



Market Insight Release Notes
2020 – July



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1. EXECUTIVE SUMMARY

This document outlines the Market Insight (MI) features that are scheduled to be released to production in July 2020.

The key functional areas affected by this release are:

- **Integration with One Login:** This release includes the components required for a later move to using OneLogin for a Single Sign On (SSO) approach to authenticating MI users.
- **Increased Cube Functionality:** One dimensional cubes based on expressions can be used in the 'Create From Cube' wizard, allowing easier creation of selector virtual variables. Dimension filtering on cubes has also been enhanced.
- **Increased Profiling Functionality:** Expressions and numerical variables can be incorporated into Modeling techniques.
- **Sequence number has been added as a column to exports / data grid.**
- **Increased performance in expressions:** Caching is now in place for aggregated expressions where possible.
- **New powerful transactional analytics in expressions:** Sets and Grouping Aggregations deliver powerful analytics of your transactional data patterns.

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 The 'Create from Cube' wizard now supports text expressions

In this release we have extended the capabilities of the Create from Cube wizard making it more powerful. You can now drag an expression onto a one dimensional cube and create a selector (picklist) virtual variable from the results. This development therefore makes it much easier to create selector virtual variables.

The screenshot shows the 'New Selection 3' wizard interface. It displays a cube named 'Cube' with a table of results for the '2 Digit SIC Description' dimension. The table has two columns: '2 Digit SIC Description' and 'Sites'. The data is as follows:

2 Digit SIC Description	Sites
BUSINESS SERVICES	14,487,503
MISCELLANEOUS RETAIL	9,309,001
ENGINEERING, ACCOUNT	9,014,015
WHOLESALE TRADE - DU	7,723,605
REAL ESTATE	7,269,636

Below the table, there is a 'Filter' section with a dropdown menu set to 'Description Contains'. Below that is an 'Include' section with a table of results:

Include	Code
<input type="checkbox"/>	BUSINESS SERVICES

2.2 Cube dimension threshold extra option

This feature has added a 3rd option to the cube dimension category restriction choices. Previously, there were two options allowing the Top N categories for a dimension or those categories with an instant count above a



threshold, to be requested. This new option gives the choice to restrict to those categories that have a value greater than a percentage of the maximum value .

Edit Categories Displayed ×

Number of categories to show

Show all categories

Top N Categories

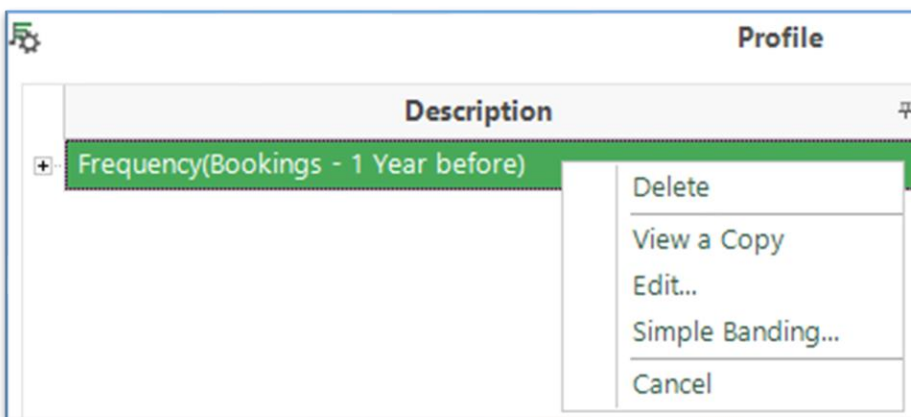
Minimum Count for Category

Percentage of Maximum Value

OK Cancel

2.3 Profiles now support expressions and banding

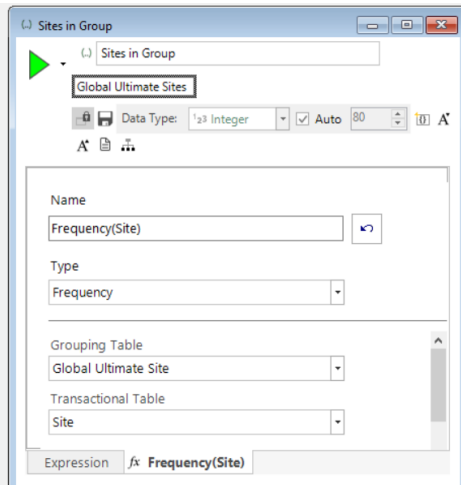
- A standard profile will now allow user-created expressions to be dragged on and used in models.
- Any numeric variable or expression can be banded directly within the Profile tool using a right click option.



2.4 Improved efficiency by caching on-the-fly aggregations



Market Insight now caches the on-the-fly aggregation results and will reuse these in subsequent analysis within the same session and on the same day. This makes the use of powerful aggregations within the **Expression** tool more user friendly – returning the results much more swiftly after the initial calculation.



2.5 Sets in Expressions

This development will assist in the analysis of product transaction combinations. A completely new section has been added to the Expression tool called Set functions, comprising 17 new functions. These functions are split into three main sections – generic set functions, calculation functions, specific MI functions.

A set is a list of numeric values that contains no duplicates. These could be specific numeric values or contain indexes into a categorical variable such as a product.

Here's a potential scenario:

'Select customers who have bought at least the same product at least once in both 2018 and 2019'. Some examples of the customers and products are shown in the screenshot below.



DUNS	Client Reference Number	2018 Policies Bought	2019 Policies Bought
210001613	283868	PRODUCT A;PRODUCT B	PRODUCT A;PRODUCT B;PRODUCT C
210015079	302386	PRODUCT C;PRODUCT D	PRODUCT A;PRODUCT B;PRODUCT C;PRODUCT D
210016959	301861	PRODUCT A;PRODUCT B;PRODUCT C	PRODUCT A;PRODUCT C
210025371	460627	PRODUCT A;PRODUCT B;PRODUCT C	PRODUCT A;PRODUCT B
210043821	304854	PRODUCT A;PRODUCT D	PRODUCT A;PRODUCT B;PRODUCT D
210050555	302593	PRODUCT A;PRODUCT B;PRODUCT C	PRODUCT A;PRODUCT C;PRODUCT D
210060018	302094	PRODUCT A;PRODUCT B;PRODUCT C	PRODUCT A;PRODUCT B;PRODUCT C
210060190	299682	PRODUCT A;PRODUCT B;PRODUCT C	PRODUCT A;PRODUCT B

How do we do this?

1. Firstly, the **Transaction Summary wizard** has been utilised to create two flag array variables representing the products bought in 2018 and 2019.

✔ 2018 Policies Bought

✔ 2019 Policies Bought

2. Create a set out of all the products bought in each of the two years.

3. Take the intersection of these sets and count it to work out the number of common products.

This expression can now be used on a selection of ≥ 2 to identify the customers shown above.

```
CountSet(IntersectionSets(CreateSet([2018 Policies Bought]),CreateSet([2019 Policies Bought])))
```

```
At least N of same Products Bought 2018 and 2019 of >=2
```



Other set functions can be used in place of the 'IntersectionSets' above to change the analytical question being asked:

- How many different products did each customer buy in either 2018 or 2019? (UnionSets)
- Have they bought exactly the same products/policies in 2018 and 2019? (EqualSets)
- Have they bought entirely different products/policies in 2018 and 2019? (DisjointSets)
- Which products/policies did they buy in 2018 but not in 2019? (DifferenceSets)
- How many products did they buy in just one of 2018 or 2019? (SymmetricDifferenceSets)
- Are the products bought in 2019 a subset of the products bought in 2018? (IsSubset)
- Are the products bought in 2019 a superset of the products bought in 2018? (IsSuperSet)

A final function called 'InMinMaxSets' takes N sets and given a Min and Max value will return a set containing the values which appear in \geq Min and \leq Max sets.

There are a number of 'generic' functions to work with sets. These include:

- `CreateSet()`
creates a set object out of numbers, lists, sets or selector / array / flag array variables
 - `CountSet()`
returns the number of items in the set
 - `StrSet()`
turns the set into a delimited text string (max 255 chars)
 - `SetContains()`
returns the index of the first of the test values that are in the set
 - `VarDesc()`
has been extended to allow the second parameter to be a set
- There are a number of new set functions analogous to functions already provided for work with lists. These are RankSet, NTileSet, FilterSet, TrimSet.

2.6 Category grouping aggregations

This development has added a new type of on-the-fly aggregation to expressions. The new Category grouping aggregations enable powerful analysis and selection of grouped results from transaction tables to answer a range of analytical questions that were either impossible previously, or which would require the creation of a large number of intermediate virtual variables. There are many ways in which the parameters can be combined to achieve different effects. For example, using our demo dataset:

- What is the most I have spent in total on any product type?
- Which product have I spent the 2nd most on?



Transactions are grouped by a selector variable on the transactional table. For example, a group could consist of product type on policies bought on the demo data. A function of Sum, Min, Max, Mean or Frequency is applied to the transactions to summarise each group. For example, the Sum(Cost) for each product type calculates the total spent on each product for a given DUNS. The group results are returned for the on-the-fly aggregation using one of four methods:

1. A second numeric function
2. Select Nth
3. In Range
4. Frequency

We will show examples of the first two here:

1. A second numeric function

Calculate the Sum, Min, Max, Mean, Variance or Standard Deviation of the grouped records. This method is the simplest approach and can calculate many combinations, for example, the maximum of the total value of each group or the mean of the minimum value of each group etc. In the example below, finding the Maximum of the Sum of the Policy Premium for each Product type calculates highest total spend on any particular Product.

DUNS		
DUNS : 210013585 (7 items)		
Policy Product Type	Policy Premium	Group by (Poli...
PRODUCT A	318.27	488.00
PRODUCT C	70.72	488.00
PRODUCT A	35.36	488.00
PRODUCT B	42.43	488.00
PRODUCT A	84.87	488.00
PRODUCT A	49.50	488.00
PRODUCT B	106.09	488.00
DUNS : 210013912 (4 items)		
Policy Product Type	Policy Premium	Group by (Poli...
PRODUCT A	333.50	533.60
PRODUCT A	66.70	533.60
PRODUCT B	133.40	533.60
PRODUCT A	133.40	533.60

Type:

Grouping Table:

Transactional Table:

Group transactions by:

To each group apply the function:

2. Select Nth

In order to extend the analysis in method 1, a recency function can be applied to the list of group values. By selecting in either direction (biggest/smallest), for any group number N, the value of the function or the relevant category can be returned.

For example, to select the category with the 2nd biggest Sum(Premium):



DUNS : 210018610 (5 items)		
Policy Product Type	Policy Premium	Group by (...)
PRODUCT A	110.00	PRODUCT A
PRODUCT C	543.00	PRODUCT A
PRODUCT B	24.00	PRODUCT A
PRODUCT C	76.00	PRODUCT A
PRODUCT B	60.00	PRODUCT A

To each group apply the function
Sum
Policy Premium

From the group results return the...
Select Nth
2
Largest to Smallest
Return the Category

If you have transactional data loaded into your Market Insight system and are interested in using this functionality, speak to your Market Insight representative to learn more.

2.7 Audit Trail for Market Insight Exports

For Market Insight Administrators, we've added new functionality that gives a better method of capturing both the DUNS and the fields exported from a Market Insight system.

3. MARKET INSIGHT ORBIT

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

3.1 Orbit Dashboard Introduction

The interactive dashboarding tool is now available on the Market Insight Orbit online platform. The dashboard functionality is simple to use and quick to set up, enabling fast and flexible presentation of data. The beautiful visualisations on offer make data easily digestible, helping users to uncover actionable insights.

Market Insight's interactive dashboards combine high performance and ease of use to provide an intuitive, practical user experience in a web browser on devices of different display scales from desktop to mobile. Users are able to build new dashboards utilising a host of visualisation options delivering powerful data clarity and actionable insights, edit existing dashboards, create audience selections from the visualisations and share dashboards with colleagues.

The dashboard feature allows users to:

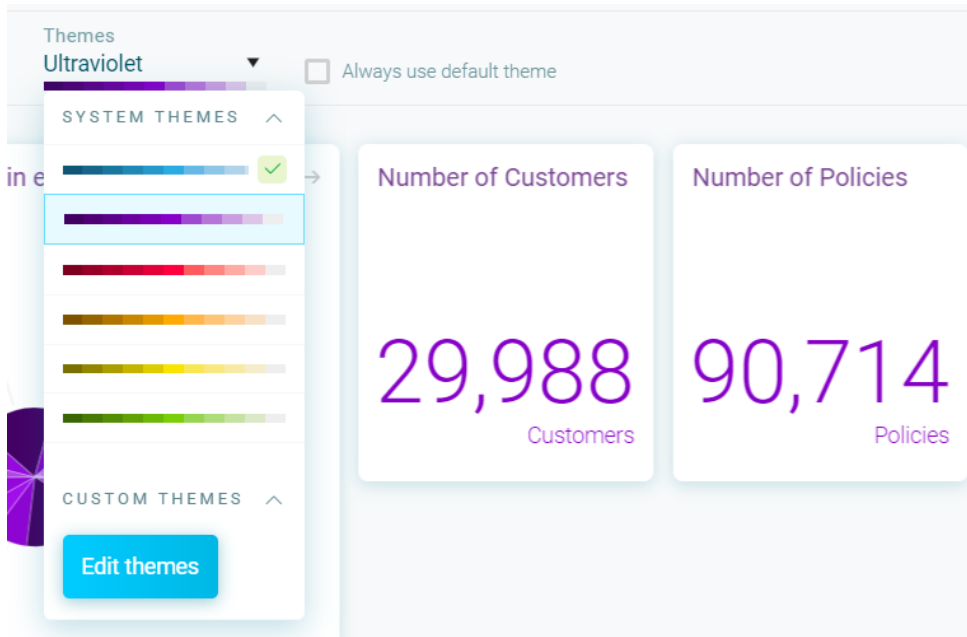
- Create beautiful dashboards easily & speedily using the intuitive drag-and-drop features
- Build multiple dashboards each containing up to 15 visualisation tiles
- Focus their understanding by adding filters and multi-layer drill down from one visualisation to another
- Filter the whole dashboard by parts of any visualisation



- Deliver a customized view of your data and share it in just a few clicks with other users (including other non-licensed users). Non-licensed users can interact with the dashboard but not edit the dashboard or access the underlying data or create new audiences
- Generate attractive visualisations of bar and column charts, pie and donut charts, line charts, number cards and maps and watch your data come to life
- Choose to omit zeros, omit unclassified values, sort chart values and view the aggregated data for each chart type
- Licensed users can view row by row data for the whole dashboard.
- Make informed audience selections based on a filtered dashboard for use in your campaigns

3.2 Orbit Dashboard Latest Developments - Themes

Dashboard creators can now choose from our striking built-in themes when creating or editing dashboards. At present 6 built-in themes are available – choose from Orbit blue, Ultraviolet, Raspberry, Summer, Amber or Leaf



System administrators can now access a Custom Themes Editor from the **Application Settings** menu.



Demo User

Application settings

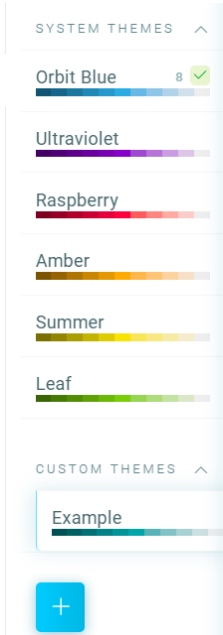
Account settings

Help

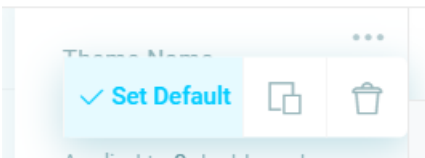
Logout

Colour codes or a colour picker may be used to define the custom theme. The results are displayed live on a Sample Dashboard.

- Once defined, a theme may be saved as a Draft for further editing or Published for use by other users.



- Using the ellipsis when editing a theme, the administrator may make that theme the default for all new dashboards, duplicate or delete the custom theme. The user is warned how many dashboards will be affected.



3.3 Orbit Dashboard Latest Developments – Category Filters

Dashboard creators can set a tile to just show the Top (or Bottom) X number of categories on a tile. So it's possible to just show prevalent SICs for example, without attempting to display every single category on a dashboard. The creator can also decide whether the end user can change the number of categories displayed. Orbit will also automatically restrict categories to ensure a sensible display on smaller displays such as tablets or mobiles.



DATA OPTIONS

Sort Order



Allow category display

From 54 categories, display:

Type

Limit

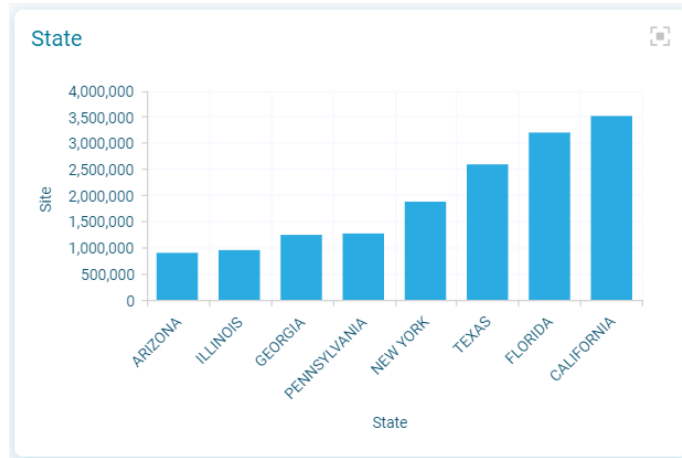
The Top



8



Allow the user to adjust this display



3.4 Orbit Dashboard Latest Developments – Relative Date Criteria

Relative date filters (such as the last year, the last month, etc.) can now be applied to dashboard filters. As well as these built in choices, custom ranges can also be built (such as the previous or next 'N' days / weeks/ months / quarters / years).

Customer Start Date Is

Type

Use relative date ranges

Predefined Ranges

Yesterday The Last Week The Last Month

The Last Quarter The Last Year More...

Customer Start Date Is

Type

Use relative date ranges

Predefined Ranges

Yesterday The Last Week The Last Month

The Last Quarter The Last Year More...

Custom Rule

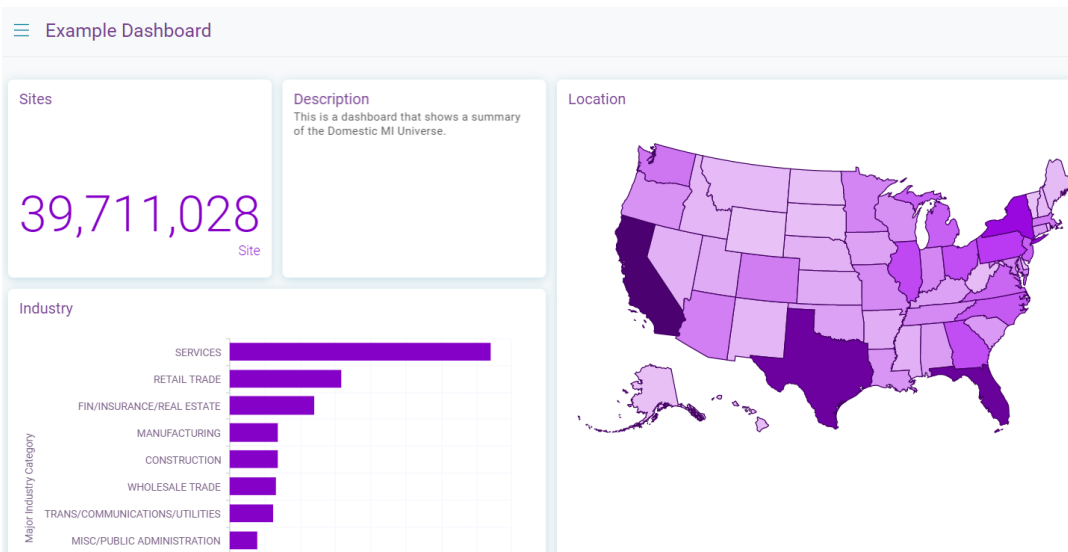
Previous 3 Year(s)



3.5 Orbit Dashboard Latest Developments – New text tiles and better notes positioning in dashboards

It is now possible to create a dashboard tile solely to hold text. This text can be for any purpose – introductory, explanatory, etc. It is possible to paste hyperlinks into a text tile (by, for example creating them in Microsoft Word with display text, hyperlink and target window settings).

The notes text can also now be positioned in various positions on a dashboard tile – giving the user more control over how notes / descriptions relate to the visualisation on the tile. The dashboard author can choose top, bottom, left or right positioning and horizontal / vertical alignment.



3.6 Orbit Dashboard Latest Developments – Editing dashboards



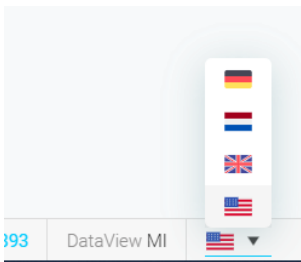
The ability to copy (and then edit) an existing dashboard has been added. This convenient new feature helps dashboard authors create variants of dashboards and enables easy re-use of dashboard definitions e.g. tiles that have multiple drilldown definitions.

A new mechanism also prevents dashboard authors from losing unsaved changes if they navigate away from the dashboard editor. A warning message is now given, prompting the user to save their changes first.

3.7 Orbit Dashboard Latest Developments – Locales

Orbit is now available in British English, American English, Dutch and German.

The application language and locale can be changed at any time from the control at the bottom-right of the screen.



3.8 Orbit Audiences

- The audience tool can now export to FTP sites (using FTP / SFTP / FTPS) as well as download via the browser.
- It is now possible to control whether users can export directly to the browser or to FTP sites. This can be controlled per user, group or for the whole system.
- Users are now able to regulate which file types are exportable from the Audiences tool. These can be controlled per user, group or for the whole system.



- Access to the Audiences feature can be controlled per user, group or for the whole system. This means some users can access audiences whilst others are disallowed.
- Data licensing functionality is now supported within the export step of Audiences. This feature can also be controlled per user, group or for the whole system.



NY NJ Test

140 Sites • 0% of 105,611,849 Sites

Output filename
NY NJ Test

Template

Company Location

Data Number

123572123
023461111
001893883
600007409
005735592
007149788
011020080
011497958
012747258
013358767

Data Licensing

Licensing set
sites

The following data shows the number of records that fit this audience.

Available to license: 967,864
Records in transaction: 140

If you want to proceed with this licensing, please enter the purchase order number and password.

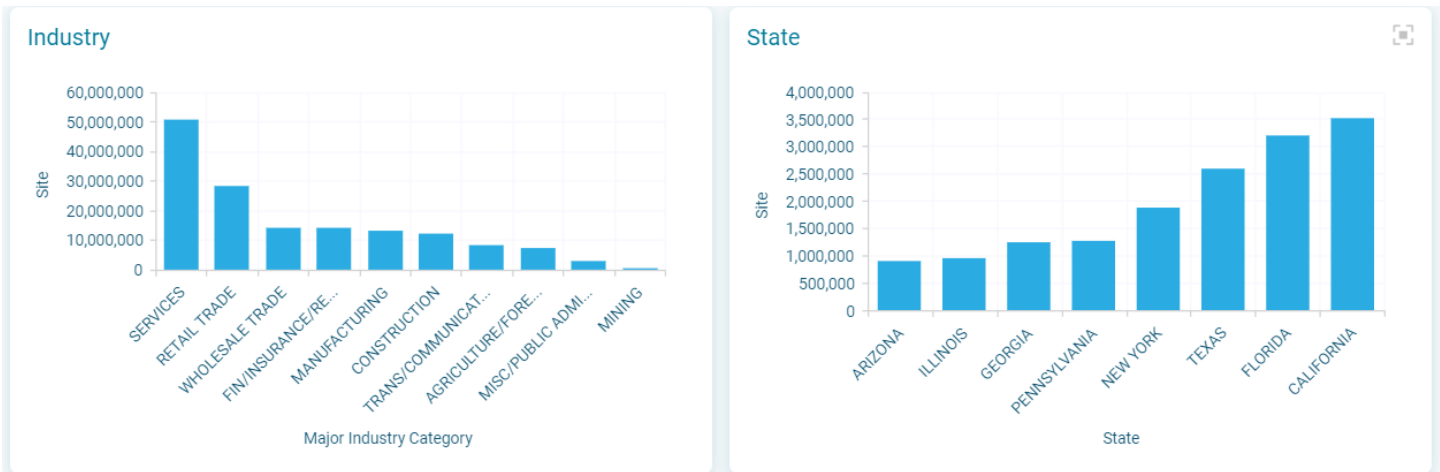
Purchase order #
123456

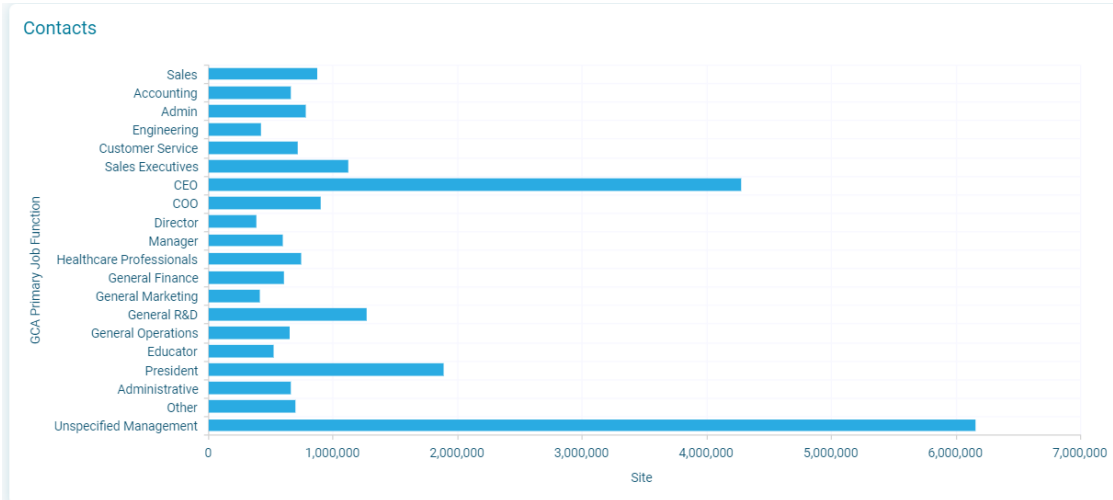
Password

Output filename
NY NJ Test

Export License License & Export

- Charts in the audiences check panel can now be sorted as ascending by value, descending by value or in the “natural” order that MI provides.





- Audience Check Panel layout compositions now must be shared to users, groups or the whole system before they will be available for use. This allows different sets of users to have different check panel or export panel templates. All existing compositions will automatically be shared to all users to maintain their access.

3.9 Orbit API

The Market Insight OrbitAPI now fully supports Query, Export and Cube functionality to build simple query functionality.

Method	Endpoint	Description	Operation	Lock
POST	/{dataViewName}/Queries/{systemName}/CountSync	Counts the given query and returns the results	Queries_PerformQueryCountSynchronously	🔒
POST	/{dataViewName}/Queries/{systemName}/CountFileSync	Counts the query in the specified file and returns the results	Queries_PerformQueryFileCountSynchronously	🔒
POST	/{dataViewName}/Queries/{systemName}/GetFileSync	Get the query definition in the specified file	Queries_PerformGetQueryFileDefinitionSynchronously	🔒
POST	/{dataViewName}/Queries/{systemName}/SaveFileSync	Get the query definition in the specified file	Queries_PerformSaveQueryFileDefinitionSynchronously	🔒

4. SUPPORT

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