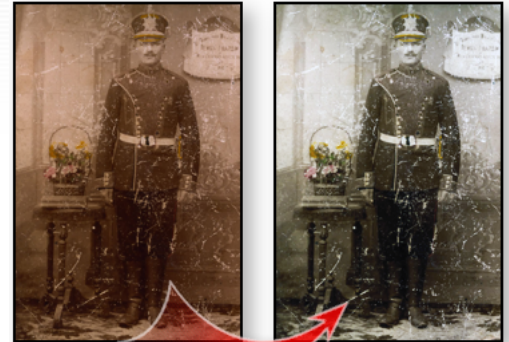# YUVSOFT

YUV Color Enhancement
Technology

High-quality digital restoration of old color photos and video

Old photos from the 19th and 20th centuries almost always have severe color degradation.

Our solution can help to restore original colors in old photos as well as in modern photos and videos, which also can have color change and degradation due to overexposure or improper storage conditions.

Primary Applications

- Restoration of video and images
- Video and image editing

Key Features

- Preserves details
- Various speed/quality trade-off
- Tunable to different film characteristics
- Applicable both to video and to static images

Photos and video with faded or distorted colors

YUV Color Enhancement
Technology

Basic Deliverables

- Source code for a reference implementation in C or C++
- C/C++ and assembly language source code for an implementation optimized for the PC (if required)
- Algorithm description
- Software description
- Verification instructions
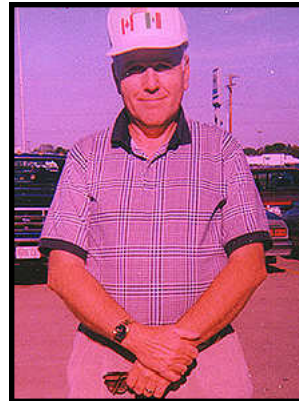
YUV Color Enhancement
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Specification

- Fully automatic
- Controllable speed/quality trade-off
- Local adaptation to illumination and colors
- Does not produce color flicking
- Performance of non-optimized C reference model on an Intel Pentium 4 3.0 GHz PC:
  - up to 100 fps for CIF video (352x288)
  - up to 25 fps for 4CIF video (704x576)

- Memory usage of 12-16 bytes per pixel
- Frames processed independently
- Modes available for user-controlled adjustment of processing parameters for improved visual quality
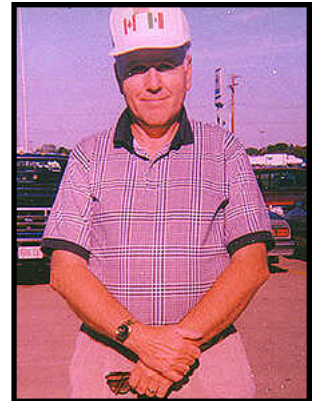
Comparison with Competitors
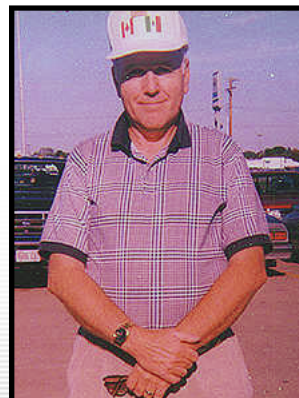
- Adobe Autolevels
- Adobe Autocolor

Original

Adobe Autolevels

Adobe Autocolor

YUV Color Restoration + YUV Contrast