DOMINIC TOWNSEND

PRAGILIST | COACH & LEADER
PRAGMATIC AGILE ADOPTER

CURRICULUM VITAE

THIS IS ME

OBJECTIVE

"My objective is to use my technical skills and leadership experience to help companies in the hi-tech industry fix, change, or improve their engineering development. I like to be challenged and continuously learning. I specialise in building, leading and motivating high performing technical teams through my personal management style and ability to identify and develop talent. Using a combination of Agile Coaching, Lean Startup methodologies, Design Thinking and a Continuous Improvement mindset, I can get teams and customers to come together on their journey to achieving value."

MY ATTRIBUTES

KEY ATTRIBUTES

LEADERSHIP

Professional management style and engaging leadership attributes. Excellent interpersonal communication skills with high emotional intelligence.

STRATEGIC MANAGEMENT

Including strategic planning, SWOT analysis, risk management, environmental scanning and project management. Impeccable document and diagram design skills. Capable interim CIO/CTO roles.

CONTINUOUS IMPROVEMENT

CI mindset and tools. Experimental change, retrospectives, lean principles, journey mapping, lean coffee, kaizen events, gemba walk, TIMWOODS, 5S's. Using tools for problem type identification, fishbone, 5 whys, etc.

PROJECT MANAGEMENT

Exceptional organisational and planning skills, working within Stage-Gate, Waterfall, and Lean | Agile | Kanban environments. Deep understanding of PRINCEII framework.

AGILE COACHING | DEVELOPMENT

Excellent understanding of Agile Development, including successfully introducing and refining Agile based development processes in several roles in a variety of industries.

BUSINESS ANALYSIS | PRODUCT OWNERSHIP

Extensive experience analysing and documenting epics & user stories to meet the business requirements for various functions and applications. Assisting with product planning, product backlog formulation and grooming.

LEAN START-UP AND CHANGE

From Design Thinking through to Lean Change, experience of coaching teams from IT, software, firmware, hardware and integrated systems. Understanding People-Organisation-Culture.

SOFTWARE | FIRMWARE | HARDWARE SKILLS

Extensive computer programming experience using C and assembly languages, PHP, HTML, CSS, MySQL, Powershell and Python scripting language.

MORE ABOUT ME

QUALIFICATIONS

MENG

Master of Electronic Engineering, University of Hull, 2000

BENG (Hons)

Bachelor of Electronic Engineering, University of Hull, 1994

DIPENG

Postgraduate Diploma in Environmental and Ecological Electronic Engineering, University of Hull, 1994

INTERESTS

Psychology, painting, reading, playing the guitar, playing soccer, designing logos/websites, table-tennis, golf, tramping, running, cycling, card tricks and gadgets. Built home automation projects for RFID Cat-flap, remote controlled Home Alarm, Remote Garage Door operation, Beer Fermenter controller, PID controlled Coffee Roaster, Large Screen Cricket Score Board, all using ARDUINO and RASPBERRY PI and peripherals.

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MY HISTORY

WORK HISTORY - SUMMARY

Position	Company	Department/Subsidiary	Held
Principal Continual Service Improvement Manager	Computer Concepts Ltd	Continual Service Improvement	Nov 2018 - current
Consultant | Owner	Mnemonics Ltd	Agile | Lean | PjM | BDM	Continuous
Director of Engineering	ARANZ Medical Ltd	Engineering Department	May 2017 - Mar 2018
Controls Team Leader	Cavotec	Cavotec MoorMaster™	Sep 2014 - Apr 2017
Senior Manager – Radio Firmware	Samsung	Samsung Cambridge Solutions Centre	Jun 2011 - Apr 2014
Principal Engineer	WhisperTech Ltd	Electronics and Software Department	Jan 2009 - Apr 2011
Software Department Manager	Allied Telesis Labs	Software Department	Mar 2006 - Dec 2008
Software Team Manager | Engineer			Jul 2001 - Feb 2006
Research & Development Engineer	Lincoln Ventures Ltd	Lincoln Technology Group	Feb 1996 - Apr 2001

MY KEY SKILLS

SKILLS DETAILS

- Professional management style and engaging leadership attributes
- Excellent interpersonal communication skills with high emotional intelligence
- Exceptional organisational and planning skills, including strategic planning, SWOT analysis, risk management, environmental scanning and project management
- Excellent understanding of Agile Project Management, including successfully introducing or refining Agile based development processes in several roles in a variety of industries
- Excellent team creation, building and development skills
- Exceptional ability to identify, develop and motivate talented people
- Extensive experience across a wide variety of industries from embedded development and silicon to WebAPI and high-power industrial control
- Extensive experience in designing, documenting and introducing quality firmware development and test procedures and methodologies, including Agile software development, test driven development, code branching strategies and defect management
- Extensive computer programming experience using C and assembly languages, PHP, HTML, CSS, MySQL, PowerShell, and Python scripting language, also some experience with PERL, and VBScript
- Experience with embedded systems design and development
- Impeccable document and diagram design skills
- Experience with prototype fabrication for various projects, including soldering, PCB fabrication, plastic and metal casing construction
- Instrumentation design and construction for a range of environments

CONSULTING SERVICES

Expertise in Software, Firmware, Hardware, design review. Experience across Software, SAAS, Control Automation, Embedded Electronics, Embedded for Silicon, Wireless and IoT, Networking, Medical Imaging, Prototyping, Research and Development, Environmental applications, Website design and applications, databases, scripting, logo designs…. and many more

LEAN CHANGE

From Design Thinking through to Lean Change, can help teams and company build the right processes to ensure minimum viable products are released efficiently and meeting your clients expectations. Can cover from Firmware, through Software to Hardware as well as integrated systems. Use and scale of Kanban, Kaizen and Lean Canvas creation.

BUSINESS DEVELOPMENT

Business Development Management Services for technology companies. Able to use our industry knowledge, technical know-how and New Zealand contacts to help grow clients through educating them about the company's expertise and capabilities

PROJECT MANAGEMENT

Specialising in Technical Project Management, can assist with all aspects of getting things done. From initiation through planning, executing and reviewing, all whilst maintaining control and visibility to all stakeholders. Able to work within Stage-Gate, SCRUM, KANBAN, Lean start-up, PMP and PRINCE II etc.

AGILE DEVELOPMENT | COACHING

Having extensive experience of implementing Agile Software Development methodologies into software and hardware companies, can ensure that teams develop the right process, understanding and mindset to ensure teams are motivated and driven to build fit-for-purpose products. Coaching of team, scrum master, product owner and C-suite

INTERIM LEADERSHIP

Interim CIO, CTO or any Technical Team needing a steady hand to see company though times of change, extended periods whilst recruiting, or just to have Senior Leadership as a part-time role

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WORK HISTORY - DETAIL

Computer Concepts Ltd – New Zealand

Principal Continual Service Improvement Manager (Nov 2018 – ongoing)

Computer Concepts Limited has forged an enviable reputation for providing innovative, engineering-powered ICT solutions. Founded in 1990 CCL delivers services to a variety of clients, from some of New Zealand's largest and most complex organizations, to smaller innovative local businesses. CCL is flexible, fast and experienced. We pride ourselves on building quality services, designed and deployed by some of New Zealand's most passionate and experienced engineers.

The Principal Continual Service Improvement (CSI) manager was responsible for leading a functional team within the Strategy Team. This was a brand new business function, and I was responsible for both establishing and managing CSI across CCL creating a network of CSI subject matter and knowledge leads. I had to develop the processes and governance required to operate a CSI portfolio creating the compelling cases for investment that support both opportunities to address existing problems, business risk and exploit value and best practice. I also operated and developed Problem Management creating an integrated operating model between the CSI, Problem and Service teams.

Key Points:

- Building relationships across the business.
- Responsible for mentoring and training areas with Lean Startup methodologies.
- Instigated Agile methodologies and tools within CSI team and migrating across to other teams as was applicable.
- Project and Programme Management for all aspects of CSI. Created a comprehensive but simple framework to provide visibility and task flow management.
- Responsible for building, coaching, mentoring and growing team members.
- Financial and budget responsibility for CSI Department.
- Involved in strategic management and alignment of CSI functions to the wider business goals.
- Implementing a lean start-up bedded infrastructure, framework and toolset for the management and communication of the CSI function across the business

Aranz Medical – New Zealand

Director of Engineering *(May 2017 – Mar 2018)*

ARANZ Medical is a technology company that makes imaging and 3D measurement solutions for wound care and fitting orthotics/prosthetics. Silhouette is an electronic wound assessment solution that includes both the point of care wound imaging and 3D measurement device, as well as the software that enables data capture, storage and analysis. Silhouette is a proven solution in both clinical trial and clinical practice environments, and it is rapidly expanding its market presence around the world.

The Software Team is made up of "full-stack" web developers using .NET (C#, ASP.NET), web building services (REST, JSON, WebAPI), modern HTML5 development (Aurelia, SignalR, Angular) and SQL server. The Hardware/Firmware and Research Engineers are a mix of highly skilled multi-disciplined engineers.

The Director of Engineering is responsible for delivery from software, hardware/firmware, research, and testing services. Demonstrating stewardship of the assets and resources of the organization. Working effectively in collaboration with other members of the department, and with managers and staff across the organization. Complying with all legal requirements, all corporate policies and procedures, and with generally accepted business and ethical practices and ensuring work complies with AML development methodology and quality system.

Key Points

- Member of the Senior Leadership Team.
- Leadership of multi-disciplinary team that includes electronics, hardware, firmware, software "full stack" engineers as well as production and assembly technicians.
- Project Management of Engineering Products from concept to market.
- Development of annual strategic and operational plans.
- Involved in Senior Leadership Team strategic planning and implementation.
- Responsible for Hardware, Software, Firmware, Research and Production.
- Budget and Financial responsibility for Engineering Department.
- Monitor and improve the Production Team's output and ability to meet forecast sales.
- Process improvement through Engineering.
- Ensuring all product development meets quality and regulatory requirements for medical devices.
- Develop the delivery programme plan to meet Marketing and Sales needs.
- Supporting the development of products, technology and business strategies.
- Actively supporting the use and development of companywide cross-functional teams.

This was a newly created role that resulted from identifying that the Company's Engineering function was broken. This job provided me with the challenge I was after. The Engineering Team had not been able to release new products to market for over a year, and some substantial changes were required to enable the team to perform. This role was highly contested, and my fit as a 'fixer' rather than a 'caretaker' along with my varied background across technologies was a good fit.

The Engineering Team consisted of 15 direct and indirect reports, made from a mix of Hardware, Firmware, Software, and Research Engineers. This also required mentorship of Engineers and a Manager.

After an internal restructure, the small in-house Production Team moved into the Engineering Department, meaning that I was also acting Production Manager with three Electronics Technicians. They were responsible for the stock, repairs of product, and production of the SilhouetteStar cameras. Additionally, Two Senior Research Engineers moved from the Advanced Development team into the Engineering Team to help bolster getting Products to market faster.

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WORK HISTORY - DETAIL

Virscient – New Zealand

Business Development Manager (6 months – short term during 2018)

Virscient works for the world's leading semiconductor and product companies, because of their deep expertise in wireless and Internet of Things technologies. Every day developing secure embedded software for connected systems, designing hardware from silicon to PCB/product-level, and supporting all other aspects of the connectivity journey from technology selection through to product RF and interoperability certification.

Their expertise spans a wide range of technologies including Bluetooth, Wi-Fi, LoRa, Sigfox, IEEE 802.15.4, cellular, GNSS, and many more, and they work across all system layers from physical to application.

Cavotec MoorMaster – New Zealand

Controls Team Leader *(September 2014 – April 2017)*

Cavotec is the home of MoorMaster™, an innovative vacuum-based mooring system. The company also supplies Alternative Maritime Power (AMP) systems, and a comprehensive range of staple port equipment, including motorised cable reels, marine propulsion slip ring columns, electrical power connectors, power chains, and crane controllers.

From automated mooring to ship propulsion, Cavotec's innovative Ports & Maritime systems serve the global ports industry, ensuring efficient and sustainable operations.

The Controls Team Leader provided management and mentoring of 8 -12 controls engineers, ensuring best practice design, project effectiveness and teamwork. This role was also a key part of the Engineering Team and wider company, contributing to engineering and project management that enabled the company to achieve its operational and strategic objectives.

Key Points

- Contribute to the resourcing of critical projects.
- Motivate, coach and mentor team members, giving direction and guidance to foster Personal / Professional Development and Team / Business goals.
- Address and manage any performance issues or conflict scenarios.
- Observe Cavotec MoorMasters™ internal design & documentation process standards.
- Develop robust functional descriptions and product/software documentation.
- Oversea PLC Programming, Network, HMI design and execution, electrical specification and systems design execution
- Conception and development of software and electrical systems to support new products and improvements to existing products.
- Complete documentation required for Factory Acceptance Testing (FAT), Site Acceptance Testing (SAT).
- Foreign travel to attend FAT, site commissioning and SAT (mostly offshore).
- Customer liaison, providing warranty, monitoring and support for issues arising throughout the products lifecycle.
- Increase the quality, efficiency and productivity of the controls team.
- Prepare, review and maintain CMM product documentation.
- Research & Development of new and existing MoorMaster™ Products and other products which Cavotec MoorMaster or Cavotec wish to develop.
- Contribute to the discovery and collection of information for new and innovative materials, processes and functionality.
- Contribute to the CMM Knowledge Base capturing relevant information.

I had three major streams of work at Cavotec to note, these were:

- The introduction of Software and Electrical process, including integrating into JIRA;
- Driving the team to create a 'cookie cutter' standardised HMI offering, including a PHP/Web based tool to assist sales in generating a standardised set up for a site,
- Move towards a continuous PLC and HMI Software Release, automated to provide the ability keep multiple sites up to date, this included driving for a PLC and HMI architecture that is modularised.

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WORK HISTORY - DETAIL

Samsung (Cambridge Solution Center) - UK

Senior Manager – Radio Firmware Group *(June 2011 – April 2014)*

Samsung Electronics purchased the mobile connectivity business from CSR in October 2012. The purpose was to enhance Samsung Electronics ability to deliver complete solutions into the mobile business area, by providing in house WLAN, GPS, Bluetooth, and video connectivity technologies. (As part of the transfer, I was a nominated TUPE representative for the Software Group based in Cambridge)

(CSR is a global leader in wireless, and CSR's Bluetooth, location, FM, Wi-Fi, audio, TV, video, and camera technologies are at the heart of many of the world's most recognised electronics brands.)

Management of the Radio Firmware Group, which included the Bluetooth Radio Firmware Team and the Wi-Fi Radio Firmware Team, as part of Global Software. Provide the embedded firmware for the silicon chips that are used in various handsets/smart-phones, personal navigation and audio/visual devices. The primary output from the Radio Team was the control and management firmware for the analogue WLAN and Bluetooth radios.

Key Points

- Assisted in refining Agile processes and procedures for all aspects of Global Software.
- Line management of a team of professional embedded firmware engineers/group leaders.
- Line management and coordination of several contractors based locally and overseas.
- Responsible for the assignment of work and delivery of work to project milestones.
- Responsible for the technical direction of the teams.
- Manage the development and test of software work packages to an agreed timescale as defined by chip development programmes or internal IP development plans.
- Project management of the Radio firmware for the WLAN and Bluetooth subsystems.
- Manage the development and utilization of the development test infrastructure.
- Increase the quality, efficiency and productivity of radio firmware, ensuring a fast bring-up and eventual productisation of the radios.
- Responsible for budget, salary, recruitment, and resources of the Radio Firmware Group.

Although the role was initially as part of Cambridge Silicon Radio(CSR), the purchase by Samsung Electronics(SSEL) was a carve out of a complete business unit. This meant that my role was transferred across with no change in role or responsibility.

As part of the transfer of employment, I was also an elected employee representative for the Transfer of Undertakings (Protection of Employment) TUPE process.

In addition to line managing a multi-disciplinary team, the initial focus was to identify and assist in the improved quality and output of the Software Department. The Department included 3 Firmware teams, 2 Host Software teams (one located in Bangalore, India) and 2 WLAN System Test teams (one located in Bangalore). The track record of output was not optimal, and I was able to identify issue tracking, code branching and delivery process as being the key areas requiring considerable improvement.

The WLAN Radio Team included:

- Test; comprising 1 test infrastructure architect, 1 test developer, 1 test system administrator.
- Development; comprising 7 firmware engineers with a split of MAC/PHY and RF capability.
- Contractors; comprising applications and firmware capability based in Cambridge and New Zealand.
- Secondments; 2 firmware engineers working from our Denmark office, 1 engineer from Bluetooth.

Working closely with the Radio Systems and Integration Team and the Analogue Design Team (based in Sophia, France) the team supported, and implemented code through MATLAB conversion from the RF world into the WLAN firmware world. The role was a mix of Technical Authority and Project Manager for the Radio Firmware.

Later, this role expanded to Managing the newly created Radio Firmware Group. The Group included the management of two multi-disciplinary teams both focussed on radio technology; The Wi-Fi Radio Firmware and Bluetooth Radio Firmware teams. Whilst there was significant synergy between the teams and even the analogue components within silicon, these subsystems were very different technologies using different embedded environments, code bases and even development processes.

WhisperTech – New Zealand

Principal Engineer – Software and Electronics (June 2009 – April 2011)

Whisper Tech Limited's vision is the Stirling engine-based WhisperGen™ heat and power system – a smarter way to provide home heat and power with the added benefit of reduced environmental impact. This micro combined heat and power (microCHP) system is produced in both on-grid and off-grid forms.

The role was primarily to take the Electronics and Software Department from a start-up group to a fully professional Department using mature processes and procedures.

Key Points

- Provide clear technical direction for the Electronics and Software Department, working with other Engineering disciplines to establish a professional development life cycle for Electronics and Software.
- Actively maintain and develop new relationships with professionals outside of the business that will be required for consultancy from time to time.
- Responsible for the delivery of technical work to the project plan, project planning the Electronics and Software components of larger projects.
- Perform analysis and create industry best practice processes and development life cycles for the Electronics and Software Department.
- Work closely with QA Manager and other Engineering groups to agree on Software Release and Hardware Revision processes.
- Instigate an issue tracking and work flow management system for the Electronics and Software Department.

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WORK HISTORY - DETAIL

Allied Telesis Labs – New Zealand

Software Department Manager (March 2006 – December 2008)

Allied Telesis is a world-wide company, and is one of the world's leading producers of computer networking equipment Founded in 1987 it has offices all over the world, including the USA, the UK, Netherlands, Spain, France, Germany, Switzerland, Hong Kong, Taiwan, Japan, China, Singapore, India, the Philippines, and Australia.

This role is responsible for the leadership, development and management of a software department. Seven Software Team Managers reporting directly with up to 65 software engineers reporting indirectly.

Key Points

- Helped introduce Agile Development to the Company.
- Providing direction for the software department, accountable for software delivery from ATLNZ to the global group.
- Actively, leading, managing and developing the team ensuring performance management and career development actions are in place and monitored.
- Identifying, implementing and continually improving process and procedures for accomplishing work, including iterative and Agile development methodologies.
- Development and management of budgets for Software Teams within the Software Department.
- Project management, financial budgeting for the department, strategic and resource planning, assisting with product planning and company roadmap.
- Assisted in creating career development framework and managing career development, performance management, and performance appraising.

Software Team Manager (December 2004 – February 2006)

This role was responsible for the leadership, development and management of a team of up to 15 software engineers. The team worked on new product and feature development as well as customer support for existing products. A key aspect of this management role was the development and maintenance of strong relationships with all customers.

Key Points

- Coaching, communication, creating and maintaining a happy team environment.
- Setting team objectives and the technical direction., project management, budgeting, strategic and resource planning.
- Further developed iterative/Agile development methodologies introduced as Group Leader, Career development, performance management, performance appraising.

Senior Software Engineer / Software Group Leader (July 2001 – December 2004)

This role led between three and ten software engineers on significant software development projects, including the AT-8948 and AT-9900 Series of multilayer IPv4 and IPv6 Gigabit switches.

Key Points

- Software resource and technical planning and reporting.
- Providing direction for software development.
- Being involved in all aspects of the software development life cycle: requirements gathering, specification, design, coding and verification testing.
- Introduced iterative software development methodology.

Lincoln Ventures (now Lincoln Agritech) – New Zealand

Research and Development Engineer *(February 1996 – April 2001)*

This role at Lincoln Technology Ltd, the commercial arm of Lincoln University, encompassed a wide range of skills and abilities.

Key Points

- Short and long term planning, SWOT analysis, risk management, and environmental scanning for a team of twelve.
- Managing up to five people on projects that lasted up to three years at the bleeding edge of research.
- Managing 50 desktop PCs and assorted networking devices for the company.
- Producing electronic devices for industry and research partners.
- Selling personal and group skills to industry through technical meetings and events, the production of marketing materials and strategic documentation.

The most significant project was the development of the next generation of sensor that allows closing elevator doors to reverse as people approach the lift. It was initiated through a successful technology assessment project (TAP), continued through a Technology for Business Growth (TBG) funded project. The technology was image based (CMOS cameras and used state of the art Digital Signal Processors (TI TMS320C6000 series DSP).

This project provided the industry partner with new intellectual property through patents, but also involved a certain component of trade secret due to the nature of the lift door sensing industry. Whilst I was involved in the project from the beginning, the last two years I was leading the small development team on behalf of the industry partner.

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