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FULL THROTTLE ANALYTICS

GET TO GRIPS WITH AI AND IOT

**TRADITIONAL MOTORBIKES ARE SO-LAST-YEAR
DUCATI CORSE BUILDS A MOTOGP
RACING BIKE WITH FULL THROTTLE THINKING**

DUCATI

OVERVIEW

DUCATI CORSE IS THE RACING DEPARTMENT OF DUCATI MOTOR HOLDING, THE ITALY-BASED WORLD LEADER IN SPORTS MOTORCYCLE MANUFACTURING WHICH BLENDS EXCLUSIVE ITALIAN DESIGN, DISTINCTIVE FEATURES AND SUPERIOR PERFORMANCE.

Ducati Corse, the racing department of Ducati Motor Holding, needed a faster, simpler and more accurate way to pinpoint the best bike configuration possible for every race. We developed an innovative application that uses Artificial Intelligence and Internet of Things

(IoT) technologies to simulate bike performance based on a number of track and weather conditions. As a result, the Ducati Team is able to make more intelligent decisions on how to race and leave the competition safely behind.



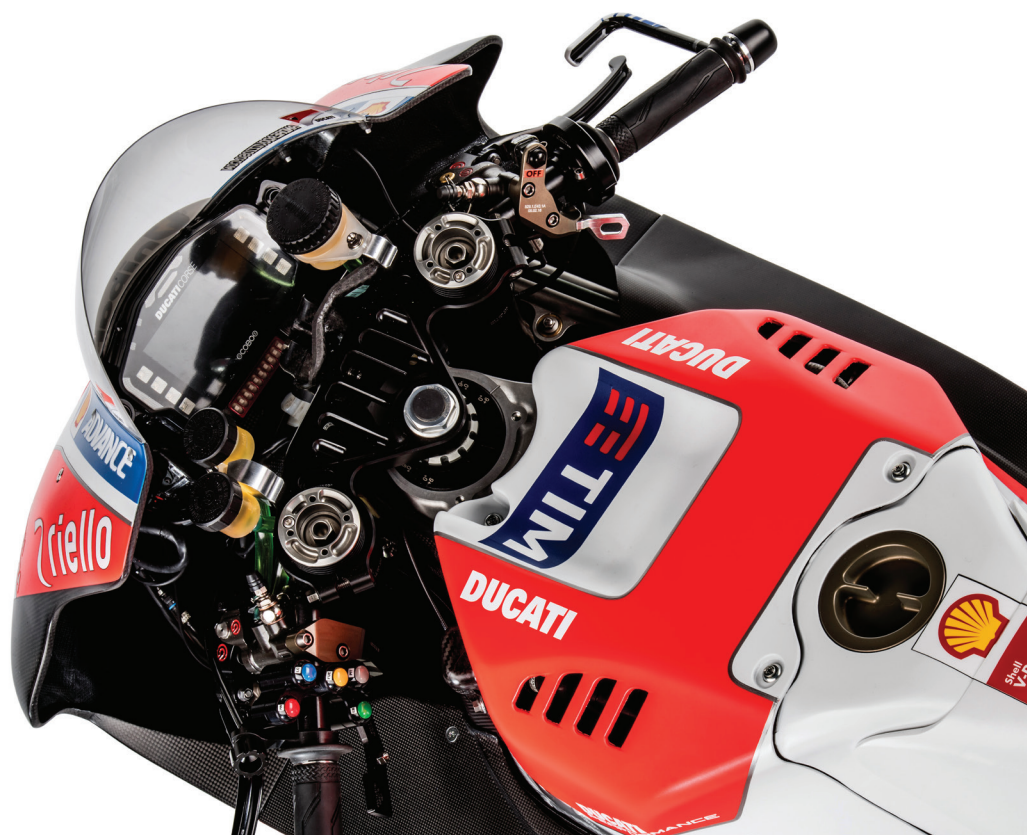
THE STORY

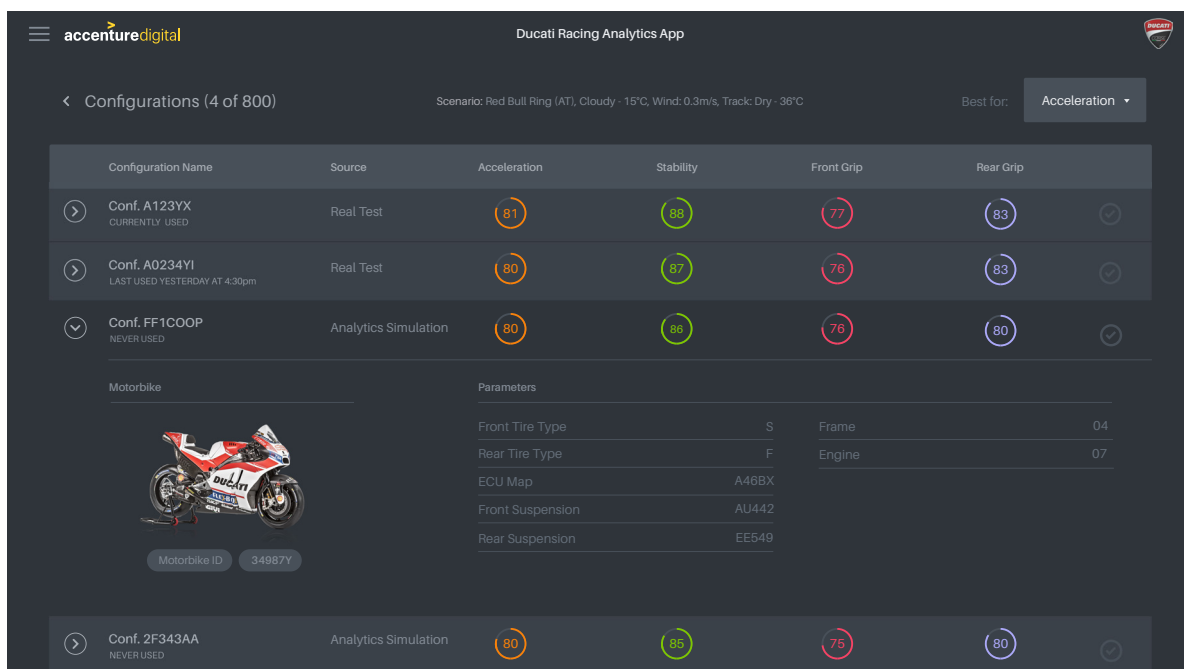
THE DUCATI TEAM WANTED TO MAKE ITS BIKE CONFIGURATION TESTING MORE EFFICIENT AND INSIGHTFUL WHILE ALSO REDUCING THE TIME, COST AND EFFORT INVOLVED.

BUSINESS CHALLENGE

For every race, a motorbike racing team must configure each of its bikes to maximize performance given the conditions on the day. This requires exhaustive on-track testing of different set-up configurations at different tracks

and in the most varied of weather conditions. The Ducati Team wanted to make its bike configuration testing more efficient and insightful while also reducing the time, cost and effort involved.





HOW WE ARE HELPING

Together with Ducati's world-leading experts in motorbike testing, we modernized configuration testing by combining two disruptive technologies – Artificial Intelligence and Internet of Things (IoT) – to create an application capable of simulating and monitoring a motorbike's performance under a vast array of track and weather conditions.

IoT Bike sensors, ranging from 40 to 100 depending on the bike, collect a vast array of data points – speed, engine running parameters, revs, tire and brake temperatures, and more – as well as track key performance indicators (KPIs) including acceleration, oscillation, vibration and grip.

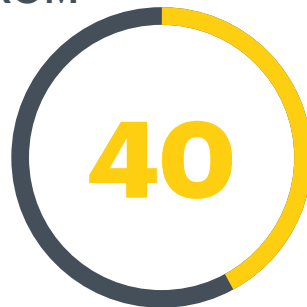
Artificial Intelligence is then applied to the racing performance KPIs and past test data to identify the optimal bike set-up configuration, using advanced algorithms working on the data patterns from the different sensors, machine learning and applying clustering and regression algorithms.





DUCATI'S BIKE SENSORS

FROM



TO



RESULTS

Today, the Ducati Team is using the intelligence from the Accenture Analytics solution to plan, prepare and test for MotoGP races. To date, around 4,000 sectors of race tracks and 20 different racing scenarios have been analyzed, with a wider roll-out of the solution expected. This has transformed how the

team set up a bike for every race and has dramatically reduced the time required. Machine learning will create a bike that intuitively optimizes its own performance based on conditions and becomes an even greater rival in MotoGP racing; now that's analytics at full throttle.

4,000
SECTORS
OF RACE
TRACKS

20
DIFFERENT
RACING
SCENARIOS





MOSEDICI

DUCA

ELF

AKRAPOVIČ



BREMO

ALINS

marchesini Racing

MICHELIN
Total Performance

MICHELIN
Total Performance
FORGED MAGNESIUM



“THERE ARE 18 MOTOGP TRACKS, AND TO MAKE SURE OUR BIKES PERFORM TO THEIR LIMIT, WE NEED TO TEST AS MANY CONFIGURATIONS AND SCENARIOS AS POSSIBLE,” SAID LUIGI DALL’IGNA, DUCATI CORSE GENERAL MANAGER.

“SO FAR, WE’VE SEEN EXCELLENT RESULTS IN THE LAB WITH THE ACCENTURE SOLUTION. **THE ABILITY TO USE EXISTING AND NEW TESTING DATA WILL HELP US CHOOSE THE OPTIMAL CONFIGURATION FOR OUR BIKES. THIS INNOVATIVE TOOL WILL MAKE OUR TESTING A MORE INTELLIGENT PROCESS, HELPING US GET THE BEST PERFORMANCE FROM OUR BIKES, WHATEVER THE WEATHER OR THE TRACK.**”

LUIGI DALL’IGNA,
DUCATI CORSE GENERAL MANAGER

