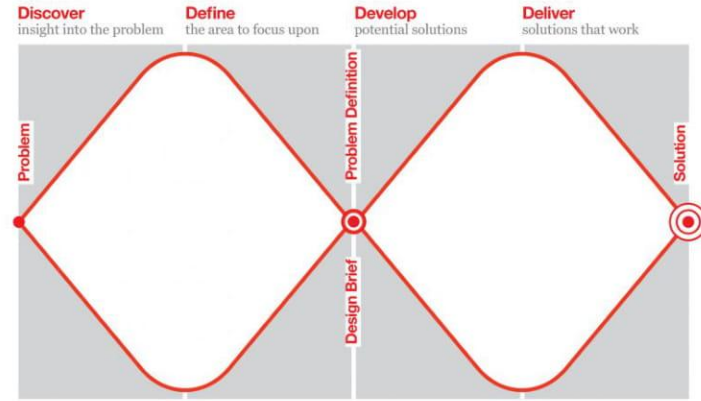




# GroupNexus

USER EXPERIENCE DESIGN

Jan 29, 2020



PROBLEM STATEMENT, SCOPE, STAKEHOLDER MEETINGS, USER RESEARCH





## Stakeholders

(Left) **Elli Morris**,  
Director  
GroupNexus and  
CEO Ranger  
Services

(Right) **Grahame  
Rose**, Director  
GroupNexus and  
Board Member,  
British Parking  
Association

## GroupNexus

CP Plus T/A  
GroupNexus  
10 Flask Walk  
London NW3 1HE

Registered in  
**England**

Company No.  
**2595379**

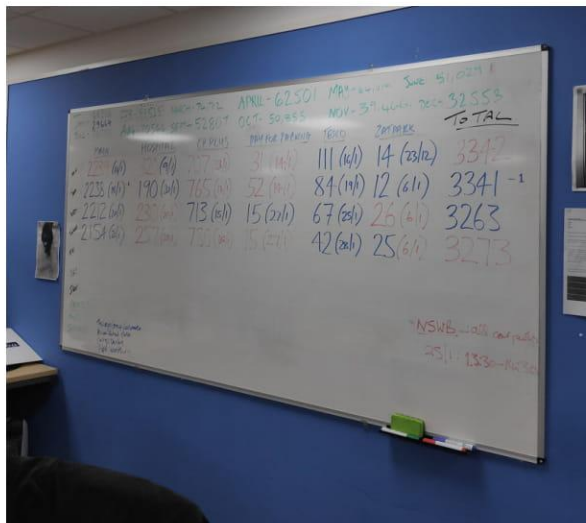


## Products/Offerings

**NexusPark**  
Parking mgmt,  
enforcement,  
security & tech  
solutions

**NexusFM**  
Facilities Mgmt

**NexusInsights**  
Using the feed from  
our ANPR cameras  
we can provide  
greater insight into  
customer behaviour



## PCN Ops Board

Status board  
maintained on a  
daily basis  
categorized across  
major car parks/sites  
with PCN count,  
subtotal and grand  
total

Picture Checking  
Manager reviews all  
status. Reviewers  
are paid per PCN  
transaction



Car parks (in Birmingham) having ANPR (Automatic Number Plate Recognition) cameras installed.



Hospital car parks allowed for Staff Permit Holders.



Blue Badge designated car parking



Consumer paying at the car park Payment Terminal



Default

Vaxtor Germany ALPR-MMC

OCR Video: 1920x1080 pixels Stream: 50 FPS / Display: 25 FPS

Plates Read: 26



ALPR Camera ID: 1  
Global Confidence: 98,8 %  
Characters Height: 20,0 (px)  
ROI Id: 1  
Timestamp: 13:18:52  
Multiplate Rate: 2  
OCR Time: 97,6 (ms)



**MTKR6044**

Main-Taunus-Kreis, Hesse -  
MTK R6044  
AUDI  
A4  
BLACK  
Moving FARTHER

13:17:53 HPXX777  
13:17:56 MACS2016  
13:17:58 FNGB389  
13:17:58 LUQA368  
13:17:58 HDAE504  
13:18:04 HPA335  
13:18:10 WOLF474  
13:18:13 HDGR2016  
13:18:17 HHPD1090  
13:18:21 BMHJ421  
13:18:22 WIZP423  
13:18:26 FTJS605  
13:18:29 WOMK2641  
13:18:34 HGCI1173  
13:18:35 WOCH333  
13:18:41 DÜWFI1700  
13:18:41 MTKRT47  
13:18:42 IKAS2150  
13:18:42 HO2615  
13:18:43 HPJB949  
13:18:43 MLD3330  
13:18:44 GGO1075  
13:18:45 HPFC14  
13:18:47 GGA210  
13:18:51 DÜWV444  
**13:18:52 MTKR6044**



13:17:52 All ALPR camera processes are running

System Time: 13:18:52

Latitude: ?

Software Uptime: 1 min

Longitude: ?



# HIGHVIEW PARKING



Date of Notice: 07/11/2019  
Charge Notice Ref No: 17621  
Vehicle Registration: BF13LXM  
Make: Toyota  
Colour: White

## PARKING CHARGE NOTICE

The vehicle was recorded parked on our client's property at Arena Birmingham, Birmingham, B1 2AA on 07/10/2019 at 16:22 in violation of the terms and conditions displayed on the signage:



**BF13 LXM**

The driver of the above vehicle breached the terms and conditions of parking which were clearly and prominently displayed on our car park signs. These terms and conditions were agreed by the driver when your vehicle was parked on private land. We, therefore, had reasonable cause to obtain your details from the DVLA as you were the Registered Keeper of the vehicle at the time of parking.

Highview Parking Ltd do not know the name and address of the driver. We therefore invite you, the Registered Keeper, to pay the Parking Charge or provide us with the name and current address of the driver so that we may write to them and request payment; and you should also pass this notice to the driver.

In accordance with the Terms and Conditions agreed to when your vehicle parked on our Client's property, the payment of £90 is required within 28 days from the date of this Notice. We will accept the reduced amount of £30 if payment is received within 14 days of the date of this Notice.

Pass ID 7110  
PIFM 9A  
08:48 16:48 12\*

Operating in accordance with the British Parking Association's Code of Practice.

PLEASE SEE OVERLEAF FOR DETAILS ON HOW TO PAY, OR MAKE A REPRESENTATION



VAT Number: 916 1466 30

Parking Charge Notice (PCN) issued by Highview Parking (taken over by GroupNexus UK) to a consumer (car park user) in violation of the terms and conditions on the car park signage.

The consumer name and address has been masked to ensure user privacy and maintain confidentiality.

## HOW TO MAKE A PAYMENT

All payment methods can be made 24 hours a day, 7 days a week.

ONLINE: [highviewparking.co.uk/pay](http://highviewparking.co.uk/pay)

BY TELEPHONE: Credit/Debit cards via our automated payment line on 03330066314

BY POST: Cheques or Postal Orders to: PO BOX 3573, Barnet, EN5 9QA, accompanied by the payment slip below.

## APPEALS AND COMPLAINTS PROCEDURE

Whilst we take great care to ensure that our information is accurate, we appreciate that errors can occur and therefore investigate representations promptly. If you feel that this Charge Notice has been issued incorrectly or should have been addressed to someone else, you should write in the first instance to: Appeals Section, PO BOX 3573, Barnet, EN5 9QA.

Please ensure you state your charge reference number, your registration number, and state clearly why you feel the Charge Notice should not have been issued or make a representation.

If you wish to appeal against this Charge Notice, you should submit your case in writing within 28 days from the date of this Notice being issued. We aim to write back to you within 10 working days, but certainly no more than 35 days after your representations have been received. We will hold any action on your Charge Notice until we have replied to your representations.

Where our client's property is located in either England or Wales, should your appeal be rejected, we will provide you with full details of how to appeal your notice through POPLA, the independent adjudication service. If you decide to appeal through POPLA and your appeal is unsuccessful then you will lose the opportunity to pay this Notice at the reduced rate.

## HOW TO CONTACT US

BY TELEPHONE: Monday to Friday between 09:00 am - 17:00 pm on 0333 939 0108

BY POST: Appeals Department, PO BOX 3573, Barnet, EN5 9QA

BY EMAIL: [highviewparking@appealson.co.uk](mailto:highviewparking@appealson.co.uk)

## DATA PROTECTION ACT

Your information is confidential and is subject to the Data Protection Act.

This Charge Notice has been issued for the reasons set out overleaf, giving reasonable cause to apply to the DVLA for details of the registered keeper.

If you believe your data has been used inappropriately, you should notify us immediately and can notify the DVLA or Information Commissioner by writing to: Customer Services Manager, DVLA, Swansea, SA7 0EE / The Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF

## CHARGE NOTICE PAYMENT SLIP

PLEASE SEE OVERLEAF FOR PAYMENT INFORMATION

TO:

Highview Parking Ltd  
PO Box 3573  
Barnet  
EN5 9QA

Charge Notice Ref No: 17621  
Vehicle Registration: BF13LXM

I enclose with this payment slip a cheque / postal order for the full amount due of £90 payable to: Highview Parking Ltd

A RECEIPT WILL NOT BE ISSUED UNLESS REQUESTED.

Please write the charge notice number on the reverse of the cheque / postal order.

RETURN THIS COUNTERSLIP WITH YOUR PAYMENT TO INCLUDE YOUR FULL NAME & PHONE



# PARKING CHARGE NOTICE (PCN) NOTICE TO KEEPER (NTK)



DO NOT IGNORE THIS NOTICE

Amount of Charge: **£100**

Payment details are on reverse of this Notice

The contravention was detected and recorded by Manual Number Plate Recognition (MNR) on first point of the privately operated car park specified opposite.

The driver of the above vehicle is liable for the Parking Charge for which payment is now due. This charge relates to the period of parking including remaining at the Car Park/Car between the entry and exit times specified for this notice, the charge having been incurred for the reason stated and liability for the same having been brought to the attention of the driver by signage on and around the site at the time of parking.

Data Processing: Please note that we have either obtained your name and address as the Registered Keeper of the vehicle from the DVLA in accordance with the Road Traffic (Registration and Licensing) Regulations 2002 or, where it is not possible to do so, the DVLA you have been named as the keeper (for example, because ownership of the vehicle has been transferred to you). If you consider that such information has been used or disclosed inappropriately, you may complain to the DVLA. Where you have been named as the keeper, you may also wish to consider the Information Commissioner (www.ico.org.uk). Photographic evidence and data is held on file to support this claim in accordance with the relevant Data Protection Legislation and is used for the sole purpose of proving infringement of the Parking Charge.

Our Data Protection Officer can be contacted at [dataprotection@europarking.com](mailto:dataprotection@europarking.com). You can view our Privacy Notice at <https://europarking.com/privacy-policy/>

Payment is now required in the sum of £100 within 28 days of the issue date of this notice, i.e. no later than 26/02/2020.

However, if payment is received within 14 days of the issue of this notice i.e. no later than 13/02/2020 then a reduced payment of £50 will be accepted as full and final settlement.

The Creator is Euro Parking Services Limited.

Failure to make payment within 28 days of the issue date of this notice will result in the full charge of £100 being applied plus additional costs incurred through debt recovery and/or court action. Where debt recovery action is taken, further charges may be incurred and will be added to the total of the PCN to the sum of an additional £100. Where court action is taken, additional charges and interest may be incurred. Non-payment of a Court Order may adversely affect your credit rating and employability.

As the issue date of this notice we do not know both the name and current address for service for the driver and as the registered keeper of the vehicle you are now invited to:

- Pay the unpaid Parking Charge (see Section A on the reverse of this notice); OR
- If you were not the driver of the vehicle, to notify us of the full name of the driver and current address for service of the driver by following the instructions on Section C on the reverse of this notice AND pass this Notice on to the driver.

If the vehicle was on hire on the date of contravention OR had been sold prior to the date of contravention, please provide relevant details by following the instructions in Section C on the reverse of this notice AND provide relevant supporting evidence.

Please be aware that if after the period of 28 days beginning with the date after the issue date of the Notice, the amount of the unpaid parking charge specified in this Notice has not been paid in full and we do not know both the name of driver and a current address for service for the driver, we will have the right to recover from you, as the registered keeper of the vehicle, the amount of the unpaid parking charge. This Notice will be deemed to be served on you on the second working day after the issue date stated above unless the contrary is proved.

Please see reverse of this notice for more information on what to do next, including how to appeal.

Euro Parking Services Ltd | Registered in England & Wales | Company Registration Number: 06751019 | Registered Office: Office 2, 51 Fildes Street, Birmingham, B2 4AT

Issue Date (issued):	29/01/2020
PCN Ref No:	648163
VRM (Registration No.):	BF13LXM
Vehicle Make:	Toyota
Vehicle Model:	Auris
Contravention Date:	25/01/2020
Contravention Time:	16:41
Site Name & Location:	135 Wright Street, 135 Wright Street, Birmingham, B109RP
Contravention (Reason for issue):	Parked without displaying a valid permit
Period of Parking (occurred between the times stated below):	From: 16:38:51 To: 16:40:54



Parking Charge Notice (PCN) issued by EuroParking Services Ltd.

The back-side of the PCN letter detailing how to make a payment and appeal for further investigation, if the consumer wishes to.



**Dave**

*"Estate Manager"*



**Frank**

*"Site Owner"*



**Abigail**

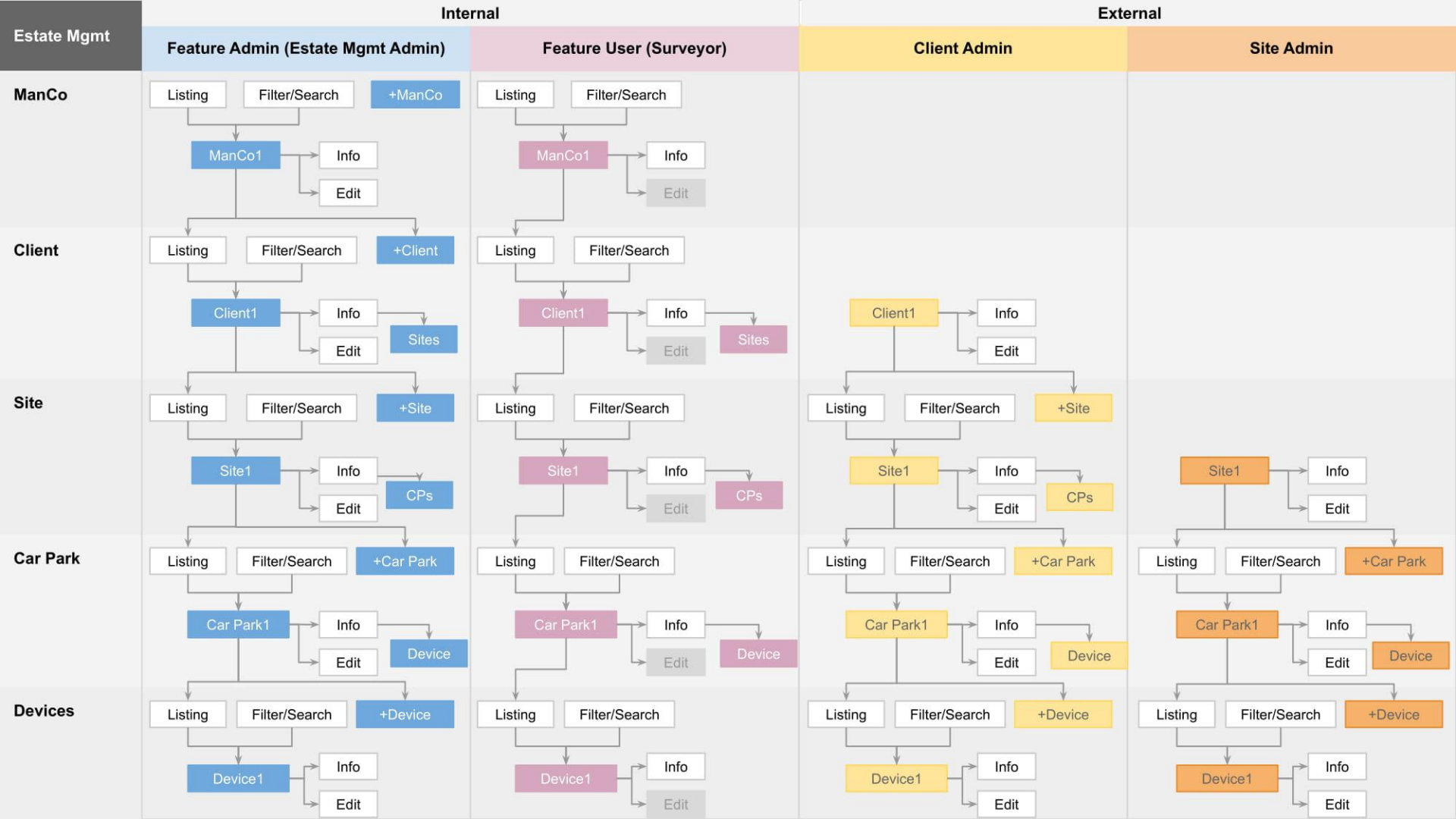
*"Picture Checker"*



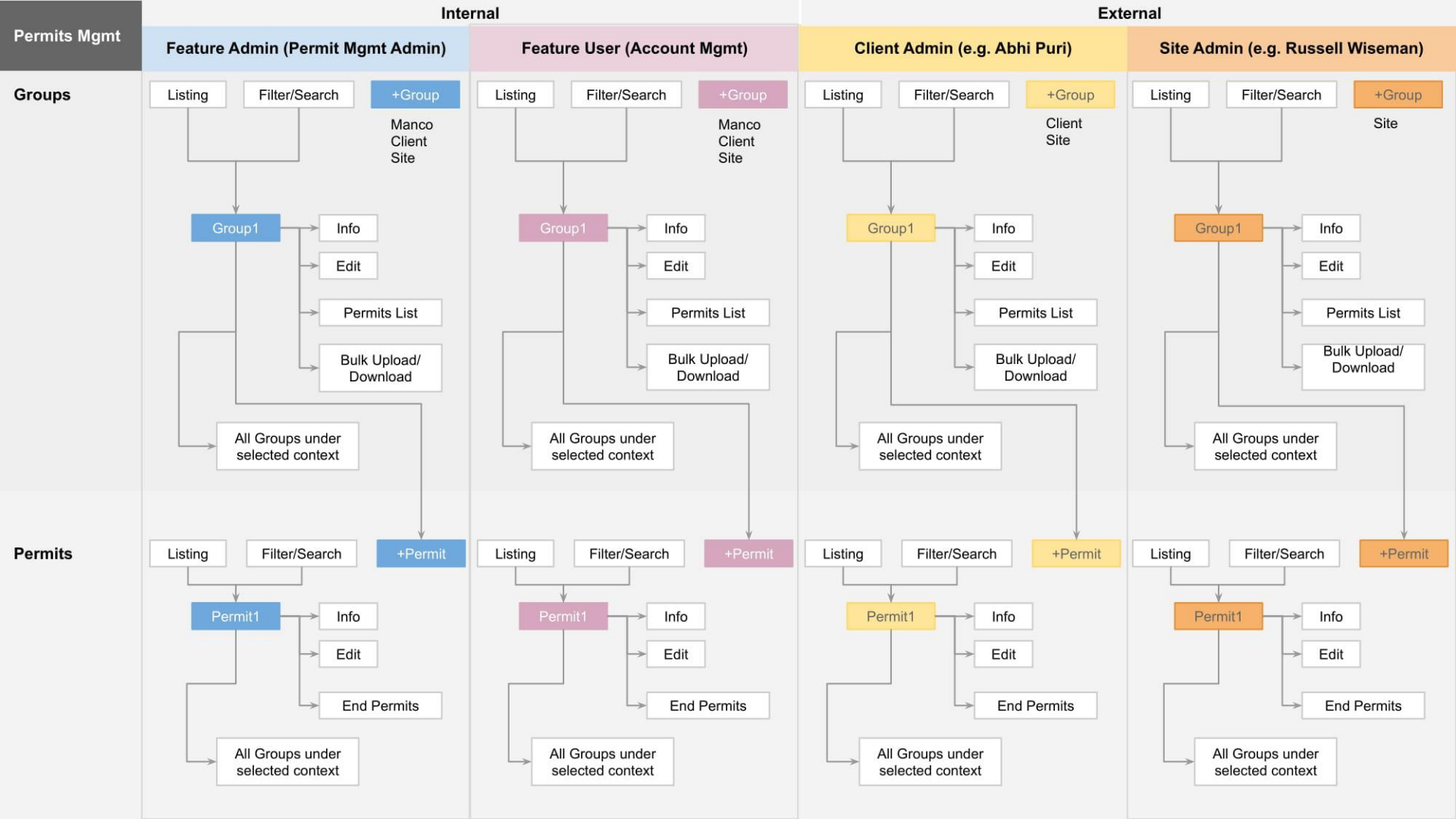
**Sally**

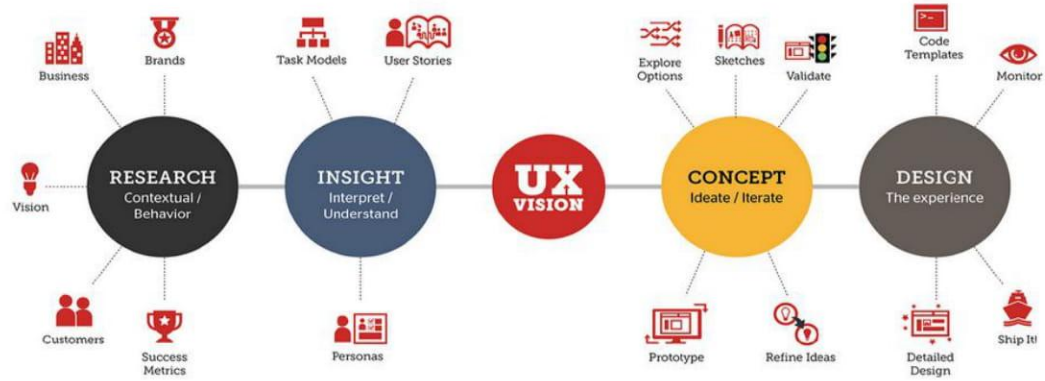
*"Picture Checker Reviewer"*

## UNDERSTANDING THE PERSONAS & USER FLOWS









## USER EXPERIENCE STRATEGY, DESIGN CONCEPTS



## Estate Management



+ Manco

ManCo

Clients

Sites

Car Parks

Devices

### Scalable Navigation

- Across products/offerings
- Act as accordions
- Ability to expand and view the labels

No. of Groups

+ Client



7

9





+ Manco



ManCo

Clients

Sites

Car Parks

Devices



Manco Name

No. of Clients

No. of Groups

CPI CP Plus Ltd (BL)

+ Client ⓘ ↗

GroupNexus

7

R Highview Parking

9

## Top Persistent Links & Actions

- Consistent place to take page level actions (filter, search and add an item)
- Breadcrumbs to navigate to inner pages

#### Filters Applied

CP Plus Ltd (BL)  
Manco



British Land  
Client

Roadchef  
Client

MOTO Frankley North  
Site

Manco Name ▾

No. of Clients ▾

No. of Groups ▾



[CP Plus Ltd \(BL\)](#)

14

+ [Client](#)



[GroupNexus](#)

12

7




[Highview Parking](#)

13

9

#### Data Display

- List view with pre-canned list of columns
- On-demand context-sensitive actions
- Filtered views (applicable to page level)





GroupNexus  
BETA

Groups

ManCoClientSite

Group NameStatusManco

GroupNexus StaffActiveGroupNexus

Site Contractor StaffInactiveCP Plus

Right Panel

- Consistent experience for viewing details and acting upon
- Wizard approach for heavy-duty forms
- Tabbed views for details
- Sticky button bar

Group LevelSelected Car ParksGroup Details

ManCoClientSite

Search Client

☐ All Clients (235)

3 Selected Clients

Client A (15 Sites) +

Client B (9 Sites) -

Site 1Site 2Site 3Site 4Site 5Site 6Site 7Site 8Site 9

☒☒☐☐☐☒☐☐☐

Client D (5 Sites) +

Next

Group Level

Selected Car Parks

Group Details

ManCo

Client

Site

Search Client

☐ All Clients (235)

3 Selected Clients

Client A (15 Sites) +

Client B (9 Sites) -

Site 1Site 2Site 3Site 4Site 5Site 6Site 7Site 8Site 9

☒☒☐☐☐☒☐☐☐

Client D (5 Sites) +

Next





## Groups



ManCo

Client

Site



Group Name

Status

ManCo



GroupNexus Staff

Active

3



Site Contractor Staff

Inactive

1

## Add Permit



Permit Details Permit Applicability

### Permit Details

Title\*

First Name\*

Last Name\*

Mr

Type

Type



Blue Badge Holder

VRM\*

Type

### Permit Duration

Default Permit Duration

1 Year

0 Months

0 Days

0 Hours

0 Mins

Start Date\*

29/01/2020



Start Time\*

13:30



End Date

28/01/2021

End Time

13:30

Next



## Groups



ManCo

Client

Site



Group Name

Status

ManCo



GroupNexus Staff

Active

3



Site Contractor Staff

Inactive

1

## Add Permit



Permit Details

Permit Applicability

### Permit Timings\*



Start Time

11:30

End Time

14:30

Duration

6 Hours

### Active On\*



Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Sunday

### Car Parks Allowed\*

Car Park A



Car Park B



Car Park C



Car Park D



Car Park E



Back

Add Permit



## Estate Management

[ManCo](#)[Clients](#)[Sites](#)[Car Parks](#)[Devices](#)

Car Park Name ▾

Status ▾

Site Name ▾

Client Name ▾

[Tesco Car Park A](#)

● Active

Whiteley Shopping Center

British Land

[Car Park Northend](#)

● Active

MOTO Frankley North

MOTO

### Add Car Park



Car Park Details Timings Rules Devices

Import Timing Settings From

Select Car Park ▾

Timing Settings

Mon

Tue

Wed

Thu

Fri

Sat

Sun

Bank Holidays

Open Timings\*

00:00 ⌚

to

23:59 ⌚

Consideration Period

10 ▾

Mins

Enforcement Timings\*

Full Day

Duration

00:00 ⌚

to

23:59

Grace Period\*

Staff

10 ▾ Mins

General Visitor

10 ▾ Mins

Blue Badge

10 ▾ Mins

Free Period\*

Per Visit

Per Day

00:00 ⌚

to

23:59

☒ No Return to Car Park

Duration

Rest of the Day

1 ▾

Hrs

Custom Override

Back

Next





ManCo

Clients

Sites

Car Parks

Devices

Device Name

Device Type

Status

Site Name

North A Entry Camera

Camera

● Active

Whiteley Shopping Centre

Payment Console 1

Payment Console

● Active

Whiteley Shopping Centre



Device Details

Car Parks Assigned

## Camera Details

Camera Name\*

North A Entry Camera

Camera Type\*

Digital

Analogue

Make\*

Camera Make

Model\*

Camera Model

External Reference\*

123943

Installation Date\*

02/01/2020

Warranty Expiration Date\*

02/01/2025

Serial Number\*

C194302

Authentication Token\*

ABC123456CED7890

IP Address\*

12.34.56.78

Facing Direction\*

North

Default Direction\*

North

Activation Date

02/01/2020

Activation Time

10:30

Deactivation Date

02/01/2022

Deactivation Time

10:30

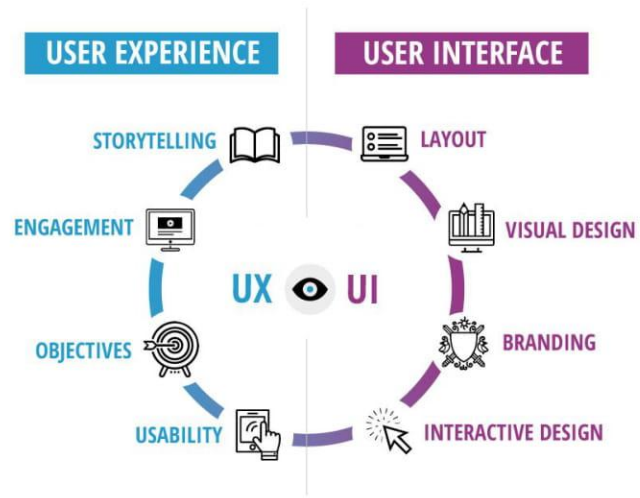
Notes

Type

Deactivate Device

Close

Edit



## USER INTERFACE DESIGNS



Intelligence

**Insight**

Incentive



Movements

**452,892** **+12%**



Visits

**211,564** **+7%**



PCN

**343** **-2%**



Filters Saved

**Mercedes & BMW**

23,032  
Movements

10,463  
Visits

145  
PCN

**Only British Land**

23,032  
Movements

10,463  
Visits

145  
PCN

**Cars Red Tesco Colidale**

23,032  
Movements

10,463  
Visits

145  
PCN

**Citroen C4**

23,032  
Movements

10,463  
Visits

145  
PCN

**Mercedes**

23,032  
Movements

10,463  
Visits

145  
PCN

**Sedan**

23,032  
Movements

10,463  
Visits

145  
PCN

**Red**

23,032  
Movements

10,463  
Visits

145  
PCN

**Petrol**

23,032  
Movements

10,463  
Visits

145  
PCN

**Audi**

23,032  
Movements

10,463  
Visits

145  
PCN

**Only British Land**

23,032  
Movements

10,463  
Visits

145  
PCN

**Tesco Colidale**

23,032  
Movements

10,463  
Visits

145  
PCN

**Citroen C4**

23,032  
Movements

10,463  
Visits

145  
PCN



## Filters Applied



Sedan



### Sedan

● 148 In

● 60 Out

[View Vehicles](#)



Coupe



Yellow



Pay by Visa



Petrol



Electric



[+5 Filters](#)

## MOVEMENTS

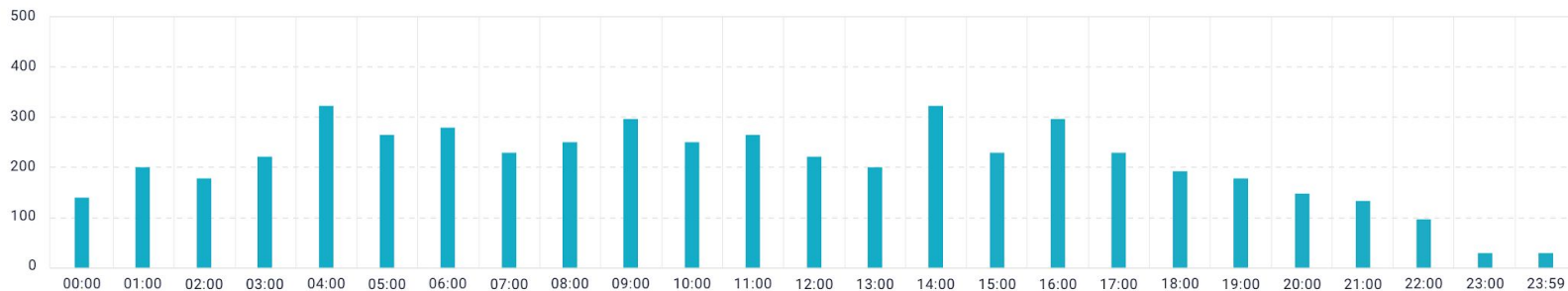
## VISITS

## VEHICLES

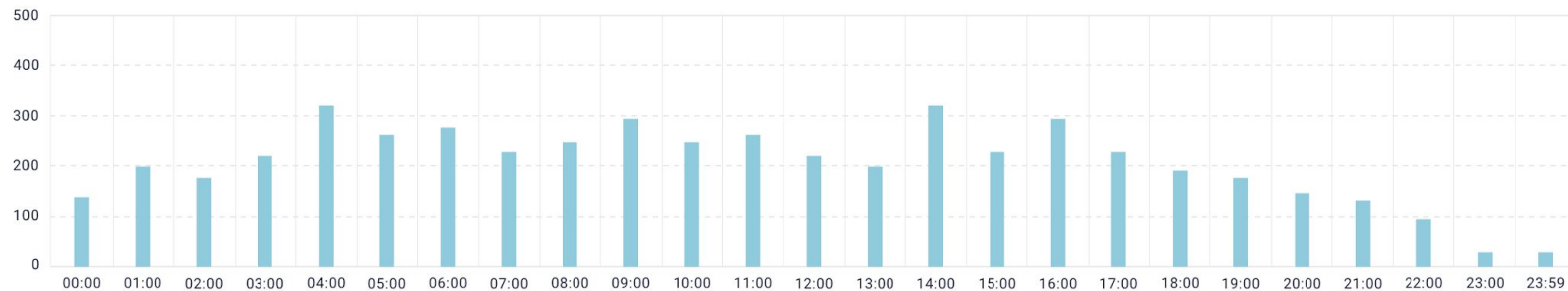
Total Movements **5,049**



### Movements in 2,563



### Movements out 2,563





## Filters Applied



Sedan



208



Hatchback



196



Coupe



199



Yellow



201



Pay by Visa



226



Petrol



199



Electric



177

[+5 Filters](#)

### MOVEMENTS

### VISITS

Total Movements 5,049



IN

00

02

04

06

08

10

12

14

16

18

20

22

00

00

02

04

06

08

10

12

14

16

18

20

22

00

Sedan

Coupe

Yellow

Petrol

Electric

OUT

00

02

04

06

08

10

12

14

16

18

20

22

00





## Filters Applied



Sedan



208



Hatchback



196



Coupe



199



Yellow



201



Pay by Visa



226



Petrol



199



Electric



177

[+5 Filters](#)

### MOVEMENTS

### VISITS

Total Movements 5,049

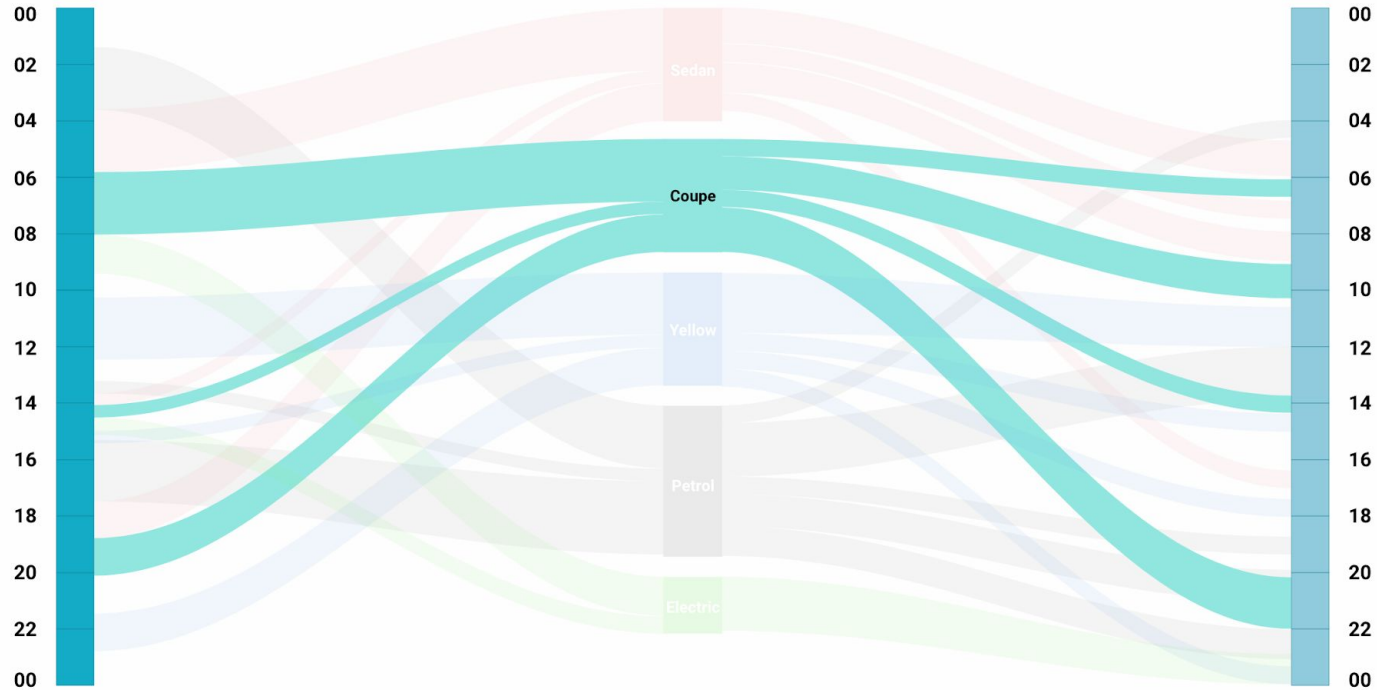


IN

00  
02  
04  
06  
08  
10  
12  
14  
16  
18  
20  
22  
00

OUT

00  
02  
04  
06  
08  
10  
12  
14  
16  
18  
20  
22  
00





## Filters Applied



Sedan



208



Hatchback



196



Coupe



199



Yellow



201



Pay by Visa



226



Petrol



199



Electric



177

[+5 Filters](#)

### MOVEMENTS

### VISITS

Total Movements **5,049**



IN

OUT

00

00

02

02

04

04

06

06

08

08

10

10

12

12

14

14

16

16

18

18

20

20

22

22

24

24

Sedan

Hatchback

Coupe

SUV

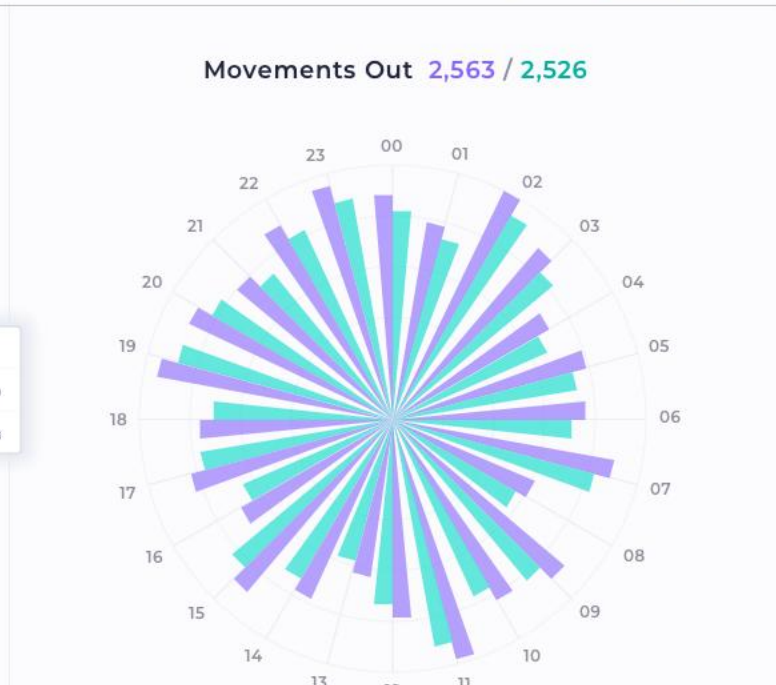
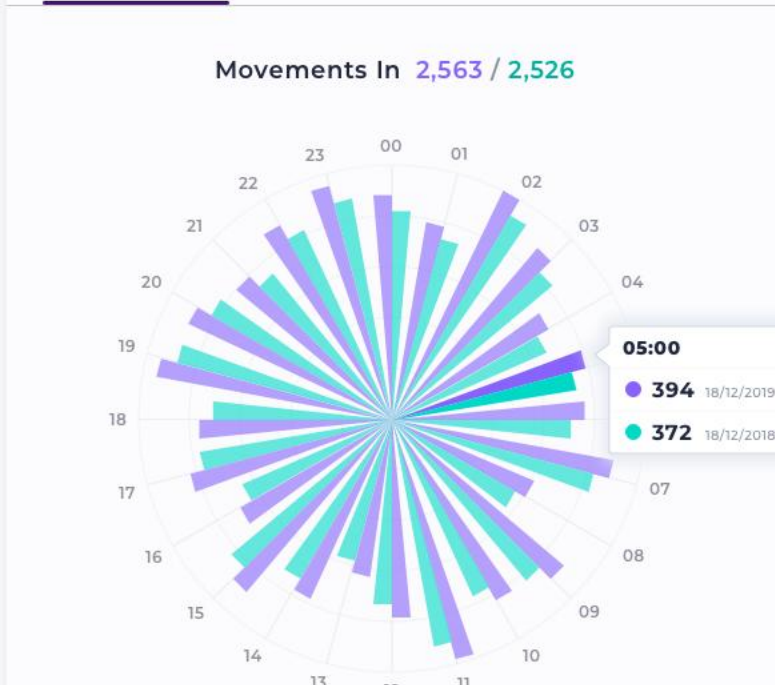
Pay by  
Visa

Petrol

Electric

Diesel

Yellow



Dashboard

My Reports

Activity

Dwell Time

Occupancy

Frequency

Picture Checker

Permits

Enforcement

All Sites

Settings

Profile

Ferrari

BMW

SUV

Red

Electric

Petrol

Diesel

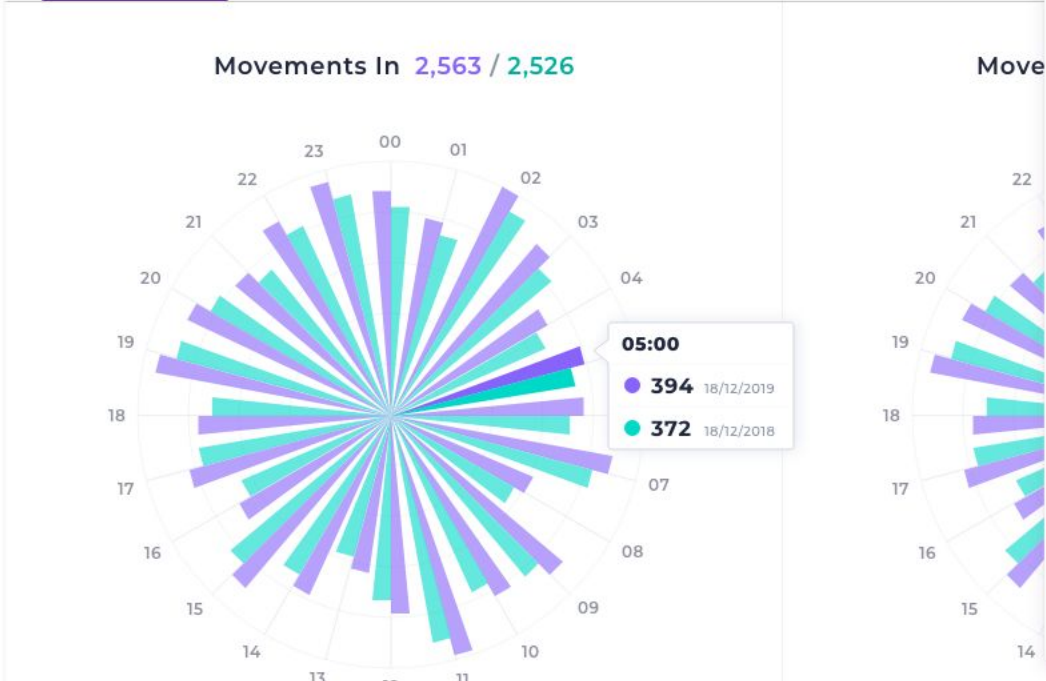
VISA

Pay by

Movements

Visits

Total Movements 5,120 / 5,049



Today

Weekly

Monthly

Period 1

Start 05-05-2019

End 11-05-2019

Period 2

Start 05-05-2019

End 11-05-2019

<

May 2019

>

Mon	Tue	Wed	Thu	Fri	Sat	Sun
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

☒ Select specific time slots

03:56





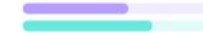
12:30

00:0006:0012:0018:0023:59

+ Add new slot

Apply



	Total Movements 5,020 / 5,049				
	13:45 - 14:30 998 / 1,054	14:30 - 15:30 998 / 1,054	15:30 - 16:15 998 / 1,054	16:15 - 17:00 998 / 1,054	17:00 - 18:00 998 / 1,054
BMW					
Ferrari					
SUV					
Red					
Yellow					
Petrol					
Diesel					





## Activity &gt; Vehicle Details &gt; Sedan



Thank you