



Resource Estimation Workshop using Surpac

Location	Dates
PERTH	16-19 November

This 4-day course gives a clear understanding of the resource estimation process from interpretation through to classification. Through presentations, case studies and practical activities using real data in Surpac software, it aims to provide the skills required to carry out basic resource estimates for the exploration and mining industry.

Participants will:

- Gain an overview of the resource estimation process
- Learn how to describe data using statistics
- Acquire an understanding of the fundamentals of resource estimation and how to apply them in practical estimation situations
- Learn the requirements for resource classification and how to practically apply them
- Get practical experience in estimation using Surpac software

Course content:

The course covers the entire resource estimation process including:

- An overview of the resource estimation process
- The fundamentals of resource estimation
- The importance of geology and domaining
- Data validation and analysis
- Variography
- Methods of estimation, including inverse distance and ordinary kriging
- Model validation techniques
- Practical resource classification
- An introduction to advanced estimation techniques

Who should attend?

This course is designed for geologists and mining engineers involved with or about to become involved with resource estimation.

The course assumes a basic geological knowledge but does not assume any geostatistical knowledge. In order to maximize your understanding of the course content, you will need to have a basic understanding of Surpac file formats, macros, solids, geological database, and block modeling (except estimation concepts).

Optional Surpac Refresher Day: If your Surpac knowledge is a bit rusty, it is strongly advised that you attend the Surpac refresher course with Gemcom on Monday 24 May or Monday 15 November 2010 prior to attending the Resource Estimation using Surpac course. This refresher course will give you an update on features of Surpac that will be essential knowledge for the resource estimation training to follow. Booking information on registration form.



Presenters

The course presenters will be chosen from Snowden and Gemcom's most experienced consultants.

Richard Sulway - Principal Consultant - Applied Geosciences

MAppSC University of New South Wales, 1995 BAppSC (Hons) (Geology) University of Technology Sydney, 1990 Member, Australasian Institute of Mining & Metallurgy (MAusIMM) The Geological Society of Australia.



Richard is a geologist with more than 19 years experience in exploration, mining and resource estimation. Prior to joining Snowden in 2004, Richard worked as resource modelling consultant for Datamine mining software. Since joining Snowden, Richard has been involved in resource estimates, audits, technical documentation and training. Richard has worked on both exploration and mining projects. Richard has an extensive knowledge in the use of Datamine and Surpac software and has presented public training courses in the use of both packages. Specific work with Snowden comprises resource estimation and reviews for a number of deposit types including gold (Australia, Mali, Malaysia and Indonesia), iron ore (Australia and India), copper (Australia, Philippines) nickel sulphide (Australia) nickel laterite (Turkey, Macedonia, Kosovo, Albania), PGE (Philippines, South Africa) and mineral sands (Australia).

Lynn Olssen - Principal Consultant - Applied Geosciences

BSc (Geology), University of Western Australia; (CP) MAusIMM.



Lynn has more than 16 years experience in the mining industry. Prior to commencing work with Snowden she worked in resource evaluation and mining geology roles in Western Australia gold and copper deposits. Lynn joined Snowden in April 2002 with skills in resource estimation, reconciliation, geostatistical analysis, database quality assurance and quality control, and grade control. Since joining Snowden Lynn has worked on resource estimation projects and reviews for gold, copper, nickel, iron ore, base metals, mineral sands and platinum reef deposits around the world. She is also involved in providing resource estimation mentoring to the mining industry and is a developer and presenter of Snowden's technical courses.

Rowdy Bristol - Technical Communications Manager

Gemcom Software Australia Pty. Ltd.

Rowdy is a geologist with more than 21 years experience in Mining and Exploration around the world. Rowdy has been with Gemcom, previously the Surpac Minex Group, for more than 10 years and has worked in support, testing and documentation roles. Rowdy has been involved with the support and development of geological and geostatistical applications within Surpac. Rowdy has co-presented the Resource Estimation using Surpac course with Snowden for many years.

Benny Cha - Senior Product Specialist – Geology

BSc (Hons), University of Western Australia; MBA, University of Western Australia



Benny has been working with Gemcom as a geologist for the past 3 years. He has amassed a wealth of experience in exploration and an open pit environments in a range of commodities prior to joining Gemcom. He has extensive knowledge in exploration geology and also open pit grade control and mining processes. Benny is currently the main geostatistics consultant and trainer for Gemcom's Surpac and GEMS products. Benny is currently responsible for geostatistical and geological consultancy services relating to Gemcom's General Mine Planning packages for GEMS and Surpac. He is also a fluent Mandarin speaker.

Fees

Payment required at time of registration.

This 4-day course costs AU\$ 4,620 + GST

This fee includes comprehensive manuals, refreshments and lunch.

There is a 5% discount is offered if paying by credit card.

Laptops for practical exercises

PLEASE NOTE: Attendees are please to bring their own laptops to the course.



Delegate feedback

Snowden prides itself on the standard of its courses and on the quality of its presenters. Feedback from our previous course participants includes the following:

- “The whole course was valuable. My understanding of Resource Estimation is far greater than before”
- “The course catered to a range of experience levels, having no resource experience was not detrimental, and the course was overall very valuable”
- “The course provided an excellent, easy-to-understand and well-presented overview of the resource estimation process”
- “I had heard the terminology ‘estimation’ thrown around for so long - it is refreshing to have some clarity on the different processes”
- “One of the best courses I have ever taken”

Snowden is committed to continuous improvement in the quality of this course and undertakes regular updates and responds to participant feedback and suggestions.

Mentoring - Learn while working on your own data or project.

Snowden provides one-on-one technical mentoring to help develop your knowledge, skills and experience. Our consultants will guide you to use due process *while you work on your own data or project*.

Take advantage of Snowden’s 23 year knowledge and skills base to help fast-track your technical knowledge.

On-site customised courses

All our courses can be customised to suit your specific training requirements and presented either on-site or at a venue of your choice. Please contact Diana Titren, Training Manager, on +61 8 9211 8670 or training@snowdengroup.com for further information.

Contact and registration

For more information on Snowden’s Training and Mentoring programmes, please contact Diana Titren, Training Division Manager, on +61 8 9211 8670 or training@snowdengroup.com

To register, please complete the following form and either fax it to Shannon Aitken, Training Coordinator, on fax +61 8 9322 2576 or email to training@snowdengroup.com

Please visit www.snowdengroup.com for more information about our training courses.

Snowden Office Contact Details

PERTH +61 8 9213 9213 BRISBANE +61 7 3231 3800 JOHANNESBURG +27 11 782 2379
VANCOUVER +1 604 683 7645 BELO HORIZONTE +55 (31) 3222-6286 LONDON +44 1932 268701



REGISTRATION FORM - PERTH

RESOURCE ESTIMATION USING SURPAC - PERTH

To: Snowden Mining Industry Consultants, PO Box 77, West Perth, WA 6872 Tel: +61 8 9211 8670
 Fax: +61 8 9322 2576 Email: training@snowdengroup.com

PLEASE TICK THE COURSE/S YOU WILL BE ATTENDING	<input type="checkbox"/> 15 Nov	Optional Surpac Refresher Day	\$1,500 + GST = \$1,650
	<input type="checkbox"/> 16-19 Nov	Resource Estimation using Surpac	\$4,620 + GST = \$5,082
	TOTAL including GST: \$ _____		
OR <input type="checkbox"/> Total with 5% discount for paying by credit card: \$ _____			

PLEASE NOTE: Please remember to bring your own laptop to the course.

Delegate Name	
Position in company	
Company name	
Address	
Tel	
Fax	
Email	
How did you hear about the course?	<input type="checkbox"/> Email <input type="checkbox"/> Snowden Website <input type="checkbox"/> Newsletter <input type="checkbox"/> AusIMM <input type="checkbox"/> AIG <input type="checkbox"/> Other Advert <input type="checkbox"/> Other

PAYMENT OPTIONS

Payment required at time of registration - payment confirms your registration.
 A tax invoice will be issued on receipt of payment.

Please tick your payment option.

Cheque - Please enclose a cheque made payable to Snowden Mining Industry Consultants

Electronic transfer - Please quote the course name on your EFT transaction.
 ANZ Bank, Corner Hay and Outram Street, West Perth, WA 6005
 Branch: 016498 Account: 8376 99407 Swift Code: ANZBAU3M

Credit card: **5% discount offered for credit card payments**

Visa card Master card AMEX

Please note: Snowden DOES NOT charge a surcharge for credit card payments.

Card no:

Cardholder's name: _____

Expiry date: / Signature: _____

PLEASE NOTE: No refunds for cancellations made within 2 weeks of the course or for 'no shows'. Delegates can be substituted. If the minimum number of delegates is not achieved, delegates will be notified 1 week prior to course start date and fees will be refunded.