INCREDIBUILD

Minitab

While shifting to a cloud-based infrastructure, Minitab continues its decade long relationship with Incredibuild and invests in Incredibuild Cloud to further optimize its resources

Minitab ►®

For over 40-years, Minitab has helped thousands of businesses and institutions worldwide to spot trends, solve problems and discover valuable insights in data by delivering a comprehensive and best-in-class suite of statistical analysis and process improvement tools. Combined with unparalleled ease-of-use, Minitab makes it simpler than ever to get deep insights from data.

The Challenge

Developing a complex and mature application resulted in build times that required over an hour for one complete rebuild. Approximately 20 complete rebuilds on a daily basis amounted to inefficiencies, and slow debugging and troubleshooting for the development teams.

"Incredibuild Cloud offers unmatched agility, as expected from a cloud offering. The ability to automatically scale up and down in the cloud, while accelerating our development, makes everything so easy, which is basically what technology is all about. It is also very reassuring to know we are optimizing our resources according to our exact needs, so nothing goes to waste"

Tony Bianucci
Manager of Software Development Systems

How Incredibuild Crunched It

Over a decade ago, in the quest to optimize its build times, Minitab turned to Incredibuild. The build times were reduced to just 20 minutes, saving around 12 hours of build time every day. Incremental builds, which are very frequent, also got a significant performance boost. Developers were able to iterate through changes more quickly. Incredibuild running on 100 machines proved to be very effective in supporting Minitab's development optimization goals.

"Leveraging Incredibuild enabled our team to move from nightly builds/tests to continuous integration, enabling efficiency gains that led to faster development and iteration cycles"

Tony Bianucci
Manager of Software Development Systems

Implementing Incredibuild was also an instrumental part in Minitab transforming its nightly build process into a continuous integration (CI) process. Minitab's extensive suite of automated tests were optimized to take full advantage of Incredibuild's power, which helped reduce the overnight process to minutes. This time reduction supported its move to Continuous Integration. It could then isolate changes that introduced bugs and delivered immediate feedback to the development team. This ultimately supported faster development and iteration cycles.

Moving to the Cloud

Like many companies, Minitab found itself with a growing equipment infrastructure that required setup, licensing, storage, maintenance and monitoring. All this created extra overhead for the IT and development teams that, even with a specialized role managing equipment, consumed a lot of the team's time.

To reduce this burden, Minitab began adopting a cloud solution, shifting their CI infrastructure to Azure and utilizing Incredibuild along with it. However, without a dedicated cloud offering, they found themselves with limited ways to scale up without extra cost and upfront investment. The revolutionary Incredibuild Cloud offering allowed Minitab to optimize their cloud resources to occupy the exact number of cores needed to boost performance, thus highly reducing the involved costs:

"We originally started with our own cloud infrastructure for Incredibuild", said Chad Shaffer, Senior Software Development System Engineer at Minitab. "Because we have engineers working and triggering builds in the middle of the night and throughout the weekends, we were running 24 hours a day. This prevented any cost savings achieved by scaling down. Inevitably, machines were idle at certain points of the day."

Utilizing Incredibuild Cloud on Azure DevOps builds provided Minitab with the scalability and cost-efficiency that were missing in their previous implementation. Every git pull request to the server now triggers a product build and runs thousands of tests that are accelerated with Incredibuild Cloud.

"We gain a lot from the scalability, plus there's the huge benefit of machines allocating and deallocating as required. The ability of the Incredibuild Cloud solution to scale up as soon as builds started piling was a big game-changer. Today, no change can be made to our product without Incredibuild Cloud giving the green-light."

Chad Shaffer
Senior Software Development
System Engineer

Bonus points

Incredibuild provided a significant improvement in Minitab's automated test suite execution times. The test timings report that Minitab has 11 hours of tests but with Incredibuild, the execution time is only 11 minutes!

Code Build Results

	Without Incredibuild	With Incredibuild
Build	60 mins	20 mins
Automated Testing Execution	11 hours	11 mins

incredibuild.com