



Case Study

Williams adopts digital workplace solution to gain a competitive edge in the race to the checkered flag.

Situation

A clutch is crucial to the transmission of every car—but perhaps nowhere are the requirements for a clutch more demanding than in a racecar. A clutch that's out of specifications by a few microns—that's right, microns—can cost a racecar enough performance to lose a race. Williams

Group, the renowned Formula One racing organization, was well aware of this, of course, and maintained an exhaustive, multi-tab spreadsheet with 1000 datapoints for the clutches it used throughout a season. But with several databases contributing information, and with the potential for human

error in entering trackside data, and with no way to use the data to generate predictive analytics about the remaining useful life of a clutch's all-important friction plates, Williams needed more than a spreadsheet. Williams needed Avanade.

Case Study

Williams adopts digital workplace solution to gain a competitive edge in the race to the checkered flag.

Solution

Avanade and Williams saw the clutch issue as part of a larger, strategic need that includes all of a racecar's key components, so they developed a comprehensive plan for a series of software solutions that would support those components, each drawing from a unified database on the backend and providing a consistent, intuitive user experience on the frontend. The Williams Clutch Manager became the first solution in that series, and a template for the solutions to follow. The improved user experience and increase in data accuracy—with less need to rekey data—also make the solution an example of the [digital workplace](#) solutions that Avanade is bringing to Williams.

Research and development technicians and sub-assembly staff measure new clutches and use Clutch Manager to confirm that they meet Williams' requirements. Later, assembly technicians at trackside remove, maintain and measure clutches between races, using Clutch Manager to enter the latest data and check for wear or other concerns that exceed acceptable parameters.

Avanade used its unmatched expertise in Microsoft technologies to build the solution on Microsoft Azure. In the second phase of the project, it will add Microsoft Machine Learning and Stream Analytics, enabling Clutch Manager to pinpoint the best time to replace clutches and perform other maintenance functions.

"In racing, we're actually quite risk averse. The Clutch Manager that Avanade delivered boosts data accuracy, integrates data sources we didn't fully consider before, and will apply predictive analytics to our challenges—all of which reduces risk and could mean the difference between victory and defeat."

— Rod Nelson, Chief Test and Support Engineer, Williams Group

Benefits

- **Delivers unprecedented levels of accuracy and reliability.** Clutch Manager drives reliability up and risk down for a truly make-or-break component of Williams' racecars. There is now one version of the truth for clutch data, and measurement data is not missing or entered in error. That raises confidence that the clutch won't be stressed improperly, and won't wear out unexpectedly.
- **Faster, easier use boosts productivity.** Clutch Manager is faster and easier for Williams' people to use than the unwieldy spreadsheets it replaces. For example, critical information is displayed clearly and unneeded spreadsheet options are hidden. Technical staff can focus on

making Williams' cars go faster, rather than on completing paperwork. Because the user experience of other members of the software suite will be consistent with Clutch Manager, technicians will be more productive more quickly on those solutions, too.

- **Enables better decision making.** The company's technicians, especially at the track, use Clutch Manager to make the fast, data-driven decisions that can mean the difference between victory and defeat. And that decisionmaking capability will become even greater as Williams add predictive analytics technology that factors a range of internal and external data sources into clutch management decisions.



About Avanade

Avanade is the leading provider of innovative digital and cloud-enabling services, business solutions and design-led experiences, delivered through the power of people and the Microsoft ecosystem. Majority owned by Accenture, Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation and has 29,000 professionals in 23 countries. Visit us at www.avanade.com

©2016 Avanade Inc. All rights reserved. The Avanade name and logo are registered trademarks in the U.S. and other countries. Other brand and product names are trademarks of their respective owners.

North America

Seattle
Phone +1 206 239 5600
America@avanade.com

South America

Sao Paulo
Phone +55 11 5188 3000
LatinAmerica@avanade.com

Africa

Pretoria
Phone +27 12 622 4400
SouthAfrica@avanade.com

Asia-Pacific

Australia
Phone +61 2 9005 5900
AsiaPac@avanade.com

Europe

London
Phone +44 0 20 7025 1000
Europe@avanade.com