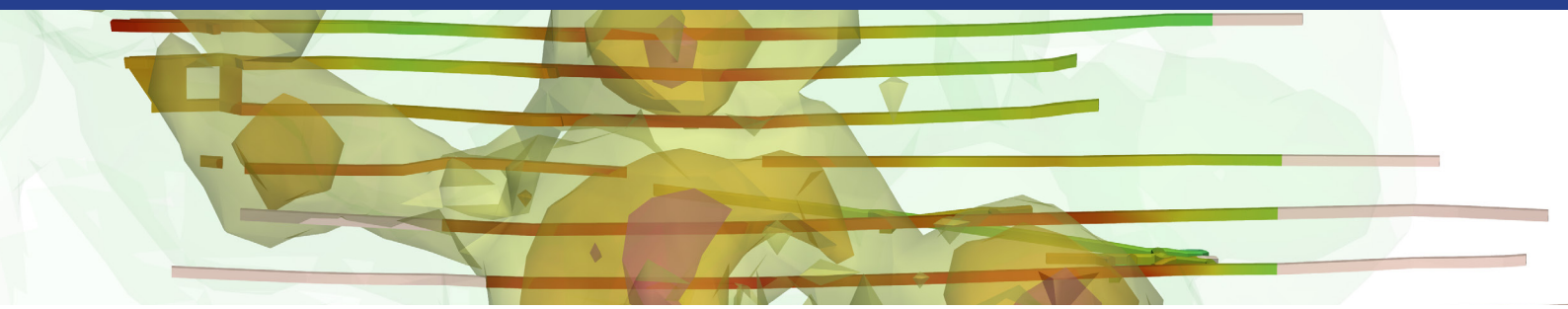
mXrap

ACG AUSTRALIAN CENTRE FOR GEOMECHANICS

CSIRO | The University of Western Australia | Joint Venture



About mXrap

mXrap is a software platform that provides geotechnical engineers with many data analysis, monitoring and investigation tools in the form of geotechnical app suites. The ACG's mXrap research team developed a number of suites that focus on allowing users to make high-quality geotechnical decisions as quickly and easily as possible. These suites cover the following:

- mining-induced seismicity
- inspections/damage mapping
- cave draw and propagation
- instrumentation
- rock mass data analysis
- integration with numerical modelling
- stope reconciliation
- backfill design
- surface monitoring.

Scan to learn more

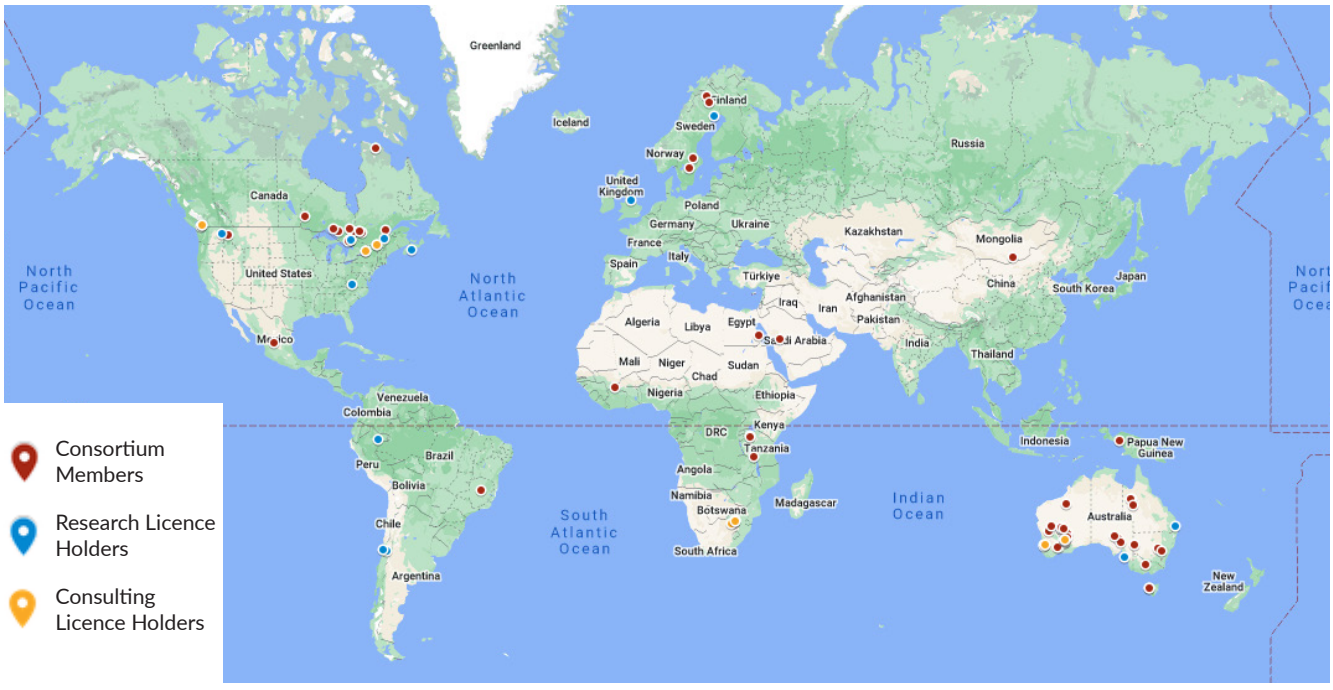
Further to the suites created by mXrap, the software also provides a platform upon which users can develop their own apps using mXrap's inbuilt tools.

Consortium

mXrap offers a range of software licenses tailored for different users, including mine sites, academics, and consultants. The cost of these licenses is determined by the number of licenses and applications a site needs. Additionally, sites that hold licenses can join the mXrap Consortium, which provides a platform for members to influence the development and future direction of mXrap.

Global Reach

mXrap has a global reach, with mXrap Consortium members, along with research and consulting licence holders located in Canada, USA, Mexico, Brazil, Peru, Chile, Mali, Tanzania, South Africa, Sweden, UK, Egypt, Saudi Arabia, Mongolia, Indonesia, Burkina Faso and Australia.



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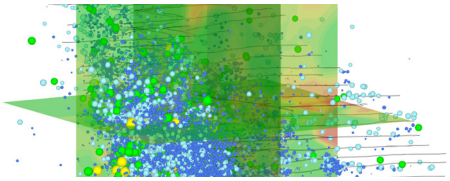
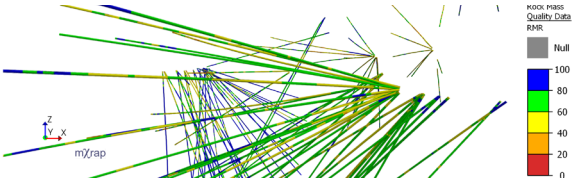
Mining-Induced Seismicity

This suite of apps allows users to quickly and easily complete a range of different analyses to better understand the sources and mechanisms of seismicity in their mine and assess the seismic hazard.



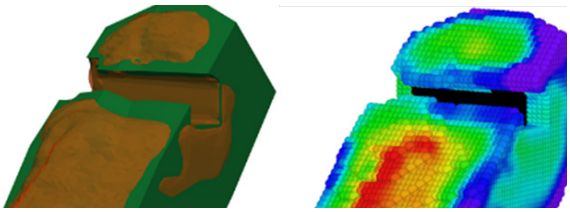
Rock Mass Data Analysis

The Rock Mass Data Analyser suite allows a user the ability to input various types of geotechnical data into mXrap, creating a geotechnical database of borehole logging, rock testing, stress measurement and mapping data, which can be easily visualised and assessed in 3D.



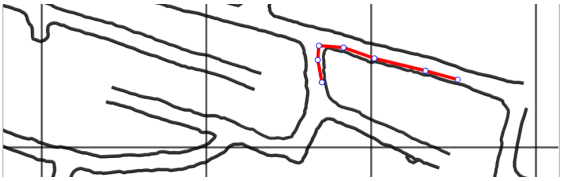
Stope Reconciliation

This app allows simple and fast stope reconciliation on a very fine (<1 m) block-by-block basis. The process is highly automated and generates a database of stopes with data on overbreak, underbreak and the factors which affect these on a stope, face and block scale.



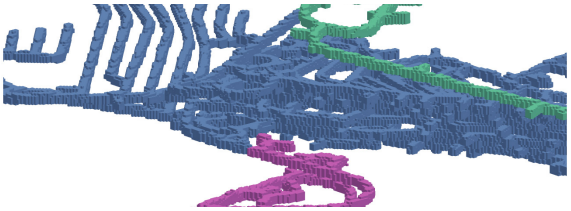
Inspections

This app is a general-purpose data entry app designed for offline use with tablet devices which can be customised to fit each site's exact needs. Photos, sketches, and other inspection data can then be imported into mXrap for analysis and visualisation.



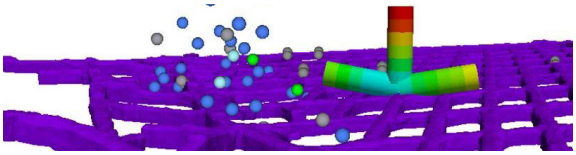
Integration with Numerical Modelling

This suite of apps aims to help users with minimal numerical modelling experience to easily and quickly build models for different packages, including Map3D and FLAC3D. The results are generated in a standardised format for mXrap to read and display results for further analysis.



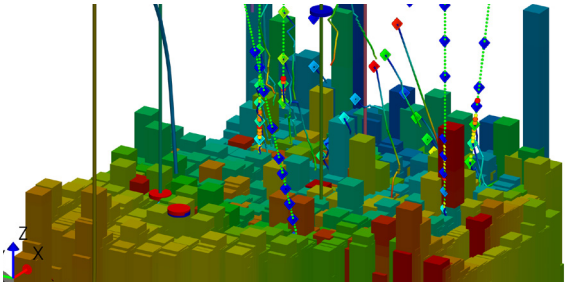
Instrumentation

A range of instrumentation data can be imported into and analysed using mXrap, including extensometers, SMART cables, stress cells, among others.



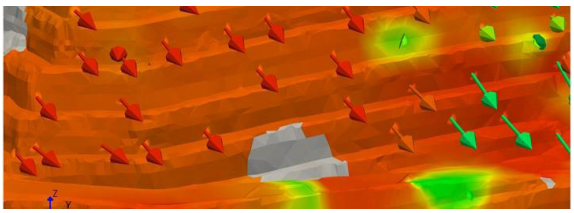
Caving Suite

Brings together multiple forms of cave monitoring to give users the best possible picture of what is happening in their cave mine. Estimates of height of draw can be made based on production data and compared with monitoring data and cave back interpretations. Data includes seismicity, smart markers and beacons, open hole dipping, extensometers, borehole logging, fragmentation assessments, active seismic tomography and fibre optic monitoring among others.



Surface Monitoring

The prism monitoring app gives the user the tools to visualise their prism data in 3D and to see change over time by using charts. There are a number of filtering options (spatial and temporal), along with features to quickly see rates of change for prisms or zones of prisms.



Contact info@mxrap.com for more information