



GEO DATA
AUSTRALIA Pty Ltd
ABN 65 128 711 482

SURVEY & CADASTRAL DATABASE MANAGEMENT

COMPANY PROFILE

APPENDIX A

PROFESSIONAL C.V.'S

October 2009

Michael Elfick
Michael Fletcher
Roger Lee
Ian Harper
Sharmane Jackson

MICHAEL ELFICK

Name: ELFICK Michael Hele

Academic Record: Registered Surveyor - NSW Board of Surveyors 1961
 Postgraduate Diploma in Surveying Science, - University of Sydney 1969
 Postgraduate Diploma in Town and Country Planning - University of Sydney 1977
 Honorary Doctorate in Surveying - University of Newcastle 2003

Prizes: Halloran Prize 1975 NSW Institution of Surveyors
 Planning Prize 1979 NSW Institution of Surveyors
 John Hayden Cardew Prize 1980 NSW Institution of Surveyors
 Institution Silver Medal 1991 NSW Institution of surveyors
 Excellence in Surveying and Mapping award 2004 (Mapping)
 "Cadastral Analyst for ESRI" NSW Institution of Surveyors
 Asia Pacific Spatial Excellence Awards 2002 – Research & Innovation - Highly Commended –
GeoCadastrre - ASIBA

Membership: Fellow of the Institution of Surveyors
 Foundation member of the Australian Urban and Regional Information Systems Association (AURISA). President of AURISA 1979 - 1980.
 Member of NSW Board of Surveying & Spatial Information.
 Secretary, Hunter District Advisory Committee of NSW National Parks and Wildlife Service.

Employment History 1955 – 1957 Articled Pupil - Surveying, *Gillham and Aitken* - Sydney.
 1957 – 1959 Survey Technician, *Tasmanian Hydro Electric Commission*.
 1960 – 1960 Survey Technician, *Mance and Allen* of Nowra.
 1960 – 1961 Survey Technician, *Snowy Mountains Authority*.
 1962 - 1964 Supervisor of Survey Operations, *Rankine and Hill*, Consulting Engineers.
 1964 - 1966 Supervising Surveyor, Sydney Opera House. - *Ove Arup and Partners*.
 1966 - 1969 Manager of Surveying Operations, - *Engineering Computer Services*.
 1969 - 1971 Partner - Private Survey Practise, *Lutton and Elfick* -Cooma.
 1971 - 1977 Senior Surveyor-Analyst, Technical Systems, *Department of Lands*.
 1977 - 1996 Lecturer, Department of Civil Engineering and Surveying,
University of Newcastle, N.S.W. Appointed to Senior Lecturer 1984
 1997 - 2005 Consultant in surveying and Information systems.

Since 1990 have worked on the development of cadastral systems with projects in NSW, Queensland, the Philippines, the Northern Territory, New Zealand and the USA. Together with Mimaka have developed systems for generating coordinate based cadastral systems from "Metes and Bounds" information. These have now been adopted by ESRI as "extensions" to their "ArcInfo™" software systems. ESRI have also adopted our database concepts for the management of cadastral boundary information and our XML interchange format.

Publications Two books and over 40 papers in journals and conference proceedings – some of which are noted below:

Monographs and Reports

Elfick, M.H and Fryer, J.G., 1991, "Cost-Benefit Study on the Management of Cadastral Data",
Report to the Land Information Centre, Bathurst, NSW, 50pp.
 Elfick, M.H. Techniques to Generate a Coordinated Cadastre for the NZ DCDB
Report to DOSLI New Zealand, August 1993
 Elfick, M.H 1994 "Coordination of the Northern Territory Cadastre"
Report to Dept Lands, Housing and Local government.

Publications in Refereed Journals

Elfick, M.H. 1995 "A Cadastral Geometry Management System",
The Australian Surveyor, Vol 40 No 1 March 1995 PP35-40.

Elfick, M.H. 2003 "Cadastral Reform",
Position, December 2003 – January 2004 No 8 PP72-73.

Publications in Refereed Conference Papers

- Elfick, M.H. 1967 "Surveys for the Construction of Shell Roofs of the Sydney Opera House",
10th Survey Congress Sydney, (24 pages).
- Elfick, M.H. 1974 "The Development of a Cadastral Data Base for Rural Lands".
URPIS-Two 8 pages
- Elfick, M.H. 1989 "Management of Land Boundary Information",
Australian Survey Congress.
- Elfick, M.H. 1991 "Management of Cadastral Data in a Land Information System"
LIM conference University of New South Wales Sydney.
- Elfick, M.H. & V, J.G "Cadastral Mapping - Policy or Survival"
Map Collectors Society Conference, Sydney 1991.
- Elfick, M.H. "Cadastral Coordination by Stealth"
Annual research Seminar, School of Geomatic Engineering UNSW 1994.
- Elfick, M.H. "Coordinating a Metes and Bounds Cadastral System."
Australian and SE Asian Survey Congress, Singapore 1995.
- Matheson, R.G. & Elfick, M.H. "Land Titles in PNG, Past, Present and Possibilities for the Future"
Thirty Fourth Survey Congress, "Century Twenty One" Port Moresby 1999.
- Elfick, M.H. "Managing the Records which underpin the Land Tenure System"
International Symposium on Spatial Data Infrastructure, Melbourne 2001
- Elfick, MH McLennon & Sommers "Managing the Transition from a Metes and Bounds Land Tenure System to a Coordinate Based Cadastre"
ASPRS Conference, St Louis USA 2001.
- Elfick, MH "Bridging the Gap between Survey and GIS, Building & Managing a "Survey-Accurate" Cadastre"
Twenty Third Annual ESRI User Conference, San Diego July 2003
- Elfick, MH, Hodson & Wilkinson "Managing a Cadastral SDI framework built from Metes and Bounds Data"
FIG/GSDI conference in Cairo, April 16-21, 2005

Patents

- Holder of patent for software and processes titled "Parcel Networks"
- Holder of patent for software and processes titled "GIS – solving the problem of Associativity"

MICHAEL FLETCHER

Software Engineer (B.E. Sydney Univ)

November 2004 - Present

Mike manages a team of 60 staff for Telstra/BigPond software Engineering division. He has also continued support work and some development work for GeoCadastrre and GeoSurvey – the surveying applications. This has also involved supporting the design and development of the ESRI Cadastral products for ArcMap. He has also supported and consulted on the NT Cadastral database system.

Mimaka Feb 2004 - Nov 2004

Mike has worked on a software development project for Geodata Pty Limited. It involved development of mapping software. A concurrent project has been the design, development and installation of a Cadastral database for the NT government.. Starting in November, Mike has commenced work on a consulting contract with Telstra BigPond, working with their software development team on systems analysis and specifications.

Unwired Australia March 2003 – Jan 2004

Mike hold the position of IT Systems manager for Unwired Australia. This position includes the overall design of the ISP IT systems, architecture of the sub-systems and management of the development team. An important part of the position is liaison with management on budgets, staffing and technical development schedules and priorities. The role also included server selection, purchasing, overseeing security design and supervising installation and commissioning of the equipment.

RTA July 2002 - September 2002

The RTA decided to use a Request for Proposals (RFP) process to get submissions from industry for an Application Server. Mike was engaged by the CIO to setup the RFP and run the evaluation panel. This involved writing the RFP specification, advertising the RFP and evaluating the submissions and arriving at a decision on the best option for the RTA.

Survey Software April 2002 - July 2002

This was a maintenance and upgrade for a package of survey software which Mike has maintained over the last ten years. Several new features were added to the package which is a Windows GUI application to perform general survey calculations such as subdivision design, cadastral network adjustment and topographical modeling.

Fairfax (f2) Nov 2001 - March 2002

This was an out sourced software development task to port the ISAM database system used for storage of ASX stock price and trade information from a Silicon Graphics IRIX system to a Solaris platform. The work also included extraction of stock quote information and presentation in XML format. This was completed and is now live.

BigPond Nov 1996 - Oct 2001

Mike started when BigPond had about 10,000 billable customers and left when they had about 1,100,000 customers. His prime responsibility was to scale the IT infrastructure to meet constantly growing customer growth (about 300% per year early on) and to also add new features to the system. The scope of responsibilities included the customer database, rating system, billing system, authentication system, CRM system. The billing system involved interfaces to the banks and to other Telstra billing systems.

The major projects of 2000 were the year 2000 certification and testing. For 2001 the database was ported from SQL Server 6.5 to SQL Server 2000 and substantial new hardware systems were installed. There were average of about 3 major projects and 20 minor projects in progress at any one time. Responsibilities included liaison with the customer, solution architecture, supervising the development methodology (RAD), project management and project delivery.

Mike managed about 9 staff of a development team of 17 and hired about 30 staff members over his time in the position. The developers were a mixture of contractors and Telstra staff members. A great deal of effort was

spent on improving productivity by building team morale by technical presentations, team lunches, dinners and awards for outstanding effort.

RTA May 1998 - September 1999

Mike was engaged by the RTA to setup an Internet team for the DRIVES branch. This involved negotiation with the customers (internal and external), gaining the co-operation of external parties (insurance companies), designing a viable solution and building the solution. These projects included Custom Plate Enquiries, Online Registration renewal and Written Off Vehicles. This was a part time exercise done at the same time as the work at BigPond. Mike hired most of the new team members and eventually his replacement as team leader.

Management Skills

Managed a software development team of 10 people and provided group leadership for several other development teams. Mike has the ability to negotiate with customers on the requirements for their projects and the experience to build and deliver workable practical solutions.

Worked with and implemented ISO 9000 development methodology, Rapid Application Development (RAD) and Agile Computing. Mike enhanced the deployment processes to the production environment.

Development Skills

Mike has managed to keep current with a range of the emerging Internet development tools and products despite holding an architecture and management role over the last ten years. This personal experience of the product and their use is a big advantage when managing development projects as it makes forecasting more accurate and design more practical.

Relational databases - SQL Server, Oracle, Postgres, MySQL

Real time programming, fax and communications software

TCP/IP HTTP, FTP, XML programming

Graphic images - JPG, GIF, TIF manipulation and programming

Programming languages

Strong: C -C++, SQL, Fortran, HTML

Medium: PHP, Perl, scripting, VB, Java, ASP

ROGER LEE

Associate - Australian Property Institute

EMPLOYMENT HISTORY

1962 - 1965

- Patrol Office in PNG. Patrols conducted to uncontrolled territory in the Kunimaipa Ranges, District Administration, Police, Magisterial, Prisons, Public Health, Agricultural Extension, Land Administration and Acquisition, Airstrip and Road Construction, Local Government Extension, Census, duties performed. Established Siassi Partol Post and Local Government Council

1965 - 1974

- Valuer, Department of Lands Surveys and Mines PNG. District Valuer in Lae, Rabaul, Kieta involved in valuations of major rural plantation groups comprising beef cattle, copra, coffee, cacao.

1974 - 1977

- Self employed in various ventures involving property development and trucking.

1977 - 1988

- Estate Surveyor, Senior Estate Surveyor, District Lands Officer with Hong Kong Government where extensive experience was gained in all aspects of land administration and development was gained;
- Government's land sales programme developed and managed for particular districts including Yuen Long, Tin Shui Wai development, Tuen Mun New Town and Hong Kong South (including the HK CBD);
- Significant staff resources managed in these districts;
- Land acquisition programme managed within the districts for the purposes of implementing the HK Outline Zoning Plans (the implementation of which was a public purpose for the requirements of the Acquisition of Land Ordinance);

1988 - 1992

- Property Developer and valuation consultant in Hong Kong in private practice.

1992 – 2004

- Farmer – cattle, deer.

2004 – 2006

- Managed the development of the Geodata business plan

Completed "Introduction to ARCGIS" (ESRI) course (2005)

TECHNICAL SKILLS

Strong background in:

- Land administration generally
- Land title and tenure systems
- GeoCadastre and GeoSurvey software
- Major Project GIS and cadastral requirements
- Spatial CAD Data & Asset Management (Proficient in MapInfo and ESRI ArcGIS)

Broad-ranging Professional experience in:

- Project Development issues:
 - Statutory Town Planning
 - Engineering & Construction
 - Services
 - Budgets
- Liaison with all levels of Government & Statutory Authorities

CONTACT DETAILS:

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Address P O Box 2285 East Maitland NSW 2323

IAN HARPER

Bachelor Surveying (UNSW 1977) Registered Surveyor 1984-2004

EMPLOYMENT HISTORY

1977 – 1979 Graduate Surveyor

- Contract work in England (3mths) & Libya (3mths) contract.

1980 – 1985 Graduate Surveyor

- Urban & rural boundary surveys, engineering & open Cut Mine Surveying in the Hunter Valley.

1985 – 2004 Registered Surveyor

- Commenced the operations of Consulting Survey Practice - HARPER SOMERS PTY LTD
- Managed the growth to over 30 staff, eventually incorporating the disciplines of:
 - Surveying
 - Town Planning
 - Ecological Consulting
 - Land Development & Project Management

Personally involved in:

- All aspects of the practice management & operations
- Land Asset Management & CAD Database operation
- Project Management of land development projects
- Management of the survey component of large Subdivisions, Construction & Engineering Projects, (Buildings, Pipelines, Resorts)

2005 – 2008 Project Management Consultant & GIS Cadastral Management consultant.

Work undertaken on property matters for various projects in the Hunter Valley. Clients include NSW Maritime and Newcastle Port Corporation.

Director - GEODATA AUSTRALIA – Software Development & Promotion – Cadastral management

Creation and data management of Cadastral Database models for government and infrastructure. (See Appendix C)

2008

Cadastral Management Concept presentations

- Kuala Lumpur – ESRI Malaysia and invited industry representatives
- Kota Kinabula – Invited industry representatives
- Singapore – Singapore Land Authority

2009

Cadastral Management Concept presentations

- Kuching – ESRI Malaysia and invited industry representatives

Site visits and process review for GIS cadastral management of the proposed **VIETNAM LAND ADMINISTRATION PROJECT (VLAP) - HANOI** - Concept presentations to VLAP and Vietnam Depart of Remote Sensing

Technical papers (approx 10) presented at South East Asian (MAPASIA 2008, 2009) , Australian, New Zealand and local Survey and Spatial Sciences conferences on cadastral management.

CONTACT DETAILS:

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Email harper@geodata.com.au

SHARMANE JACKSON

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GIS MANAGER

EDUCATION

Master of Applied Science (GIS and Remote Sensing)
Presently studying
Charles Sturt University – Wagga Wagga

Diploma – Spatial Information Systems (SIS) 2007
Tafe NSW – Riverina Institute

Certificate 3 – Spatial Information Services (SIS) 2005
Tafe NSW – Tighes Hill

TECHNICAL EXPERTISE

- GeoCadastrre – cadastral software
- GeoSurvey – survey software
- MapInfo
- ESRI – ArcInfo, ArcView, ArcMap, Survey Analyst – Cadastral Editor
- Microsoft Office – Word, Excel, Publisher, Visio, Powerpoint, Access
- Adobe Suites
- ENVI
- Microstation (limited knowledge)
- TNT Mips (limited knowledge)

EMPLOYMENT HISTORY

Geodata Information Systems - GIS Manager June 2002 – Present

Details of duties and responsibilities:

Office Management and Administration

Source and interpret deposited plans (DP's)

Source SCIMs marks – control point information

Data Collation, Manipulation and Management

Construction and management of survey accurate cadastral databases through the use of the GeoCadastrre and GeoSurvey software

Operation of MapInfo and ESRI software

Operation of Microstation

Building, Maintaining and Managing Geodatabases

Organising and implementing training for clients in the use of the GeoCadastrre software

Customer Relations

Implementing OHS guidelines