

# Using the Power of Simulation to bring Bottom Line Benefits to the Mining, Minerals and Metals Operations

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While today's economic climate for the Mining, Metals and Minerals (MMM) industries may not be at its best; the industry is still faced with the need to deliver products cost effectively, at the correct specification, while maintaining a high level of safety for the plant and the personnel. For many years the MMM industry has lagged behind the Hydrocarbon Processing Industry (HPI) with regard the use of Simulation, however as the level of investment has grown over the years the need to ensure cost effective design, allied to improvements in delivery time the use of Simulation has become an integral part of the design, construction and commissioning of new plants across the globe. One area Simulation applications are proving themselves is in the area of Operational Safety. The HPI has long used Simulation based Operator Training Simulators to ensure safe operations and this is being carried over with increasing uptake happening in the MMM industry. In the future as the MMM industry becomes increasingly sophisticated at the same time facing the difficulties of shrinking bottom lines it is clear that Simulation will become fundamental in delivering the tools and solutions that will enable the industry to ensure growth in its bottom line in years to come. Schneider-Electric has had a long history in the MMM industry and this paper will highlight how the acquisition of Invensys has brought a completely new perspective to the industry and, most importantly, allows MMM companies to grow their Bottom Line.

## Biography

I graduated with a BSc in Chemical Engineering from the University of Strathclyde in Glasgow in 1984 and immigrated to South Africa three days later. After an introduction to South Africa working as a Metallurgist on Westonaria Gold mine I moved to SASOL in Rosebank as a Process Engineer and after an enjoyable few years before a two year period working for L'Air Liquide followed before I joined INHER SA as Divisional Head – Process Engineering in 1991 where I managed the SULZER Chemtech Agency in the region delivering process plant in multiple industries. Following 10 years there I returned to the UK at the turn of the century along with my growing brood of South African offspring! I took up a position as Process Sales Director for BHR – a well established UK research group before joining the SimSci Division of INVENSYS, now Schneider-Electric as a Senior Account Manager. After fourteen years in with SimSci I am now the Director of Technical Sales assisting clients on a techno/commercial basis to find the right product and solution to meet their ever changing needs. Today the SimSci regional team is now a group over 80 strong covering all aspects of Simulation and how it relates to both the engineering and operations community of industries as varied as Oil Production all the way through gold and coal mining and into the power industry. The team directly serve the EURA (Europe, Russia and Africa) activities of SimSci.

Over the years I have written numerous Technical Articles and presented at World Petroleum Congress, ERTC, SAICHE, AICHE, IChemE & DECHEMA events as well as numerous industrial symposiums. I also am a joint holder of a patent relating to the application of Structured Packing in Wax Separation.

My spare time is devoted to Rugby – though no longer playing. As head of the Mini and Junior Section of my local rugby club I have responsibility for almost three hundred children, from ages 5 – 17, every Sunday morning; making sure they are in the right place doing the right thing and playing the right teams.