The Whittle Story
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David Whittle's Speech at AO Dinner – The Development of Whittle Programming

By David Whittle, April 20, 2018

I've been asked to talk about the development and expansion of Whittle Programming from about 1991 to 2001.

Several of us who were part of Whittle Programming between 1991 and 2001 are here tonight. Jeff and Ruth of course, Philippa Manz, Geoff Hall and Norm Hanson, and me. Here is a quick snapshot of what changed between those years:

- By 1991 the company had "Three-D" and a relatively new "Four-D". They were software programs for pit optimisation, run at the command prompt of a PC or UNIX workstation. It was very clever technical software.

- We ended in 2001 with a sophisticated human-computer interface called Proteus Environment, through which a wide range of our new and old functions could be accessed. The purpose: Strategic Mine Planning. The new functions included cut-off optimisation, a mining width algorithm and schedule optimisation.

- Milawa was Jeff's very original schedule optimisation algorithm. I am not sure how much Milawa is in use now, it is certainly eclipsed by Jeff's later work with Prober, but at the time, Milawa was amazingly effective and a thing of beauty in terms of its mathematical structure and simplicity. I appreciated it at the time, and even more so now that I hang out with mathematicians.

- We started in 1991 with a few dozen customers and by 2001, we had hundreds of long-standing customers.

Much of the software developed in the 1990s is still in use today. For example, the Proteus Environment. It's about 20 years old, has hardly changed since its first release, and is still perhaps the best user interface for strategic mine planning available. The original pit optimisation algorithm written by Jeff in the 1980 is still in use.

It was an honour and joy to be on that journey through the 1990s with Jeff, Ruth, Philippa, Geoff Hall, Norm and others. How did it all happen? How does Jeff's Order of Australia award relate to that time?

Many people who have congratulated Jeff on his award have been met with the response: "Thank you, but I didn't do it on my own."

Let's examine that response in the context of Jeff's leadership roles. I'm going to talk in the past tense here, because I'm talking about a particular period, but most of the things I'll say about Jeff are as applicable today.

Jeff's Leadership by Example:

- Jeff was very disciplined in the general practice of software development.
- He put a huge focus on getting things right, especially excellence in architecture.
- He relentlessly pursued ambiguities and faults in the software.
- He made sure that the testing of the software was rigorous and ongoing, automating much of it.
- He implemented a detailed, repeatable software release process that minimised the chance of errors in final delivery. By contrast, and as an indication of industry standards at the time. I discovered to my horror that other mining software suppliers didn't so much release software, as accidentally allow it to escape.

Jeff's Leadership through Values:

- An example: He insisted on a form of "Radical honesty" with our clients.
- We always published a comprehensive list of bugs and if we found a bug that could affect results – we would always notify our clients immediately. Such a notification was rare, because of the aforementioned focus on software quality, but it did happen. When it happened, we would spend days at the fax machine sending out bug alerts.

- What did our customers think about this? I asked them. They were grateful. All software has bugs, ours fewer than most. Our honesty gave them greater confidence in the software.

Jeff's Team Leadership:

He came up with many great ideas himself, but he was also quick to embrace and give credit for good ideas proposed by others. We all felt valued for our contributions to the broad development of ideas. It was very motivating.

Jeff's Inspirational Leadership:

He had an apparent ceaseless fascination with whatever task he had undertaken. For example, investigating some unexpected behaviour of the software. Jeff would keep you informed as to the progress of his investigation, and then share his delight when he solved the puzzle. He inspired others to attack their investigations with the same curiosity and vigour.

Jeff's Visionary Leadership:

For example, when we began to run biennial conferences, he decided to model them as much as possible on academic conferences rather than to do the usual thing of running software user group meetings. He figured that our clients would value the intellectual honesty inherent in such an approach, and he was right. In later conferences we even had competitors presenting papers. It did not diminish our standing with our customers, it enhanced it.

In summary, what was Jeff's leadership all about in the 1990s?

- He motivated people to develop software with the same discipline and energy that he himself applied.
- He convinced people of the value of intellectual honesty and honesty with clients.
- He inspired people to join the pursuit, as employees, agents, consultants or trainers and gave many others the confidence to buy and use the product.

How much of this would have happened without Jeff?

None of it.

Could Jeff have done it on his own?

Just about – he is a very talented person.

However, the fact that he didn't do it alone doesn't diminish the achievement, instead it transforms it into something much more important, more valuable and more enduring. So, in my mind, Jeff earned his Order of Australia award, because of what he did, and also because of what he inspired others to do.

To read David's bio please scroll to the next page..

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David Whittle

David is the Principal and Consultant at Whittle-DG Pty Ltd.

He is currently a post-graduate research student at the University of Melbourne.

2006 - 2014 Strategic Planning Functional Leadership

After returning to Australia in 2006, David joined BHP Billiton in Melbourne.

There he developed the global processes for long term asset planning and provided training and facilitation to all assets in BHP Billiton. He also convened international Strategic Mine Planning conferences, and developed and delivered courses in Australia, USA, Canada, Brazil, Chile and South Africa.

He wrote the chapter "Open Pit Planning and Design" for the Society of Mining, Metallurgy & Exploration (SME) Mine Engineering Handbook.

1991-2006 Strategic Mine Planning Software

David is the fourth son of Jeff and Ruth Whittle. He joined the family business as Business Manager in 1991 and became Managing Director in 1998. He was highly instrumental in developing the company and the direction of the software towards Strategic Mine Planning.

Following the listing on the Australian Stock Exchange, David became a Director of the newly formed Whittle Technology Ltd (2000). After the sale of the Whittle software to Gemcom Software International (2001), David moved to Canada where he spent five years as the Whittle Product Manager and Vice President Marketing.

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