

CurrentAffairs

News and views from Ergo Consulting Ltd

Issue 14 – Winter 2013

Values

Everybody at Ergo has had a hand in defining what we value. The following values are our agreed guiding principles:

- Being professional and ethical
- Taking responsibility and ownership
- Enjoying what we do
- Continuous learning and growth
- Work/life balance



In my opinion the last is the hardest to achieve. Engineers are passionate about delivering a quality result on time. An understandable tendency to work long hours can lead a person to burn out or miss out on life's important stuff. If I am overworked I am continually tired and grumpy, and then stupid little things upset me. Personally I need a 'kick in the pants' every so often to remember what is really important. I write this article as a prompt to myself and for others who need a similar reminder.

It's all about having compassion for yourself. Doing this can be as easy as -

- a) Making a habit of doing what you enjoy - schedule it in your diary or put other structures in place to ensure it happens.
- b) Making friends and family a priority.
- c) Reviewing and celebrating your achievements daily.
- d) Acknowledging your body - exercise, stretch, breathe, and get some sunshine.
- e) Negotiating more realistic deadlines up-front or saying "no".

We need to be clear that work is a large part of life, but not the point of life. Being intentional about life will keep the work/life balance right.

Nigel Stevenson
Director - Control Systems

Software

Ergo uses a number of software packages to enhance its designs. Some are free, while others have annual subscriptions. Each package adds value and provides a level of quality assurance to ensure designs meet New Zealand and International standards.

Packages include PowerCad, Dialux, PowerPack, Interactive Architecture Builder (IAB), Curve Direct, TemCurve, Spec Sizer, ETAP and Digsilent.

PowerCad was purchased in 2010 to ensure Ergo's designs comply with AS/NZS 3000. The software confirms cable selection, discrimination, volt drop and earth fault loop impedance.

Both ETAP and Digsilent are power system modelling software packages. Ergo use them for network and earthing studies - also for protection co-ordination and cable sizing.

Professional Development

Ergo takes the professional development of staff seriously. It is proud to be an IPENZ Professional Development Partner, one of only 40 in New Zealand.

Supporting careers

Feedback, mentoring, and in-house training are key components of the company's career development programme. Ergo also encourages attendance at seminars and conferences, and pays membership fees to associations such as IPENZ.

Chartered Professional Engineers

Congratulations to **Scott Wilson**, who recently attained CPEng status through IPENZ. The CPEng registration process is rigorous one, with applicants needing to demonstrate a commitment to quality engineering backed by a substantial work history and extensive industry knowledge. Scott joins Nigel Stevenson as Ergo's chartered engineers.

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Anniversary

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Model Network

Ergo undertook a large network modelling study for Refining NZ to identify potential risks within the system. Meticulous data collection and verification were vital to the success of the six month project.

In May 2012 Ergo was asked to review and update Marsden Point oil refinery's HV network model. The existing model contained information about most HV assets but did not model protection relays.

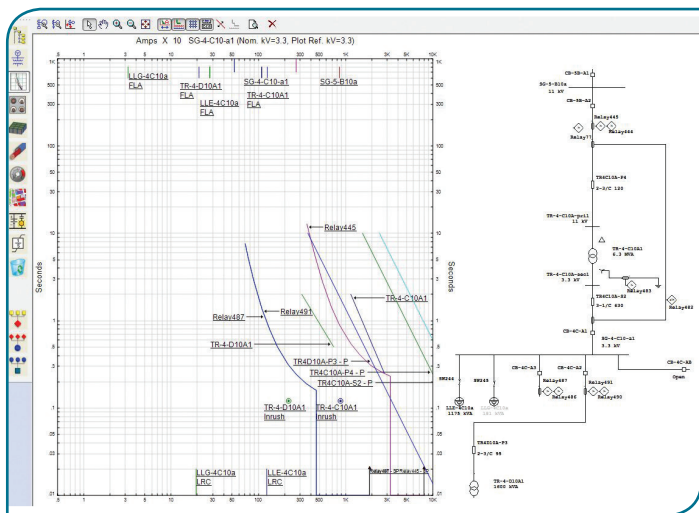


No small task

The initial phase was simply to gather information. Given the number of assets involved (eighteen substations containing 250 odd HV and MV circuit breakers) this was no small task. A team from Ergo (Tom Buzink, Maria Kobe and Chris Turney) visited site and took over two and a half thousand pictures. They photographed electromechanical relays to confirm settings, and primary plant nameplate data to confirm ratings.

Model Data Verification

"We had to label and catalogue the photos on the same day they were taken," says project leader Tom Buzink. "They were long days." Occasional discrepancies were discovered through the process of data verification. Ergo updated the existing network model and notified the refinery of amendments to their asset register.



Protection Settings

Then began the task of examining each photo in detail to obtain protection settings. After inputting these parameters into Ergo's ETAP software, the team finally had enough information to model short circuits, load flows and protection trips.

Summary Report

Findings were summarised in a report to Refining NZ providing the company with a clearer understanding of its existing network and a foundation for future investment decisions. "It's a great network," comments Tom. "When it was built they spent money on it, so it has complete 'n-1' redundancy. Everything is duplicated." Ergo also produced Relay & Instrumentation drawings of the refinery's protection system.

In Brief

- Over summer **Amrita Sharma** (Power Systems) and husband **Nilesh** became parents, **Kylie Todd** (Support Services) and husband **Wayne** had their second child, and **Richie Murray** (Control Systems) got married.
- March saw **Scott Wilson** (Control Systems) registered as a Chartered Professional Engineer, and **Sarah Montford** (Support Services) join the company.
- In June directors **Nigel Stevenson** and **Chris Turney** attended an ICEHOUSE Achieving Business Growth Workshop – Ergo's prize for being BNZ Newmarket Business of the Year. **Azam Khan** (Power Systems) presented a paper at the EEA conference.

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