

INTRO

# Dynamic Scheduling in Commercial

An introduction to Dynamic Scheduling in Industry Dynamic Scheduling for your field workers





## What is scheduling?

As commercial organisations' fieldservice workforce grows, and their physical locations are spread wider, business operations and processes rely more on automated systems to create and update their schedules

Today, technology solutions are ever-evolving and with the emergence of automated intelligence for greater insights, it is therefore important for commercial organisations to have flexible scheduling solutions in place. Scheduling software helps commercial organisations to create a paperless environment, whilst improving capacity of field-based employees as well as meeting those all-important customer SLA's. Firstly, we must identify what scheduling is and how it is beneficial to the commercial industry.

Scheduling is the process of arranging, controlling and optimising work and workloads in a production process. In relation to mobile working, scheduling involves managing your field-service workforce and their workloads, planning their daily rota and activities whilst dealing with other operational requirements of the job such as annual leave and sickness. It is essential to any business as without it, planners are manually inputting information and re-arranging schedules which can be a time-consuming process, whilst dealing with the day to day complexities including changes to schedules and appointment delays.

Dynamic scheduling, as its name implies, is a method in which the software determines which instructions to execute, as opposed to a statically scheduled machine, in which the compiler determines the order of execution. The solution works with the scheduler to make intelligent decisions based on the business objectives and requirements of the day. It allows easy access to live job information and changes as and when they take place available in real-time.

# Scheduling in commercial

So, how is dynamic scheduling relevant to your field service workforce? Each business has different needs and criteria in relation to their approach to scheduling.

Commercial organisations such as those in the facilities management, construction or transport, are likely to have a large focus on meeting SLA's and appointment constraints.

Implementing a scheduling solution can help drive efficiencies enabling your workforce to complete more jobs in a day. It also creates visibility as to what's going on throughout the day and that visibility could be vital to your organisation. Therefore, scheduling allows you to see how your workforce is interacting with the schedule throughout the day and allows planning managers to respond to any issues as and when they occur. By implementing

dynamic scheduling solutions, it allows your organisation to allocate, reallocate and recall work in the diaries of those out in the field.

Scheduling field-based teams ensure capacity to complete more jobs efficiently, therefore allowing more time spent delivering services and improving communication between field-based staff.

Commercial organisations use scheduling systems for various methods such as capacity planning, workforce scheduling, keeping track of your teams and meeting customer expectations.

# Real World, Right Schedule

We enable organisations to solve complex real-world scheduling challenges by providing staff with schedules that adapt to the changing day and are consistently efficient. How do we do this? With our dynamic scheduling solution and our Al assistant, Mendel. Together they provide expert scheduling which takes on board a wide range of considerations, such as skills required, availability and time frames to ensure successful delivery.

Our dynamic scheduling solution can handle small teams or large workforces

and even multiple teams at once, all at the push of a button. It provides a complete view of the current status of staff diaries with live colour-coded feedback from user devices, including when work has started, is completed, is overrunning or scheduled to start late. Trying to pair mobile workers to a specific visit can be a time consuming process when managing a mobile workforce with individual skills. However, our dynamic scheduling solution simplifies this procedure for you, ensuring an easy and efficient scheduling process.

## Business benefits

### of our dynamic scheduling solution

#### Saves time, reduces paperwork -

With dynamic scheduling, professionals can spend more time delivering a quality service. Our solution supports and empowers field-based staff by reducing the need to use paper schedules and lengthy manual processes as well as reduces the time for mobile staff to travel back and forth to the office.

#### More jobs completed per day -

Providing field-based workers such as construction teams with an automated schedule, fully visible and available before their day begins, along with structured routing travel plans, ensures an efficient service and the mobile worker can get straight to work. As well as reducing unnecessary trips back and forth to the office, staff can attend more field-based appointments while out on the road.

#### Reduce Co2 emission and fuel costs -

With our dynamic scheduling solution and its routing capabilities, it is easy to save costs by ensuring the routes to jobs are optimised, reducing how far field-service staff have to travel and eliminating unnecessary trips to the office. Less time travelling means reduced fuels costs and Co2 emissions.

#### Achieve and exceed your SLA's -

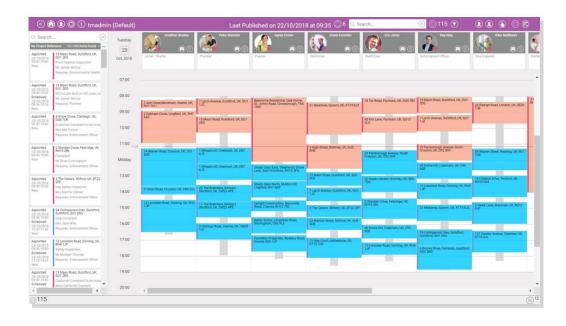
Dynamic scheduling speeds up the process of appointments being completed on time; an efficient workforce therefore allows you to meet those all-important SLA targets whilst meeting the demands of your customers.

#### Meet real world issues head on -

Changes can occur in schedules which can disrupt the schedule plan such as staff absences and changing preferences. Our dynamic scheduling solution reacts to these changes as and when they occur, adjusting and revaluating the schedule, to assess where changes need to be made based on priority level and business objectives.

#### Increased productivity -

By giving your field-based staff the freedom to work at the point of delivery or on the move, you are increasing productivity and capacity within your organisation.





## Mendel

Using genetic algorithms and our own unique artificial intelligent engine Mendel, our dynamic scheduling solution identifies ways to make the best use of time and resources to solve and maximise the most difficult scheduling issues.

It allows you to define preferences for jobs before you send them to the job list and Mendel schedules them. Constraints include multiple resource jobs, preferred resource, prohibited resource, projects and job dependencies and automatic appointment booking.

Appointment slots are displayed based on capacity/availability varying from no availability to low, medium and high. Similarly, visits are also colour coded to represent the visit state varying from not started, overdue, at risk, started, overrun to complete.

Both schedulers and their mobile field-service workforce can view their schedule in various view options whether it is day, week or month. This allows the worker to know what visits they have planned in advance. The mobile worker can also benefit from a map feature to view current locations of resources and job locations as well as planned routes and directions. Our dynamic scheduling solution integrates with Google API for travel information with modes of travel including driving and walking. Mobile workers can record unavailability such as sickness or annual leave on their mobile application or alternatively this can be completed by their managers.

# Key features:

Automated scheduling features will vary per provider, however with Totalmobile, our dynamic scheduling solution has various key features including scheduling, multiple scheduling options, worlds, scheduling dashboards and maps.

#### Scheduling -

Our clever scheduling solution provides a rich graphical means for your organisation to allocate, reallocate and recall work in the diaries of your field-service workforce. It provides a complete view of the current status of staff diaries with live colour-coded feedback from user devices, including when work has started, is completed, is overrunning or scheduled to start late.

#### Multiple scheduling options -

Mendel provides a range of levels of schedule management, it can be used fully dynamic, allowing Mendel full automation control, perfect for larger deployments. For those who want to maintain some control, there is the Intelligent Assistant which allows you to override any decision from Mendel and for smaller deployments you can decide to take full manual control. Finally, Mendel On-Demand offers all the flexibility of the Cloud and its ability to auto scale to processing peaks. It can be seamlessly bridged to your existing Totalmobile infrastructure or as an add-on to our Optimise SaaS service.

#### Worlds -

A "World" is a self-contained scheduling solution. It can represent an entire commercial organisation or a department within your organisation.

The use of Worlds means that you can apply different scheduling objectives and constraints to different parts of your organisation. You can also loan resources between worlds where extra capacity can be used by those departments or teams that are currently under resourced.

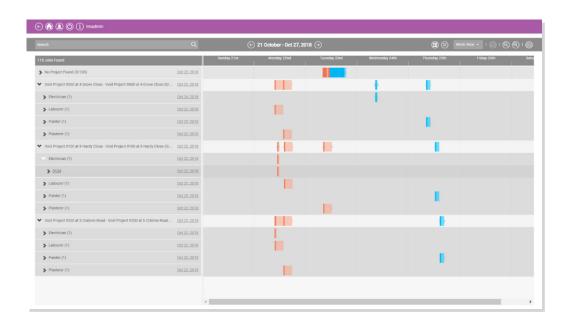
#### Scheduling dashboard -

Our interactive dashboard provides real time indication of the overall status of the organisation schedule, informing the person managing the schedules of the current utilisation of the overall workforce and individual resources. It also highlights the level of supply and demand for specific skills, allowing transformative business decisions to be made.

#### Maps -

The map view indicates the locations of work and resources as pins, presenting a creative view of the World and assisting your staff in visualising the scheduling solution at any point in time. Indepth details are highlighted when a resource is selected, providing a view of the planned work and optimum travel route for that resource.





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## A Day in the Life of a Scheduler and a Mobile Worker

Exploring how mobile workforce management improves processes and communication between schedulers and mobile workers; enabling them to respond to changes throughout the day with minimal disruption and maintaining a high standard of service.



#### 8:30 am

At the start of the working day, the scheduler assesses the workload for the day ahead and the mobile staff they have available. They prioritise these needs with their company objectives and the targets they are aligned to, depending on the organisation these can range from maximising jobs per day, continuity in service delivery or reducing travel costs.



#### 9:00 am

Through the dynamic scheduling solution, the schedule is automatically created in-line with company objectives and the requirements of the day ahead, whilst ensuring that the right skills are assigned to the right job.

The mobile worker receives their schedule of work, by effectively scheduling travel between jobs is optimised, reducing wasted journeys to sites where they have no entry or no attendance issues. They are already operating more efficiently.



#### 11:00 am



A common issue many organisations face are sudden changes within the working day that will affect the schedule, these need to be responded to and implemented into the schedule quickly to ensure the organisation maintains a high level of service while continuing to meet targets.

In this instance, a member of the team has called in sick.



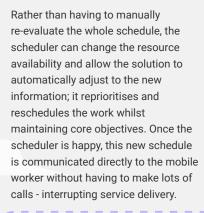








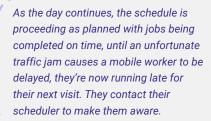
#### 11:30 am



The mobile worker receives an updated schedule to reflect changes made due to sick member of staff. Their day has been adjusted with minimal disruption and they are able to continue on to their next visit.



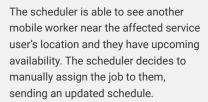
#### 2:00 pm



The scheduler back in the office is made aware of the traffic issue both from the call by the mobile worker but also through the scheduling solution, they can see that the mobile worker is stuck and not where they are expected to be. They can then decide whether to reschedule the visit, contacting service user to inform them or reassign the job to another member of staff.



#### 2:30 pm



The mobile worker stuck in traffic is notified that the job has been reassigned easing their pressure and allowing them to continue onto next job. The re-assigned job is received by the other mobile worker, who accepts and continues with their day. The main benefit being that the service user receives a high standard of service, one that is on time and efficient.









Totalmobile will help you release the potential in your mobile workforce. Our 'mobile worker first' approach to innovation results in solutions people love to use.

Our customers are seeing significant increases in workforce capacity and cost savings, while also ensuring compliance and driving levels of service consistency. We will transform how your organisations works and help your people do more of the work that really matters.

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