



## PROFILE

**ID and Associates Pty Ltd** acquired TUNRA Industrial Electronics Division (TIED) business in 2000. TIED was previously a division of TUNRA (The University of Newcastle Research Associates). TIED has expertise in the area of **Satellite Antenna Tracking and Control<sup>1</sup>, Industrial Control, control and monitoring and Process Control** for industry, defence, mining, government and commerce.

The Orbtrack Antenna Tracking Controller was developed and with some 40 Orbtrack units sold to OTC (now Telstra) for installation in Perth, Nauru, Cocos Islands, the Antarctica and Vietnam. Tracksat was developed from Orbtrack for Telstra for installation in the Cook Islands. This product is marketed as the **TS2000** system for **smaller antennae**. Several systems were supplied to Telstra, Optus Comsys, Austar, TSKL (Kirabati), TVNZ, Channel Nine, NDC and Goninan for installations in Australia and overseas. There are several systems installed at the Telstra International Telecommunications Station in Perth. Telstra has installed systems into its global network in Cook Islands, Christmas Island, Kazakhstan, Cambodia, Russia, Georgia and Malta.

The **TS3010** provides the antenna tracking and control systems for **larger antennae** and have been supplied to the Department of Defence sub-contracting to AWA Defence Industries (AWADI) now BAE Systems and Baulderstone Hornibrook (BHE), for a Department of Defence facility in Canberra and supplied, installed two systems for Auspace / Matra Marconi Space and sub-contracted to Clough Engineering for the supply of several Antenna Control Systems.. The TS3000 has been installed in Indonesia for INDOSAT. The TS3000 system control and monitoring system was upgraded using Visual C++ to the **TS3010**.

Systems have been supplied for **monitoring and control** for a variety of applications including waste water treatment, software programming, hardware and problem solving for a very large process and mining control system.

**ID and Associates Pty Ltd** will continue marketing systems, and related services to both the Australian domestic and global market. **ID and Associates Pty Ltd** are very experienced and successful engineers who have a wide range of expertise in a variety of technical applications utilising up-to-date software, hardware and equipment for commercial and defence applications. **ID and Associates Pty Ltd** provides the customer with a supplier which is innovative and practical and services includes development, design, project management, supply, installation, commissioning, training, documentation and support.

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<sup>1</sup> Used on antennas (6m to 30m) for tracking geostationary satellites eg Intelsat, Immarsat, Optus.  
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## **PRODUCTS: TS2000 AND TS3010**

### **Systems:**

Systems have been engineered to allow for choice from a number of different options. The result is an optimal configuration specified for the customer. A flexible controller which can be easily integrated into an existing installation replacing outdated, unsupported controls at minimal down time and cost. On new installations the integration process is more straight-forward but again because of the flexibility and modularity built in, the integration process assures a streamlined and reliable system. ID & Associates can provide a system for your new installation or upgrade your present older system. The total system can be provided for applications software, hardware (computer systems), motors, motor drive electronics, feedback devices and all components.

### **Services:**

ID & Associates can provide the customer with the total package including development, design, manufacturing, factory testing, installation, commissioning, documentation, training, project management and support.

### **Software:**

The heart of the control system is an extensive library of proven algorithms that have been developed over the years to suit a wide range of control and monitoring applications.

### **Hardware:**

Most components are standard "off-the-shelf" industrial PC and PLC equipment. The system is an adaptable system which can conform to any control scheme from simple, to state of the art systems. Systems can be provided as a stand alone system with only a serial communications port for monitoring or maintenance, or with a full graphical menu driven operator interface. We can change our systems simply through a PC bus mounted control, data acquisition, or graphics card; software changes are minimal. The net result to the customer is a customised system at an "off the shelf price".

### **Operating Systems:**

UNOS (University of Newcastle Operating System), DOS, Windows (3.1, 98, 2000, NT).

### **Platforms:**

IBM Compatible PCs - Commercial and Industrial Grade, PLCs.

### **Languages:**

C++, Borland C, Pascal, Fortran, PLC, Visual C

### **Other:**

Use several other packages for development and design - Citect, Factory Link, Visual C, Protel, Autocad, Matlab and PLC programming tools.



## KEY PERSONNEL

### **ID & ASSOCIATES PTY LTD Managing Director**

#### **Mr. Ian G. M. Dick**

Mr. Dick graduated with a BE also holds an Associate Diploma in Business Administration and a Certificate of Engineering in Electrical Engineering. He is presently the Managing Director of ID & ASSOCIATES PTY LTD, and was the Project and Contract Manager for the Geraldton, TRACKSAT, SETAS, Eggnog, Optus-Adelaide JAH-1A projects and supply of several tracking systems to TELSTRA, Optus and Goninans. He has also carried out extensive marketing for TIED (now ID & ASSOCIATES PTY LTD), nationally and internationally. He was previously the Electrical Workshop Supervisor with RAELEC Engineering Pty Ltd (Ampcontrol) Newcastle, NSW, a high voltage sub-station manufacturer for mining companies, electrical authorities and transport organisations. Prior to this position, he was an Electrical Engineer in the RAAF<sup>1</sup> the and held positions of:

Officer-in-charge of F111 technical spares assessing, provisioning and procuring at Logistics Command. Officer-in-charge of Electrical Section, which carried out the maintenance, repair and overhaul of F111, Mirage and Chinook electrical equipment, and Base Calibration Centre, which calibrated measuring devices using precision instruments, at No 3 Aircraft Depot. Engineering Officer with the Engineering Section with responsibilities of technical investigations and problem solving at No 3 Aircraft Depot.

Before completing his BE and becoming a commissioned officer, Mr Dick was an instrument fitter with the RAAF and carried out maintenance on various aircraft and aircraft equipment including F111, Mirage and Iroquios. He is a Member of the IEAust and the Queensland University of Technology Foundation.

#### **Technician**

#### **Mr Adam J. Anderson**

Mr Anderson is currently studying as a Communication Systems Technician and also as an Analyst Programmer. He holds the position of Technician with ID & ASSOCIATES PTY LTD and the responsibilities of this position cover: Configuration and Testing of Satellite tracking systems; Assembly of industrial computer equipment; installation, commissioning, Component level construction of custom peripherals; Documentation and publishing of manuals; Stock control; Component and Information sourcing.

Mr Anderson's 5 years of experience in the security industry installing and commissioning Security Systems, involving Proximity Card access control, and most common systems including medical. He also is involved with the design and development of music software using simple Digital Signal Processing on PCM data. He has experience with: the setup and upgrade of Desktop PC's,

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<sup>1</sup> Royal Australian Air Force.

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networks, Corel Draw, Word 6, Excel, Microsoft Access and configuration of TCP/IP clients. His programming experience is primarily in Turbo Pascal 6 and moving towards C++.

### **Administrative and Accounts**

#### **Ms. Julie Alterator**

Mrs. Julie Alterator is involved in administration and accounts support for ID & Associates Pty Ltd. Ms Alterator assists in the submission of tenders and assists in the administration of projects, which included very large defence projects. Ms Alterator maintains records, accounts (using MYOB) and files and maintains documentation control systems in accordance with the Quality Manual and Standard Procedures. Ms Alterator assists in the production of project technical and administrative documentation using word processing, database, spreadsheet and other software and assists in purchasing of stock control and invoicing and assists in project management.

### **Senior Software Consultant Engineer**

#### **Mr. David J. L. Brown**

Mr Brown graduated with a BE (Electrical Engineering) and is a Graduate of the Australian Joint Services Staff College. He is the Senior Consultant Engineer with ID & ASSOCIATES PTY LTD and his responsibilities include technical co-ordination, software design/production and system testing. He was the Project Engineer for Project Geraldton, SETAS and Egnog projects. Prior to joining ID & ASSOCIATES PTY LTD, he was Assistant Director, Naval Weapons Design (Electronic Warfare) for the Department of Defence - Navy in Canberra, Australia; other positions included Technical Liaison Officer - United Kingdom, Senior Engineer - Naval Weapons, Exchange Engineer - US Dept. of Defence, Design Engineer and Quality Control Engineer.

Mr Brown has designed and developed an artillery shell velocity indicator, ultra-sonic computer-based record/playback system, printer graphic software applications and microwave detection and analysis systems. He has experience in digital and analog electronic equipment design, programming in several languages and engineering systems analysis.

### **Senior Systems Consultant**

#### **Mr. Brian D. Stephen**

Mr Stephen graduated with a BSc.<sup>n</sup> (Electrical Engineering) from the University of Alberta, Canada. He is the Senior Systems Consultant Engineer with ID & ASSOCIATES PTY LTD and his responsibilities include: the design and implementation of hardware and software to meet specification requirements, and the testing, commissioning and documentation of all aspects of developed systems. He has worked on several projects including Geraldton, SETAS, Egnog, JAH-1A upgrade, Optus - Adelaide upgrade and Jetflote - Worth Oil Project including tracking system design, design, installation and commissioning of various control and monitoring systems, using several packages including CITECT. He has also carried out work with Dartbrook Coal for the writing of software procedures, design, programming, problem solving and commissioning.

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<sup>n</sup> Bachelor of Science.

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Prior to joining ID & ASSOCIATES PTY LTD, he was employed by GSR Technologies, a company which designs and manufactures computer-controlled CO<sub>2</sub> laser cutting systems in Edmonton, Canada.

Mr Stephen started as a design engineer, where his responsibilities included writing programs for robotic control, design and development of laser and motion control systems, design and development of automated auxiliary equipment. He progressed to Project Manager, where he was responsible for the overall development and production of all aspects (electrical, mechanical and software) of cutting systems.

## **University Consultants**

### **Professor Richard H. Middleton**

Professor Middleton graduated with a BSc. in Physics and Mathematics, BE in Electrical Engineering with First Class Honours and Ph.D in Electrical Engineering. He has several awards including the TG Room Memorial prize in Mathematics for first in New South Wales for the HSC<sup>m</sup> in 1978, the IEAust award for highest pass in Engineering in 1984 and the 1991 Australian Telecommunications and Electronics Research Board Outstanding Young Investigator, a national award. Associate Director of Centre of Integrated Dynamics and Control (CIDAC) at the University of Newcastle, His responsibilities have included the development of systems algorithms, hardware and software.

He has undertaken research and has an interest in Robust Control Systems, Adaptive Control, Microprocessor Control, Analog Control, Power Electronics, Linear Electronics, Computer Simulation of Control Systems, Robotics and Satellite Tracking.

Professor Middleton has written several papers and co-authored a book, 'Digital Control and Estimation: A Unified Approach' Prentice Hall, 1990 with Professor Graham Goodwin from the University of Newcastle. He has been a member of IEEE since 1986.

### **Dr. Robert E. Betz**

Dr. Betz graduated with a BE with First Class Honours, ME and a PhD in Electrical Engineering. He is presently a senior lecturer at the Electrical and Computer Engineering Department of the University of Newcastle. His research work includes the control of inverter-fed AC machines, on the characterisation of the performance of synchronous reluctance machines, and real-time operating systems, including the development of UNOS (used in the TS2000 and TS3000 systems), with an interest in scheduling approaches to meet real-time constraints. He has also been involved with several projects including the Australian Telescope, TRACKSAT (TS2000) Project, a pipeline crack investigation vehicle, Mine Vehicle Dispatch Project, a small telephone traffic recording instrument, a bank security system and an electrical energy operating system. He has also been the acting-technical director for ID & ASSOCIATES PTY LTD and he is presently the Technical Director for the upgrade of the TS3000 Monitoring System to TS3010.

## **Contact Details:**

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<sup>m</sup> Higher School Certificate.

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Mr Ian G Dick - Managing Director ID and Associates Pty Ltd  
(Previously Manager TIED for nine years).

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