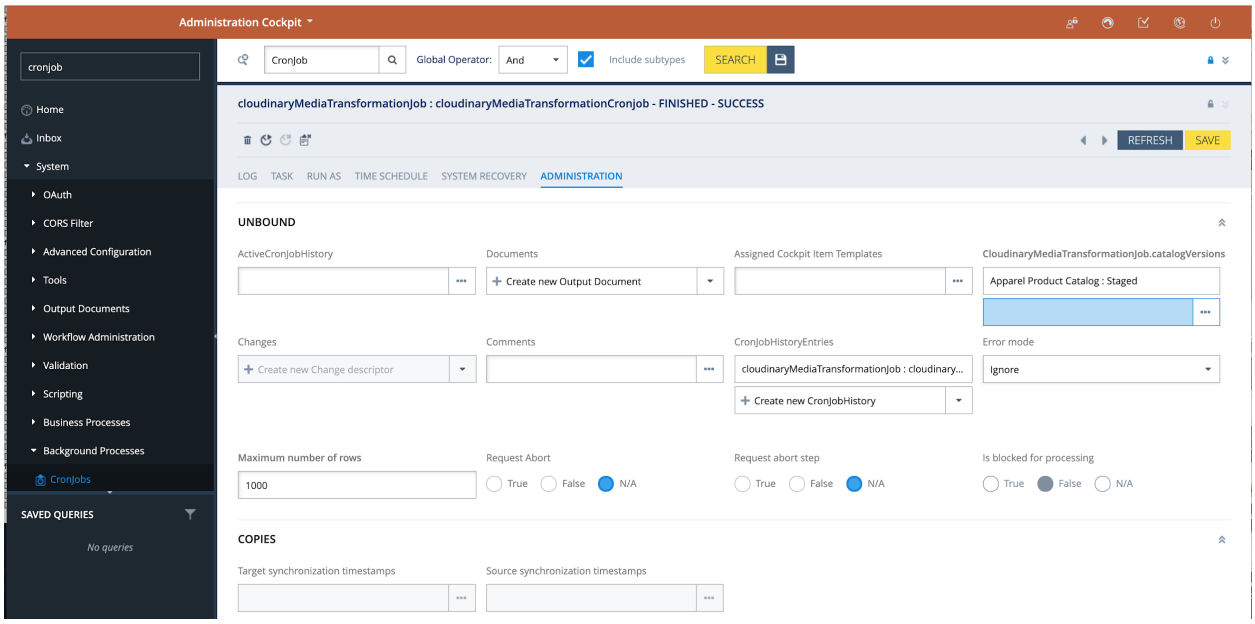

Administration Cockpit
ConversionGroupModel (8796270723473@3)
ConversionGroupModel (8796270690705@3)
ConversionGroupModel (8796270657937@3)
ConversionGroupModel (8796270625169@3)
ConversionGroupModel (8796270592401@3)
Create new Conversion Group
WX1200H_TestProductMedia] - Apparel Product Catalog :
REFRESH
SAVE
[45572_1] - Apparel Product Catal...
[a4d28bac-678e-492a-904d-79a5...
testMediaContainer [1200WX120...
Catalog version
Apparel Product Catalog : Staged
Conversion Status
UNCONVERTED
PROPERTIES
Name
testMediaContainer
Medias
testProductMedia - Apparel Product Ca...
CONVERT MISSING MEDIA
DELETE CONVERTED MEDIAS
IMAGES
SAVED QUERIES
No queries


Administration Cockpit
Edit item ConversionGroupModel (8796289663377@0)
REFRESH
SAVE
COMMONS
ADMINISTRATION
ESSENTIAL
Identifier
testConversionGroup
PROPERTIES
Name
ConversionGroup.supportedMediaFormats
30Wx30H [30Wx30H]
tablet [tablet]
65Wx65H [65Wx65H]
mobile [mobile]
192Wx96H [192Wx96H]
Create new Media Format
IMAGES
SAVED QUERIES
No queries

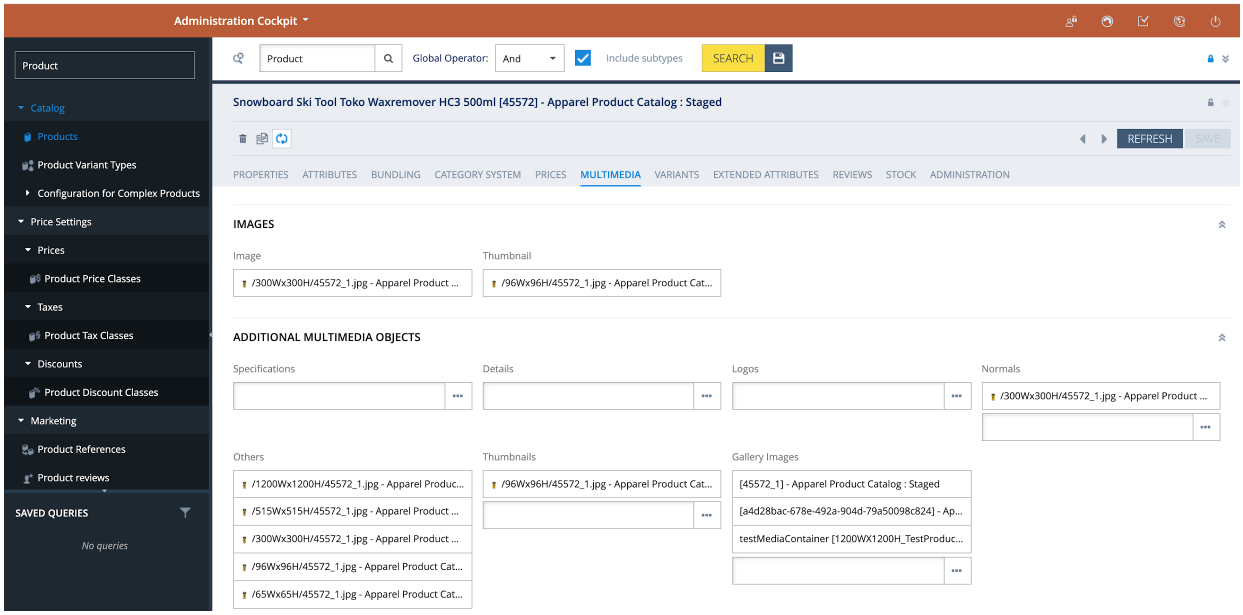
6. Now trigger the **CloudinaryTransformationCronJob**, for that particular catalog version to generate the media for the different media formats associated with the conversion group.



7. Make sure to set the correct catalog version in the Administration tab, *Catalog Versions* attribute. Run the cronjob.



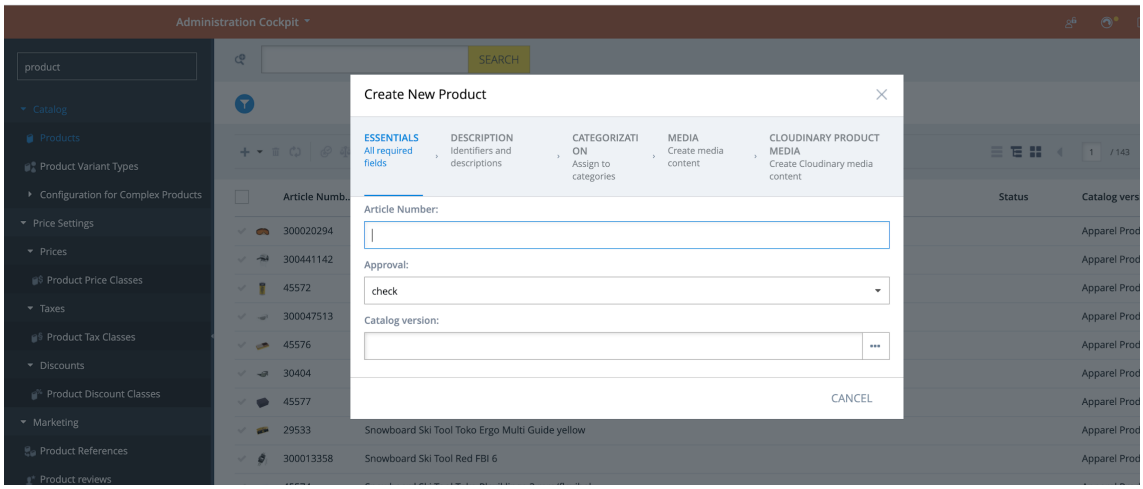
8. Navigate back to the staged version of the product you were editing to verify the different media formats have been generated, then run a catalog sync to propagate the changes to the online version of the product.



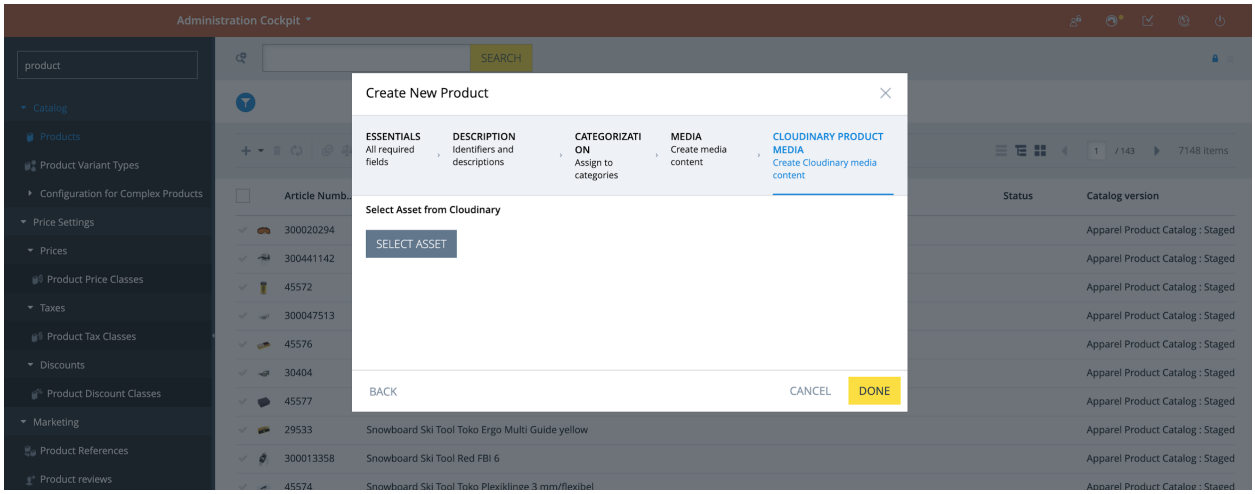
Create New Product and Associate Media

1. Navigate to “Product” from the left navigation, and click “+” to create a new product. The OOB *Create New Product* wizard is displayed.

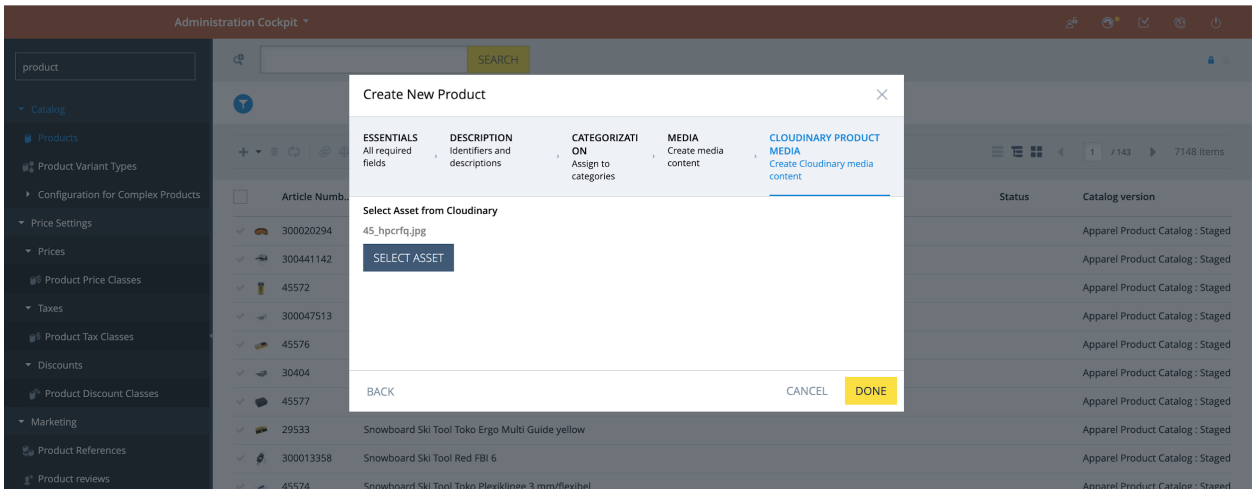
2. Add “*Article Number*” and “*Catalog Version*” and click the “Next” button.



3. To add a media via the Cloudinary Media Library, navigate to the last step “CLOUDINARY PRODUCT MEDIA” and click the “SELECT ASSET” button.



4. Either upload or select an existing asset from your Cloudinary account. Once upload of the asset to the SAP Commerce media is completed, the asset filename is displayed in the Create New Product wizard. Click the “Done” button to create the product.



5. Open the newly created product and navigate to the *Multimedia* tab. Open *Gallery Image* and expand to validate the media has been correctly associated.

6. Now add a conversion group, trigger **cloudinaryTransformationSyncJob** and run the product sync, as shown in the above section, for updating the product online version.

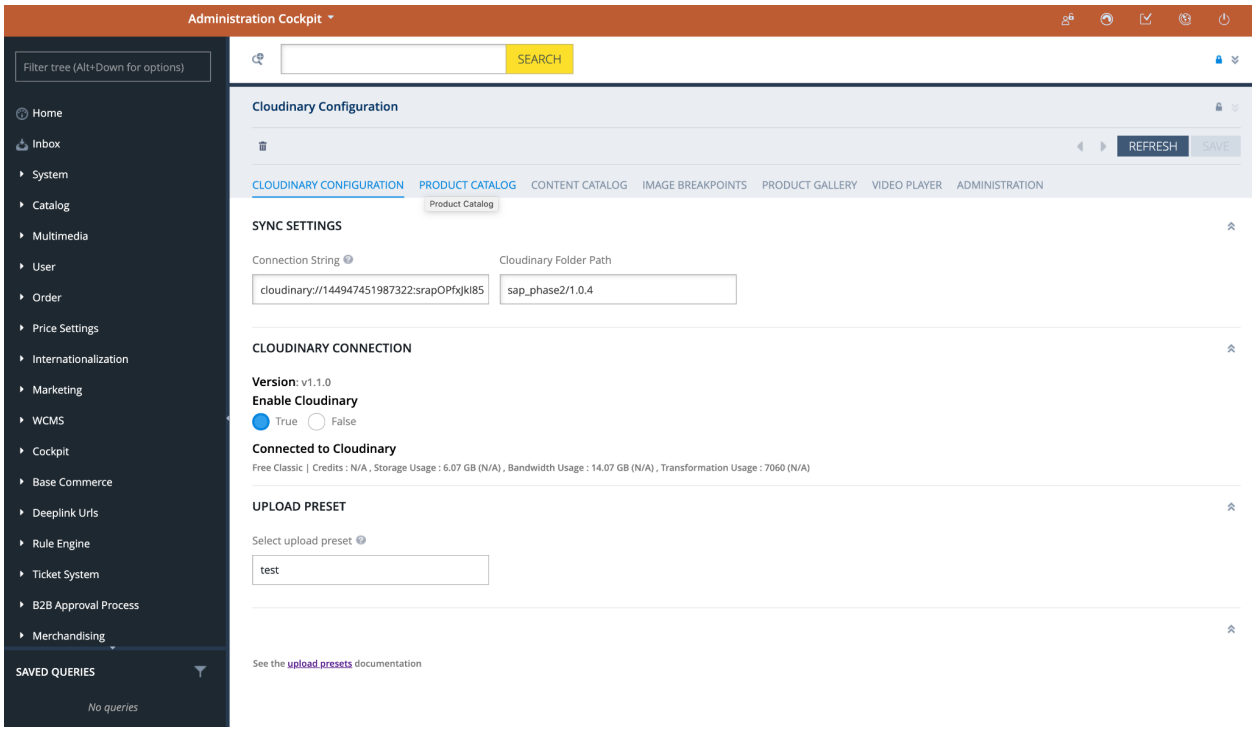
Cloudinary Product Gallery

Enable Cloudinary Product Gallery

To enable the Cloudinary Product Gallery for the Product Detail Page:

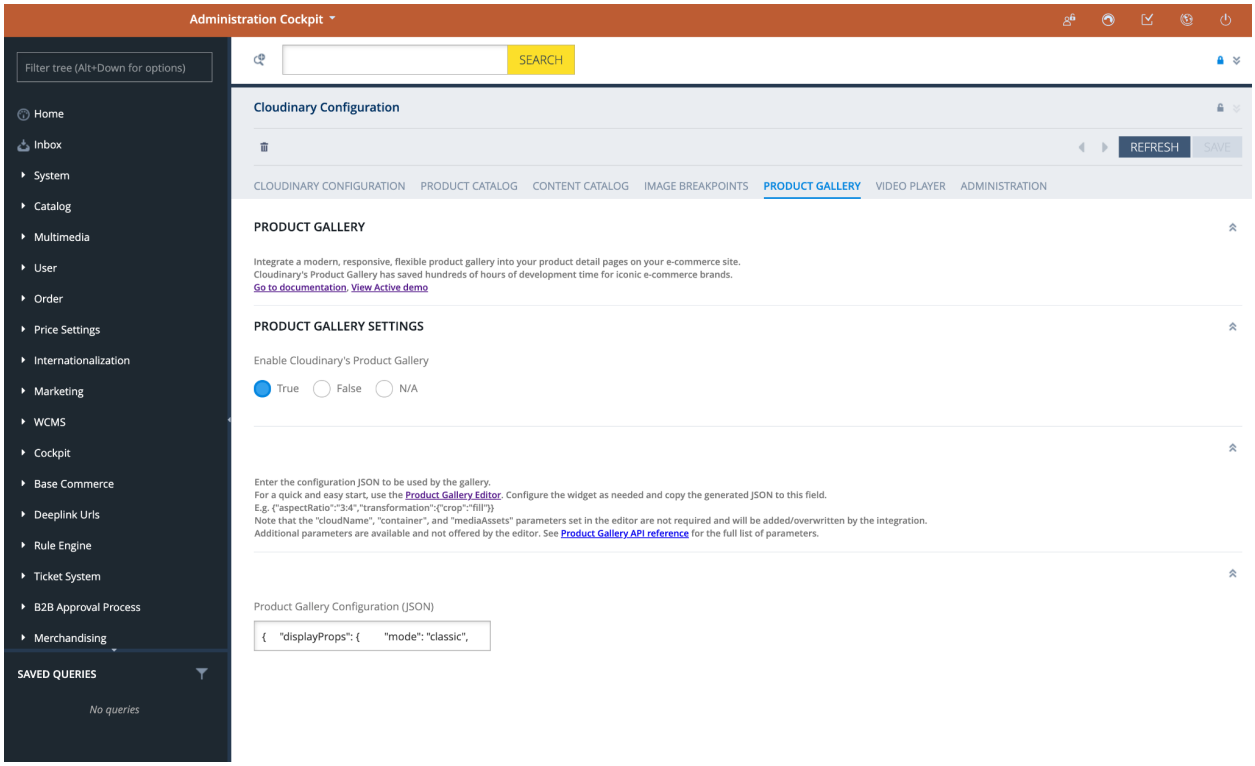
1. Log into Backoffice.

2. Navigate to Cloudinary > CloudinaryConfiguration and open the existing configuration.



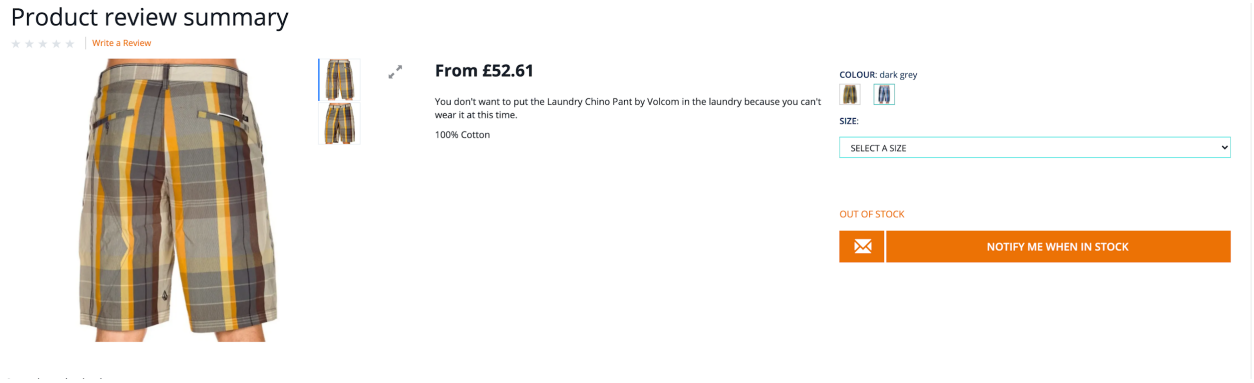
3. In the editor view, go to the “Product Gallery” Tab and set “Enable Cloudinary’s Product Gallery” to *true*.

4. The Product Gallery can be customized using JSON. To do that, follow the guidelines in the Backoffice section (see below). You can open the Product Gallery Editor, set up the gallery look and feel, then copy the resulting JSON to the clipboard and paste it in the SAP Backoffice attribute, *Gallery Configuration JSON*. For further information about the many additional options available for the gallery configuration, refer to the Cloudinary Product Gallery guide.



5. Once the JSON change is saved, the changes are instantly applied and visible in your storefront.

6. Browse to your storefront and select a product to land on the Product Detail Page.
   The Cloudinary Product Gallery will be displayed and its appearance will reflect the setup done in the Product Gallery Editor.



Display a Product 360 Spin Set

To display a 360 spin set media for the product in the Product Gallery add a *Spin Set Tag* in the *Multimedia* tab of the product.

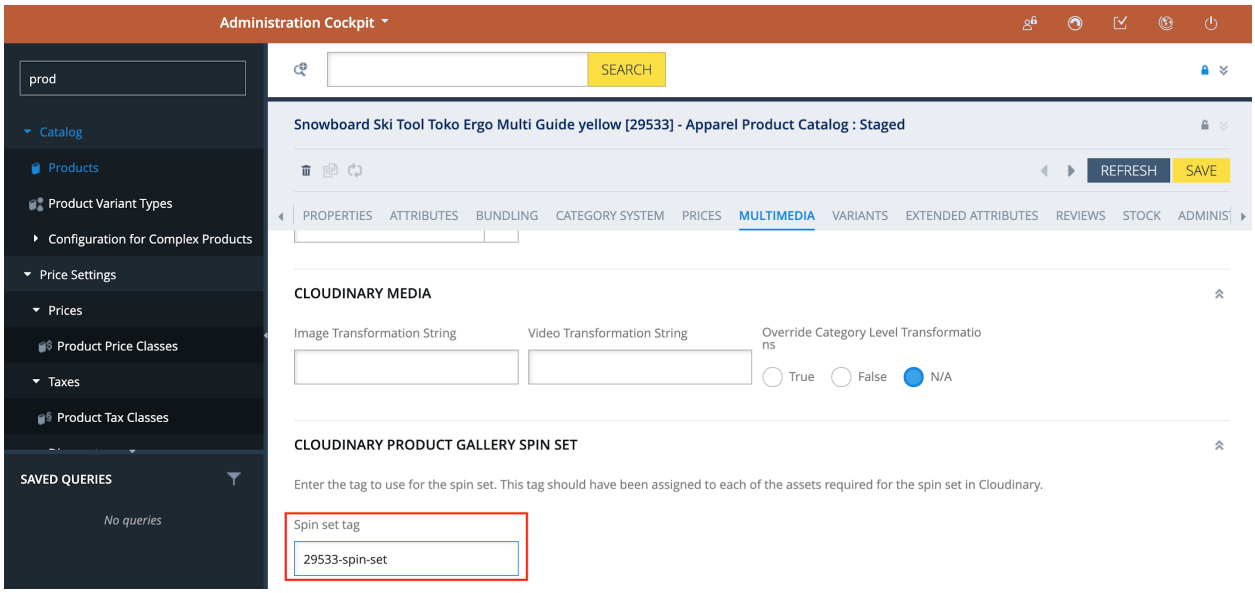
Before doing the setup on the SAP Backoffice, make sure that the spin set assets for the product are uploaded to your Cloudinary account and they are all tagged with the same spin set tag. As per Cloudinary's spin set functionality requirements, also make sure that all the assets are named in alphabetical order according to the desired sequence. The Cloudinary spin set will be built by collating the assets into a spin set media type, following the alphabetical order of the public ID. For further information about the product 360 spin set, refer to the Cloudinary Product Gallery guide.

Note - The presence of a spin set tag determines whether or not the spin set is displayed on the PDP.

1. Navigate to Backoffice and open the editor area for a product.

2. Select the *Multimedia* tab and scroll down to the "Cloudinary Product Gallery Spin Set" section.

3. Populate the *Spin Set Tag* field with the same tag used in your Cloudinary account to identify the spin set assets for this product.



Cloudinary Video Component

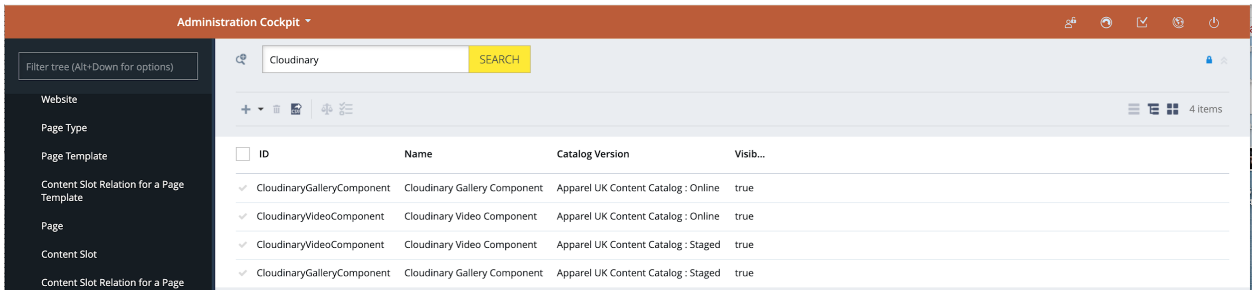
The Cloudinary video player is a CMS component, which can be used to display videos in a desired page slot. The Cloudinary video CMS component can be added to any page.

Prepare the Cloudinary Video Component

To enable the Cloudinary video player:

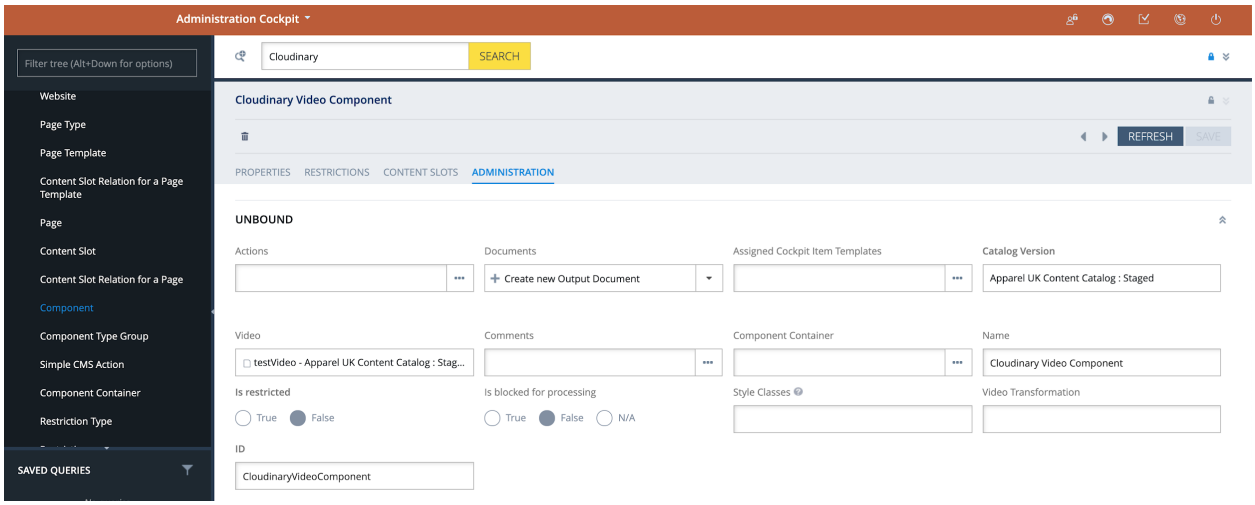
1. In SAP Backoffice, navigate to Multimedia > Media and create a new media via the media wizard to upload a video to Cloudinary. Select the staged catalog version and sync the media to the online one.

2. Navigate to WCMS > Components and search for “**CloudinaryVideoComponent**“.

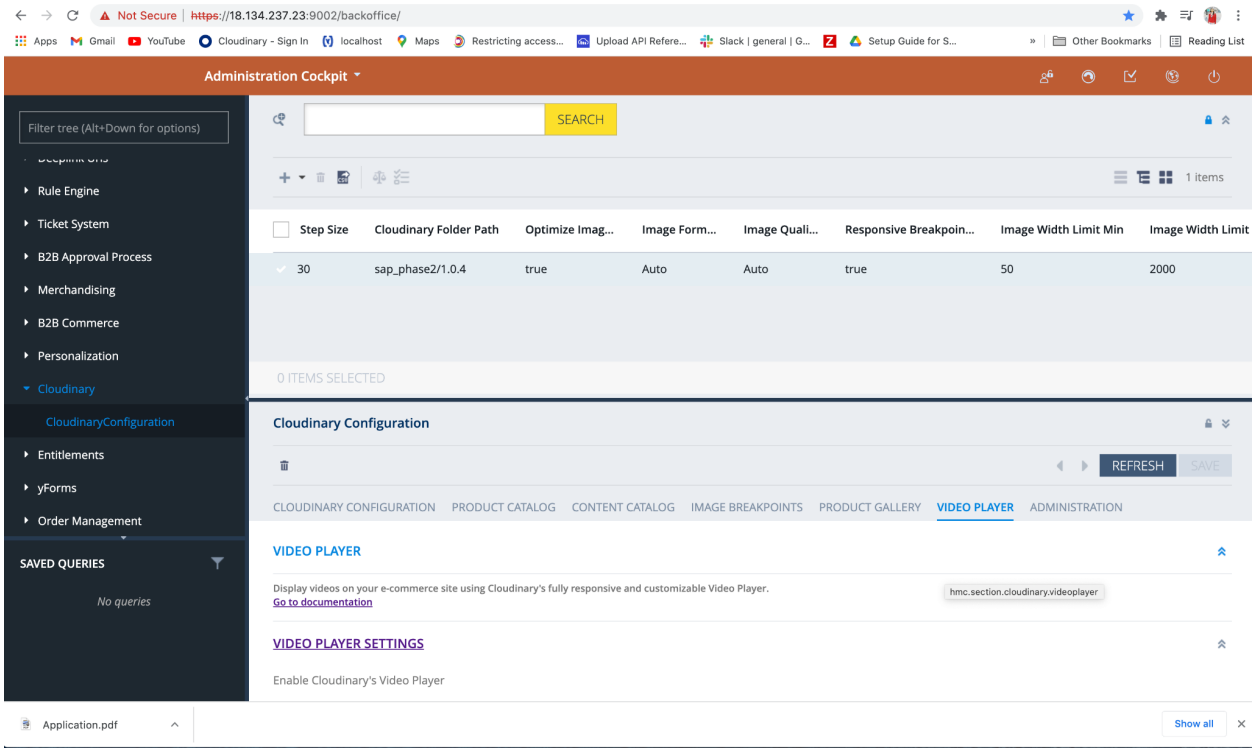


3. Click the staged version of the video component to edit it. Go to the administration tab to view the component attributes.

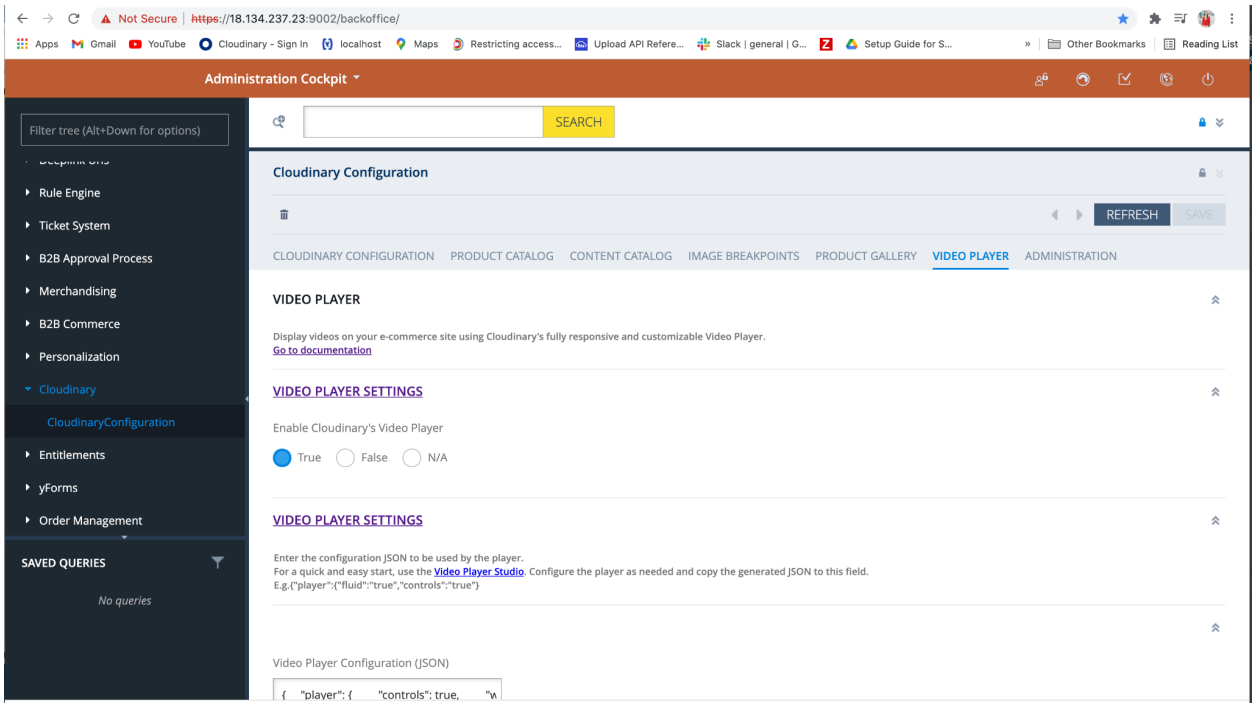
4. In the *Video* attribute field select the media containing the video you want to display.



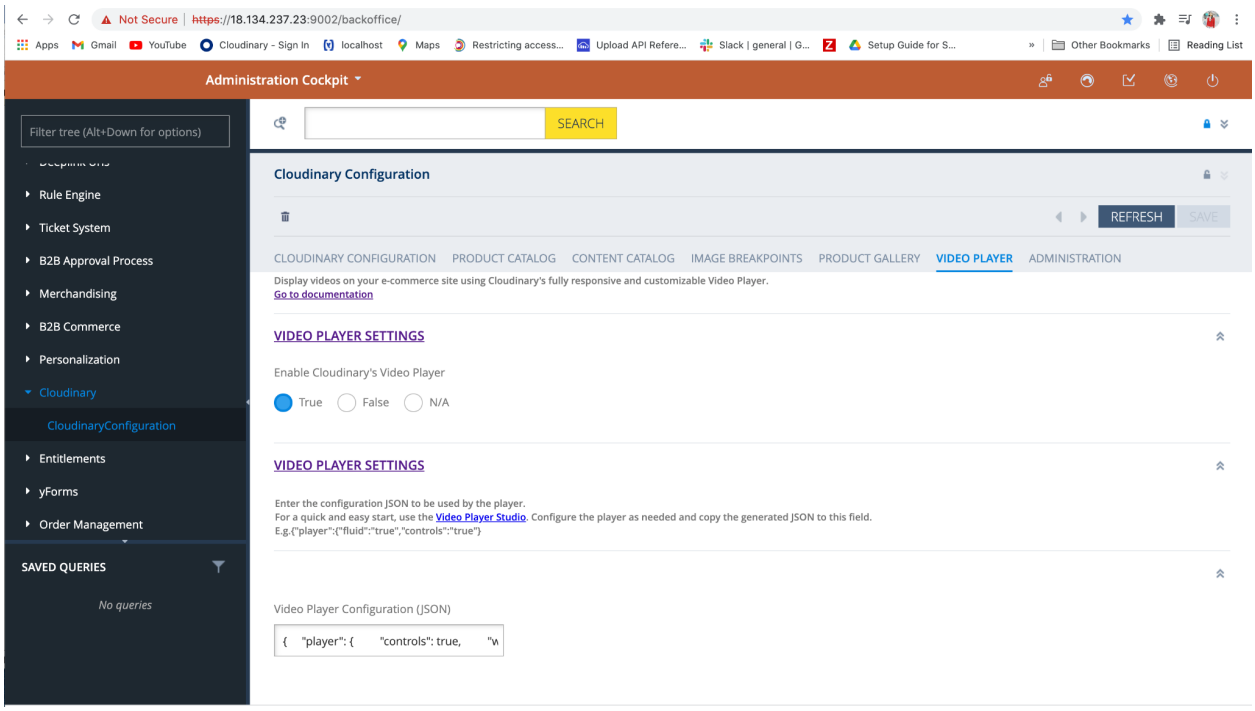
5. Navigate to Cloudinary > CloudinaryConfiguration and open the existing configuration.



6. In the editor view, go to the “Video Player” Tab and set “Enable Cloudinary’s Video Player” to *true*.



7. The Video Player can be customized using JSON. To do that, follow the guidelines in the Backoffice section (see below). You can open the Video Player Editor, set up the video settings, then copy the resulting JSON to the clipboard and paste it in the SAP Backoffice attribute, *Video Player Configuration JSON*.

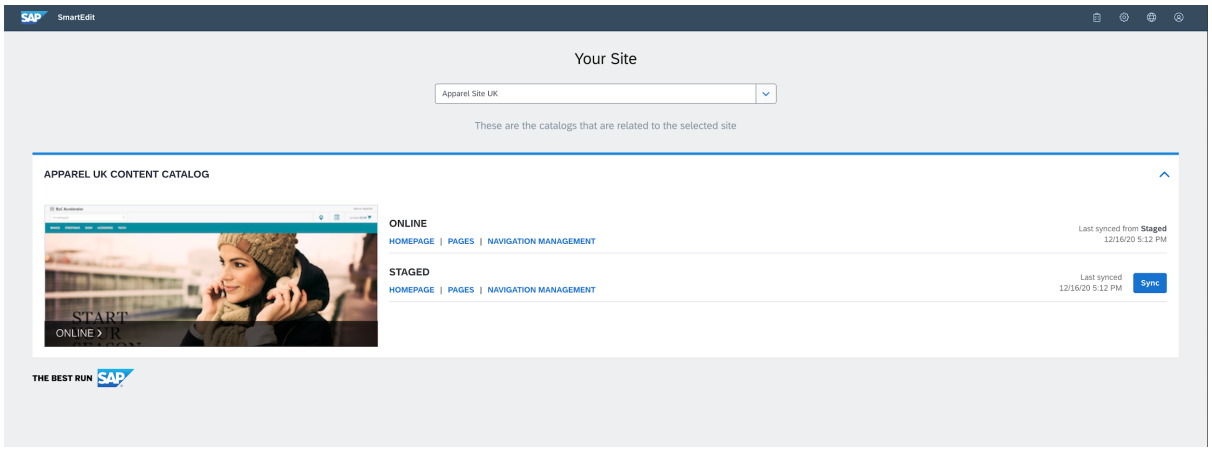


Note - Only the transformations set at the component level will be applied to the Cloudinary Video Component.

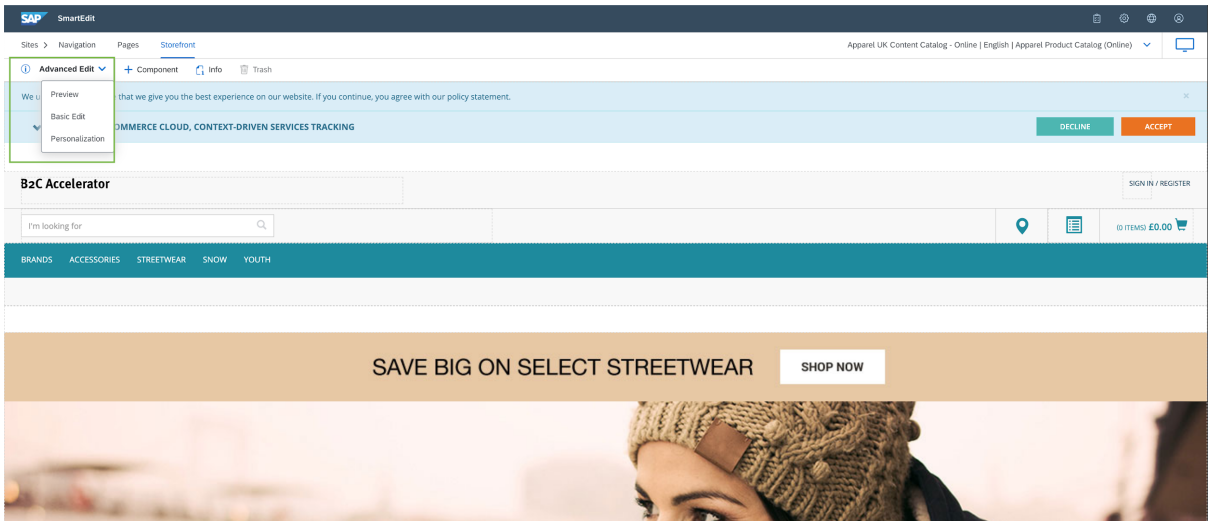
Place the Cloudinary Video Component

To place the Cloudinary Video component in a specific page:

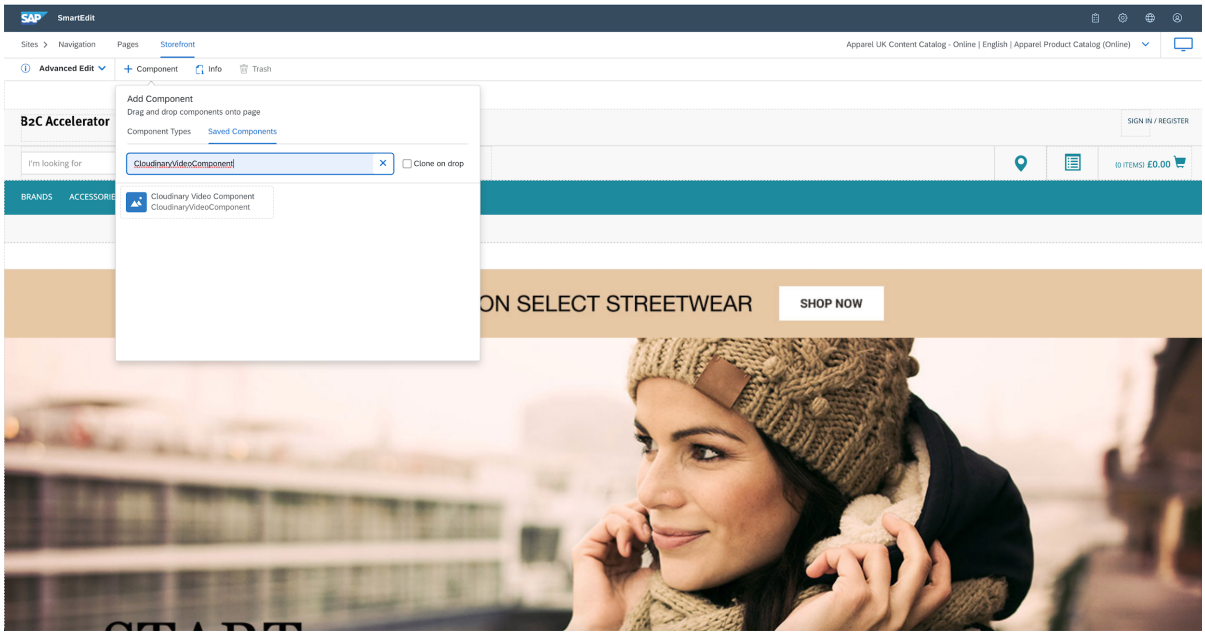
1. Log into Smartedit.
2. Select your site in the drop down and click, for example, on the STAGED “Homepage“ link (shown below using the sample Apparel UK Content Catalog).



3. Once the *Homepage* is loaded, make sure to switch to the "*Advanced Edit*" mode.



4. Click the "**+ Component**" link at the top to add a component to the page.



5. Click the “Saved Components“ tab to select the existing “Cloudinary Video Component“ previously created and assigned with the video media. Drag and drop it to the desired slot in the page.

6. Approve the page change and make sure to synchronize the staged version with the online one. You can either sync the single component/slot or the entire page.

7. Navigate to the storefront homepage to verify that the video is successfully displayed.

Bulk Upload

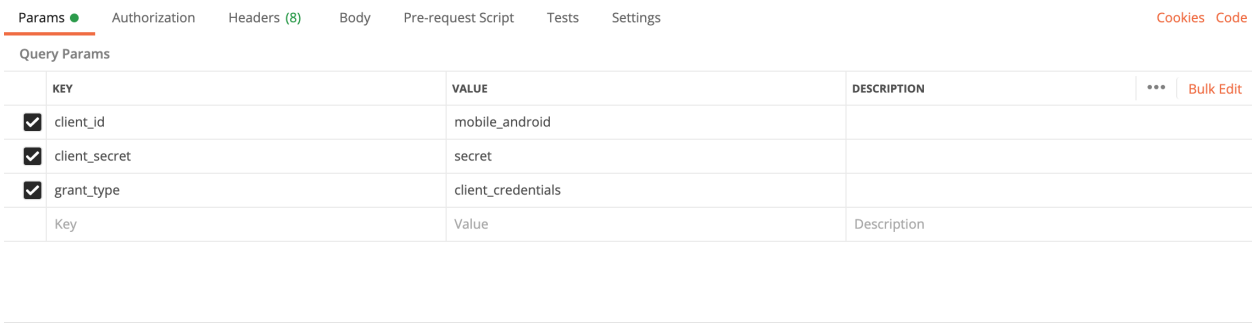
The bulk upload process aims to create media in SAP Commerce in bulk for the product catalog. Given assets uploaded in your Cloudinary account, you will be able to create SAP media and assign them with the Cloudinary assets. The bulk upload can be done either via Rest API or Hot Folder.

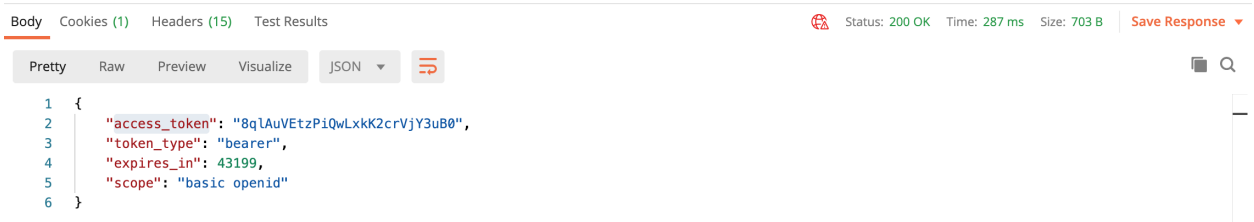
Bulk Upload via REST API

To execute the bulk upload using REST API:

1. Open a REST client of your choice (e.g. Postman).
2. Send a Get Request to get "**access_token**", as shown:

   https://<SAP-Commerce-Backend-IP>:9002/authorizationserver/oauth/token?client_id=mobile_android&client_secret=secret&grant_type=client_credentials





3. Send the following request body and access_token in the Token field of the Authorization tab.

   https://<SAP-Commerce-Backend-IP>:9002/rest/v2/<your-SAP-Store-name>/bulkupload/assets

```
{
"productMediaAssest":[
        {
        "productCode":"<<product_code>>",
        "mediaContainers":[
                {
                "mediaContainerCode":"<media_container_code>",
                "publicId":"<asset-Public-ID>",
                "resourceType":"<asset_resource_type>",  //Eg - image or video
                "cloudinaryType": “upload”,
                “cloudinaryMediaFormat”:”<asset_media_format>”  //Eg - jpg,mp4
                }
        ]
        }
]
}
```

4. Running this API call will update media for the product and will tag that media with the product code in Cloudinary.

5. After a successful call, Media on the product will be set and will be tagged in Cloudinary.

6. Media on the product can be verified in Backoffice and you can verify the tag in Cloudinary.

Bulk Upload via Hot Folder

1. Create a feed file in CSV format with all the references to update the product media. Here is a header and one sample row:

   #mediacode,cloudinaryMediaFormat,cloudinaryResourceType,type,mediacontainercode, productcode,catalogid,catalogversionid

   /1200Wx1200H/30404_1_1200Wx1200H,png,sap/uploadAssets/berner,image,upload,30404_2,30404,apparelProductCatalog,Staged

2. Place the feed file in the following path: “hybris/data/acceleratorservices/import/master/cloudinary”.

3. After placing the file, the file will be picked up and placed inside the processing folder.

4. After completion, the media on the product will be updated.

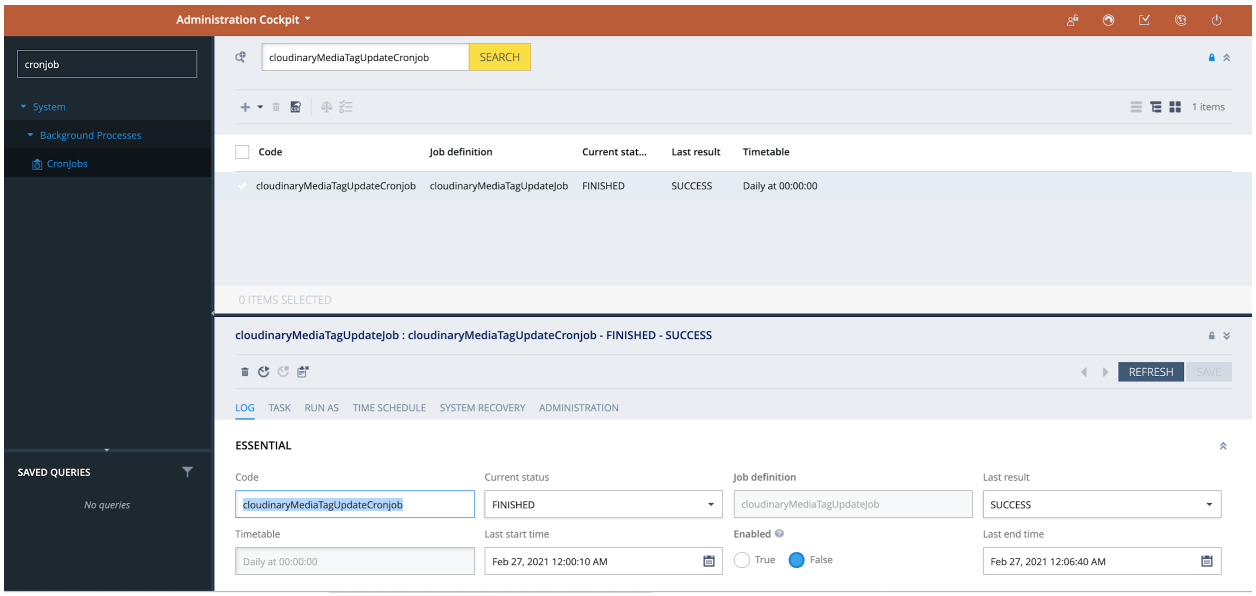
5. Search for product code form requests and verify gallery images.

Product Media Tag after Bulk Upload

After the bulk upload operation is complete, the assets in your Cloudinary account need to be tagged with the associated product tag, in the format of “*sap_sku_<productCode>*”.

To tag the entire batch of media you assigned to respective products during the bulk upload, you have to trigger the “**cloudinaryMediaTagUpdateCronjob**”. The cron job can be triggered from Backoffice as shown in the screen below.

Note - Ensure that the cron job is pointing to the correct catalog version (Administration tab).



Cloudinary Content Catalog Transformations

Cloudinary content catalog transformations are based on the SAP media container and media concepts and are applied to all images and videos of content catalog.

Note - The SAP media container should have a single large master image uploaded to Cloudinary in a media that serves as a master media for all the transformations for that image. This master media should not have any media formats attached. Also, every SAP media format needs to have the “transformation” field set with a value for the transformation.

DataModel Attribute Name	Attribute Backoffice Label	Purpose of Attribute
CloudinaryConfig.cloudinaryContentGlobalImageTransformation	Custom Transformation	Field to add Content Catalog image transformation.
CloudinaryConfig.cloudinaryGlobalContentVideoTransformation	Custom Transformation	Field to add Content Catalog video transformation.

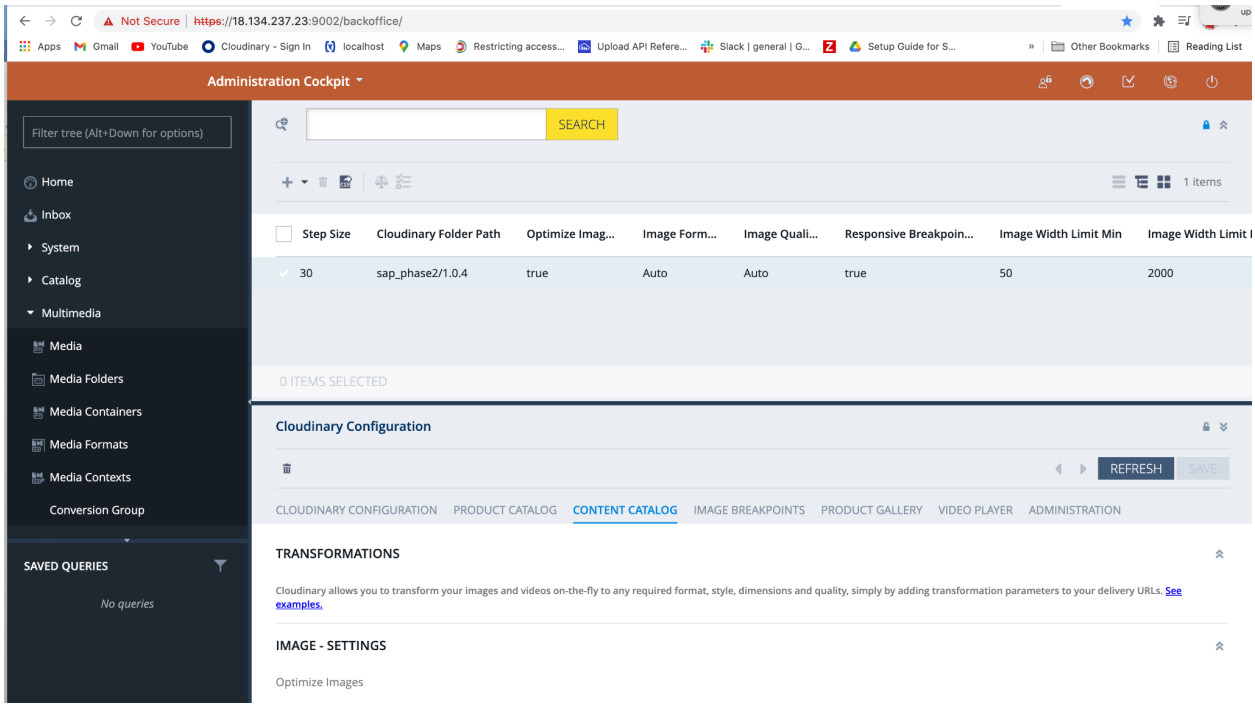
Where transformation strings are required in the forms, use URL syntax as defined in the Transformation URL API guide. You can chain many transformations together, as explained here.

Note - The transformations set at the Content Catalog level do not apply to the Video Component. The Video Component displays according to the JSON configuration.

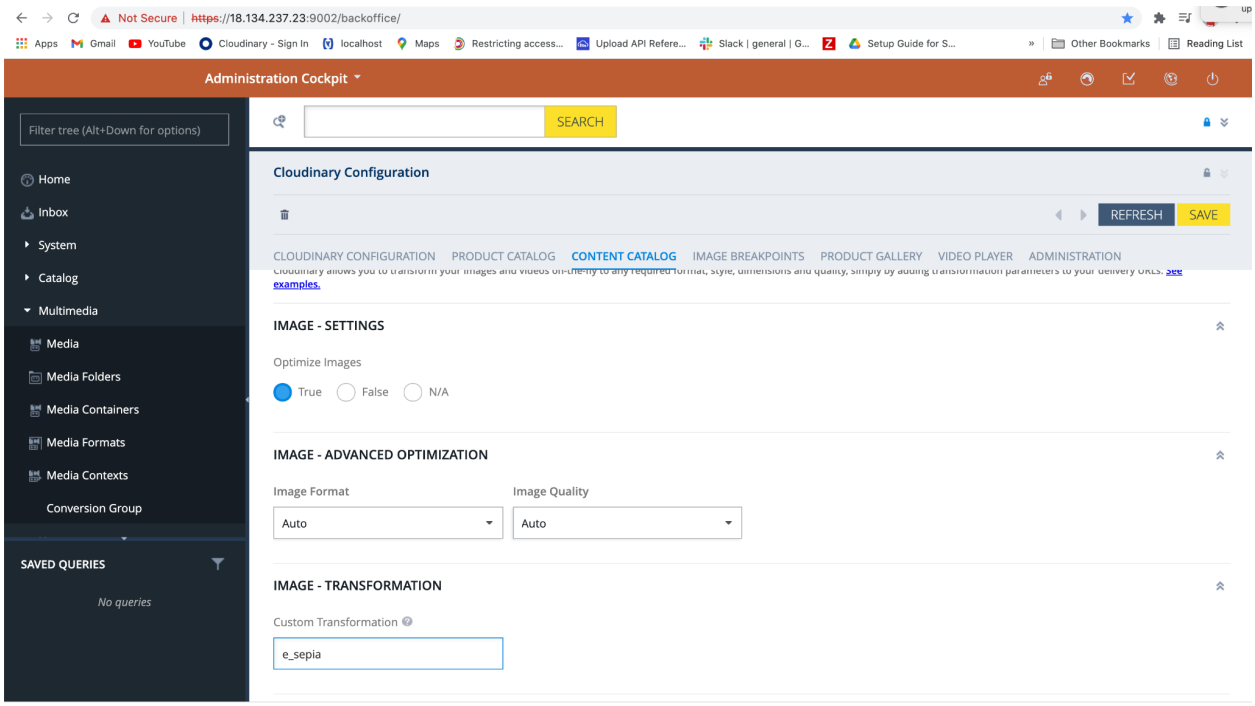
Apply Content Catalog Level Transformations

To apply Content Catalog transformations from Backoffice:

1. Log into Backoffice, navigate to Cloudinary > CloudinaryConfiguration, select your Cloudinary configuration and open the “Content Catalog” tab.

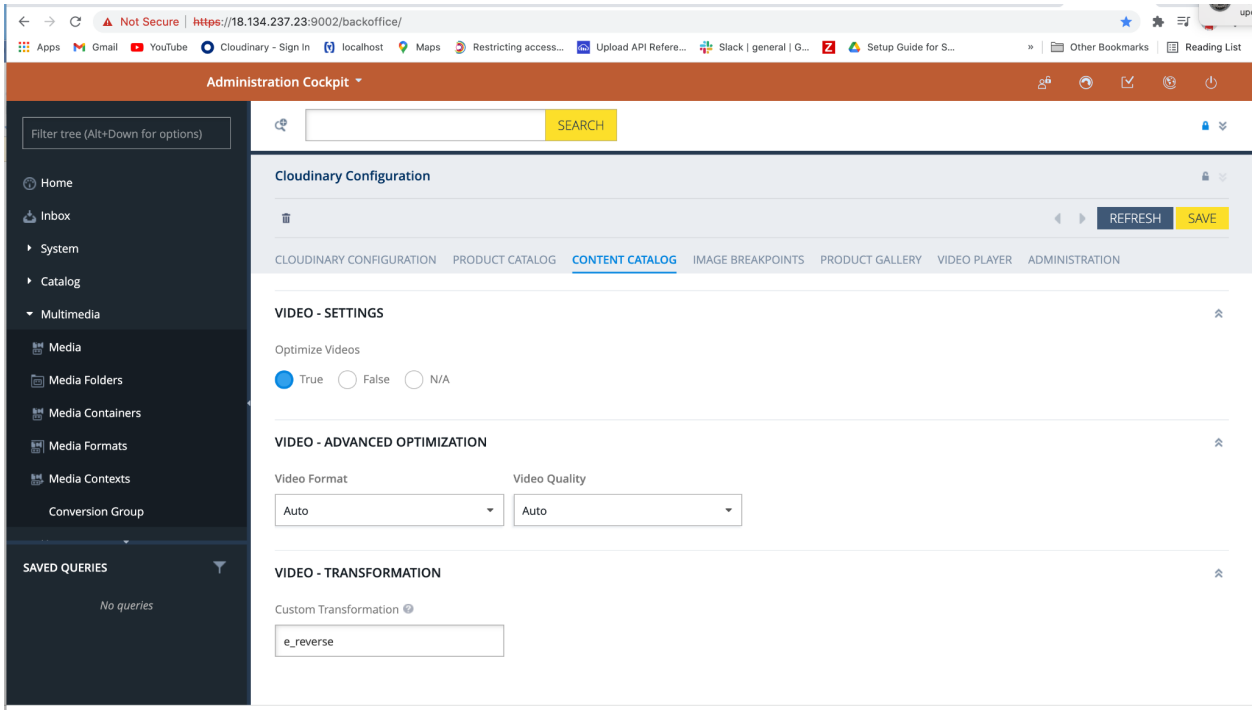


2. To apply a transformation to all the *Content Catalog* images, scroll to the “IMAGE - TRANSFORMATION” section and provide the required image transformation string in the *Custom Transformation* field, e.g. “e_sepia”.



Note - The image transformation strings can be concatenated in a comma separated list for multiple transformations, and chained using forward slashes to apply further transformations to the result. Make sure there are no blank spaces between the strings, e.g. “e_sharpen,r_max/e_sepia”.

3. To apply a transformation to all the *Content Catalog* videos, scroll to the “VIDEO - TRANSFORMATION” section and provide the required video transformation string in the *Custom Transformation* field. Also for videos, a comma separated list of transformation strings is allowed, as well as chained transformations using forward slashes.



4. Save your changes for the transformations to be applied.

Transformation Cronjob

The transformation cronjob takes care of generating different formats of the asset based on the conversion groups. Once a conversion group is attached to a specific media container with all the supported media formats with specific transformations and the transformation cronjob is run, the job automatically generates all the different transformations for the product. The job is scheduled to run every 30 minutes automatically in the background and can be rescheduled to a different interval or can be run manually.

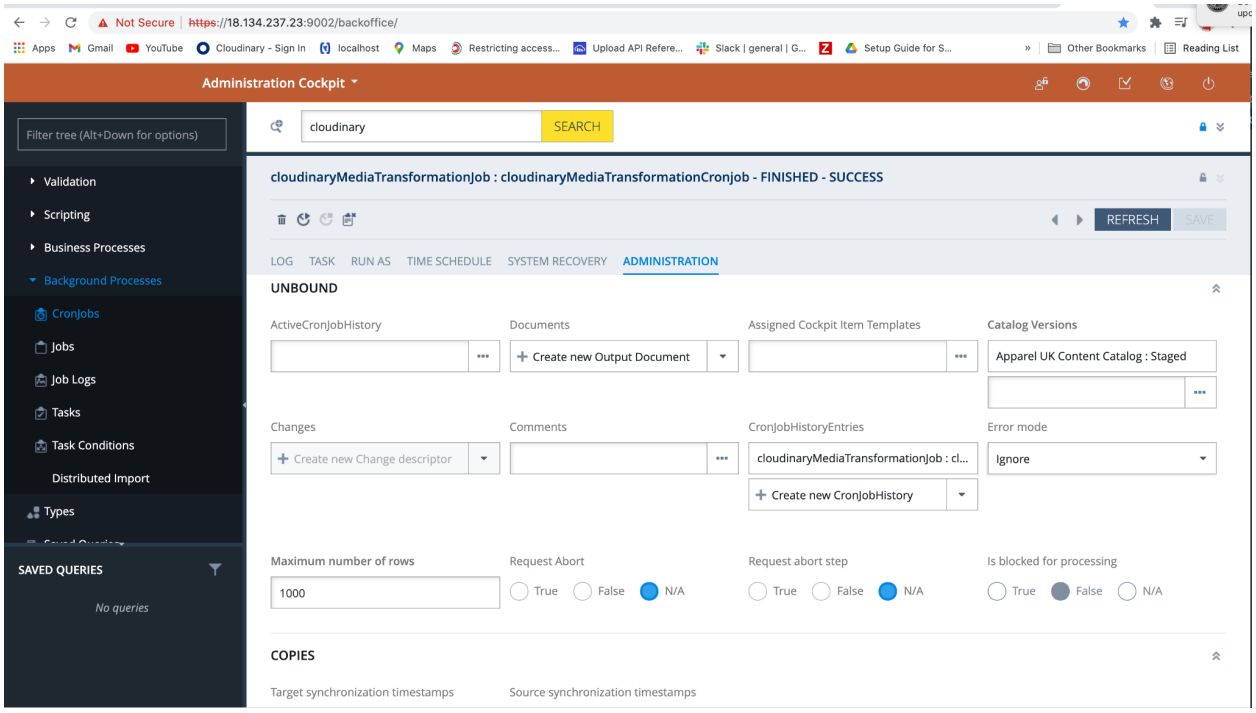
Note - The SAP media container should have a single large master image uploaded to Cloudinary in a media that serves as a master media for all the transformations for that image. This master media should not have any media formats attached. Also every SAP media format needs to have the “transformation” field set with a value for the transformations.

DataModel Attribute Name	Attribute Backoffice Label	Purpose of Attribute
CloudinaryMediaTransformationjob.catalogVersions	CloudinaryMediaTransformationjob.catalogVersions	Add the required catalog for which the transformations need to be generated. Select the staged catalog version.

To manually run the transformation cronjob:

1. Log into Backoffice, navigate to System > Background Processes > Cronjobs and search for **cloudinarytransformationcronjob**.

2. Navigate to the *Administration* tab and search for the catalog versions field and assign the product catalog (staged catalog version) for which the transformation cronjob would generate the transformations.



Cloudinary Product Transformations

Cloudinary transformations are based on the SAP media container and media concepts and are applied at different levels for images and videos, as follows:

- **Product Catalog Transformations** at the Product Catalog level.
- **Category Transformations** at the Category level.
- **Product Transformations** at the Product level.
- **Asset/Media Transformations** at the Media level.

Note - The SAP media container should have a single large master image uploaded to Cloudinary in a media that serves as a master media for all the transformations for that image. This master media should not have any media formats attached. Also, every SAP media format needs to have the “transformation” field set with a value for the transformation.

DataModel Attribute Name	Attribute Backoffice Label	Purpose of Attribute
CloudinaryConfig.cloudinaryGlobalImageTransformation	Custom Transformation	Field to add Product Catalog image transformation.
CloudinaryConfig.cloudinaryGlobalVideoTransformation	Custom Transformation	Field to add Product Catalog video transformation.

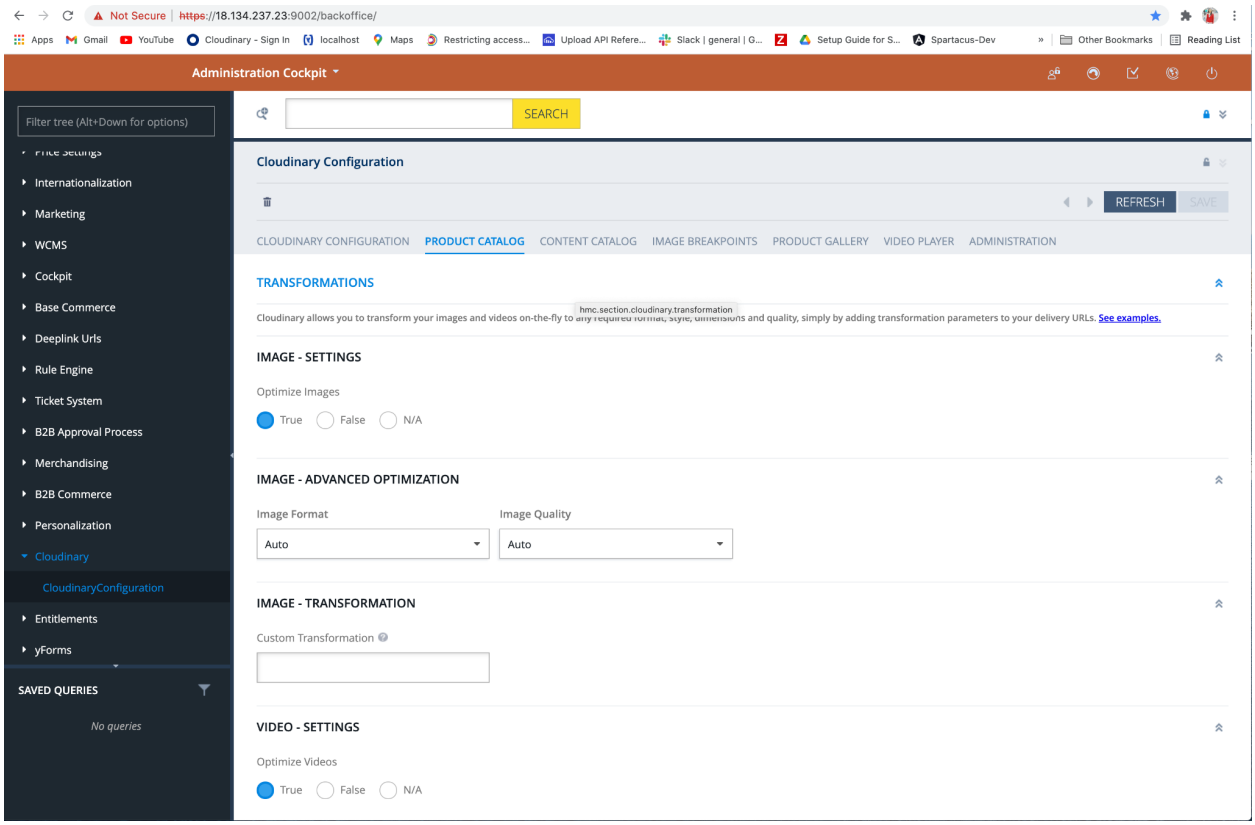
Where transformation strings are required in the forms, use URL syntax as defined in the Transformation URL API guide. You can chain many transformations together, as explained here.

Note - The transformations set at the Product Catalog level do not apply to the Product Gallery. The Product Gallery displays according to the JSON configuration.

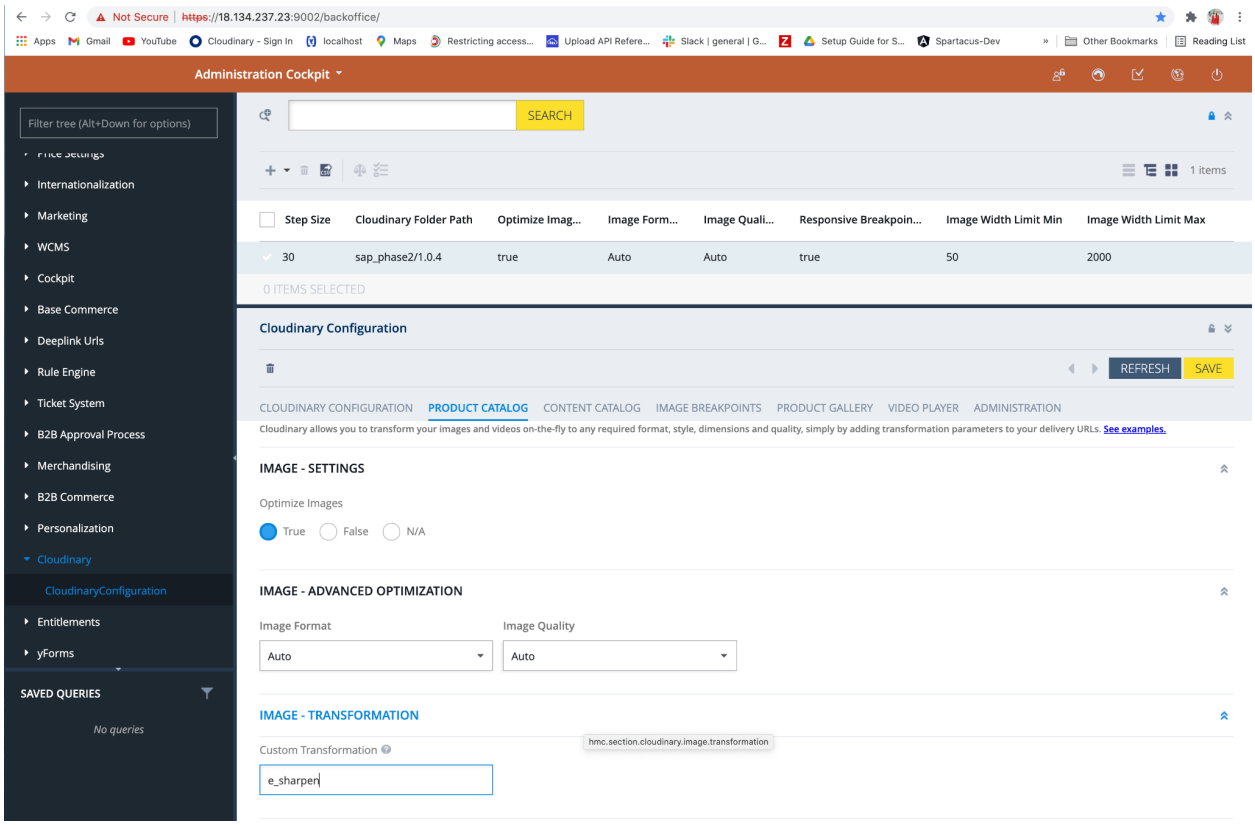
Apply Product Catalog Level Transformations

To apply Product Catalog transformations from Backoffice:

1. Log into Backoffice, navigate to Cloudinary > CloudinaryConfiguration, select your Cloudinary configuration and open the “Product Catalog” tab.

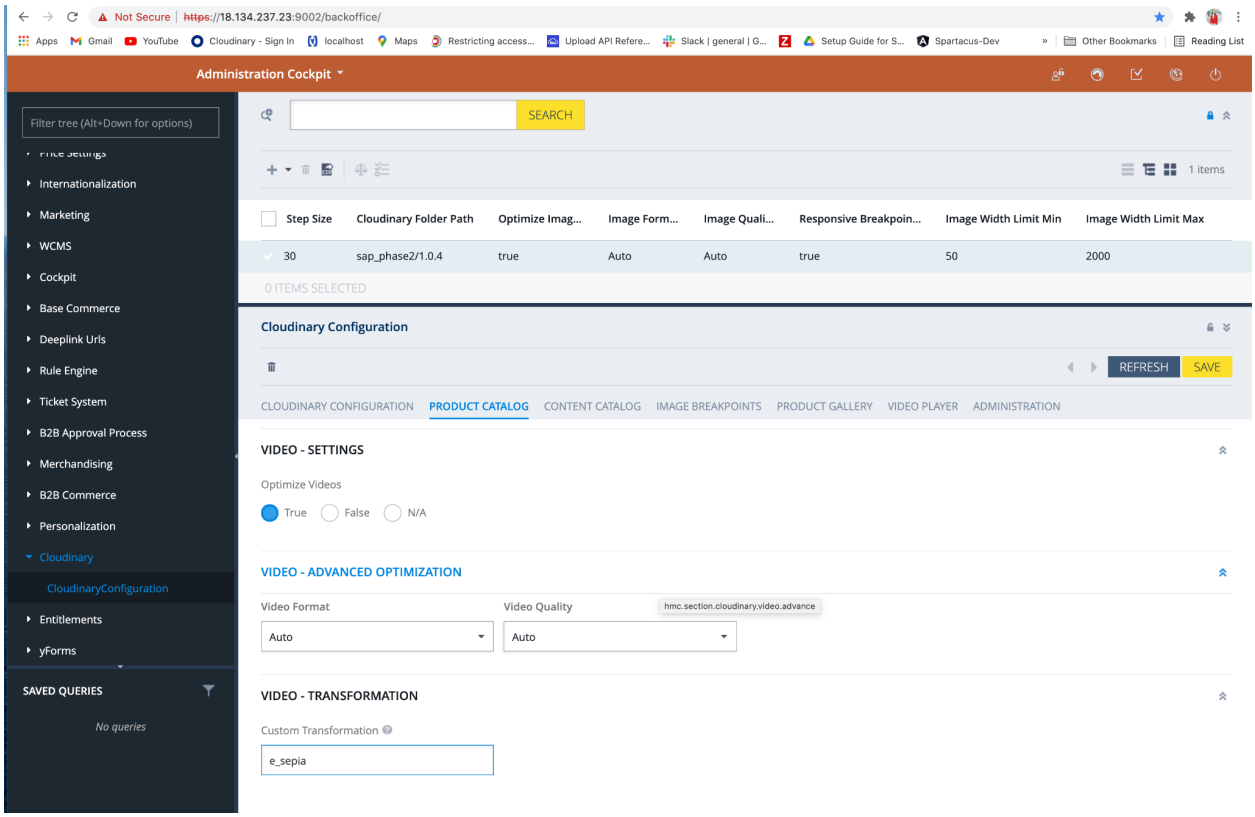


2. To apply a transformation to all the *Product Catalog* images, scroll to the “IMAGE - TRANSFORMATION” section and provide the required image transformation string in the *Custom Transformation* field, e.g. “e_sharpen”.



Note - The image transformation strings can be concatenated in a comma separated list for multiple transformations, and chained using forward slashes to apply further transformations to the result. Make sure there are no blank spaces between the strings, e.g. “e_sharpen,r_max/e_sepia”.

3. To apply a transformation to all the *Product Catalog* videos, scroll to the “VIDEO - TRANSFORMATION” section and provide the required video transformation string in the *Custom Transformation* field. Also for videos, a comma separated list of transformation strings is allowed, as well as chained transformations using forward slashes.



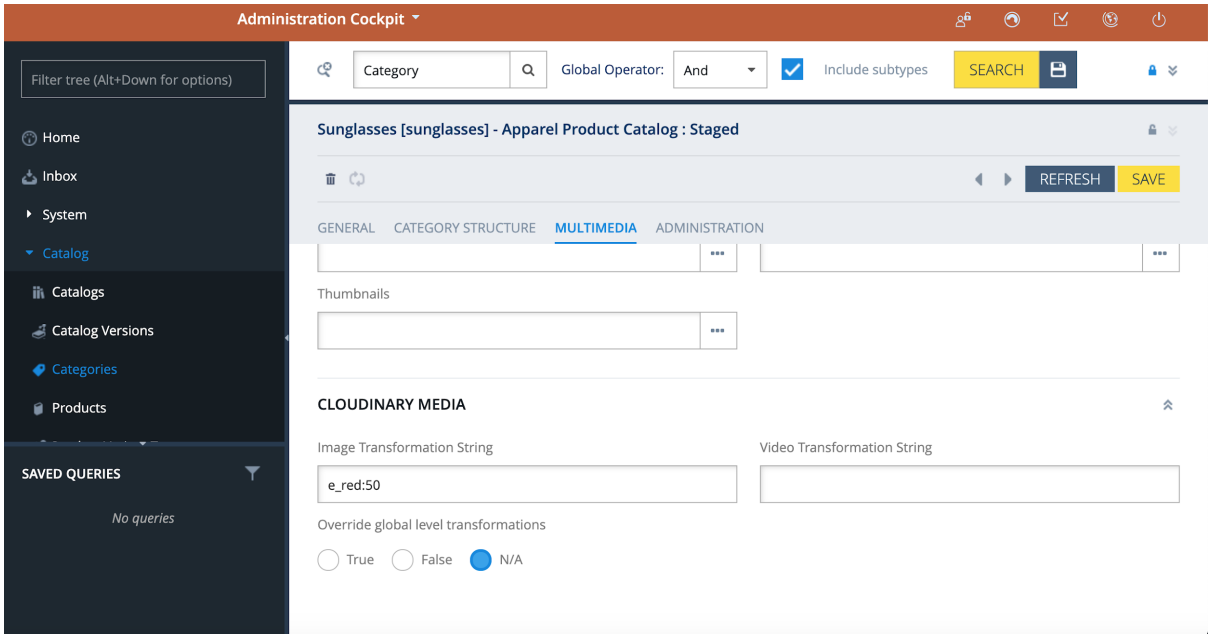
4. Save your changes for the transformations to be applied.

Apply Category Level Transformations

DataModel Attribute Name	Attribute Backoffice Label	Purpose of Attribute
Category.cloudinaryImageTransformation	Image Transformation	Field to add category level image transformation.
Category.cloudinaryVideoTransformation	Video Transformation	Field to add category level video transformation.
Category.isCloudinaryOverride	Override Global Level Transformations	Flag to override global level transformation.

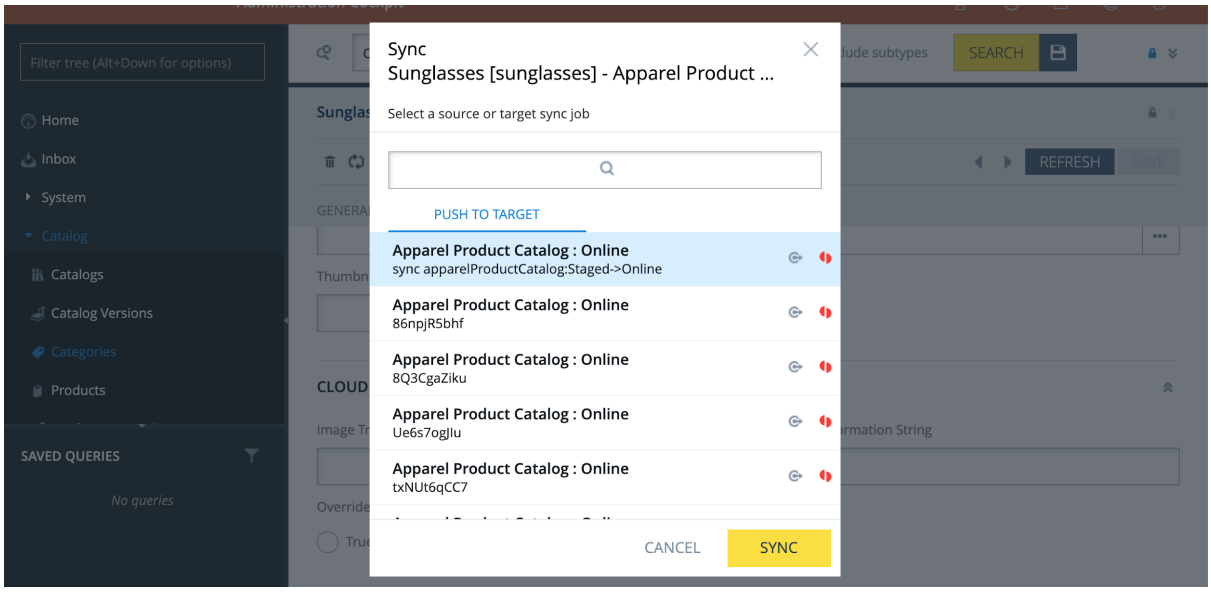
1. Log into Backoffice, navigate to Catalog > Categories and search for the required category for the products to apply the transformation on. Ensure that you select the staged catalog version of the category for which you want to apply the transformation on.

2. Navigate to the “Multimedia” tab and scroll to the “Cloudinary Media” section. In the custom transformation field, provide the required image and/or video transformation. The transformation strings can be comma separated and chained with forward slashes for multiple transformations.



3. To override the global transformation applied, set “Override global level transformations” to “true”.

4. Save the changes and click the sync icon at the top of the editor area to synchronize the changes from the staged to the online version of the catalog.

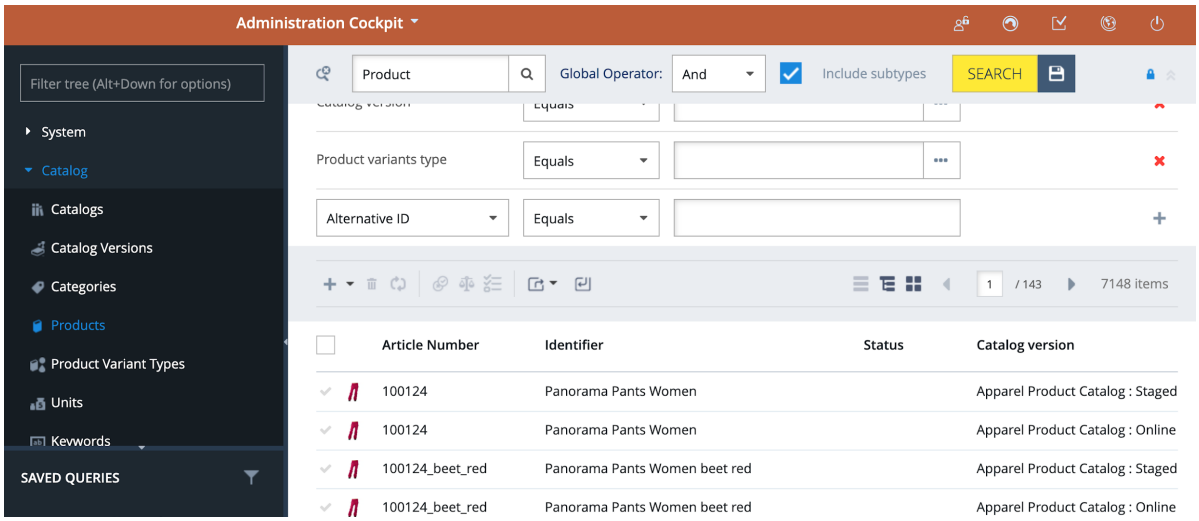


Note - When you apply category level transformations, ensure to run the full indexing job for the respective index for the transformations to be visible immediately, else the scheduled index job will pick up the changes as per the schedule.

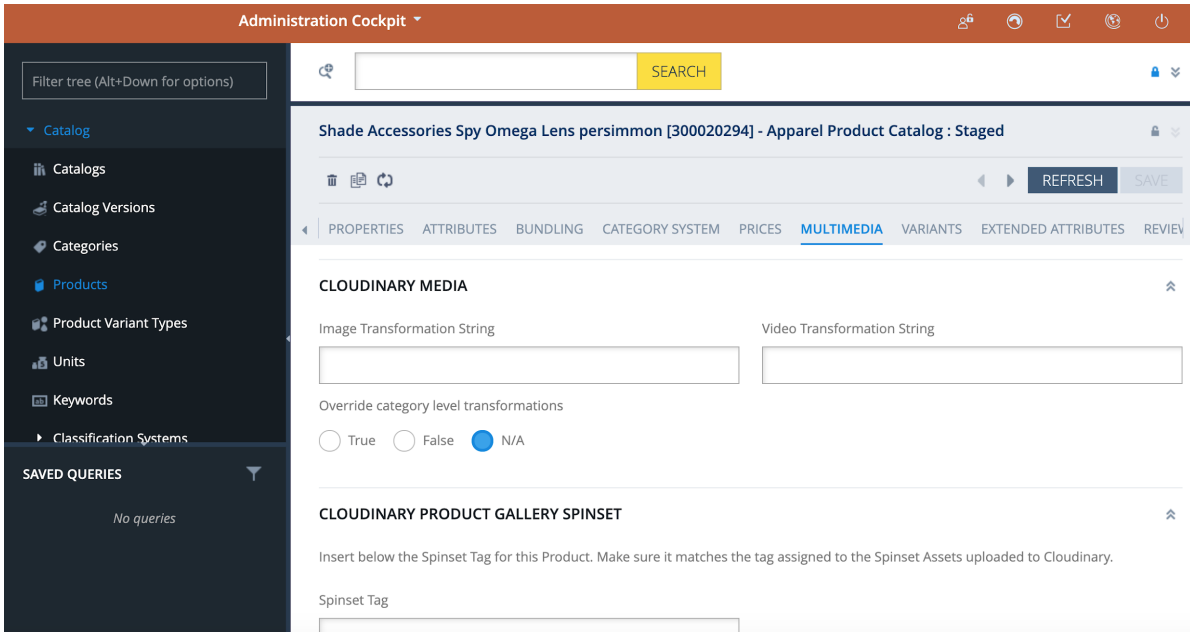
Apply Product Level Transformations

DataModel Attribute Name	Attribute Backoffice Label	Purpose of Attribute
Product.cloudinaryImageTransformation	Image Transformation	Field to add product level image transformation.
Product.cloudinaryVideoTransformation	Video Transformation	Field to add product level video transformation.
Product.isCloudinaryOverride	Override Category Level Transformations	Flag to override category level transformation.

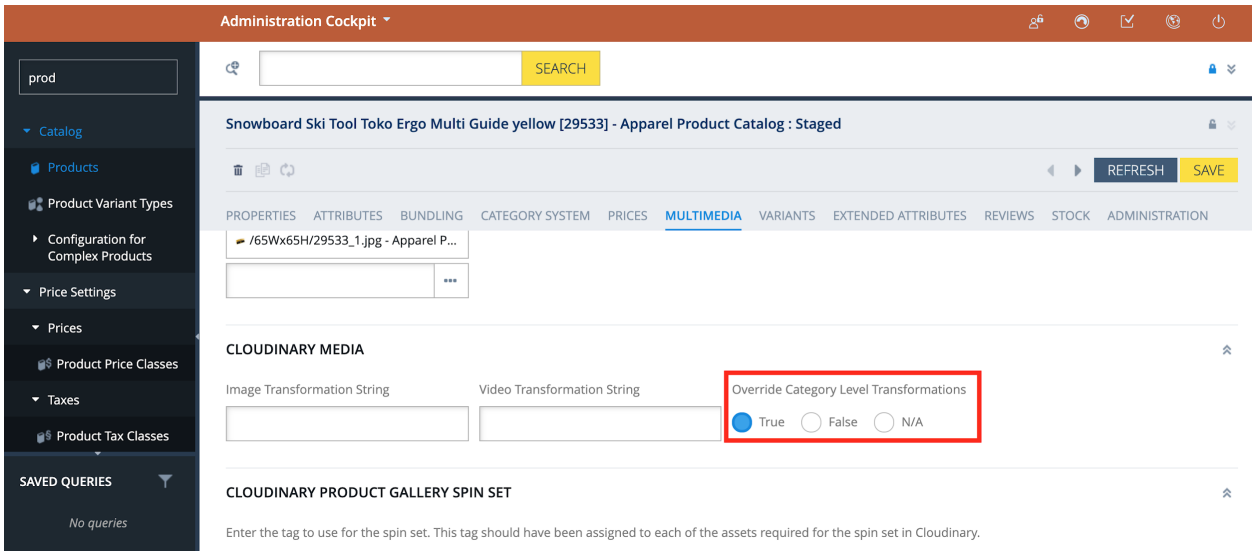
1. Log into the Backoffice, navigate to Catalog > Products and search for the required product to apply the transformation on. Ensure that you select the staged catalog version of the product.



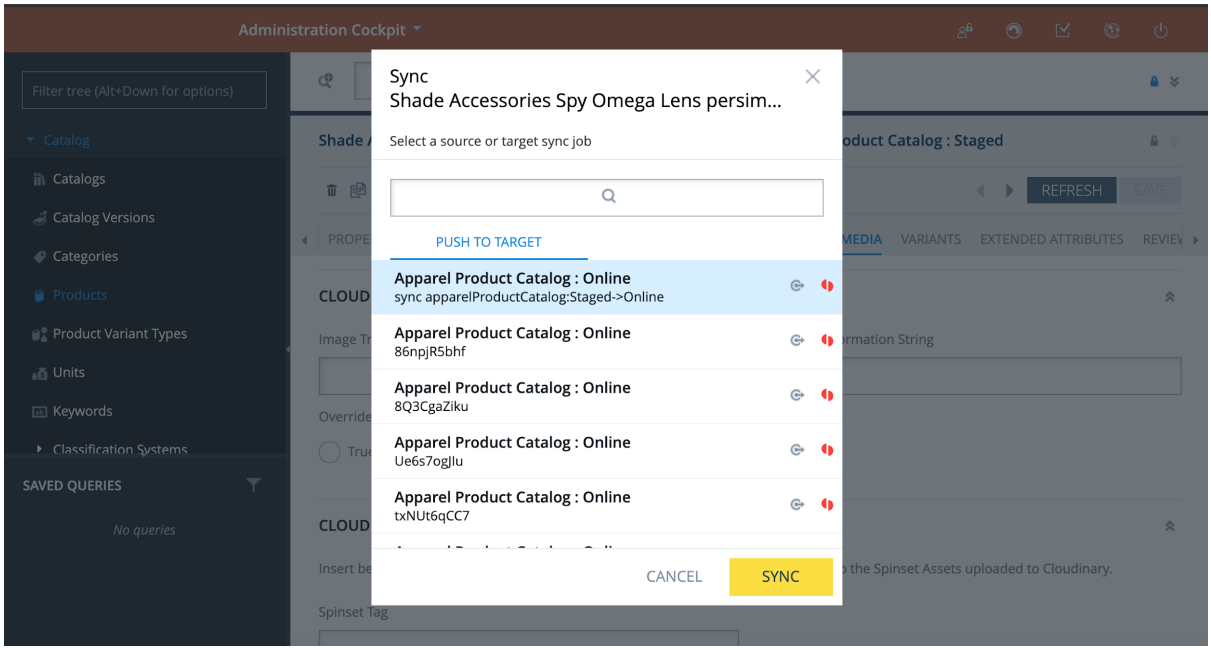
2. Navigate to the “Multimedia” tab and scroll to the “Cloudinary Media” section. In the custom transformation field, provide the required image and/or video transformation. The transformation strings can be comma separated for applying multiple transformations.



3. To override the category level transformation applied, set the override category level transformation to “true”.



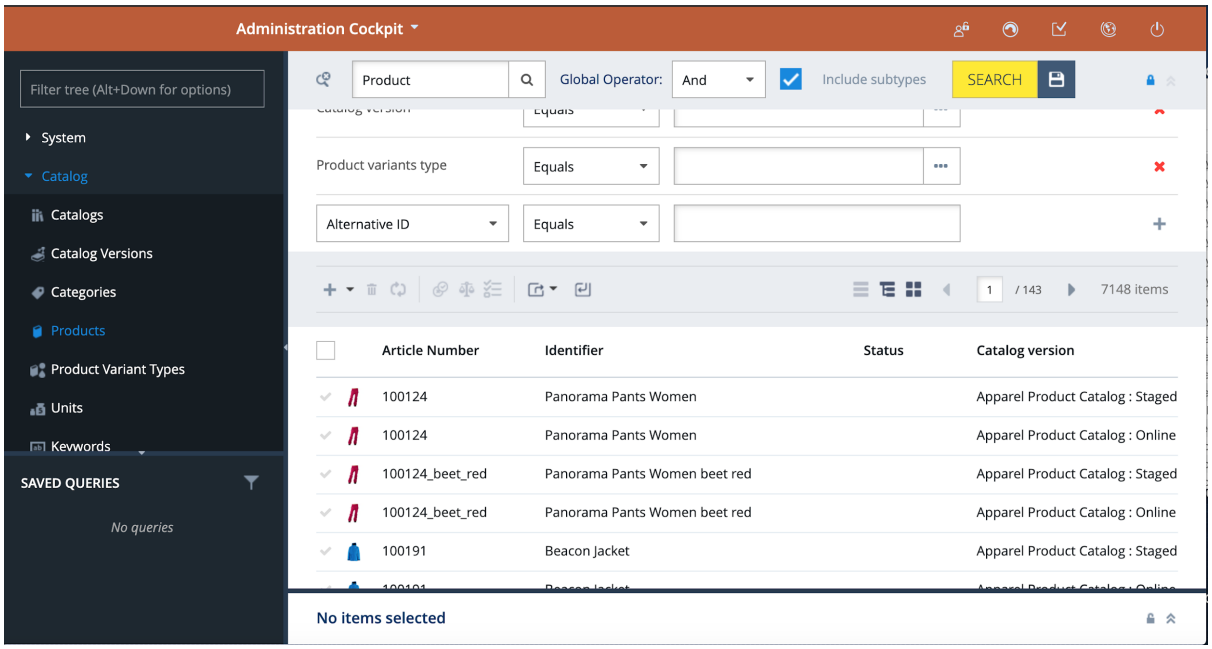
4. Save the changes and click the sync icon at the top of the editor area to synchronize the changes from the staged to the online version of the catalog.



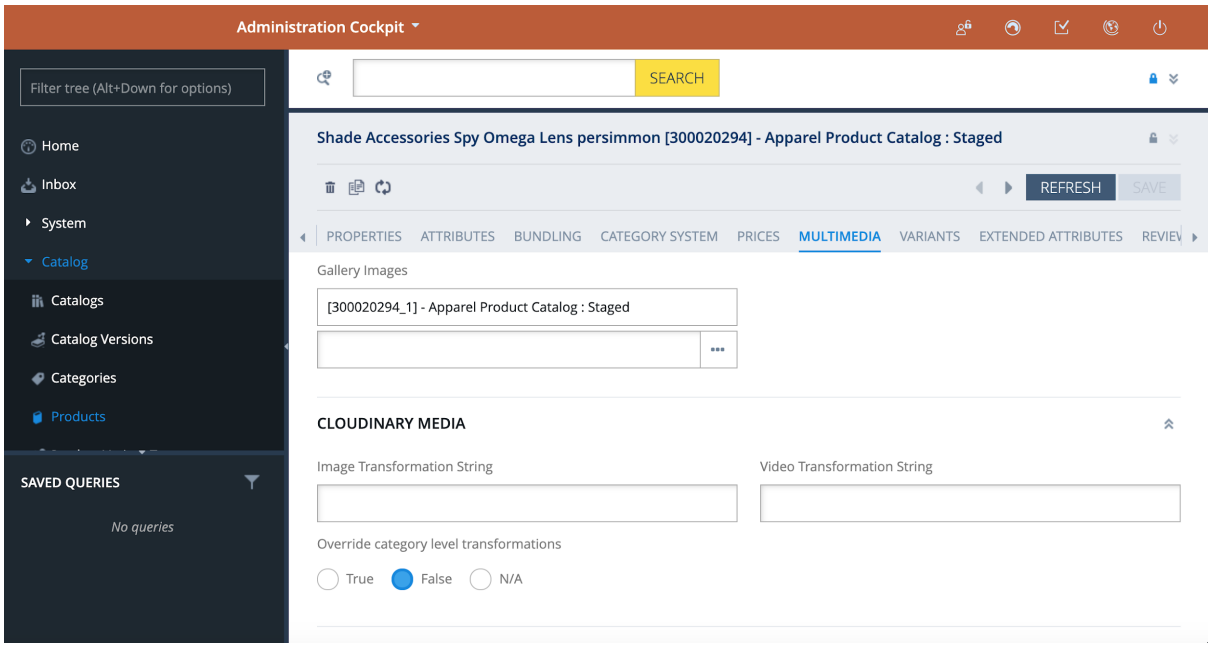
Apply Media Level Transformations

DataModel Attribute Name	Attribute Backoffice Label	Purpose of Attribute
Mediacontainer.conversionGroup	Conversion Group	Add the required conversion group consisting of media formats .
ConversionGroup.supportedMediaFormats	ConversionGroup.supportedMediaFormats	Media formats with different transformations.
MediaFormat.transformation	MediaFormat.transformation	Specific transformation string.

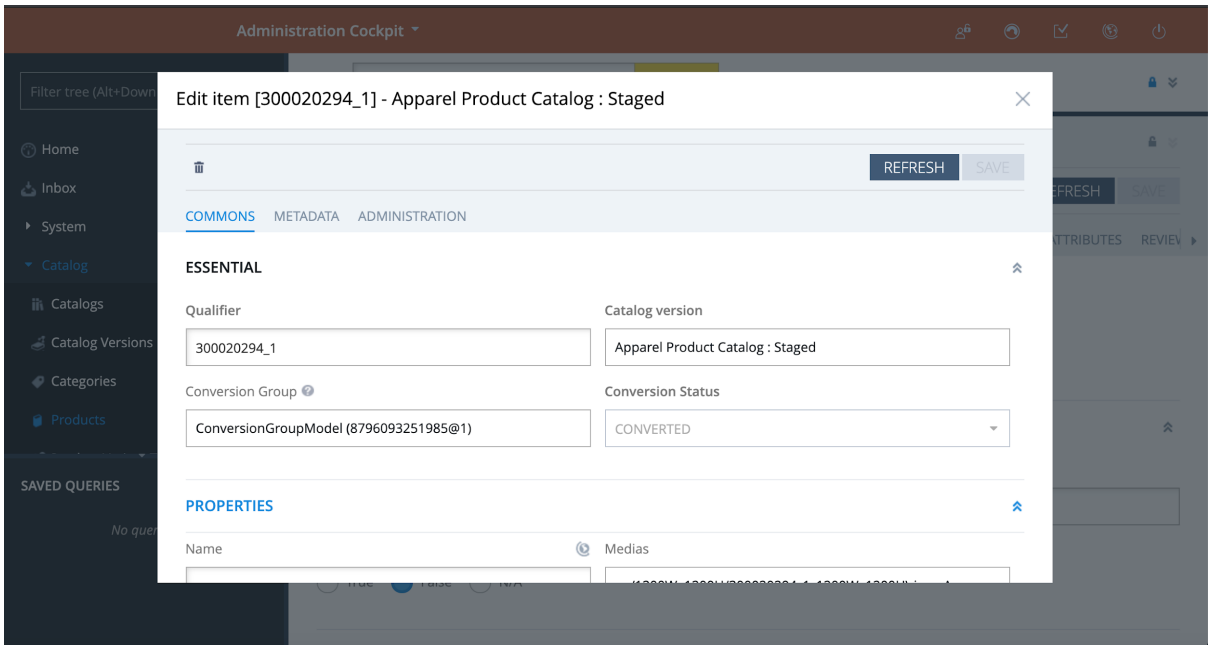
1. Log into Backoffice, navigate to Catalog > Products and search for the required product to apply the transformation on. Ensure that you select the staged catalog version of the product for which you want to apply the transformation on.

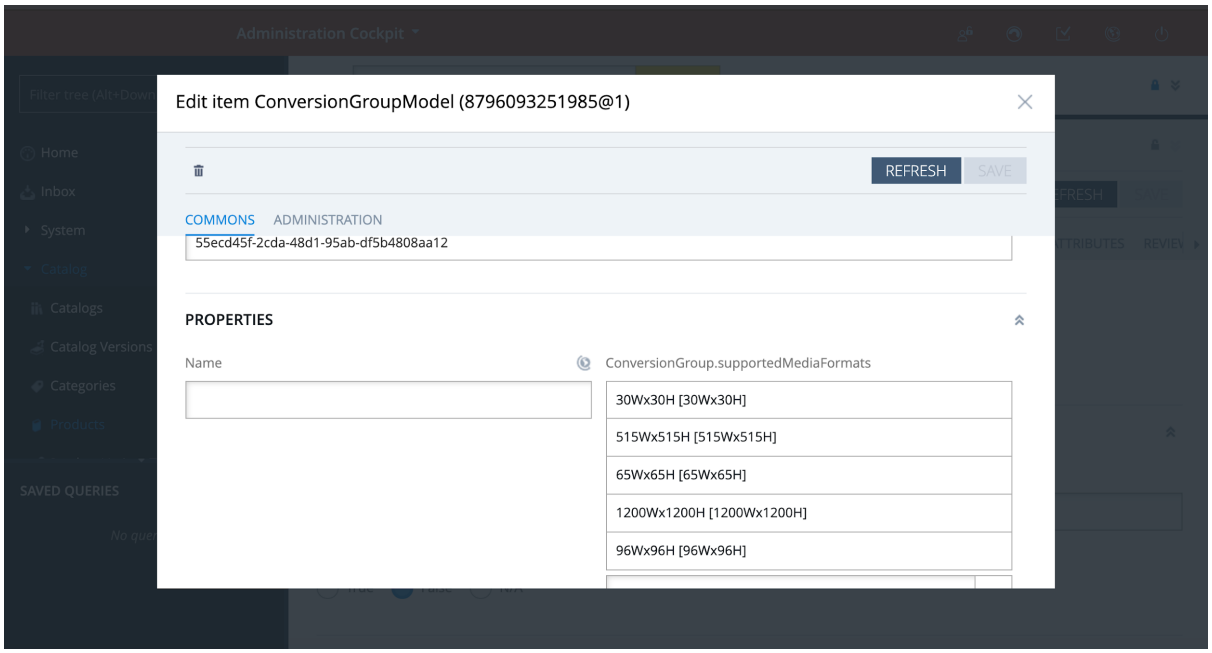


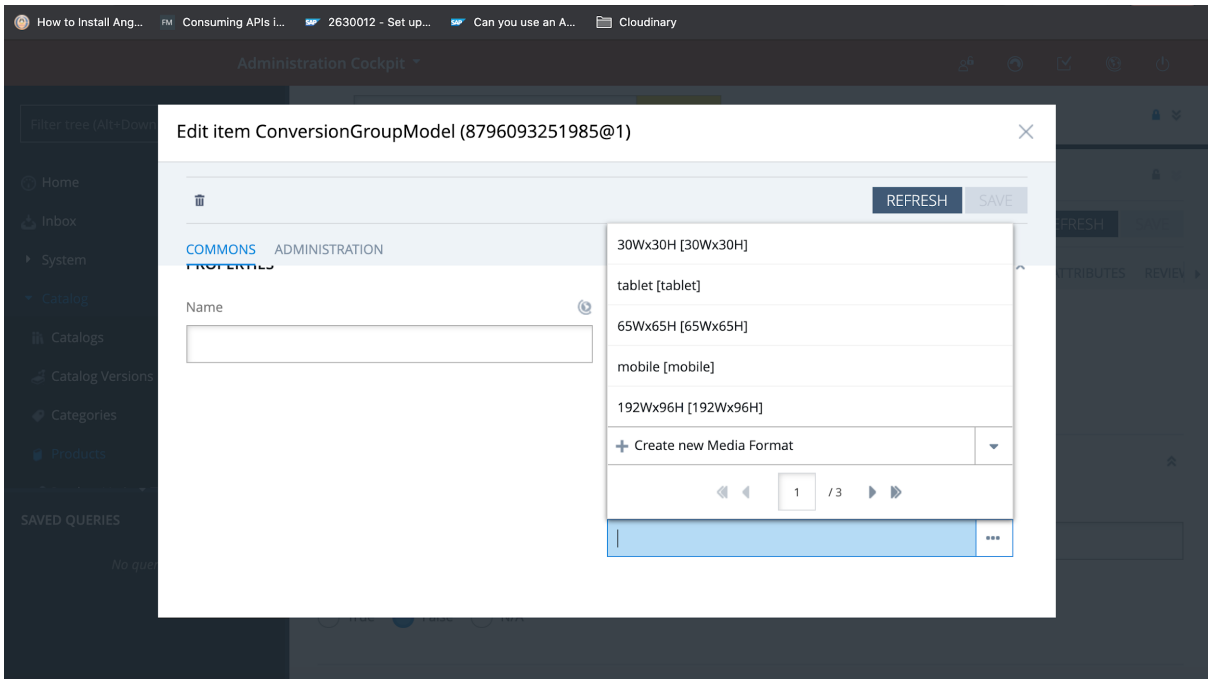
2. Navigate to the “Multimedia” tab and in the gallery images field select the media container for which you want to apply the asset transformation.



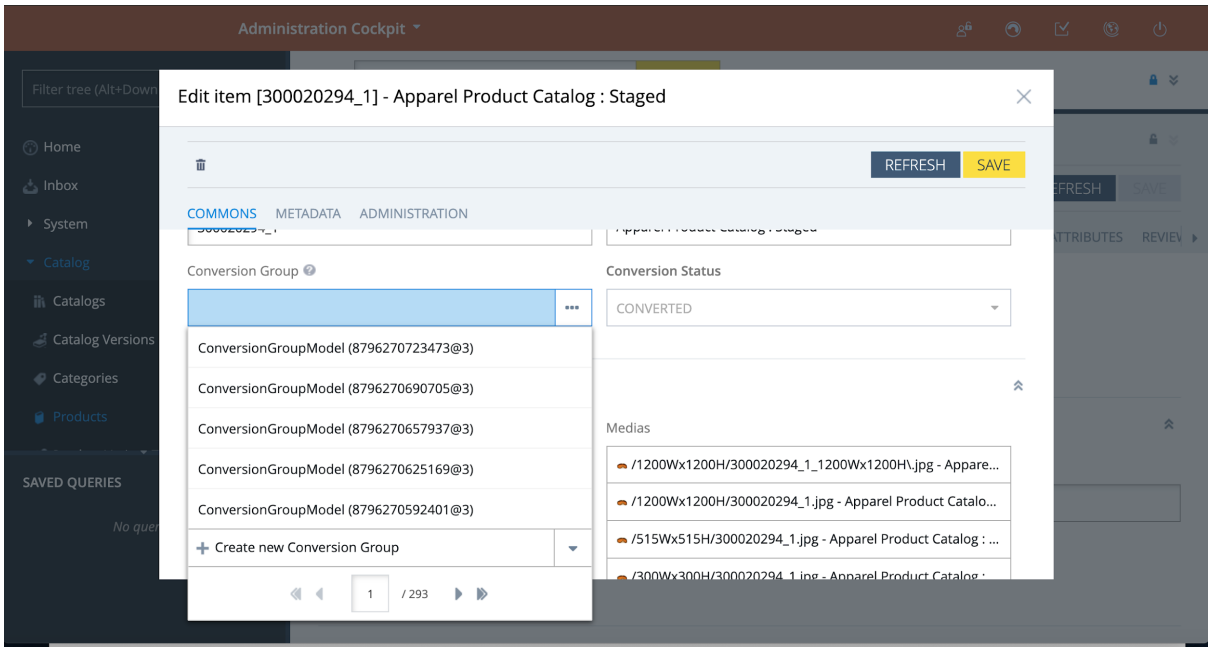
3. Open the media container and check if you have any conversion groups attached in the “Conversion Group” field. Open any existing conversion group if present in the conversion group field and attach it to the conversion group field.



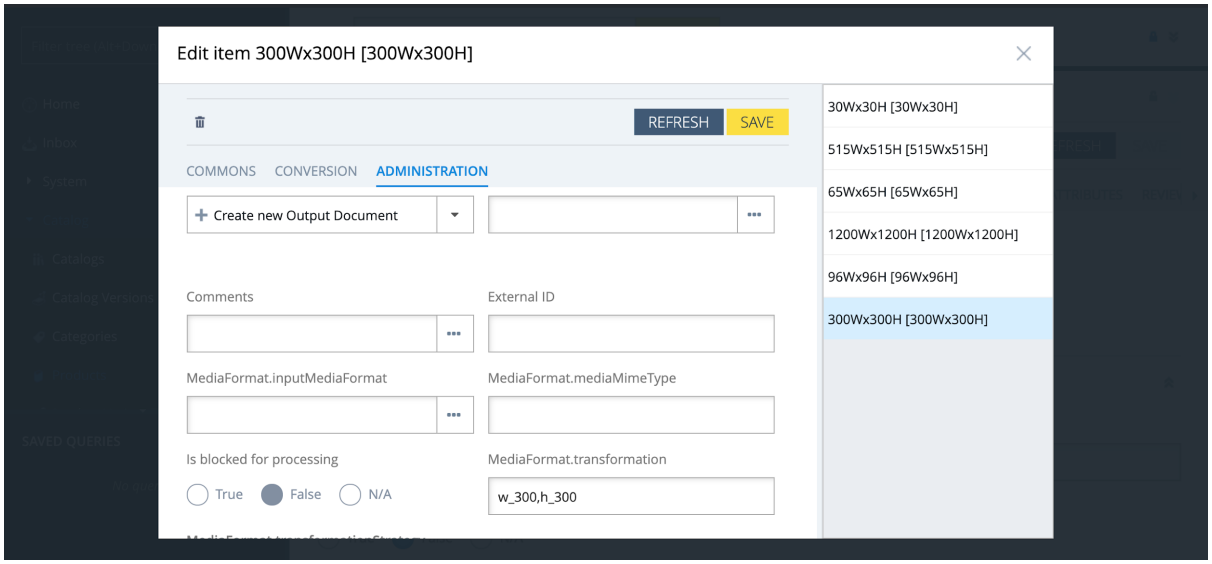




4. If not present, create a conversion group by clicking the “Conversion Group” field and adding the required conversion group supported media formats.

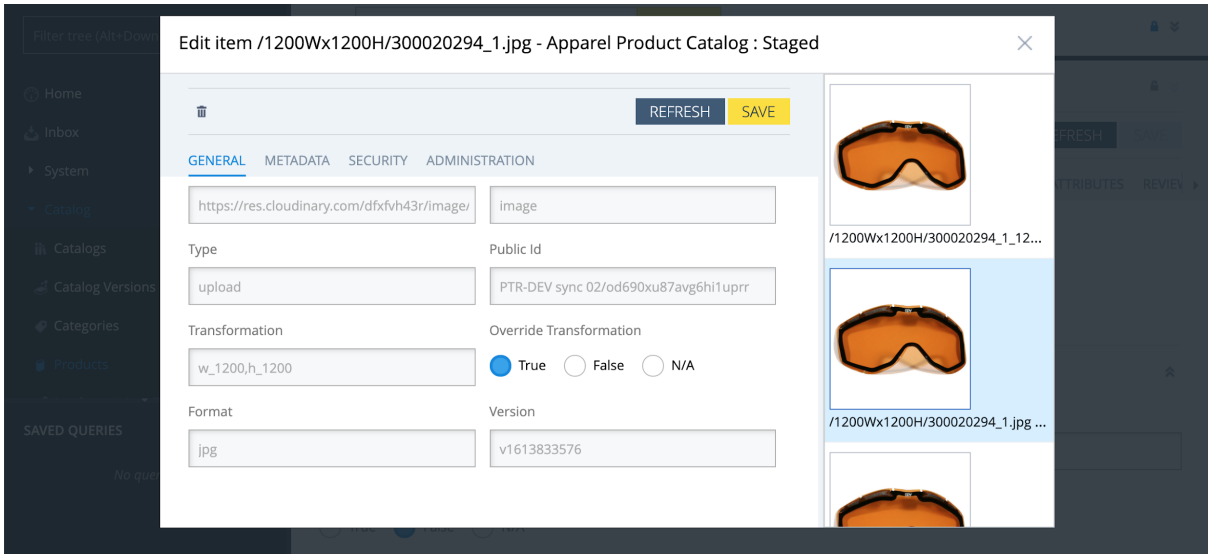


5. If you need new media formats, create new media formats and add the required transformation and save your changes.



6. Once the transformation is added to the media format and saved along with the corresponding conversion group, the media container should be saved along with the product.

7. To override the product level transformation applied, navigate to the media entity which you want to override and set Override Transformation to “true”.



8. Save the changes and click the sync icon at the top of the editor area to synchronize the changes from the staged to the online version of the catalog.

Transformation Cronjob

The transformation cronjob takes care of generating different formats of the asset based on the conversion groups. Once a conversion group is attached to a specific media container with all the supported media formats with specific transformations and the transformation cronjob is run, the job automatically generates all the different transformations for the product. The job is scheduled to run every 30 minutes automatically in the background and can be rescheduled to a different interval or can be run manually.

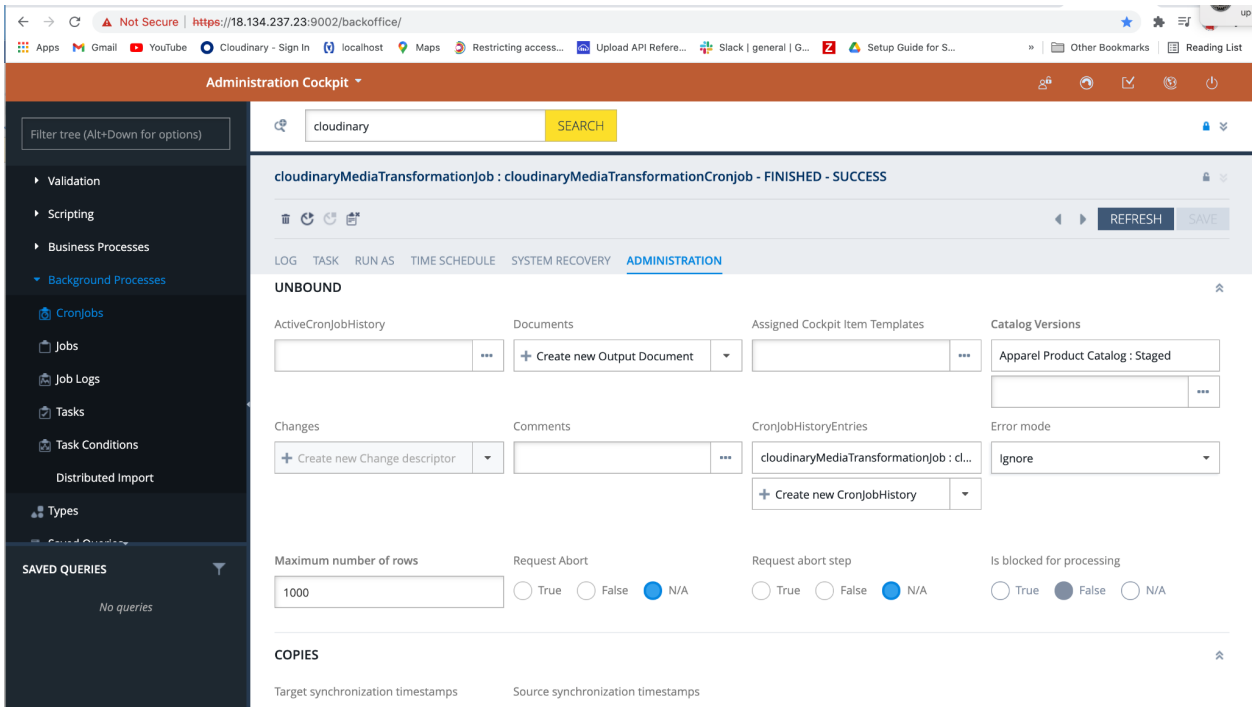
Note - The SAP media container should have a single large master image uploaded to Cloudinary in a media that serves as a master media for all the transformations for that image. This master media should not have any media formats attached. Also every SAP media format needs to have the “transformation” field set with a value for the transformations.

DataModel Attribute Name	Attribute Backoffice Label	Purpose of Attribute
CloudinaryMediaTransformationjob.catalogVersions	CloudinaryMediaTransformationjob.catalogVersions	Add the required catalog for which the transformations need to be generated. Select the staged catalog version.

To manually run the transformation cronjob:

1. Log into Backoffice, navigate to System > Background Processes > Cronjobs and search for **cloudinarytransformationcronjob**.

2. Navigate to the *Administration* tab and search for catalog versions field and assign the product catalog (staged catalog version) for which the transformation cronjob would generate the transformations.


Not Secure | https://18.134.237.23:9002/backoffice/
Apps
Gmail
YouTube
Cloudinary - Sign In
localhost
Maps
Restricting access...
Upload API Refere...
Slack | general | G...
Setup Guide for S...
Other Bookmarks
Reading List
Administration Cockpit
Filter tree (Alt+Down for options)
Validation
Scripting
Business Processes
Background Processes
CronJobs
Jobs
Job Logs
Tasks
Task Conditions
Distributed Import
Types
SAVED QUERIES
No queries
cloudinary
SEARCH
cloudinaryMediaTransformationJob : cloudinaryMediaTransformationCronjob - FINISHED - SUCCESS
REFRESH
SAVE
LOG
TASK
RUN AS
TIME SCHEDULE
SYSTEM RECOVERY
ADMINISTRATION
UNBOUND
ActiveCronJobHistory
Documents
Create new Output Document
Assigned Cockpit Item Templates
Catalog Versions
Apparel Product Catalog : Staged
Changes
Create new Change descriptor
Comments
CronJobHistoryEntries
cloudinaryMediaTransformationJob : cl...
Create new CronJobHistory
Error mode
Ignore
Maximum number of rows
1000
Request Abort
True
False
N/A
Request abort step
True
False
N/A
Is blocked for processing
True
False
N/A
COPIES
Target synchronization timestamps
Source synchronization timestamps

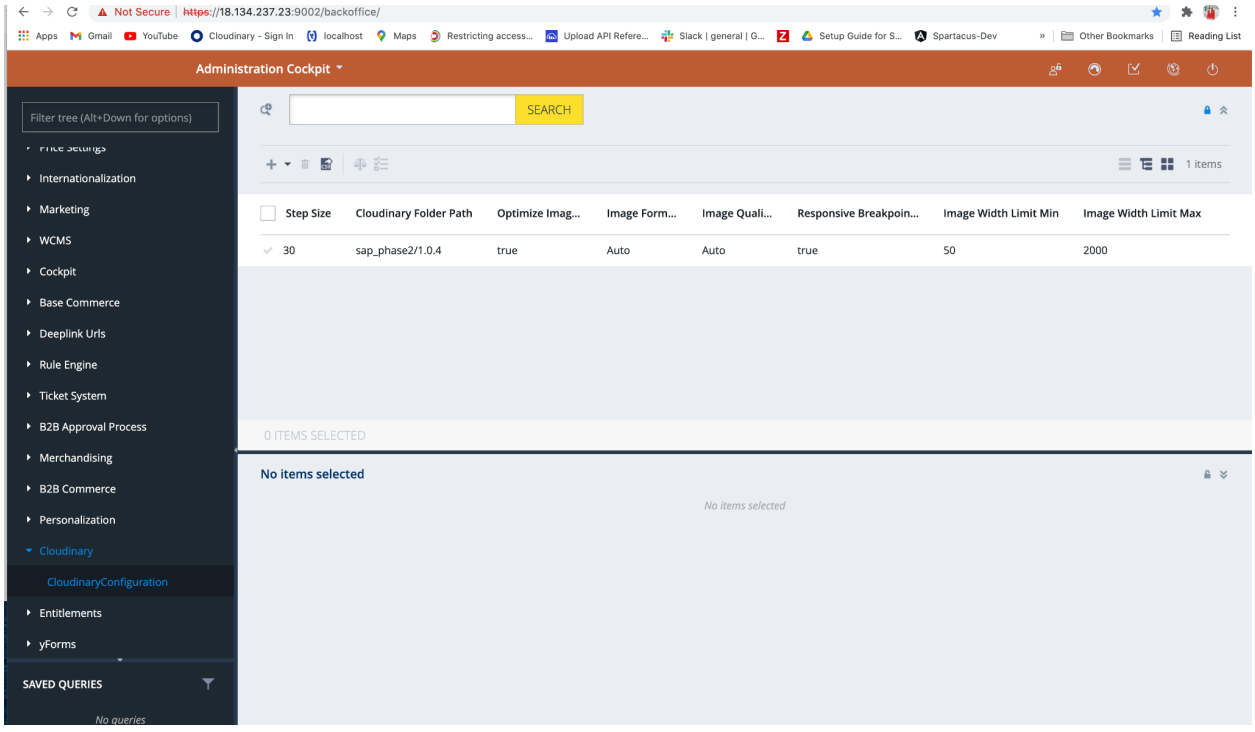
Responsive Breakpoints

Cloudinary's responsive breakpoints functionality provides you with a solution for dynamically generating and delivering the most suitable image size for the screen/device in use. Each breakpoint generated, according to the configuration set, is considered a transformation, and included in the delivery of the asset from Cloudinary.

Responsive breakpoints are applied via the Cloudinary configuration wherein the user can configure custom breakpoints to be applied on images. By default, Cloudinary responsive breakpoints are enabled. Information on responsive images can be found in the Cloudinary Responsive images guide.

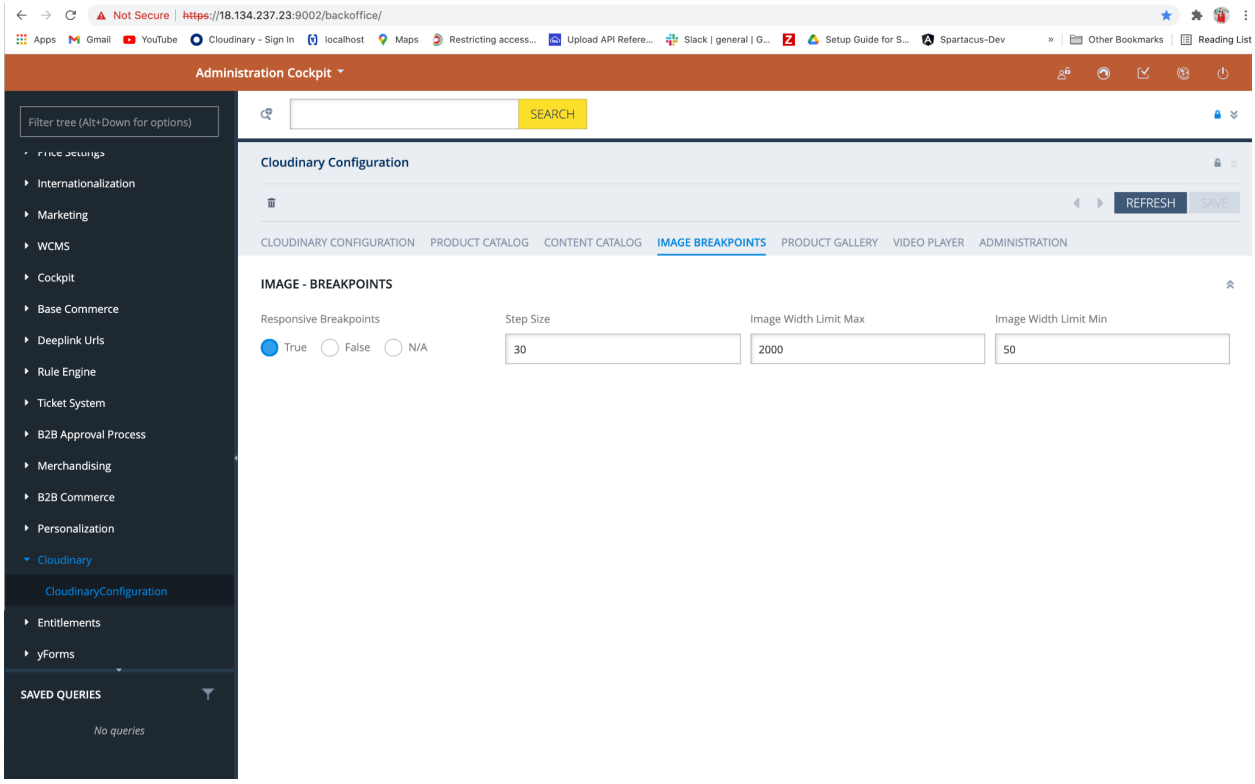
Follow these steps to configure responsive breakpoints:

1. Log into Backoffice, navigate to Cloudinary > CloudinaryConfiguration and select the Cloudinary configuration.



2. For the selected Cloudinary configuration in the editor view, navigate to the "Image Breakpoints" tab and from "IMAGE - BREAKPOINTS" section, set the values for Image Width Limit Max (the maximum permitted image width), Image Width Limit Min (the

minimum permitted image width), and the Step Size (the number of pixels between image sizes used for the breakpoints).



3. Ensure that the responsive breakpoints flag is set to true and save your changes.

Upload Presets

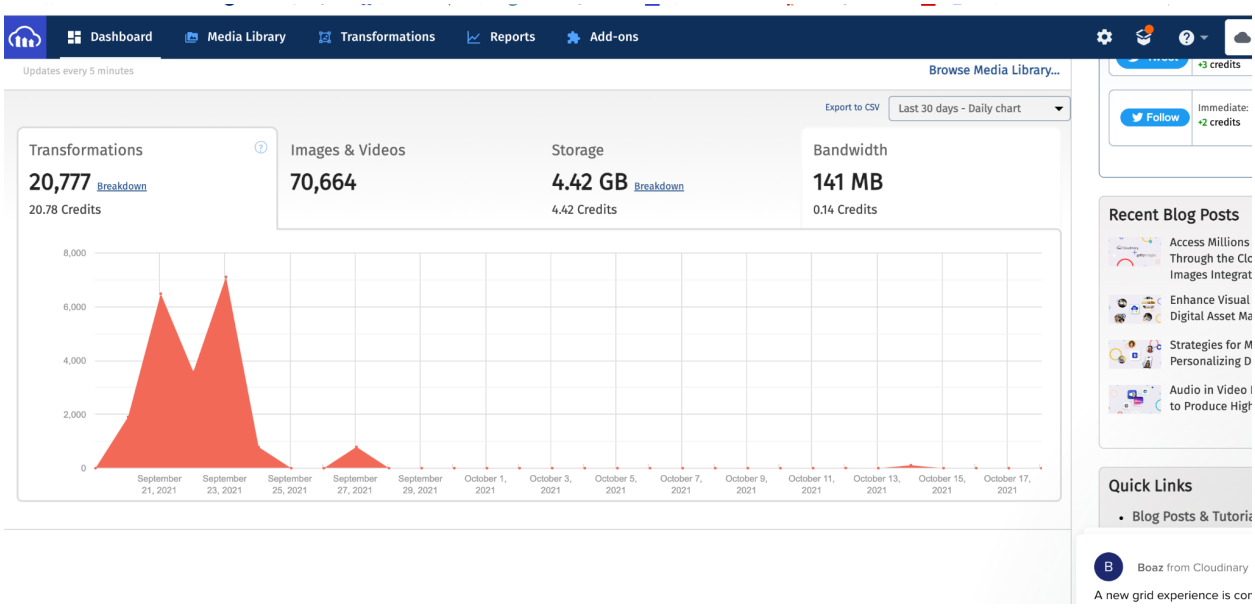
Cloudinary upload presets enable you to centrally define a set of asset upload options instead of specifying them in each upload call. You can specify the name of an upload preset in the “Cloudinary Configuration" section in SAP Backoffice and all asset uploads will use that upload preset to upload assets to Cloudinary.

Users can set their presets as **signed** or **unsigned**. Unsigned presets can be used with unsigned upload calls, such as uploading directly from the browser, in the upload widget or for Auto Upload settings.

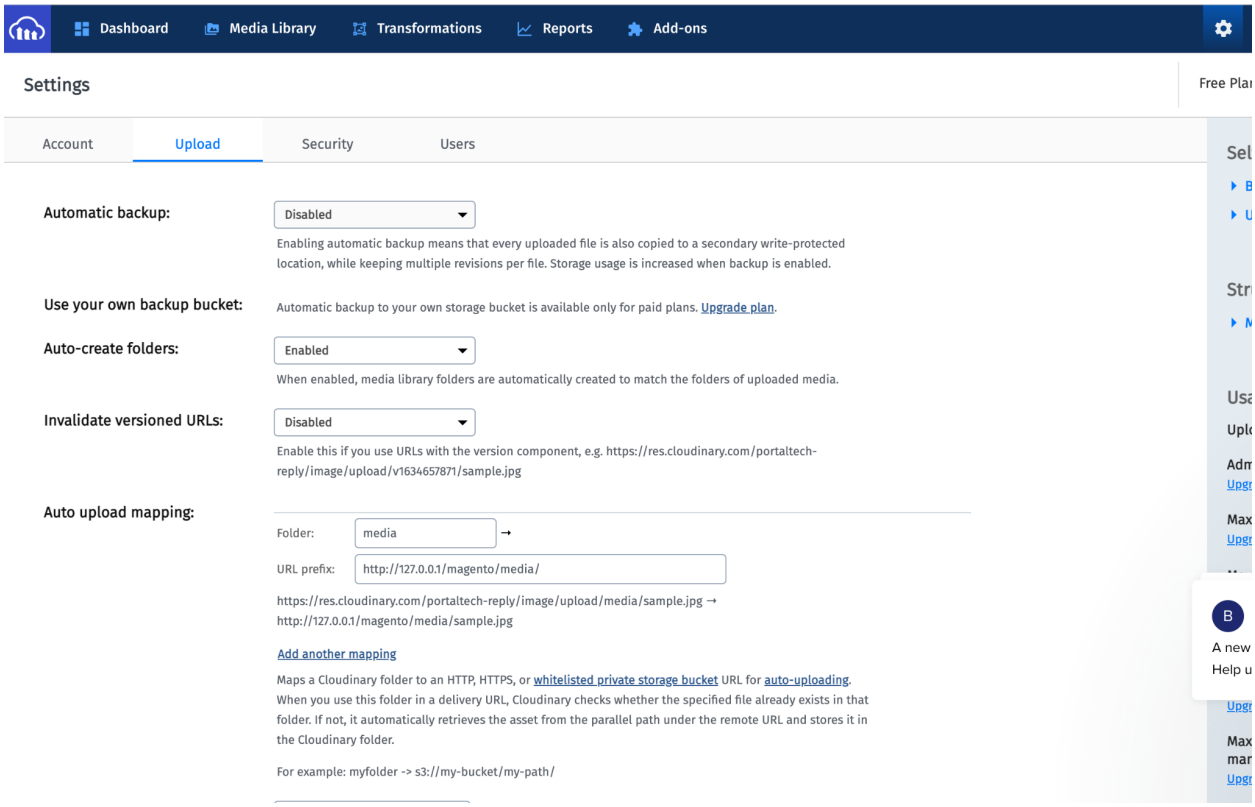
Create Upload Preset

To create a new upload preset in Cloudinary:

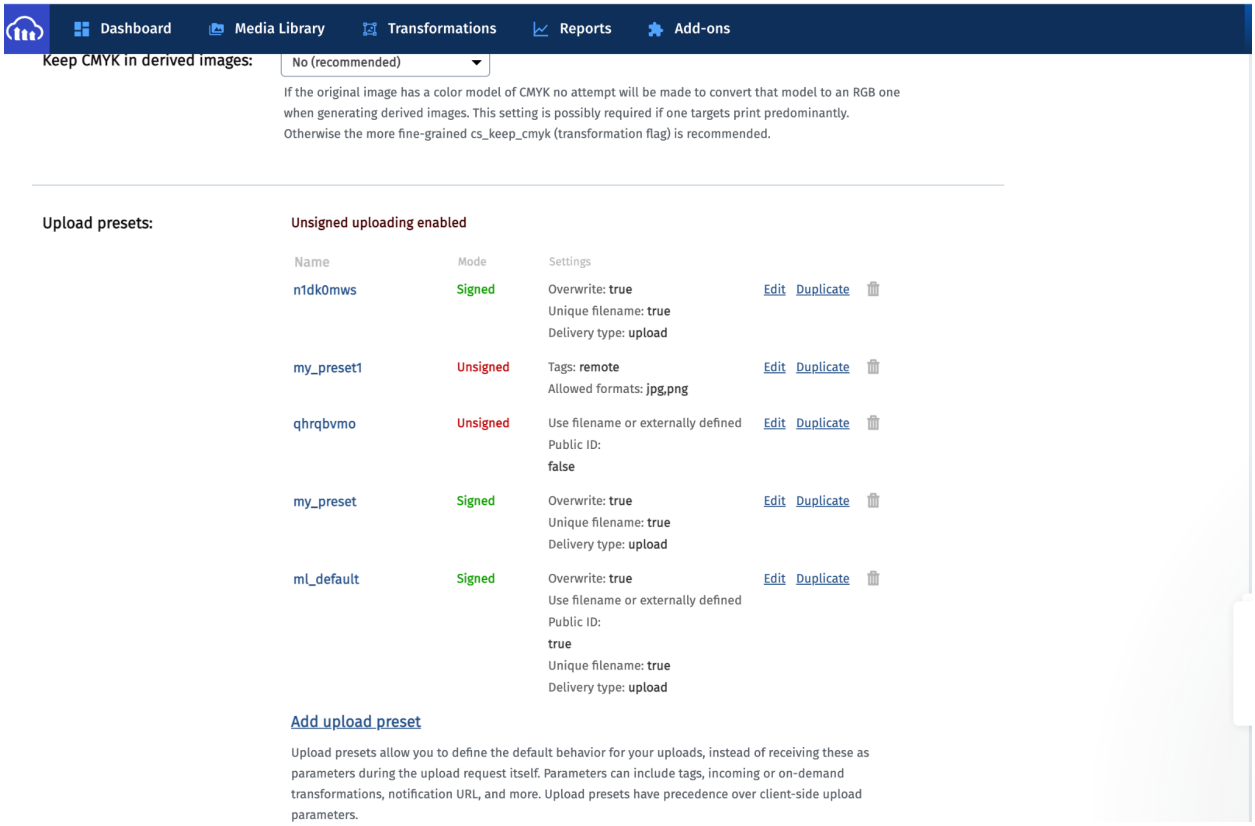
1. Log in to your Cloudinary account and then go to the Settings page.



2. On the Settings page, navigate to the Upload tab.



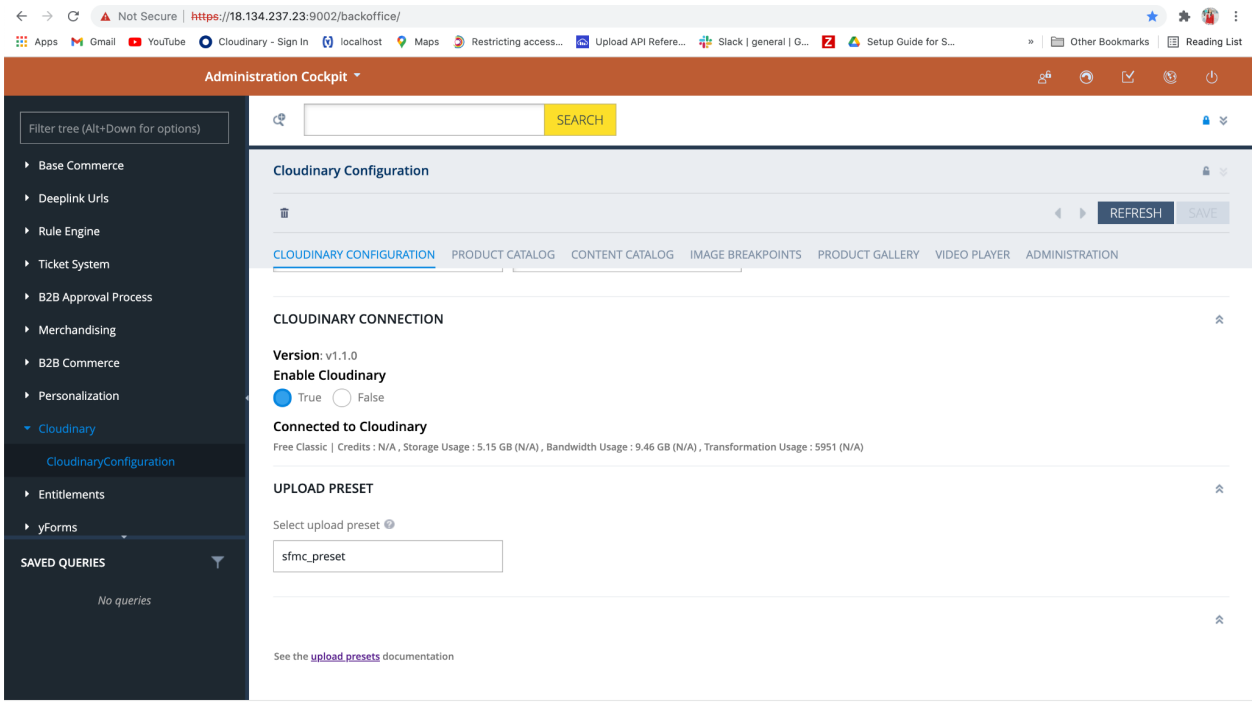
3. Navigate to the “Upload Presets” section and click on the “Add Upload Preset” link and create a new upload preset.



Set Upload Preset in SAP Backoffice

To set the upload preset in SAP BackOffice:

1. Log into Backoffice, navigate to Cloudinary > CloudinaryConfiguration, select your Cloudinary configuration.
2. On the “Cloudinary Configuration” tab, open the “Upload Preset” section and then set the preset value in the attribute “Select upload preset”.



Note: You can only select the name of an existing upload preset. You cannot create a new upload preset from SAP Backoffice. If no upload preset displays and you want to create a new one, then you need to login to your Cloudinary Account and create it from there, as described above.

Analytics Query Param

Analytics Query Param Appended to Asset URLs

The purpose of the Analytics query param is to track the delivery and transformations of the assets delivered by Cloudinary. On loading Storefront, SAP Commerce adds the query param "?_=AJ" to all assets delivered by Cloudinary. This query param is not stored in the SAP Backoffice.

Note: There is no way to disable this functionality.