What is 3D-180 Video?

3D-180 video is a new immersive format that focuses on 180 degrees of framing and can be viewed with depth in VR.

Why should I consider 3D-180 Video?

If you’re considering shooting some content in an immersive way, 3D-180 is a great format to consider for your story because:

• 3D-180 video gives control to creators by allowing them to frame their stories
• 3D-180 video allows your audiences to focus on the story you’re trying to tell
• 3D-180 video works best in VR as creators have the ability to capture depth with their content
What formats are supported?

Current: June 2018

We support stereoscopic side by side half-equirectangular content. This is a common format that has been gaining support across various VR media players for the past few years.

Think of it as cutting a 360 video in half to the middle 50%. We take the standard equirectangular format, and just divide it to the two middle quartiles to retain a “half equirect” and then put the left and right eye pairs of a stereoscopic video side by side to form a 3D 180 video.

**What resolutions/bitrates are recommended?**

We support uploads of VOD content up to 5.7K resolution for 3D 180 video. For live, we support up to 4K resolution content being ingested.

**What metadata is necessary?**

We utilize an extension to the v1 spherical metadata spec that has been adopted by most of the industry. There are two key differences. If you modify metadata to follow this scheme, then you will be compatible and your video will work.

1. Projection = half-equirectangular
2. Stereo-mode = left-right

*You can follow the profile upload steps in this guide to see how to inject your own videos with the correct metadata to verify it is working.*
Supported Cameras & 3D-180 Production

Currently, the Z Cam K1-Pro is supported and outputs compatible 3D-180 video content.

We look forward to supporting more devices and workflows soon and will continue to update this guide with information as it becomes available.

For a great production workflow and case study, please visit Eric Cheng’s (Head of Immersive Media, Facebook) post available [here](#).
How do I share a 3D-180 Video to Facebook?

We currently support two methods of sharing 3D-180 video content to Facebook: Live and Video on Demand (VOD)

Live

There are two flows that will allow you to go live with 3D 180 video to Facebook.

1. You can use facebook.com/live/create as a one stop shop just like Live 360 video to set up a stream, preview and choose your destination.
2. You can use a camera or software that a developer has integrated support into for going live in 3D-180 to Facebook.
Currently we recommend the first option for people to go live. As more integrations come online, we’ll update this guide pointing to different recommended workflows
How do I share a 3D-180 Video to Facebook?

**Going Live 3D-180**

1. Ensure you have a camera that supports outputting video content in the proper format (see beginning of guide for details on format details and a sample asset).
2. Ensure you have a laptop that supports Google Chrome and direct your browser to [facebook.com/live/create](http://facebook.com/live/create).
3. You should see the displayed screen below, this is the default location you can go to for setting up Live events, 360/180 streams. From here you can click “Create Live Stream” to open the dialogue to specify what kind of stream you are preparing.
How do I share a 3D-180 Video to Facebook?

Going Live 3D-180

You'll see a variety of options. Click the settings button to reveal a section for 360/180 streams denoted “360”
How do I share a 3D-180 Video to Facebook?

Going Live 3D-180

You’ll see a variety of options. Click the Settings button to reveal a section for 360/180 streams denoted “360 Video”
How do I share a 3D-180 Video to Facebook?

Going Live 3D-180

Setting this option reveals more ways to specify that your stream is a special stream with 360 or 180 content. Select the checkbox for “Broadcast this as a spherical video”. In the dropdown that appears, choose 180 Video - 3D to specify that you are streaming a stereoscopic 180 video as a half equirectangular as described in the format section at the beginning of the guide.
How do I share a 3D-180 Video to Facebook?

Going Live 3D-180

Make sure you’ve selected your post destination and privacy appropriately. Note each time this or the 360 settings are changed above, the stream key and server URL will reset. Ensure you select the most recent stream key value.

From here, look at your stream key and server URL values to get the settings you will feed into your streaming software/live video workflow.

Once you start streaming to the server url and stream key, you should see the loading screen and the video should load and be previewed.
How do I share a 3D-180 Video to Facebook?

Going Live 3D-180

Your viewfinder should be active and work in this preview, then you just need to hit Go Live which only is available when a valid video stream is received and the video will publish to your audience.

To end your stream please follow the standard procedure to terminate your RTMP stream.
How do I share a 3D-180 Video to Facebook?

Uploading VOD 3D-180

You can share 3D-180 Video on Demand (VOD) content by uploading it the same way you upload a 360 video to Facebook today.

But before you start your upload, consider your destination. Are you uploading to a Page or a Profile? Depending on the destination, we recommend you follow the appropriate Page or Profile steps in the following pages of the guide.

*Please note, ads are not yet supported for this format*
How do I share a 3D-180 Video to Facebook?

Uploading VOD 3D-180 to a Page

1. Make sure you have an existing page that you want to upload to.

2. Select the option to upload a video or a photo, either right from your Page’s Feed or through your Video Library in Publishing Tools.

3. Scroll down on the right side until you see 360 Director Tools in the menu and select it.

4. Select 360 mode inside the tools if your asset does not already have metadata indicating it is an immersive video like a 360 video or a 3D-180 video. If you have metadata, it should already display the following screens on its own and not require manual setting of the parameters for projection and stereo mode.
How do I share a 3D-180 Video to Facebook?

Uploading VOD 3D-180 to a Page

5. Hovering over the gear icon should reveal some options to determine what kind of video file your video is. Select Side-by-Side and Half Equirectangular.

6. Then, confirm that your video is ready to be published once you’ve added a title, description and determined the distribution methods. Once you’re happy with all the settings, hit ‘Publish’ and wait for your video to finish processing. You’ll receive a notification once your video is live on your Page.
How do I share a 3D-180 Video to Facebook?

Uploading VOD 3D-180 to a Profile

The steps to upload to a Profile are not too different from uploading a normal video. The main difference is if you need to add metadata to your file.

If you need to add metadata and your video file is less than 1.8 GB, you can use our standalone metadata injector, 360 Director located at https://www.facebook.com/360_media/create

1. Click “Launch 360 Director Tools”.

2. Select a video you want to add metadata to or to preview that it will work correctly on Facebook.
How do I share a 3D-180 Video to Facebook?

Uploading VOD 3D-180 to a Profile

3. Make sure to specify that the content should be treated as **Side by Side Half Equirectangular**. Then preview your video renders correctly before scrolling down until you see the blue download button.

4. Hit the download button, and you will see an progress bar at the bottom of the tool that your video is processing.

5. After completion, the tool will prompt you to name the new injected version of the file and specify a location for saving the file. This video will now be recognized as a 3D-180 video if you try to upload it to a Page or a Profile through the standard upload flows without any additional work.
How do I ensure my 3D-180 Video workflow is supported on Facebook?

Metadata

Please follow the metadata specifications described at the beginning of this guide or preview using our 360 Director tool at https://www.facebook.com/360_media/create

Graph API

If a developer wants to utilize FB Graph API to upload videos, they can upload a 3D-180 video to the video upload graph API end point and choose one of two options. https://developers.facebook.com/docs/graph-api/video-uploads explains how to actually upload videos to FB using the Graph API

1. Add metadata to the asset and upload to FB without custom parameters
2. Upload to FB and specify custom parameters indicating the video is a 3D-180 video
https://developers.facebook.com/docs/videos has in depth documentation on video related graph API parameters.

For Live API, one must use either fb.com/live/create or integrate with graph API. Detailed documentation for live API resides at https://developers.facebook.com/docs/videos/live-video/getting-started.

The steps for integration are similar to live 360 integration, however you must specify the video is stereoscopic and that the projection is half equirectangular to ensure we know how to handle the video correctly in addition to specifying the video is spherical, hence three parameters must be utilized in graph API.

Meaning the following key value pairs should be included in the upload:
is_spherical = true
stereoscopic_mode = left-right
projection = half_equirectangular
How do I watch a 3D-180 Video on Facebook or in VR?

Facebook for iOS, Facebook for Android and Facebook on Desktop Web Browsers

You can watch a 3D-180 video as a panoramic video on Facebook which will allow you to interact and pan the content like a 360 video or 360 photo.

Supported Interactions

On desktop, clicking and dragging is supported. On mobile, swipe to interact and gyro based phone motion are supported to interact with content. In VR, rotating your headset is supported.

Oculus Go and Samsung Gear VR

If you have an Oculus Go or Gear VR, you can experience this content in full 3D depth in the Facebook 360 app, as well as in Oculus Video.

1. Download the Facebook 360 app from the Oculus Store
2. Follow the Login prompts to connect your Facebook account
3. For the easiest way to find 3D-180 Videos, save your favorite videos from News Feed on mobile and desktop and then find them in the ‘Saved’ tab of Facebook 360. We will be rolling out a special 3D-180 tab soon to make it even easier to find great videos to enjoy in 3D-180.
FAQs

Q: Are ads supported for 3D-180 video?
A: At this time, ads are not supported for 3D 180 video whether VOD or live.

Q: Do we support other 3D-180 related formats?
A: At this time we only support the half_equirectangular side by side 3D 180 format, no other formats are supported.

Q: Can I upload content that was not shot with a 3D-180 camera but was 3D-360 and cropped to 3D-180?
A: Yes, however the quality of experience is dependent on the quality of the 3D 360 that was originally captured.

Q: Does spatial audio work with 3D-180?
A: We do support ambisonics on 3D-180 content, with more improvements coming out with the upcoming Facebook 360 Spatial Workstation update in July.

Q: How do I watch 3D-180 videos in VR?
A: Our current recommendation is to watch this content in an Oculus Go with the Facebook 360 app.