



VQ Probe Tutorial 2021

RD Curves, BD Rate and Convex Hull

Welcome to **VQ Probe**! **VQ Probe** is a professional visual instrument for objective and subjective video quality comparison. The main window of **VQ Probe** has three main areas: **Project View**, **Playback View**, and **Metrics View**.

Start the video quality metrics calculation by pressing the **Run** button. If you've set up at least 2 RD Curves before (one of them as the **anchor**), the **RD Curves** tab of **Metrics View** will be available.

The **RD Curves** tab allows you to plot RD Curves as well as calculate BD Rates. The tab contains the following information:

- **BD Rates**: a list of BD Rates. The first RD Curve is assumed as the anchor. BD Rates for other RD Curves are calculated in relation to the anchor RD Curve
- **RD Curve graph**: a graph that consists of points, each of them is an average appropriate metric value at a specific file's average bitrate

Changing the **Metric** combo-box will change the current RD Curves graph to a graph for the selected metric.

VQ Probe also allows you to build a convex hull for the given set of RD Curves. To enable this mode, check the **Enable Convex Hull** checkbox in **Project View > RD Curves**.

When the mode is enabled, you can add streams of different resolutions. It can be useful to set up a couple of RD Curves (each curve consisting of streams with the same resolution), then run the calculation. The resulting convex hull can be used to compare different resolutions of the reference file.