Some Examples of Performance of the MDSP Super-Resolution Software (SuperLab)  
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The work implemented in this software at U.C. Santa Cruz was carried out as a result of a collaboration between the research group of Prof. Peyman Milanfar and Prof. Michael Elad of the Technion CS department. Sina Farsiu is the principal architect of the code, with significant contributions from Dirk Robinson, particularly on the motion estimation algorithms.

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The original document contains color images.
Resolution enhancement of a face from a sequence captured by a surveillance camera

One Low-resolution Frame

Output High-resolution Still Frame

40 input frames, resolution enhancement factor of x4
Resolution enhancement of a face from a sequence captured by a surveillance camera

One Low-Resolution Frame

Output High-resolution Still Frame

30 input frames, resolution enhancement factor of x4
Resolution enhancement from multiple still frames acquired with an Olympus C-4000 digital camera

One Low-Resolution Frame  Output High-resolution Still Frame

20 Input frames, resolution enhancement factor of x4

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Resolution enhancement from still frame infrared images

8 input frames, resolution enhancement factor of x4
Resolution enhancement from video frames captured by a commercial webcam (3COM Model No. 3719)

One Low-Resolution Frame

Output High-resolution Still Frame

53 input frames, resolution enhancement factor of x4
Resolution enhancement in color from a sequence captured by a commercial camera

One Low-Resolution Frame

Output High-resolution Still Frame

40 input frames, resolution enhancement factor of x4
Resolution enhancement in color from a video sequence captured by a Pyro 1394 webcam

One Low-Resolution Frame

Output High-resolution Still Frame

30 input frames, resolution enhancement factor of x4
Video-to-Video resolution enhancement of a sequence of Bayer color-filtered images (simultaneous resolution enhancement and demosaicing)

325 input frames, 325 output frames, resolution enhancement factor of x4

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