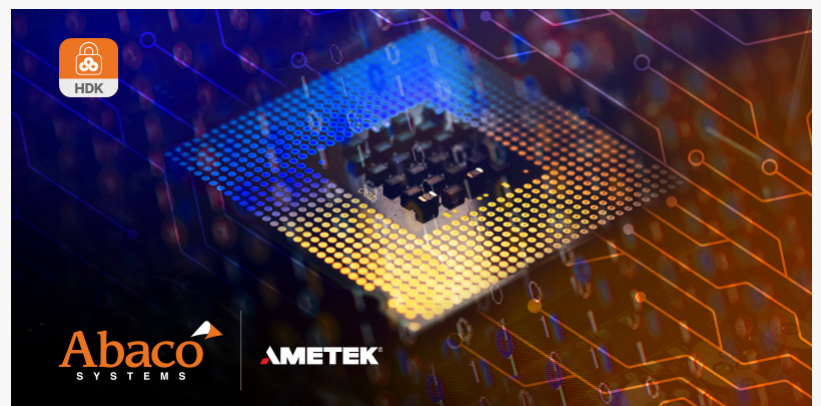


# Abaco Systems Announces New Hardware Development Kit for User Development of Unallocated FPGA Resources

*New tool leverages Xilinx Vivado ML Editions technology to keep separately developed IP secure*

HUNTSVILLE, AL, UNITED STATES, July 28, 2021 /EINPresswire.com/ -- Abaco Systems announced the Hardware Development Kit (HDK), a tool allowing users to develop unallocated Xilinx, Inc. FPGA resources on Abaco boards. The HDK uses specific features in the new Xilinx Vivado ML Editions tool suite which allow users to implement custom intellectual property (IP) while maintaining the overall integrity of the Abaco IP.



The HDK is a powerful FPGA development tool allowing users to harness available programmable logic resources within Abaco embedded platforms.

Building on the capability of the Xilinx Dynamic Function eXchange (DFX) feature, Abaco develops a static design comprised of their proprietary IP, while making room in the FPGA for a dynamically programmable region, for their user's custom designs. During the development process, Abstract Shells are used to only compile the dynamic region, thus accelerating compile times and protecting Abaco's IP. At runtime, DFX is used to swap designs in and out of the dynamic region. The HDK includes a static partition bitstream, Vivado ML reprogrammable partition example design, and build scripts for implementing the abstraction layer interfaces.

The HDK is a powerful new tool allowing end-customers to harness available programmable logic resources within Abaco's embedded FPGA platforms. Use cases include enhanced security, digital signal processing and other custom algorithms. Developing these unallocated resources could reduce or eliminate additional hardware, further simplifying designs and optimizing size, weight and power (SWaP). The initial scope of the HDK is to support Abaco's [SBC3511](#), SBC6511, and IPN254, with availability to support other boards in the near future.

"Xilinx worked closely with Abaco as they developed their Hardware Development Kit," said Ramine Roane, Vice President of Marketing, Software and AI Solutions at Xilinx. "Abaco greatly benefited from the Dynamic Function eXchange and Abstract Shells flows with Vivado ML. DFX enables them to quickly adapt to their customer requests, loading new hardware functions on



Allowing our developer customers to use [FPGA] resources without concern of corrupting the IP in the static partition provides them the opportunity to save time and reduce costs on complex projects.”

*Pete Thompson, Vice  
President of Product  
Management for Abaco  
Systems*

demand. Abstract Shells also safeguards the Abaco IP while speeding up compile times during hardware development.”

Pete Thompson, Vice President of Product Management for Abaco Systems, said, “As a leader in rugged embedded high performance, high durability computing sub-systems, Abaco’s release of the Hardware Development Kit is a continuation of our vision to deploy more tools that will ease customer integration into the overall system. Allowing our developer customers to use these resources without concern of corrupting the IP in the static partition provides the opportunity to re-use previously licensed IP in that static partition without the cost or administration of re-licensing, further saving time and reducing costs on

complex projects.”

[More Information](#)  
[Datasheet](#)

## About Abaco Systems

Abaco Systems is a global leader in commercial open architecture computing and rugged embedded electronics. With more than 30 years of experience in aerospace & defense, industrial, energy, medical, communications and other critical sectors, Abaco’s innovative solutions align with open standards to accelerate customer success.

Abaco Systems is a subsidiary of AMETEK, Inc., a leading global manufacturer of electronic instruments and electromechanical devices with 2020 sales of more than \$4.5 billion.

Alisa Coffey - Head of Marketing  
AMETEK Abaco Systems  
alisa.coffey@abaco.com

---

This press release can be viewed online at: <https://www.einpresswire.com/article/547462869>

EIN Presswire's priority is source transparency. We do not allow opaque clients, and our editors try to be careful about weeding out false and misleading content. As a user, if you see something we have missed, please do bring it to our attention. Your help is welcome. EIN Presswire, Everyone's Internet News Presswire™, tries to define some of the boundaries that are reasonable in today's world. Please see our Editorial Guidelines for more information.

© 1995-2021 IPD Group, Inc. All Right Reserved.