

# Profile

1972 'TIL NOW—

## *R&D Concepts-Synchro<sup>32</sup> Finds Niche in Investment Casting/Metal Casting*

The computer/software revolution of the last quarter century or so has had an indelible impact on business and industry. One company— R&D Concepts-Synchro<sup>32</sup>— found its niche in the investment casting/metal casting industry back in 1972, and since then the two have been inseparable.

Initially known as Dewtec Systems, over time the company evolved into R&D Concepts – Synchro<sup>32</sup>. During that time, it has been involved in the creation and development of investment and foundry-specific production control ERP/MRP (enterprise resource planning/material requirement planning) software solutions since. Synchro<sup>32</sup> is the company's fourth-generation system.

### **Founded by a University Lecturer**

Computers were still in their infancy when University Lecturer Trevor Law began research related to the investment and metal casting industries. The research began as a result of consulting work he had been doing with a number of foundries, foundry equipment suppliers and research associations.

This coincided with consulting work he was conducting with the US company, Quaker Oats Chemicals Inc. related to building computerized cost models of foundry operations. Law was analyzing the potential cost benefits for foundries of switching to the Furan Sand Binder (the Quaker system) rather than other competing systems such as CO<sub>2</sub>/silicate bonded sands. The bonus to Quaker would be increased sales of their chemical product 'furfuryl alcohol' which was a by-product of their Quaker Oats breakfast product.

Between 1972 and 1977, a number of research projects were run with large investment casters and foundries (F. H. Lloyd & Co. Ltd., West Midlands; Catton Foundries Ltd., Leeds; and Leys Mal-

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leable Foundries, Derby), plus several others in the USA. At this time, two of the research associations had developed their own production control systems which were being investigated by larger investment foundries at an average cost of \$90,000 for the software and \$110 to

120,000 for hardware. Predictably, only the largest manufacturers purchased at such expense. Smaller companies could not conceive of installing such high-end technology at such cost. These exorbitant costs became the deciding factor for Dewtec/Synchro to develop a costing and production-control solution and open up the availability to the wider investment and cast metal industry.

Investment casters have differing requirements to other cast metal manufacturers. For example, investment casters have a unique requirement for movement from individual products (wax patterns) to grouped product (trees) and then back to an individual product (metal part) the requirement for large number of processes. Other examples include product tracking and work-in-progress valuation, the accommodation of multiple group-



THINGS HAVE CHANGED SINCE THE 1970s, not only fashion, but how computers and software can make investment casters more competitive. Shown 1972 when it all began, Directors at R&D Concepts-Synchro<sup>32</sup> have seen the industry changes first hand.

ings of products at differing processes within manufacturing cycle, multiple waxes from multiple wax dies, and multiple waxes per tree. It was necessary to address these requirements if viable production control software were to be of use to investment casters.

Small and medium-sized manufacturers were eager to use the technology, and sales climbed at an increasing rate. Customers began requesting alterations, upgrades and improvement. These were the people actually applying the system to production processes; they were at the leading edge of the system's functionality.

Dewtec/Synchro's initial objectives were to translate the requirements of the industry into workable software, to concentrate on providing good technical support, and to offer it at a price that would not be a barrier to procurement. Affordability would not be an obstacle to the installation and use of the system.

The company has not wavered from these initial values, which management credits as the backbone of not only Synchro's success, but the success of its customer base.

## Innovation Leads to More Sophisticated Systems

The need for software rewrite became apparent early on. Many new ideas from the substantial user base were incorporated including improvement in functionality and technical innovation with rapidly advancing hardware, software, and language development. Great efforts were made to create a more user-friendly and intuitive ways of working.

## No Internet, No E-mail, No Cell Phones...

Remember there was no internet, no e-mail, no cell phones; calling out of state and international was expensive. The company relied exclusively on floppy disks mailed out to customers to upgrade, amend reports and make corrections. This went on for some years until

## R&D Concepts-Synchro32 Managing Director & CEO Chris Collins Comments

*"Honor and a reputation for reliability are hard earned; we have developed a strong reputation for state-of-the-art solutions specific to the investment and cast metal industries, with no involvement in any other manufacturing sector. Now more than ever, we face different challenges to those in the 1970's."*

*"I consider myself very fortunate indeed to be so privileged; working with thousands of users and as many success stories, we are truly honoured to serve our industry. Customer is king; each member of our team breath this silent mantra, it is an essential element in everything we do. It's good to work with such passion for the business and a responsibility toward the cast metal sector."*



eventually technology in communications slowly improved. Today, as is the case for most people in the world, instant communication is available 24/7; business literally never stops.

Many of the production managers and managing directors at casting locations had never touched a keyboard, and hardware was frightening. In retrospect, they were pioneers. But the company persevered supporting these casting manufacturers through installation and training. Support was critical; knowing that technical support was a phone call away gave them confidence, and it paid off.

Synchro has hundreds of small-to-medium-sized investment and casting manufacturers, and many have been with

the company since the 1970s. They are the core of Synchro's business today, and many of them are on their 4<sup>th</sup> system

In the early days, customization was necessary and still remains a significant requirement for new customers; over time, this led to standardization and a real understanding of how customers differ. Links have been developed to external systems, accounting, shop floor data collection devices, EDI, bar coding and other external large MRP/ERP systems such as SAP and SAPIENS.

## Today- New Online Install and Training

In view of keeping costs down for customers, and in recognition of the ever changing environment of the casting sector, Synchro recently started a complete online (remote) installation and training facility for smaller companies; a single user version is also available.

The company has expanded into the Far East and Asia where

specific systems are relatively new. These new markets have differing business cultures, and as a result of a fair amount of research, the company recently launched an online installation and training program. Although this is only available to small user numbers, it was born from valid concerns about the amount of IT knowledge required, cost of international travel for training, and the quality of support expected.

R&D Concepts-Synchro<sup>32</sup> has offices in the United States, United Kingdom, Brazil, Germany, Spain (October opening '09). For further information, contact the USA office at 1-800 323 2808, e-mail [info@synchro32.com](mailto:info@synchro32.com), or visit [www.synchro32.com](http://www.synchro32.com).