



## Fastseries Object Imaging Library (FOIL)

Alacron's FOIL is object-oriented so that the format and type of objects are carried with the objects. When library routines are called, the routine determines the fastest way to perform the requested function between the objects. For example, if a 512x512 image is operated on with a 3x3 floating-point kernel, the calculation performed in floating-point, returning a floating-point result (to buffer memory). This feature significantly reduces the variety of routines for the user to learn and reduces the chance of an error.

Below is the current list of routines supported by the image processing library. Most all of these functions can be performed by any of the FastSeries products, before the image is returned to the host memory. Sequences of routines can be defined and executed automatically.

- Interface (System and Board Specific)
- Object Management
- Conversion
- Basic Numerical Operations
  - Unary Operators
  - Binary Operators
  - Ternary Operators
  - Unary Contractions
  - Binary Contractions
  - Matrix Operators
- Linear Filtering
- Nonlinear Filtering
- Morphology (Image Understanding)
- Constant Functions (Used for display and ROI definition)  
encodes or decodes the frame returns status information

