



IC CAD Market Trends 2015

Developments of Multi-CAD Models

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EXECUTIVE SUMMARY

2014 marked the first year of really solid growth for electronic system level (**ESL**) tools, after years of promise as the next big thing in EDA. It seems the tide is finally turning and ESL technologies may now be experiencing their long-awaited user adoption in earnest. For the first time, ESL growth was higher than that of either the downstream CAE market or the EDA market as a whole.

The register transfer level (**RTL**) tools market also had a very good 2014. Much of the strong growth in RTL can be attributed to the addition of semiconductor design intellectual property (IP) as a sub-application within our RTL market segmentation. Continual, steady growth has been evident even for the traditional RTL and gate-level tools over the past five years, confirming that this part of the market is a mainstay for EDA user investment.

IC CAD was another well-performing market in 2014. New silicon technologies, coupled with migrations to ever-smaller semiconductor manufacturing process nodes, necessitate high-performing CAD/CAM tools. In fact, rapid advancement on the manufacturing technology front may force EDA vendors to step up their game and accelerate innovation for IC CAD/CAM design tools.

While **PCB** design tools are not as high-growth a market segment as the others, they do tie directly into the future of system design automation (SDA). PCB is the linkage point between electronics design and mechanical design of end products. Especially factoring in the design challenges of new semiconductor device packages, cable and wire harness design, and new materials introductions, the role of PCB design tools will be significant in the emergence of an SDA methodology. This should afford EDA vendors new opportunities beyond the standard PCB layout and analysis areas.

Moving Toward a System Level Design Future

Now that we are entering the world of System Level Design, we need to look at the market, and therefore the numbers, from other perspectives. System design methodologies and business requirements are often developed within vertical industry markets. There is no single, overarching systems market for all types of end products; fighter jets and cell phone have vastly different design challenges, after all. Therefore, it makes sense to present Market Trends data in an alternate way also, to correspond to this vertical industry approach.

These types of second-cut data reports are usually created on an on-demand basis. With frequent demand, though, a second-cut report may become a standard report. The Analog Market Trends report is a prime example of this. As the system level design methodology begins to take shape, we may extend our reporting into multiple industry reports, depending on demand.

INTRODUCTION

The IC CAD market includes tools used to implement layout designs into silicon. Traditional CAD models focused on long design cycles from multiple and costly design rework. For quite some time, as a result of mergers, collaborations and acquisitions, EDA vendors, semiconductor and systems companies have teamed to develop multiple platforms and system design flows. IC CAD market vendor revenue reached \$2,295.3 in 2014.

OVERVIEW

This report comprises the IC CAD section of the EDA Market Trends. The IC CAD market covered in this report is segmented into four main categories: IC Place and Route, Physical Verification, Physical Libraries and Tools, and IC CAM. In this report we will discuss market share, trends, and forecasts for the IC CAD sub-applications that are most significant in the overall EDA landscape. Readers should note that we classify design tools at their highest level of use.

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\$2,000

