



## Case Study

# Setting standards for structural design automation and delivery

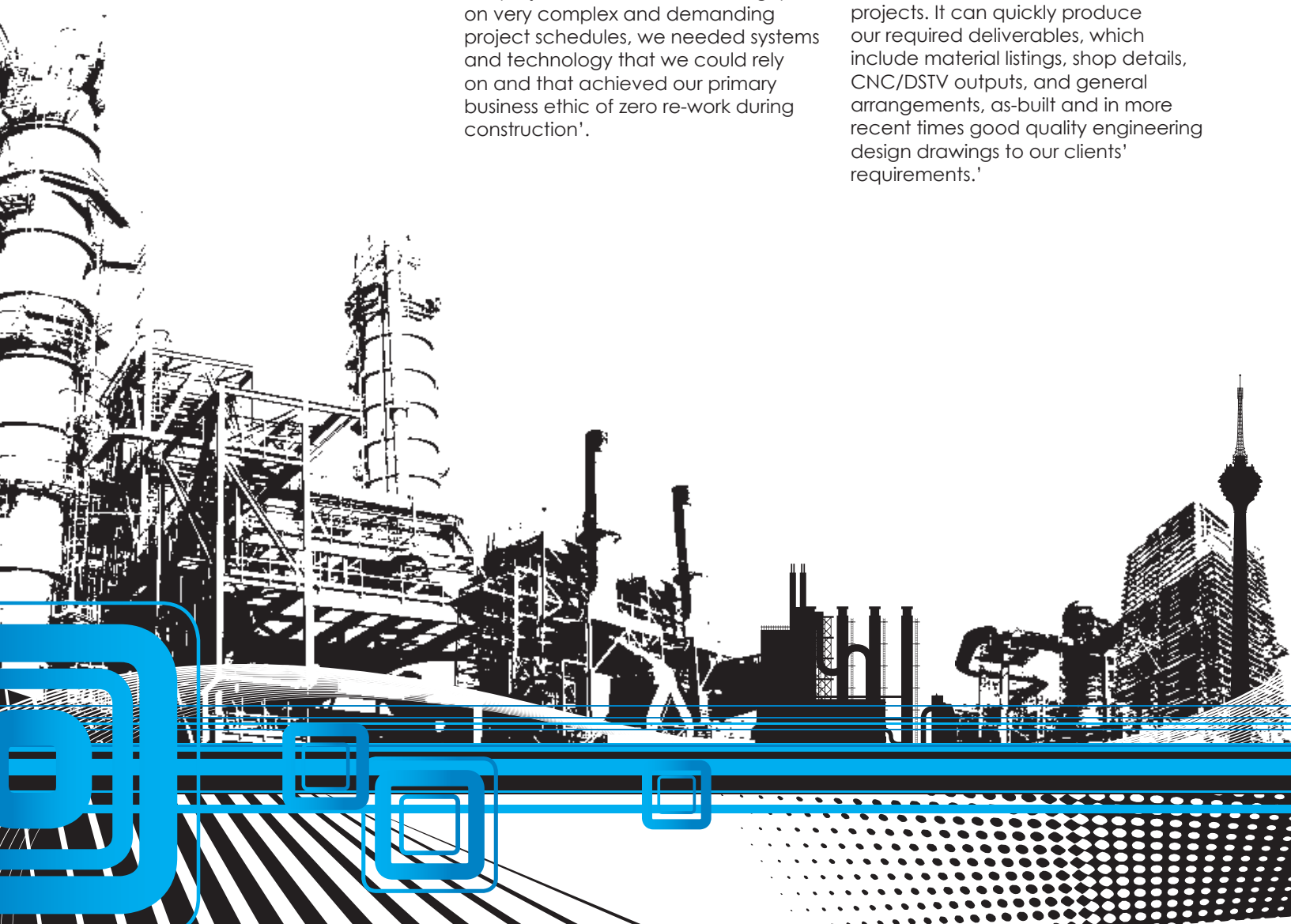
- PDC Consultants  
Perth, Western Australia

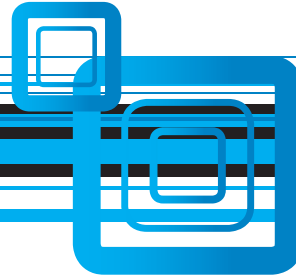
**PDC Consultants, operating out of Perth -Western Australia, is one of the largest structural design and detailing companies servicing the mining, oil and gas, processing, and industrial sectors. PDC have gained a reputation for delivering a professional service with high quality, on schedule and within budget deliverables for large steelwork projects, to some of the world's largest engineering and operating companies, including Alcoa, BHP Billiton, Hitachi, Rio Tinto, Suncor Energy and Woodside Energy.**

John Lyons, Operations Director, reflecting on PDC's growth from its small beginnings, said 'PDC Consultants was formed in 1972, with 3 employees. Today, we employ a professional team of over 100 staff, able to deliver in excess of 30,000 man hours to regional and international projects, which equates to 2,000 to 5,000 tonnes of steelwork per month, depending on the project. To enable this throughput on very complex and demanding project schedules, we needed systems and technology that we could rely on and that achieved our primary business ethic of zero re-work during construction'.

In 1994, PDC investigated the market to find a technology that could transform established structural engineering skills and work processes from a traditional drawing board environment, into an environment, which would enable the business to secure and deliver larger and international projects. The criteria for investment was readily established to select from – design and drawing automation, repeatability, improved productivity and reduced checking, and interfaces with plant design and structural analysis systems. StruCad, from AceCad Software was finally selected and, after an initial training in PDC Perth offices, deployed - 2 licenses onto its first live project within – 4 weeks of purchase.

John Lyons, added 'In the end, our selection was made simple. StruCad ticked all the boxes. We very quickly identified that StruCad lead to more efficient work processes encompassing 3D modelling. StruCad has proven to be an efficient fabrication shop detailing package for structural projects. It can quickly produce our required deliverables, which include material listings, shop details, CNC/DSTV outputs, and general arrangements, as-built and in more recent times good quality engineering design drawings to our clients' requirements.'





Since 1994, StruCad has continued to prove it's worth to PDC through its use on large structural projects, with an execution scope ranging from full shop detailing scope including material take off, shop detail, materials listing, general arrangements, electronic data/files delivery.

**Signature projects where StruCad was the dominant system used include:**

**Millennium project, Suncor Energy (Alberta, Canada). Overall tonnage – 11500. StruCad tonnage – 11500.**

**Genesee Power Generation (Alberta, Canada). Designed by Hitachi Japan. Overall tonnage 5000. StruCad delivered all 5000 tonnes of fabrication ready deliverables.**

**Cloudbreak (Pilbara, Western Australia). Owner FMG. Overall tonnage 10,000. StruCad tonnage in excess of 5000 tonnes.**

John further outlined, that in today's market, there is no time for complacency, by saying, 'At PDC, we pride ourselves on our expertise and the systems we have in place, to optimise the design modelling process, to enable significant man-hour reduction in full detailing, de-risked fabrication and effective construction management. With more demand for reduced schedules, we need to tightly control our project deliverables, sometimes across international boundaries. In conjunction with the PDC 3D Modelling Process, StruCad Model Manager and StruWalker design review capability, we can operate seamlessly with our clients, enabling controlled issue of deliverables and collaborative project reviews.'

Summarising PDC use of StruCad, John Lyons said 'StruCad remains at the core of our 3D Modelling Process capability. Though we use other systems, our users gain most productivity from StruCad on industrial plant projects. Continued improvements in automation and extended collaboration with our clients and the structural supply chain set PDC apart, so we look forward to AceCad delivering us capability that will enable us to grow our business further.'

AceCad Software would like to thank Mr John Lyons, Operations Director and Mr Tim Fox, StruCad Project Administrator, for their cooperation in putting this case study together. For further information on PDC consultants visit [www.pdcwa.com.au](http://www.pdcwa.com.au).

**About AceCad Software:**

AceCad is a leading supplier of software solutions to the international structural steel industry since 1986. With core business areas in the Building and Construction, and Process and Power industries, AceCad products have consistently transformed its customers' business in the steelwork fabrication supply chain. AceCad also has a dedicated hardware business that provides its customers with the very best price performance available on the market today.

AceCad has over 2000 customers in over 80 countries across five continents, with international operations supporting a global network of sales, support and services.

StruCad outlined in this article forms part of the leading StruPlant suite of solutions for EPCs and Fabricators, who operate in the process and power industries. StruPlant solutions are developed and marketed through AceCad Software Ltd.



[www.acecadsoftware.com](http://www.acecadsoftware.com)

