

YUV Decomb Technology

High-quality conversion of interlaced video to progressive-scan format Displaying interlaced video on a progressive-scan display or a display with a high frames-per-second rate produces unpleasant artifacts like a "comb," unless a special deinterlacing algorithm is used. We offer a deinterlacing solution that is ready for hardware implementation.



Primary Applications

- Flat-panel plasma displays
- 100 Hz progressive-scan displays
- LCD displays
- Playback of interlaced video on arbitrary progressive-scan displays
- Digital video cameras
- · Video conversion and transcoding

Key Features

- High visual quality on low-angle edges and in static areas
- Preserves scan rate (double rate) (e.g., converts 59.94 fields-per-second video to 59.94 frames-per-second video)
- Fully automatic
- Designed for hardware implementation

Basic Deliverables

- Source code for a reference implementation in C
- C and assembly language source code for an implementation optimized for the PC (if required)
- Algorithm description
- Software description
- Verification instructions



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Progressive-scan video



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VUVSOFT

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Specification

- Fully automatic
- Preserves scan rate: full framesper-second performance
- Motion compensation
- Edge reconstruction
- Integer arithmetic
- No division or other complex operations
- Processing localized to a 48x48 pixel window
- Memory usage of approximately 18
 bytes per pixel
- Uses two full-size frames (reconstructed deinterlaced frames) and an additional two fields
- Performance of non-optimized C reference model is 15 fps for a CIF video on an Intel Pentium 4 2.8 GHz PC



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