Kurzanleitung Xilinx Vivado

- Installation -

Zusatzmaterial zum Buch "Digitaltechnik", W. Gehrke, M. Winzker Springer-Vieweg

Inhalt

1.	Herunterladen des Installers	1
2.	Auswahl der Installationsoptionen	2
С	"Poard Files"	л
5.	DUALU-FILES	4

1. Herunterladen des Installers

Rufen Sie in Ihrem Webbrowser die Seite <u>https://www.xilinx.com/support/download.html</u> auf und wählen Sie die gewünschte Programmversion aus. In dieser Anleitung wird beispielhaft die Version 2022.2 verwendet.

Solutions	Products	Company		AMDZI XILINX				≗) ; ⊂ ⊂
Ve	Vivado (HW Developer)	Vitis (SW Developer)	Vitis Embedded Platforms Wählen	Alveo Packages Sie die gew	PetaLi /ünsc	inux Device hte Versic	Documentation Models Navigator	
202	22.2	Vivade ML	Edition - 2022.2	Full Product Installati	on			
202	22.1	important li	nformation			Download Includes	Vivado ML Edition	
202	21.2	Vivado ML 202	22.2 is now available f	or download:		Download Type	Full Product Installation	
Viv	ado Archive	Introduci	ing Power Design Man	ager for Versal® device		Last Updated	Oct 19, 2022	
ISE	Archive E Vendor Libraries	Average Intelligen	5% QoR improvement nt Desian Runs	for Versal ACAP designs	s with	Answers	2022.x - Vivado Know Issues	n
Arc	hive	 1.4X con designs Abstract 	npile time speedup for with incremental comp Shell support in proje	UltraScale+ [™] architectu bile flow ct-based mode enabled f	re for	Documentation	Release Notes OS Support Update What's New in Vivado	
		versai Pi	remium SSI devices to	r the first time		Support Forums	Installation and Licensing	
		We strongly r	ecommend to use the	web installers as it redu	ices			
		download time	e and saves significant	t disk space.				
		Please see ins	staller Information fo	r details.				

Herunterscrollen und die gewünschte Installationsart wählen. Wenn Sie Vivado nur auf einem einzelnen Rechner installieren möchten, ist der "Web-Installer" empfehlenswert. Es werden dann nur die benötigten Pakete heruntergeladen. Da der Download mehrere GB umfasst, ist eine "vernünftige" Internetverbindung von großem Vorteil.

2. Auswahl der Installationsoptionen

Nach dem Download startet der Installer und Sie sehen den Willkommensbildschirm, der einfach mit **"Next"** bestätigt wird. Im nächsten Dialog geben Sie **Ihre Xilinx-Accountdaten** (E-Mailadresse und Passwort) ein und wählen die gewünschte Installationsart ein (in der Regel "Download and Install Now").

🗶 Xilinx Unified 2022.2 Installer - Select Install Type	- 🗆 ×
Select Install Type	
Please select install type and provide your Xilinx.com E-mail Address and password for authentication.	
User Authentication	
Please provide your Xiinx user account credentials to download the required files.	
E-mail Address	
Password	
© Download and Install Now	
Select your desired device and tool installation options and the installer will download and install just what is required.	
O Download Image (Install Separately)	
The installer will download an image containing all devices and tool options for later installation. Use this option if you wish to in different users maximum flexibility when installing.	stall a full image on a network drive or allow
Copyright © 1986-2023 Xilnx, Inc. All rights reserved.	< Back Next > Cancel

Nun können Sie das zu installierenden Paket wählen. Wenn Sie nur Hardware entwickeln möchten, wählen Sie "Vivado". Möchten Sie zusätzlich auch Software entwickeln, sollten Sie "Vitis" wählen¹.

	Xilimx Unified 2022.2 Installer - Select Product to Install — [×
	Select Product to Install	ΙΝΙΥ
	Select a product to continue installation. You will be able to customize the content in the next page.	
<	Vitis Installs Vitis Core Development Kit for embedded software and application acceleration development on Xiinx pl, forms. Vitis installation includes Vivado Design S Users can also install Vitis Model Composer to design for AI Engines and Programmable Logic in MATLAB and Strubnik.	iuite.
	Includes the full complement of Vivado Design Suite tools for design, including C-based design with Vitis High-Level Synthesis, implementation, verification and de programming. Complete device support, cable driver, and Document Navigator included. Users can also install Vitis Model Composer to design for AI Engines and Programmable Logic in MATLAB and Simulink.	vice
	O BootGen Installs Bootgen for creating bootable images targeting Xilinx SoCs and FPGAs.	
	Lab Edition Installs only the Xilinx Vivado Lab Edition. This standalone product includes Vivado Design Programmer, Vivado Logic Analyzer and UpdateMEM tools.	
	O Hardware Server Installs hardware server and JTAG cable drivers for remote debugging.	
	O Documentation Navigator (Standalone) Xilinx Documentation Navigator (DocNav) provides access to Xilinx technical documentation both on the Web and on the Desktop. This is a standalone installation Vivado Design Suite.	n without
	Copyright © 1986-2023 Xiinx, Inc. All rights reserved.	Gancel

Nun können Sie auswählen, welche Komponenten der Software Sie installieren möchten. Eine Minimalkonfiguration für die Bausteine der Zynq-Serie und einiger FPGA-Bausteine sehen Sie im nachfolgenden Bild.

¹ Bei der Auswahl Vitis wird Vivado ebenfalls installiert. Für Studierende der HS Osnabrück: Um für alle Module Ihres Studiengangs vorbereitet zu sein, wählen Sie "Vitis".

Xilinx Unified 2022.2 Installer - Vitis Unified Software Platform		-		×
Vitis Unified Software Platform Customize your installation by (de)selecting items in the tree below. Moving cursor over selections below provide additional information.	3	XI		۷X
The Vitis unlifed software platform enables the development of embedded software and accelerated applications on heterogeneous Xiinx p Versal ACAPs. It provides a unlifed programming model for accelerating Edge, Cloud, and Hybrid computing applications. This installation is: Design Suite as well. Users can add Vitis Model Composer which is a Xiinx toolbox for MATLAB and Simulink to design for AI Engines and Pro- using Xilinx System Generator for DSP, you can continue development using Vitis Model Composer. Composer which is a Xiinx toolbox for MATLAB and Simulink to design for AI Engines and Pro- using Xilinx System Generator for DSP, you can continue development using Vitis Model Composer. Composer Vitis Vitis Infed Software Platform Vitis IP Cache (Enable faster on-boarding for new users) Vitis Model Composer (Xiinx Toolbox for MATLAB and Simulink. Includes the functionality of System Generator for DSP) Doctaw Decitar	atforms inclue a superset tha grammable Lo	ding FPG, at include gic. If yo	As, SoC: es the Vi ou have	;, and rado peen
Install Devices for Kria SOMs and Starter Kits Socs Socs Socs Socs Socs Socs Socs So				
Download Size: 14.35 GB Disk Space Required: 14.94 GB		<u>R</u> eset t	o Defau	ts
Copyright © 1986-2023 Xilinx, Inc. All rights reserved.	< <u>B</u> ack	Next >	Ç	ancel

Weiter mit "Next".

Akzeptieren Sie die Lizenzbestimmungen und klicken Sie auf "Next".

Anschließend können Sie einige grundlegende Einstellungen vornehmen, z.B. Installationsverzeichnis, Anlegen von Shortcuts. Die Auswahl bestätigen Sie mit "**Next**".

Xilinx Unified 2022.2 Installer - Select Destination Directory Select Destination Directory	_	C			×
Choose instalation options such as location and shortcuts. Installation options Select the installation directory C:Vilinx Installation location(5) C:Vilinx IV:Viling2022.2 C:Vilinx IV:Viling2022.2 C:Vilinx IV:Viling2022.2 C:Vilinx IV:Viling2022.2 C:Vilinx IV:Viling2022.2 Download location C:Vilinx IV:Viling2022.2 Download Space Required Download Space Required Dok Space Required Disk Space Available: 252.43 GB	Select shortout and file association options Create program group entries Minx Design Tools Create glesktop shortouts Create glesktop shortouts Create glesktop shortouts Create glesktop shortouts Occurrent user Image: Second short user				
Copyright © 1986-2023 Xilinx, Inc. All rights reserved.		< Back	Next >	Canc	el

Sie sehen nun eine Zusammenfassung Ihrer Einstellungen und können die Installation mit "Install" starten.

Xilinx Unified 2022.2 Ins	taller - Installation Summary				_		\times		
	Installation Sum	imary							
Xilinx Installer	Edition: Vitis Unified Soft Devices Devices for Custom Pl	ware Platform atforms (SoCs, 7 Series)							
	Design Tools Wits Unified Software	Platform (Vitis, Vivado, Vitis HLS)							
	Installation Options Install Cable Drivers (You MUST disconnect all Xilnx Platform Cable USB II cables before proceeding)								
	Installation location C:\vilnx\Vitis/2022.2 C:\vilnx\Vivado/2022. C:\vilnx\Vitis_HLS/202	2 2.2							
	Download location C:\Xiinx\Downloads\Vi	tis_2022.2							
	Disk Space Required • Download Size: • Disk Space Required: • Final Disk Usage:	13,99 G8 59, 13 G8 33, 17 G8							
€ XILINX.									
Copyright © 1986-2023 Xilinx,	Inc. All rights reserved.		Preferences	< <u>B</u> ack	Instal	Car	ncel		

3. "Board-Files"

Beim Anlegen eines Projektes für ein neues Board ist einmalig die Installation des Boards erforderlich. Dies erfolgt durch Anklicken des Download-Buttons des Boards:

Parte Doarde									
To fetch the latest a	ailable boards from di	trenository click on '	Refresh' button	Dism	lice				
Reset All Filters	and a second from gr		Julie State						
/endor: All	*	Name: All				~	Board	Rev: Latest	~
0									
Search: Q-bas	\sim	🛞 🗸 (1 match	1)						
Display Name Previe	w Status	Vendor	File Version	Part	I/O Pin Count	Board Rev	Available IOBs	LUT Elements	FlipFlops
Basys3	*	digilentinc.com	1.1						
Basys3	Ŧ	digilentinc.com	1.2						
<	_								>
Refresh Catalog w	is last updated on 02/1	4/2023 2:14:04 PM							