

EXPERT INSIGHT

# Why Plan Versus Actual Fleet Performance Measurement is So Important



# How to Make Plan Versus Actual Fleet Performance Measurement Work

Creating an optimised route plan is the first step to maximising fleet performance and customer experience. However, a great plan only matters when it is executed – and that’s the challenge for many fleet operators.

Tracking drivers with GPS helps, but the problem is not that simple as there are several areas where deviations occur to the plan. In addition, some of the deviations are voluntary (e.g., a driver decides to change the delivery sequence) or involuntary (e.g., there is a road closure not captured in the digital map data).

However, deviation to plan starts well before a driver gets on the road. To get better control of fleet performance, managers need to track plan versus actual performance.

Here are the **three key points** to understand plan versus actual performance and how fleet operators can use that information to maximise fleet performance and customer experience.

## 1. Start with an Optimised Route Plan

Today’s advanced route optimisation solutions are very adept at considering all the business constraints and evaluating the tradeoffs of having what orders on what routes and the sequence they are delivered. They look holistically to find the best combination of routes and sequences that will meet customer delivery requirements for the lowest delivered costs.

While not perfect, if the route planning solution is configured correctly, it will consistently outperform the human mind to find the most cost-efficient route plan. For this discussion, let’s consider that the plan initially generated by the system is the starting measuring point and has the best potential results.

## 2. Evaluate the Impact of Changes Made by Planners

Once a plan is initially created it is typically reviewed by a planner to ensure there are not any inconsistencies that could impact delivery performance and consider any conditions that were not considered in the system configuration or not possible to model. This step is the first place where deviation from the initial optimised plan can occur.

For legitimate and arbitrary reasons, planners make changes to optimised routes. For instance, the planner knows that the solution doesn’t fully capture a constraint and the number of deliveries a specific truck can execute needs to be adjusted. Equally, a planner may have preconceived notions about what a route should “look like” and make changes to have it appear in a certain way on the digital map. In either case, the optimised plan has been adjusted and the results fall into two categories: more optimised and better performance or less optimised and lower performance. These changes need to be captured and compared to the initially optimised plan.

## 3. Track Execution and Capture Deviations that Impact It

Once the planner is finished making their adjustments, the plan is published to the driver. Let’s assume that all the deliveries are on the truck and the driver starts executing the route which is tracked by GPS. Here again, the driver can deviate from the route plan for legitimate and arbitrary reasons.

The driver knows that a certain customer will take orders earlier than indicated in the route plan and changes the delivery sequence to be more efficient, or the driver likes to stop at a specific diner for Tuesday’s lunch special.

Then there are events that are out of the driver’s control that can change the route plan. For example, a customer cancels a delivery or an accident closes a road. All the driver changes and external events need to be captured to get a complete picture of the deviations during route execution.



## The Complete Plan Versus Actual Picture

Capturing these three points gives managers a comprehensive view of plan through actual execution and better control of performance outcomes. Managers will know the plan's starting point in terms of cost and customer service, how the planner's changes impact cost and service, and the same for the driver's changes and external events.

Placed side-by-side, the manager can see **(1)** if the plan was not as optimal or feasible as possible, **(2)** the degree planners are changing the original plan and why and the degree drivers are deviating and why.

With this information, managers can take corrective action to:

- Improve the quality of the initial optimised plan through configuration changes.
- Identify which planners are over-editing the plan and negatively impacting costs and customer service.
- Better manage driver adherence to plan and understand the degree external events are impacting delivery performance.



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# Three Technological Advances That Can Help Minimise Deviations to Plan



## Data Analytics

Data analytics integrated with the planning and execution solution can accelerate the plan versus actual performance analysis. One of the biggest challenges is collecting, organising, and correlating the tremendous amount of data that route planning and GPS-based execution solutions generate.

The advent of powerful, but intuitive and low-cost analytics platforms such as Microsoft PowerBI™ that has standardised integration to route planning and execution solution streamlines the data management process and gives deep insights into plan versus actual performance.

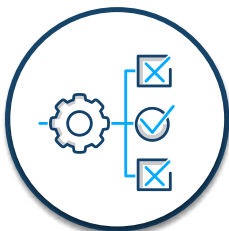


## Machine Learning

Tracking fleet plan versus actual performance is an excellent application for machine learning because of all the data that is created in the route planning through execution process.

Machine learning can more accurately identify actual stop location, drive, service and stop times, and other patterns such as changes in stop sequence. These recommendations can be applied to the optimised planning solution to create more accurate and productive route plans.

Machine learning can also identify which planners and drivers are outliers to capture best practices or coach poorer performers.



## Robotic Process Automation

Robotic process automation can eliminate some of the causes of plan versus actual deviation. Unfortunately, planner performance can vary widely resulting in significant deviations to the initial optimised plan and poorer plan performance.

By capturing and automating the planning practices of the best planners using robotic process automation, fleet operators can eliminate many of the post-optimisation tweaking that occurs during the planning review phase.

Consequently, there will be fewer changes, more predictable planning outcomes across the organisation, shorter planning reviews, and greater planner productivity.



## Conclusion

Plan versus actual performance analysis is an important process for pinpointing and improving the practices and actions that planners and drivers take that negatively impact delivery performance. Using the three-point approach described above allows managers to capture the changes that alter delivery performance.

When combined with technological advances such as data analytics, machine learning, and robotic process automation, fleet operations can implement powerful plan versus actual performance processes that tighten fleet performance and dramatically impact operating results.

Want to get the full picture when it comes to your fleet's plan versus actual KPIs? Explore Descartes' [Routing, Mobile, and Telematics](#) website today.



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## About Descartes Systems Group

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