

## Altium's vision for the future of electronics design

Our approach puts device intelligence at the centre of the design process.

Our goal is to help our customers create real and sustainable differentiation.

Based on *unified electronics design*, this single approach to electronics design covers the spectrum from custom hardware design through to 'pure' device intelligence.

The overall forces driving the electronics industry and product development in general, are changing. This process of change is continuing to accelerate, rather than slow down. The globalization of manufacturing, particularly the commoditization of low-cost, high quality manufacturing, has all but removed this advantage from larger organizations. And first to market is no longer any guarantee of sustained success.

All the while, customers are demanding more – better functionality, better connectivity, and a better experience.

Perhaps the biggest driver for change is the ubiquitous connectivity of 'everything to everything', which is so dramatically changing the role of technology in our lives.

The flip side to this is a never-ending flood of new technology, leading to the uncomfortable reality that the 'half-life' of engineers' knowledge is now estimated to be as little as five years.

So, how will products stand apart if engineers are designing them with the same components and technology as their competitors?

How can they create real differentiation for their products?

Altium has invested over 1000 man-years, over the past seven years, building a new approach to electronics design. Our long history of design innovation was originally focused around developing software that dealt with the design of the physical board. Engineers used our solution to design and manufacture a system that hooked components together on a board, connected these components to the outside world and provided the functionality required of the product.

Over the past seven years, we have expanded our coverage of electronic product design to focus on building a system that allows for the development of the **intelligence of an electronic product** in addition to the design of the physical board.

Our approach puts device intelligence at the centre of the design process. Our goal is to help our customers use design innovation to create real and sustainable differentiation.

Based on unified electronics design, this approach covers the spectrum from hardware design through to 'pure' device intelligence.

This approach is based on the realization that anything that breaks the design process into functional or discrete silos is ultimately a serious barrier to innovation. These barriers can make change so difficult that they undermine the whole process of innovation, making it difficult for new ideas and concepts to be developed, explored and implemented in products.

## Achieving sustainable differentiation

Sustainable differentiation goes far beyond being first to market and cheapest on the shelf. Neither of those approaches guarantees success. Being first or being low-cost are ultimately just survival drivers – the price of entry to have your product considered. Today's customers are more demanding, more aware and more sophisticated. They expect an enjoyable, easy-to-use experience, all packaged in a way that suits their image and lifestyle.

Customers demand that products look and feel 'cool', and that they are functional, beautifully engineered and thus desirable. The user interface of these products must be attractive, and easy to use. Products must connect automatically to related equipment, to supplier organizations, to peers. New connected 'ecosystems' that allow for continuous product feature delivery (or fixes) will become the expected norm in the future.

Products must also be intuitive to use. Complex functionality must be cleverly organized so that its capabilities can be explored and exploited without the need to reach for the manual, or call for help.

Today the differentiators for which the customer will wait and pay more, are a more intelligent and intuitive product, one that connects easily into their lifestyle.

## Overturning design traditions

So exactly what makes up an electronic product? In simple terms, all electronic products comprise three elements:

- The **physical board**, a collection of components assembled and connected together on a printed circuit board
- The **intelligence of the product**, programmed into one of those components. This is what gives the product its purpose, and it might be a mobile phone, a navigation system, a toy robot dinosaur, or a missile guidance system
- The **casing** or housing of the electronics.

But today's products are considered 'dumb' or 'dead' without intelligence. Device intelligence requires that the product be based on programmable chips.

This then allows the user interface to be 'programmed' into the product, creating the soft aesthetics of the device.

The physical design of the case, the hard aesthetics, remains a key part of the customer experience and therefore remains a key part of establishing the overall brand experience. But the soft aesthetics are providing an increasingly dominant role in differentiating the product.

The old approach to designing electronic products, an approach that puts the development of the hardware platform first, is now over-turned.

The new approach puts the design of the soft elements of an electronic system first and at the centre of the whole design process.



## What's required to deliver this – introducing the Altium Innovation Station

The Altium Innovation Station brings together the award-winning Altium Designer unified electronics design software with the Altium NanoBoard range of reconfigurable hardware platforms to provide a complete, single electronics design environment.

Fundamental to the Altium Innovation Station is the idea that the designer needs to work in an environment that allows fast and effective exploration of the new concepts and ideas that will form the basis of future product innovation.

Having completed the soft aspects of the product, the designer can move quickly to deploy a version of the product with off-the-shelf hardware.

If required, the design can be quickly ported to a full custom hardware implementation using Altium Designer's PCB design capabilities.

A number of significant benefits flow from this approach:

- The design IP is programmed into the device, rather than manufactured into the device
- It's much harder to copy the design (without violating copyright laws)
- Soft design can happen before the hardware platform is chosen or designed
- Soft design can continue after the hardware is designed
- Soft design can continue after the hardware is manufactured
- Soft design can continue after the hardware is deployed to the end customer
- Aesthetics implemented in the soft design can be changed after the product is manufactured and deployed
- Soft design provides the basis for an 'ecosystem' which connects the customer to the vendor via the device

The Altium electronics design concept therefore includes a new range of deployment NanoBoards. These are off-the-shelf configurable hardware devices that allow designers to deploy their design without the requirement to manufacture any hardware.

This allows smaller production runs, custom designs, prototypes and even concept products to be quickly realized.

We have spent the last few years investing heavily in the development of our new electronics design system. We have also been investing in the development of the infrastructure and leadership of the organization to prepare for the process of bringing this to market and to set the foundations for the future growth that we expect this to generate.

The Altium Innovation Station will be launched through a series of major events and media in February.

Altium has expanded our product solution far greater than board design only, to providing a solution that helps our users bring intelligent, connected electronic products easily to market.

## Market opportunity

By providing a system that allows for the design of the intelligence of a product first and foremost – where hardware design is optional – we have created the opportunity for the establishment of a new market.

The concept of this market is to enable software designers to

create dedicated hardware products, without the need to do any low-level hardware design.

Today we can only address a subset of the true potential of this market because the tools still require a good basic understanding of hardware concepts.

Our future plan is to enable pure software designers, those who write software for traditional desktop computers, having little or no hardware knowledge, to participate in this new way of creating electronic products.

The potential of this market is hard to measure, quantify or predict but is analogous to the new market for software developers that was effectively created by Microsoft's Visual Basic Product in the 1980s.

From any perspective though, the opportunity we have created, and therefore the challenges we are facing, are huge.

Creating and supporting this market has been a goal of Altium for many years now, but competitive considerations have limited our ability to share this outside of the organization.



# investorUPDATE

With the launch of the Innovation Station, and all of the investment, over many years, that has gone into both the software and hardware sides of the product, we now feel that it is both timely and safe to share our view of this new market with those outside the organization.

Although we understand the difficulty of this next stage of Altium's development, we remain confident that the team we are building will be able to realize the potential of the technology we have built.

## Building Altium's Leadership Team

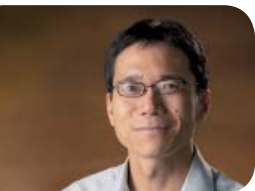


*Gerry Gaffney,  
Senior Vice President  
General Manager  
Americas*

Building our management team is a key requirement for preparing Altium to meet the challenge of harnessing the potential in our products and technology.

We would like to introduce you to some of the leaders who have recently joined our team.

Gerry Gaffney joins Altium after 11 years with Cadence Design Systems, where he was most recently Group Sales Director of Enterprise Sales, and prior to that Regional Sales Director for Northern Europe and Nordic Regions. His experience covers senior management and director level sales, corporate account management and outsourcing business management roles. He also spent one year at EDS in the United Kingdom. He is a Member of the Chartered Institute of Management Accountants in the UK.



*Jay Cao,  
Regional Director  
China*

Jay Cao brings over 15 years of experience to Altium. Prior to Altium, Mr. Cao spent five years heading operations at Hyperion Solutions as its Business Development Director for North Asia and as Managing Director China. He has also held senior management and sales positions at SAS Institute and Tyco, both market leaders within their industries. Mr. Cao lectured at Fudan University and completed an MA in English there. He has also has an MA in Cross Cultural Studies from the University of the State of New York, and an MBA from Washington University in St. Louis, USA.



*Anand Shankaran,  
Chief People Officer*

Anand Shankaran brings over 12 years' experience at Hewlett-Packard as HR Director Asia Pacific and Japan. He was also Country Manager of India for Apple Publishing Technology Centre, and CEO South Asia Region countries for Apple.

These appointments expand Altium's business development leadership team which is responsible for maximizing the growth that we see from the expanding demand for unified electronics design through new go-to-market distributors and strategies.

## Moving Forward

What we are sharing today is an ambitious plan based on the world leading technology we have been building over the last few years. However, creating potential is not enough, and our focus must now move strongly towards translating this potential into real returns. We understand our responsibility to our shareholders and do not underestimate what is required here.

We believe you will see the success that will come from bringing these products to market.

Altium's technology and product solutions are changing the world we live in and over the next few years we expect this process to accelerate.

We are quite proud of the fact that an Australian technology company is not only changing the whole way that electronics products are designed throughout the world, but also that we are enabling the next generation of designers to turn their ideas and inspirations into reality.

The benefits of connected electronics design based on innovation and device intelligence is perhaps summed up with a scenario familiar to all. Imagine not having to wait for your service delivery engineer when your washing machine, or fridge, or DVD player, stops working. Instead, your intelligent, connected product can be called on from base, diagnosed over the web and the fix identified – all without you having to be there.

All this is made possible through electronic products that take advantage of the programmable hardware, wireless devices and the Internet. And to create these solutions, designers will need to design their product with a system that has these possibilities built in.

This is what we are working towards – helping our customers deliver sustainable differentiation through providing the best connected, intelligent electronics design solution.