

XMPie Video Service (XVS) Quick Guide

Version 1.6



one to one in one™

A **xerox**  Company

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Overview

XMPie Video Service (XVS) is a video personalization solution which enables the creation of variable content videos. It consists of two main components:

- **uMerge Video:** A plug-in to Adobe After Effects which enables to define video variability and to upload video projects (including resources and data that define the variability) to the cloud.
- **XVS Dashboard and API:** A cloud service on Amazon AWS which renders the videos for streaming, streams the final videos and manages the users and the projects of the service. The cloud service can be used via the Dashboard or the API. See [XMPie Video Service API](#).

Read the [Best practices and guidelines for motion designers](#) article to learn how to prepare and organize your After Effects project for deployment and rendering on the cloud.

Watch [XMPie Video Service video training](#) for an introduction of the XMPie Video Service, including uMerge Video, which enables the tagging of an Adobe After Effects file, and XMPie Video Service Dashboard which manages, renders, and streams the personalized videos.

Minimum system requirements for uMerge Video

Processor	Multicore Intel processor with 64-bit support
Operating system	<ul style="list-style-type: none">• PC workstation: Microsoft Windows 10 (64 bit) versions 1703 (Creators Update) and later• Mac: macOS Catalina and above
RAM	16 GB minimum (32 GB recommended)
GPU	2GB of GPU VRAM. XMPie recommends you have a graphics processor (GPU) certified by Adobe. For a list of certified cards, see Photoshop graphics processor (GPU) card FAQ
Hard disk space	6GB of available hard-disk space; additional free space required during installation (cannot install on removable flash storage devices) Additional disk space for disk cache (10GB recommended)
Monitor resolution	1280x1080 or greater display resolution
3rd-Party software	Adobe After Effects CC-2020 and above
Internet	High-speed internet


XMPie Video workflow

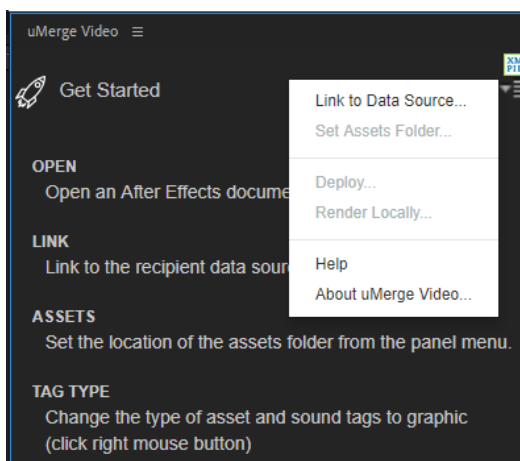
The XMPie video solution workflow is divided into the following phases: design and rendering.

Design

This phase consists of connecting to a data source and attaching tags to text or graphic elements in the video. Graphic elements can be either image, video or audio files.

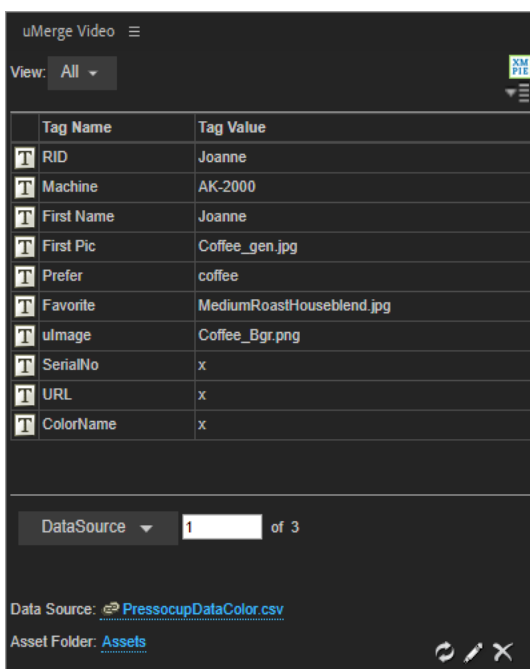
To link to a data source and tag design elements:

1. In After Effects, open your project.
2. From the **Window** menu, select **Extensions > uMerge Video** to open the uMerge Video panel.
3. From the **Options**  menu, select **Link to Data Source**.



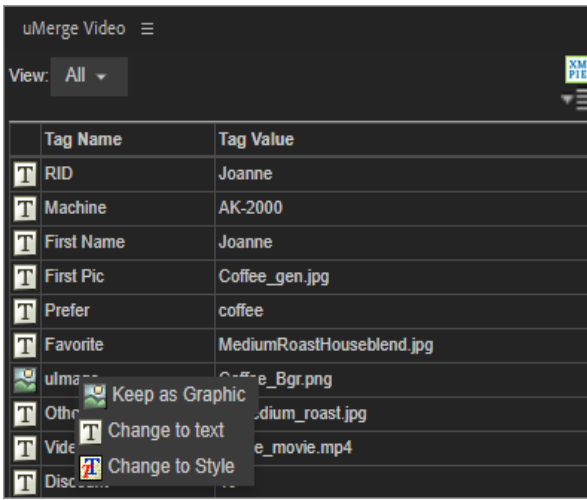
4. Select a CSV file and click **Open**.

The **uMerge Video** panel opens, displaying the available tags.




5. If you wish to tag a **graphic** element (image, video or audio), perform the following:

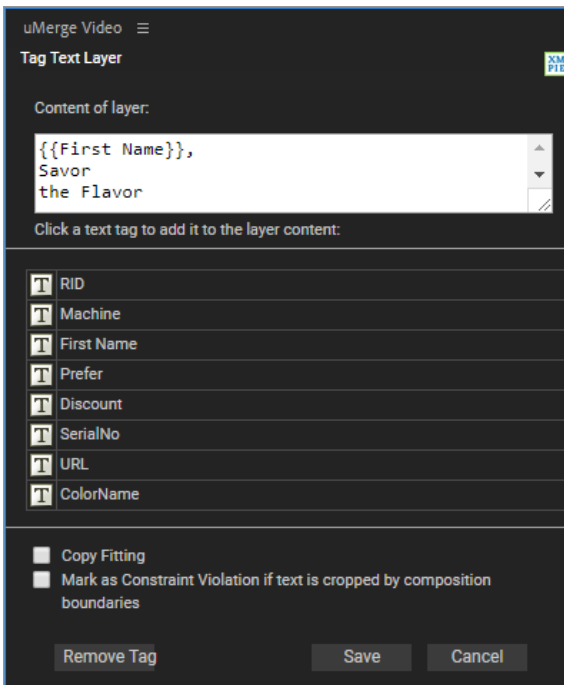
- Modify the data field type by right clicking the text  icon and selecting **Change to Graphic**.



- Define the location of the asset folder by selecting **Set Assets Folder** from the **Options**  menu.

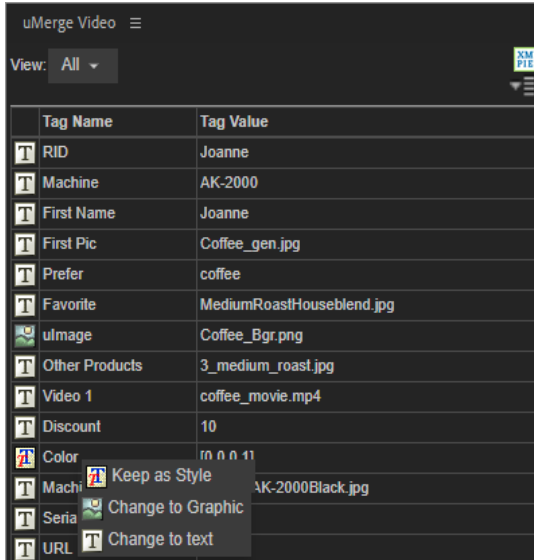
6. To tag a **text** layer with text data fields:

- Select the text layer to which you wish to apply variability.
- On the uMerge Video panel, click the **Edit tag**  icon.



- Click the desired text tag to add it to the **Content of layer** area.
- If you wish to apply copy fitting, display the record that represents the width you wish to maintain for all other records (e.g. a six-letter name), and then select the **Copy Fitting** checkbox. All records will maintain the same width.
- Click **Save**.

7. The Style tag controls the font color. To tag text with a Style property:
 - Change the field type to **Style**.
 - Select the text layer.
 - Click the **Style** field.




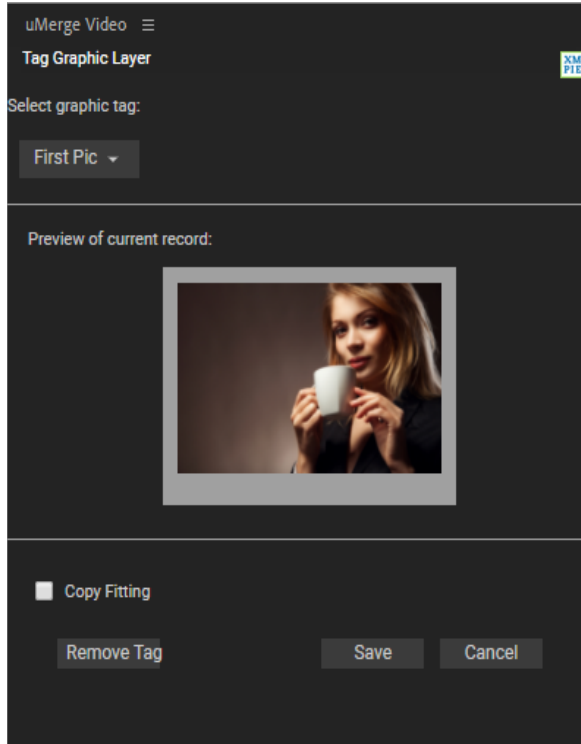
The text color varies according to the data of the Style field.

Note that the tag value can appear either in a hex format or as an array of values.

A hex color is expressed as a six-digit combination of numbers and letters defined by its mix of red, green and blue (RGB). The hex format is #RRGGBB. Example: #F17471.

The format for an array of values is [R,G,B, A], where R, G, B and A (alpha) are numbers between 0-1 that represent the mix of red, green, blue and alpha. Example: [0.6,0.3,0,0].

8. To tag a graphic layer with graphic data fields:
 - Select the image, video or audio layer to which you wish to apply variability.
 - On the uMerge Video panel, click the **Edit tag**  icon.



- From the **Select graphic tag** list, select the graphic tag to which you wish to associate your layer.
- If you wish to apply copy fitting, display the record that represents the size you wish to maintain for all other records (e.g. a 300px x 500px rectangle), and then select **Copy Fitting**. All records will maintain the same rectangle size.
- Click **Save**.

Note: To each layer that is tagged a maker (**#XVS#**) is added, denoting that it is a dynamic layer. Do not touch these markers.

Rendering

Two rendering options are available:

- **Local rendering:** Creation of individual videos one by one. These videos are created and saved locally.
- **Deployment:** This is the preferred option. It allows quick rendering of multiple videos, hosted on AWS cloud.


Important!

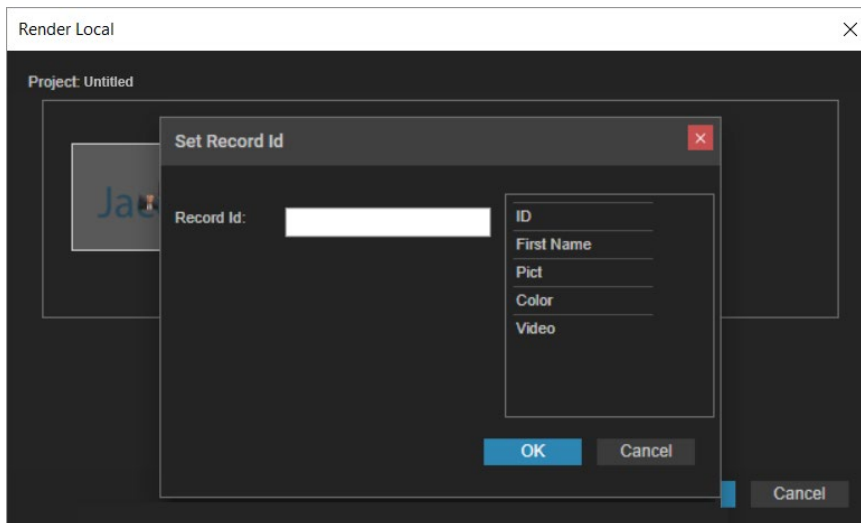
In order to save on rendering time, it is strongly recommended that you first deploy from After Effects a sample CSV file, including fonts and assets, to the XVS. You should then render all in the Dashboard. Only after you verify that all went well should you upload the final CSV file from the Dashboard, add the assets and render the full project.

Local rendering

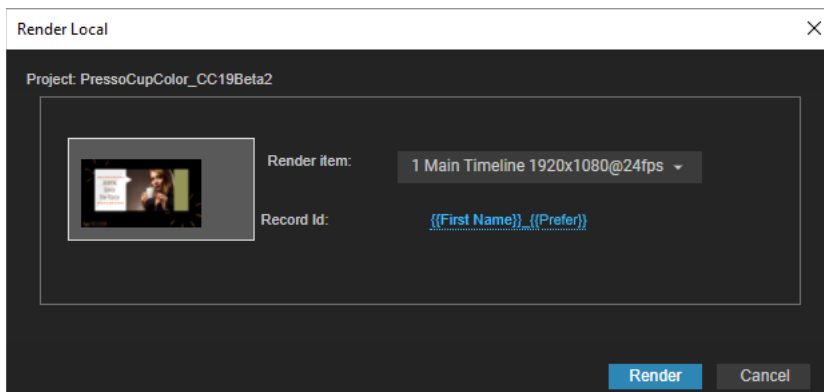
You may render a single full record locally. This is mainly for testing purposes or when you wish to produce a very small number of videos without uploading them to the cloud.

To perform local rendering:

1. Open your project in After Effects.
2. From the **Options**  menu, select **Render Locally**.
The **Render Local** window opens with the **Set Record Id** popup above.



3. In the **Record Id** field, compose the variability of the name of the final video, e.g. `{{First Name}}_{{Prefer}}`, and click **OK**.
4. From the **Render item** list, select the composition you wish to render.




5. Click **Render**.
Once rendering has ended, you can access the rendered video.

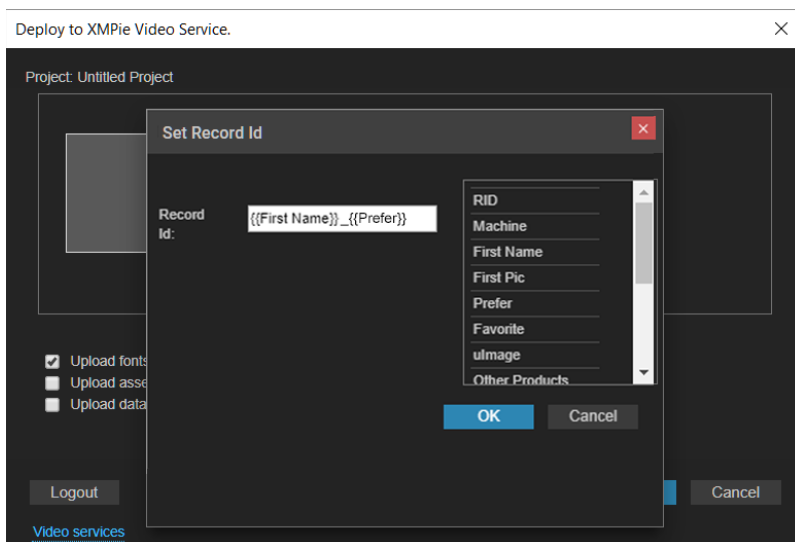


Deployment

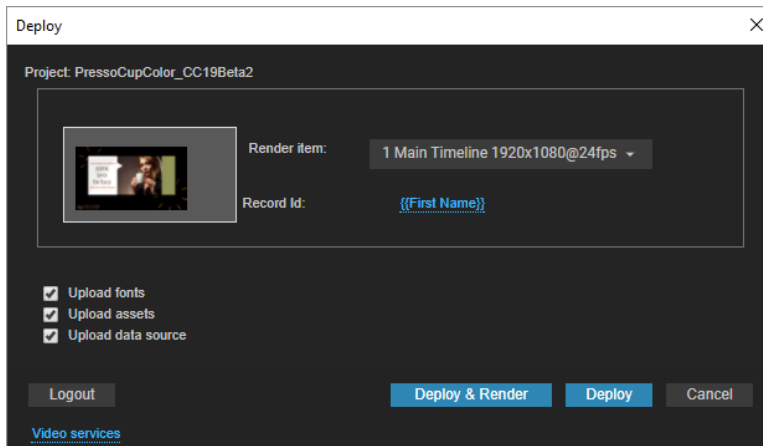
Use the **XMPie Video Service (XVS)** to deploy the videos on the cloud and serve the videos over the internet. This is particularly useful when you wish to render multiple records. In order to use the service, you must first log on to it.

To perform XVS rendering:

1. Open your project in After Effects.
2. From the **Options**  menu, select **Deploy**.
3. Log in to the XMPie Video Service.
The **Deploy to XMPie Video Service** window opens with the **Set Record Id** popup above.



4. In the **Record Id** field, compose the variability of the name of the final video, e.g. {{First Name}}_{{Prefer}}, and click **OK**.
5. From the **Render item** list, select the composition you wish to render.



6. Select any of the following parameters:

- **Upload fonts** – To use the project fonts in the final video, copy all fonts used by the project to the following folder:
 - Windows - C:\Program Files\Common Files\Adobe\Fonts\Xipamide
 - Mac - ~/Library/Application Support/Adobe/Fonts/XMPUVideo
- **Upload assets** – Uploads only the assets represented by the graphic fields in the current data source.
- **Upload data source** – Uploads the current data source.

7. Click the **Deploy** or **Deploy & Render** button as follows:

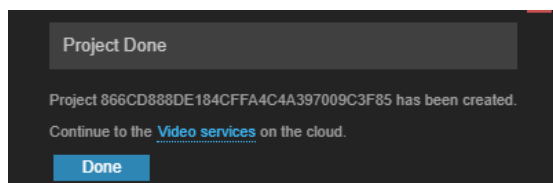
- Use **Deploy** to upload the project, its resources and optionally the assets and data source to the XVS service.
Use this option if you plan to generate [HTTP Live Streaming \(HLS\)](#) output.
- Use **Deploy & Render** to additionally trigger rendering of the project according to the uploaded data source. This option is available only if the **Upload fonts**, **Upload assets** and **Upload data source** checkboxes are selected.

Note: When using **Deploy & Render**, it is advisable **not** to work with the final CSV file that contains all records. Instead, use a relatively small (less than 50) set of records.

In order to complete rendering of all records, use the [XVS Dashboard](#) to upload and render the rest of the records.

At this point deployment or deployment and rendering takes place in the background. You can quit After Effects and continue with any other work that you may have.

Once the process has ended, a status window appears, providing you a link to the XVS dashboard.



If you've only deployed the project, go to the dashboard, upload the required materials and then render.

If you deployed and rendered, the rendering process may still be taking place. Go to the dashboard to follow the rendering process. When done, you can view the videos and copy the personalized video URL.

Service Management

The XMPie Video Service comes with a web management application known as **XVS Dashboard**, which enables you to render records, view your projects and rendered videos, and delete projects.

Log in to the Dashboard at <https://dashboard-eu.xmpvs.com>

View projects

You may view the various projects that have been rendered to the service.

XMPie Video Service					XMPPreSales
Project	Name	Status	Last Modified	Messages	
	Sanity_Check3_AAC (3) 74F1E6C9865745D781F6198B92346885	Completed	Tue, 29 Oct 2019 09:33:42 GMT		
	Pressocup_Dynamic_005 (4) 58B0288D80364ECA91CCDF04F8CD6CAC	Completed	Thu, 24 Oct 2019 15:33:13 GMT		
	Unique Travel (7) 3150E54914144716AF8C4BF80EFF2DCE	Completed	Thu, 24 Oct 2019 05:29:28 GMT		

For each project, click the icon to view the relevant snippet or personalized video URL, which can be used to insert a link to the complete personalized video in your HTML page or email.

Project: Sanity_Check3_AAC

Personalized video URL

Use the following link to display the personalized video. You can insert the link in an email, SMS, etc. Make sure to change the {Record_ID} to the required record ID.

https://videos.xmpvs.com/XMPPreSales/74F1E6C9865745D781F6198B92346885/{RECORD_ID}

Personalized video HTML snippet

Copy and paste the Script section of the snippet into the Head section of your personalized HTML page, and the Body content into the Body section. When browsing to the personalized HTML page, you must supply the rid={record_ID} in the query string. For example: http://.....html?rid=Harry_Miller. Otherwise, provide a default record ID within the script section.

Note that certain functions in this snippet, such as `URLSearchParams`, may not be compatible with all browsers.

```

<!DOCTYPE html>
<html>
<head>
<meta charset="utf-8">
<title>Test</title>
<script>
// Copy and paste this section into the Head section of your personalized HTML page
const xmpVideosOnDemandDomain = "https://videos.xmpvs.com";
const userId = "XMPPreSales"; // User ID
const projectId = "74F1E6C9865745D781F6198B92346885"; // Project ID
const defaultRecordId = "DEFAULT RECORD ID"; // IMPORTANT: Set your default record ID here.

var recordId = new URLSearchParams(window.location.search).get('rid'); /* Gets the record ID from the URL */
if (!recordId) // If no record ID has been supplied in the URL, the default record ID will be used.
  recordId = defaultRecordId;

var url = xmpVideosOnDemandDomain + "/" + userId + "/" + projectId + "/" + recordId; // The video URL
document.addEventListener('DOMContentLoaded', (event) => {
  document.getElementById('myVideo').src =

```

You can also copy the personalized video URL from within the project page using the **Copy URL** button.

View records

Click a project to view its records, and then select the record you wish to run.

The screenshot displays the 'Pressocup_Dynamic_005' project page. It features a 'Project Progress' section with two circular gauges: 'Render' at 100% and 'Visits 0/3' at 0%. A 'Status' section shows 3 Succeeded, 0 Failed, and 0 Waiting records. Below this is a table of records:

Record ID	Status	Tags	Data Source	Messages
Pressocup5_mp3_Frida_Birthday	Succeeded	<>	-(2020-02-23 13:49:18)	[Icons]
Pressocup5_mp3_Roy_Anniversary	Succeeded	<>	-(2020-02-23 13:49:18)	[Icons]
Pressocup5_mp3_Shmuel_Graduation	Succeeded	<>	-(2020-02-23 13:49:18)	[Icons]

Define webhooks

Webhooks allow XVS to communicate with external services in order to broaden its customer communication capabilities.

For example, XVS creates a new video and when the rendering is completed, a webhook is called. The webhook can be a call to a REST API, which in turn triggers an email to the records with a link to the video. One option is to use the API of [XMPie Circle](#), XMPie’s platform for cross-media campaigns.

Another example is to use [Zapier](#) to send notifications to Facebook. Developers can also create any REST API to be executed following record rendering.

To create a webhook:

1. Click the **Webhooks** link, and then click **Add** to create a new webhook.
2. Give the webhook a name.
3. Enter the following information:

Create webhook

Webhook Name

Event Type
RenderDone ▼

Url

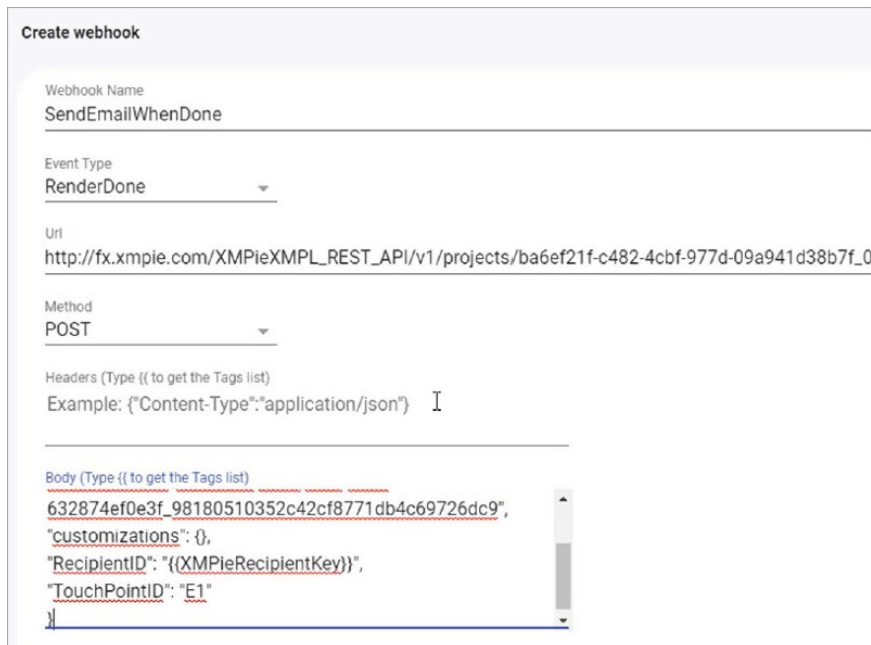
Method
POST ▼

Headers (Type {{ to get the Tags list})
 Example: {"Content-Type":"application/json"}

Body (Type {{ to get the Tags list})
 Example: {"foo": "value"}

- **URL:** The URL to which data is sent when the trigger occurs. This can either be a URL that you've set up in Circle, Zapier or other service, or a REST API.
 - **Method:** GET, PUT or POST method.
 - **Header:** The API header JSON data.
 - **Body:** The JSON data that is sent to the URL. The data can include static text, or any of the tag values.
4. Test the configuration by clicking **Add & Test** and selecting a sample record. This executes the webhook and allows you to check that it is valid.

The following is an example of an XVS webhook feature used to trigger an email to be sent to the recipient when the personalized video has been created and is ready to be viewed.



The screenshot shows a 'Create webhook' form with the following fields:

- Webhook Name:** SendEmailWhenDone
- Event Type:** RenderDone
- Uri:** http://fx.xmpie.com/XMPieXMPL_REST_API/v1/projects/ba6ef21f-c482-4cbf-977d-09a941d38b7f_0
- Method:** POST
- Headers (Type {{ to get the Tags list }}):** Example: {"Content-Type": "application/json"}
- Body (Type {{ to get the Tags list }}):** 632874ef0e3f_98180510352c42cf8771db4c69726dc9", "customizations": {}, "RecipientID": "{{(XMPieRecipientKey}}", "TouchPointID": "E1"

Create adaptive bitrate streaming (HLS) output

HTTP Live Streaming (HLS) is an HTTP-based adaptive bitrate streaming communications protocol developed by Apple Inc. Currently it is the most popular and recommended streaming protocol.

HLS is designed for reliability and dynamically adapts to network conditions by optimizing playback for the available speed of landline, wifi, and cellular connections. A viewer watching a video stream over a network of 10 Mbps and above would get the highest resolution and quality video. On the other hand, a viewer watching the same video stream over a 0.8 Mbps connection would view it in lower resolution and quality. However, in both cases the video would play smoothly with minimal or no buffering, for the best experience possible on the available connection bandwidth.

To generate HLS stream, you need to create an HLS webhook.

To create an HLS webhook:

1. Click the **Webhooks** tab, and then click **Add** to create a new webhook.

Create webhook

Webhook Name
HLS_output

Event Type
RenderDone

Url
https://api-dev.xmpvs.com/v1/projects/{projectId}/records/{recordId}/videos/mc?userId={userId}&heigl

Method
POST

Headers (Type {{ to get the Tags list)
Example: {'Content-Type': 'application/json'}

Body (Type {{ to get the Tags list)
Example: {'foo': 'value'}

Add & Test Add Close

2. Give the webhook a name. Use the **HLS_** prefix and then press the **<Tab>** key for the remaining fields to be automatically filled in.
3. Click **Add**.
The webhook is added to the list.

Webhook Name	Url	Event	Method	Enabled
HLS_output	https://api-qa.xmpvs.com/v1/projects/{	RenderDone	POST	<input checked="" type="checkbox"/>

The output of each record that you will render from this point onward will be in HLS, in addition to MP4.

To view a record in HLS format, click the **HLS** button. The HLS video player opens.

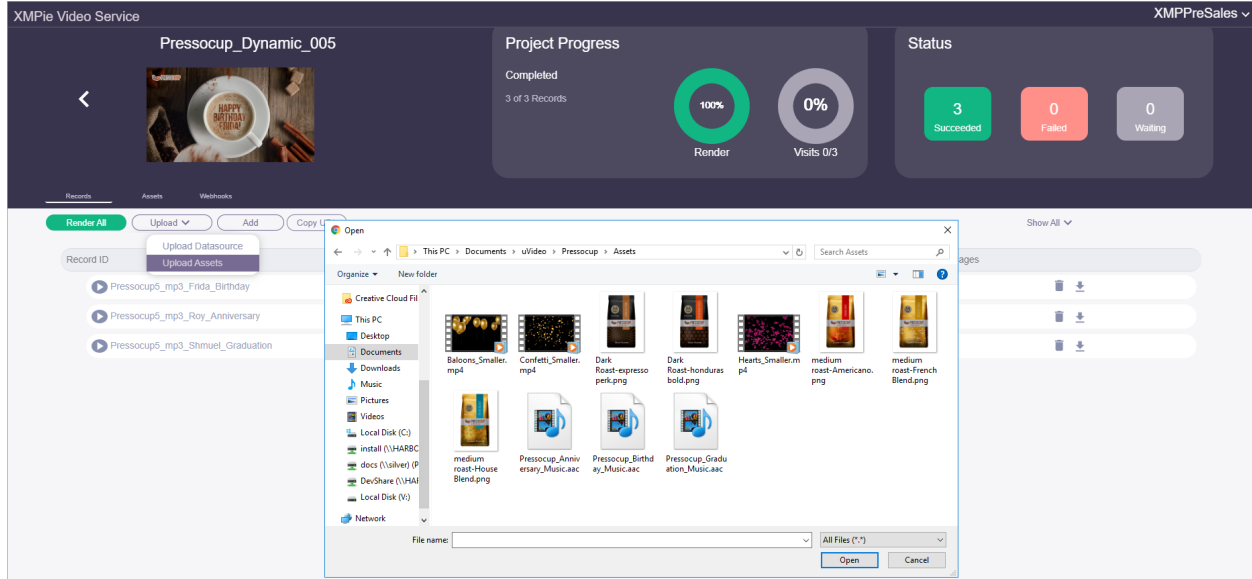
Record ID	Status	Tags	Data Source	Messages
Nofar_Birthday	✓ Succeeded	<>	data (2020-12-23 15:15:58)	<input checked="" type="checkbox"/> HLS <input type="checkbox"/> MP4
Roy_Anniversary	✓ Succeeded	<>	data (2020-12-23 15:15:58)	<input checked="" type="checkbox"/> HLS <input type="checkbox"/> MP4
Shmuel_Graduation	✓ Succeeded	<>	data (2020-12-23 15:15:58)	<input checked="" type="checkbox"/> HLS <input type="checkbox"/> MP4

If a record has both the HLS and MP4 formats, clicking **▶** will open by default the HLS player, similar to the clicking the **HLS** button.

Render records

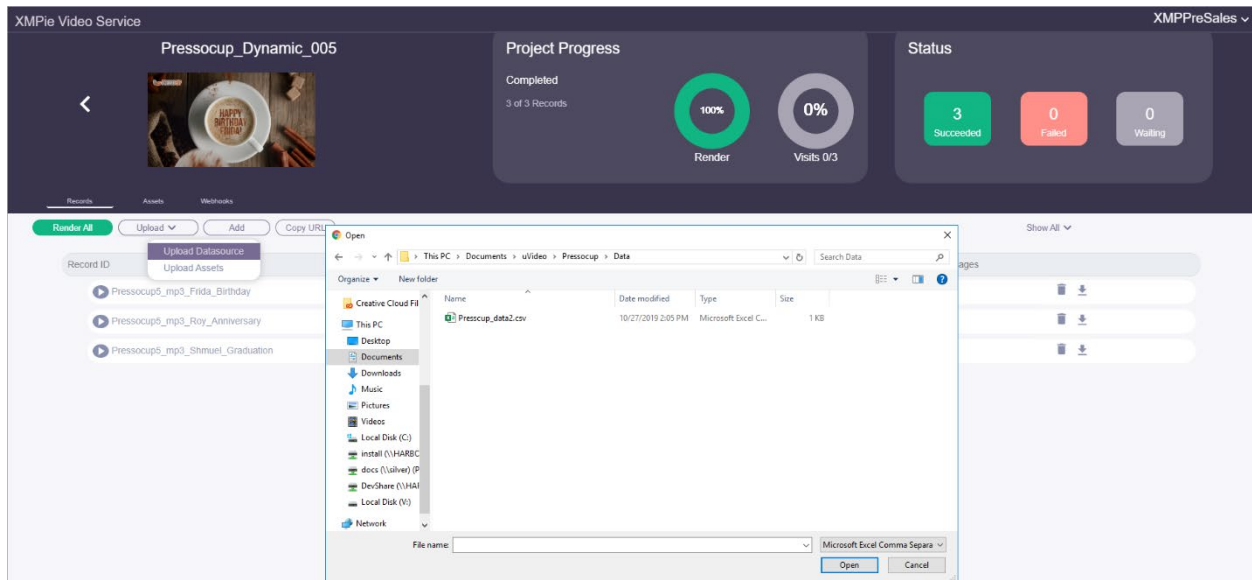
After a project is deployed, you can render it from the Dashboard to create videos.

You may first need to upload the relevant assets. Simply click **Upload > Upload Assets** and select the necessary assets.



After the upload, you may review the assets in the **Assets** tab.

You may also add records that you wish to render. Simply click **Upload > Upload Datasource**, select the relevant data source and click **Render**.



To use the videos in your applications you would need a URL to the video. The URL can be to a player that plays the specific video, or to the video itself, and can be used in 3rd party video players.

Click the **Copy URL** button to get the personalized video URL. You can insert this URL in an email, HTML page or SMS. Make sure to change the {Record_ID} to the specific record records ID, as you defined during the deployment phase.

Copy Video URL

Replace the {RECORD_ID} in the URL with the required record ID.

HLS Player (recommended) ⓘ

`https://qa.xmpvs.com/videoPlayer/index.html?userId=DemoQA&projectId=B4F1145D920C415B8B34F46C5CF13F91&xvsStorageDomain=videop-qa&rid={RECORD_ID}` Copy

HLS URL ⓘ

`https://videop-qa.xmpvs.com/DemoQA/B4F1145D920C415B8B34F46C5CF13F91/hls/{RECORD_ID}.m3u8` Copy

MP4 URL ⓘ

`https://video-qa.xmpvs.com/v/1/DemoQA/B4F1145D920C415B8B34F46C5CF13F91/{RECORD_ID}` Copy

Note that the HLS options will only appear if [HLS rendering](#) is configured.

You can choose any of the following options:

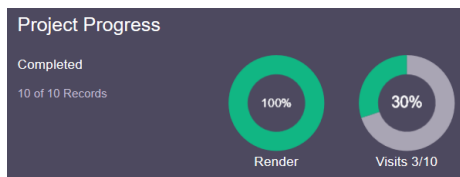
- **HLS Player:** This option adjusts the viewing quality to suit the viewers' network bandwidth. It minimizes latency and buffering on mobile and low bandwidth networks.

This URL opens a player that plays the video. It can be used as a link in an email or HTML page. This is a general-purpose URL that should be used unless high bandwidth is guaranteed or unless using your own HLS player.
- **HLS URL:** This option adjusts the viewing quality to suit the viewers' network bandwidth. It minimizes latency and buffering on mobile and low bandwidth network.

This URL points to an HLS file that can be used in third party HLS players.
- **MP4 URL:** This URL points at the source video, which is the highest quality video. It is not suitable for use on low bandwidth networks.

View unique visits

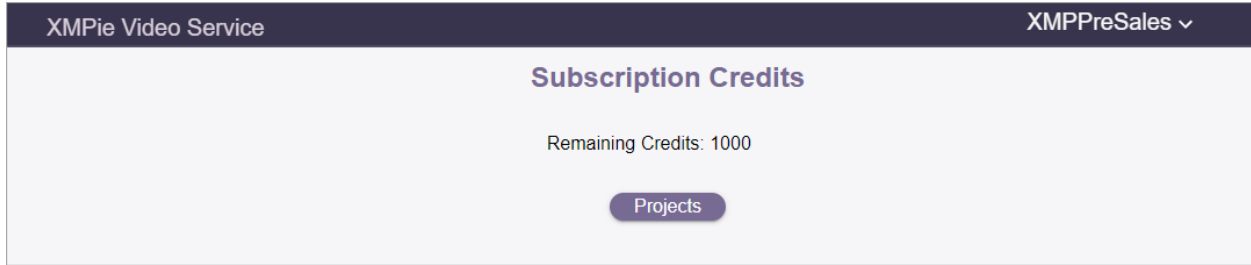
The Visits chart shows for each project the number of unique playbacks of video records.



View remaining credits

You may view how many rendering credits remain in your subscription.

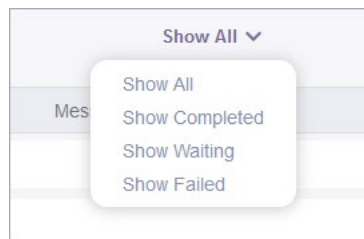
At the top right-hand corner of the screen click your username, and from the menu select **Credits**.



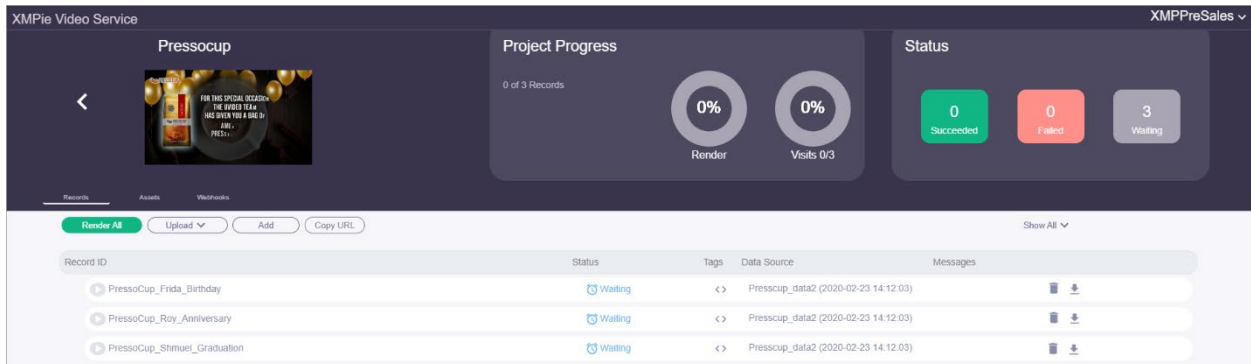
Filter the list of records

You may filter the list of records to view:

- All records
- Completed records
- Records waiting to be rendered
- Records that failed to render



Once selected, you can render the filtered records. For example, render all records waiting to be rendered, as can be seen in the following example:



On-demand video render

If you wish to render a video for an additional record, you may use this option.

- Click the **Add** button and fill in the form.

Add Record

Recipient Name

Sender Name

Event

Sender Free Text

Event Footage

Coffee Brand Name

Coffee Brand Image

Add & Render Add Cancel

- Click **Add** to add a record to be rendered later or **Add & Render** to start rendering now.

Delete records

Records may be deleted by clicking the bin icon.

XMPie Video Service XMPPreSales

Pressocup

Project Progress

0 of 3 Records

Render: 0% Visits: 0/3

Status

0 Succeeded, 0 Failed, 3 Waiting

Records | Assets | Webhooks

Render All | Upload | Add | Copy URL | Show All

Record ID	Status	Tags	Data Source	Messages
Pressocup_Frida_Birthday	Waiting	<>	Pressocup_data2 (2020-02-23 14:12:03)	[Bin] [Download]
Pressocup_Roy_Anniversary	Waiting	<>	Pressocup_data2 (2020-02-23 14:12:03)	[Bin] [Download]
Pressocup_Stimuel_Graduation	Waiting	<>	Pressocup_data2 (2020-02-23 14:12:03)	[Bin] [Download]

Delete projects

Projects may be deleted by clicking the bin icon.

The screenshot shows the 'XMPie Video Service' interface. At the top right, there is a user profile 'HWPR'. Below the header is a table with columns: Project, Name, Status, Last Modified, and Messages. The table lists several projects, each with a thumbnail, name, status, and last modified date. A modal dialog box titled 'Delete project' is open over the second row. The dialog asks 'Are you sure you want to delete the project CI-XMPie3_B2_forDeploy?' and provides the project ID '8F38C6FCE03540F6B100FECCF9262780'. It also has a text input field for 'Project id' with the same ID entered, and 'CANCEL' and 'OK' buttons.

Project	Name	Status	Last Modified	Messages
	PressoCupColor_CC19Beta2 (5) AF8229C37E6947EA83F1FBA36BAA5218	Completed	Thu, 11 Apr 2019 14:11:02 GMT	
	CI-XMPie3_B2_forDeploy (2) 8F38C6FCE03540F6B100FECCF9262780	Completed	Thu, 11 Apr 2019 11:19:13 GMT	
	PressoCupColor_CC19Beta2 (5) 0A251D38858F490B9589E19971A9B1FC	Completed	Thu, 11 Apr 2019 08:13:01 GMT	
	PressoCupColor_CC19Beta2 (4) B2D09DB9B0A34DE69A3698031F6EFC6E		54:48 GMT	
	Casino-For-Demo (7) 83424682ED0D4E239CED16AA56951216		58:35 GMT	
	PressoCupColor_CC19Beta2 (0) 67DFB190702A4021DF48D969EE312BE5		3:06:24 GMT	

Delete project

Are you sure you want to delete the project CI-XMPie3_B2_forDeploy?
(Project id: 8F38C6FCE03540F6B100FECCF9262780)

Type the id of the project to confirm:

Project id
8F38C6FCE03540F6B100FECCF9262780