

## ADG engineers integrated solution for MacLean's vast suite of manuals

*For even the largest of mining equipment companies, keeping over 1000 sets of separate manuals for operators, training, maintenance and parts, continuously up-to-date and accurate would be an arduous, near impossible task. Let alone updating parts manuals daily and translating manuals into French and Spanish. But for Canadian firm MacLean Engineering, implementing Absolute Data Group's (ADG's) R4i suite of software has transformed the business and halved their publishing time.*

MacLean Engineering has been developing innovative underground mining equipment solutions for more than 40 years, expanding its products and support services into 23 countries on six continents.

MacLean's diverse product line ranges from Ground Support with their 900 Series platform and utility bolters, to Ore Flow with secondary reduction drills, mobile rock breakers, and water cannons, to explosive handing vehicles, shotcrete sprayers and a full line of MineMate™ support vehicles and attachments.



They not only build for the global market, but support it with a global distribution network of branches and dealers, a 24/7/365 parts support hotline, a technical support hotline, an online technical publications portal, an online order tracking portal and the provision of recommended spares packages.

MacLean provides a complete suite of multi-lingual technical publications in a variety of formats to meet the needs of customers around the globe.

In growing their business and taking their hard rock expertise to the fields of municipal infrastructure maintenance, hazardous materials recycling, construction and contract manufacturing, the need for superior, integrated technical documentation has never been greater.

### **The problem: Manuals backlog and an outdated publishing system**

Technical Publications Manager, Bruce Mackereth, was faced with a hurdle from day one. The existing system used for publishing all of MacLean's technical publications – a combination of Word and CatBase – could not cope with the output we wanted and needed to achieve.

“When I started at MacLean, there was a backlog of some 219 sets of new manuals outstanding, which equated to around 4,300 hours or two years of work using our old system,” said Mackereth. “Customers were left waiting to receive their manuals well after they had received their machines, which frustrated both our customers and us. We were widely recognised for our manufacturing excellence, but our ability to create and update manuals was a significant and pressing challenge.”

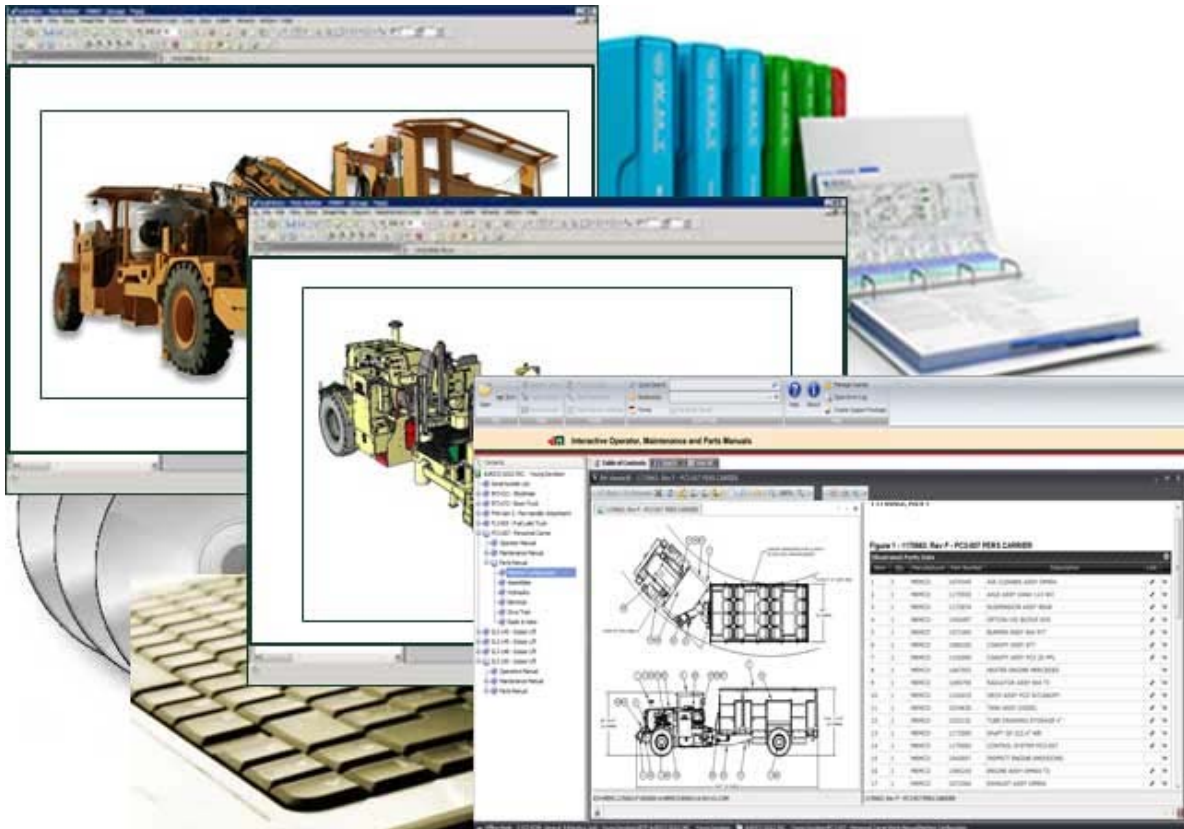
“By being constantly in catch-up mode, trying to get through that backlog, we couldn't focus on developing new manuals or being more innovative with our documentation. Instead we had a system that not only took an inordinate 20 hours to create one manual, but a system that didn't even allow our staff to have access to digital content online,” said Mackereth.

## The solution: Write it once, re-use it everywhere

MacLean needed a solution that would halve publishing time, substantially reduce the cost of updating content, re-use data more easily, enable authors to focus on content rather than formatting and provide on-line access to their documentation. ADG's **R4i product suite** did just that.

The R4i product suite provides all the tools needed to create, manage and leverage information that is vital to the operation and maintenance of complex assets.

The integration between the R4i products allows for the same information to be used across various areas of a business consistently and quickly. By having one source of content, it saves both time and money, and ensures information out in the field, during maintenance and in training is all changed at the same time.



“With ADG’s hands-on support and their network of global partners, we successfully implemented the full suite of R4i products two years ago,” said Mackereth. “We can now produce detailed parts and operator manuals with minimal effort. What once took 20 hours to complete, now only takes 8-10 hours, from CAD output to a published manual.”

Since the implementation, Maclean Engineering has structured and published 302 sets of manuals, and they cleared their backlog of manuals in the first year. MacLean’s team are now able to produce all of their documentation in XML and publish to both electronic and print mediums.

“ADG’s exceptional training and support has successfully turned a group of WYSIWYG authors into XML protégés,” said Mackereth. “This alone has opened up several options to us to further increase the reusability of our information.”

Even MacLean’s customers are embracing the capabilities of the interactive electronic technical publications (IETPs) they are provided. Many are interested in converting all of their older documentation to the new system.

“Our customers continue to see the benefits of our decision to go with ADG over many other options that were available to us. The quality of the products and the exceptional level of service we always receive have validated our decision. The feedback from customers on our interactive electronic parts manuals has been excellent.”

## Realising the benefits

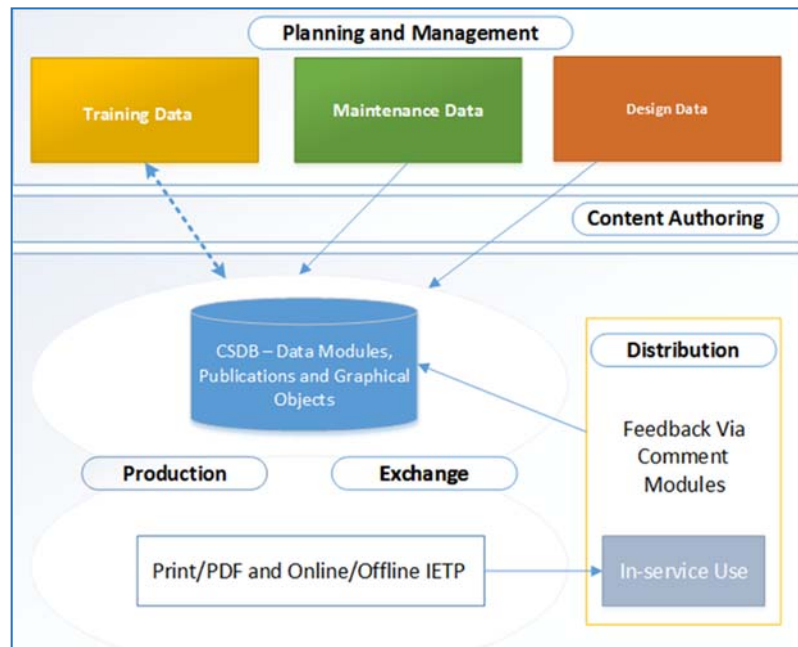
ADG's CEO Tammy Halter says many companies in mining, transport and defence are achieving the same benefits from R4i as MacLean Engineering.

"Benefits can be gained in data planning and management, authoring and delivery. By utilising an S1000D compliant database, our CSDB, at the core of the system, data can be exchanged and re-used more easily and common data can be identified," said Tammy.

"This not only increases data integrity, but generates more consistent documentation. For example, information that is updated in an operator's manual is also updated in the related training manual and maintenance manual.

"This can reduce update costs by 30%. Output errors only need to be fixed once, and flow on. Authors also have an easy roll back to previous versions of content."

MacLean Engineering believes the speed of publishing and the cost savings gained from re-using content have been the greatest benefits. "We receive our data from CAD CAM systems and automatically import that into the CSDB, for multi-repurpose across customers and across delivery types. We would re-use about 75% of our content, in terms on data modules and images.



"That's a huge saving to our business, when we have over 42,000 modules and over 125,000 images in our database. It also delivers exceptional benefits to our customers in terms of publishing speed," said Mackereth.

## The year ahead

After the last year spent further developing documentation, producing even more new products and exploring opportunities for greater innovation, MacLean Engineering has an exciting 12 months ahead.

"With a fantastic system supporting us, we are now completing the creation and population of around 300 modules that can be used to create any one of 61 different English operator manuals for our equipment," said Mackereth. "The next step is to duplicate that effort for both French and Spanish."

"But the most exciting development is our foray into creating standardized e-learning for both maintenance and operating instructions for our customers. It's the obvious next step in re-using our data."

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## For more information

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