Dolby Vision Processing

Cloud-Based Encoding and Packaging of the Industry's Leading Format for HDR Video

High dynamic range (HDR) is no longer a technology for the future. It's here, and it's elevating the viewing experience by bringing incredible brightness, contrast and color to viewers' TV screens and mobile devices.

Dolby Vision™ is cutting-edge HDR technology that dramatically expands the color palette and contrast range, and uses dynamic metadata to automatically optimize the picture for every screen — frame by frame. When compared to standard dynamic range (SDR) video images, Dolby Vision can deliver colors never before seen on a screen, with highlights that are up to 40 times brighter and blacks that are 10 times darker. It is utilized on a growing list of titles for the cinema, on TVs and mobile devices, and via top streaming services.

Encoding.com is a certified Dolby Vision provider. We have worked closely with Dolby Laboratories to ensure that our customers can deliver the highest quality video to Dolby Vision-supported devices. The result is a simpler, faster way to provide the ultimate viewing experience across virtually all platforms and devices.

Employing the Encoding.com API simplifies the processing and preparation of Dolby Vision files in the cloud, eliminating the cost and challenge of managing an HDR workflow in-house and allowing you to scale as needed to meet growing consumer demand. We offer the latest format functionality, including:

- Profile 5 and profile 8.1 encoding from Dolby Vision content masters.

- Approximated representations in profile 4 and profile 8 from SDR sources without grading.

- HDR10 and down-sampled SDR outputs from Dolby Vision content masters.

- HDR10 output from 8.1 profile for users with HDR-enabled devices but not Dolby Vision.

Encoding.com users gain access to a comprehensive suite of focused microservices for both broadcast and ABR delivery of Dolby Vision content. Our capabilities include blazing fast file

Distribute Dolby Vision content to the growing universe of streaming services, TVs and mobile devices

Access to the industry's broadest ABR packaging toolset

Blazing fast processing speed with no loss of output quality

Easily integrates your workflow to the cloud via the Encoding.com API

throughput with our Ludicrous Mode parallel processing technology, Neilsen watermarking, dynamic ad insertion, DRM and automated QC. Customers can also enjoy up to 50% lower bitrates with no loss of image quality using content-adaptive bitrate (CABR) encoding technology from industry leader Beamr, resulting in smaller file sizes, more satisfied customers and lower CDN and storage expenditures.

Dolby Vision output is available for the fmp4_hls, advanced_dash and advanced_fmp4 output formats

SIMPLE INTEGRATION

Encoding.com offers the most mature, well-documented and feature-rich cloud encoding API on the market, simplifying the ability to move your ABR processing to the cloud. We can integrate with your CMS, MAM or post-production application, and offer XML templates for all popular devices. To further simplify the integration process, our API Builder helps generate properly formatted XML files to test your JSON or XML requests before writing a single line of code.

XML

```xml
<?xml version="1.0"?>
<query>
    <userid><<id>></userid> <!-- required-->
    <userkey><<key>></userkey> <!-- required-->
    <action>[Action]</action> <!-- required-->
    <source>[SourceFile]</source> <!-- required-->
    <format>
        <output>[fmp4_hls|advanced_dash|advanced_fmp4]</output> <!-- required--
        <destination>[DestinationURL]</destination> <!-- required-->
        <stream>
            <hdr>[dv5|dv81]</hdr>
            <color_range>[full|limited]</color_range>
            <master_display>
                <red_x>[RedX]</red_x>
                <red_y>[RedY]</red_y>
                <green_x>[GreenX]</green_x>
                <green_y>[GreenY]</green_y>
                <blue_x>[BlueX]</blue_x>
                <blue_y>[BlueY]</blue_y>
                <white_x>[WhiteX]</white_x>
                <white_y>[WhiteY]</white_y>
                <luminance_min>[MinLuminance]</luminance_min>
                <luminance_max>[MaxLuminance]</luminance_max>
                <max_cll>[MaxCLL]</max_cll>
                <max_fall>[MaxFALL]</max_fall>
            </master_display>
        </stream>
        <!-- Format params -->
    </format>
</query>
```

JSON

```json
{
    "query": {
        "userid": "[UserID]", // required
        "userkey": "[UserKey]", // required
        "action": "[Action]", // required
        "source": "[SourceFile]", // required
        "format": {
            "output": "[fmp4_hls|advanced_dash|advanced_fmp4]", // required
            "destination": "[DestinationURL]", // required
            "stream": [
                {
                    "hdr": "[dv5|dv81]",
                    "color_range": "[full|limited]",
                    "master_display": {
                        "red_x": "[RedX]",
                        "red_y": "[RedY]",
                        "green_x": "[GreenX]",
                        "green_y": "[GreenY]",
                        "blue_x": "[BlueX]",
                        "blue_y": "[BlueY]",
                        "white_x": "[WhiteX]",
                        "white_y": "[WhiteY]",
                        "luminance_min": "[MinLuminance]",
                        "luminance_max": "[MaxLuminance]",
                        "max_cll": "[MaxCLL]",
                        "max_fall": "[MaxFALL]"
                    }
                }
            ],
            "segment_template": "[number|time]"
            // Format params
        }
    }
}
```

The Encoding.com API makes it easy to connect your Dolby Vision workflow to the cloud.

With more than one trillion API requests processed and a billion videos encoded, Encoding.com stands as the world's largest and most trusted provider of high-volume, cloud-based video processing services. We pioneered transcoding-as-a-service more than a decade ago, empowering the world's largest Media & Entertainment, Cable, Broadcast and Technology brands to monetize and deliver superior-quality VOD content to all mobile, desktop, IPTV and OTT platforms. Based in San Francisco, with offices in Aspen, CO, New York and St. Petersburg, Russia, we operate in public and private cloud data centers around the globe, assuring the fastest possible turnaround times for every client so that they can get to air first, grow their audience and stay ahead of the competition. For the latest news, please visit www.encoding.com and follow them on Twitter https://twitter.com/encodingdotcom.