

FPGA Image Processing Toolkit

The Adsys Controls FPGA Image Processing Toolkit is a library of FPGA algorithms for image processing applications.

The toolkit provides developers the building blocks that can be customized for their specific application. The power of FPGA processing is unleashed allowing for high speed and complex processing. The toolkit includes essential building blocks such as geometric filters, line filters, FFTs, intensity filters, temporal filters, centroid computation and color decoding. A noise source library is also provided to test for algorithm robustness.

The FPGA Image Processing Toolkit is compatible with an assortment of FPGAs where it can be in-lined with your own VHDL code. It also provides for seamless integration with Adsys Controls' ProLight series of image processing platforms designed for National Instruments' FlexRIO FPGA cards. The toolkit can be imported and utilized with LabVIEW FPGA taking advantage of graphical programming of FPGAs.

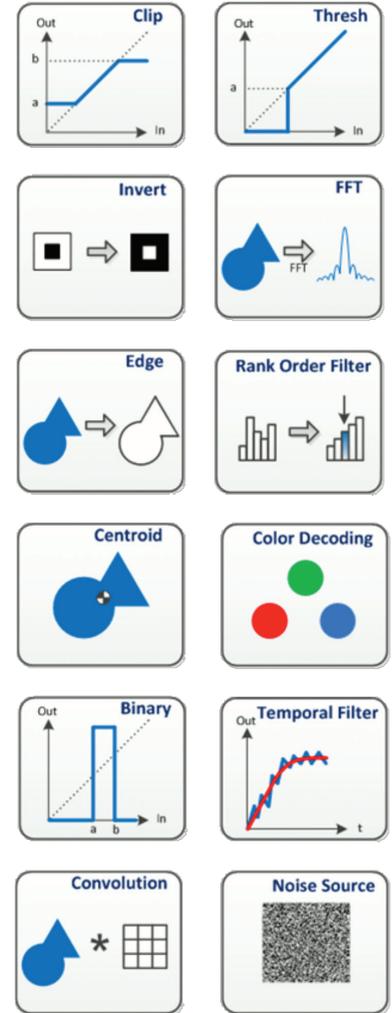
Adsys Controls also provides custom hardware and software design services for the vision industry. Please contact us to determine how our FPGA Image Processing Toolkit can meet your application needs.

Included Libraries

- » Image Clipping
- » Image Thresholding
- » Binary Filtering
- » Image Inversion
- » Fast Fourier Transform
- » Temporal Filtering
- » Spatial Filtering
- » Edge & Line Filtering
- » Median & Mean Filtering
- » User-defined Convolution Filters
- » Centroid Computation
- » Bayer Color Decoding
- » Noise Simulation
- » Image Upload

Applications

- » Medical Imaging
- » Visual Inspection
- » Image Tracking
- » Optical Communications
- » Machine Vision
- » Laser Beam Control
- » Remote Sensing



Adsys Controls provides solutions for precision control systems, advanced electro-optical systems, laser systems, modeling and simulation, and unmanned aerial systems for military and commercial markets. From electronics design, embedded RT software, and image processing to game-changing laser and electro-optical systems for ISR&T, weapons, communication, and navigation, Adsys Controls provides state-of-the-art solutions for the most challenging problems.

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