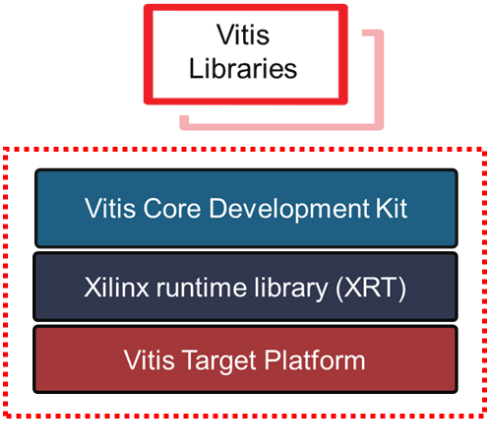
Frequently Asked Questions for Getting Started

What's Included in the Vitis Developer AMI?



Vitis Developer AMI

The Vitis Developer AMI includes the following components

- **Vitis Core Development Kit:** This includes an optimized compiler for host applications, cross-compiler for the hardware kernel, a robust debugging environment, and profilers to identify performance bottlenecks and optimize the application

- **Xilinx Runtime Library (XRT)** 2020.1, which is an open-source standardized software interface that facilitates communication between the application code and the accelerated-kernels

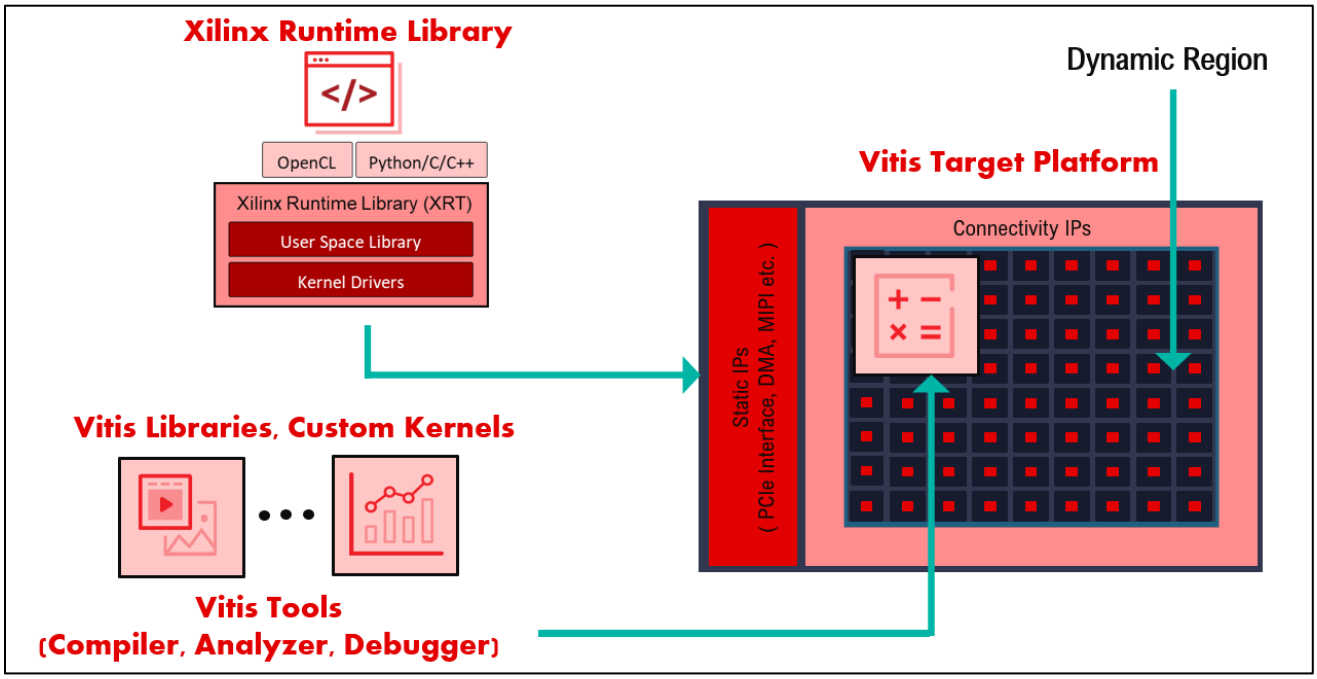
- **Vitis Target Platforms** for Alveo Accelerator Cards (Alveo U200, U280, U250 and U50)

Vitis offers open-source, performance-optimized libraries that offer out-of-box acceleration with minimal code changes to your existing applications. You can use accelerated library functions as-is, combine as algorithmic building blocks or you can modify to suit your specific needs.

The Vitis accelerated libraries are not pre-installed on the Developer AMI - You can clone the latest versions from GitHub or install them via the Vitis GUI. Instructions can be found here – Installing Examples and Libraries

Which Xilinx platforms are supported with the Vitis Developer AMI?

The Vitis Target Platforms are a minimum requirement to develop accelerated applications using the Vitis design methodology. The Vitis target platform defines base hardware and software architecture and application context for Xilinx platforms, including external memory interfaces, custom input/output interfaces and software runtime



The Vitis Developer AMI comes pre-installed and pre-configured with Vitis Target platforms for the Xilinx platforms listed below.

Accelerator Card Platforms	Location
Alveo U200	/opt/xilinx/platforms/
Alveo U250	/opt/xilinx/platforms/
Alveo U280	/opt/xilinx/platforms/
Alveo U50	/opt/xilinx/platforms/

You can use this Developer AMI for developing accelerated applications for Xilinx Embedded Platforms as well. However, you will need to install the pre-built Vitis Target Platforms for them from Vitis Embedded Platforms tab on the Xilinx website - Please note doing so requires accepting and complying with the associated license terms and conditions. To learn more about what's included in the Vitis Embedded Platforms, please refer to the Vitis Embedded Platform User Guide

Note: In order to use the Pre-built Vitis Embedded Platforms, in addition to the Vitis Target Platforms that are pre-installed on the Vitis Developer AMI, you will also need the common Linux components – These can be downloaded also be downloaded from the Vitis Embedded Platforms tab on the Xilinx downloaded website under "Common Images for Embedded Vitis Platforms"

Can I use this Vitis AMI to deploy on Amazon EC2 F1 instances?

The Vitis Developer AMI is designed to support application development in the cloud for both Xilinx embedded platforms and Alveo accelerator cards and not for deployment on the Amazon EC2 F1 instances.

If you're interested in using Vitis for developing accelerated applications that can be deployed and run on the EC2 F1 instances, please use the FPGA Developer AMI on the AWS Marketplace.

What Developer Resources can I use to become familiar with Vitis?

- Getting Started Pathway [GitHub]
- In-depth Tutorials [GitHub]
- Vitis Technical Documentation
- Developer How-to Articles
- Xilinx Runtime Library Overview & Resources

How do I transfer files to and from the Developer AMI?

Copy files to Vitis AMI

NOTE: Contact your sys admin before trying to connect through SSH to provide you with the correct command in case you need proxy setup.

- $ scp -i <pem-name>.pem <source_file_from_HOSTNAME> ubuntu@<public_DNS_name>:/home/centos/<directory>

Copy files from Vitis AMI

NOTE: Contact your sys admin before trying to connect through SSH to provide you with the correct command in case you need proxy setup.

- $ scp -i <pem-name>.pem ubuntu@<public_DNS_name>:<file_path_to_copy_from> <output_path_from_HOSTNAME>