

## VALUABLE DESIGN CONFORMANCE REPORTING

Maptek™ PerfectDig is a fast, easy and accurate solution for reporting mining activity to help operations avoid cost overruns arising from non-conformance.



Successful mining organisations rely on some form of reconciliation procedure or system to guide them in implementing their mine designs.

The question is no longer whether mine reconciliation systems benefit operations, but whether they can be improved to deliver additional productivity gains.

With new, disruptive technology becoming available, the answer is invariably that improvements can be made. Maptek™ solutions look to add value to even the most solid business foundations.

We are continually investigating new ways to collect and exploit spatial data in its various forms.

One example is the PerfectDig **conformance report generator** which targets the reconciliation feedback loop. Customer input to enhancements which are now available in PerfectDig 1.2.

### Data input & output

The concept is simple. Input data can be laser scans, existing surfaces, airborne LiDAR point clouds or UAV data. Outputs are intuitive, useful and rapidly generated with minimal user effort. The user selects a design, blocklines if applicable, and as-built data.

Once a region and the section spacing are selected, PerfectDig processes the data and produces a conformance report. Data can be reported in various unit formats, including tonnages if material density is known.

Users can annotate the reports, save as pdf and print or publish directly to PerfectDig Online. A link can be emailed to all stakeholders.

### Value proposition

Manual workflow for reporting often creates months of backlog. The process is then perceived as merely a corporate requirement with no tangible benefit to sites.

Fast, simple output of PerfectDig reports creates an effective conduit for feedback into the operational loop. This makes real time decisions possible, leading to measurable business outcomes.

**USING THE REPORT GENERATOR MEANS A TASK THAT WOULD TAKE HOURS CAN BECOME A SIMPLE FUNCTION TAKING MINUTES.**

One customer estimated that the conformance reporting tool alone could pay off the purchase price in 1 year by saving the wages of a single person. This is apart from any consideration of operational savings arising from using the PerfectDig results efficiently.

### Conformance reporting

Taking a step back we can explore why (not how) PerfectDig adds value to the design conformance process.

**Resource modelling**, the first step in mining, dictates the economic feasibility of the project and in turn the mining limits. During mining, information is continually fed back to refine the model. Most of the resource reconciliation compares as-built information against the resource model.

**Mine designs** are then created for extracting ore from the ground. Long and mid-term designs are based on the broader model and generally do not involve daily mining input. Short term design requires constant refining and is very much a day to day proposition, with ground conditions, equipment and previous mining activity taken into account.

Great effort goes into generating designs. Successful mining dictates that they be followed accurately. Deviation from design affects both timing and costs.

**Design execution** is where most of the savings can be made. Tools that aid conformance to design should be relied upon in this phase. Cost overruns due to under and overdig can tip the balance between profit and loss. Real time comparison between design and as-built highlights issues before they get out of hand.

**Monitoring** is another big impact area. It is the main real time data gathering stage, with data flowing into all downstream processes.

Ideal monitoring provides daily or hourly comparisons to design. The closer to real time the monitoring is, the better results it yields and the more efficient the operation.

The monitoring method must be simple and fast. The data needs to be easily accessible and transparent to all parties, from accountants to machine operators.

**UNDERSTANDING AND QUANTIFYING CONFORMANCE DATA IS PARAMOUNT FOR MAKING GOOD DECISIONS WHICH ULTIMATELY DRIVE ORGANISATIONAL IMPROVEMENT.**

**Optimisation** depends on information gathered during execution and monitoring. This is where the loop that started with resource modelling is closed.

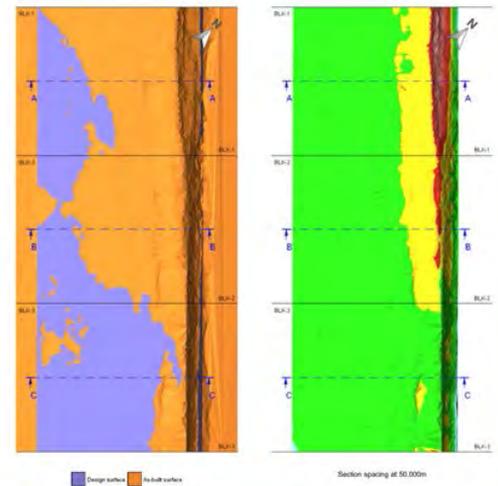
All of the acquired information is applied to improve the design. True optimisation demands consistency in execution. This requires comprehensive monitoring with near real time feedback.

### Conclusion

Planning assumptions are improved by monitoring and optimising the modelling, design and execution of a mine plan. Deficiencies can be identified and dealt with in a reasonable time frame.

It is no longer necessary to delay milestone reporting. The technology is now available to make it a constant, achievable mechanism for day to day operational improvement.

*To see all of the latest features for design conformance reporting, visit [www.maptek.com/products/perfectdig/](http://www.maptek.com/products/perfectdig/)*



The cost of the conformance reporting tool alone can save significant resources.

