

Keysight EEsof EDA

W2324 High Capacity Layout Pre-processor Element

Data Sheet

Key Features

The Advanced Design System (ADS) High Capacity Layout Pre-processor Element has the following capabilities when used in a high-speed digital design flow:

- Imports large PCB design files in ODB++ format into a pre-processor GUI
- Allows critical net selection and cookie cutting
- Exports processed segment of PCB to ADS Layout for EM modeling using Momentum and FEM Element
- Supports import of netnames and components

Overview

The High Capacity Layout Pre-processor Element is an ODB++ file format import and pre-processing tool that enables you to select the environment immediately around critical nets in preparation for electromagnetic (EM) modeling. This type of pre-processing is useful in high-speed digital design where the printed circuit board (PCB) is very complex and whose total geometry exceeds the capacity of an EM-based field solver. The solution is to focus in on a handful of critical nets, for example, a differential pair connecting two Serializer/Deserializer (SERDES) integrated circuits (ICs) that are a victim of crosstalk from one or more aggressor traces. An example of such a trace is shown in figure 2. Note that the board has been “cookie cut”, meaning a convex hull with a user-defined margin has been defined, leaving a portion of the board whose complexity is within the capacity constraints of full-accuracy, full-wave EM field solvers such as Momentum and FEM Element.

High Speed Digital Design Flow

A typical high-speed digital workflow including High Capacity Layout Pre-processor Element is shown in figure 1.

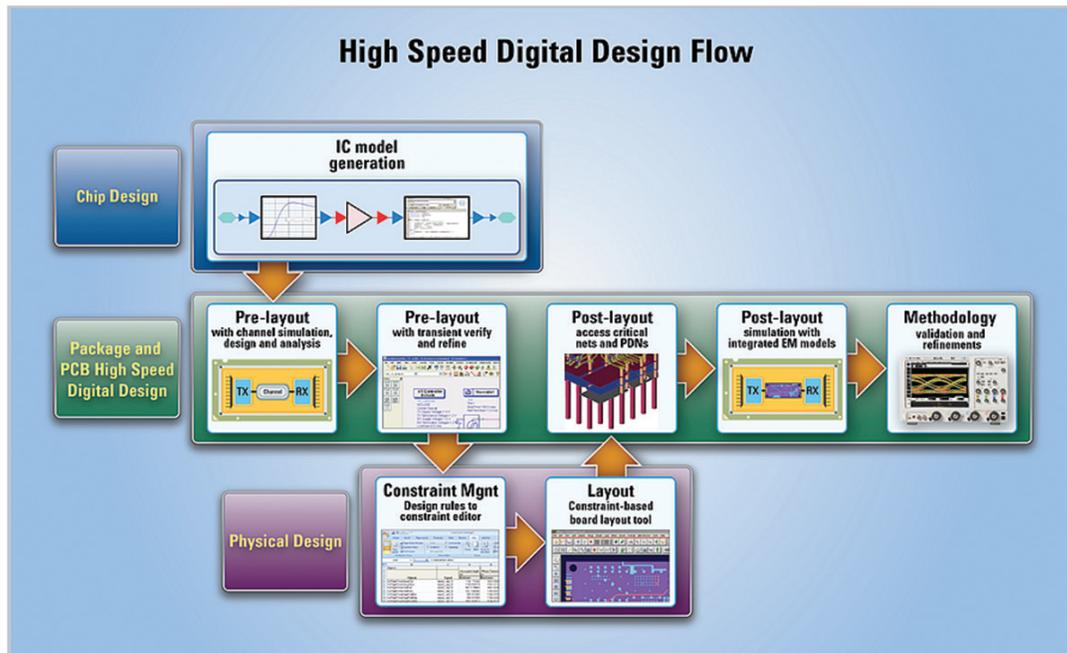


Figure 1
The High Capacity Layout Pre-processor is central to this high-speed digital design flow. The middle bar (green) and lower bar (purple) encloses steps performed by the signal integrity engineer in ADS, and by the physical designer in the third-party enterprise PCB tool, respectively. The task in the upper (blue) bar is performed by the chip designer.



myKeysight

www.keysight.com/find/mykeysight

A personalized view into the information most relevant to you.

www.keysight.com/quality

Keysight Technologies, Inc.

DEKRA Certified ISO 9001:2008

Quality Management System

Keysight Channel Partners

www.keysight.com/find/channelpartners

Get the best of both worlds: Keysight's measurement expertise and product breadth, combined with channel partner convenience.



For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

Americas

Canada	(877) 894 4414
Brazil	55 11 3351 7010
Mexico	001 800 254 2440
United States	(800) 829 4444

Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 6375 8100

Europe & Middle East

Austria	0800 001122
Belgium	0800 58580
Finland	0800 523252
France	0805 980333
Germany	0800 6270999
Ireland	1800 832700
Israel	1 809 343051
Italy	800 599100
Luxembourg	+32 800 58580
Netherlands	0800 0233200
Russia	8800 5009286
Spain	0800 000154
Sweden	0200 882255
Switzerland	0800 805353
	Opt. 1 (DE)
	Opt. 2 (FR)
	Opt. 3 (IT)
United Kingdom	0800 0260637

For other unlisted countries:
www.keysight.com/find/contactus
 (BP-07-01-14)

