

ORBIT



Optimising Visit Plans

Welcome to ORBIT



What is ORBIT?

ORBIT is a complete system for planning and managing visits for teams of sales people, field service technicians, hygiene workers, home care providers, waste collection agents and other types of personnel providing regular and cyclic services to customers.

ORBIT has powerful optimisation algorithms to maximise efficiency at three levels:

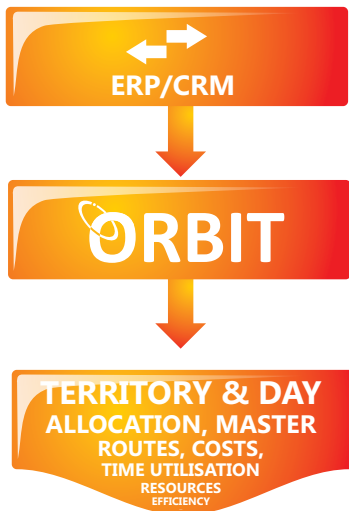
- **Strategic:** How do I define my regions and territories? How many resources do I need? Where should they be located? How would my costs change under different service packages?
- **Tactical:** Based on several possible service patterns, what is the best set of days to visit each customer?
- **Operational:** How should I combine the allocated customer visits with ad-hoc visits into planned routes for each day?

Why ORBIT?

ORBIT takes into account numerous real-life constraints to automatically create optimised master routes for periods of a few days up to a few months. ORBIT's algorithm makes the decision of *which resource should service each customer and on what combination of days* to achieve the best possible utilisation of your resources.

The combination of optimisation and visualisation tools allows for quick and detailed what-if analysis. Better planning translates into cost reduction through better resource utilisation and reduced travel distances.

ORBIT is a flexible system that allows for both enterprise-level integration with ERP/CRM systems for extensive planning and task assignment, as well as strategic and tactical planning for assessing theoretical scenarios and changes to your scenarios. Regardless of your requirements, ORBIT revolves around your entire sales and service operations.



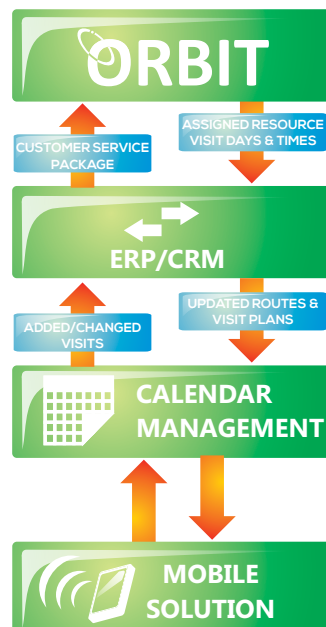
Standalone Mode

Strategic and tactical scenarios can be run in this mode to answer questions such as:

- How many extra resources will I need if I add 20 minutes to each customer call?
- What will the impact be of visiting customers twice instead of three times per week?
- Where would be the best place to hire a new resource?
- If I kept the customer visit days fixed, could I re-assign the customers to resources more effectively?
- Would allowing my staff to sleep-out enable me to service my customers better?

Integrated Mode

In this mode, master data is updated via the ERP/CRM (with custom middleware or CSV/XML export) before the assignment of tasks to resources and days is generated by ORBIT. The scheduled activities can then be published to the calendar interface to map the multi-day plan to actual dates. The sequenced daily tasks allocated to each resource can then be sent to staff via mobile devices.



ORBIT Features

Features of ORBIT

ORBIT offers several features to help managers assess their operations quickly and create optimised and workable solutions.

The ORBIT Solver

Key to ORBIT's success is the ORBIT Solver, which allows you to customise several variables and parameters, then automatically generate an optimised solution to your periodic scheduling scenario.

ORBIT has the following features:

- Visit profiles
- Working hours and visit windows
- Lunch breaks and team meetings
- Site-site exclusions & site-resource exclusions
- Preferred visit days & preferred resources
- Determine resource locations
- Route from home/office/depot
- Chain and anchor store restrictions
- Maximum and consecutive sleep-out rules
- Multi-criteria optimisation
- Territory cutting

Route from Home/Office/Depot

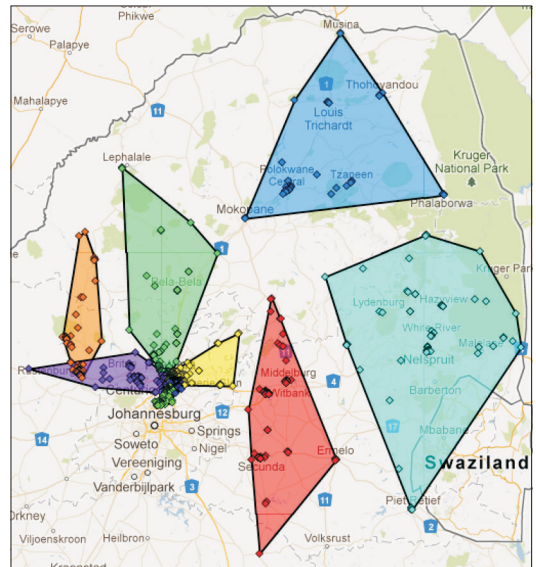
Daily routing is done from the resources' homes, a central site or from the sleep-out location.

Lunch Breaks and Team Meetings

Allowance for daily lunch breaks and regular meetings can be included in the planning.

Chain and Anchor Customer Restrictions

Restrictions on the number of customers of a particular type allocated to any one resource on any day can be applied.



▲ Customers can be grouped into user-defined sets, by assigned rep resource or other features. These sets can be displayed and manipulated as necessary.

Territory Cutting

Territory cutting is used to generate service territories, based on geographical location, to balance workload against distance within the territories.

Site/Site & Site/Resource Exclusions

To prevent certain customer types from being seen by the same resource or to ensure customers in different channels/tiers are seen by a resource with the correct skills, inclusions and exclusions can be configured.

Preferred Visits Days & Resources

The assignment of visit days and resources to customers can be pre-assigned, preferred or left to ORBIT to decide. The preference setting allows for reduced disturbance to existing operations by maintaining some consistency in the assignments.

Determine Resource Locations

Find the best location for resources, taking into account customer density and workload, while planning your master routes.

Sleep-outs

Detailed modeling of on-route sleep-outs including limits on the total number of sleep-outs in a period, the maximum consecutive number and permitted sleep-out days. A sleep-out cost is used to determine when it is cost effective to stay out at the end of a day's work.

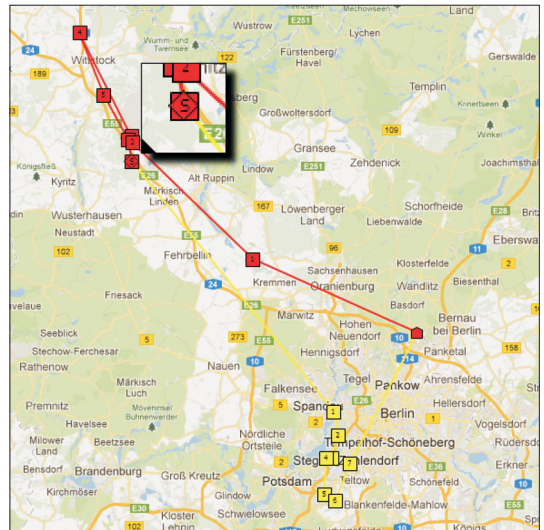
Sleep-outs are indicated on the map with a special icon, so planners can quickly identify the stop location and the next leg of your sales or service rep's journey.

Multi-criteria Optimisation

Reducing costs may not be your only goal, so workload balance and other objectives can be specified with different importance weights.

Visit Profiles

Contractual service obligations with your customers are captured as profiles. A profile is a set of permissible service days and can be of any duration, typically from a week to two months. Each profile thus has a frequency as well as service duration for each visit. Each customer can have multiple profile options from which ORBIT will choose the most appropriate in conjunction with the other customer and resource requirements.



Working with ORBIT

ORBIT's Capabilities

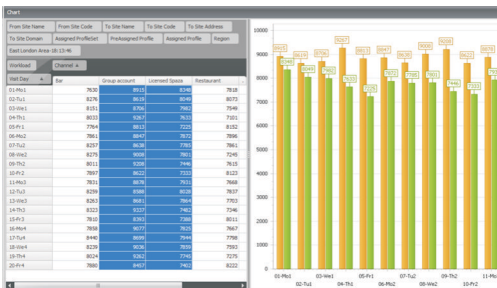
ORBIT uses Google maps, including Street View and satellite imagery. Detailed reporting across scenarios can be done within the application using the extensive charting controls. In addition to this, you can customise your workspace with dockable interactive grids.

GIS Visualisation/Interaction

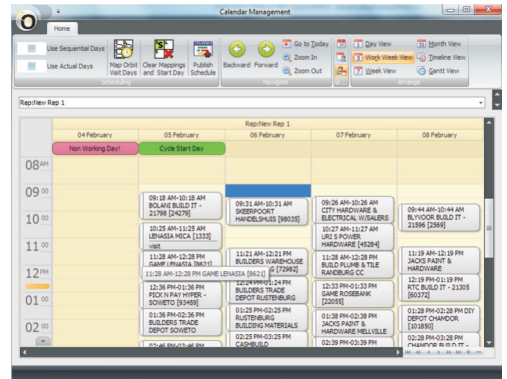
Create sets of customers using different criteria and plot these using customised icons. Overlay these sets with coloured polygons for easier reference and generate additional polygons by selecting groups of points directly on the map. Driving distance polygons from a fixed location can also be produced.

Charting

Use data summary grids to generate various charts and graphs. ORBIT includes the ability to slice against any chart axis, dynamically update charts and compare them side-by-side.



The user can generate detailed charts and graphs at an individual scenario level, or utilise the View Scenario Statistics to compare and assess multiple scenarios.



Calendar Management effortlessly places the required visits into multiple individual schedules for reps and drivers in a format that allows for quick review and management.

Calendar Management

Calendar Management, using Microsoft's familiar calendar interface, allows you to apply the visit profiles to an actual month or week, with visit days and routes assigned automatically to sales reps. Users can then publish the plan, sending out the daily assignments to their staff via mobile devices and allowing for automatic updates when manually adjusting the plan.

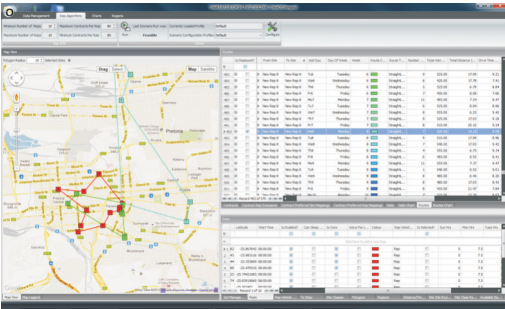
Heat-Map Functionality

Represent customer information by intensity and add more fields via data tags and cross-product fields.

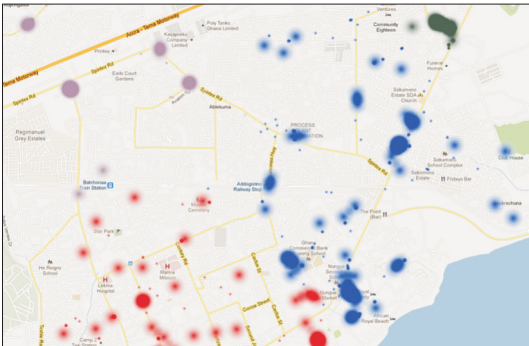
Quickly identify customer density, workload intensity and low/ high visit frequencies using the heat-map functionality. ▶

Route Editing

Detailed route information is shown including arrival and departure times, inter-stop travel distances, cumulative driving time and so on. An intuitive drag-and-drop interface enables the user to adjust the stop sequence of a route and change the profiles and resources to which a customer has been assigned.



▲ The route display shows detailed views of planned trips on the map and as a visit list with arrival/departure times and travel distances between stops.



Sales and Merchandising

- Sales and merchandising activity planning is at the heart of ORBIT - it has been designed to minimise the impact of customer and sales staff turnover.
- Recreating routes and schedules after adding new staff or customers is easy with ORBIT.
- Improve sales territory alignment to reduce travel time and increase face time.
- Generate schedules that can cater for each customer's unique visit requirements.

Industrial Hygiene

- ORBIT can quickly generate new working schedules for managers who add additional clients to their service areas.
- When creating the service agreement, ORBIT can be used to simulate, identify and cost in additional staff, if required.
- ORBIT will help ensure regular hygienic services to your clients.

Medical Home Care

- In medical home care, it is critical that treatment schedules and medical delivery are adhered to stringently.
- ORBIT can create schedules that are workable and adhere to patients' needs.
- ORBIT makes adding a new patient or medical care professional to an existing schedule simple.

Waste Disposal

- ORBIT helps to generate feasible pick-up schedules for increased volumes during holidays and once-off events.
- ORBIT can assess the cost of your collection routes to ensure tariffs are accurate.
- ORBIT can help you quickly and efficiently reconfigure collection routes for growing urban and suburban areas.

Field Service Technicians

- ORBIT can help correctly identify whom to assign emergency repairs to minimise the impact on your regular maintenance schedules.
- Reduce travel time for improved service intervals for new service clients by optimising route and technician assignment to the best service areas.

About OPSI Systems

OPSI Systems, established in 1997, is a software development and consulting house specialising in supply chain optimisation, with a specific focus on vehicle logistics and demand prediction. OPSI Systems has a suite of routing and scheduling packages in addition to specifying, developing and rolling out custom solutions for individual clients. OPSI Systems' software is used by many world leading companies.

OPSI Systems has a commitment to innovation, service quality and product excellence that ensures our software is always evolving and ready to take advantage of the latest developments in route optimisation and fleet management methodology.

OPSI Systems continues to design and deliver open, flexible and scalable fleet logistics software that optimises all aspects of our customers' supply chain. By combining our standard software solutions with our ability to create custom options and middleware solutions, OPSI Systems products can easily be integrated into any company's structure.

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