



MPX

Mine Production Management Software



A new approach to production management

MPX is a new software product for managing surface and underground mining operations. MPX is a lighter and more flexible alternative to the highly tailored systems.

MPX provides mining operations with tools for capturing and reporting on production data to help support the production management process. MPX helps manage your activities and costs and includes flexible reporting that ensures you are able to get the information that you need for decision making and corporate reporting.

The benefits include greater efficiency, lower costs and the ability to measure and continuously improve the performance of activities, processes, and equipment.

- Manage production from the mine to product including movements, stockpiling and processing
- Identify production and equipment problems which may remain hidden
- Improve alignment between planned and actual production
- Achieve higher confidence in production and compliance data
- Provide the catalyst for continuous improvement by providing early visibility of issues

Depending on your operational needs, MPX is comprised of the following modules;

- Production Planning and Budgeting
- Stockpile Management
- Contract Management
- Configurable Data Entry for Web or Windows
- Comprehensive Set of Standard Reports
- Configurable Reporting Framework

MPX is a new option for mining managers for capturing the data and preparing reports that reflect the performance of their operations. MPX is a logical choice for managers that are interested in moving from home-grown spreadsheets and MS Access databases.

MPX is cost effective and has a short time frame to configure, install and train users.

Is MPX right for your project?

- MPX has been designed for surface and underground operations.
- MPX is designed for owner operators and contract miners.
- The MPX product is based on market research together with the experience of the Cube team accumulated over many years of mine management and consulting across the industry.
- MPX is developed by Cube's world class mining software development teams.
- MPX supports the gathering of production data into a centralised database.
- MPX Data entry is configurable to capture your role based production sheets (PLODS).
- MPX provides structured access to raw data in a style similar to Excel so that users feel they are in control of their data.
- As MPX is suited to a wide range of mining projects it evolves steadily and all customers gain the benefits of new features and enhancements.
- The MPX reporting tools are highly flexible. A wide range of pre-configured reports are also available.
- The MPX reporting tools are easy-to-use, while allowing the configuration of sophisticated reports that take full advantage of the available data.
- MPX is a robust solution, that allows users to maintain and evolve their own setup and configuration.
- MPX is designed and supported by a team of experienced mining professionals. It includes a helpdesk service and regular software updates.
- MPX includes high quality documentation to help new team members.
- MPX is a modern data management and reporting tool that was developed using the latest Microsoft tools. It has a low cost of ownership and a low administration requirement.



The Mining Challenge

Mining is a dynamic process. Surface mining may progress to underground operations or a combined approach. There may be a range of mining methods used across the site, or the methods may change. Different minerals and materials may require a different strategy. New pits or shafts may come into play or retire at various stages of the project. There may be a change in the owner managed versus contracted activities - and many other issues will impact the process of capturing data and generating reports that are essential for effective management and business reporting.

Challenges include

- Current systems are often poorly documented and are reliant on a few key people that developed or are familiar with those systems. When those people leave the rest of the team is in trouble.
- Despite promising flexibility, in-house systems are often not able to adapt to the evolving needs of the operation.
- Systems become complex, prone to errors or incorrect use.
- Data becomes distributed across several computers, becomes inconsistent, unreliable, inaccessible and 'at risk'.
- Managers lose confidence in the data, its management and reporting.
- The preparation of end of month reports becomes increasingly time consuming.
- The cost of maintaining or improving the systems increases and systems often reach a point where they can no longer provide the information and reports that are required.

Eventually individuals begin developing their own ad-hoc solutions to meet their specific needs and a proliferation of small data collection and reporting systems begins to appear.

MPX meets those challenges. It is a pragmatic and cost effective solution and meets the needs of all of the stakeholders in the production management process.



How does MPX work?

MPX uses an MS SQL server database with a centrally managed Windows Desktop (C#.net, click once) front end. Forms are configured to reflect your PLOD sheet formats for data entry.

The database resides on a central server and users access the data entry and reporting functions from anywhere on the mine network.

MPX is a plod based mining production system. It involves the gathering of shift based plod data into a central database on a regular basis.

The parts of MPX include

- Data entry
- Reporting
- Data validation, data management
- Configuration

MPX is designed to capture & report the following data

- Material movements
- Stockpile balances
- Crew productivity
- Equipment productivity
- Consumable usage
- Incidents/event logging
- Performance against budget
- Invoice/claim preparation or reconciliation
- Production reconciliation

Features of MPX

- Configurable data entry forms
- Easy data editing and validation
- Stockpile management system designed by geologists
- Provides for parcel tracking through LIFO, FIFO and average grade stockpiles
- Configurable reports
- Secure data repository – single source of the truth
- Low cost of ownership – easy to administer from an IT perspective
- Easy database backup



MPX helps managers to keep track of:

Operations

- Equipment run hours
- Blasting and firing
- Services vehicles
- Fuel usage
- Equipment utilisation
- Downtime

Materials

- Orebody depletion
- Broken stocks
- Stockpile balance and grade
- Parcel tracking
- Material rehandle

KPI's

- Crew and equipment performance
- Productivity – drilled metres/metres advanced
- Consumables – Ground engaging tools (GET) tracking, drill rods, tyres, explosives etc
- Budget versus forecast versus actual
- Daily reports

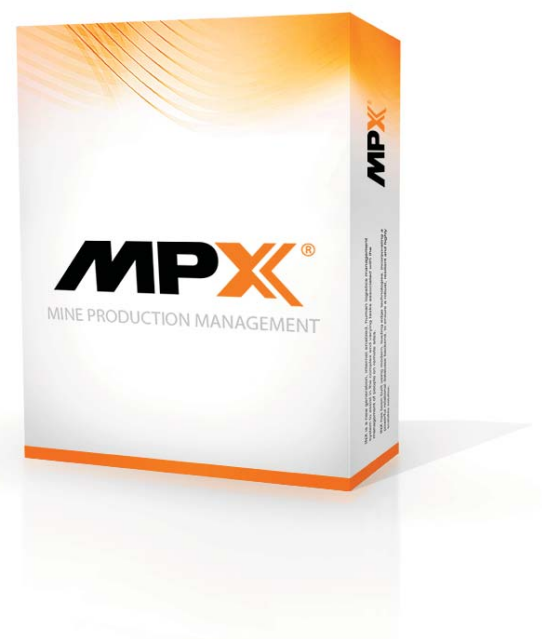
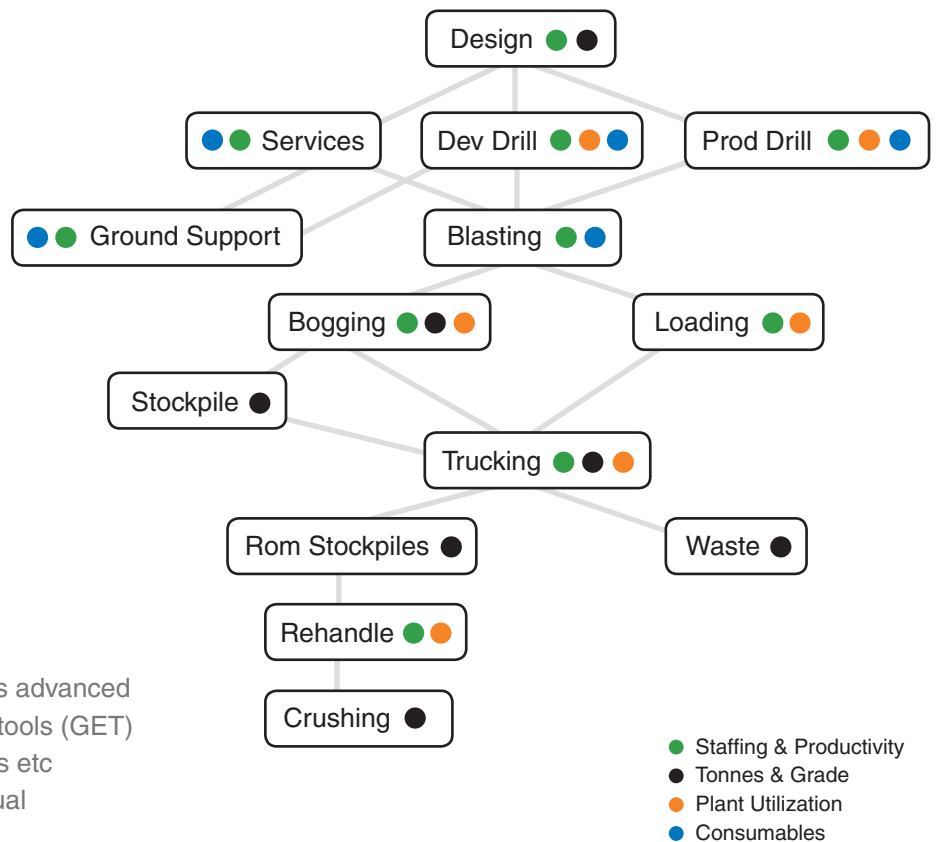
Other data

- Incidents
- Shift supervisor summary
- Ventilation services
- Dewatering
- Day works

All of the above data must be brought together into reporting that informs the manager and aids managers in making decisions that lead to optimum performance of the operation.

A good data collection and reporting system helps managers to:

- Identify waste and inefficiencies
- Measure ore production
- Understand the performance of individuals and crews
- Understand equipment utilisation and downtime
- Prepare accurate management and corporate reports
- Compare and evaluate different operational strategies



How does MPX compare to highly tailored systems?

- Cube has used many years of industry and IT experience to ensure that MPX meets the needs of most operations 'out of the box' and provides configuration options to ensure the user is presented with only those fields and options that are relevant.
- MPX provides a cost effective solution to suit the budget of most owner operated projects and contractors. The cost of Highly Tailored systems are difficult to define and manage – e.g. cost of initial design and adapting to future needs.
- MPX helps your team to focus on the project rather than the software.
- MPX is flexible and allows managers to easily get the answers to day to day questions about productivity and issues.
- MPX provides a rapid deployment and implementation option with minimal disruption.
- MPX is a mature, stable and reliable tool that operations people can work with efficiently.
- MPX is easy to learn and use.
- New reports can be configured by your administrator.
- Users can easily get the answers to day to day questions about productivity and downtime.
- MPX is a lower risk solution to implement and maintain. The costs and activities required to implement are easier to define and there is greater certainty of positive outcomes for your production management stakeholders.
- The centralised MPX architecture reduces cost of ownership and maintenance significantly.
- As MPX is implemented for a wide range of mining projects it evolves steadily and all customers gain the benefits of new features and enhancements.

Activity / Functionality Matrix

	Manning	Prodn KPI's	Consumables	Downtime	Plant Utilisation	Tonnes & Grade
Design	●	●				●
Services	●		●			
Dev Drilling	●	●	●	●	●	
Prod Drilling	●	●	●	●	●	
Ground Support	●	●	●			
Blasting	●	●	●			●
Bogging	●	●		●	●	●
Loading	●	●		●	●	●
Stockpiles						●
Trucking	●	●		●	●	●
Rom						●
Waste						●
Rehandle	●			●	●	●
Crushing		●				●

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