



Validate Source Video Quality

Protect the Viewer Experience and avoid wasting resources on poor quality content by validating at the source—even without a reference—for both LIVE and VOD content

From image capture to the mezzanine files, video passes through several stages of compression before it even reaches your encoders. Unfortunately:

- Reprocessing or preparing the mezzanine files can introduce banding and other artifacts;
- Overcompression can distort colors and deviate tones;
- De-noising makes content more susceptible to Banding;
- Content is sometimes upsampled.

As a result, upstream partners can deliver content which already suffers from video quality issues, leading to wasted resources in your workflow and a poor Viewer Experience.

Real-world requirements

The threshold for an excellent experience is a **SSIMPLUS Viewer Score** of 80—and premium content like sports demands an even higher score.

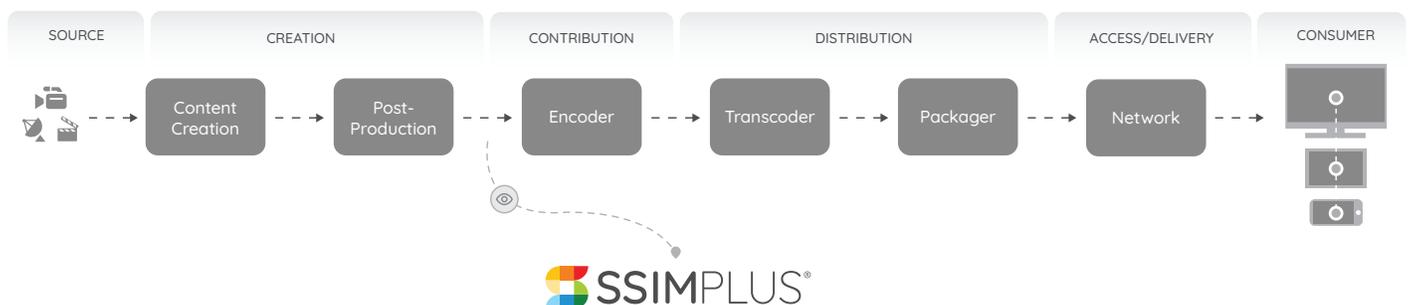
For you to deliver this excellent Viewer Experience, sources need to have a Viewer Score of at least 90 when they enter your workflow. However, SSIMWAVE's real-world delivery data shows that only 50 percent of video source files actually meet this requirement.

A new approach—with no references required

Traditional measurements—including PSNR, SSIM and VMAF—just **don't work in no-reference situations**. And even approaches that can catch issues like letterboxes or interlacing are unable to quantify the impact of these issues on the Viewer Experience.

SSIMWAVE's pioneering no-reference solution overcomes these hurdles, letting you validate video content as if you had a human gatekeeper at the hand-off point.

SSIMPLUS measures the Viewer Experience for Live and VOD content in no-reference situations, letting you validate video sources as you receive files from content partners



Benefits of Using SSIMPLUS

With **SSIMPLUS Single-ended analysis**, you can perform Pass/Fail source validation—even without a mezzanine reference—enabling you to:

- Prevent wasteful and expensive processing of unacceptably poor-quality content;
- Protect the Viewer Experience by maintaining quality thresholds;
- Stop bad content in both LIVE and VOD workflows;
- Ensure your content partners meet applicable SLAs.

This single-ended capability provides the most accurate perceptual quality measurement for no-reference situations and ensures that your source content does not suffer from:

- Banding;
- Macroblocking;
- Upsampling;
- Other compression artifacts.

You even have the ability to employ a range of Pass/Fail thresholds, letting you select a minimum Viewer Experience score for each type of content or geography.

The result? Higher video quality, less waste, engaged and happy subscribers—and lower churn.

SSIMPLUS Viewer Score

The most accurate and comprehensive perceptual video quality metric ever engineered

SSIMPLUS uses **Viewer Intelligence®** to mimic the human visual system (biology and neuroscience). This knowledge-based technology captures the Viewer Experience more accurately than any alternative pseudo-QoE measurement or metric and is also more robust than deep learning AI models.

In fact, SSIMPLUS is the only solution which exceeds the 90 percent correlation accuracy mark between computed objective virtualization and subjective human opinion scores across all video content.

>90%
MACHINE TO HUMAN
CORRELATION

Get everyone on the same page with a score that's full of meaning and easy to understand

The SSIMPLUS Viewer Score is easy to understand, but that doesn't mean it's simple. Behind the scenes, it accounts for different:

- Content complexities (even scene-by-scene variations)
- Frame rates
- Resolutions
- Dynamic ranges (HDR, SDR)
- Devices (from handhelds to the biggest and best TVs)



SSIMPLUS examines the pixels and packets that affect the Viewer Experience, and calculates a Viewer Score for every frame.



Revolutionary and Respected

Because of its unrivaled ability to accurately measure perceptual video quality—across all content and devices—**SSIMPLUS** has earned recognition and accolades throughout both the video industry and the academic world.



67th Primetime Emmy®
Award winner for significantly impacting television technology and engineering



The American Society of Cinematographers created an HDR project named "SSIMWAVE"



The research behind SSIMPLUS has been cited more than 60,000 times—the most in the field

"SSIMWAVE's measurement standard represents a generational breakthrough in the video industry."

—The Television Academy

Improving the viewer experience of tens of millions of subscribers in North America 24/7.



SSIMWAVE®
HELLO@SSIMWAVE.com | SSIMWAVE.com