

# Leveraging TI's Free Libraries in Your Development

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Finding the library you want is now easier than ever thanks to TI's new [Accelerated Libraries page](#). From this one page you can access TI's popular signal processing, imaging, linear algebra and OpenCV libraries, as well as free video codecs for the C66x and the IVA-HD subsystem found on Sitara™ AM57x processors. Each library has its own page with a description and links to download the software.

Available accelerated libraries:

- [Signal Processing Libraries](#): Otherwise known as MATHLIB and DSPLIB, these libraries contain optimized math and DSP routines including trigonometric and hyperbolic functions, FFTs and matrix operations.
- [Image Processing Libraries](#): Optimized function libraries for image analysis, filtering, format conversion, compression and decompression.
- [Linear Algebra Libraries](#): Includes BLAS and LAPACK for dense linear algebra
- [OpenCV Libraries](#): Version 3.1 of the popular open source computer vision library
- [C66x video codecs](#): Free encoders and decoders including H.264, H.265, JPEG2k, MPEG2 and MPEG4.
- [AM57x video codecs](#): Free codecs that run on the IVA-HD subsystem without placing any load on the ARM or DSP cores. Codecs include H.264 and MPEG4.

Utilizing these libraries is an easy way to improve performance and shorten development time. These libraries provide algorithms, functions and routines commonly used on [TI's embedded processors](#) across a wide variety of applications.

Many of the libraries have been highly optimized for our processing architecture, providing substantial performance increases over running typical C code. With easy to use APIs and plenty of examples, the libraries are easy to integrate into your code. There is even drop-in compatibility to replace industry standard libraries such as FFTW and OpenCV.

Customers have gone to production utilizing the C66x and AM57x video codecs, saving them the time of having to develop it themselves or the cost of purchasing it from a vendor. The signal processing libraries have long been utilized by DSP developers to improve their performance by utilizing the optimized core routines, like FFTs and IIR filters that are the building blocks of so many DSP applications.

We hope you find these useful for your application. Let us know which functions have been valuable to you and what other functions/libraries you'd like to see.

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