SPECTRE Videos

Product Version 23.1 June 2023

© 2022-2023 Cadence Design Systems, Inc. All rights reserved.

Printed in the United States of America.

Cadence Design Systems, Inc. Cadence, 2655 Seely Ave., San Jose, CA 95134, USA.

Open SystemC, Open SystemC Initiative, OSCI, SystemC, and SystemC Initiative are trademarks or registered trademarks of Open SystemC Initiative, Inc. in the United States and other countries and are used with permission.

Trademarks: Trademarks and service marks of Cadence Design Systems, Inc. contained in this document are attributed to Cadence with the appropriate symbol. For queries regarding Cadence's trademarks, contact the corporate legal department at the address shown above or call 800.862.4522.

Restricted Permission: This publication is protected by copyright law and international treaties and contains trade secrets and proprietary information owned by Cadence. Unauthorized reproduction or distribution of this publication, or any portion of it, may result in civil and criminal penalties. Except as specified in this permission statement, this publication may not be copied, reproduced, modified, published, uploaded, posted, transmitted, or distributed in any way, without prior written permission from Cadence. Unless otherwise agreed to by Cadence in writing, this statement grants Cadence customers permission to print one 1 hard copy of this publication subject to the following conditions:

- 1. The publication may be used only in accordance with a written agreement between Cadence and its customer.
- 2. The publication may not be modified in any way.
- 3. Any authorized copy of the publication or portion thereof must include all original copyright, trademark, and other proprietary notices and this permission statement.
- 4. The information contained in this document cannot be used in the development of like products or software, whether for internal or external use, and shall not be used for the benefit of any other party, whether or not for consideration.

Disclaimer: Information in this publication is subject to change without notice and does not represent a commitment on the part of Cadence. Except as may be explicitly set forth in such agreement, Cadence does not make, and expressly disclaims, any representations or warranties as to the completeness, accuracy or usefulness of the information contained in this document. Cadence does not warrant that use of such information will not infringe any third party rights, nor does Cadence assume any liability for damages or costs of any kind that may result from use of such information. Cadence is committed to using respectful language in our code and communications. We are also active in the removal and/or replacement of inappropriate language from existing content. This product documentation may however contain material that is no longer considered appropriate but still reflects long-standing industry terminology. Such content will be addressed at a time when the related software can be updated without end-user impact.

Restricted Rights: Use, duplication, or disclosure by the Government is subject to restrictions as set forth in FAR52.227-14 and DFAR252.227-7013 et seq. or its successor

Spectre Videos

Contents

<u>Preface</u>	5
Additional Learning Resources	
Video Library	5
Rapid Adoption Kits	5
Customer Support	6
Feedback about Documentation	
SPECTRE Video Library	7
Videos Available with SPECTRE	7
Training Bytes Videos	8

Spectre Videos

Preface

This document lists the following videos that are accessible from <u>Cadence Online Support</u>.

- Videos included in the SPECTRE installation
- Training Bytes videos available on <u>Cadence Online Support</u>

View these videos in conjunction with the relevant user guide.

This preface contains the following topics:

- Additional Learning Resources
- Customer Support
- Feedback about Documentation

Additional Learning Resources

Video Library

The <u>Video Library</u> on the Cadence Online Support website provides a comprehensive list of videos on various Cadence products.

To view a list of videos related to a specific product, you can use the *Filter Results* feature available in the pane on the left. For example, click the *Spectre* product link to view a list of videos available for the product.

You can also save your product preferences in the Product Selection form, which opens when you click the *Edit* icon located next to *My Products*.

Rapid Adoption Kits

Cadence provides a number of <u>Rapid Adoption Kits</u> that demonstrate how to use Spectre in your design flows. These kits contain design databases and instructions on how to run the design flow.

Spectre Videos

Preface

To explore the full range of training courses provided by Cadence in your region, visit <u>Cadence Training</u> or write to training_enroll@cadence.com.

Note: The links in this section open in a separate web browser window when clicked in Cadence Help.

Customer Support

For assistance with Cadence products:

Contact Cadence Customer Support

Cadence is committed to keeping your design teams productive by providing answers to technical questions and to any queries about the latest software updates and training needs. For more information, visit https://www.cadence.com/support.

Log on to Cadence Online Support

Customers with a maintenance contract with Cadence can obtain the latest information about various tools at https://support.cadence.com.

Feedback about Documentation

You can contact Cadence Customer Support to open a service request if you:

- Find erroneous information in a product manual
- Cannot find in a product manual the information you are looking for
- Face an issue while accessing documentation by using Cadence Help

You can also submit feedback by using the following methods:

- In the Cadence Help window, click the *Feedback* button and follow instructions.
- On the Cadence Online Support Product Manuals page, select the required product and submit your feedback by using the *Provide Feedback* box.

SPECTRE Video Library

Videos Available with SPECTRE

The following table summarizes the videos with narration that are accessible from Cadence Online Support. These videos are applicable to the SPECTRE 19.1 release unless stated otherwise.

See <u>"Additional Learning Resources"</u> for details on how the videos are played. For a more comprehensive set of videos, see the <u>Cadence Video Library</u> on <u>Cadence Online Support</u>.

Notes:

- Use the *Online Support* links to access these videos on Cadence Online Support.
- The following table includes the videos that are available in the <u>Video Library</u>.

SPECTRE	
Performing Noise Simulation in Spectre RF Using the Improved Pnoise and Direct Plot Form Options Online Support 7 mins SPECTRERF	Introducing the Enhanced hb and hbnoise Analyses Options in ADE Explorer Online Support 6 mins SPECTRERF
Large Signal S-parameter Simulation (LSSP) Online Support 4 mins SPECTRERF	Measuring Phase Noise of Oscillators Online Support 3 mins SPECTRERF
Rapid IP3 Measurement Online Support 3 mins SPECTRERF	Triple Beat Analysis Online Support 3 mins SPECTRERF

Training Bytes Videos

The following table lists the recommended videos that are part of the <u>Cadence Training</u> <u>courses</u>. These videos are known as Training Bytes and are applicable to the SPECTRE 19.1 release unless stated otherwise.

To view the entire list of the Training Bytes videos on <u>Cadence Online Support</u>, choose *Self Learning – Training Bytes (Videos)*. You can filter the search results using one of the following options:

- Use the *Filter Results* feature available in the left pane to view a list of product-specific or platform-specific videos.
- Type keywords in the *Search in Training Bytes (Videos)* search box.

SPECTRE Training Bytes		
Performing Fault Analysis in Spectre using Legato™ Reliability Solution	Spectre Simulator Fundamentals S4: Measurement Description Language	
Performing Sensitivity Analysis with Spectre	Spectre eXtensive Partitioning Simulator for Mixed- Signal Designs	
Running XPS MS Simulation using the Post Layout Settings in Virtuoso ADE Explorer	Analyzing Spectre Simulation Results in ViVA	
Performing Noise Simulation in Spectre RF Using the Improved Pnoise and Direct Plot Form Options	Demystifying Noise Simulation in RF Circuits Spectre APS and RF Option	
Determining the Circuit Stability Using Stability (stb) Analysis	Performing Pole-Zero Analysis from the Spectre Command-Line Environment	
Creating Checkpoints and Restarting a Simulation in Spectre Command Line	Enabling Spectre Diagnose Mode	
Performing DC Sweep Analysis in Spectre Command Line	Determining the Operating Point Information in Spectre Command Line	
Creating Save States and Restarting a Simulation in Spectre Command Line	Spectre Simulator Fundamentals S2: Large-Signal Analyses	

Spectre Videos SPECTRE Video Library

Setting and Controlling Initial Conditions during Transient Analysis	Modifying Accuracy and Integration Method during Spectre Transient Analysis
Setting and Controlling Initial Conditions during Transient Analysis	Modifying the Accuracy and Integration Method during Spectre Transient Analysis
Spectre Simulator Fundamentals S3: Small-Signal Analyses	Spectre Simulator Fundamentals S1: Spectre Basics
Using Spectre MDL for Measurements	How to encrypt a Verilog-A Source
Performing Loopfinder Analysis in Spectre Command- line Environment	Filtering AHDL Linter Messages
Enabling AHDL Linter in the Virtuoso ADE Environment	Identifying AHDL Linter Messages and Summary
Getting Help on AHDL Linter Messages	How to Enable AHDL linter from the Spectre Command-line Environment?
Using the alter statement	Controlling Spectre Outputs during Run Time
Setting Up and Running Spectre Simulation in ADE Explorer	Controlling Spectre Outputs Using the Environment Variable Setting
Running Spectre simulation using the Simulation Configuration File	Examining the effects of TRISE/DTEMP Parameters
Using the info statement	Protecting Proprietary Information in a Netlist
Saving Individual Nodes and Components	Controlling the Simulation Output Messages
Parameterizing a Netlist in Spectre	Running Spectre Simulation from the Command-line
Using Spectre MDL for Measurements	Spectre MDL Post-Processing
Running Spectre Simulation from the Command-line	How to Manually Converge a Spectre DC Analysis
Using Simulator MDL for Measurements	Finding the number of licenses checked out during Spectre simulation
Post-Layout Settings in Spectre APS	Finding the licenses required for Spectre simulation

Spectre Videos SPECTRE Video Library

What's New with save and currents parameters of the options statement?	Using the Dynamic Parameter Option in Virtuoso ADE for a Spectre Transient Analysis
Using the Compression Option in Virtuoso ADE for a Spectre Transient Analysis	Using the Diagnose Option in Virtuoso ADE for a Spectre Transient Analysis
Evaluate the Discrete Fourier Transform after a Spectre Transient Analysis in the Virtuoso ADE	Using Spectre and the Fourier Component from analogLib to Evaluate the Fourier Transform Using the Fourier Transform in Virtuoso ADE
Create Nyquist Plots to Determine Stability Using a Spectre Simulation from the Virtuoso ADE	Run a Spectre Transient Noise Analysis from the Virtuoso ADE
Performing Spectre Noise Analysis Using the Virtuoso ADE	Setup and Run a Stability Analysis in the Virtuoso ADE with the Spectre Simulator
Printing the Noise Summary from Virtuoso ADE Post Spectre Noise simulation	Plot the Transfer Function from Nets, Nodes and Terminals to the Output From the Virtuoso ADE Using the Spectre Simulator
Specialized Spectre AC Analysis: Compression Distortion Summary	Specialized Virtuoso Spectre AC Analysis: Rapid IP3
Running Post-Layout APS Simulation with dspf_include in ADE	Running Post-Layout APS Simulation with Extracted Views in ADE
Setting Up and Running EMIR Analysis in Virtuoso ADE	Simulating a Design Using APS in ADE
Simulating a Design Using XPS in ADE	How to Measure Noise Figure of Low Noise Amplifier (LNA)
Spectre MDL Post-Processing	Analog IP Verification Seminar, ADC Verification Methodology, Best Practices
Analog IP Verification Seminar, PLL Block Examples	Save and Plot Operating Point Parameter for Transient and DC sweep and Save Subckt Instances in ADE L & ADE XL
Analog IP Verification Seminar, Simulations for SAR ADC, Effective Number of Bits (ENOB)	Analog IP Verification Seminar, ADC Transient SINAD Measurement
Analog IP Verification Seminar, SAR ADC design and verification	Analog IP Verification Seminar, Clock Generator Measurements

Spectre Videos SPECTRE Video Library

Analog IP Verification Seminar, Verification Methodology: Spectre APS, RF and AMS Designer, Best Practices	Analog IP Verification Seminar, Closed-Loop Output Phase Noise
Analog IP Verification Seminar, Capacitor DAC Measurements	Analog IP Verification Seminar, PLL Overview
Supporting The Pspice	Analog IP Verification Seminar, Data Converter - ADC
Simulating a Design Using APS in ADE	Analog IP Verification Seminar, Phase Domain Model
Analog IP Verification Seminar, Phase-locked Loop	Analog IP Verification Seminar, In Closing