



Is fleet optimisation right for your business?



Trakm8
Data driven insights

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Telematics is now a well-established transport technology tool, delivering substantial savings for fleets of all sizes. However, while most transport operators and fleet managers are improving safety and efficiency through telematics, they are less clear when it comes to understanding the benefits of route optimisation.

At Trakm8, we believe that route optimisation – also known as fleet scheduling - will experience the same exponential growth curve that telematics has enjoyed over the past decade.

Major fleets and forward-thinking smaller companies are already adopting the technology; and many more will follow in their wake. Optimisation can work as a stand-alone solution or alongside telematics, with the two technologies combining extremely effectively.

This white paper provides a brief overview of optimisation, summarising how it works; the key benefits; and how to build the internal business case for optimisation within your organisation.

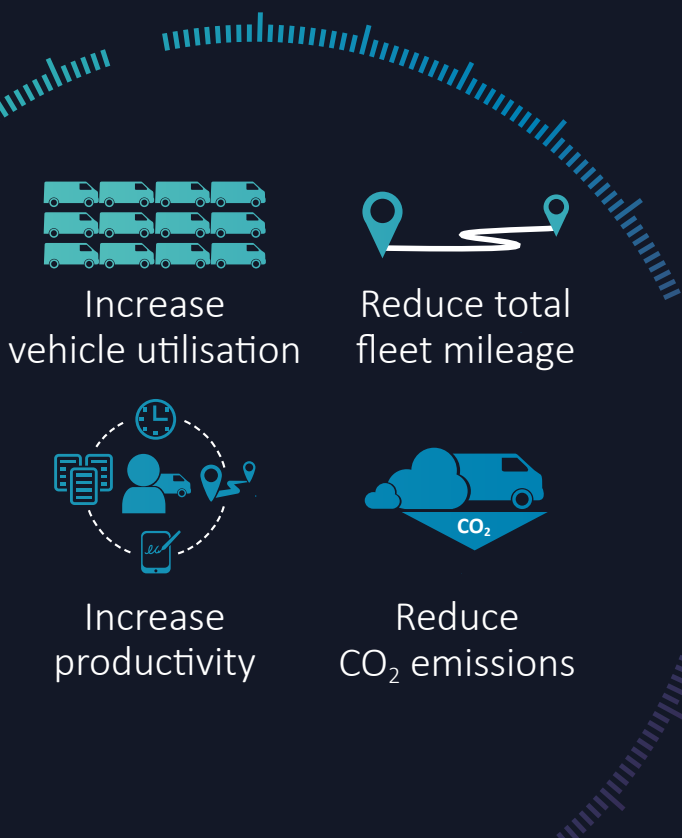
Overview

The concept of route optimisation software is relatively straightforward: Import tasks such as deliveries or collections, and devise a manifest that carries them out in the lowest cumulative mileage.

There are a lot of basic journey planners out there, and they can be effective in a limited capacity. Planning each individual vehicle's best possible route can cut fuel bills - however a comprehensive fleet scheduling application goes several steps further. The algorithm at the heart of true optimisation software looks holistically at your resources – fleets, drivers and depots - in order to assign vehicles, timetables and schedules in the most efficient manner, whilst adhering to customer service level agreements (SLAs) such as delivery time windows.

The differences in outcomes are vast – along with a far bigger reduction in total fleet mileage and transport planning time, fleet scheduling can also substantially improve vehicle utilisation. Often this means that fleets find they can achieve the same level of customer fulfilment with fewer vehicles, boosting profitability. In fact, good scheduling software can deliver efficiency savings of up to 20%.

Best of all, you don't need to be a rocket scientist to benefit from route scheduling software, as the algorithms do the heavy lifting for you. A good fleet optimisation system should be user-friendly and straightforward. There's a common misconception that optimisation will only work if you're already using fleet management software, or telematics. The reality is that it is a standalone technology. In fact, most of our customers manually planned their transport operations before investing in our fleet scheduling solutions.





up to

20%

fleet efficiency savings

How it works

Optimisation is powered by a highly-sophisticated algorithm, enabling it to make millions of calculations in a fraction of the time that it would take human planners.

It also delivers extremely accurate results. Here is a step-by-step guide to the key stages of the process:

Step 1. Set up your resources

Configuring your resources correctly is vital to the successful deployment of optimisation software – and the more information you can feed the algorithm, the better the results it delivers. At a very basic level, resources are primarily comprised of your vehicles and people. However, proper optimisation software can take into consideration a vast array of characteristics for both elements. These include vehicle capacities; frozen/chilled compartments; operating times and costs; vehicle characteristics such as tail lifts or body specifications; tachograph requirements; and driver skills or qualifications such as fork lift operator or ADR licences.

Furthermore, the best optimisation software should be able to account for other factors such as lunch breaks, statutory breaks and permitted total driver hours – crucial for fleets with O-Licences.

Step 2. Import jobs

Optimisation algorithms can take into account a near-limitless number of factors when it comes to tasks or jobs, such as deliveries and collections. Again, the more information you can give the algorithm, the better the results. This could include customer-specified delivery time slots; whether the order requires two-person delivery for bulky items such as white goods or furniture; and whether the goods need to be chilled or even frozen.

Step 3. Optimise

This is when the magic happens! Punch that button and the algorithm will begin to calculate the most efficient way to meet all of your objectives. It will achieve this in the lowest cumulative mileage, and using the least possible number of vehicles and people. If you ever watch our optimisation process, you'll see the total mileage decrease, in real time, as the algorithm finds ever-better ways to get the jobs done.

Step 4. Distribute driver schedule

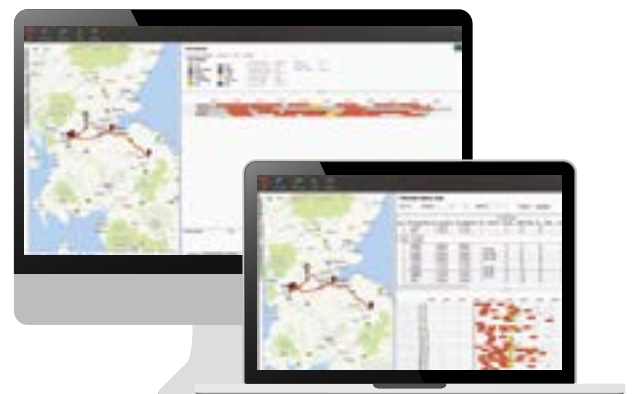
The simplest option is to print out a manifest for each driver. However, a far more efficient method would be for the optimisation software to automatically send jobs to a device such as a smartphone or PDA for electronic proof of delivery (ePOD), as these devices also generate real-time notifications once the order has been completed.



Dynamic scheduling

Dynamic scheduling is the industry term for optimisation in real time. For complex operations such as same-day shopping delivery with specified time slots, the algorithm is using live telematics data to constantly adjust the schedules as new jobs are received.

However, even in operations which plan today for tomorrow, dynamic scheduling enables them to quickly react to changing scenarios such as a last-minute order from a valued client.



Benefits

The key benefits of using fleet scheduling software include substantial savings on fuel, which in turn reduces your CO2 emissions from road transport. Our customers have reported total fleet mileage reductions of up to 20% after implementing Trakm8 Optimisation. In addition, the human resource required is drastically reduced compared to manual transport planning, enabling you to deploy that resource elsewhere in your organisation.

Improved vehicle and driver utilisation means that many of our customers find they actually have more resources than they need. For some that translates into a direct saving as they take vehicles off hire, or reduce the number of subcontractors and expensive agency drivers they require. Clearly these are bottom-line savings which improve margins.

However, the efficiency benefits of increased vehicle utilisation can be realised in other ways, depending on your business model. For example, a home shopping delivery business would be more interested in increasing productivity than downsizing its fleet. One of our customers increased the number of deliveries it could make by 33% thanks to fleet scheduling. Or perhaps as a third-party logistics provider, you could bid more competitively for a contract, knowing that you could deliver it using fewer resources and assets than your peers.



Integration

Like most technology-driven solutions, route optimisation software is rapidly evolving. And the good news is that these changes are designed to make fleet management easier, rather than more complex.

One of the biggest trends is integration, with a strong focus on the vehicle connectivity provided by telematics. Combining the two creates a compelling solution that becomes much more than the sum of its parts.

Fleets also benefit from full tracking of planned versus actual performance, driver behaviour systems, PDA data capture, fleet efficiency tools and risk mitigation – all from one very easy, intuitive interface. Integrating optimisation with these solutions offers a quantum leap forward for fleets, in terms of further cutting costs and carbon emissions while boosting productivity.

The best fleet scheduling and optimisation software providers will also have a great deal of experience and expertise in integrating with other third-party applications, such as accounting or back office systems. This helps reduce duplication of effort and ensure that the management team has access to all of the right information with the minimum of fuss.

With such attractive savings on offer, it begs the question as to why more fleets don't already use route planning software, or at least explore it as an option. In our experience, one of the biggest barriers is purely psychological; in that fleet managers worry that route optimisation might be a totally new and alien proposition. You might also run into resistance from financial directors or CEOs, with whom new investment can often be a hard sell.





Building the business case

Optimisation software should always deliver a return on investment (ROI). In order to ascertain whether optimisation software will benefit your business, you first need to define your objectives for potential adoption. These typically fall into one or more of the following categories:

- operating cost reduction
- enhanced customer service
- Improved vehicle utilisation
- full or semi-automation of existing planning processes



Typically, these factors are directly related to the number of vehicles you operate and your total fleet mileage incurred. How you use your fleet is also critical - vehicles visiting multiple locations every day stand to benefit more from a multi-stop route planner than those making basic 'A to B' trips. A good solutions provider should be able to optimise even highly complex operational demands like time-sensitive deliveries, sites that only allow in certain types of vehicles, and driver working hours.

The best providers will make these decisions simple for you, by carrying out a benchmarking exercise. Benchmarking is where analysts take historical fleet operations data and run it through optimisation algorithms to calculate what savings you could make by using scheduling software. Some offer free benchmarking as a way of demonstrating the potential return on investment. This de-risks investment decisions for senior management; and helps transport operators to build the business case for optimisation with their procurement departments.



Free Benchmarking Offer

If you are interested in a free fleet benchmarking from Trakm8, please fill out our quick and easy enquiry form at get.trakm8.com/free-benchmarking

Want to know more?

Contact us by telephone +44 (0) 330 311 5157
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