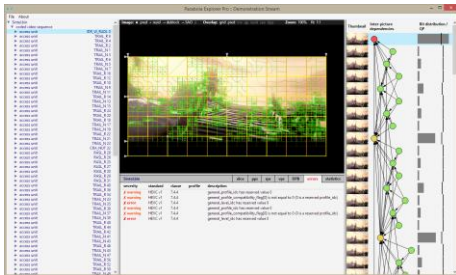
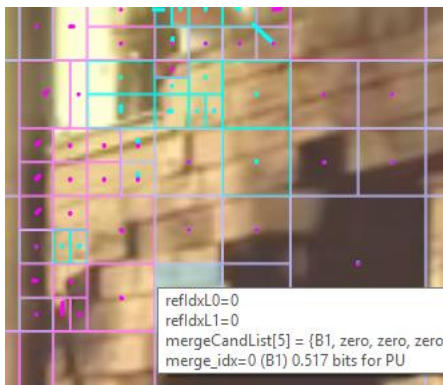


Parabola Explorer

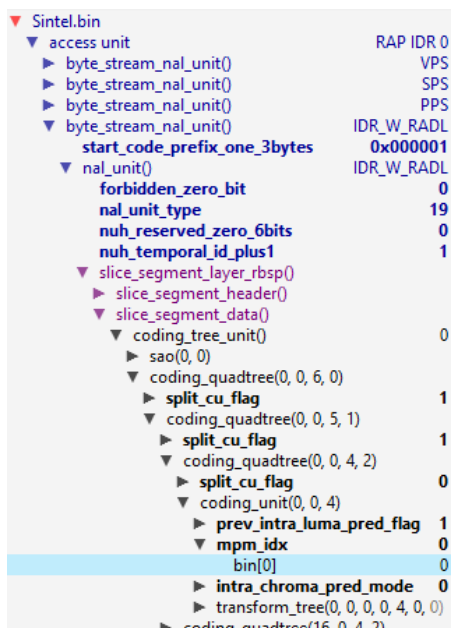
Industry-leading HEVC / H.265 video bitstream analyser, visualization and conformance test tool. Created by HEVC gurus for those needing insight into this new and complex video compression standard.



Parabola Explorer main window



Example contextual tooltip information



Hierarchical syntax element pane

About Parabola

Parabola was founded in 2011 with the embryonic HEVC video standard firmly in mind. A privately-held company based close to London, UK, our experienced team is passionate about customer service, quality, compliance and best practice.



www.parabolaresearch.com/explorer.html
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Customer profile

- Broadcasters and content delivery professionals
- Quality assurance teams involved with HEVC video
- Consultants, educators and those learning HEVC
- Video codec R&D and implementation engineers

Benefits

- Dramatically reduce risk of purchasing or releasing products that do not fully comply with the international standard
- Huge saving in personnel and opportunity costs through accelerating development, QA and problem solving
- A powerful learning and demonstration tool helping to speed users up the learning curve of the most complex video compression standard to date
- Backed with comprehensive support and continued incremental improvements

Key features

- HEVC conformance validation with error reports, error descriptions and references to the standard
- Printable bitstream statistics allowing insight into the operation of HEVC encoders and bitstreams.
- Visualisation of video bitstream characteristics from picture relationships down to individual bits and CABAC bins
- Video frame display with zoom and pan facility to examine key decode pipeline stages: predicted, reconstructed, output and difference against a YUV reference
- Multitude of informative picture overlays
- Syntax and semantics terminology entirely consistent with HEVC specification text
- Multithreaded / multi-process architecture optimized for multi-core processors

Prerequisites

- Windows XP, Vista, 7, 8 or 8.1; 32- or 64-bit; recommend 1920x1080 or higher display resolution

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Parabola Explorer Editions

	Parabola Explorer Pro	Parabola Explorer Essential
Syntax tree view		
<i>Syntactic tree view using HEVC nomenclature</i>	●	●
<i>Comprehensive detail down to CABAC bins and VLC bits</i>	●	●
Display-order output view		
<i>Thumbnail images</i>	●	●
<i>Interactive GOP structure display</i>	●	●
<i>Per-picture QP and size chart</i>	●	●
DPB view		
<i>Interactive current DPB and reference picture lists</i>	●	●
Stream views		
<i>Contextual hex / binary stream display</i>	●	●
<i>CABAC state and contexts</i>	●	●
Active header and parameter sets display		
<i>VPS, SPS and PPS and slice segment header</i>	●	●
Output picture display		
<i>Picture display options from different decode stages</i>	●	●
<i>YUV difference display for comparing against a reference</i>	●	●
<i>Zoom, pan, reset 1:1, fit visible, brightness controls</i>	●	●
Contextual Overlays		
<i>Grid with tiles, slice segments, CTUs, CUs</i>	●	●
<i>Bit usage with residual/other differentiation</i>	●	●
<i>QP overlay</i>	●	●
<i>SAO overlay</i>	●	●
<i>Prediction overlay with PUs</i>	●	●
<i>Residual overlay with block scan pattern and coefficient values</i>	●	●
Statistics display		
<i>Basic element details including fractional-bit-precision size</i>	●	●
<i>Full analysis of bitstream features and characteristics</i>	●	
<i>Printable bitstream, picture or sub-element report</i>	●	
Optimization		
<i>Multithreading / multi-process for full utilisation of multiple cores</i>	●	
<i>Image caching and fast cursor-key frame stepping</i>	●	
HEVC Conformance Assurance		
<i>Comprehensive HEVC bitstream conformance check</i>	●	
<i>Normative violations reported as errors</i>	●	
<i>Reserved HEVC features reported as warnings</i>	●	
<i>Interactive, contextual error table with meaningful messages</i>	●	
<i>HEVC standard document paragraph numbers</i>	●	
<i>HEVC Profiles and Levels validation</i>	●	