Deswik

DESWIK USER CONFERENCE 2018

6th – 8th November
Gold Coast // Australia

TECHNOLOGY, PROCESSES & LEARNINGS TO DELIVER IMPROVED MINE PLANNING

ALL DAY

MENTORING SESSIONS

INTERACTIVE PRESENTATIONS

Each presentation will conclude with a dedicated Q&A session

PROFESSIONAL DEVELOPMENT

AusIMM members will be able to claim up to 24 hours of PD

PROGRAM

Deswik

TUESDAY 6th NOVEMBER 2018

	Open Cut Coal / Open Pit Metals	Underground Metals	Underground Coal	Masterclasses
08:30 - 09:00	Registration and coffee / Meet the Deswik team			
09:00 - 09:30	**Welcome address** **Matt Chilcott** Managing Director • Deswik **Deswik update** **Wayne Romer** Technical Director • Deswik			
09:30 - 10:30	**Keynote address: Safety, the complexity of your systems and the seduction of techno-optimism** **Sidney Dekker** Professor, pilot and best-selling author Will the safety thinking used by mining engineers to control risks be adequate to manage the risks of complex, integrated, semi-digital, and technical production systems? How can we effectively identify and manage these risks? Using his experience in other industries, especially commercial aviation, Dr. Dekker will explore the complexity of drifting into failure; how new technology changes human work rather than replacing it; and, how people create resilience within a patchwork of technologies, procedures, and production pressures.			
10:30 - 10:45	Break			
10:45 - 11:30	**Case study: Replacing legacy systems** **Dave Capstick** Business Development Manager and **André Stickling** Senior Mining Consultant• Deswik Within Southern Africa, numerous mining companies are replacing legacy mining technical systems, which in some cases have been in use for over twenty years. Replacing these deeply entrenched systems presents a significant challenge in terms of new practices, methodologies and skills, modified reporting requirements and sometimes organizational structures. This presentation outlines the drivers of migration from legacy systems and the technical and importantly softer change management issues that are required to develop new and sustainable solutions.			**Scheduling - Tips & tricks** **Benjamin Williams** Principal Mining Consultant Enhance your scheduling toolkit with tips and tricks from our scheduling experts.
11:30 - 12:15	**Case study: Replacement of legacy mine planning systems at Vale Canada Ltd with an eye to the future** **Byron Seguin** Senior Mining Engineer • Vale Canada Ltd Transitioning to a new system is never easy, and can be particularly challenging in mining. In this presentation, we'll dive into a case study on the replacement of legacy software (Mine2-4D, EPS, and mineCAD) with Deswik, at Vale Canada Limited's five base metal mines in Sudbury, Ontario, Canada. Byron will share the path towards more technologically driven mines, including the keys to successful implementation at Vale Canada and the pitfalls others should avoid.			**Formula builder** **Pat Banks** Senior Software Consultant Learn how to master a wide range of formulas available in Deswik.Suite.
12:15 - 12:50	Lunch			
12:50 - 13:20	**Case study: Carajás - Integrated multimine scheduling** **Bruno Gadelha** Senior Mining Engineer • Vale Vale's biggest operation, the Carajás, is an integrated mining complex located in the Amazon region in northern Brazil, producing over 230 Mtpy. Many decisions and assumptions in the activities of a mining complex of this size will affect system operations. This may result in a deviation from the optimum production sequence over the life extraction of the business and thus, a reduction in NPV. Discover how Deswik's tools make it possible to develop a life-of-mine using a blending strategy integrated with a haulage model, ensuring operational control and production and qualities targets.	**Case study: Analyzing an underground mine with open pit optimization tools** **Will Bennett** and **Murray Smith** Principal Mining Consultants • Mining Plus Pit shell optimization is an integral part of the open pit planning process. This presentation describes how the same algorithms can be applied to the analysis of an underground mine and provides a case study where this analysis was used to re-schedule an underground stoping mine, leading to a significant improvement in project value.	**Special Underground Coal session**	**Block model preparation for pit optimization** **Julian Poniewierski** Senior Mining Consultant Learn about the issues to consider and steps to take (including commands) in preparing a block model to be ready for use in pit optimization.
13:20 - 13:50	**Case study: Workflows to preserve corporate objectives in open pit long-term plans** **Gabor Bacsfalusi** Principal Consultant • SRK Consulting Open pit life-of-mine planning commonly defines a practical mining sequence, sets out equipment requirements, provides guidance for shorter planning horizons and is used to support ore reserves. The mine plan should, ideally, be optimal; aligned with any key planning objectives. Gabor explores his observation that mine planners tend to apply unsuitable targets and constraints, which results in suboptimal mine plans, and he outlines a workflow in Deswik.Sched and Deswik.Blend that addresses these challenges using example outputs to illustrate key concepts.	**Case study: Cerro Lindo's reserve estimation** **Marcelo Penna** Mining Engineer • MCB Mining This presentation aims to detail the steps taken, using a wide range of Deswik tools, on a Reserve Estimation project for Cerro Lindo mine, in Peru. Cerro Lindo is a highly productive underground mine, with a complex mine sequence and more than one mining method. The project was configured using several formulas and rules in order to achieve a scheduling result that was almost fully automated and also easily replicable for future works.		**Dependencies creation for surface mining** **Catherine Mortimer** Senior Mining Consultant Learn to create and manage dependencies between tasks in a schedule.
13:50 - 14:15	Melbourne Cup			
14:15 - 14:45	**Short-term scheduling for open pit** **Wayne Romer** Technical Director • Deswik Planning and designing a short-range ore control model: best practices.	**Case study: Aripuanã feasibility study** **Isabela Dias Machado** Mining Engineer • MCB Mining Aripuanã is a project located in Mato Grosso State, western Brazil. It is a zinc polymetallic deposit elongate in three main mineralized zones, Arex, Link and Ambrex. Mining will be undertaken using conventional mechanized underground mobile mining equipment via a network of declines, access drifts and ore drives. This case study explores how the entire feasibility study, reserves estimation, mine design, mining sequence, production plan and haulage model were carried out using Deswik tools.	**Special Underground Coal session**	**Advanced plotting - General** **Alex Greenhalgh** Mining Consultant Overview of Deswik key plotting functions with tips & tricks on the best way to set them up to minimize data replication.
14:45 - 15:15	**Pit optimization** **Julian Poniewierski** Senior Mining Consultant • Deswik Learn the process of running a Pseudoflow pit optimization in Deswik.CAD. What are the issues to consider, the inherent errors that occur in any pit optimization solution, and the common problems or issues with inputs and outputs.	**Case study: Stope optimization for narrow vein mining** **Chris Alford** Director • Alford Mining Systems This presentation will review recent developments in Stope Optimizer for the design of stope shapes for narrow vein orebodies using 6 and 8 point shape geometries, and provide results from some typical case studies.		
15:15 - 15:30	Break			
15:30 - 16:15	**Case study: Dynamic Economics in Deswik.Sched** **Liz Deucker** Principal Engineer: Operating Systems • Goldfields Whether an ore block is adding value in the mine or not depends on what surrounds it – does the stope pay for access, is the level economic, does the mine area make margin? What if price or costs change? Deswik.Sched has all the data, and can dynamically re-evaluate the mine as parameters change.			**Process maps in Deswik.CAD** **Benjamin Williams** Principal Mining Consultant Save time and effort by creating a process map for your repetitive processes in Deswik.CAD.
16:15 - 17:00	**Pick the Directors' brain & 2019 Road Map** **Adam White** and **Wayne Romer** Technical Directors • Deswik Meet our Technical Directors. Discuss and influence the direction of our future developments and tell us what is important to your business.			
17:00 - 19:00	Welcome reception			

WEDNESDAY 7th NOVEMBER 2018

	Open Cut Coal / Open Pit Metals	Underground Metals	Masterclasses
08:30 - 08:45	Coffee - Meet the Deswik team		
08:45 - 09:45	**Insight: Step change process - Chelopech overview** **Alex Henderson** Specialist in implementing step-change technology & process Technologies exist that will enable a step-change in underground hard rock mining but we have not re-engineered our mining processes and redesigned our mines to take full advantage of these technologies. The purpose of the Step Change Process is to engage employees, at all levels of the organization, in the design for implementation of a new mining system that uses appropriate technology to at least double the key value drivers for the operation or project. This presentation explains the Step Change Process and how it was applied at the Chelopech mine, Bulgaria.		
09:45 - 10:30	**Case study: Creation & implementation of a custom short interval control system at Cortez Hills Underground Mine** **Ethan Hull** Head of Customer Success and **Spencer Hunt** Product Owner • Barrick Gold, **Jay Gillon** Client Manager • Deswik Barrick Gold partnered with Deswik and other vendor partners to create and implement a custom short interval control system at Cortez Hills Underground Mine, as a part of their digital transformation initiatives. This presentation explores real-world examples of both internal and external challenges and will discuss the impact, improved change management, risk analysis, stakeholder management, and project management between each project implementation and how these learnings manifested themselves in a smoother transition from existing systems to a digital shift-based planning tool.		
10:30 - 10:45	Break		
10:45 - 11:30	**Case study: Replacing legacy systems in Boliden Mines** **Hilmi Pehriz** Section Manager, Mine Planning • Boliden How do you replace an in-house built mine planning system, introduce new working standards and keep everyone satisfied at the same time? This presentation will share how Boliden handle legacy mine planning system replacement for both underground and open pit operations by implementing various Deswik modules including Deswik.MDM, a spatial database and process workflow management tool.		**Plotting for underground mining** **Alex Greenhalgh** Mining Consultant Tips & tricks of plotting for surface mine planning.
11:30 - 12:00	**Case study: Deployment of a distributed mine planning system - learnings and challenges** **Ben Groeneveld** Superintendent – Scheduling and Systems, Mine Planning and Technical • Rio Tinto This presentation discusses the implementation architecture, learnings and challenges for a large operation with international teams. Through the successful implementation all aspects of the business have quick access to 'one source of the truth' across different geographic locations whilst incorporating the challenges of different time zones, cultural and language differences.		**Process maps in Deswik.Sched** **Benjamin Williams** Principal Mining Consultant Save time by creating a process map for your repetitive processes.
12:00 - 13:00	Lunch		
13:00 - 13:30	**Case study: Trolley-assist truck haulage at Boliden Aitik** **Daniil Lunev** Principal Mining Engineer • Deswik Deswik performed a study for Boliden's Aitik pit considering trolley-assisted truck haulage. The system provides economic benefit when there is a good balance between initial capital expenditure for installation and operating cost improvements. Trolley-assisted haulage was simulated on all major pit ramps using Deswik software algorithms and the trolley manufacturer's rimpull curves. The most efficient final trolley lanes were selected by assessing the performance of each potential location and then the optimal number of trolley-equipped trucks was estimated. The results were then evaluated from an economic perspective.	**Case study: Underground haulage application at the Westwood Mine** **Wei Liang** Senior Mining Consultant • Deswik Wei will discuss an underground truck haulage study conducted for the IAMGOLD Westwood Mine. This case study explores how Deswik.LHS was applied to underground mining, how it modeled the ore and waste movement, variability and peak requirements for haulage and dump inventory, and how it integrated with Deswik.Sched in analyzing underground haulage requirements from the Westwood Mine's life-of-mine plan.	**Dragline dozer design** **David Anderson** Principal Mining Consultant Gain an understanding of the more advanced tools and concepts in Deswik.DD section tool.
13:30 - 14:00	**Case study: Open pit haulage: Cycle time calibration and fuel burn rate estimation** **Bruna Rozendo** and **Marcelo Penna** Mining Engineers • MCB This project aimed to improve cycle time adherence and propose an accurate method to estimate a fuel burn rate at an open pit gold mine. The work was developed using statistical analysis of dispatch data to calibrate the truck parameters and a haulage model. Several fuel burn rate scenarios were run, varying software parameters and comparing estimates and actuals. Within the eight-month period analyzed, the reports provided truck productivity and fuel burn rate estimates with less than 4% variance from the actuals.	**Case study: Management of a rock mechanics and support system in Deswik.CAD** **Hilmi Pehriz** Section Manager, Mine Planning • Boliden The process of managing rock mechanics inspections in a mine is often done using a series of manual recordings complemented by subsequent data entry. This presentation will outline how standard Deswik.CAD process maps and the Deswik.MDM have been used to manage various rock inspection processes so as to support digital data capture, scheduling of future inspections and reporting of historic data.	**Best practices for reserving (coal)** **David Anderson** Principal Mining Consultant Take a look at some of the tools and processes used to create a robust and efficient reserving process.
14:00 - 14:45	**Best practices - survey for open pit + reconciliation** **Stephen Rowles** Product Manager - Survey • Deswik Survey functions within the open pit environment and how they can be used to enhance the mining sequence. By using the reconciliation report functions regular feedback can be given to maximize material extraction and track conformance to plan.	**Underground design tips and tricks** **Dan Cassidy** Principal Mining Consultant • Deswik There are many ways you can achieve the same outcome in Deswik.CAD. Often, we take the same steps out of habit, rather than expedience. Discover different ways to achieve the same outcome and tips to speed up the design process.	**Data management for efficient collaboration** **Adam Wylie** Engineering and Delivery Manager **Shane Domaschenz** Key Account Manager
14:45 - 15:00	Break		
15:00 - 15:45	**Surface mining design** **Ben Maziarz** Manager Western Australia and **Jason Prince** Mining Consultant • Deswik This presentation will demonstrate a technique for quickly developing and evaluating pit designs from a Pseudoflow optimized pit shell.	**Case study: Integrated planning – Development and production scheduling at the Lac des Iles Mine** **Steven Olson** Senior Mine Engineer • North American Palladium Steven will detail how NAP integrates the development and production planning for the Sublevel Shrinkage (SLS) zone at Lac des Iles mine in Ontario using Deswik.Caving software as a single link between the mine design, development schedule, and the production flow modeling schedule in Power Geotechnical Cellular Automata (PGCA) software. This case study will outline how the timing of development scheduling is synchronized with production scheduling in a workflow that brings together these once disparate systems to maximize profitability while minimizing the time required to run various draw strategy scenarios and the resulting effect on the development schedule.	**Resource leveling tips and tricks** **Benjamin Williams** Principal Mining Consultant Gain important insights into Deswik.Sched's resource leveling engine and enhance your troubleshooting ability.
15:45 - 16:30	**Best practices for landform, haulage and dump designs** **Patrick Doig** Key Account Manager • Deswik This presentation will highlight a number of "Best Practice" methods for landform design, haulage analysis, and schedule integration in order to minimize costs to the operation, minimize time to create models, and to ensure final landform outcomes are being optimized and made compliant to agreed final landform use.	**Caving** **Luke Babao** Senior Mining Consultant • Deswik	**Formula builder** **Pat Banks** Senior Software Consultant Learn to create formulae comprised of attribute or property fields & functions.
16:30 - 17:15	**Optimizing mining and destinations decisions considering haulage and landform** **Amanda Forbes** Senior Mining Consultant and **Mithra Pattison** Team Lead Integration • Deswik	**Best practices - survey for underground + reconciliation** **Stephen Rowles** Product Manager - Survey • Deswik Survey functions within the underground environment and how they can be used to enhance the mining sequence. In particular, using the reconciliation tool for both lateral and stoping reports.	**Merging models** **Benjamin Williams** Principal Mining Consultant
17:15 - 17:45	**Free time**		
17:45 - 22:30	We take you on a cruise across to the exclusive McLarens Landing tropical beach on South Stradbroke to enjoy a 5-star dinner, drinks and live entertainment. Meet us at 17.45 in the Sheraton foyer for a short walk across to Marina Mirage. The vessel will depart at 18:00.		

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THURSDAY 8th NOVEMBER 2018

	Open Cut Coal / Open Pit Metals	Underground Metals	Masterclasses
08:30 - 09:00	Coffee - Meet the Deswik team		
09:00 - 09:30	**Planning for closure** **Ainsley Ferrier** and **Amanda Forbes** Senior Mining Consultants • Deswik In this presentation, we will discuss how integrating landform engineering and closure cost calculations into tactical mine planning can deliver a more complete, overall view of the value of a project. Connecting and improving the tools used for this sort of planning has made it realistic for planners to complete this work as a part of their 'business as usual".		**Scheduling - Tips & tricks** **Benjamin Williams** Principal Mining Consultant Enhance your scheduling toolkit with tips and tricks from our scheduling experts
09:30 - 10:00	**Case study: The use of Deswik.Suite in the sterilization of historical crown pillar remnants to prevent illegal "Zama Zama" mining.** **Kevin Schmidt** Survey & Training Consultant • Deswik This presentation will highlight the need for advanced planning tools to ensure that profitable mining can take place at the same time as responsible rehabilitation occurs, which will benefit both the private sector and the community.		
10:00 - 10:30	**Case study: Mine scheduling integration and execution from head office planning to site implementation** **Samantha Fowke** Senior Mine Planning Engineer, Mine Planning and Technical • Rio Tinto With mines becoming larger and more complex and a diminishing supply of skilled engineers, many companies have transitioned to centralized planning services. This presentation demonstrates the methods for transitioning mine schedules and plans from a centralized planning department to remote and international mine sites. The case study presented shows the integration with the latest mine design, with a detailed first principles build-up of activities. Various combinations of centerlines, solids and outlines are used to generate task solids and derived tasks. The schedule is resource leveled, taking into account mine priorities, a calendar of working hours and quantity constraints. Additionally, interface solids have been built into the schedule to handle construction handovers. Schedule iterations are analyzed and communicated by exporting to an SQL database using the star schema and visualized with Tableau.		**Aggregation tips & tricks** **David Anderson** Principal Mining Consultant **Mikeal Hooley** Software Engineer A look at the aggregation logic and how your setup influences results.
10:30 - 10:45	Break		
10:45 - 11:30	**Scheduling - Best practices** **Benjamin Williams** Principal Mining Consultant and **Anirudha Sardesai** Engineering and Delivery Manager • Deswik Learn useful strategies to build faster schedules, improve efficiency and lower costs.		**Block model management** **Julian Poniewierski** Senior Mining Consultant Tips for checking block models and basics of manipulation.
11:30 - 12:00	**Case study: Benefits of online training for remote mining operations** **Oyunbaatar Batbayar** Mine Planning Engineer • Oyu Tolgoi Most mines are located far from their head office, if not on other continents, which can lead to difficulties in communication, data transfer and services for those remote mining operations. This presentation will explore how the mine site uses an array of technology and processes to save costs and ensure good communication, including the enhanced training options provided by online services.		**Dependencies creation for underground** **Sarah Cassidy** Senior Mining Consultant Learn to create and manage dependencies between tasks in a schedule.
12:00 - 13:00	Lunch		
13:00 - 13:30	**Case study: Applying Deswik.CAD and Deswik.LHS for environmental evaluation at Mount Isa Mine** **Greg Maddocks** Principal Hydrogeochemist, **Peter Long** Geoscientist • RGS Environmental RGS has been working with Deswik at Mount Isa Mine to undertake a range of environmental studies relating to rehabilitation and mine closure. Case study one looks at developing 3D geological models of the regolith and using this model within Deswik.CAD and Dewik.LHS to schedule the movement of material for rehabilitation of the MIM TSF as one of a number of rehabilitation options. Case study two shows how Deswik can be used to evaluate hydrological and geological aspects of the mine and how this information can be used for environmental evaluation.	**Case study: Underground Strategic Planning at Newmont Mining** **Kristina Huss** Mine Engineer, Corporate Technical Service • Newmont Mining Newmont Mining is applying novel techniques and tools to unlock strategic value in its underground studies and operations. A case study is used to demonstrate how advanced custom models have been used to augment commercial software to provide guidance for an underground scoping study. Our process enables us to quickly evaluate a range of options and isolate value drivers while maintaining the rigor of an activity based schedule.	**Plotting for surface mining** **Alex Greenhalgh** Mining Consultant Tips & tricks of plotting for underground mine planning.
13:30 - 14:00	**Integrating planning horizons** **Catherine Mortimer** Consulting Manager - South America • Deswik Showcasing benefits and methodologies for consistent integrated modeling across multiple planning horizons, inclusive of the final landform and other mine related activities.	**Case study: Improved drilling accuracy results in reduced ore dilution at Evolution, Cracow** **Callum Mcracken** Managing Director • Minnovare This presentation looks at actual stope performance data from Evolution Mining's Cracow operation, who after implementing Minnovare's new Production Optimiser system for six months in 2018, reduced average dilution by 18%, leading to a 22% increase in average return/tonne.	**Process maps in Deswik.CAD** **Benjamin Williams** Principal Mining Consultant Save time and effort by creating a process map for your repetitive processes in Deswik.CAD.
14:00 - 14:30	**Automated design tips and tricks** **Pat Banks** Senior Software Consultant • Deswik The mine design process requires human input for parameter compliance and high level layout decisions, but the low level repetitive aspects of the task are time consuming and prone to human error. There are various tools available in the Deswik software suite to automate parts of the design process, this presentation will introduce a few of them and demonstrate their usage.	**Best practices - underground drill and blast** **Dan Cassidy** Principal Mining Consultant • Deswik Deswik's underground drill and blast plugin is used in mining operations throughout the world. This presentation will provide guidance on making setup easier and allow you to find and correct common errors.	**Resource levelling tips & tricks** **Benjamin Williams** Principal Mining Consultant Gain important insights into Deswik.Sched's resource leveling engine and enhance your troubleshooting ability.
14:30 - 15:00	**Closing address**		
15:00 - 17:00	Drinks and discussions		

DESWIK USER CONFERENCE 2018

GUEST SPEAKERS

Alex Henderson
President
Alex Henderson Consulting, Inc

Specializing in a process for implementing Step-Change Technology for the underground hardrock mines, Alex Henderson previously worked for Vale as GM, Underground Mining Technology and as GM, Mines and Mills Technology Services for the base metals North Atlantic operations. Prior to Vale, Alex was SHE Manager Victor & Corporate for De Beers Canada. Over his 30+ years in the mining industry he has held progressive roles from miner, to engineer, mine manager and project manager for starting a new mine. His career started in his hometown of Wawa and he has worked in Africa, Timmins & Sudbury. He is passionate about process development and technology change that will cause a step-change in underground hardrock mining.

Ben Groeneveld
Superintendent – Scheduling and Systems, Mine Planning and Technical
Rio Tinto OT

Ben is a mining engineer by trade and code tinkerer by night. Currently he is leading the Oyu Tolgoi Underground scheduling and systems team as part of the offshore planning team in Brisbane. His main focus is on implementing the Deswik suite across the mine planning functions and delivering Life of Mine down to Quarterly mining schedules. He has worked in Open pit and Underground metals across Asia, Africa and Australia. Recently he completed a PhD at Western Australia School of Mines where he developed an interest in optimization, data visualization and programming.

Bruna Rozendo
Mining Engineer
MCB Mining

Bruna is a mining engineer with 5 years of experience in open pit and underground mining planning projects, in Brazil and Latin America. She graduated in Mining Engineering from Minas Gerais Federal University, in Brazil and is currently attending a Master's degree in Geostatistic and Mining Planning at Rio Grande do Sul Federal University. Bruna has worked as a consultant throughout her career, using a wide range of commodities and mining methods. In 2017, she joined MCB Serviços e Mineração, where she has worked on several mining projects, including mine design, scheduling projects, reserve estimation, in addition to training, support and implementation of Deswik.

Bruno Gadelha
Senior Mining Engineer
Vale

Bruno is a mining professional with over 15 years' experience in mine planning consulting and operations in both Open Pit and Underground Methods. Bruno has participated in several mining projects at different stages such as feasibility studies, stripping and projects development in different commodities such as iron ore, gold, and base metals.

Byron Seguin
Senior Mining Engineer
Vale Canada Ltd

Byron is a senior mining engineer at Vale Canada Limited's Totten Mine. He uses Deswik's suite of products to produce the life of mine plan, budgets, and forecasts for the mine. Previously he was the technical lead for the implementation of Deswik at Vale Canada Limited's Sudbury mining operations. The scope of this implementation directly affected 125 users of mine planning and scheduling software. Byron graduated from Laurentian University in 2012 with a degree in Mining Engineering. After graduation, he began working at Vale as an EIT. Byron has worked in a variety of roles including ground control, short range planning, long range mine design, and some operations experience.

Callum McCracken
Managing Director
Minnovare

Callum McCracken is Managing Director and co-founder of Minnovare - an advanced technology supplier specialising in drilling optimization hardware and software for the mining industry. Callum is a Mechanical Engineer, graduating from the University of Ulster in Northern Ireland with a BEng Honours, Mechanical Engineering with DIS. Since moving to live in Perth in 2007, Callum has accumulated several years' experience in mine surveying, engineering, and operational and managerial roles. In 2012 Callum co-founded Minnovare which has quickly grown to become a global technology leader, with offices in Perth (Head Office), Canada and the United States.

Chris Alford
Director
Alford Mining Systems

Chris Alford is a mining engineer who has worked with mining companies, mining software suppliers and in academia over the past three decades applying optimization techniques in new and novel ways in the evolution of technical software for mining applications. In the past 10 years he has focussed primarily on underground mine optimization.

Ethan Hull
Head of Customer Success
Barrick Gold

Ethan is a digital executive with more than 15 years of diverse technology, sales and leadership experience in financial, heavy industrial digital and IT based systems as well as global technology management. Bringing value through technology is key to Ethan's success. If it's not truly adding value to the business it should not be there at all. He has built and led large state, regional and now global teams at Barrick. Ethan has been at Barrick for 5.5 years where he started as a regional IT manager and moved to the North American Manager of IT for Barrick Gold. Most recently, Ethan moved from traditional IT in to a Digital Dev Ops lead where he led the build of Barrick's initial code management and continuous integration, continuous delivery and release management. He now leads the Customer Success group which handles the implementation and adoption of Barrick's digital products and programs. His team is key to getting the value out of what the business spends on technology. The main focus is to make sure they know what the program/product is, who is using it and that it is delivering on the investment. Ethan comes to Barrick Gold from NNE Construction, where he was the superintendent of sales and implementation over land based terrestrial copper/fiber and microwave/cell tower installations in the intermountain west. He led the company in sales from $2 million to $10 million annually within 3 years.

Gabor Bacsfalusi
Principal Consultant (Mining)
SRK Consulting (Canada) Inc.

Gabor Bacsfalusi, MAusIMM(CP), is a Principal Consultant at SRK Canada with over 10 years of international experience. He specializes in undertaking and managing open pit technical studies and providing operational support.

Greg Maddocks
Principal Hydrogeochemist
RGS

Greg has a PhD in hydrogeochemical engineering that focused on soil science, geochemistry, soil cover system design on waste rock and tailings and ecotoxicological assesment of flora and soil biota. He has 20 years mining sector experience and 15 years consulting experience. Since 1998 he has worked on over 100 metalliferous and coal open pit and underground mining projects in the Lao PDR, Indonesia, Malaysia, New Zealand, China, New Caledonia, Fiji, Solomon Islands, Papua New Guinea, Vietnam, Algeria, Romania, and Australia.

Hilmi Pehriz
Section Manager, Mine planning
Boliden

Hilmi Pehriz is an experienced mining engineer, currently working as mine planning manager for Boliden. He studied in Turkey and Sweden before starting his professional career as a process engineer. He then moved to Sweden and started his Boliden career. He has been working in the company for more than 6 years now working mainly projects, relating to mid-term and long-term planning, mine design, mine economics and software implementations. He is skilled in various CAD and other computer software. When he is not sitting in front of a computer screen, he spend his time building LEGO. He is currently working with rock inspection tool and open pit short-term and mid-term planning software implementations.

Isabela Machado
Mining Engineer
MCB Mining

Isabela graduated from UFMG in 2016 in Mining Engineering and has experience in surface and underground mine planning. She began her career at MCB Serviços e Mineração in mine planning in 2015 and has developed surface and underground mine projects whilst offering support and training for Deswik software users. In November 2016, Isabela joined the MCB team as a Mining Engineer. She has since executed numerous projects in Brazil and internationally, including underground and surface mine designs and sequencing (long, medium and short term); reserves estimation (emphasizing IPO process projects); budgeting; fleet sizing; implementation and the support of Deswik software in several projects.

Kristina Huss
Mine Engineer, Corporate Technical Services
Newmont Mining

Kristina Huss has over 10 years experience working on mine optimizations, designs, schedules and cost models, with a particular focus on gold and base metal projects, for both open pit and underground mining methods. Prior to joining Newmont, Kristina acquired both open pit and underground operational experience at mines in Chile, Zambia and the United States. She is currently based in Newmont's headquarters in Denver, supporting Newmont's portfolio of underground projects and operations worldwide.

Liz Deucker
Principal Engineer Operating Systems
GoldFields

Through her career, Liz has worked within Australia and internationally in a variety of roles including mine management, operational and strategic planning, and business improvement. Since joining Goldfields 6 years ago, Liz has leveraged this experience to focus on designing and implementing systems and processes to align mine planning and operations management and creating a plan driven execution culture. Liz has a strong interest in enterprise optimization and likes to make rapid solutions for a variety of planning processes. She has previously worked for a number of organizations including Newmont and North American Construction Group's mining and construction division.

Marcelo Penna
Mining Engineer
MCB Mining

Marcelo is a mining engineer, graduated in Minas Gerais Federal University, in Brazil. During his graduation he was granted a scholarship and had the opportunity to study Mining Engineering at the University of Adelaide in Australia. He now has 4 years' experience in mine planning projects, in Brazil and Latin America. Having worked in consultancy his entire career, he has worked with a wide range of commodities and mining methods. Marcelo joined MCB in 2015 and has been working with Deswik ever since, with mine design and scheduling projects for open pit and underground mines, reserves estimation, budgeting, fleet sizing and software training and implementation.

Oyunbaatar Batbayar
Mine Planning Engineer
Oyu Tolgoi

Oyunbaatar is a Mine Planning Engineer for Oyu Tolgoi Underground Project. He has 10 years of mine planning experience in the large-scale open pit and underground mining operations in Mongolia. He holds a Bachelor of Mining Engineering from the Mongolian University of Science and Technology. Prior to joining Oyu Tolgoi, he had been working as a senior planning engineer for coal mines.

Samantha Fowke
Senior Mine Planning Engineer, Mine Planning and Technical
Rio Tinto OT

Sam is a Mine Planning Engineer, working for Rio Tinto on the Oyu Tolgoi Underground project in Mongolia. Based in Brisbane, Sam is a part of the Mine Planning and Technical Team and is responsible for the quarterly and annual schedules.

Sidney Dekker
Professor, pilot, and best-selling author on human factors & safety
Griffith University

Sidney Dekker (PhD Ohio State University, USA, 1996) is professor at Griffith University in Brisbane, Australia, where he runs the Safety Science Innovation Lab. He is Chief Scientist at Art of Work. Sidney coined the term 'Safety Differently' in 2012. It has since become a book, a website, a film (released in 2017) and a movement. Sidney is also instrumental in promoting restorative just culture as a response to incidents. His film 'Just Culture' was released in 2018. He has lived and worked in seven countries across the world. Shortly after becoming professor, he qualified on the Boeing 737, and worked part-time as an airline pilot out of Copenhagen. He is best-selling author of, most recently: The Safety Anarchist (2018); The End of Heaven (2017); Just Culture (2016); Safety Differently (2015); The Field Guide to Understanding 'Human Error' (2014); Second Victim (2013); Drift into Failure (2012); and Patient Safety (2011).

Spencer Hunt
Product Owner
Barrick Gold

Spencer is an Operations Management and Information Technology professional with experience in various industries, including heavy industrial, education, real estate and retail.

He holds a Master of Science degree in Management of Technology, with primary emphasis in change management, process workflow change and process improvement. He earned his Bachelor's degree in Operations management and is a certified Black Belt in Lean Six Sigma. All degrees and certificates were earned at Arizona State University.

Spencer joined Barrick Gold in January of 2017 near the start of their digital transformation journey. Throughout his time with Barrick he has held several roles from supporting digital products, leveraging technologies to alleviate manual and repetitive work throughout the organization and assisting in the creation and shaping of the Customer Success team to drive adoption and implementation of digital initiatives.

Most recently Spencer has joined the Scrum Team for the Underground Short Interval Control (UG SIC) product as the Product Owner. This has further driven him to be unwaveringly focused on the user experience and developing the correct tools for the people that will be using them to drive adoption and value of the UG SIC product.

Steven Olson
Senior Mine Engineer
North American Palladium

Steven Olson is a Senior Mine Engineer at North American Palladium (NAP). Prior to joining NAP five years ago, he worked at De Beers Canada's Snap Lake Mine, where he held a variety of positions including Short Term Planner, Medium Term Planner, Ventilation Engineer and Underground Miner. At North American Palladium, he has been a key player in Lac des Iles Mine's transition from Open Stope mining to Sublevel Shrinkage, from concept to execution. This unique experience has shown him that there is nothing more rewarding than the successful implementation of an innovative idea.

William Bennett & Murray Smith
Principal Mining Consultants
Mining Plus

William and Murray both work for Mining Plus consultants, based in Melbourne, and have about 35 years in the mining industry between them covering all continents other than Antarctica. Specialising in underground metalliferous mine planning, both are regular users of the Deswik suite of software.

DESWIK SPEAKERS

Adam White
Technical Director
Deswik

Adam is the co-founder and co-technical director of Deswik, and a mining engineer with over 20 years of experience in the mining industry. Early in his career, he worked in mining operations and mine planning consulting, then moved on to develop multiple mine planning systems (Mine2-4D and Deswik Suite). Adam currently oversees the development of Deswik.MDM, Deswik.OPS, Deswik.GeoTools and various aspects of the Deswik Suite product set.

Ainsley Ferrier
Senior Mining Consultant
Deswik

Ainsley is an accomplished mining engineer with over 15 years' experience in the open cut coal industry in both mine planning and production roles. Her core skills include technical support for mine design and scheduling. These skills have been developed in a wide range of roles at multiple mines in Queensland's Bowen Basin, New South Wales' Upper Hunter Valley and the West Coast of New Zealand.

Alex Greenhalgh
Mining Consultant
Deswik

Alex begun his career at Deswik as an Undergraduate while studying at the University of Queensland. During this time, he took on training fellow students, how-to videos for social media and supporting other consultants. Four years on, he is working with clients from some of the largest underground metals projects in the world to provide quality solutions for complex design, scheduling and data problems. On the side, Alex is creating new and efficient ways to visualise data within Deswik for plotting and printing purposes.

Amanda Forbes
Senior Mining Consultant
Deswik

Amanda has over 10 years of industry experience as a mining engineer. She has worked in Queensland and Western Australia at large, small and multi-pit open cut operations in a diverse range of commodities. Amanda has strong operational experience in production planning, quality scheduling, drill and blast engineering and production supervising. She has contributed to a number of scoping and pre-feasibility studies in copper, gold, uranium and iron ore, in areas including mine optimisation, mine design and long-term scheduling. Amanda has a range of experience in final landform and closure costing and scheduling. Amanda has also spent significant time involved in financial analysis, cost model development and quantitative risk analysis.

André Stickling
Senior Mining Consultant
Deswik

André completed a NHD Mine Surveying in the early 90's and started his career in the Survey field in the South African gold mining industry. He completed several Mine Design related courses and moved to Mine Planning. By 2000 André had gained enough experience to go into consulting and has worked in this field ever since. André has worked on various projects ranging from Concept to Feasibility studies & Implementation. His expertise is in the Narrow Tabular Ore bodies of the Gold and Platinum Mines of South Africa. André also pursued a management career, successfully completing a MBA in 2007 which allowed him to become a director at Sound Mining Solutions where he gained experience in administration, supervision & decision making. André started working at Deswik in 2018 as Senior Mining Consultant where his responsibilities are focused on design and planning consulting work across various commodities for underground mines.

Ben Maziarz
Manager - Western Australia
Deswik

Ben has 25 years of experience in open pit mining across a range of commodities including iron ore, magnetite, coal, nickel and platinum group metals and has worked in both the United States and Australia. Ben has experience in grade control, contractor supervision, drill and blast, open pit mine design, short to long term planning, mine planning system design and implementation,

budgeting, economic modelling, feasibility studies, carrying out peer reviews and some exposure to autonomous haulage systems. Prior to joining Deswik, Ben worked as an independent consultant mining engineer and worked with a wide range of clients including Rio Tinto, BHPB Iron Ore, Fortescue Metals Group, Goldfields and TWSP.

Benjamin Williams
Principal Mining Consultant
Deswik

Ben has over 17 years' experience working within the mining industry. Throughout this time he has held operational positions at seven different sites with exposure to a variety of underground mining methods in both metalliferous and coal. Ben has spent nearly 8 years working with Deswik providing specialized mining planning support to a large variety of clients in a variety of both underground and open cut mining methods. For the last three years Ben has also been our Subject Matter Expert for Deswik.Sched as well as being involved in several large scale enterprise implementations for Deswik.MDM.

Catherine Mortimer
Consulting Manager - South America
Deswik

Cat is a mining engineer with over 10 years' experience in predominantly open cut mining operations. Her core skills include mine design and scheduling across all time frames within the planning process. She has operational experience, with a number of roles in mine sites in Central Queensland and Laos, and implementation projects in Australia, Laos, Papua New Guinea and Chile. Since joining Deswik in late 2010, Cat has developed an intimate knowledge of Deswik's suite of mine planning software. She has completed a range of technical projects including life of mine (LOM) reserving, LOM scheduling, mid-term reserving and mid-term scheduling, pit design, pit optimisation and software implementation.

Dan Cassidy
Principal Mining Consultant
Deswik

Dan is an accomplished mining engineer whose career in the industry spans more than 15 years in underground mining and consulting. He also has experience with open pit mining from a consulting perspective. His experience includes various underground mining methods ranging from room and pillar, to underhand cut and fill, to large open stoping, narrow vein, and block caving. Dan's underground experience includes design and operational roles in various mines in the USA and Australia.

Daniil Lunev
Principal Mining Engineer
Deswik

Daniil is a mining engineer with 9 years' experience in predominantly open pit and underground mining operations. His skills include mine design, reserve estimation, life of-mine, medium and short-term scheduling. Being Russian national, Daniil has been heavily involved in CIS projects and gained experience of mining aspects specific to the region.

Dave Anderson
Principal Mining Consultant
Deswik

Dave Anderson is an accomplished Mining Engineer with over 11 years of mine planning experience in open cut coal projects. Dave has also diversified with recent exposure across various open pit metal operations. With significant experience in site roles, Dave has developed broad skills across several planning disciplines as well as becoming proficient in several software packages.

Dave Capstick
Business Development Manager
Deswik

Dave graduated from Liverpool University in 1983 with a B.Sc. (Hons) Geology and proceeded to work in gas exploration. In 1988 he accepted a position as a geologist from Anglo American and worked on Wits gold mines in South Africa. In 1994 Dave was appointed part of a working group investigating mining technical systems for AngloGold and subsequently became the project manager of the CAD planning project at Elandsrand. As a result of this project Dave became a founding member and the Sales Director of GMSI in 1996. Dave was part of the team that set up Deswik Mining Consultants in 2007 as the Sales Manager. He returned to Deswik as the Business Development Manager for Africa in 2017 after spending sometime at FLSmidth as a result of a sale of the Deswik mills to that group.

Jason Prince
Mining Consultant
Deswik

Jason is a skilled mining engineer with more than 5 years of experience in the open cut coal industry. His core skills are mine design, simulation and scheduling, complimented by coding & database experience. He has held a number of short term planning roles at several BMA mines, as well as working in the medium term coal planning space. Jason has a passion for technology & innovation and has created several tools and processes for automating planning operations, most recently on an automated road and ramp design tool. In his time at Deswik he has worked with reserving, the enviro landform and reshape tools and the dragline and dozer module.

Jay Gillon
Key Account Manager
Deswik

Jay is a Mining Engineer with years of operational engineering experience in a variety of roles including mine planning, ventilation, project management, and contractor support. The battle-tested learnings of this experience, delivered via the fire hydrant teaching style favoured by a large percentage of mine operations, taught him many valuable lessons. Not the least of which was that his personal strengths are much more valuable in a customer support role. In the years since that realization Jay has held a variety of roles in support of the mining industry including business development, account management, and project management. Jay is currently the Key Account Manager for several of Deswik's larger customers, including Barrick, and was the project manager and main Deswik point of contact for the development of Barrick's Short Interval Control product.

Julian Poniewierski
Senior Mining Consultant
Deswik

Julian has over 35 years of experience in mine planning, operations, consulting and R&D. His experience covers mine operations, rock mechanics research, mine planning, haulage modelling, long-term and strategic scheduling, reserve reconciliation, Ore Reserves statements, cost modelling, budgeting, due diligence audits, software implementations and technical team management. Styles of mining Julian has worked in include underground mines ranging from small-scale hand-held track based mines to large scale trackless open stoping mines; and open cut mining from bauxite strip mines to medium scale desert and tropical open pit sulphide and oxide operations. He has been at Deswik for the past 2 years.

Kevin Schmidt
Survey & Training Consultant
Deswik

Kevin is a Mine Surveyor with 25 years' experience, mostly in underground mining. He has qualifications in both Mineral Resource Management and Education, obtained from the University of Johannesburg, as well as a Mine Surveyors Certificate of Competency. He has worked for a combination of mining houses in South Africa, including Anglo American, Goldfields and JCI, as well as running his own training company for 15 years. In 2013 he joined Deswik SA where he runs Deswik technologies, which delivers survey, planning and UAV services to the Southern African mining industry.

Luke Babao
Senior Mining Consultant
Deswik

Luke is an accomplished mining engineer with experience spanning more than 13 years of which he has worked with contractors and consultants. Luke's experience varies from feasibility studies, ventilation modelling, drill and blast and mine planning as well as operational in full mine development, rises within mines, service contracts and hydroelectric dam rehabilitation projects. Since starting with Deswik in July of 2013, Luke has enhanced his skills with the Deswik suite of mine planning software. He has worked on a broad range of projects including landform and haulage modelling, LOM reserving, caving analysis and schedule trade-offs.

Matt Chilcott
Managing Director
Deswik

Matt started his career as a mining engineer working in operations and then moved into the IT sector. During his 15 years in the IT industry, he held various technical, sales, project management and management roles and was involved in starting, growing, and managing a number of IT businesses. He joined Deswik seven years ago where he was able to combine his mining, professional services, IT and management experience in the role of Managing Director.

Neil Tyson
Business Development Manager
Deswik

In his role as Business Development Manager at Deswik, Neil Tyson is responsible for identifying and pursuing new and innovative applications for Deswik software and consulting services, as well as developing and managing key client relationships. Neil is a mining engineer with diverse experience spanning surface and underground coal, surface and underground hard rock, and deep-sea mining projects and operations, as well as tunneling and civil project controls.

Pat Banks
Senior Software Consultant
Deswik

Pat is an accomplished mining engineer with over 17 years of experience in underground and open pit metalliferous mining. He also has had some exposure to open cut coal mining from a consulting perspective. His core skills include mine design and scheduling across a broad range of mining methods, and writing code to streamline the process. He also has a strong operational background from roles with resource companies and mining contractors. Since joining Deswik in early 2011 Pat has taken coding to the point of recently transitioning from the consulting team to the development team.

Patrick Doig
Key Account Manager
Deswik

Patrick Doig is a skilled and proficient engineer with experience in both mine planning and production roles over thirteen years. His background is in open cut coal, open pit metals, highwall mining and rehabilitation works throughout Australia and abroad. Since joining Deswik in 2010, Patrick has worked on a wide range of planning, scheduling and management roles. Patrick's experience and passion in mine planning has been deployed to a wide range of projects including onsite implementation, detailed design, rehabilitation works, scheduling, acquisition studies, EIS studies and mentoring of consultants and operations in Best Practice Mine Planning.

Sarah Cassidy
Senior Mining Consultant
Deswik

Sarah is an accomplished mining engineer whose career in the industry spans more than ten years in underground mining operations and open pit contracting. Sarah's underground experience includes design, scheduling and operational roles in large open stoping in Australia. Her open pit experience includes project estimation and tendering across a range of commodities including coal, gold and iron ore.

Stephen Rowles
Product Manager - Survey
Deswik

Stephen is a qualified mine surveyor who has over 10 years' experience underground in Western Australia and 2 years' experience in engineering surveying in London. He has worked for Barrick, Goldfields and Sirius/IGO. At the Nova project in WA he worked in partnership with Deswik to develop the surveying functionality that now exists in Deswik. His role within Deswik is to develop the surveying product and provide scoping, training, implementation and analysis for operations around the world.

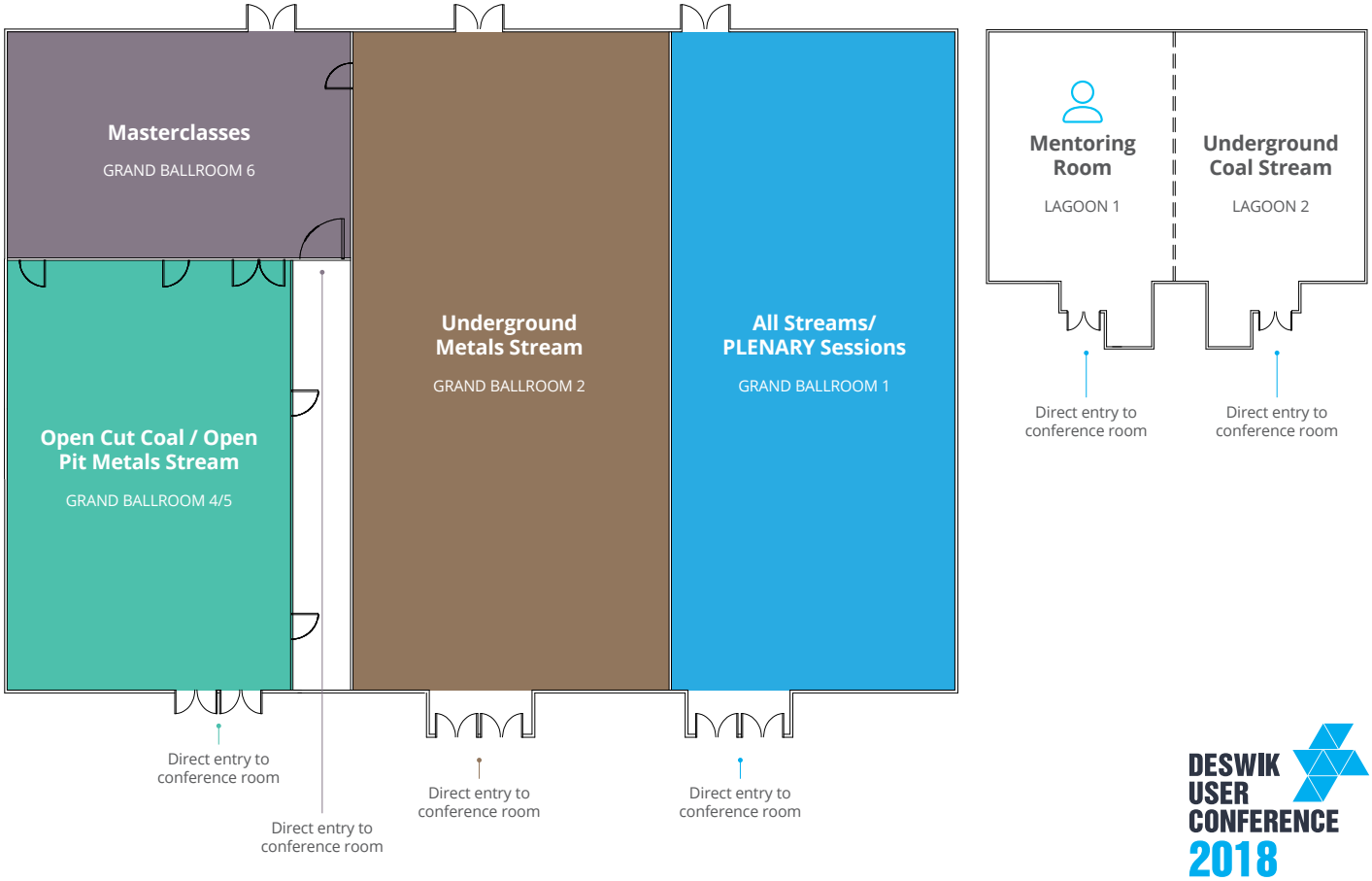
Wayne Romer
Technical Director
Deswik

Wayne is co-founder and co-technical director at Deswik. His unofficial Deswik title is "Minister for Culture". He has a passion for solving real world problems using software, having spent the last 20 years in the mining industry feeding this addiction. He has worked in South Africa, Canada, Germany and the United States, as well as his home of Australia, which has given him a unique global perspective of the challenges facing mining companies and personnel.

Wei Liang
Senior Mining Consultant
Deswik

Wei Liang is a senior mining consultant at the Deswik Sudbury Office. In the past three years at Deswik, he has been heavily involved in many Deswik suite implementations, mine design and production planning studies, and operational optimization projects. His experiences and strong skills in Deswik underground suite and other mine planning software have helped many customers in North America during his professional career. Wei graduated from Laurentian University in 2008 with a degree in Mining Engineering and received his Master Degree in Natural Resource Engineering from Laurentian University in 2014. He has been working as a Mining Consultant at different companies and joined Deswik Canada in 2015.

CONFERENCE MAP



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