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GROUND BREAKING NEWS OUR LATEST RELEASE,

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SSR-VIEWER 9

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GroundProbe®



Each and every day at mine sites across the globe, GroundProbe solutions are providing customers with information that they can act on.

While it's our array of hardware solutions that collects the data on these sites, it's our industry-leading SSR-Viewer software that makes the data easily understood. It's through SSR-Viewer that users can see what's moved, when, and predict time of failure.

Over the past 17 years, we've constantly refined SSR-Viewer to ensure it remains intuitive, in tune with industry standards and most importantly, in keeping with customer needs. With the largest database of wall failures in the world to continually learn from, we are able to constantly enhance and evolve its data visualisation and analysis features.

We are proud to announce the arrival of SSR-Viewer 9, a major update to our SSR-Viewer software platform with a number of significant advances.

The release brings a host of new features and functionality to our market-leading platform, many of them developed in collaboration with our customers.

I look forward to telling you more.

John Beevers

Chief Executive Officer

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Software that Unifies All Hardware

PRODUCT NEWS

SSR-Viewer 9 is the common software across all of our monitoring devices.

This latest release supports all GroundProbe Series-2 and Series-3 radar technologies - 3D Real Aperture Radar, 2D Real Aperture Radar and 2D Synthetic Aperture Radar - and both of our new LiDAR-based technologies, the Geotech Monitoring Station (GMS) and Geotech Monitoring LiDAR (GML).

All the features and benefits of SSR-Viewer that our long-serving radar customers have been accustomed to - such as its intuitive visualisations, industry-leading analysis tools and powerful reporting - are now also available for our LiDAR-based solutions. GroundProbe's patented imaging system, where high-resolution photographs are co-registered with radar data, is a step change in data visualisation for prism and virtual prism monitoring.

Just like our radars, when the data is visualised, the deformation heatmap is draped over the high resolution image.

Automatically visualising data in this way sets the GMS apart from existing solutions, which often force users to view data in a table rather than more intuitive visualisations.

This latest release also supports Windows 10.

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Powerful New

3D Engine

PRODUCT NEWS

For our radar customers, SSR-Viewer just got better.

SSR-Viewer 9 includes a powerful new engine that revolutionises 3D data visualisation across our entire suite of Slope Stability Radars and lasers.

2D RADAR DATA VISUALISED IN 3D

SSR-Viewer 9 allows users to visualise 2D radar data in 3D, giving our SSR-FX and SSR-SARx customers a bonus visualisation tool.

These users can now view their data in the new DTM View visualisation, as well as in the existing Plan View visualisation.

In both, the deformation heatmap is overlayed on top of the scene, and users can switch between the two visualisations.

To visualise the 2D data in 3D, users simply import their mine site DTM and align the radar data with it.

The two are snapped together ready for viewing and analysis. Once the DTM is imported the radar data is automatically geo-referenced.





IMPROVED VISUALISATION FOR 3D RADAR USERS

For our SSR-XT users, the 3D visualisation functionality has been significantly improved.

The radar still automatically generates a powerful, high-density 3D model of the wall, live, with every scan. But SSR-XT users now have the flexibility of optionally importing a mine DTM for a holistic view of the entire site.

The SSR-XT deformation heatmap can now be viewed in both the original Front View and 3D DTM View. In both visualisations, the radar data is co-located with the scene.

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DRAG AND DROP EXTERNAL LAYERS AND STRUCTURES

Across all our radars, the new DTM feature also allows users to drag and drop external models, geology layers and structures, with geo-referencing built in.

Data layers, such as the data point cloud, radar point cloud and enhanced deformation masks can be switched on and off to suit the user.



Two New Analysis

Tools

PRODUCT NEWS

The latest update also includes two new powerful analysis tools – Forecast and Spot Velocity.

FORECAST

Forecast allows users to estimate the time of collapse using inverse velocity theory. Users can now add a forecast prediction in-chart to easily visualise when the plot reaches zero and hence the time of collapse.

Forecast is available on charts that display inverse velocity, namely the Custom Analysis and Velocity Views.



SPOT VELOCITY

Spot Velocity gives users the rate of change between two points in time with the click of a button. Available on all charts, it gives the user not only the rate of change, but also the delta time and delta measurements.



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Alarm Threshold Visualisation

PRODUCT NEWS

Users are now able to visualise alarm thresholds to assist in alarm creation and historical analysis.

Available for all alarm types - Deformation, Coherence, Tracking, Velocity, Inverse Velocity and Velocity Ratio – alarm thresholds are visualised as a 'banded window' on the corresponding analysis chart.

When an alarm is defined, the threshold is visualised in the charts using a banded window of three colours.

Green areas show when an alarm isn't triggering, while the red and orange areas highlight when the alarm will



trigger, allowing for an early indication of when an alarm is approaching.

Alarm thresholds are also a very powerful back analysis tool. Site specific alarm thresholds can be generated from back analysis and an iterative approach towards the application of alarms can be adopted. Users can monitor and track the effectiveness and applicability of these alarms for all situations.

The alarms tab now also contains an analysis chart. The data displayed is based on the alarm configuration, with users able to select pixels within the alarm mask, allowing for the alarm threshold to be visualised.

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Single or

Double View

PRODUCT NEWS

For monitoring devices that support Front View - SSR-XT, GMS and GML - a new single, full-screen view has been created.

In the Front View visualisation, the deformation heatmap is draped over the high-resolution photograph taken by the system – a technique unique to and patented by GroundProbe. The single view allows users to now view this deformation heatmap atop the image in full screen.

It's been made available in the Analysis, Images, Alarms and Masks tabs, and users can toggle between the new single view and the existing double view.





24/7 Support Desk

CUSTOMER SUPPORT

GroundProbe provides all current customers with access to our 24/7 Customer Support Desk service.

This service supports all technical, mechanical, electrical, communications and software questions or issues that customers might have.

Staffed 24/7, there is always someone available to help resolve a customer's problem when needed.

GroundProbe's support system automates an internal escalation process, making it more efficient at directing resources effectively.

It also provides a guaranteed point of contact for any technical faults that require immediate assistance.

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Accessible via telephone, email or the support portal on the GroundProbe website; the system automatically generates tickets, enabling customers to track the progress of a request in real time.

Contacting GroundProbe's support desk directly is a more efficient and streamlined way of having issues resolved than contacting either business units or offices.

By contacting the support desk directly, GroundProbe can:

- Make a quick assessment of whether additional information is required by our technical experts to resolve your issues;
- Accurately track issues against expected resolution times; and,
- Prioritise calls for fast resolution.

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Increased Levels

of Support with

WebUpload

INNOVATIONS

SSR-Viewer 9 also includes improvements to our WebUpload functionality.

We've redesigned the back-end to improve its overall performance and added in some further functionality.

GroundProbe customers utilising our WebUpload service have access to increased levels of support and maintenance. Included in all of our Care Plans, the service is readily available to all our customers. WebUpload is a utility program used in conjunction with our industry-leading SSR-Viewer software.

It's what allows our Technical Specialists and Geotechnical Engineers to view your radar data, and in doing so, provide support that maximises the value of your asset.

Through viewing the shared diagnostics and wall folders, GroundProbe can provide:

- Remote proactive and on-call technical support;
- Remote geotechnical advice and data quality assessments; and,
- Secure data back-up, archiving and restoration.

The data transfer is of low risk to the customer, with all radar data transferred securely.





PROACTIVE TECHNICAL SUPPORT

Based on real-time radar diagnostic information, GroundProbe can offer proactive technical support. Through diagnostic data reviews, our customer support desk technicians can ensure that your radar is always in good health, and to ensure maximum uptime and reliability, use the diagnostics to plan for preventative maintenance.

24/7 ON-CALL TECHNICAL SUPPORT

In times when immediate assistance is required, the WebUpload service is also what allows our support desk technicians to troubleshoot problems remotely. The real-time diagnostic information that the radars provide permits our Technical Specialists to provide immediate assistance.

REMOTE GEOTECHNICAL SUPPORT

Our Geotechnical Support Services (GSS) engineers have extensive geotechnical monitoring experience which they use to continually refine the application of radar for advanced slope monitoring.

An optional, paid service; the GSS team can remotely monitor your radars performance in real-time and in doing so highlight geotechnical issues or changes in data patterns, offer expert advice and provide advanced training directly to mine sites.

DATA QUALITY OPTIMISATION WITH GSS

Through WebUpload, our GSS team has the ability to remotely conduct assessments on the quality of data being provided for geotechnical interpretation.

By analysing GroundProbe's parameters for optimal data quality – system health, scan area, photographs, masking, alarming and atmospheric correction - GSS engineers have been able to identify a number of areas where subtle improvements can be made to improve the quality of data being provided, ultimately allowing for more confident decision making by the mine site. Our support desk also offers this service for free proactively.

SECURE DATA BACKUP AND ARCHIVING

All radar data is stored and made immediately available to customers during the term of service. After this time, we archive the data, yet still make it accessible.

With a triple-pronged approach to security, we store our fleet's data in our own encrypted servers in an offsite secure facility with protection against explosions, fire and flood, back it up at a secondary secure facility, and thirdly, store it in a third medium for 5 years after the last radar scan.

FREE DATA RESTORATION

In the case of missing historical data or needing to retrieve archived data, GroundProbe provides free data restoration. On request, we are able to swiftly retrieve all of the necessary Wall Files from our archives and issue them back to site engineers on a hard drive for their reinstatement.

WebUpload is a service that is free of charge to all customers on both Standard Care and Complete Care Plans, and to all lease customers.

We encourage all our customers to utilise our WebUpload service, and in doing so, gain access to the increased technical and geotechnical support and proactive maintenance solutions that we can provide.

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GroundProbe Named

Australia and New

Zealand's Most

Innovative Company

for 2018

PRESS RELEASE

GroundProbe has been recognised as the most innovative company in Australia and New Zealand, taking out the number 1 spot on the Australian Financial Review's List of Most Innovative Companies for 2018. The honour was announced at the 2018 AFR Most Innovative Companies List Awards Night. The list was comprised of the Top 100 innovative companies, compiled from over 1000 nominations.

The AFR Most Innovative Companies List (previously the BRW Most Innovative Companies list) is now in its seventh year. The prestigious annual list ranks the most innovative organisations from Australia and New Zealand, and is the only national, cross-industry list of its kind.

GroundProbe also received two special awards on the night for 'Best Product Innovation' and 'Best Overall Innovation'; both of which were awarded for the Geotech Monitoring LiDAR (GML).





A panel of industry experts, together with leading innovation consultancy Inventium, rate the submissions based on the idea behind the innovation, how well it addresses the problem it is trying to solve, the quality and uniqueness of the solution and the level of impact that it has had in the real world.

Also assessed are internal elements such as innovation culture, strategy, resources and process, which demonstrate a sustainable and repeatable approach to innovation.

GroundProbe CEO John Beevers says that GroundProbe's focus on innovation is not by accident and it is a cornerstone of the business' strategy for success.

"We made a conscious decision to adopt it as a business strategy and invest in how we deliver it, focussing on excelling in innovation and product leadership, and customer intimacy," said Mr Beevers.

"We micro fund ideas, we celebrate fast failures, and we congratulate and reward innovation on both a whole-company and individual employee level.

"We use it to lead our industry and differentiate ourselves from our competition." Importantly, GroundProbe also ensures that customers are brought along every stage of the innovation journey, engaging with them in several ways.

"We hold product development forums and workshops with our most strategic customers to brainstorm improvements and to push the limits of our technology," said Lachlan Campbell, GroundProbe's VP of Marketing and Technology.

"Very early in the piece we bring our customers in and mock up products for them to engage with, interact with and develop our product based on their directions and usage. These customers come with us on the development journey, becoming beta test sites and often early adopters of new technology."

GroundProbe last entered the awards in 2016, where the company was awarded the 36th Most Innovative Company from a shortlist of over 1000 entrants.

The final list of the 100 Most Innovative Companies has been published in the Australian Financial Review, a national publication that reaches 1.8 million readers.



Good Design, Design Innovation and Design Impact

PRESS RELEASE

GroundProbe's Geotech Monitoring Station (GMS) received the prestigious Good Design Award® Best in Class in the Product Design category at Australia's Good Design Awards in recognition for outstanding design and innovation.

The GMS was also a Good Design Award® of the Year Nominee.

The annual Good Design Awards is Australia's most prestigious awards for design and innovation, and celebrate the best new products and services on the market.

The award was won by GroundProbe and their industrial design partner, Designworks.

All entries in the Good Design Awards are evaluated against criteria for good design, design innovation and its social, commercial and environmental impacts.





By nature, the product's primary intent is to improve safety in dams, tunnels, mines and landslides. The technology allows its users to conduct real-time, remote monitoring to warn of collapses. It detects movement early with precision, enabling its users to correlate trends and forecast when a collapse is likely to occur.

"Each year there are several dam collapses globally, and multiple fatalities from mine wall failures," said Lachlan Campbell, VP Marketing & Technology of GroundProbe.

"By giving early warning of an impending collapse in a dam or mine, our product enables customers to make confident decisions to avert a collapse and protect lives, workers and equipment.

"Our product delivers safer and more productive mines and dams that operate longer and more profitably." On the innovation front, the GMS is a first for the industry. It not only monitors prisms, but is also capable of monitoring 'virtual' points on the wall that reflect the laser signal directly off the rock. The system is also fully compatible with our analysis software, SSR-Viewer. Its powerful data visualisation, charting and analysis tools take the GMS well beyond the capabilities of typical Robotic Total Stations.

When Designworks embarked on designing the product's enclosure, form and function were at the forefront, ensuring it was both appealing and unambiguous for the end user.

"The cutting edge design of the enclosure system embodies the innovative technology housed within," said Warren Schroder, Director, Designworks.

"The faceted form and triangular shapes represent the nature of the three dimensional geophysical data which is at the core of GroundProbe.

"It is a high-quality, technology-driven design, yet functional in its approach and appropriate for mine sites, which are often located in some of the most inhospitable environments on the planet."

The 60th Good Design Awards attracted record entries of 536 innovative designs with 269 projects receiving the coveted Good Design Award[®]. Of these, there were only 30 Best in Class Award Winners, across a range of industries and design professions.

The Good Design Awards Jury commented: "Everything about this product is exceptional and the design team should be extremely proud of the outcome".



From the products we develop, to the slope monitoring solutions we tailor, our vision is making mining safer.

MAKING MINING SAFER

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