

## How Integr8tor has helped to revolutionise Eurocircuits' business

Since our beginnings in 1991, we have focused our capabilities on the leading edge production of low-volume high-mix standard technology rigid boards, delivering the widest range of technology options on the market. Our strengths lie in our smart business practices, our lean approach to manufacture and business management, and our use of the internet as an advanced business tool – all of which have helped us to become one of Europe's largest specialist suppliers of quick-turn prototype and small batch PCBs. Last year alone we handled 62,000 orders for 7,000 clients, and the numbers continue to grow – in February of this year, we averaged a tally of no less than 300 orders a day.

These numbers make us very different from other manufacturers in Europe, and place some very particular demands on our business. One of which is the need for ultra-fast, accurate responses to our clients' quote requests and orders, 24/7.



Dirk Stans

That's where Ucamco's Integr8tor solution comes in. We have worked with Ucamco for many years – our front end CAM engineers use Ucam software, and we rely on Ucamco's MultiJob Panel software suite to optimise the pooling of multiple small orders across shared panels. We have a great relationship with the company, so when we heard about Integr8tor, we knew this would be a serious enabler for our business. Indeed,

Integr8tor is now the gateway through which every single quote request and order enters our company and it generates all the front end information that we need for our client quoting, design verification and order placement communications. It's fair to say that had Integr8tor not existed, we would have had to develop it ourselves.

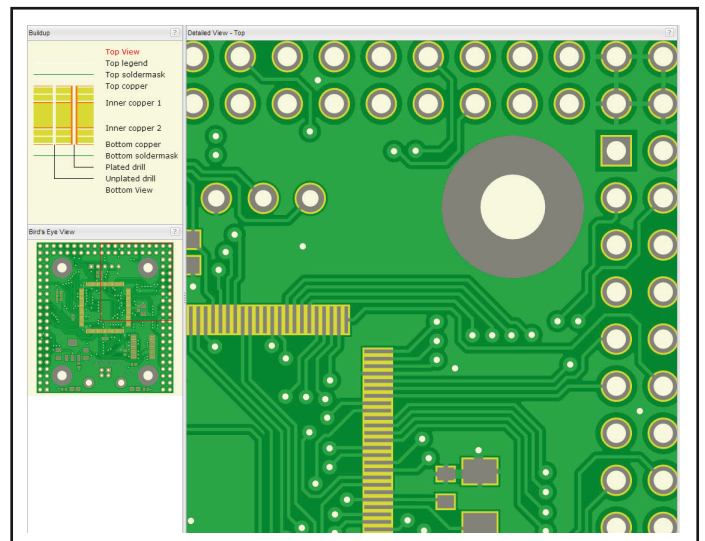
The first Integr8tor system we installed proved its worth quickly, supporting our CAM engineers and sales functions with invaluable and accurate quoting, sales and preCAM data at unprecedented speeds. But we quickly realised that Integr8tor could offer even more to our business if we could create a simple, interactive interface that would allow our clients to use it. This would free up our CAM engineers and sales people still further, but more importantly it would allow our customers to upload and analyse their designs, and receive accurate quotes, in real time, and at any time of the day or night. In so doing Integr8tor would further revolutionise our business.

And so with Ucamco's support we used Integr8tor's dedicated Web Integration module to develop just such an interface. The first 2 modules of this, PCB

Visualiser and PCB Checker, are designed for simplicity and visual clarity. Using them, our clients can view, analyse and appraise their designs and receive an accurate quote in minutes. They do this by logging into our system and uploading their design files to PCB Visualiser. These files are automatically transferred to and analysed by Integr8tor, which is running in the background, and the results appear automatically in PCB Visualiser. They are shown in a visual format that is easy to read and understand and illustrates how the boards will look in terms of stackup, registration and other design aspects. If the client likes the look of the boards, the designs can then be put through our PCB Checker interface, and again, Integr8tor delivers measurements, design rule checks and analyses that are presented by PCB Checker in a client-friendly intuitive format that clearly shows if and where there may be issues. We will shortly launch a third module, PCB Configurator, that will allow clients to accept the values they see, or modify their designs – all while the order is in the client's online shopping basket. Which means that the design is optimised by the time the order is placed, ensuring that the final product is as robust and cost-effective as possible.

This is great news for us and is in fact the only way we could possibly handle so many incoming jobs. It's proving to be so successful that we recently increased our Integr8tor capacity from 2 to 6 workflows, enabling us to handle 6 jobs concurrently. And it's a great service for our clients – a real win-win situation. It also fits perfectly with our strategy of favouring an integrated, dynamic online presence: much more than just an order input or marketing tool, we see this as a transparent and fully accessible window onto our entire business process, that includes customer communications and support and the entire order process, from quote through order tracking and administration to invoice. Integr8tor, together with our client interfaces, is an integral part of this and a determining factor in our ongoing success and growth.

Luc Smets and Dirk Stans  
Managing Partners Eurocircuits





Name	Requested	Measured
Order details	PCB proto	
Board definition		
Technology		
Pattern class	6	-
Trackwidth outer layer (OL-TW)	0.150 mm	0.249 mm
Isolation distance outer layer (OL-TT-TP-PP)	0.150 mm	0.123 mm
Top copper	0.150 mm	0.123 mm
Bottom copper	0.150 mm	0.123 mm
Outer annular ring (OAR)	0.125 mm	0.075 mm
Top copper	0.125 mm	0.075 mm
Bottom copper	0.125 mm	0.075 mm
SMD sides	No	
SMD pitch	>=0.5 mm	
Drill class	Drill C	Drill C
Advanced options		
Treatment		
Soldermask TOP (colour)	Green	Detected
Soldermask BOTTOM (colour)	Green	Detected
Legend TOP (colour)	White	Detected
Legend BOTTOM (colour)	No	Detected
Surface finish	Any lead free finish	
Bare board testing	No	
UL marking	No	
Peelable mask	No	
Carbon contacts	No	
ViaFill	No	

All images taken from [www.pcbvisualizer.com](http://www.pcbvisualizer.com)

Name	Requested	Measured
Import		
Imported 10 layers		
Plating		
Top copper density		0.49
Top plating index	> 0.4	0.76
Bottom copper density		0.63
Bottom plating index	> 0.4	0.74
Order details	PCB proto	
Board definition		
PCB name	LSA-CompareDFM	
Layers	2	2
Delivery term	7 Working days	
PCB quantity	2	
PCB size X	100.00 mm	100.00 mm
PCB size Y	160.00 mm	160.00 mm
Technology		
Pattern class	6	5
Drill class	Drill C	Drill A
Advanced options		
Treatment		
Soldermask TOP (colour)	Green	Detected
Soldermask BOTTOM (colour)	Green	Detected
Legend TOP (colour)	White	Detected
Legend BOTTOM (colour)	No	No
Surface finish	Any lead free finish	
Bare board testing	No	
UL marking	No	
Peelable mask	No	
Carbon contacts	No	
ViaFill	No	
Heatsink paste TOP	No	
Heatsink paste BOTTOM	No	
Edge connector surface	0 mm <sup>2</sup>	

### About Eurocircuits

With its headquarters in Mechelen, Belgium, and manufacturing facilities in Germany and Hungary, Eurocircuits N.V. is a European reference for prototypes and small series PCBs. Drawing on over 40 years' expertise in PCB manufacture, Eurocircuits offers its services through a dedicated online portal that makes PCB procurement fast and easy and delivers instant PCB prototype prices. By pooling multiple orders and by making the most of its broad online presence, Eurocircuits keeps its clients' costs down while ensuring that its quality products are delivered fast. This is proving so successful that the company has recently opened a production unit in India to serve the Asian-Pacific market.

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### About Ucamco

Ucamco (formerly Barco ETS) is a market leader in PCB CAM software, photoplotting and direct imaging systems, with a global network of sales and support centers. Headquartered in Ghent, Belgium, Ucamco has over 25 years of ongoing experience in developing and supporting leading-edge photoplotters and front-end tooling solutions for the global PCB industry. Key to this success is the company's uncompromising pursuit of engineering excellence in all its products.

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