SIEMENS EDA

Algorithmic C (AC) Image Processing Library **Release Notes**

Software Version v2025.4
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Release 2025.4

The following topics describes the changes that were made to the *Algorithmic C Image Processing Library (AC IPL)* since the last release.

Note that this release updates the version numbering to align it with the Catapult release numbering.

Enhancements

N/A

Corrected Issues

- N/A

Release 3.6.0

The following topics describes the changes that were made to the *Algorithmic C Image Processing Library (AC IPL)* since the last release.

Enhancements

Added interpolation for the ac_window_v2_flush library. Consult the AC Window v2 documentation in the AC IPL reference manual.

Release 3.5.0

The following topics describes the changes that were made to the *Algorithmic C Image Processing Library (AC IPL)* since the last release.

Enhancements

Added the following blocks:

Description	Class Name(s)	Header File
Line Buffer	ac_linebuffer ac_linebuffer_1r1w ac_linebuffer_spshift ac_line_buffer_spcircular ac_linebuffer_spwrmask	ac_linebuffer.h ac_linebuffer_1r1w.h ac_linebuffer_spshift.h ac_linebuffer_spcircular.h ac_linebuffer_spwrmask.h
Packed Vector Type	ac_packed_vector	ac_packed_vector.h
Synchronization Flag Generator	ac_flag_gen_1d ac_flag_gen_2d	ac_flag_gen.h

Consult the AC Window v2 documentation in the AC IPL Reference manual.

Corrected Issues

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Release 3.4.3

The following topics describes the changes that were made to the *Algorithmic C Image Processing Library (AC IPL)* since the last release.

Enhancements

CAT-29881- Support for Microsoft Visual Studio C++ 2019

The AC Math headers have been updated to compile correctly with MS Visual Studio 2019. Note that although compilation and execution is now possible on the Windows platform, Catapult HLS is only available on Linux.

Corrected Issues

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Release 3.4.1

The following topics describes the changes that were made to the *Algorithmic C Image Processing Library (AC IPL)* since the last release.

Enhancements

N/A

Corrected Issues

Corrected the banner text for each file.

Release 3.2.3

This release is the first open-source release of the *ac_ipl* library. This release has the following image process blocks implemented. This release is the initial version of this library.

Image Processing

Description	Class Name	Header File
Floyd-Steinberg dithering algorithm	ac_dither	ac_dither.h
Image Histogram	ac_imhist	ac_imhist.h

Windowing Blocks

Description	Class Name	Header File
Continuous read and writing of 1D data using control flags to denote the start/end of the frame	ac_window_1d_flag	ac_window_1d_flag.h
Continuous read and writing of 2D data using control flags to denote the start/end of the frame	ac_window_2d_flag	ac_window_2d_flag.h
Continuous stream of 1D data using ac_channels on input and output	ac_window_1d_stream	ac_window_1d_stream.h
Continuous stream of 2D data using ac_channels on input and output	ac_window_2d_stream	ac_window_2d_stream.h
Process array of data	ac_window_1d_array	ac_window_1d_array.h

Supported Compilers

In order to use and run the *ac_ipl* library, it is recommended that the user use the g++ compiler provided in GCC (Gnu Compiler Collective) version 4.4.7 or later, with the compiler standard being C++11 or later to support the usage of static asserts and default template parameters in the source code.