

VideoQ, Inc

Introduction

December 2009



About VideoQ, Inc.

California-based company, focused on video test & measurement and video enhancement technologies, products and services.

More than 50 man-years of award-winning experience in the field of Broadcast, Consumer Electronics, Transcoding and Video Data Compression.

Calibration and benchmarking of Graphics and Video Processors, Transcoders and Displays, instantly revealing artifacts, problems and deficiencies, thus raising the bar in video quality expectations.

VideoQ partners and customers

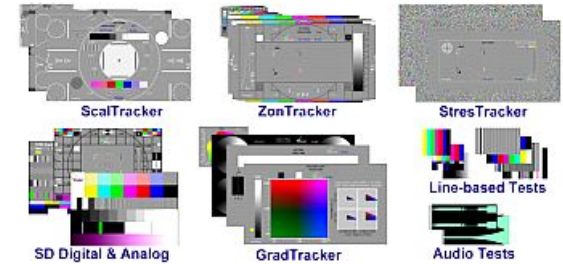


VideoQ products & services

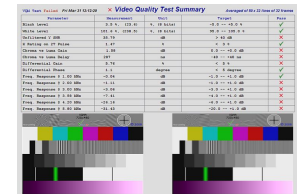
- I **VQCT-100** – USB flash drive to convert Western Digital WD TV™ HD Media Player into versatile HDMI Calibration Tool



- I **VQL** – Comprehensive Library of Video Tests Files, including static, dynamic, 3D, 1080p, etc.



- I **VQMA** – Software Suite for Video Quality Measurements



- I **VQS-200** – HDMI/SPDIF Test Generator, Media Player and Reference Source



- I **VQTS-100** – Stand-alone PC-based Generator-Analyzer



- I **Custom Design, Consultancy Services**

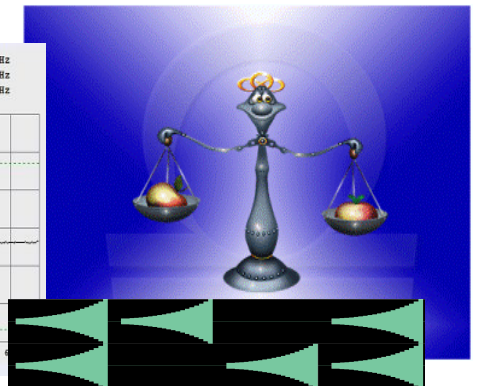
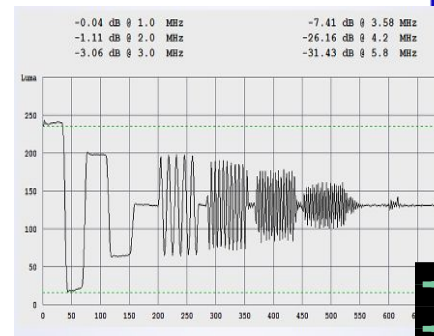
VideoQ approach to video quality testing

VideoQ approach combines “classic” and “digital” methodologies, sharing same test patterns and covering all 3 levels of video quality control:

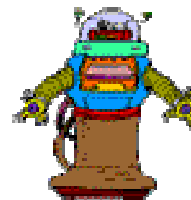
1. Instant visual-aural Quality Estimation



2. Objective Measurements of video and audio performance



3. Fully automated (robotic) Quality Control

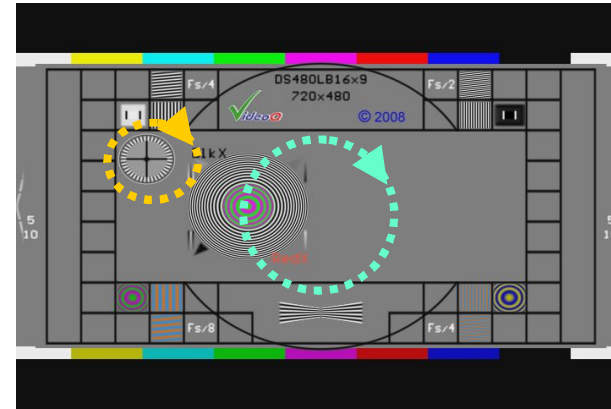
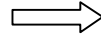


VideoQ Library of Test Patterns



VideoQ Dynamic Test Patterns Creation Workflow

VideoQ
Test Patterns Creation
Algorithms & Tools

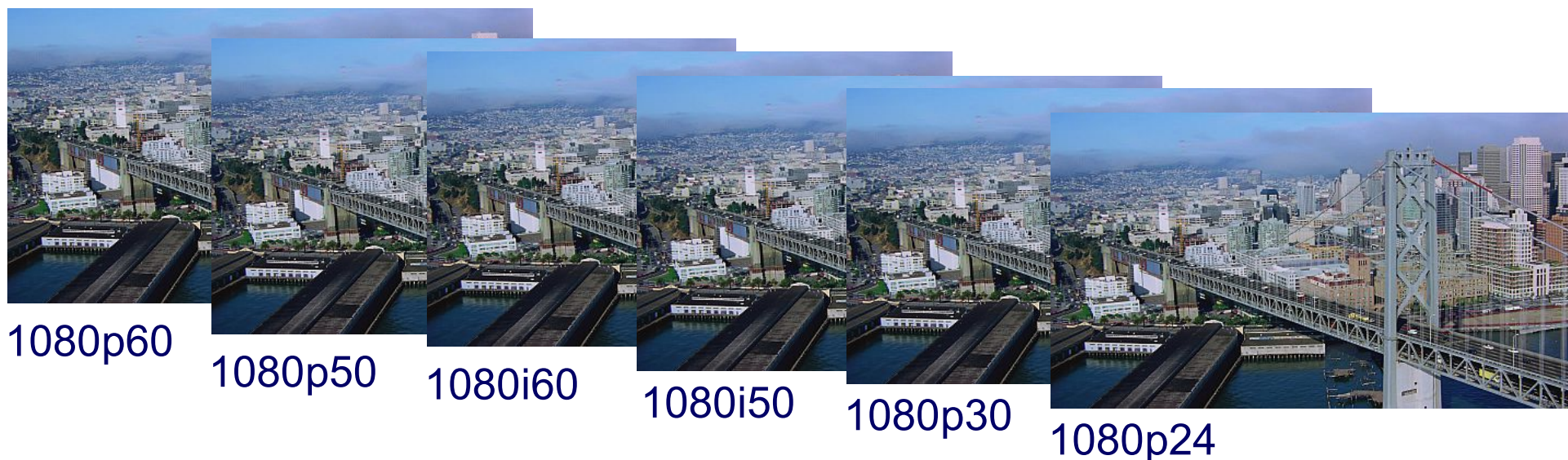


VQL Test Patterns Resolutions and Frame Rates

320x240:	15p, 25p, 29.97p
360x240:	15p, 25p, 29.97p
640x480:	23.98p, 29.97p, 29.97i (59.94i),
720x480:	23.98p, 29.97i (59.94i), 30p
720x576:	25p, 25i (50i)
1280x720:	50p, 60p
1920x1080:	23.98p, 24p, 25p, 25i (50i), 29.97i (59.94i), 30p, 50p, 60p

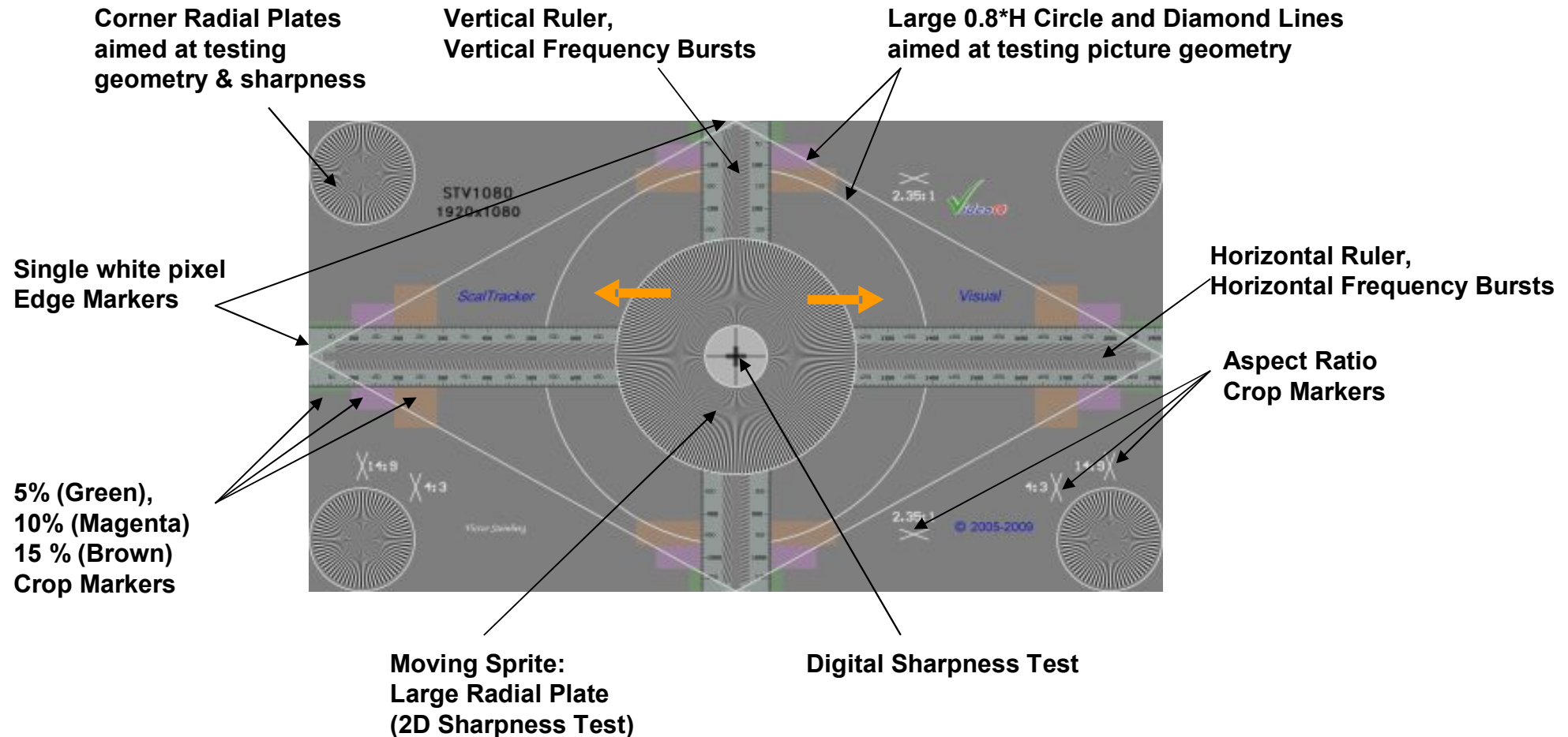
Preparing and playing-out test patterns & live clips in a variety of formats

1. Static resolution – up to 1920x1080
2. Interlace mode – both i and p,
options of internal or external de-interlacing
3. Frame rate – up to 1080p60,
same content is **formatted** for different frame rates:
24p, 25p, 30p, 50i, 50p, 60i, 60p (*without any temporal interpolation*)



All formats, same picture!

Example of VQL test: VST - Dynamic test pattern to check image scaling, cropping and sharpness



3D (Stereoscopic) Test Patterns



ZonTracker-3D

3D (Stereo) version of ZonTracker-2D Test Pattern

ZT-3D – Similar to normal (2D) ZT Test with extra components aimed at visualization and calibration of positive and negative parallaxes (Left-Right disparities)
1080p60

Available in four formats:

- Dual File - L & R
- Dual File - 2D & Depth Mask)
- Side-by-side L & R (half horizontal resolution)
- Line-by-line L & R (half vertical resolution)

Variants with L-R images swapped to match the parallax polarity of the target 3D display

ZT-3D Test Pattern - side-by-side format

