



# C-Desk Technology

## The World's Leading Shift Pattern Design Service

### Unlock Your Potential

#### VisualrotaX—Cutting Edge Software

Our Unique Software is better than AI in creating self-sufficient shift operations based on circular principles that match your work-load, eliminate problems caused by absences, incorporate training time and optimise the work/life balance of your employees.

VisualrotaX is a well-regarded tool for organizations managing complex shift patterns, offering features for efficient scheduling, absence management, and staffing optimization.

# OUR SPECIALITY OUR EXPERTISE OUR SOLUTIONS



## Our Services Designed For You

### CONSULTANCY

Efficiency and Productivity: Enhancing operational efficiency and boosting productivity.

Holiday & Absence Management: Streamlining holiday and absence tracking.

Work/Life Balance: Promoting a healthy work/life balance.

Workload Matching: Ensuring the right workload distribution.

Record Keeping: Maintaining accurate and organised records.

Controls Through Protocols: Implementing effective controls via protocols.

Policies & T&Cs: Developing comprehensive policies and terms & conditions which match the operational requirements.

Analysis & Simulation Models: Providing in-depth analysis and simulation models.

### BUSINESS HEALTH CHECK

Unlock your business's full potential with our unique Business Health Check service. Designed for businesses aiming to enhance their operations, we provide a comprehensive review of your current setup and offer tailored recommendations. From new shift patterns to updated policies and procedures, we ensure a more efficient and effective operation that benefits both your business and employees. Plus, you'll receive a detailed report and a year-long shift pattern plan.

### TRAINING

Video Courses: Comprehensive and engaging video courses tailored to your business needs.

Workshops: Interactive workshops designed to enhance your team's skills and knowledge.

Books: In-depth books covering a wide range of business topics.

On-Site & Home Learning: Flexible learning options to suit your schedule, whether on-site or at home.

## CREATING THE OPTIMUM SHIFT PATTERN

A SHIFT PATTERN IS A COMPLEX SYSTEM AS IT INCLUDES MANY COMPETING PARAMETERS

**YOUR SHIFT  
OPERATION IS  
DESIGNED TO**

DELIVER THE RIGHT PEOPLE

IN THE RIGHT NUMBERS

IN THE RIGHT PLACE

FOR THE RIGHT LENGTH  
OF TIME

AT THE RIGHT TIME  
WITH THE RIGHT SKILLS

REACT TO CHANGE



**YOUR SHIFT OPERA-  
TION IS DESIGNED TO**

DELIVER ON YOUR SLA'S

COPE WITH WORKLOAD

ALLOW EVERYBODY TO  
HAVE ALL THEIR HOLIDAYS

COPE WITH SICKNESS

DELIVER THE RIGHT AMOUNT  
OF TRAINING TIME

MAXIMISE THE WORK/LIFE BALANCE

COPE WITH RECRUITMENT

Every Year is different, it never repeats. 7 different starting days. 366 days every fourth year. Easter is never the same date. Shift pattern rollover starts the sequence in a different place. Workload and Staffing numbers change.

# VISUALROTX

Key features and benefits of VisualrotaX, according to reviews:

## **Shift Pattern Management:**

VisualrotaX excels at creating and managing various shift patterns, including those with rotating or non-standard hours.

**Absence Tracking:** The system effectively tracks absences, including sickness and holidays, which is crucial for maintaining adequate staffing levels.

**Holiday Management:** It assists with holiday allocation and ensures proper coverage when staff members are on leave.

**Improved Efficiency:** By optimizing staffing and managing absences, VisualrotaX can contribute to reduced overtime, increased efficiency, and better resource allocation.

**Ease of Use:** Most managers have found the system easy to learn and use, particularly for managing complex schedules.

**Detailed Reporting and Insights:** VisualrotaX provides visibility into staffing levels, individual staff records, and overall operational performance, enabling data-driven decision-making.



## PREVENTING PROBLEMS IS A LOT EASIER THAN CORRECTING THEM

### OPERATIONAL

#### PROBLEMS

Can mean

Lost output

Lost time

Expense

Inconvenience

Loss of customers

Lost profit

A pain in the Neck



YOUR EMPLOYEES ARE  
YOUR BACKBONE AND  
CAUSE THE MOST PROB-  
LEMS

EVERYONE HAS LOTS OF  
HOLIDAYS

EVERYONE IS ILL

EVERYONE NEEDS TRAIN-  
ING

EVERYONE IS AFFECTED

By analysing each problem we can set up the means to eliminate each problem before it happens.

Holiday absence is a separate problem to sickness absence to training absence. By having the appropriate response in time and place, the disruption to the operation is removed. We will take you through the solutions and you can select which you would like to use.

Aim:

Championing service delivery through continuous change to improve, simplify and automate. Use the natural cycle of the workloads to create new ways of working by continuous planned change. Embed the employees to use best-practice solutions

Aim: to create a streamlined, digitally-enabled, employee first experience from hire to retire. Where you think day, we think year. Where you think week, we think decade. Where you think month, we think of the flexibility to manoeuvre the operation to meet new challenges forever.



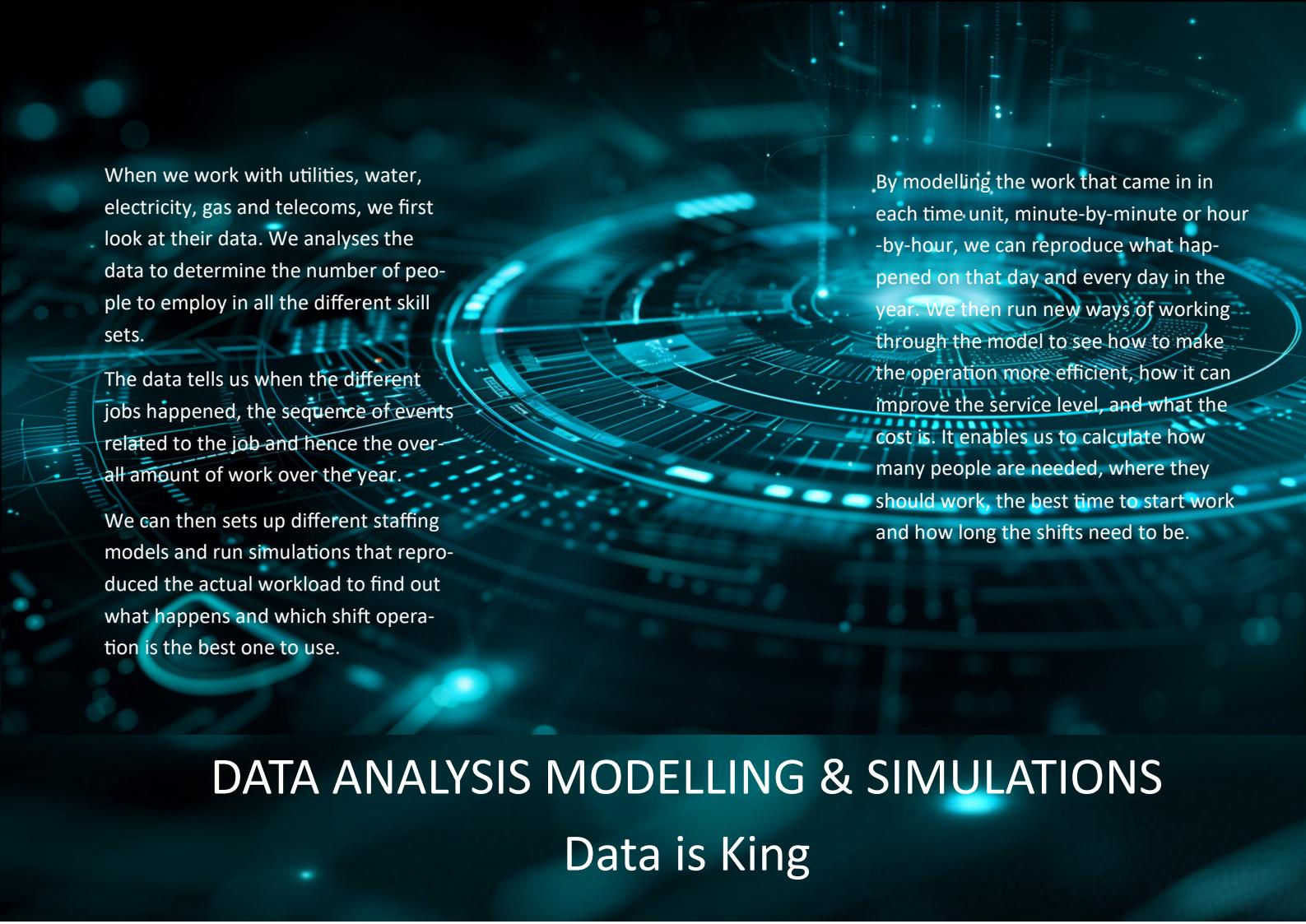
Aim:

Optimising people, the collection of data, the analysis of the data, using the data analysis to make the decision-making process a trivial event. Driving the system to create smarter workforce planning and improved business outcomes.

Aim: Involve everyone by working with HR, Technology, Change, PMOs, Finance, IT, to create cross-functionality to drive innovation and deliver data-lead decision-lead change.

Aim: Championing Operational excellence, SLAs, KPIs, service quality, risk management work/life balance. Free up Management time and improve change timelines.

Aim: Delivering well-executed, people-centred, tangible business impact to support the business as it evolves.



When we work with utilities, water, electricity, gas and telecoms, we first look at their data. We analyse the data to determine the number of people to employ in all the different skill sets.

The data tells us when the different jobs happened, the sequence of events related to the job and hence the overall amount of work over the year.

We can then set up different staffing models and run simulations that reproduced the actual workload to find out what happens and which shift operation is the best one to use.

By modelling the work that came in in each time unit, minute-by-minute or hour-by-hour, we can reproduce what happened on that day and every day in the year. We then run new ways of working through the model to see how to make the operation more efficient, how it can improve the service level, and what the cost is. It enables us to calculate how many people are needed, where they should work, the best time to start work and how long the shifts need to be.

## DATA ANALYSIS MODELLING & SIMULATIONS

### Data is King

# BANKS DATA CENTRES CYBERSECURITY

## LOOKING AFTER YOUR FINANCES AND IDENTITIES



All businesses occupy buildings to house their employees and all building require maintenance.

One of our projects was to see if an in-house maintenance operation was cheaper than a supplied maintenance package by a supplier.

Another project was to assess how much maintenance a Bank disaster recovery centre required in case an emergency happened such as fire, flood or natural disaster

Traders are not IT specialists one of our project was to calculate the number of IT specialists required for the trading floor to keep it going.

Cybersecurity is essential, but are hackers working 24hrs or do they have their own working hours?

# BREAD & BEER & WHISKY



**Did you know?** From 1000 kgs of grain, you can produce 750kg of 100% proof alcohol!

And the best part? The leftover grain is repurposed as animal feed, ensuring nothing goes to waste. Cheers to sustainability!

The ideal shift pattern for bread, beer and whisky are not the same. They all use yeast and grain of course, but there the similarity stops.

Beer takes several days to brew and then it has to settle. Whisky, well, whisky takes a very long time, but bread is best eaten a few hours after the ingredients are mixed together.

Bread is a daily commodity requiring multiple sites to distribute evenly over the whole country. It is ordered on a daily basis but has to be made fresh. The delivery timetable is fixed.

We designed the shift pattern to move the product through the production cycle of Warehouse, mixing, moulding, oven, cooling, packaging, warehouse, distribution



Beer can be moved anywhere in the world, but beers have very different types of container and lifetimes. We looked at the requirements of the different production options:

Just in time—impractical

To Stock—inefficient and expensive

Flat production—efficient, larger quantities

Whisky is sold everywhere in the world and the further you take it and the longer the wait, the more expensive it is. As whisky can be made year-round, we introduced a holidays-included shift operation along with reduced working at weekends.

Bread is best eaten the same day so we pick the freshest bread from the shelves.

## Control Rooms: Past and Future, from Museums to Satellites

Museums are full of expensive, rare, items for which there is always a market. Keeping the artifacts safe is a 24-hour business. The doors are locked, the windows shut, the alarms set, thanks to an army of museum keepers. Every building is different, with different opening hours and opening days, and so each needs a different number of people to look after it

The starting point of this project was whether we should follow the workload or the budget. Working from the budget is the most difficult as there are a huge number of ways of combining the input parameters: opening hours, guards on duty, number of buildings, service level.



Looking after satellites is a 24-hour operation and it makes sense to have a secure operation by having several Control Rooms in different parts of the world but joined as one control room in effect. Then if the weather, earthquake, flood, fire, or any other catastrophe hit one Control Room, the others can take over. An additional reason of having a world wide presence is that it is daytime somewhere on the planet, so everyone can stay on the Day shift and pass the work on from location to location.

# Television to Police—24-Hours A Day Service

Both services operate around the clock, 24/7.

When should we have Police on duty?

With limited resources and an unknown workload, is it more efficient to have Police available when the crime is being committed or when the crime is reported?

Is it better to have the same number on duty each day and move the variable work to the available Officers, or, anticipate when they are needed using trendlines and staff up accordingly?

Do criminals have 'working hours' we can anticipate? An analysis of the data shows some surprising insights into the best times to have Officers available,

All TV scheduling is known weeks and months ahead. The workload is known months ahead but the problem is it varies enormously from hour-to-hour never mind day-to-day.

Staffing efficiently for variable workloads and variable skills is one of the hardest jobs there is. Much more difficult than 'rocket science'. Incidentally, our projects include looking after the satellites that give everyone 24hr access to data and television.

DISCOVERY TV BERMUDA POLICE IDEAL WORLD THE MET BBC BEDFORDSHIRE POLICE AT THE RACES EUTELSAT

COURAGE IN CHAOS

# PHARMACEUTICALS TO DIAMONDS

From tankers of cough syrup to mega Daltons of monoclonal antibodies (mAb) the range of output from a pharmaceutical company is huge. Every product has a different process taking a different length of time to produce and each needs its own shift pattern. The process needs a team of different skills, mixing, QA and packaging are some and each requires their own shift pattern. Just like a Russian doll, we set up shift patterns within shift patterns.

Our aim is to deliver a positive new work culture respecting the changing needs of all the people and the business. Working together to create a safer, healthier and happier environment. We improve the management of holidays, we include time for training and personal development, ensure that sickness effects and fatigue are minimised.

## PRICE COMPARISON

mAb

>>>

GOLD

>>>

## DIAMOND DUST

Industrial diamonds are created by sparking electricity, and then they can be embedded in a compound under high pressure to produce very tough tools. Your diamond tipped drill really does contain diamonds.

They needed a shift pattern where they could set up a secondary income stream renovating drills. This was to run alongside the main operation.



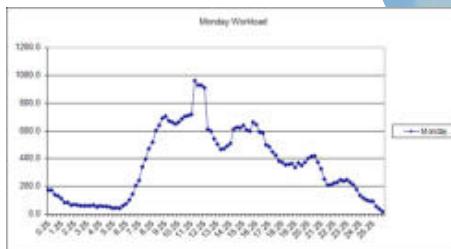
Fun Fact. The total annual volume output of a monoclonal antibodies factory can fit in the boot of a car.

## SHOPPING AND TALKING

Apples are sold all year round but they are seasonal crops so how do they plan this. Bananas grow all year round so they don't need a plan. We expect the food companies to deliver the same food every day, freshly packed with 'sell by' dates. This requires a 'just-in-time' shift pattern but without knowing how much is needed every day.



The mobile phone network works 24/7 but at what capacity? How do they know how many calls people want to make, for how long, and to where? Line-of-sight masts transfer your call to the world, but how?



Awake and wanting to shop and talk profile

Fortunately, people are very predictable in their tastes and connection time with the rest of the world. First and foremost, to shop and/or make a call, they have to be awake. Secondly, they have to be at a shop to buy apples, or they have to have nothing else to do to make a casual voluntary call where the recipient has nothing else to do so can take the call. Truly urgent calls are rare calls and so people are prepared to wait to buy the perfect apple or call for a chat.

We create workforce profiles that match the workloads through our analysis software



Fun Fact: To ripen an avocado, put it in the airing cupboard.

# Powering The World

Gas, Oil, Solar, all come to you through conduits. Overhead or underground, they need maintaining by many thousands of workers. The optimum shift pattern arrangement is a 7-day operation with 24hr capability, using a 4-day week with 10-hour shifts.



Power is a dangerous environment that can cause significant damage, injury or even death to buildings and people. Faults occur due to nature, storms, earth movements, wear and tear. Some failures are predictable, most are random, but they rely on the vigilance of the public to detect them and notify the energy companies. Storms give 5 days notice, the Earth moves due to dryness, wet, hot and cold. Corrosion is the return of materials to their natural state. All faults need immediate action to prevent destruction.

We achieve the vision by making changes and improvements to the following:  
Management systems and processes: Policies, protocols and procedures  
Raise competency levels: Shift patterns: Employee benefits  
Training and development activities



Gas can be stored underground until it is needed. Electricity can be stored as potential energy or chemical energy. Oil can be stored in tanks. It is all controlled 24/7 by Controllers working 24-hours per day. The most efficient shift patterns use 12-hour shifts with up to 15 weeks of holiday per year built into the pattern.



## BOATS and PLANES and TRAINS

Boat & Planes and Trains timetable are affected by nature which makes their arrival and departure times problematic.

Tides, currents, wind, snow, storms, are frequent causes of delays. In many ways they are like natural products, subject to eternal variation.

The shift workers need to have a flexible working arrangement based on probability and short notice changes to their schedules.

Flexible working can result in a complex shift allowance arrangement. Here we looked at the 5 different methods of calculating a fair & equitable reward structure.



At the end of each day, trains are cleaned, refuelled, repaired, checked, ready for an early morning start, but how can they fit everything into such a short night?

# LEVELLING THE BUSINESS FIELD

## Procurement Act 2023

Available only in the UK: LOW VALUE PURCHASE SYSTEM

Enacted by the King's most Excellent Majesty, by and with the advice and consent of the Lords Spiritual and Temporal, and Commons, to ferment access by public bodies to use our services.

We have worked with every public body there is, The Prime Ministers' Office, NHS, Universities, Prisons, Local Authorities, Police, in all their many roles. Call centres, security, SOCA, porters, mailroom, parking wardens, care homes, control rooms, emergency contact, museums, IT, and everyone else that works shifts.

C-Desk Technology

Alec Jezewski & Dr Angela Moore

(+44) 01636 816466

alec@visualrota.co.uk

angelamoore@visualrota.co.uk

The Old Vicarage  
Station Road  
Rolleston  
Newark  
Notts UK  
NG23 5SE

[www.shiftpatterns.com](http://www.shiftpatterns.com)  
[www.visualrota.co.uk](http://www.visualrota.co.uk)  
[www.oranalysts.com](http://www.oranalysts.com)

