

Processor SDK Linux Installation, Documentation, and Training

Agenda

- Demonstrate how easy it is to download and install the Processor SDK
- Identify and describe the user documentation




Obtaining the SDK

- For most EVMs, the Processor SDK Linux is provided on an SD card located within the box.
NOTE: The BeagleBoard and BeagleBone may come without the SDK SD card.
- Download the latest SDK from ti.com to get updates.
- The central location for finding all Sitara Linux SDKs:

http://www.ti.com/lscs/ti/tools-software/processor_sw.page#processor-SDKs

Processor SDK for AM335X Sitara™ Processors

(ACTIVE) PROCESSOR-SDK-AM335X

 Description & Features  Technical Documents  Support & Community

Order Now

Part Number	Buy from Texas Instruments or Third Party	Alert Me	Status	Current Version	Version Date	OS	Linux Kernel
PROCESSOR-SDK-LINUX-AM335X: Linux Processor SDK for AM335x	Free 		ACTIVE	v02.00.00.00	07 Oct 2015	Linux	v4.1.6
PROCESSOR-SDK-RTOS-AM335X: RTOS Processor SDK for AM335x	Free 		ACTIVE	v02.00.00.00	07 Oct 2015	TI-RTOS	n/a

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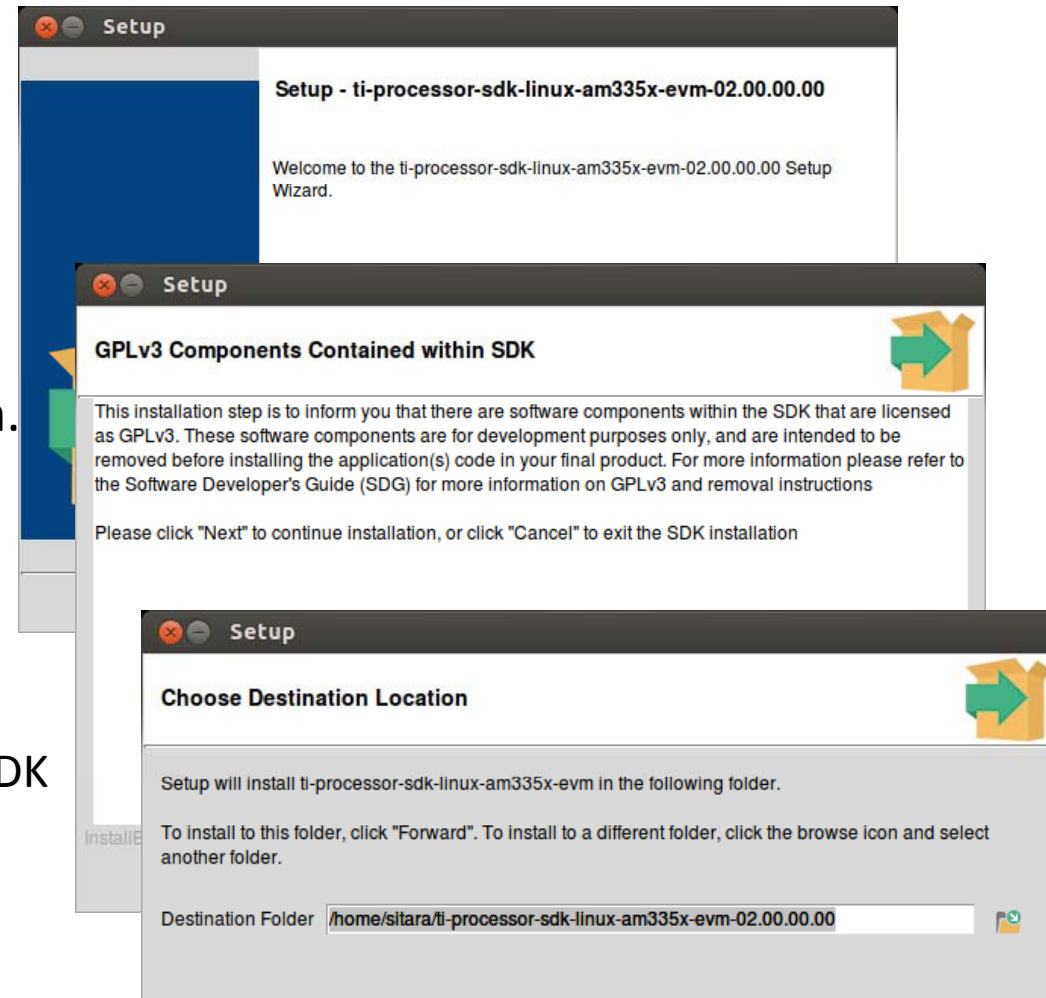
Installation Options

In addition to the SDK installer, each SDK page includes many individual SDK components to provide flexibility for developers.

PROCESSOR-SDK-LINUX-AM335X Product Downloads		
Title	Description	Size
AM335x Linux SDK Essentials		
ti-processor-sdk-linux-am335x-evm-02.00.00.00-Linux-x86-Install.bin	AM335x EVM Linux SDK (64-bit Binary)	2278024K
AM335x Linux SDK Optional Addons		
Code Composer Studio 6.1.1	Link to Code Composer Studio 6.1.1	
Download Pinmuxtool	AM335x Pin Mux Configuration Utility	
Walink 8 Addon Package	Walink 8 Addon Package	
PRU Addon Package	PRU Addon Package	

Installing the SDK

- The Processor SDK Linux is delivered as a single installer.
- The Linux SDK installation has been streamlined to make installation quick and easy. Simply select the installation location.
- The installer also notifies the user of important information, including:
 - The default recommended environment
 - Notice of GPLv3 content within the SDK and information on how to remove it
 - The location of the setup scripts within the SDK for additional configuration
- The installer is designed so that “root” permission is not required to install and evaluate the SDK.



SDK Download Page Resources

- SD Card images that can be created from Windows or Linux are available.
- Each piece of the SDK can also be downloaded separately.

AM335x Linux SDK SD Card Creation

Linux SD Card Creation Wiki	Instructions for creating an SD Card with Linux	
Windows SD Card Creation Wiki	Instructions for creating an SD Card with Windows	
am335x-evm-02.00.00.00.img.zip	Only used when creating an SD Card on Windows	409868K

AM335x Linux SDK Individual Components (all of the below components are bundled within the Linux SDK Essentials package)

Download Linaro Toolchain	Standalone Linaro Toolchain - Linaro GCC 4.9 2015.05 hard-float toolchain	
am335x-evm-sdk-src-02.00.00.00.tar.gz	AM335x Linux SDK BSP Source Code	953528K
am335x-evm-sdk-bin-02.00.00.00.tar.gz	AM335x Linux SDK prebuilt BSP binaries and root filesystem	902804K

AM335x Linux SDK Arago Source Tarball

am335x-evm-sdk-arago-src-02.00.00.00.tar.gz	AM335x Linux SDK Arago source downloads	6301444K
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SDK Documentation

- Platform-specific documentation is available.
- The Software manifest includes license, source information, and more for the SDK installation

AM335x Linux SDK Documentation		
Processor SDK Linux Release Notes	Link to Release Notes for Processor SDK Linux	
AM335x EVM Quick Start Guide	Quick Start Guide included in the EVM kit	
AM335x Starter Kit Quick Start Guide	Quick Start Guide included in the EVM kit	
processor-sdk-linux-gsg-02.00.00.00.pdf	Getting Started Guide	160K
Wiki version of Software Developers Guide	Link to the online Software Developers Guide which has the latest content	
Software Manifest	Software Manifest of Components Inside the SDK	1656K

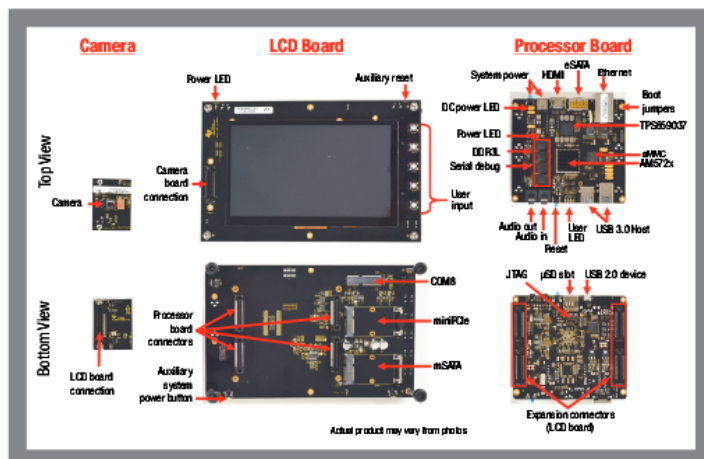
Documentation: Quick Start Guide

For more information:
www.ti.com/am572xevm



Welcome to the AM572x General Purpose (GP) Evaluation Module (EVM) Quick Start Guide. This guide is designed to help you through the initial setup of the EVM. This EVM allows you to experience Linux[®] and other operating systems (OSs) that showcase the AM572x Cortex[™]-A15 and TI C66x processors, 3D graphics, high-definition video processing and more. The AM572x EVM contains the following:

- **Hardware**
 - Sitara[™] AM572x Cortex-A15 processor
 - TPS659037 power management IC
 - 7" capacitive touch LCD
 - 2GB DDR3L
 - Camera module
 - On-board eMMC
 - Audio input and output
 - SATA, USB 3.0, Ethernet and HDMI connectors
 - Expansion capability
- **Printed documents**
 - AM572x GP EVM Quick Start Guide (this document)
 - Terms and conditions
- **Miscellaneous**
 - µSD card with Linux SDK
 - USB-to-serial debug cable
 - HDMI cable for optional external display
 - LCD brackets



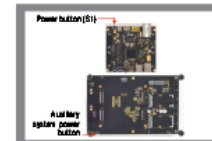
Default setup (OS boot from microSD card)



1 Plug in the camera board (included) as shown.



4 Confirm the jumpers J3, J4, J6 are jumpered across positions 2 and 3 (closest to edge of board).



6 To turn on, press and release power button (S1) or auxiliary power button. To turn off, press and hold the same button for 15 sec. **Do not unplug the power supply to turn off the board, as it may cause damage.**



2 Connect the supplied USB to serial cable to the processor board as shown (for simplicity only the processor board is shown).



5 Connect a +12VDC power supply (not included) with output current rating of 5.0 Amp, positive inner and negative outer terminals, female barrel 5.5 x 2.5 mm (recommended power supply is GlobTek GTM9 1089-60VV-T2, or equivalent).



7 You are now ready to explore the Linux demos which include various example applications. Click on any icon to start the demo.

(Continued)

Begin development



3 Insert the Linux SD card into the AM572x EVM processor board (standoffs shown for illustrative purposes, brackets are included with the kit).



8 To prepare your workstation for software development, power off the kit, remove the microSD card and insert it

AM572x Evaluation Module Quick Start Guide



Documentation: Software Developer's Guide

- This guide is an externally-hosted, wiki-based document:
http://processors.wiki.ti.com/index.php/Processor_SDK_Linux_Software_Developers_Guide
- The wiki provides users with instant access to the most recent updates.

Processor SDK Linux

[Getting Started Guide <-- Start Here](#)

[How To Guides](#)

[Supported Platforms and Versions](#)

[Linux Software Stack](#)

[Directory Structure Overview](#)

[GPLv3 Disclaimer](#)

[Building the SDK](#)

[Release Notes](#)

[Technical Support](#)

Foundational Components (more information on each piece of the distribution)

[U-Boot](#)

[Kernel](#)

[Filesystem](#)

[Tools](#)

Documentation: Getting Started Guide

Processor SDK Linux Getting Started Guide



[Linux Software Developer's Guide](#) → [Linux Getting Started Guide](#)

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- 2 What would you like to do with the SDK?
 - 2.1 Evaluating the SDK Embedded Linux System and Matrix
 - 2.2 Start your Linux Development
- 3 What Would You Like to do Next?
- 4 Archived Versions

Welcome to the Linux Getting Started Guide

Thanks for your interest in learning more about the Linux Software Development Kit (SDK). The SDK as we affectionately call it is our attempt to provide a great starting point to develop an embedded system on a TI Processor running Linux. Given this goal, we wanted

Processor SDK Linux Training

- There is considerable Linux training material available when using the Linux SDK
- Example training sessions include:
 - Hands On with Sitara Linux SDK (lecture/lab)
 - U-Boot & Linux Kernel Board Port (lecture/labs)
 - Matrix Overview

Summary

- The Processor SDK Linux is provided as both a simple installer and as separate components as needed
- Documentation and Training is available as well
- Please check out the rest of the training series using these links

For More Information

- Processor SDK Training Series
 - Processor SDK Overview
 - Processor SDK RTOS Overview
 - Processor SDK Linux Overview
 - Processor SDK Linux Components
 - Processor SDK Linux Matrix
- Processor SDK Documentation
 - Processor SDK Linux Getting Started Guide
 - Processor SDK RTOS Getting Started Guide
- For questions about this training, refer to the E2E Community Forum:
<https://e2e.ti.com/support>