Routing and Scheduling System

Paragon®

DigiCore
FLEET MANAGEMENT
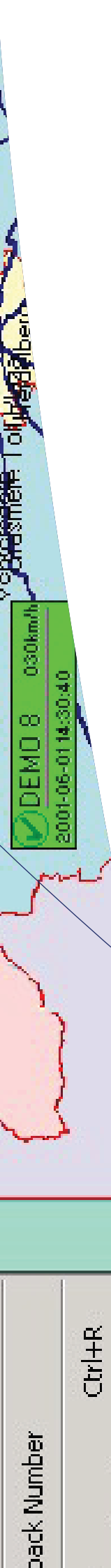
What is Fleet Controller?

Paragon Fleet Controller is a software solution that enables real-time vehicle activity to be tracked automatically against the planned routes and schedules. This gives transport managers real-time visibility of how the day's plan is progressing and provides an accurate picture of transport and service performance. It enables companies to significantly improve their customer service achievement, respond efficiently to problems or delays that arise, ensure delivery schedules are legal and achievable, and unearth hidden inefficiencies for continuous performance improvement.
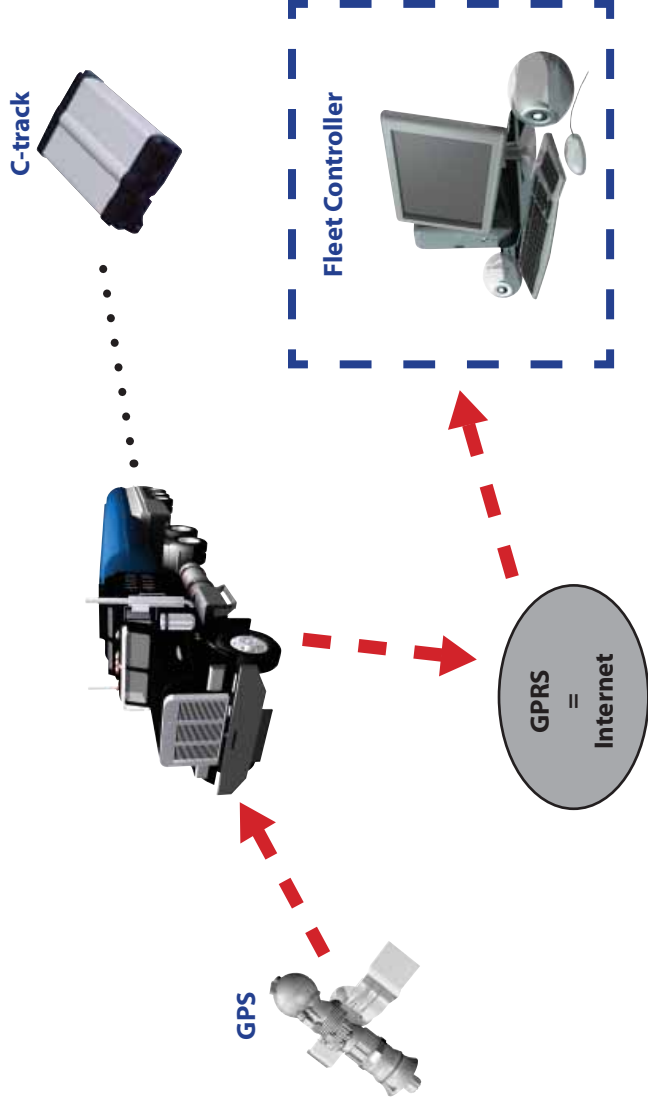
What does Fleet Controller do?
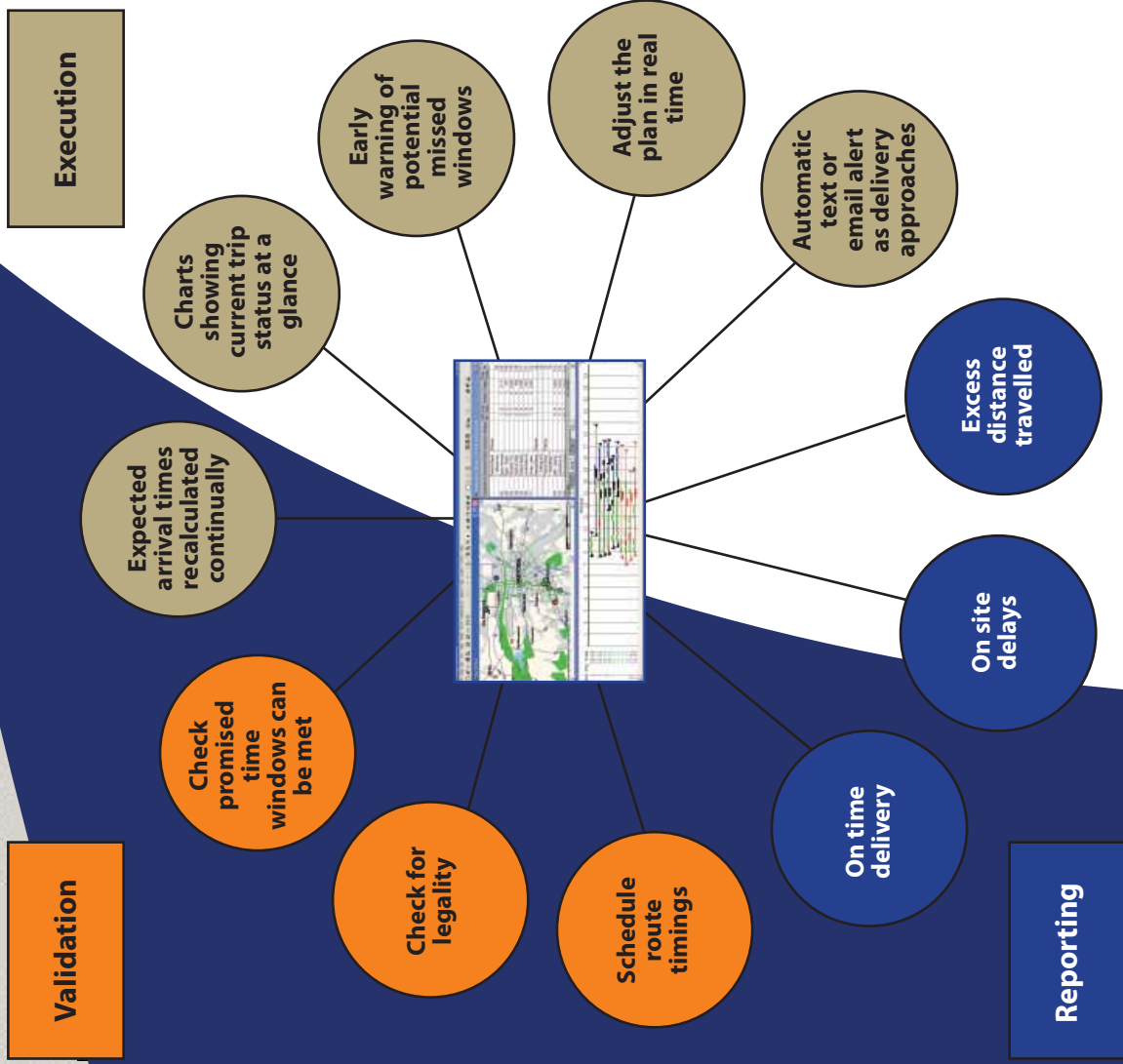
Maintains and validates the transport plan prior to execution
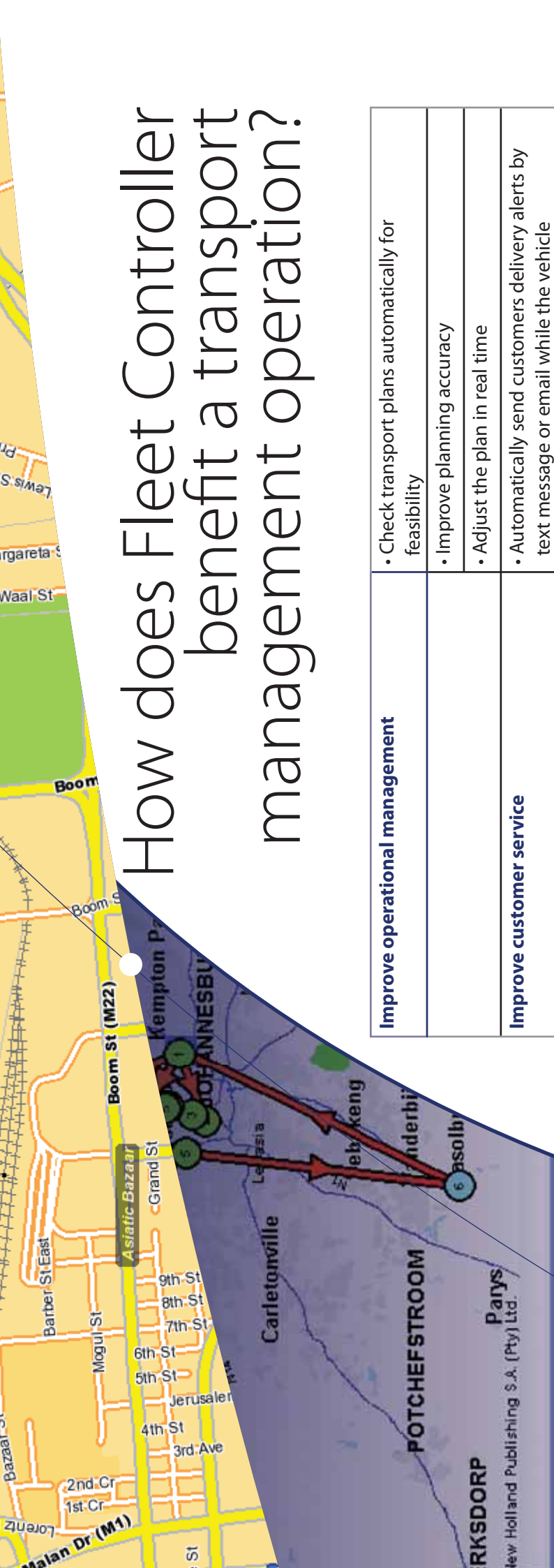
Manages the execution of the plan in real time

Reports exceptions and KPIs for continuous improvement

Execution

- Charts showing current trip status at a glance
- Early warning of potential missed windows
- Adjust the plan in real time
- Automatic text or email alert as delivery approaches
- Expected arrival times recalculated continually
- Excess distance travelled
- On site delays

Validation

- Check promised time windows can be met
- Check for legality
- Schedule route timings
- On time delivery

Reporting

DEMO 8   030km/h
2001-06-01 14:30:40

back Number   Ctrl+R
eed Profile...
istory...   Ctrl+H

How Fleet Controller Works

The integration of Paragon's Fleet Controller with the industry's leading tracking system C-track using a simple XML interface enables real-time information about vehicle location and status (moving or stationary) to be captured automatically and fed back to the Fleet Controller system every few minutes. This information can then be used to automatically provide an accurate up-to-date picture of the execution of the day's transport schedule as well as an accurate plan versus actual history.

C-track

Fleet Controller

GPRS = Internet

GPS

How does Fleet Controller benefit a transport management operation?
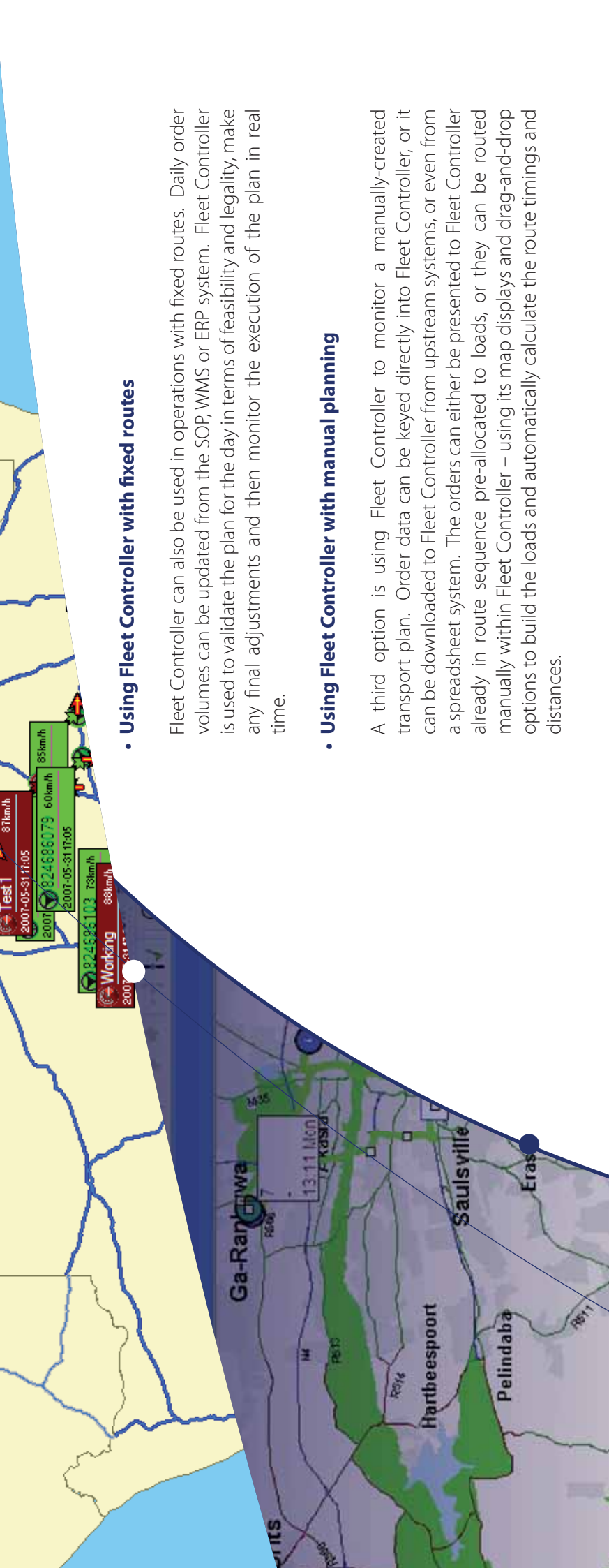
Improve operational management	• Check transport plans automatically for feasibility
	• Improve planning accuracy
	• Adjust the plan in real time
Improve customer service	• Automatically send customers delivery alerts by text message or email while the vehicle is en-route
	• Be alerted to, and deal with, potential missed delivery windows
Driver debrief, KPI reporting and continuous improvement	• Highlight and correct hidden inefficiencies
	• Report Key Performance Indicators
	• Report planned vs. actual kilometres, drop time, driving time and working time
	• Uncover off-route kilometres
	• Instant visibility of exceptions to enable immediate driver debrief
	• Avoid wasting time debriefing drivers when there are no issues
	• Comparative performance reports
Legal implications	• Automatically check that the routes are feasible and meet industry legislation

Route Summary

Route No.	No. of Trips	Days	No. of Calls	Distance (Kms)	Cost
1	1	1	2	35	336
2	1	1	3	548	5 2
3	2	1	15	124	1
4	1	1	5	360	3
5	3	1	11	96	
6	1	1	6	267	
7	2	1	11	122	
8	1	1	3	558	
9	1	1	5	43	
10	1	1	6	25	
11	1	1	5	4	
12	2	1	9		

Fleet Controller as part of your transport planning and execution function

GPRS = Internet

Fleet Controller

Paragon Automatic Planning (batch or continuous)

Fixed routes with today's volumes

Manual Planning
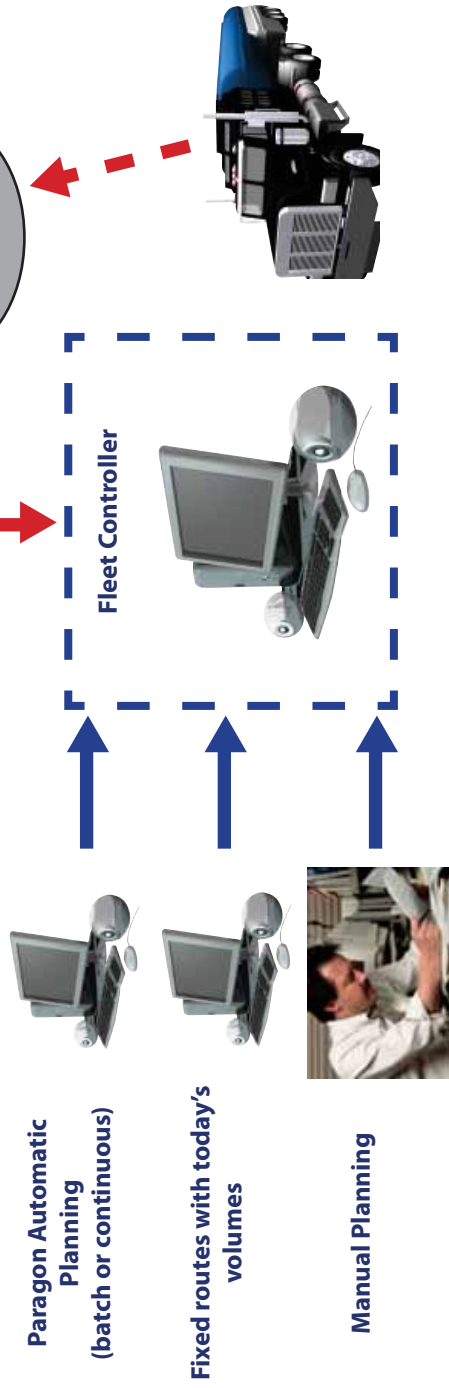
- **Using Fleet Controller with Paragon's automatic routing and scheduling**

Fleet Controller can be added to any Paragon routing and scheduling system that is used to automatically plan delivery schedules on a daily basis – whether batch scheduling or continuous optimisation.

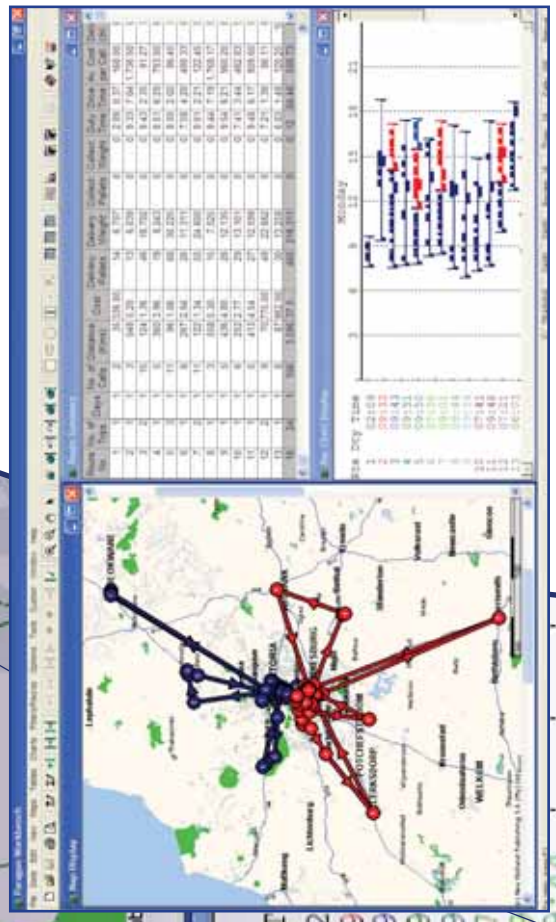# What are Fleet Controller's capabilities?

• **Using Fleet Controller with fixed routes**

Fleet Controller can also be used in operations with fixed routes. Daily order volumes can be updated from the SOP, WMS or ERP system. Fleet Controller is used to validate the plan for the day in terms of feasibility and legality, make any final adjustments and then monitor the execution of the plan in real time.

• **Using Fleet Controller with manual planning**

A third option is using Fleet Controller to monitor a manually-created transport plan. Order data can be keyed directly into Fleet Controller, or it can be downloaded to Fleet Controller from upstream systems, or even from a spreadsheet system. The orders can either be presented to Fleet Controller already in route sequence pre-allocated to loads, or they can be routed manually within Fleet Controller – using its map displays and drag-and-drop options to build the loads and automatically calculate the route timings and distances.

1. Validation of the plan

Regardless of how the transport plan has been created, Fleet Controller calculates the route timings and distances, and warns the user if any of the planned vehicle routes will:

• Miss any promised customer time windows
• Overload the vehicle
• Have difficulty accessing a customer site, because too large a vehicle has been used

- Violate drivers' hours regulations
- Exceed the legally permitted driving time per day.

It also highlights any routes that are under-utilised or have spare capacity.

If there is an issue, or an opportunity to improve efficiency, the user can adjust the planned routes and schedules, for example by dragging calls from one route to another, or moving a second trip to an alternative driver. Fleet Controller recalculates the scheduled distances and timings, and reports any remaining feasibility problems. This helps ensure that the day's plans remain both efficient and legally sound, and that promised customer time windows will be met.

2. Execution

Fleet Controller automatically tracks each vehicle against its planned route, and can immediately determine whether or not there are any problems. It will alert the user if an unexpected delay means being late for a time window later in the day.
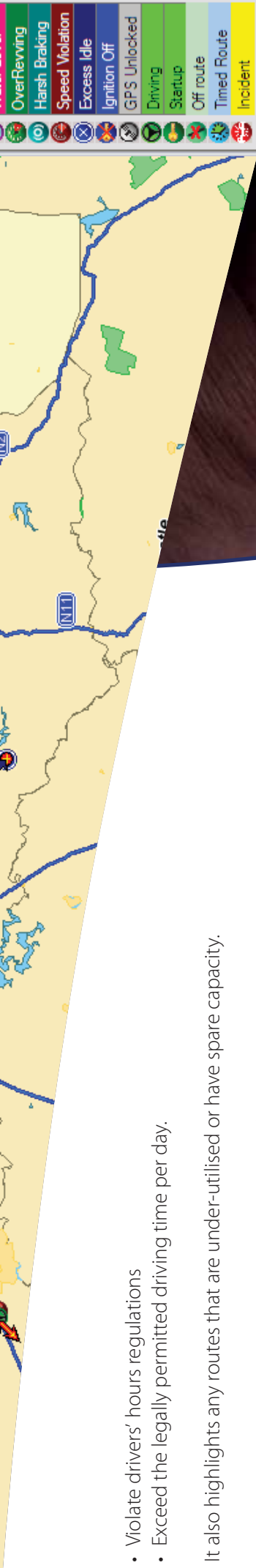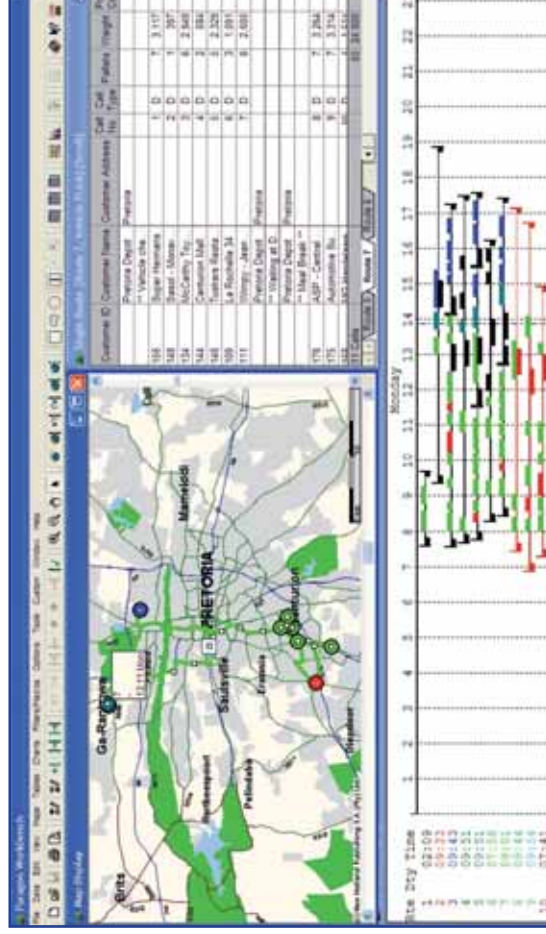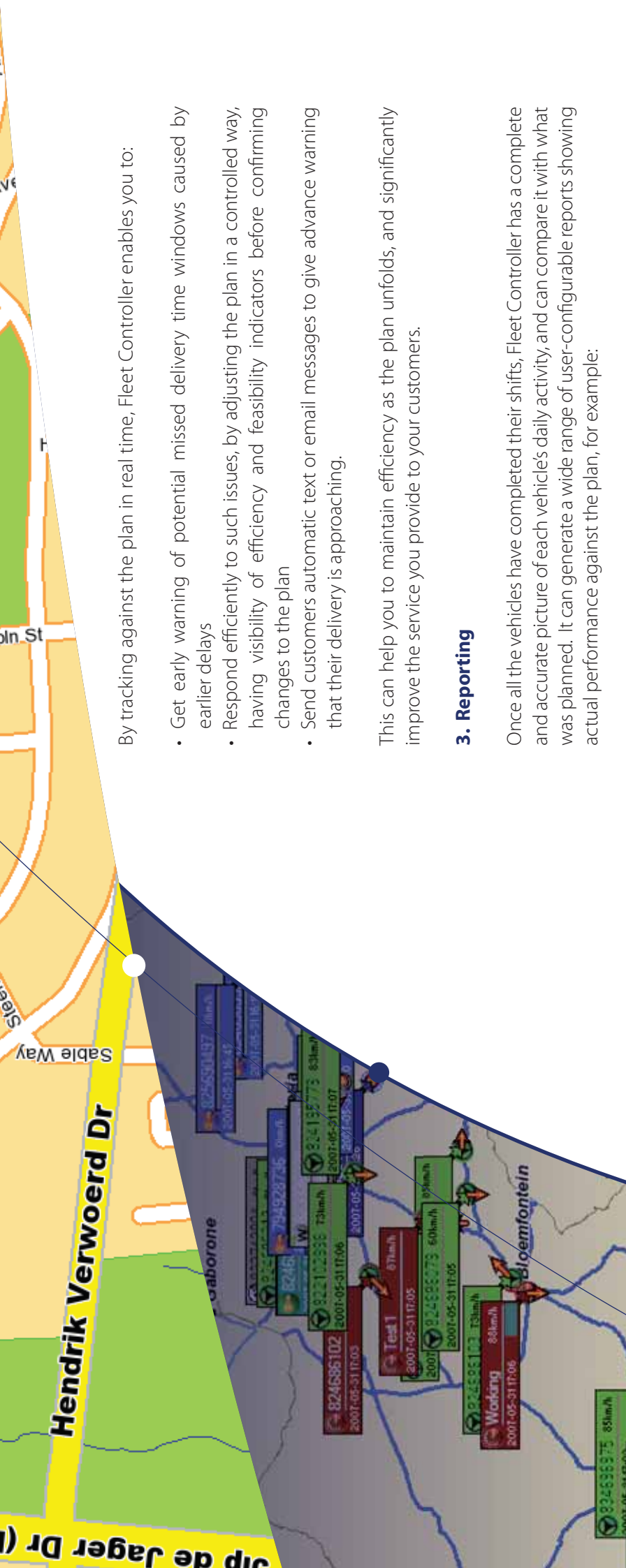
By tracking against the plan in real time, Fleet Controller enables you to:

- Get early warning of potential missed delivery time windows caused by earlier delays
- Respond efficiently to such issues, by adjusting the plan in a controlled way, having visibility of efficiency and feasibility indicators before confirming changes to the plan
- Send customers automatic text or email messages to give advance warning that their delivery is approaching.

This can help you to maintain efficiency as the plan unfolds, and significantly improve the service you provide to your customers.

3. Reporting

Once all the vehicles have completed their shifts, Fleet Controller has a complete and accurate picture of each vehicle's daily activity, and can compare it with what was planned. It can generate a wide range of user-configurable reports showing actual performance against the plan, for example:

Exception Reports	KPI Reports
Excess kilometres	Delivery on time
On site delays	Delivery and collection times
Excess duty	Cost per drop
Excess driving time	Total distance

Key performance indicators, such as the "percentage of on-time deliveries" can also be reported. Similarly, a range of exception reports can be generated in order to identify hidden inefficiencies and other issues. This means that recurring problems that were previously unknown can now be resolved and inefficiencies can be ironed out.
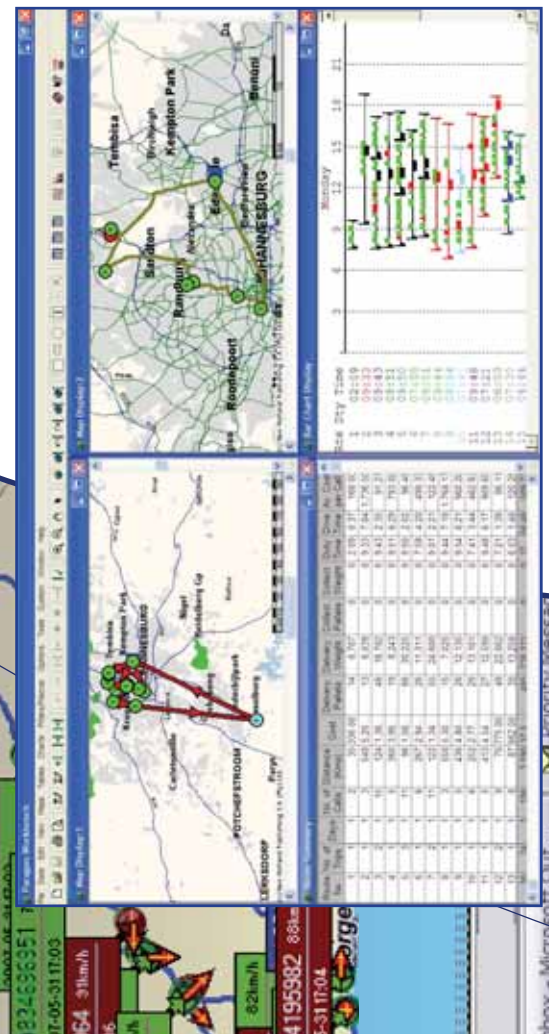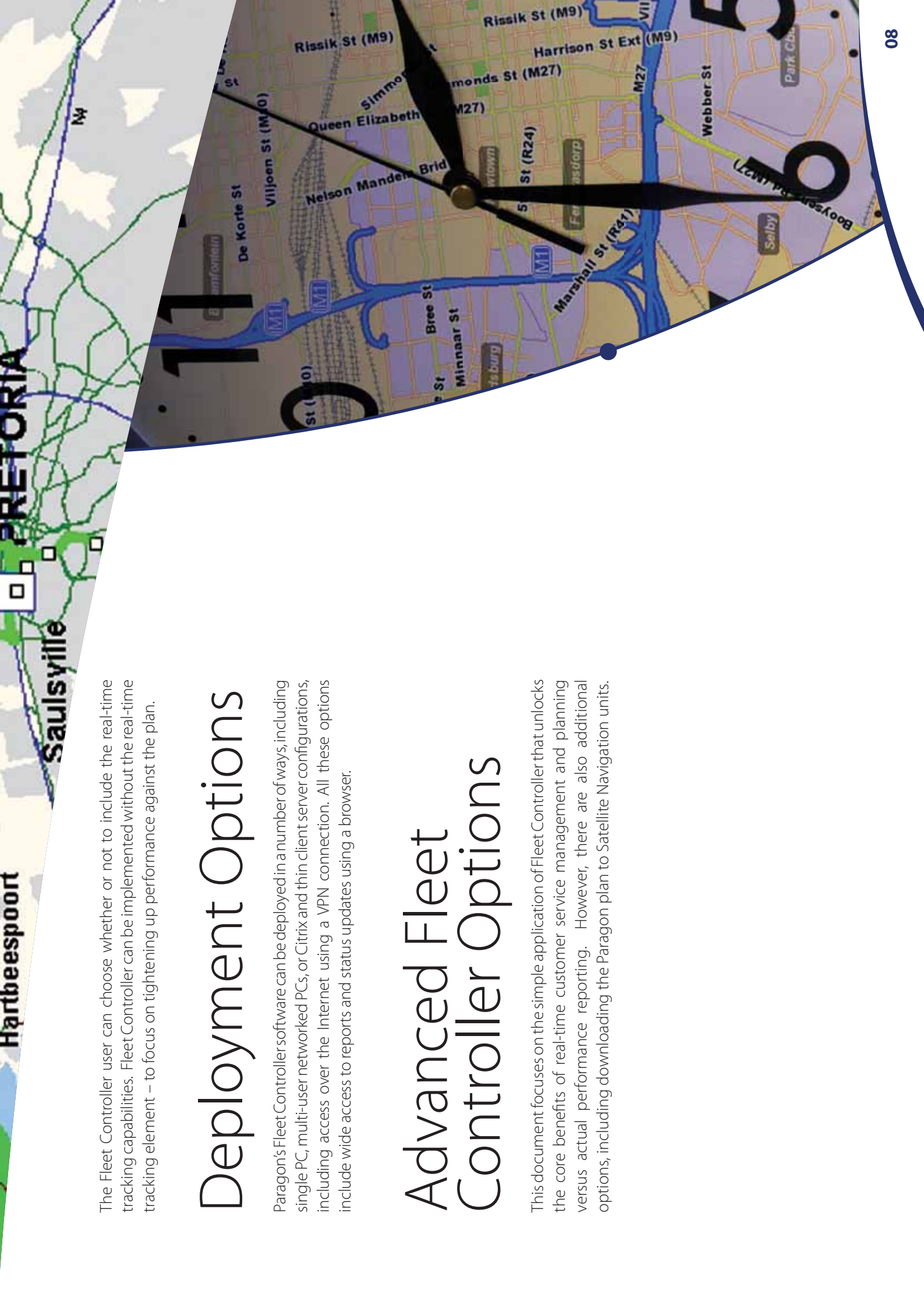
The Fleet Controller user can choose whether or not to include the real-time tracking capabilities. Fleet Controller can be implemented without the real-time tracking element – to focus on tightening up performance against the plan.

Deployment Options

Paragon's Fleet Controller software can be deployed in a number of ways, including single PC, multi-user networked PCs, or Citrix and thin client server configurations, including access over the Internet using a VPN connection. All these options include wide access to reports and status updates using a browser.

Advanced Fleet Controller Options

This document focuses on the simple application of Fleet Controller that unlocks the core benefits of real-time customer service management and planning versus actual performance reporting. However, there are also additional options, including downloading the Paragon plan to Satellite Navigation units.

Additional Paragon
Software Capabilities

Fleet Controller is part of a family of Paragon software products for optimising and managing transport operations. Capabilities of Paragon routing, scheduling and transport optimisation products include:

- Daily operational routing and scheduling
- National / regional / local planning
- Single depot scheduling
- Multi-depot scheduling with integrated fleets
- Central planning with multi-user access
- Real-time automatic scheduling linked to online ordering and booking systems
- Fleet tracking and monitoring
- Planning both primary and secondary distribution
- Multi-period planner for scheduling multiple frequency calls
- Street level routing
- Scheduling depot-based vehicle or external hauliers
- International mapping capabilities
- Rationalising fixed routes
- Territory planning and optimisation
- Strategic logistic modelling
- Business development for logistics operators

Benefits

Paragon's routing and scheduling software is helping hundreds of companies to:

- Cut transport costs by up to 20%
- Plan complex transport operations
- Improve fleet utilisation
- Plan more quickly and reliably
- Reduce delivery lead time

- Enhance customer service
- Reduce distance travelled
- Increase control of transport
- Reduce administration costs
- Support growth objectives

Flexibility

Paragon's advanced routing and scheduling technology has been developed to handle diverse needs of the logistics industry and manage operations ranging from ten vehicles based at a single site to hundreds of vehicles running out of several sites. Paragon's client list features numerous blue chip companies spanning a wide range of sectors, including:

- Retail
- Manufacturing
- Wholesale
- Logistics and transport
- Home delivery
- Service management
- Internet-based home shopping

- Food and beverage
- Healthcare
- Automotive
- Petrochemical
- Hi-tech goods
- Parcels and post
- Furniture and home furnishing transport

What Next?

If you would like to find out more about how the addition of Fleet Controller could benefit your organisation, please call DigiCore Fleet Management on +27 12 665 7300 and ask to speak to your sales or support team contact.

International footprint

South Africa	Malaysia
UK	Indonesia
Europe	Bangladesh
France	Saudi Arabia
Finland	Afghanistan
Switzerland	Nigeria
Austria	Kenya
Italy	Zimbabwe
Sweden	Botswana
Belgium	Zambia
Holland	Namibia
Czech Republic	Uganda
Germany	Rwanda
Pakistan	DRC
UAE	Tanzania
Australia	

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