



## Crowcon selects Pulsonix ahead of Cadstar, OrCAD, Protel

Crowcon Detection Instruments Ltd is part of the Halma Group, one of the most successful companies to be quoted on the London Stock Exchange. Crowcon was founded in 1970, and over the past 30 years they have built a reputation for providing world-class gas and fire detection solutions. Located at Abingdon, Oxfordshire, UK, with branches in the USA, The Netherlands, Singapore and India, and supported by a network of specialist agents worldwide Crowcon now operates in over 100 countries.

### Previous PCB Development Process

Development of new PCB designs had been previously undertaken by using external sub-contract bureaux. A major redevelopment program was about to get underway to update a range of existing products. The decision was made in Spring 2001 to evaluate and install an appropriate PCB design and layout system to work alongside the mechanical ProEngineer® and Solidworks® CAD products.

### Types of designs at Crowcon

Gas sensing electronics comprises mixed analogue/digital designs normally between 2/4 layers, which are increasingly processor based. This is so multi-gas sensing products that were originally mounted on the operator's waist belt can now be reduced in size and weight so they can be clipped onto the users shirt pocket.

The PCB CAD system had to be fairly easy to learn but at the same time had to deliver superior interactive manual track editing capabilities because the analogue areas within the designs did not lend themselves particularly well to autorouting. A preliminary investigation of the market was undertaken with an evaluation of various possible suppliers including: Protel, OrCAD, Cadstar, and a new system on the market, Pulsonix.

### Protel

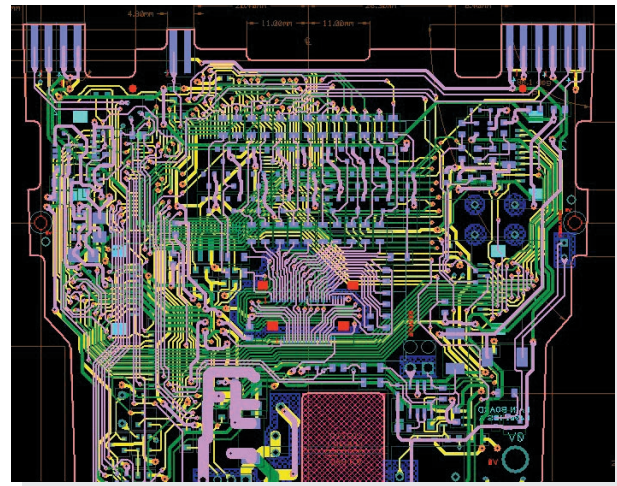
Protel was a consideration as some Protel Schematics licenses were in use at Crowcon, and the PCB layout system could be acquired at an upgrade price. However, it quickly became evident that the manual routing and editing methodologies were not to the required standards.

### OrCAD Layout Plus

This system did not progress very far as the user interface appeared very dated and not to the preferred Windows standard. Also, once again, manual routing methods were not to the level required for Crowcon design projects.

### Cadstar For Windows

The Zuken Cadstar system was found to be a stable and mature product, and overall, the assessment concluded it to be a competent package for Crowcon's needs.



*A two layer, power & ground, PCB designed on Pulsonix for an advanced Crowcon gas detection development*

### Pulsonix

Crowcon were immediately impressed with the fresh appearance of the user interface together with the simple, intuitive method of operation in comparison with the other systems they had looked at. Pulsonix closely adheres to Microsoft Windows standards: the familiar keyboard and mouse operations, and the same menu command positioning with that used in Windows office applications were used as far as possible. This made the learning and evaluation process with Pulsonix so easy and pleasurable. In particular the excellent manual editing facilities matched the Crowcon requirements quite closely.

The evaluation shortlist finally came down to Cadstar for Windows and the newly released Pulsonix product.

Crowcon were pleasantly surprised with the price of the Pulsonix unlimited product with Autorouter as this was approximately one third that of the equivalent Cadstar product. However, Crowcon wanted to be 100% certain that they could rely on support from Pulsonix. So, on a number of occasions during the final evaluation phase Pulsonix support was contacted with questions and 2 minor bugs were reported. They were amazed to find that the bugs were rectified within 24 hours.

The decision was reached to purchase a Pulsonix license in July 2001. The evaluation of Pulsonix had progressed so well that it was not necessary to consider a training programme, and a re-design of an existing compact multi-layer sensor board was started immediately and very quickly completed.

During the period since initial installation Pulsonix has been used on numerous projects including a high profile redesign of existing gas detection products.

### “Pulsonix has paid for itself many times over”

Crowcon Development Manager, Adrian Beasley:

**“When we selected Pulsonix it was new on the market so we were cautious to ensure we would receive good support. In the event the support has been exceptional. Pulsonix has proved to be an excellent choice for Crowcon, enabling us to keep to R&D deadlines. Pulsonix has paid for itself many times over in reduced development times and savings on bureau costs”.**

**Pulsonix** Oak Lane, Bredon, Tewkesbury, Glos, GL20 7LR, UK  
Tel: +44 (0) 1684 773881 Fax: +44 (0)1684 773664  
Email: [sales@pulsonix.com](mailto:sales@pulsonix.com) Web: [www.pulsonix.com](http://www.pulsonix.com)