

DATA DRIVEN

AUGUST 2013

AUGUST SHUTDOWN

Find out how Avanade have been working with Lotus F1® Team to minimise disruption

FOCUS IN: SHAREPOINT

Avanade keeps everyone in the loop at Lotus F1® Team

COMPETITION!

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FOREWORD: HOLIDAY READING

IMAGINE A BUSINESS WHERE YOUR PERFORMANCE REPORTS ARE PUBLISHED EVERY FORTNIGHT. WHERE HALF A BILLION PEOPLE TUNE IN TO WATCH YOUR ANNUAL GENERAL MEETING, WHICH OCCURS NOT ONCE BUT 19 TIMES A YEAR. WHERE A TENTH-OF-A-SECOND CAN MEAN THE DIFFERENCE OF TENS OF MILLIONS OF DOLLARS.

This is Formula One racing; a business as much as a sport, where the pressure is at boiling point, where speed and efficiency are critical, and where technology and communications are key to winning world championships.

Avanade and Lotus F1 Team have joined forces with the aim of becoming more efficient, more on the pulse, more analytical and, above all, faster: in the design office, in manufacturing, in the aero labs and, ultimately, on the race track where it matters most.

In the first edition of this new monthly magazine, which goes behind the scenes to show how Avanade and Lotus F1 Team are working together, we look at Formula One's summer shutdown.

For two weeks each August, Lotus F1 Team's factory in Enstone, England, usually a buzzing hive of activity, becomes quiet and motionless – save for the IT staff still working in the background to maintain and update the team's IT systems.

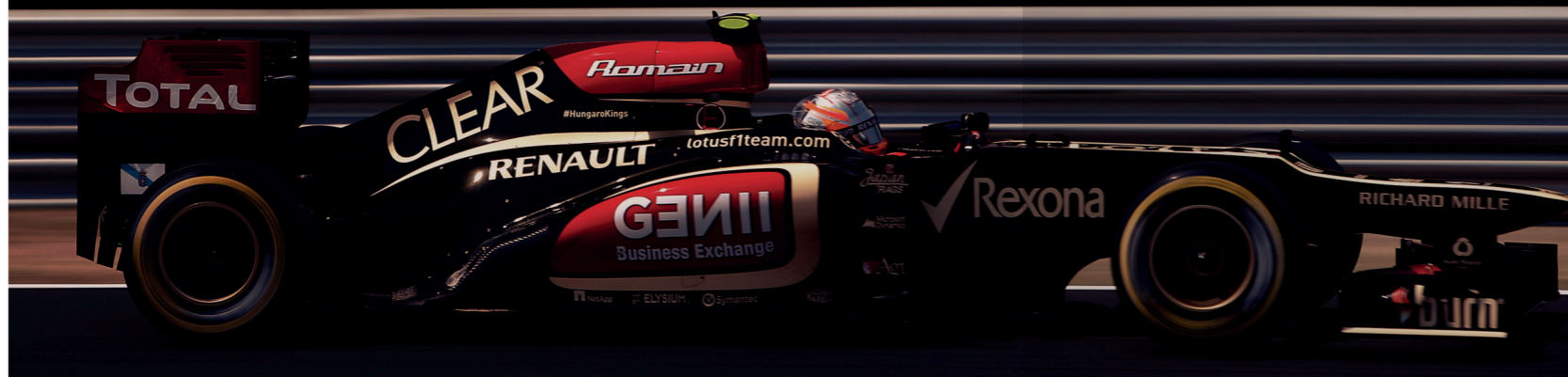
Every team is in the same situation, forced to down tools for 14 days, and the challenge is to pick up where they left off on their return, revved up ready for the next grand prix.

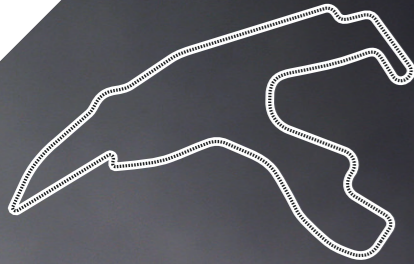
We will look at how Avanade has helped by providing the team with better scheduling tools to ensure that straight after the last race, before the shutdown, the team was already prepped to battle in Belgium.

In addition, we look at how SharePoint has revolutionized the working lives of personnel throughout the team, as it has with Avanade customers in other industries. And we'll look back at the last two grand prix, debriefed by Lotus F1 Team's technical chief, and ahead to Monza and Singapore.

HERE'S HOPING FOR STRONG RESULTS AS ALWAYS. @

TECHNOLOGY AND COMMUNICATIONS ARE KEY TO WINNING WORLD CHAMPIONSHIPS





BELGIAN GRAND PRIX REPORT

Lotus F1 Team endured a difficult Belgian Grand Prix, with brake failure leading to the retirement of Kimi Räikkönen whilst Romain Grosjean employed a one-stop strategy to finish eighth. Kimi's DNF was the first of his Lotus F1 Team career and his first retirement in 39 races. It was his first non-points finish in 28 races and only his second non-points finish since driving for the team.

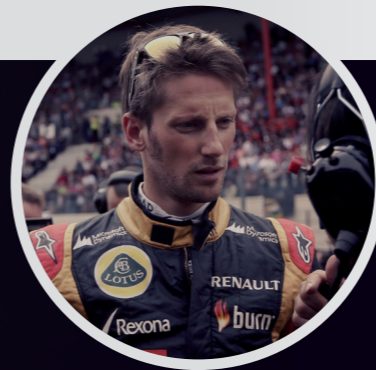
As a result, Kimi drops to fourth in the Drivers' Championship on 134 points, having been overtaken by second-placed Fernando Alonso [151] and third-placed Lewis Hamilton [139]. The team remains in fourth place in the Constructors' Championship on 187 points.



"WE'VE FINISHED A LOT OF RACES AND HAD SOME GOOD RELIABILITY; ONE DAY YOUR LUCK HAS TO RUN OUT"

"I had a brake failure so there was really no point in trying to continue. We both got good starts off the line but there wasn't enough space into the first corner where I went over the kerb and lost some time, but after that I was pushing as hard as I could. There were some brake issues at the beginning of the race but we were managing them and it was going okay until we had to retire. We've finished a lot of races and had some good reliability; one day your luck has to run out and today was that day."

Kimi Räikkönen



"HAD IT RAINED IN THE MIDDLE OF THE RACE WE COULD HAVE BEEN WELL-PLACED TO TAKE ADVANTAGE"

"We had a difficult first lap where we lost a few positions and then dropped back a couple more places in the incident with Sergio Perez (McLaren). We decided on a one stop strategy today and with the new tyres I felt that the grip was much higher than before but I knew that it would be difficult to get the time back. We tried something different and you never know; had it rained in the middle of the race we could have been well-placed to take advantage. It is good to finish the race without any mistakes, even if eighth place isn't what we were hoping for this weekend; but we go to Monza hopeful of better things."

Romain Grosjean



"WE MUST NOW LOOK AHEAD AND LEARN FROM THIS WEEKEND"

"It was a disappointing weekend, with qualifying not as well as we had expected and then a difficult first lap in the race. Kimi suffered from a brake failure which, of course, is a concern. We already believe we know why it happened and we will investigate this in detail to prevent the situation arising again. Romain finished eighth which clearly isn't the sort of position we hope for at the end of a race weekend. Today we lost some pace and part of that might be due to the low temperatures. We must now look ahead, learn from this weekend"

Eric Boullier, Team Principal



"ROMAN WAS ON A ONE STOP STRATEGY, WHICH WAS THE RIGHT THING TO DO"

"It was a difficult race for us. We didn't have the pace in qualifying and didn't seem to have the pace in the either. We had a difficult first lap where we lost a few places and found ourselves sat behind slower cars. After that it was difficult to make up any ground. Unfortunately Kimi retired from the race with a front brake failure which we are now investigating. Romain was on a one stop strategy which was the right thing to do today. We look forward to starting again in Monza where we will bring new developments to the car can hopefully have a better weekend!"

Alan Permane, Trackside Operations Director

1.4MB

In 1997 a whole race worth of data from two cars fitted on a floppy disc, which held 1.4MB

15MB

Today, more than 15MB of data is generated, per car, per lap

50GB

More than 50gig of data is generated by two cars over the course of the whole race weekend

500TB

Over half a petabyte of storage capacity at Lotus F1 Team at Enstone

AUGUST SHUTDOWN

Watch the video >>



AUGUST SHUTDOWN



EVERY SUMMER FORMULA ONE TEAMS HAVE A MANDATORY SHUTDOWN FOR TWO WEEKS.

Find out how Avanade have been working with Lotus F1 Team to minimize disruption and ensure that new development components are ready in time for the Belgian Grand Prix. Click above to watch! [e](#)

PLANNING FOR A TWO WEEK SHUTDOWN

Formula One is relentless: nineteen races between March and November, constant development on not just this season's car, but next season's as well, 24/6 wind-tunnel testing and 50 weeks of flat-out work in every department. Despite this pace, there's a cross-team agreement that for two weeks every August the workforce drop their tools and take a well-earned break, safe in the knowledge that their rivals are doing exactly the same.

"Our development cycle is constant," explains Lotus F1 Team's Head of Aerodynamics Dirk de Beer, "with March to June particularly pressurized as, alongside development of the current car, we are also in the thick of developing long lead items for the 2014 car such as the chassis and gearbox. It is utterly relentless, and the August shutdown is the only break we have, and it is very welcome. It allows us to recharge our batteries." >

DRIVERS CHAMPIONSHIP



1 SEBASTIAN VETTEL
RED BULL 197 POINTS 5 WINS



2 FERNANDO ALONSO
FERRARI 151 POINTS 2 WINS



3 LEWIS HAMILTON
MERCEDES 139 POINTS 1 WIN



4 KIMI RAIKKONEN
LOTUS 134 POINTS 1 WIN



5 MARK WEBBER
RED BULL 115 POINTS 0 WIN



6 NICO ROSBERG
MERCEDES 96 POINTS 2 WINS



7 FELIPE MASSA
FERRARI 67 POINTS 0 WIN



8 ROMAIN GROSJEAN
LOTUS 53 POINTS 0 WINS



9 JENSON BUTTON
McLAREN 47 POINTS 0 WIN



10 PAUL di RESTA
FORCE INDIA 36 POINTS 0 WINS

IN ORDER TO ENSURE THAT THE DESIGN, AERODYNAMICS, MANUFACTURING AND RACE TRACK OPERATIONS ARE UNAFFECTED BY THE BREAK, LOTUS F1 TEAM NEEDS TO HAVE A DETAILED UNDERSTANDING OF ITS DEVELOPMENT SCHEDULE ACROSS ALL PRODUCTION AND PLANNING DEPARTMENTS.

PLANNING FOR A TWO WEEK SHUTDOWN CONTINUED...

NO WORK RELATED TO THE DESIGN, MANUFACTURING OR RACING OF AN F1 CAR IS ALLOWED DURING THE TWO-WEEK SHUTDOWN

In addition, the company's email system is frozen, meaning no discussion or other communication can take place. The challenge faced by Lotus F1 Team is to get everything for the Belgian Grand Prix, at the end of August, lined up by August 1 so that, when the factory doors reopen a fortnight later, the team can pick up exactly where they left off with no interruption to the team's goals or efficiency and without compromising the team's pursuit of world championship points.

"Right before the shutdown we have the Hungarian Grand Prix, and straight afterwards it's Belgium," explains Lotus F1 Team CEO, Patrick Louis. "Both races require very different technical set-ups, so, before we log off for August, we have to manufacture new parts for Belgium and also for Monza, the second race after the shutdown, which requires yet another package. We cannot afford any delays because, on the Monday after each race, the parts are obsolete because they are bespoke to each of these races. Planning on the design side and manufacturing logistics are key."

In order to ensure that the design, aerodynamics, manufacturing and race track operations are unaffected by the break, Lotus F1 Team needs to have a detailed understanding of its development schedule across all production and planning departments. Avanade's scheduling tools have helped cross-departmentally to ensure that the team is ready for the next two races as soon as the factory is reopened by helping the design, manufacturing and logistics operations get everything signed-off on time.


"Those two weeks are time we treat as being non-existent in terms of our planning schedule," explains Dirk de Beer. "there's a four week gap between the Hungarian and Belgian Grand Prix but in practical terms it's two weeks. That is all we have to work with, and we use our scheduling tools to ensure all the deadlines are met as normal in preparation for the next race and in our 2014 development."

With the design and manufacturing timetable for the following two races met before the Formula One

vacation, the Lotus F1 Team is able to take two weeks off work safe in the knowledge that they are ready for the next race. Normally in F1 if you stand still you go backwards, but, with every team bound by the same restrictions, Avanade's scheduling tools ensure that the Lotus F1 Team is at no disadvantage and ready to hit the ground running as soon as they clock back in for work.

In addition, although the team is prevented from working on its 2013 and 2014 car in the break it is

allowed to do maintenance, so the IT department remains busy.

"Three years ago we had four different planning sections of the company and they were not communicating with each other," explains Patrick Louis. "With the help of Avanade we created one unique tool for the company which ensures all the divisions are linked together and interfaced so that we deliver our new performance parts on time." 

“THIS HAS REALLY BOOSTED PRODUCTIVITY AND EFFICIENCY, REDUCING DEVELOPMENT LEAD-TIMES. IT’S A MASSIVELY INFLUENTIAL STEP FORWARD.”
DIRK DE BEER, HEAD OF AERODYNAMICS, LOTUS F1 TEAM

FOCUS IN: SHAREPOINT

One of the major advantages that Avanade has brought to Lotus F1 Team this season is Insight, the team's SharePoint intranet portal that schedules events, allows documents to be shared, and keeps everyone in the loop.

BUSINESS PROBLEM

In the past, the team's planning documents could only be opened by one person at a time. "It was very frustrating," comments Head of Aerodynamics Dirk de Beer. "It was a simple Excel document. Ideally we needed multiple people accessing it whenever they needed to. And sometimes you couldn't log-out properly and we would get locked out.

"We wanted to progress, we wanted a SharePoint environment. We had previously had both internal and external software developers try to tackle the problem, and every time it resulted in disappointment and wasted man-hours."

AVANADE SOLUTION

Utilizing Microsoft SharePoint 2010 and developing some new applications specifically for Lotus F1 Team, Avanade came in and created a system that allowed an unlimited number of users to access critical information.

Part of the challenge was time. Avanade's arrival coincided with the design and manufacturing department's busiest time at the start of the year.

For example, on the logistics side, Avanade has developed report interfaces for the team's transport manager, enabling him to oversee all the team's transport requests 24/7. In aerodynamics, Avanade has developed a new application that plans the wind tunnel program, doing away with the Macro-overflow old Excel program, which was prone to manual error. Now the aerodynamicists can organize their planning with minimal effort.


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COMPETITION!

TO WIN A SIGNED LOTUS F1 TEAM SHIRT, ANSWER THE QUESTION BELOW AND SEND YOUR ANSWER TO AVANADELOTUSF1@AVANADE.COM

“WHAT’S THE COMBINED RACE MILEAGE FOR ROMAIN GROSJEAN & KIMI RAIKKONEN SO FAR THIS SEASON, UP TO & INCLUDING THE BELGIAN GRAND PRIX?”

RESULTS REALIZED

"Avanade have turned it around," exclaims De Beer. "I'm astonished at how quickly their consultants have provided us with a SharePoint application that is far more effective than the program we had previously. It has become vital because now multiple people can go onto the software platform, and this has really boosted productivity and efficiency, reducing development lead-times. It's a massively influential step forward." 



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