

# David Dudson

## Software Developer

[davidohndudson@gmail.com](mailto:davidohndudson@gmail.com)  
+64 27 869 0606

Available to work remotely or in Cairns, Australia from 19th Feb 2018

## About Me

I am a cross-paradigm, performance driven, Scala/Java Software Developer who specializes in meta-programming. With a passion for learning new languages and paradigms I can adapt to any team. I am currently working on a language backend for Process Systems Enterprise, London, remotely from Palmerston North, New Zealand, as well as working in the scalameta ecosystem in my own time for open source.

## Open Source

I have a passion for writing code, especially when it is consumed by a large number of users. I'm always looking for more ways to help out the open source community.

 [scalagen](#)

### Author

WIP code generation library for Scala.

 [scalameta](#)

### Maintainer

Meta-programming library for Scala

## Employment

**Company:** Electric Memory IT (EMIT)  
**Contracted To:** Process Systems Enterprise (PSE)  
**Time Employed:** June 2015 - Present

Based in Palmerston North, New Zealand, Contracting out to Process Systems Enterprise, which is based in London.

I am working on the gPROMS family of integrated modelling environments (IME's), designed for various engineers who design incredibly complex systems. The kernel is written in C++ and Fortran, with the UI written in Java. gPROMS is primarily a procedural/declarative language that is used to run simulations/optimizations etc. Thus the IME's act much like an IDE would for a Software Developer. With large global clients such as Eli Lilly Pharmaceuticals and Shell Petroleum I take the quality of code I produce very seriously.

## Projects

### New Language Engine (NLE)

The purpose of this project was primarily to remove a large chunk of the remaining CORBA code in our codebase. Using Antlr4 as our parser and lexer, with Scala as the language of choice, we managed to build an fast, immutable, threadsafe and storage efficient language module.

### Moving from Maven to Gradle

Our build system is rather complex, we have multiple "code generation (obfuscation and encryption) and multiple repositories. The build was desig

## Past Employment

### Dick Smith Electronics

**Role:** Salesman  
**Time Employed:** 2014 - 2015

### Countdown Supermarkets

**Role:** Butchers Assistant/Checkout  
**Time Employed:** 2009 - 2013

## Technical

### Operating System

I prefer Unix based systems for general development, usually one of NixOS, Ubuntu, Fedora or OSX.

### Version Control

I exclusively use git for version control. I am very competent with git and have written a number of internal scripts for it.

### IDE's and Editors

#### IntelliJ IDEA

I use IntelliJ every day for most development. For Java specifically, I struggle to see a reason to use anything else.

#### Webstorm

Go to for Web development, although I do not feel an IDE is anywhere near as useful for web dev as it is for Java dev, I occasionally use a text editor instead.

#### Atom

My usual text editor, I use it quite a bit for web development as well.

#### Gedit

I use Gedit for Git related work. Atom starts too slow and I have not yet spent enough time with Vim to use that.

### Profilers

## Yourkit

I would recommend Yourkit to anyone, Yourkit makes optimizing code a breeze.

## VisualVM

I stopped using VisualVM after we purchased Yourkit. Yourkit really is far superior here.

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## Conferences

Attending as many conferences as possible I enjoy networking and learning how the industry is evolving. I have been to multiple conferences including Kiwi Pycon, Kiwicon X and NZJSCon. One of my highlights was presenting a lightning talk on GitPython at Kiwi Pycon, Dunedin. I will be attending Linux Conference Australia in Sydney at the end of January 2018.

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## Community

I attend as many talks and events as possible, via Massey University, IT Professionals of New Zealand (ITPNZ) or the Palmerston North Software Development Meetup Group. Once I have arrived in Cairns I will be joining IT Professionals Australia. I have also given a talk and workshop for Scala to around 30 people at the meetup group.

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## Education

### Massey University

**Qualification:** Bachelor of Information Science. Computer Science Major

**Status:** Compulsories complete in 2015

Started working fulltime before completion currently finishing electives via part-time study.

### New Plymouth Boys' High School (NPBHS)

**Qualification:** NCEA level 3

**Status:** Complete in 2011

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## References

Personal phone numbers of references available on request.

### Duane Griffin

**Relationship:** Cofounder of Electric Memory IT  
**Location:** Palmerston North, New Zealand  
**Timezone:** New Zealand Standard Time (NZST - UTC+13)  
**Email:** duaneg@psenterprise.com  
**Phone:** ???

Duane is my current boss. He has worked for PSE for 14+ years. Currently heads on the NLE project. Ask Duane any technical questions about my Scala knowledge and/or involvement in NLE.

### Luke Usherwood

**Relationship:** Cofounder of Electric Memory IT  
**Location:** Hungary  
**Timezone:** Central European Time (CET - UTC+1)  
**Email:** lukeu@psenterprise.com  
**Phone:** ???

Luke worked for a short time in New Zealand when I first started. He has s flowsheeting work I have done. He also has worked on NLE and I send a l

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