

A Brief History of TRICS

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A Brief History of TRICS

- ▶ Background of the system
- ▶ How TRICS works
- ▶ Growth and development
- ▶ TRICS surveys
- ▶ TRICS and parking



Background of TRICS: Origins

- ▶ TRICS is the system that validates and challenges assumptions about the transport impacts of new developments.
- ▶ It was formed by a consortium of 7 county councils in the south of England in 1989.
- ▶ The aim was to unify large quantities of transport survey count data into a data retrieval and analysis computer system.
- ▶ Local authorities and transport consultants would then be able to subscribe to the new database.
- ▶ An ongoing programme of additional transport surveys then began to further populate the database.



Background of TRICS: The Consortium

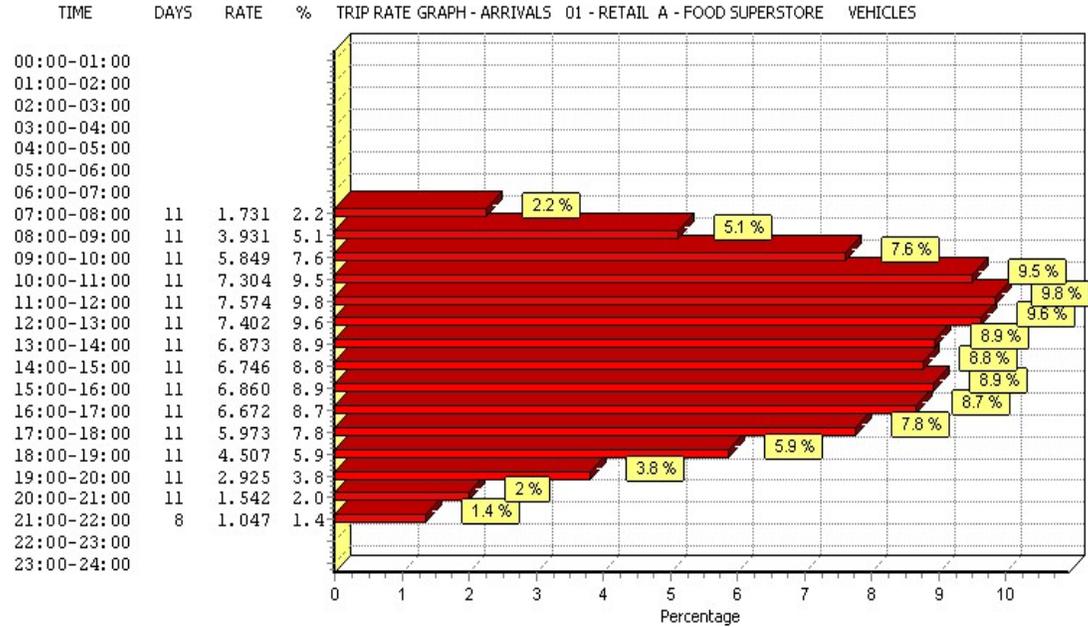


How TRICS works: Trip rate generation

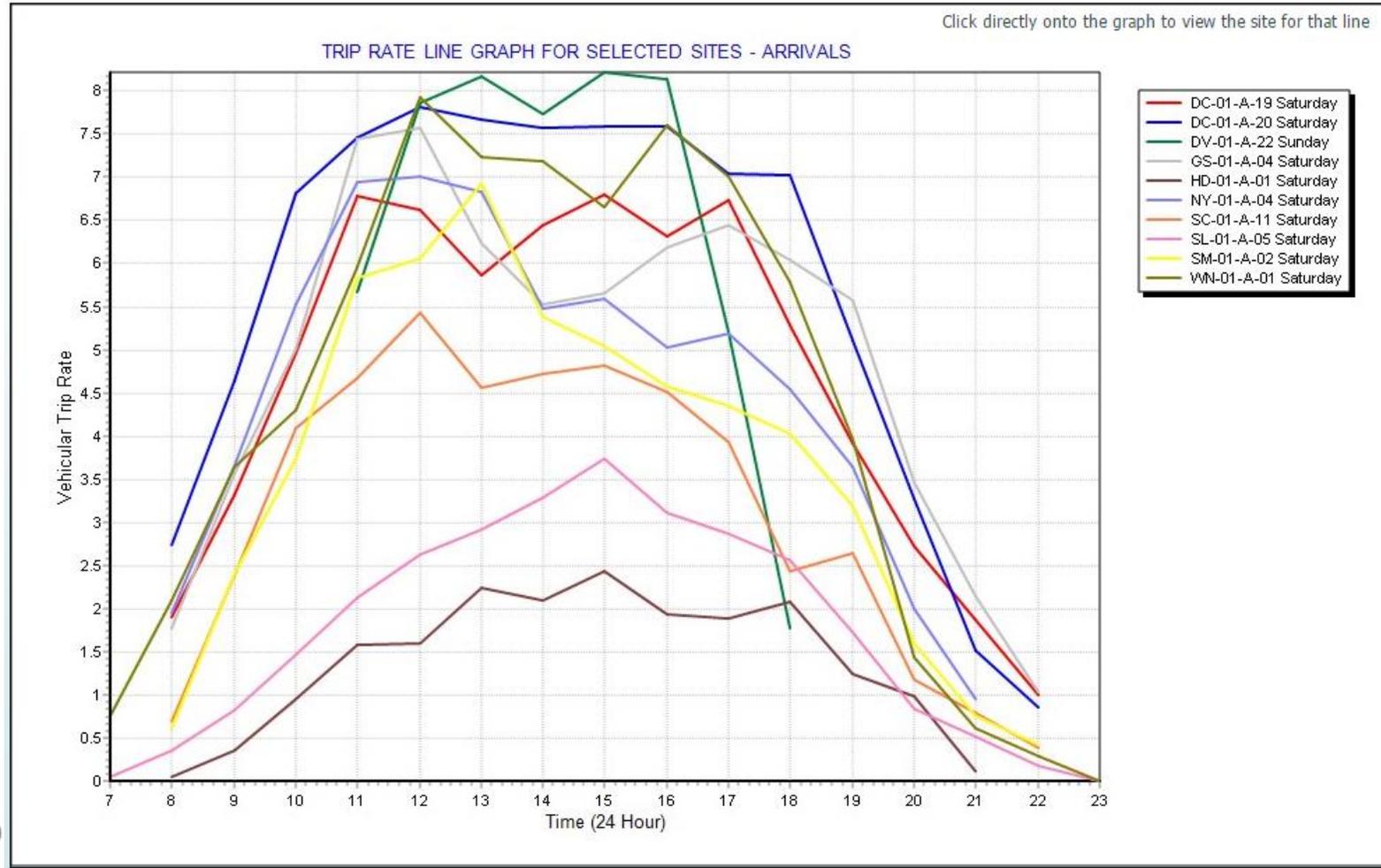
- ▶ TRICS allows the analysis of trip generation for a wide range of development types (110 Land Use Categories, with over 7,310 Surveys).
- ▶ Users apply selection criteria to surveys within the database to simulate a potential development scenario.
- ▶ The selected set of surveys is then used to produce trip rates, which are incorporated into Transport Assessments.
- ▶ Trip rates within these reports are also audited by local authorities whose task it is to assess the submitted Transport Assessments.
- ▶ Trip rates also used for Transport Modelling processes when assessing and modelling highway schemes.

Trip generation rates in TRICS

TRIP RATE VALUE PER 100 SQM	ARRIVALS			DEPARTURES			TOTALS		
	Total rate: 76.936			Total rate: 77.359			Total rate: 154.295		
	Peak: 11:00-12:00			Peak: 16:00-17:00			Peak: 11:00-12:00		
No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	11	6156	1.731	11	6156	1.059	11	6156	2.790
08:00-09:00	11	6156	3.931	11	6156	2.850	11	6156	6.781
09:00-10:00	11	6156	5.849	11	6156	4.718	11	6156	10.567
10:00-11:00	11	6156	7.304	11	6156	6.448	11	6156	13.752
11:00-12:00	11	6156	7.574	11	6156	7.062	11	6156	14.636
12:00-13:00	11	6156	7.402	11	6156	7.146	11	6156	14.548
13:00-14:00	11	6156	6.873	11	6156	6.783	11	6156	13.656
14:00-15:00	11	6156	6.746	11	6156	6.598	11	6156	13.344
15:00-16:00	11	6156	6.860	11	6156	6.913	11	6156	13.773
16:00-17:00	11	6156	6.672	11	6156	7.430	11	6156	14.102
17:00-18:00	11	6156	5.973	11	6156	7.001	11	6156	12.974
18:00-19:00	11	6156	4.507	11	6156	5.866	11	6156	10.373
19:00-20:00	11	6156	2.925	11	6156	3.902	11	6156	6.827
20:00-21:00	11	6156	1.542	11	6156	2.194	11	6156	3.736
21:00-22:00	8	6020	1.047	8	6020	1.389	8	6020	2.436
22:00-23:00									



Trip generation rates in TRICS



How TRICS works: Database records

- ▶ Each TRICS development site record contains the following information:
 - ▶ Site Details
 - ▶ Development Details
 - ▶ Parking Details
 - ▶ Survey Count Details
- ▶ All information is collected by our TRICS-approved data collection contractors, working with site owners.
- ▶ All information is subject to rigorous data validation procedures to ensure the database is of high quality.



Database records in TRICS

Start Again
Email TRICS
Save
View Saved Work
Help Desk

TRICS 7.3.1



TRICS Helpline
020 3657 2186
020 3657 2187
support@trics.org

Site Details 03 - RESIDENTIAL A - HOUSES PRIVATELY OWNED
Definitions

Trip Rate
List Sites
Map
Print
Graph
Copy Data
Forum
Library
Reports
Good Practice Guide
Settings
Help
Log Out

Screen ID: 7

Return

Previous Site
Next Site

Site Reference **DV-03-A-01** Area **DEVON**

Survey Type **MULTI-MODAL** Region **SOUTH WEST**

Definitions

SITE RECORD PAGES

- location details
- public transport
- design features for non-car modes
- site photo
- development units
- parking
- survey days
- travel plan

Description	TERRACED HOUSES	Site photo		Site area	1.25 hect	Created	Version 7.3.1
Street	BRONSHILL ROAD			Number of dwellings	37	Date	02/02/16
District			Housing Density	52.86	Total Bedrooms	111	Travel Plan Is there a travel plan associated with this site <input type="text" value="No"/>
Town	TORQUAY		No. of development for this site	1	If not, are there any plans to implement a Travel Plan in the future? <input type="text" value="No"/>		
Postcode	TQ1 3HR		No. of survey days for this site	1	Is survey data available before the implementation of the Travel Plan? <input type="text"/>		
Latitude	50.47387	Click image to enlarge				Urban Regeneration	<input type="text" value="No"/>
Longitude	-3.52865					Standard Assessment Methodology (SAM)	<input type="text" value="No"/>
Location	Suburban Area (PPS6 Out of Centre)						
Locn Sub Cat	Residential Zone						
Use class	C3						
	Use Class/Land Use Table						

Map of car ownership per household 2011 (England & Wales)

[Click here to view map](#)

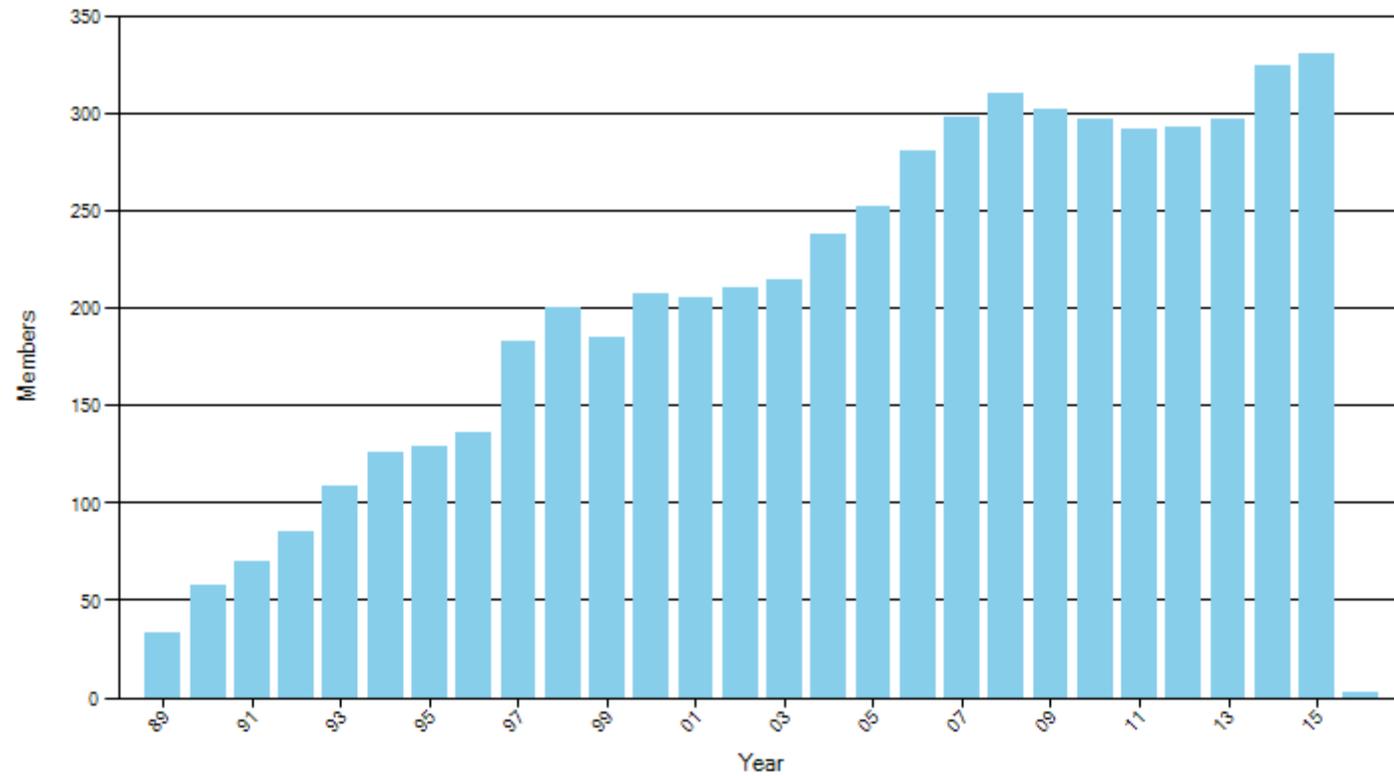
Definitions of Residential Land Use Categories	Population within 1 mile	25,001 to 50,000	Comment
	Population within 5 miles	125,001 to 250,000	This site is located in a suburban area north of the centre of Torquay. Local roads head towards various parts of the local area. The site has a vehicle access and a separate pedestrian access off Bronshill Road. The site is surrounded by residential streets.
	Population within 500m	7600	
	Car ownership (5 miles)	1.1 to 1.5	

TRICS growth & development

- ▶ Membership fees have been continuously put towards survey programmes and system development.
- ▶ Major system updates have included a Windows version of TRICS in the 1990's, and a live on-line version in the early 2000's. Major redesign, TRICS 7, in 2012.
- ▶ There are now 337 member organisations across the UK and Ireland.
- ▶ The database now contains 7,310 survey count days.



TRICS membership growth



TRICS surveys

- ▶ There are two types of surveys in TRICS, traffic surveys and multi-modal surveys.
- ▶ Traffic surveys record all vehicles arriving at and departing from a development within a set time period (often 12 hours).
- ▶ Multi-modal surveys also record vehicle occupants, pedestrians and public transport users.
- ▶ A system of site visits and survey specifications has been developed and updated over many years.
- ▶ All site access points are covered by enumerators who count vehicles and interview people walking in and out of sites.

TRICS and parking

- ▶ Parking information is embedded into the TRICS database for all site records.
- ▶ Both on-site and off-site parking information is collected.
- ▶ Parking accumulation displays the varying levels of parking at a site throughout the survey duration.
- ▶ Maximum car park occupancy (as a percentage of available spaces taken) is also calculated and displayed on survey count screens.
- ▶ For some land use categories trip rates can be calculated per parking space.



On-site parking information (all land uses except residential)

- ▶ Information on parking charges, parking management and enforcement, and general comments on parking at the site.
- ▶ Parking spaces per 100m2 GFA/RFA (or other parameters)
- ▶ Breakdown of parking spaces:
 - ▶ Employee
 - ▶ Disabled
 - ▶ Visitor/Customer
 - ▶ OGV parking bays
 - ▶ OGV loading bays
 - ▶ Parent & toddler
 - ▶ Motorcycle spaces
 - ▶ Electric vehicle charging points

SITE RECORD PAGES		On-Site Parking Details	
location details		Total	312
public transport		Parking Spaces Per 100m2 GFA	10.759
design features for non-car modes		Parking Spaces Per 100m2 RFA	15.600
site photo		Employee	0
development units		Disabled	12
parking		Visitor/Customer	283
survey days		OGV Parking Bays	0
travel plan		Cycle Racks	24
		OGV Loading Bays	5
		Mother and Toddler	12
		Motorcycle Spaces	0
		Electronic Vehicle Charging Points	0
		Parking Charges	No
		Comments about the management of the site car park, along with enforcement measures	
		There is no parking enforcement at the site.	

On-site parking information (residential land uses)

- ▶ General comments on parking at the site.
- ▶ Parking spaces by hectare, per dwelling, and vehicle arrivals per parking space all displayed.
- ▶ Breakdown of parking spaces:
 - ▶ On-street
 - ▶ Driveways
 - ▶ Garages
 - ▶ Communal spaces

SITE RECORD PAGES		On-Site Parking Details	
location details		Total	430
public transport		Parking Spaces Per Hectare	49.539
design features for non-car modes		Parking Spaces Per dwelling	2.108
site photo		Arrivals Per Parking Space	0.97
development units		On-Street	50
parking		Driveway	326
survey days		Garages	54
travel plan		Communal Parking Spaces	0

General Comments on Parking

Most driveways accommodate two spaces and a garage, with the townhouses tending to have just the 1 space. There is ample car parking to accommodate about 50 cars on street, and there was no overspill of the car parking from the site on to the main road.

Off-site parking information (all land uses)

- ▶ Various information about on-street and off-street parking away from the site.
- ▶ Particularly useful for sites where lots of off-site parking takes place (e.g. primary schools).
- ▶ Details of off-site parking fees and parking periods displayed.

Off-Site Parking Details	
Is there off-site parking available	Yes <input type="checkbox"/>
Off-Site Parking included in the counts	Yes <input type="checkbox"/>
Free On-Street Parking Available Nearby	Yes <input type="checkbox"/>
If yes, considered easy to find a space	Yes <input type="checkbox"/>
If prepared to pay, easy to find somewhere to park off-site all day	Yes <input type="checkbox"/>
Parking Restrictions	Area subject to parking restrictions (controlled parking zone - CPZ) Yes, Only Some Parts of the Area <input type="checkbox"/>
Details on Parking Restrictions	
Permitted on-street parking for non-residents available within this CPZ	Yes, All Day <input type="checkbox"/>
If yes, time limited for non-residents	Yes <input type="checkbox"/>
Details about On-Street Parking for this CPZ	
Charges for non-residents parking if permitted	Yes, All Day <input type="checkbox"/>
Details on Charges	
Average Charge Per Hour	140
Maximum Parking Duration	120
Off-Street Parking	
Off-Street Parking Available	Yes, Public Off-Street Parking is Available <input type="checkbox"/>
Details about Off-Street Parking	
Approx. Available Spaces	350
Parking Located Within a Control Parking Zone (CPZ)	Yes <input type="checkbox"/>
Charges for this Off-Street Parking	Yes, All Day <input type="checkbox"/>
Details on Charges	
Charge Amount	70
Charge Period	Hour <input type="checkbox"/>
Park and Ride	
Park and Ride Type Facility providing relevant means of accessing the site	No <input type="checkbox"/>

Parking accumulation & parking capacity within TRICS

- ▶ Initial and final car park occupancy figures are displayed on the count screen.
- ▶ Parking accumulation figures are shown per hour of the survey, based on the initial parking occupancy figure plus arrivals minus departures.
- ▶ The maximum car park usage (shown as a percentage) is also shown alongside the total number of spaces at the site.
- ▶ It is possible for the parking capacity figure to exceed 100% (due to the inclusion of off-site parking).

Parking accumulation & parking capacity within TRICS

Survey Dates: Friday 06/06/14

TOTAL VEHICLES

Comment

MODE

Survey type: Manual Count

Vehicles
 Total People
 Pedestrians
 Public Transport Users
 Bus/Tram Passengers
 Coach Passengers
 Total Rail Passengers
 Occupants
 PSVs
 OGVs
 Cyclists
 Taxis
 Cars
 LGVs
 Motor Cycles

Time	Arr 4452	Dep 4434	Totals	Parking Accum
00:00-01:00				
01:00-02:00				
02:00-03:00				
03:00-04:00				
04:00-05:00				
05:00-06:00				
06:00-07:00				
07:00-08:00	138	115	253	66
08:00-09:00	185	166	351	85
09:00-10:00	256	209	465	132
10:00-11:00	306	267	573	171
11:00-12:00	346	317	663	200
12:00-13:00	369	349	718	220
13:00-14:00	349	355	704	214
14:00-15:00	355	364	719	205
15:00-16:00	371	398	769	178
16:00-17:00	405	336	741	247
17:00-18:00	413	461	874	199
18:00-19:00	341	358	699	182
19:00-20:00	274	340	614	116
20:00-21:00	195	216	411	95
21:00-22:00	149	183	332	61
22:00-23:00				
23:00-24:00				

Weather

AM: Hot and Clear

PM: Hot and Clear

Car park occupancy

Initial: 43 Final: 61

Parking Capacity: 54% (457 On-Site Spaces)

Vehicle percentages

OGV (1): 0

OGV (2): 0

Motor car: 93

Motor cycle: 1

Public service: 0

Light goods: 5

Taxis: 1

Example of trip rates per parking space

VEHICLES			Estimate TRIP rates <input type="checkbox"/>			Weighting factors can affect trip rates. For further information please review section 13 of the Good Practice Guide			
Survey Start/End: 07:00-22:00									
Trip rate parameter range available: 272 - 624 (units:)						Descriptive Note on TRICS for Data Recipients			
TRIP RATE VALUE PER 1 PARKING	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. PARKING	Trip Rate	No. Days	Ave. PARKING	Trip Rate	No. Days	Ave. PARKING	Trip Rate
	Total rate: 10.152			Total rate: 10.196			Total rate: 20.348		
	Peak: 11:00-12:00			Peak: 16:00-17:00			Peak: 11:00-12:00		
00:00-01:00									
01:00-02:00									
02:00-03:00									
03:00-04:00									
04:00-05:00									
05:00-06:00									
06:00-07:00									
07:00-08:00	15	476	0.215	15	476	0.136	15	476	0.351
08:00-09:00	15	476	0.502	15	476	0.345	15	476	0.847
09:00-10:00	15	476	0.767	15	476	0.595	15	476	1.362
10:00-11:00	15	476	0.953	15	476	0.818	15	476	1.771
11:00-12:00	15	476	1.027	15	476	0.960	15	476	1.987
12:00-13:00	15	476	0.987	15	476	0.963	15	476	1.950
13:00-14:00	15	476	0.927	15	476	0.923	15	476	1.850
14:00-15:00	15	476	0.929	15	476	0.919	15	476	1.848
15:00-16:00	15	476	0.918	15	476	0.930	15	476	1.848
16:00-17:00	15	476	0.865	15	476	0.985	15	476	1.850
17:00-18:00	15	476	0.769	15	476	0.924	15	476	1.693
18:00-19:00	15	476	0.587	15	476	0.752	15	476	1.339
19:00-20:00	15	476	0.377	15	476	0.496	15	476	0.873
20:00-21:00	15	476	0.206	15	476	0.290	15	476	0.496
21:00-22:00	12	485	0.123	12	485	0.160	12	485	0.283
22:00-23:00									
23:00-24:00									



Free one month trial of TRICS available

- ▶ More information on TRICS can be found at www.trics.org
- ▶ A one month free trial of TRICS (with no obligation) is available to organisations for evaluation purposes. Contact the TRICS team for details.

