

AEL & PDK development in PathWave ADS ***Class***

Course Overview

A 3-day in depth class on how to program AEL and develop PDK's, Process Design Kits in ADS. Starting with an in-depth overview on how to traverse the new OA database using AEL. The AEL code is developed step by step to retrieve instance, parameter and object information in schematic and layout. The main chapter educates how to create a PDK starting from scratch until a full working PDK is created including several components demonstrating different simulation model techniques. Technical information is combined with step by step hands-on exercises. In the chapter "Developing measurement based components" a set of measured S-parameter files is used to create a component whereby you can select the component value from a drop down list and simulate the associated S-parameter data file. The "Fixed artwork and AEL artwork macro's" chapter explains how to create fixed artwork and how to program a scalable AEL artwork macro

What you will learn

- AEL database traversal
- PDK development
- Building your own components in ADS (subcircuit, S-parameter based, netlist fragment)
- Use and creation of fixed artwork and scalable AEL artwork macros.

Course Type

User training

Audience

ADS System Administrators or Engineers who wants a better understanding of the ADS environment and want an in-depth education on how to create design kits and program in AEL.

Prerequisites

Familiarity with basic circuit simulation in ADS. Knowledge about Windows and UNIX operation system as well as familiarity with AEL programming in ADS.

Course Length

3 days

Course Format

The course combines lecture presentations with instructor guided, hands-on lab exercises.

Delivery Location

To be defined

Delivery Dates

To be defined

For registration or information please contact your training center
At : pdl-pathwave-design-software-training@keysight.com

Detailed Course Agenda

• **Topic 1**

AEL database traversal. A hierarchical database retrieval example is developed step by step to extract instance and parameter information as well as shape information. This concept is used in many schematic and layout customization scripts.

• **Topic 2**

A detailed overview on the Design Kit structure using OA, Open Access libraries. A design kit is created with several components like a component using a subcircuit as model or a component with a netlistfragment as model in combination with a netlistinclude component. These components will be made available in a palette and in the library browser.

• **Topic 3**

Developing measured components. A step by step procedure describing how to create measurement data based components. Starting from a set of S-parameter files up to a complete component similar to the ADS build in vendor components. The use of constant, compound forms and formsets will be explained to make discrete optimization possible.

• **Topic 4**

Explains how to setup a layout technology library. A fixed layout artwork is designed and associated with a component. Next a parameterized AEL artwork macro is programmed with particular focus on the new AEL artwork functions available since ADS2011. This artwork will include edge or area port functionality. This AEL artwork macro will be associated to a component and integrated it in the previous created design kit.

For registration or information please contact your training center
At : pdl-pathwave-design-software-training@keysight.com