



Market Insight Release Notes
2022 - August



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1. EXECUTIVE SUMMARY

This document outlines the Market Insight (MI) features that are scheduled to be released to production in August 2022.

The key functional areas affected by this release are:

- **Performance Improvements:** We've improved the efficiency and caching of some complex MI selections.
- **Mapping Wizard Improvements:** Records selected on maps use co-ordinates rather than shape files, giving a more accurate result. You can now choose to calculate drivetimes using the Bing Isochrone API.
- **Updated Expressions:** New functionality within Expressions.
- **Various Improvements in Market Insight Orbit:** Orbit is updated on a different schedule to Market Insight, but recent changes include Venn Diagrams, World Map and Tile Filters, a way to filter individual tiles.

1.1 Target Audience

This document is intended for all users of Market Insight.

2. FEATURES

This section outlines the new features and improvements to Market Insight.

2.1 Decision Tree Performance Improvements

The behavioural features created within the modelling environment make extensive use of cached variables and expressions, often nesting these several levels deep within selections. The long-standing mechanisms used within Market Insight for creating requests and evaluating the cache have been updated to cope with this.

These improvements benefit many areas of Market Insight but are particularly noticeable when using decision trees with behavioural features.



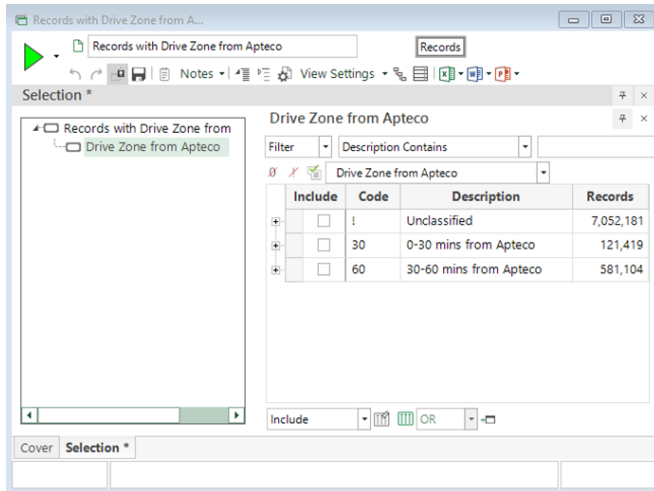
2.2 Drive Zone Wizard Improvements

Two improvements have been made to the Drive Zone wizard:

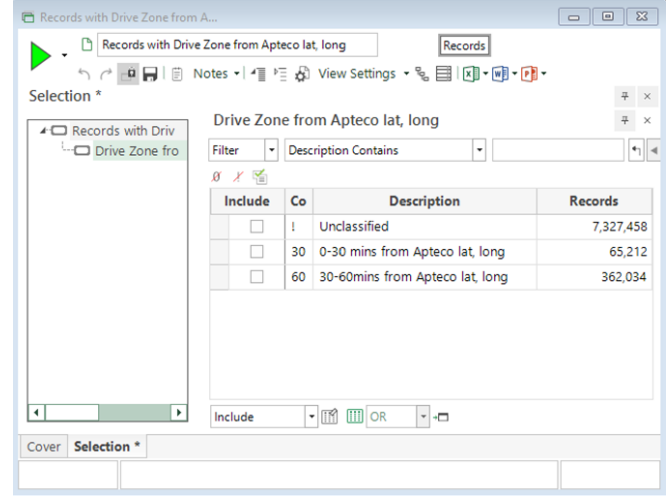
Zones can now be created using Latitude and Longitude variables for all 3 methods of calculating the zone size, resulting in better accuracy.

An option for using driving distance for creating the zones has been added.

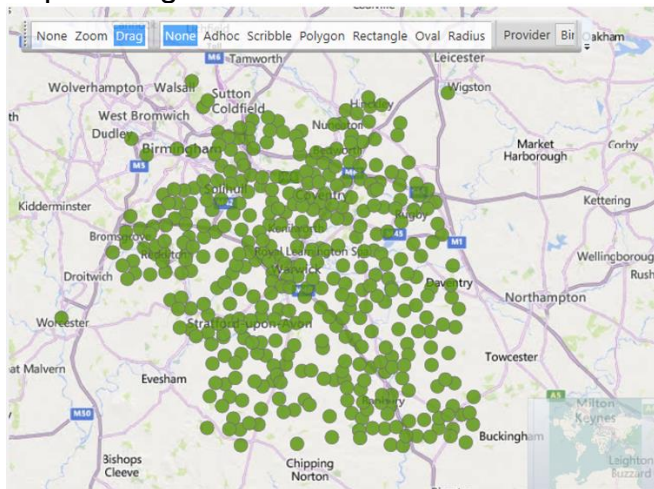
Drive Zone Wizard using Geographic Variable.



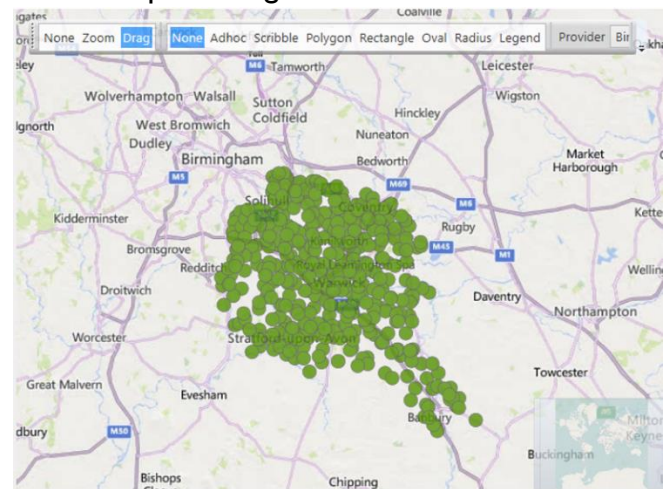
Drive Zone Wizard using Latitude and Longitude.



Map showing above selection.



Map showing above selection.



As you can see using Latitude and Longitude is a lot more accurate for Drive Times. This is because using a Geographic Variable (UK Postcode Sector), gives sites from that postcode sector that are in 30 minutes, but also some records that are just outside the 30 minutes. This is because the postcode sector is reachable in 30 minutes, but not all of the postcode sector.



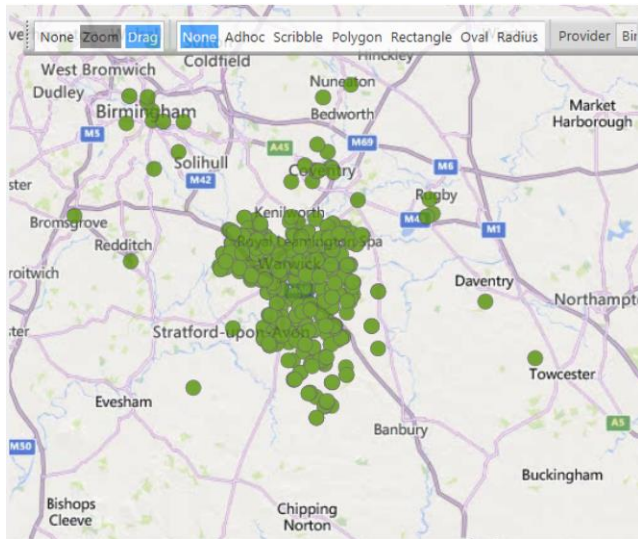
2.3 Point to Point Wizard Improvements

Two improvements have been made to the Point to Point wizard:

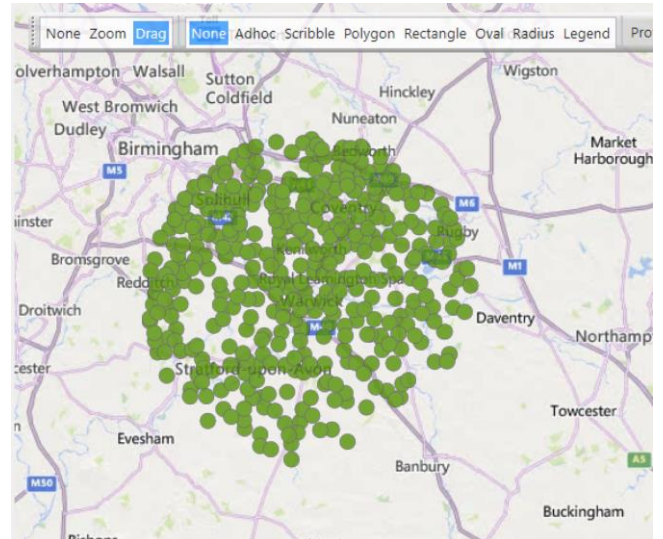
The straight line distance option has been changed so that you can specify Latitude and Longitude variables which are used to calculate the distance from the centre point to each location.

For all the existing and new options, you can specify a maximum value of drive time/drive distance/straight line distance, and only records within that area are categorised in the resulting virtual variable.

Using a Geographic Variable.

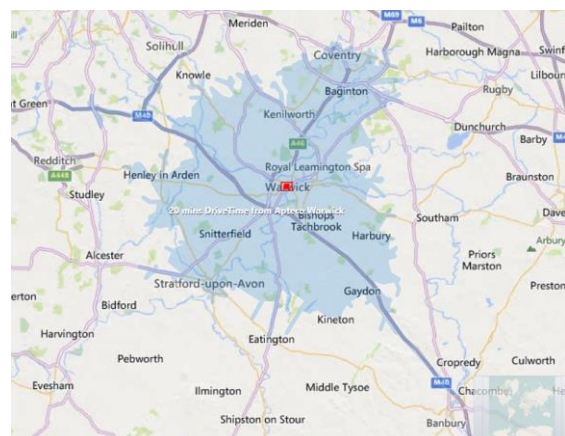
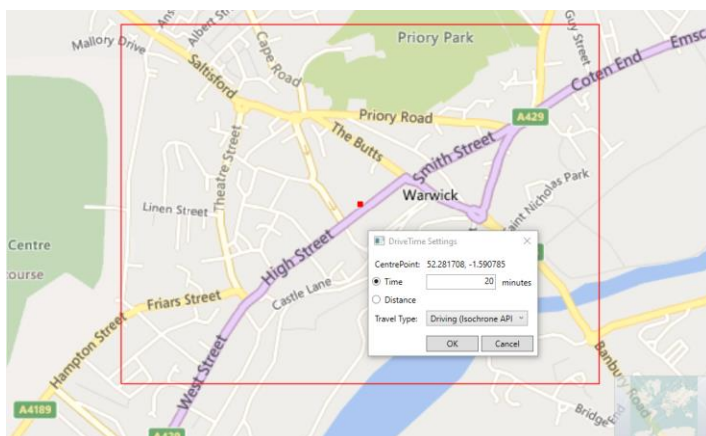


Using the new Latitude and Longitude.



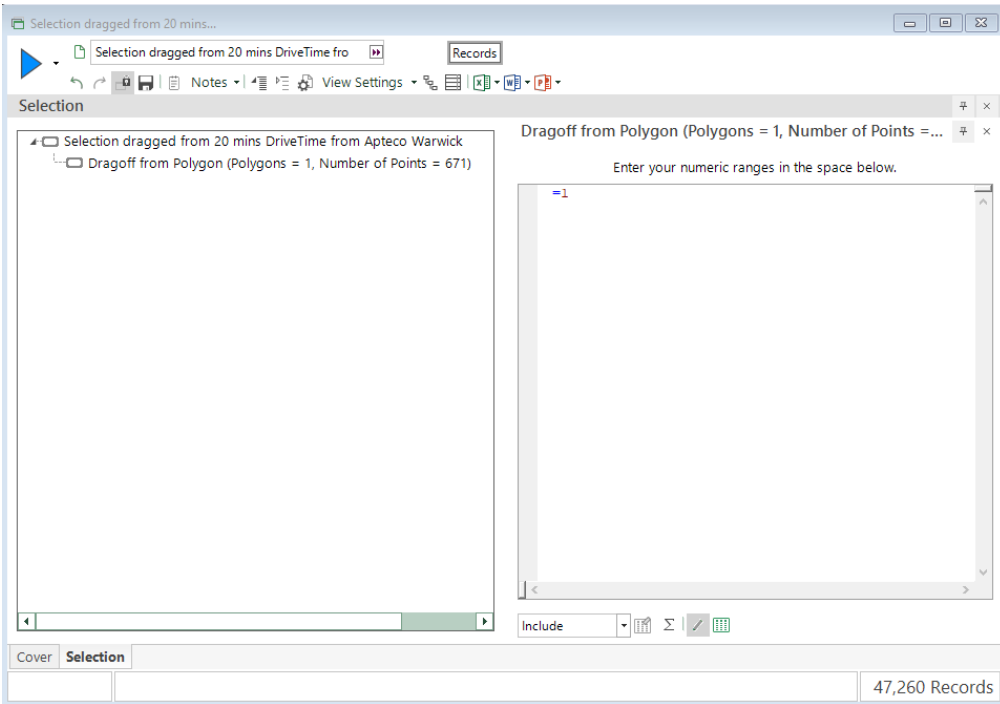
2.4 Extended DriveTime Calculation Options in a Map

Drivetime capability in the Map tool has been extended so that you can choose to calculate drivetimes using the Bing Isochrone API. With no fixed number of endpoints, the new method can return more complex shapes and, consequently, more accurate results, often more quickly. Travel types also include options for walking and public transport.

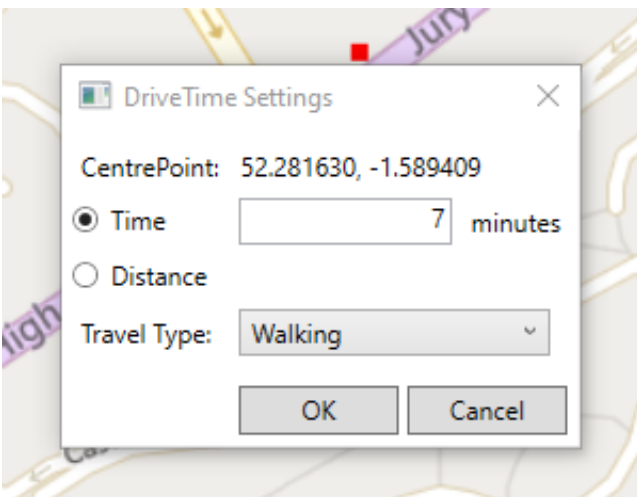




You can drag from the map to create a Market Insight selection of the records identified by your isochrone drivetime calculation. This will generate a selection on an expression containing all the vertices of the precise drivetime shape. Consequently, the selection may evaluate more slowly than the simpler shapes generated by the previous (Routes API) method.

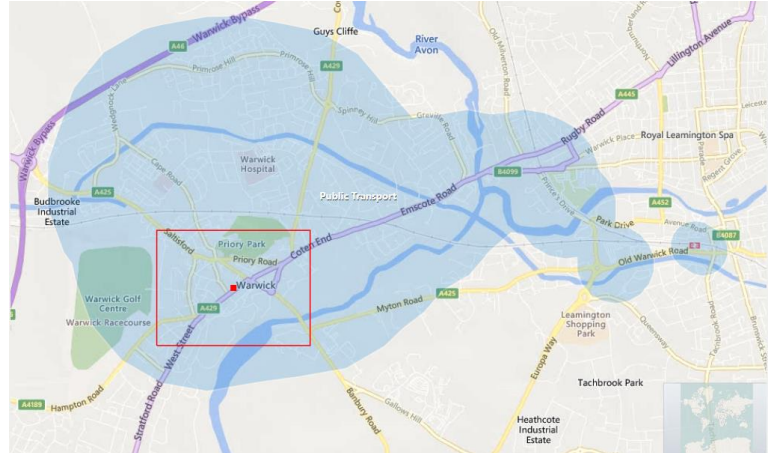
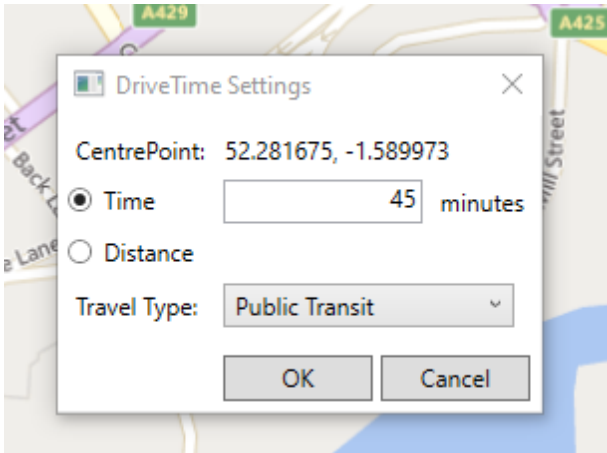


Walking





Public Transport



2.5 New Date/DateTime Bandings on Cubes

When creating cube dimensions using a date or datetime variable, there are four new banding options available via the right-click context menu. You can use Day of Month with both variable types, whilst Hour and Minute, Minute of Hour and Second of Minute are for use in datetime analysis.

Cube *

Drop your variable here

Records

Bandings	Records
Unclassified	6,839
Monday 00:00	3,574
Monday 00:01	15
Monday 00:02	11
Monday 00:03	9
Monday 00:04	4
Monday 00:05	16
Monday 00:06	10
Monday 00:07	5
Monday 00:08	7
Monday 00:09	11
Monday 00:10	8
Monday 00:11	13
Monday 00:12	13
Monday 00:13	8
Monday 00:14	9
Monday 00:15	9
Monday 00:16	4
Monday 00:17	8
Monday 00:18	8
Monday 00:19	6
Monday 00:20	11
Monday 00:21	12

Selection **Cube ***

Cancel



2.6 Expressions

New Expression Function

The *VarCountsInfoFind* system function returns the index of the code or description to find for the given variable.

The UK postcode expression functions now uses an ONS data feed which provides an improved and more up-to-date postcode list.

The following expression functions have also been added:

Derived Cube Functions

DatePeriodCubeRange([cube\$0], “measure”, “dimension”, period)

Enables you to refer to measures in a part of a cube with a date dimension. The period can be “days”, “weeks”, “months”, “quarters”, or “years”.

CubeCellIndexFromHeader([cube\$0], “dimension”, “matchvalue”, “code|desc”)

Enables you to find the index to a specific dimension value ensuring your cube expressions remain valid even if the number or sequence of categories in the dimension changes in the future.

Set Functions

The *IsSubset* and *IsSuperset* functions – now support an optional parameter to specify 'proper' subset/superset. A proper subset is a set that contains some but not all the items in the set it is compared with, and similar for a proper superset.

Selector Functions

We have introduced two new functions for operating on flag array selector variables:

NthSelectedFlag – which returns the description of the Nth selected flag in a flag array.

NthIndexSelectedFlag - which returns the index of the Nth selected flag in a flag array.

System Functions

VarCountsInfoNth – natural order for *VarCodes*; now allows the expression to pull out information from the *VarCodes* for a variable in the order they appear in the variable.

On-the-fly aggregation Expressions

The Category Grouping type of on-the-fly aggregations has two new 'return' functions:

Return Group Results

Which means the on-the-fly aggregation returns result for the group on every transaction record.

Select Nth by order

Used when a group is formed by an ordinal variable, and you wish to return a specific one value in that ordered sequence.

Running/rolling aggregations now also support a rolling time window allowing you, for example, to determine the highest amount spent by a customer in any 12-month period.



Introduction of Regular Expressions with new String expression functions

Regular expressions (Regex) and five new string functions complement and bring additional power to existing FastStats string capability when creating string selections.

Add Date/DateTime expressions as a Cube dimension

You can now drag and drop a date or datetime expression directly onto a cube as a dimension without first needing to create a virtual variable. You can then band the expression using any of the right-click options available for date and datetime variables and use the new dimension type in all the same ways as a banded date or datetime variable.

New Date and Time Expression functions

Two new Date functions are available:

IsWeekday

IsWeekend

The Date Conversion function - FormatDate - can support time elements, such as hour/minute/second, when converting a DateTime variable to its string representation.



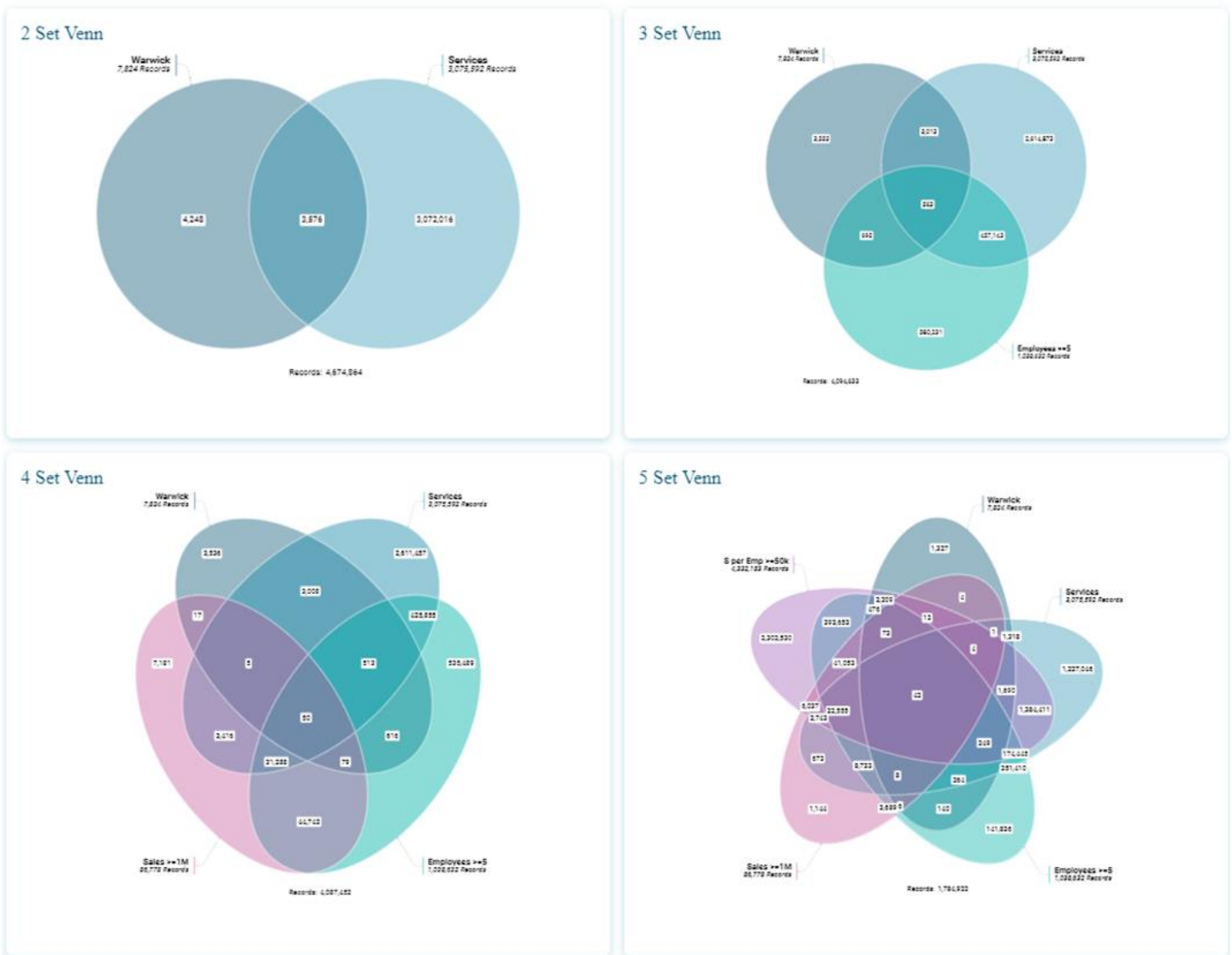
3. MARKET INSIGHT ORBIT

We have released 28 updates (versions 1.10.11 to 1.10.39) to Orbit since the last release of the Apteco Software. We have also dedicated two sprints to address bug fixes.

3.1 Venn Diagram

One of the most eye-catching additions to Orbit over the last few months has been the introduction of Venn diagrams within Orbit Dashboards.

You can define up to 5 sets and up to 2 measures in a single Venn diagram tile. A dashboard can contain multiple Venn diagram Tiles.





You can filter and drilldown into each segment of the diagram.



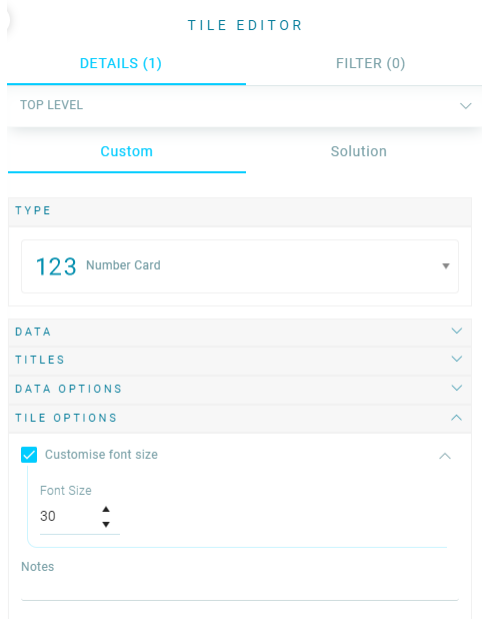
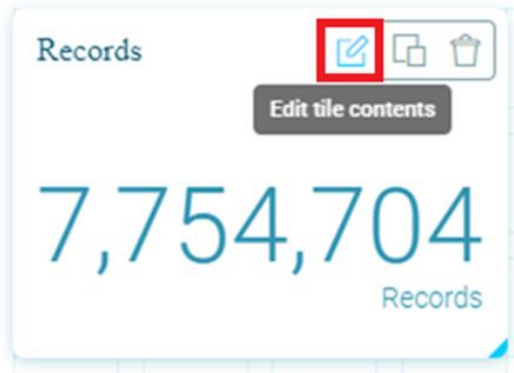
You can also zoom in to see the numeric measure results more clearly and see the rule behind each segment by clicking on the number in the diagram.





3.2 Number Tile Font Size

You can now set the font size on number tiles. This makes it easier to achieve a more consistent presentation on a dashboard that includes numeric values of different scales.



3.3 Tile Improvements

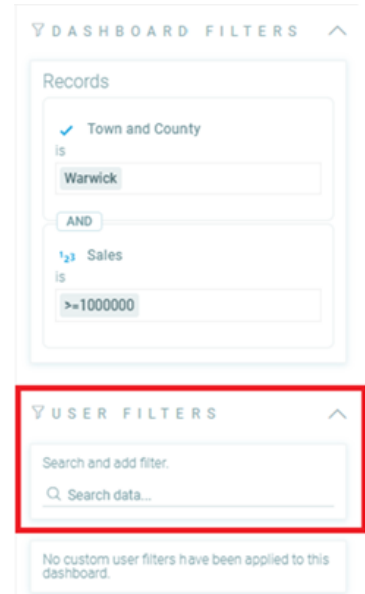
Dashboard editors now have more control over the size and placement of dashboard tiles. The grid system has a higher density and the dragging mechanism feedback is improved, most notably when scrolling around the page. These improvements allow smaller tiles combined with font size settings for number cards for more compact and consistent display.



3.4 Dimension Filters

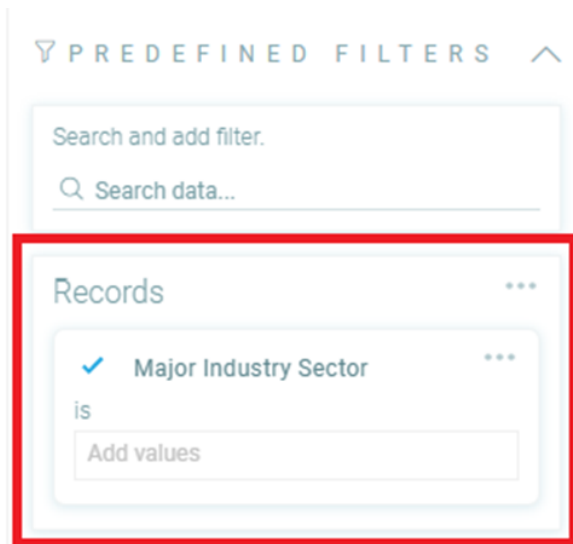
An administrator can now turn on "Dimension Filters" via the Application Settings to allow users to create additional filters directly on the filter panel on the right of a Dashboard.

This allows more power and flexibility when adding filters to their dashboard as the user can search for and filter by any variables in the system (except Reference variables), or reference existing Audiences and URN files.



3.5 Predefined Filters

You can now predefine which data variables are available as filters for users when exploring the dashboard.

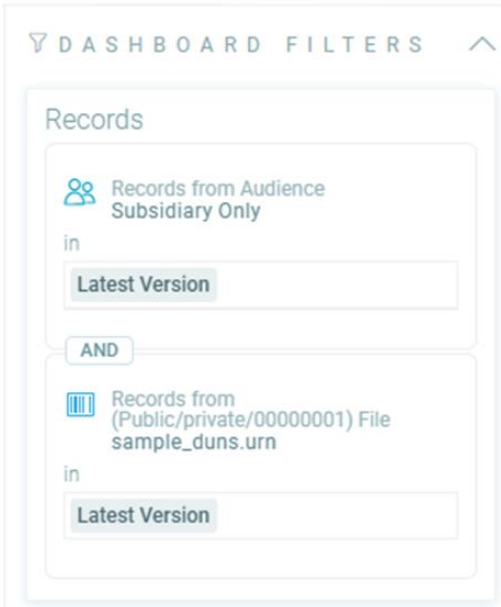


When exploring the dashboard, you are presented with criteria panels to optionally add values for each predefined filter. Giving the user direct access to these variables in this manner can assist non-technical users to make easy and appropriate choices on how to filter a dashboard without needing to present each of these variables on a tile. As with all user filters, by using these pre-defined filter panels, all dashboard tiles can be updated with the applied filter criteria.



3.6 Referencing Audiences and URN files

You can now build audiences and dashboard filters using other audiences already created within Orbit. You can also reference URN files created in Market Insight or uploaded from external sources to Market Insight.



When editing a dashboard filter or Audience, you can now use the new Audiences tab in the system search dialogue box to search for other audiences you can access. You can then choose whether you want to include or exclude the records from that Audience in your current filter.

Variables (572) **Audiences (11)** Files (57)

- Target Group 1 - 9k 1,000 Records
- West Midlands 575,946 Records
- Nuneaton 8,287 Records
- A test audience 3,110 Records
- Example Audience 1,262 Records
- Product A Target Group 324 Policies
- Product A 392 Records
- Subsidiary Only 334,174 Records
- Aberdeen 24,694 Records



Any audience you reference will become read-only by default so that it isn't edited by accident. Such an audience with dependants can be explicitly unlocked by a user who may then change the audience, which will then feed through into all the places where it is used.

You can also use the Files tab to search or browse for URN files.

Search: urn

Variables (22)	Audiences (0)	Files (56)
		<ul style="list-style-type: none">1.urn (Public/private/00000004) 1,418,566 Records2500.urn (Public/private/00000004) 2,500 Records462 new customers ig.urn (Public/private/00000006) 462 RecordsAudience 1.urn (Public/Orbit/Audiences/69) 1,000 RecordsCyanceUKDUNS.urn (Public/private/00000007) 6,427 Records

Again, if the underlying URN file is modified then the next time any dashboards or audiences are evaluated the changes will be reflected in the filter.



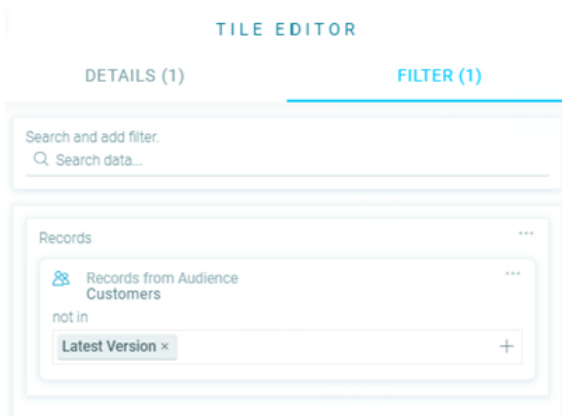
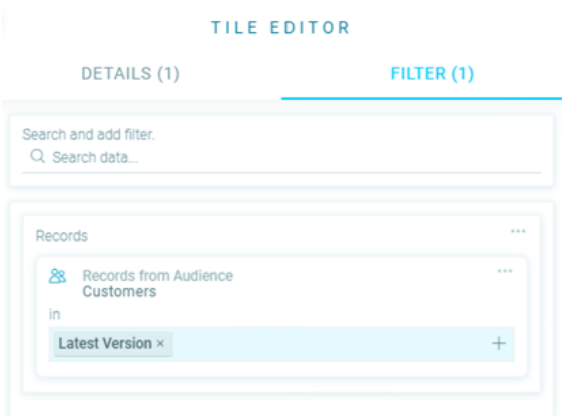
3.7 Tile Filters

Orbit now allows you to specify additional filter criteria on each tile of a dashboard to control the subset of data displayed in that tile. This improvement significantly enhances the power and flexibility of dashboards. In the example below, the dashboard has been designed to show Customer V's Prospect data. On the left the tiles are filtered to show Customer data and on the right to show Prospect data.



The tile filter for Customer tiles.

The tile filter for Prospect tiles.





Each dashboard tile can now have its own filter. This allows the dashboard editor to define specific filters on a tile that work in conjunction with the other dashboard and user filters, enabling a tile to show a subset of the data on the whole dashboard.

Results with different subsets displayed side by side in a dashboard can be shared with stakeholders, clearly displaying a comparison, for example, of product and response characteristics before and after a campaign, or differences across regions, or value differences between customer types, etc.

3.8 Zipped and Password Protected Audience Exports

You can now enable zipping and password protecting of exported files downloaded from the browser.

Export Audience

Exporting an audience of 61,512 Records to CSV.

Output filename
Audience Export

Output type
CSV

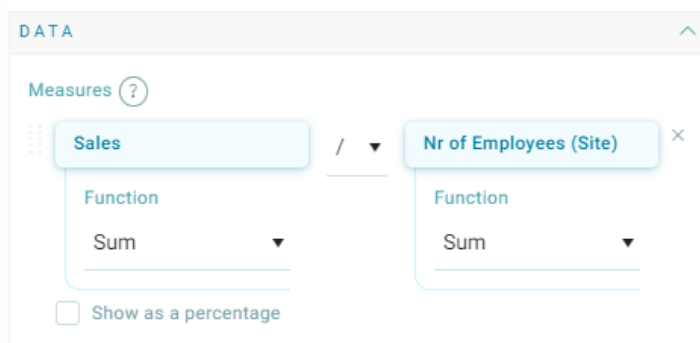
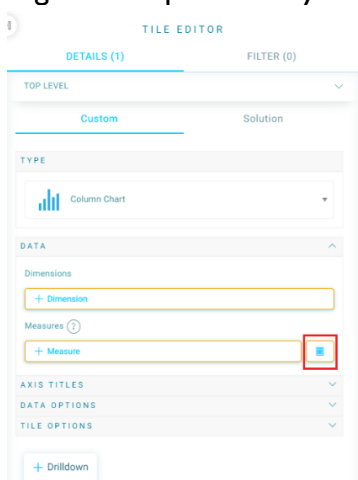
Zip password

Use authorisation code

Cancel Export

3.9 Calculated Measures

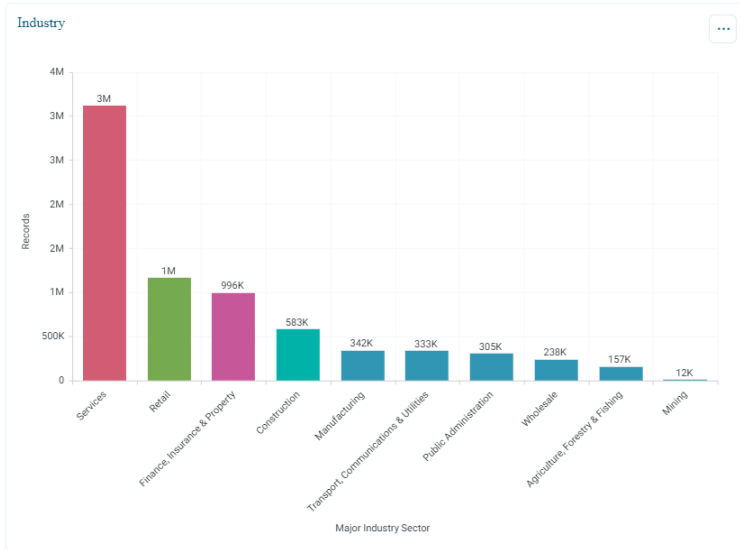
Calculated measures in Apteco Orbit Dashboards allows you to easily calculate marketing outcomes. Now you can simply add, subtract, multiply or divide data variables and/or full counts of system tables together to present key marketing metrics as ratios.





3.10 Category Colours

The Category Colours mechanism in Apteco Orbit dashboards allows you to set specific colours for brands, products, regions or any other selector category you like.



Colours are allocated to selector variable categories per Market Insight system in a Data View. You can search for a variable or a specific category in the category colours section.

3.11 Exports in Audiences

Added the ability to filter a user's export templates

DUNS	Town and County	Economic Region	Major Industry Sector	Linkage - Record Type	Location Indicator	Nr of Employees (Company)	Algorithm Sales	Legal Status Code	Group Structure Depth
210000507	London	South East (Inside M25)	Finance, Insurance & Property	Record is Parent & Subsidiary	Headquarters	150	12807236	Private Limited Company	6
210000538	Leicester	East Midlands	Services	Record is Subsidiary only	Single Site	95	18059358	Private Limited Company	2
210000652	London	South East (Inside M25)	Finance, Insurance & Property	Record is Parent & Subsidiary	Headquarters	50	48524000	Public Limited Company	4
210001113	London	South East (Inside M25)	Services	Record is Headquarter only	Headquarters	40	40280000	Unknown	1
210001994	Bristol	South West	Services	Record is Parent only	Headquarters	71	11447794	Private Limited Company	2
210002710	Altrincham	Greater Manchester	Services	Record is Subsidiary only	Single Site	48	1736000	Private Limited Company	6
210003508	London	South East (Inside M25)	Services	Record is Subsidiary only	Single Site	2	5432000	Public Limited Company	2
210003644	London	South East (Inside M25)	Finance, Insurance & Property	Record is Parent only	Headquarters	2	3063057	Private Limited Company	3
210004624	Bridgnorth	West Midlands	Finance, Insurance & Property	Record is Subsidiary only	Single Site	3	127965	Private Limited Company	2
210004651	Welwyn Garden City	South East (Outside M25)	Manufacturing	Record is Parent & Subsidiary	Headquarters	485	136881868	Private Limited Company	6



Exporting an audience has been improved to allow users to add columns to the export template on the fly. Users can now save and re-use templates for future exports. When re-visiting an Audience, the last used template for that Audience is automatically loaded.

3.12 Orbit Usability

Tile Layout Improvements

Improvements have been made to the Dashboard tile layout. Tile options are now consolidated under a single ellipses drop down button.



These changes unclutter the Dashboard Tile User Interface (UI), opening up more space for visualisations and improving the user journey by organising tile options within a single accessible and navigable menu.



3.13 Save to PDF

You can now export your Dashboard to PDF using the save as PDF button.



MI Starting Dashboard

A Starting Dashboard
This is a starting Dashboard which shows some of the tiles that can be used in MI Orbit.

- 01 - A number tile showing the total number of records.
- 02 - A number tile showing the total number of contacts.
- 03 - A Table showing major industry category and details about those records.
- 04 - A number tile showing the total amount of sales.
- 05 - A number tile showing the average sales per record.
- 06 - A donut chart showing a breakdown of industry, with a drilldown showing what employee ranges are in that industry.
- 07 - A column chart showing location types.
- 08 - A world map tile showing the locations of the records around the world.
- 09 - A 3 set venn tile showing UK records, 1-5 employees and agriculture industry.
- 10 - A bar chart showing sales ranges.
- 11 - A line chart showing ranges of employees.
- 12 - A bar chart showing linkage.
- 13 - A Cube similar to the table above, but showing industries per continent and details about those records.

01 - Total Records

312M
Records

02 - Total Contacts

157M
GCA Contacts

04 - Total Sales

457T
Sum (Annual Sales (€))

05 - Mean Sales

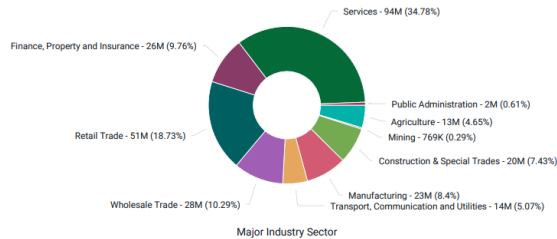
1M
Mean (Annual Sales (€))

03 - Table

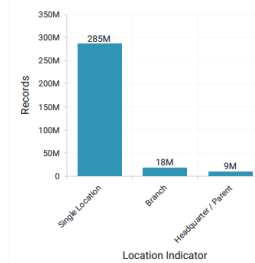
Major Industry Sector	Records	Sum (Employees Here)	Sum (Annual Sales (€))	Mean (Annual Sales (€))
Agriculture	12,560,856	13,774,346	5,689,465,189,418	452,952.03
Mining	769,279	4,046,255	12,293,985,274,118	15,981,178.84
Construction & Special Trad	20,045,488	32,015,783	27,037,013,030,913	1,348,782.98
Manufacturing	22,674,874	88,602,794	82,672,096,748,344	3,645,978.22
Transport, Communication	13,674,664	34,025,666	33,127,842,226,901	2,422,570.84
Wholesale Trade	27,761,134	49,186,749	71,205,921,883,278	2,564,950.04
Retail Trade	50,556,114	69,088,794	57,746,002,345,498	1,142,216
Finance, Property and Insur	26,334,338	34,474,590	77,302,355,501,721	2,935,420.5
Services	93,881,589	180,828,374	73,215,113,996,337	779,866.58

06 - Industry

A Drilldown to Employees Here



07 - Location



DASHBOARD FILTERS

No default dashboard filters have been applied to this dashboard.

USER FILTERS

Search and add filter.

Search...

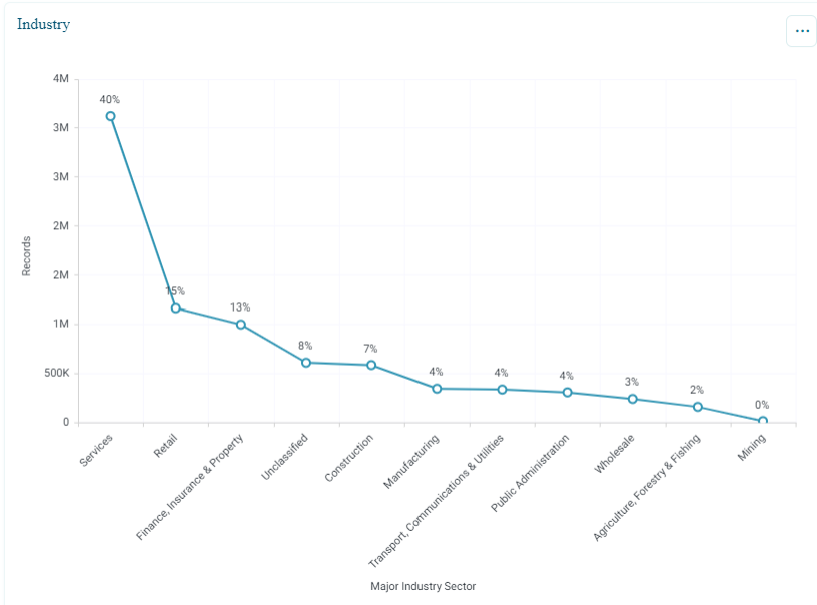
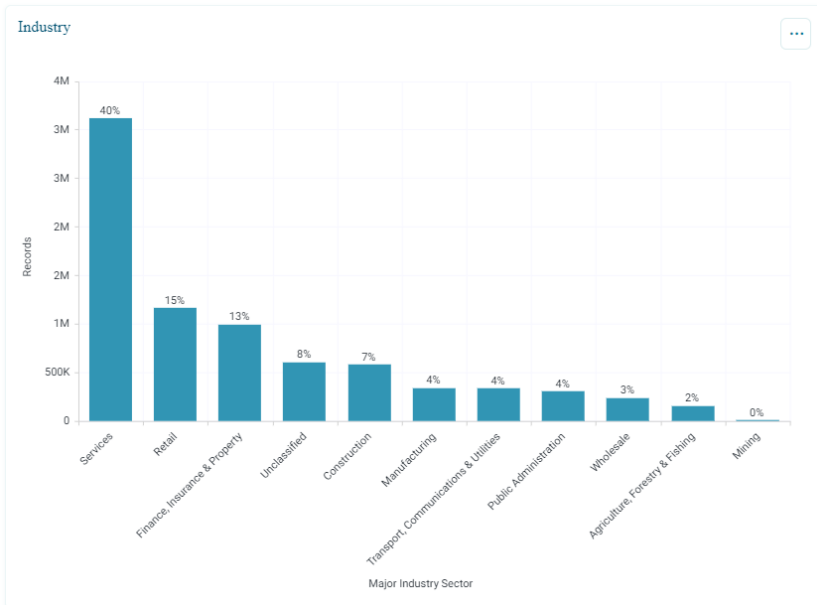
No custom user filters have been applied to this dashboard.

This function allows you to visualise your Dashboard in another format which you can save locally, print, and distribute once created. This approach allows you to provide a filtered view to a manager, or other user, that you do not want them to filter themselves.



3.14 Chart Percentages

Compatible dashboard charts can now display a percentage above the main chart category bars.



Previously, only values could be displayed by dashboard charts. Now, by choosing 'Show values as percentages', from the data label settings, you can display percentages for greater insight on the proportional distribution of category results.



3.15 Tables and Cubes

One dimensional Tables and two dimensional Cube files can be added to a Dashboard.

Tables

Single Dimension Charts



Table

Major Industry Sector	Records	Sum (Nr of Employees (Site))	Sum (Sales)	Mean (Sales)	Sales per Employee	Employees per Record
Agriculture, Forestry & Fishing	156,870	457,784	30,706,762,681	13,989,413.52	67,076.97	2.92
Mining	12,081	42,031	357,225,245,562	390,410,104.44	8,499,089.85	3.48
Construction	583,033	1,232,942	256,925,914,320	26,459,929.38	208,384.43	2.11
Manufacturing	342,066	1,182,678	903,779,654,117	63,391,993.7	764,180.66	3.46
Transport, Communications & Utilities	333,397	836,724	916,529,052,811	75,664,909.83	1,095,377.99	2.51
Wholesale	237,866	629,215	750,328,165,830	97,839,114.07	1,192,482.96	2.65
Retail	1,161,209	2,981,619	855,628,002,408	57,114,211.5	286,967.58	2.57
Finance, Insurance & Property	995,594	1,958,948	4,833,655,875,753	125,101,088.97	2,467,475.34	1.97
Services	3,117,090	7,782,654	2,400,983,064,771	23,897,274.48	308,504.41	2.5
Public Administration	305,063	501,932	157,763,632,703	25,363,928.09	314,312.76	1.65

Cubes

Multi Dimension Charts



Cube

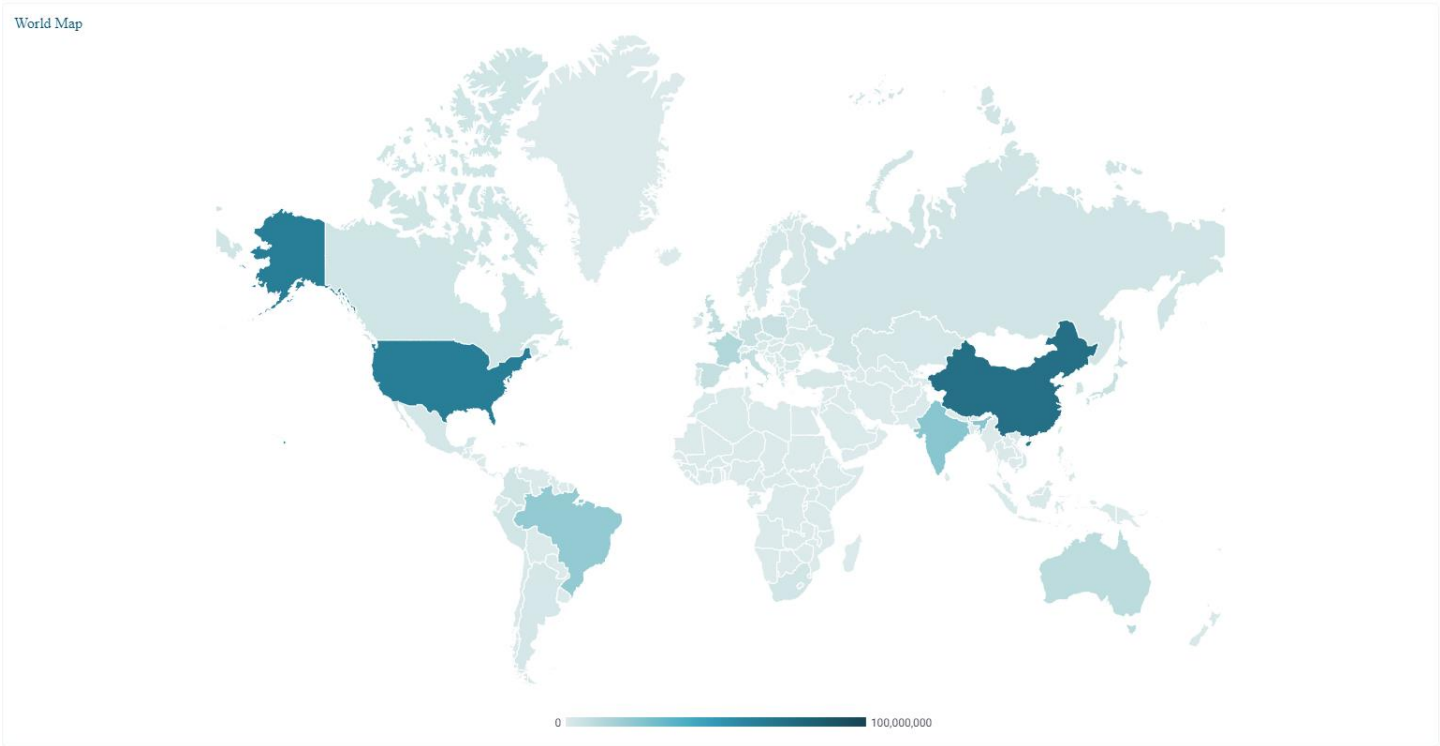
	North						North West (Excluding Greater Manchester)						South East (Outside M25)						South West		
	Reco...	Sum ...	Sum ...	Mea...	Sales...	Empl...	Reco...	Sum ...	Sum ...	Mea...	Sales...	Empl...	Reco...	Sum ...	Sum ...	Mea...	Sales...	Empl...	Reco...	Sum ...	£
Agriculture, Forestry & Fishing	7,794	18,984	238,7...	4,341...	12,57...	2.44	8,788	25,277	514,2...	3,986...	20,34...	2.88	25,348	64,885	4,509...	10,34...	69,49...	2.56	21,030	53,619	2
Mining	565	1,784	6,647...	316,5...	3,726...	3.16	444	870	790,7...	39,53...	908,9...	1.96	1,289	5,260	12,94...	137,7...	2,461...	4.08	738	2,383	1
Construction	21,544	48,761	7,777...	29,79...	159,4...	2.26	32,673	69,624	6,120...	14,85...	87,91...	2.13	122,2...	252,2...	83,60...	40,86...	331,4...	2.06	49,990	118,6...	€
Manufacturing	11,233	41,746	20,06...	38,80...	480,5...	3.72	18,433	71,236	41,28...	52,66...	579,5...	3.86	61,591	209,9...	125,0...	46,83...	595,4...	3.41	28,760	98,301	€
Transport, Communications & Utilities	10,216	29,165	13,39...	40,46...	459,3...	2.85	18,646	47,979	37,37...	76,43...	779,0...	2.57	59,466	170,3...	193,5...	83,00...	1,136...	2.87	23,666	63,420	£
Wholesale	6,141	19,218	4,677...	27,67...	243,3...	3.13	12,508	36,969	45,33...	120,5...	1,226...	2.96	37,017	107,2...	75,96...	52,17...	708,4...	2.9	15,085	47,810	2
Retail	44,451	132,2...	10,14...	21,13...	76,68...	2.98	67,596	181,8...	27,43...	37,16...	150,8...	2.69	184,5...	498,5...	220,3...	82,60...	441,8...	2.7	88,781	264,0...	£
Finance, Insurance & Property	24,709	43,760	22,35...	25,57...	510,8...	1.77	47,212	84,162	70,43...	50,31...	836,9...	1.78	179,7...	367,6...	317,6...	55,67...	863,8...	2.05	73,589	149,1...	€
Services	98,475	274,8...	23,08...	7,881...	84,00...	2.79	174,5...	435,0...	112,0...	27,14...	257,4...	2.49	598,1...	1,476...	280,9...	15,59...	190,2...	2.47	241,5...	661,7...	7
Public Administration	7,150	18,114	3,890...	13,99...	214,7...	2.53	14,519	33,926	2,125...	11,67...	62,64...	2.34	40,981	57,316	11,61...	12,80...	202,7...	1.4	16,694	90,238	£



3.16 World Map

A world map has now been added and saved to the Dashboard maps area supporting ISO 3166 Alpha 2 encoding, with selections and map shapes displaying colours where records are present.

Maps





3.17 General

Orbit Feature

- Default measures are now inserted for a Venn diagram tile
- Dashboard filters are collapsible, and we've made it easier to see which are editable
- Dashboard map shapes are now stored in the database as part of our work to allow administrators to upload and manage map shapes in the future
- The Orbit updater now checks pre-requisites, particularly for .NET 6 which we have adopted for improved security and general performance
- Email Broadcasters and other channel types in the campaign overview have been recategorised
- The data view name is now displayed in the browser tab title
- Links now take German users directly to the German help
- Made the position of the share button consistent
- Made small improvements to the Logout behavior when using SSO
- Made some small consistency improvements
- Better management of Orbit deployed files during an update
- Orbit API logs can be downloaded through Orbit for support requests
- Orbit API Configurator can be launched from the Orbit Updater Configurator
- Download logs feature can be disabled via the Orbit Configurator

4. SUPPORT

Should you have any questions or need assistance, please contact the UKCS@DNB.com team or by contacting your Customer Experience Representative.