Installing an ADS Component Library and Placing Library Parts

Purpose

In order to work with the ADS zip package for Lab 3 under ADS 2011, you need install a component library. The double-balanced mixer model needs a diode model, in particular a 1N4148 diode. This component can be found in the library Analog_Parts_vendor_kit.

Procedure

Step 1

Verify that you can access the root folder:

```
Agilent\ADS2011_10\oalibs\componentLib\
```

Inside this folder is where you will find zipped versions of component libraries:



Step 2

Unzip the library file of interest, in this case Analog_Parts_vendor_kit to your workspace working folder, perhaps/typically \$Home/hpeesof/.You get access to the unzipping capability via the

ADS main windows as shown below:

Main Advanced Design System 2011.10 (Main)	
File View Options Tools Window	DesignKits DesignGuide Help	
File View Folder View Library View Image: C:\Users\wickert\hpeesof\ece467 Image: C:\Users\wickert\hpeesof\ece468 Image: C:\Users\wickert\hpeesof\ece468 Image: C:\Users\wickert\hpeesof\ece468	Unzip Design Kit Manage Favorite Design Kits Manage Libraries D_Lab3_wrk	Choose this menu option to load a library definition file
C:\Users\wickert\hpeesof\ece4670_Lab3_wr	k	[ــــــــــــــــــــــــــــــــــــ

You then select the design kit you want to unzip and have it placed in your hpeesof folder.

Step 3

Add the library definition file to your current workspace by selecting Manage Favorite Design Kits... as shown in the above screen shot. You will then see a dialog which includes the option to load a library definition file

Manage Favorite Design Kits		-		×
Name	Version	In Current Workspace	Library Definition File	
HFDiode_vend	None		\$HOME\hpeesof\HFDiode_vendor_kit\lib.defs	
Analog_Parts_v	None		\$HOME\hpeesof\Analog_Parts_vendor_kit\lib.defs	
Two entries above initially not present. Check box to ultimately enable.				
Close Help			elp	

Select Library Definition File	Correct Westgard		-	X
🕒 🔵 🔻 🗼 🕨 wickert 🕨 hpeesof	Analog_Parts_vendor_kit	✓ Search.	Analog_Parts_vendor	kit 🔎
Organize 🔻 New folder			III 🔹 🗖	?
DownloadsMac Name workspace_v5_1	A Date	Date modified	Type File folder	Siz
	rds	2/10/2011 4:27 PM	File folder	
Libraries Documents Music Pictures Videos Noregroup Nickert	Type: DEFS File Size: 154 bytes Date modified: 1/31/2011 11:04 AM	1/31/2011 11:04 AM	DEFS File	
File name:	III	✓ Library D	efinition File(*.defs)	•
		Open	Cancel	

Drill into the folder that contains the now unzipped Parts Kit and click on the lib.def file

By clicking Open the library is now loaded into the workspace, and also will be available to new Workspaces.

Placing Library Parts

To place library parts, say a 1N4148 diode, go to the Insert menu on an open schematic file:

🕼 One_Diode_Mixer [ece4670_Lab3_lib:One_Diode_Mixer:schematic] (Schematic):2			
File Edit Select View In	sert Options Tools Layout Simu	ılate Window DynamicLink DesignGuide Help	
🗋 📁 🔚 🚔 🖓 🛃	Template	🐶 🥺 🔄 🧏 🏦 🛱	🚯 🔀 🗶 🔍
Lumped-Components	Wire Ctrl+W	🔓 💦 🖍 💏 🖉 🖤	ww 🛵
	Global Node		· · · · · · · · · · · · · · · ·
R R_Model	Component	 Component Library 	
	Pin GROUND VAR VAR	Set Component Orientation UP Set Component Orientation DOWN Set Component Orientation LEET	
C C_Model =	Shape Text Ctrl+Sh	ift+T Edit Component Menu	· · · · · · · · · · · · · · · · · ·
	Arrow	0,kHz Hs= 10v= v;sv= Geak= \Nbv= - Gow= 	
PLC PRC	Change Entry Layer To Ctrl+Sh	ift+C (100kHz,20) Cd= Kf= Xti= Cjo= Af= Eg= Vi= Ff= AllParameter	
	Coordinate Entry Measure	M= rne= AllParams= 	
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Select: Enter the starting point	0 ite	ms ads_device:drawing 1.500, 3.000	4.750, 1.000 in

Choose Co	mponent	Library
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Component Library	hs	
 All Libraries 	Search	Search
Vorkspace Libraries	a ^ i	D 1 4
ADS Analog/RF Libraries	Component	Description
ADS DSP Libraries	ap_dio_1N4002_19930601	Manufacturer: Sprague, Basic Description: Diode, Part number: 1N40
Read-Only Libraries	ap_dio_1N4003_19930601	Basic Description: Diode, Part number: 1N4003, Key parameters: Is=1
Analog Parts	ap_dio_1N4004_19930601	Basic Description: Diode, Part number: 1N4004, Key parameters: Is=5
AP 2 Diode Bridges (No Layout)	ap_dio_1N4005_19930601	Manufacturer: Sprague, Basic Description: Diode, Part number: 1N40
AP 4 Diode Bridges (No Layout)	ap_dio_1N4006_19930601	Basic Description: Diode, Part number: 1N4006, Key parameters: Is=1
AP Diodes (No Layout)	ap_dio_1N4007_19930601	Basic Description: Diode, Part number: 1N4007, Key parameters: Is=3
AP NIEET Devices (No Lavout)	ap_dio_1N4148_1_19930601	Basic Description: Diode, Part number: 1N4148, Key parameters: Is=1
AP NOTET Devices (No Layout)	ap_dio_1N4148_19930601	Manufacturer: Unitrode, Basic Description: Diode, Part number: 1N4:
AP INIVIOS DEVICES (No Layout)	ap_dio_1N4149_19930601	Basic Description: Diode, Part number: 1N4149, Key parameters: Is=1
AP NPN BJIS (No Layout)	ap_dio_1N4150_1_19930601	Manufacturer: Unitrode, Basic Description: Diode, Part number: 1N4:
AP PIFET Devices (No Layout)	ap_dio_1N4150_19930601	Manufacturer: Unitrode, Basic Description: Diode, Part number: 1N4:
AP PMOS Devices (No Layout)	ap_dio_1N4151_19930601	Basic Description: Diode, Part number: 1N4151, Key parameters: Is=1
AP PNP BJTs (No Layout)	ap_dio_1N4153_19930601	Manufacturer: Unitrode, Basic Description: Diode, Part number: 1N4:
AP Power NPN BJTs (No Layout)	ap_dio_1N4154_19930601	Manufacturer: National_Semiconductor, Basic Description: Diode, Pa
AP Power PNP BJTs (No Layout)	ap_dio_1N4371A_19930601	Basic Description: Diode, Part number: 1N4371A, Key parameters: Is=
	ap_dio_1N4376_19930601	Manufacturer: National_Semiconductor, Basic Description: Diode, Pa
	ap_dio_1N4400_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4400, Ke
	ap_dio_1N4401_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4401, Ke
	ap_dio_1N4402_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4402, Ke
	ap_dio_1N4403_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4403, Ke
	ap_dio_1N4404_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4404, Ke
	ap_dio_1N4405_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4405, Ke
	ap_dio_1N4406_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4406, Ke
	ap_dio_1N4407_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4407, Ke
	ap_dio_1N4408_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4408, Ke
	ap_dio_1N4409_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4409, Ke
	ap_dio_1N4410_19930601	Basic Description: Diode, Part number: 1N4410, Key parameters: Is=1
	ap_dio_1N4411_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4411, Ke
	ap_dio_1N4412_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4412, Ke
	ap_dio_1N4413_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4413, Ke
	ap_dio_1N4414_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4414, Ke
	ap_dio_1N4415_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4415, Ke
	ap_dio_1N4416_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4416, Ke
	ap_dio_1N4417_19930601	Manufacturer: TI, Basic Description: Diode, Part number: 1N4417, Ke 👻
Download Libraries		F

Click and drag the selected part to the schematic.