

# HDTV Automatic Quality Assessment Software

High-precision measurement of human perceptual quality of HDTV video

Beneficial to codec developers, video production studios, content providers, and etc.  
Low cost means to monitor content quality is here!

## Features

- **Automatic assessment of perceptual quality**

The automatic assessment score is equivalent to the score by a subjective test that requires many humans to watch the video for evaluation.

- **Flexible usage for various applications**

SDK (Software Development Kit) is provided for built-in user system.

- **High-precision algorithm**

KDDI Labs proprietary algorithm employs Full Reference model, which compares reference video and evaluation video, to provide highly reliable assessment score.

The score by this software is almost equivalent to DSCQS<sup>\*1</sup> score. (Correlation coefficient : 0.90)

Furthermore, other objective scores such as ANSI quality assessment parameter<sup>\*2</sup> and PSNR (Peak Signal to Noise Ratio) are reported.

\*1: Double Stimulus Continuous Quality-Scale – Subjective quality score defined in Recommendation ITU-R BT.500-11

\*2: ANSI T1 801.03-1996

- **Automatic adjustment of gain and offset**

The software automatically adjusts spatiotemporal misalignment and signal level mismatch between reference and evaluation video.

## Operating Environment

- **Video input**

Uncompressed HDTV signals (YUV4:2:2)

- **OS**

Microsoft Windows XP (Service Pack2)  
Windows Server 2003

- **Development environment**

Microsoft Visual C++ 2003, 2005

- **System requirements**

CPU: Intel Core 2 Duo E6600 or higher

RAM: 512MByte <sup>\*3</sup>

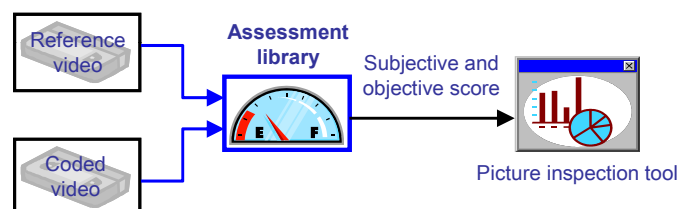
HDD: 10MByte <sup>\*3</sup>

<sup>\*3</sup>depends on the size of video

## Applications

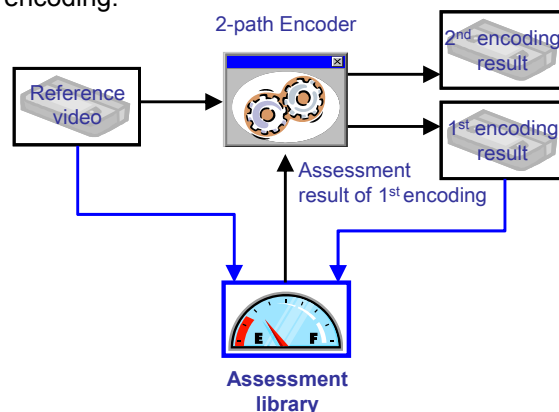
- **Picture quality assessment software**

Functional enhancement to a picture inspection tool by employing the perceptual quality assessment software



- **Contents authoring software**

Quality improvement in the second encoding of 2-path video encoder by providing the assessment of the first encoding.



- **More applications...**

Video codec optimization during its development  
Shipping inspection at video production studio

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