What's New in ArcGIS® Business Analyst 9.3
# What's New in ArcGIS Business Analyst 9.3

An ESRI White Paper

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What's New in ArcGIS Business Analyst 9.3

Welcome to ArcGIS
Business Analyst 9.3

Overview
ArcGIS® Business Analyst 9.3 builds on previous releases and adds important new capabilities and improvements.

This document provides a summary of the key new features and capabilities of ArcGIS Business Analyst 9.3. Please consult the Business Analyst desktop help system for more detailed information about these new features.

ArcGIS Business Analyst Desktop Help System
Many improvements have been made to the existing documentation in Business Analyst. This is reflected in the ArcGIS Desktop help and mirrored in the Help Online.

Some of the highlights include

- More illustrations and examples of analysis output
- Reformatted table of contents allowing easier navigation
- Standardized geoprocessing (GP) error message links, providing descriptions and workarounds for every geoprocessing tool error

![Image of geoprocessing error message]

Each error possibility is documented. A brief error recap is shown here, but you can click the error code link to open a page showing a description and solution to the problem.

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Reports

A number of enhancements have been made in 9.3 to improve the report functionality in Business Analyst. New reports and new reporting methods are included.

1. Benchmark Report

The Benchmark Report allows you to compare multiple trade areas to one another to determine how different or similar one location is to the next. You can easily measure the demographic characteristics of one area versus all other areas. The report shows statistical differences in raw number, percent, and index values. Various export options are available including Crystal Reports®; a database table; or a preformatted Microsoft® Excel® spreadsheet, shown below.

Any demographic data variable can be benchmarked including standard out-of-the-box Business Analyst data source (BDS) layers or custom BDS layers that you create.

You can benchmark or compare to any of the following:

- An existing trade area
- The statistical average of all trade areas
- The statistical median of all trade areas

2. Customization of Existing Summary Reports

You now have the ability to take any standard summary report bundled within Business Analyst and modify it further. For instance, you can start with the Age Report, open it in the Advanced Report Editor, and remove fields and/or add a section of your own variables.
3. Create Reports for Individual Features or Sum Up All Features

Additional options are now available for creating reports containing single layers. This is important when you have trade areas with multiple rings or features. You can summarize your data based on the following:

- For individual features
- For the whole layer
- For both the individual features and the whole layer

For example, if you run a Population Report on three different Simple Ring trade areas and choose the Individual Features option, the report will show the population for each individual ring on its own page. If you choose the Whole Layer option, a single report will total the combined population for all three simple rings.
4. Map Series Report

- A new option is available for creating a series of maps using the Map Series Report. You can now quickly produce map views of multiple areas and convert them into presentation-quality reports. You can also send the reports directly to an image file such as JPEG or BMP. For example, you can create a Map Series Report for each trade area around 150 site locations in Southern California.

- Map titles can be customized for each map and read from the trade area layer.

- Maps can be created from the ArcMap™ data view or layout view.

- Layout templates provided by Business Analyst can be used in conjunction with the Map Series Report to include cartographic elements such as scale bars, north arrows, legends, and neatlines.

5. Business Reports

These reports allow you to quickly gather information about businesses or shopping centers in your trade areas.

- **Shopping Centers Report**: This report lists the Directory of Major Malls® (DMM) shopping center points within a specified trade area along with other information such as the nearest road intersection, gross leasable area, and total stores.
- **Business Locations Report:** The Business Locations Report shows a list of businesses in a given area. It also summarizes the sales volumes and number of employees for all point locations.

- **Detailed Business Locations Report:** The Detailed Business Locations Report also displays a list of businesses in a given area. It shows information contained in the business points in a variety of different ways including:
  
  - A map showing all businesses in your analysis
  
  - A list of all businesses and their respective sales volumes and number of employees
  
  - A graph showing the SIC code distribution
6. Customer Demographic Comparison Report

This report allows you to contrast the demographic attributes of one set of customers against those of another. You can compare a selected subset of customers to the entire layer or compare two separate customer layers. The differences are shown by total number and percentage.

7. Executive Summary Report

This report provides an executive summary, in paragraph form, of key demographic attributes in a trade area. The report includes current-year estimates, five-year forecasts, and Census 2000 demographic data. The report aids site selection, market analysis, and trend evaluation decisions.

Launch Report Directly from Project Explorer

The familiar context menus available in the Project Explorer (Move To, Copy To, Export, etc.) now contain an option to conveniently launch a report. You can set any summary report to launch directly from any trade area in the Project Explorer.

Custom Variable Lists

On various Business Analyst dialog boxes, you now have the option to create and save custom variable lists for use in reports, analyses, trade areas, and tools. This is especially helpful when you are repeating tasks that require the same demographic variable outputs. In addition, Business Analyst has stored variable lists for each standard summary report. For example, you can run a spatial overlay for a trade area and use every variable included in the Demographic and Income Report. The variables will appear as fields in the attribute table. It is not necessary to manually load each variable individually.

Different list options include the following:

- Save your own variables to a custom retrievable list.
- Use the fields in existing summary reports.
Use the fields in existing summary reports plus add fields to make your own custom list.

Save, send, import, and export lists so you can share lists between users or machines.

Existing analysis tools are enhanced with new techniques and features.

The Customer Prospecting analysis tool now contains an option to use the Principal Components Analysis (PCA) technique to rank geographies by demographic characteristics. This borrows from the Find Similar tool to output a thematic map layer for the overall ranking of variables. This is a valuable addition to Customer Prospecting, because the geographies will be ranked to find those that are most similar to your customer demographic profile.
Mean Store Center—Clustered Points

A new option is available in the Mean Store Center analysis tool that allows you to create multiple centroids based on clusters of customer points. The same centroid locator methods from the single Mean Store Center option apply to the clusters including the following:

- Create clustered centroids from geographic locations.
- Create clustered centroids using a weighted value tied to each geographic location.

The clustered points output can be used in conjunction with Territory Design. For example, if you are looking to expand into a new market and know the locations of your competitors, you can use the clustered points option to determine the most logical spots to place a new franchise. You can then build territories from those new locations.
**Find Similar Improvements**

The Find Similar analysis tool has undergone some key changes to make the tool easier to use.

- An option is added to use existing polygon layers such as Drive Time trade areas.
- The master site can now be in a separate layer. Field linking is enabled to match the potential site characteristics to the master site characteristics.

**Trade Areas**

Existing trade areas are enhanced with new selection techniques. Threshold trade areas incorporate drive times, and you can now draw your own custom trade areas.

**Threshold Areas by Drive Time**

You can now use drive-time rings as an option in the Threshold trade areas to determine demographic criteria limits around sites. The addition of drive times expands your ability to define your potential customer base.

- In the examples below, rings and drive times are drawn when 150,000 and 300,000 population thresholds are reached. Both Simple Ring and Drive Time methods are used to retrieve the population statistics from the same site.
Hand Draw Trade Areas

You can now create custom trade areas of whatever shape or size you want. This is helpful when designating an area that does not exist in any standard geographies such as a proposed multiacre commercial development. The Hand Draw trade area wizard will automatically open the New Polygon feature from the ArcGIS Drawing toolbar so you can easily create a customized polygon.
Subgeography Trade Area Enhancements

Subgeography trade areas now include multiple selection methods to better define the returned geographies including:

- Intersect
- Centroid Within
- Completely Within

Standard Levels of Geography Trade Area Enhancements

Standard Levels of Geography trade areas now automatically output their corresponding feature name in the attribute table. This is important for reports, identification, and labeling purposes.

- Standard Levels of Geography takes advantage of the new option to create reports for individual features or for whole layers. These reporting techniques alleviate the need for basic geoprocessing functions such as premerging polygons to summarize data for entire areas.

- Feature names are added to the following levels: ZIP Codes, counties, core-based statistical areas (CBSAs), Defense Mapping Agencies (DMAs), and state boundaries. Below is a county trade area attribute table output:
Address Geocoding

Reverse Geocoding Using the Site Prospecting Tool

The Site Prospecting tool now includes the Address Inspector for reverse geocoding. You can use this tool to hover over an area and locate a specific address. Once you have located your point, you can prospect the area by immediately creating reports from a Simple Ring, Drive Time, or Threshold trade area.

Review Geocoding Options

- Address geocoding options in 9.3 take advantage of the new interactive ArcGIS Review Geocoding dialog box. This allows you to review all records, get statistics on matched entries, and modify geocoding options all on one dialog box. Review Geocoding in Business Analyst is available from the Manage Store and Customer Setup wizards.

- The prebundled geocoding service is also updated in Business Analyst 9.3 to reflect improvements in the address locators. The City/State field locator has been removed from the cascading USA Geocoding Service. The City/State records can now be easily regeocoded using the Review Geocoding dialog box.
Preferences

A number of administrative preferences have been added to Business Analyst to improve the way analyses are executed.

**Drive-Time Distance Units**

- Easily toggle between miles per hour and kilometers per hour settings in the Business Analyst Preferences. This automatically changes the drive-time units without having to modify or customize street networks.

- Change your drive-time engine global settings, toggling between the StreetMap™ and ArcGIS Network Analyst algorithms.
A number of improvements have been made to Territory Design for ArcGIS. The toolbar is again included with Business Analyst.

**Compare Territory Solutions Report**  
This report allows you to compare different territory solutions in a variety of ways. For example, you can import older sales territories and rebalance them based on new sales figures or with new office locations, then immediately create a report showing the differences.
**Enhanced Balancing and Polygon Adjacency**

The balancing engine uses an improved topological adjacency between polygons. This process finds the best candidates for each territory by applying a high- and low-power index to territory polygon clusters. This results in more compact territories with fewer "snaking" effects.
What's New in ArcGIS Business Analyst 9.3

- A balancing index tool is introduced to speed up processing times when balancing, rebalancing, or re-creating territories. This process is automatically applied to the alignment layer when balancing territories. Running the balancing index tool will greatly increase the processing time for territory layers loaded to Business Analyst Server.

- The ability to lock selected territory elements before balancing is now included. This function can be used when the same dispatcher always services a certain area. The prebalance assignment will ensure that a selected section will remain in the desired territory.

**Improved Territory Layer Retrieval Methods**

- Territories are now directly added to the Project Explorer as layers. This makes for better integration with Business Analyst in the same fashion as all other analyses are loaded and retrieved such as stores, customers, and trade areas.

- A Save Territory Layer As feature is now included in Territory Design. This allows easy archival and retrieval of previous territory layers and saves settings and symbology. It also allows the Compare Territory Solutions Report to run on different territory layers. A Save Territory Layer feature is added as well to save your updated layer settings when balancing isn't necessary.

**Better Support for Importing Territories**

The user interface has been improved to allow the importing of territories, paying special attention to multiple hierarchies. The import process now supports more field types such as text, doubles, or binary large objects (BLOB) from shapefiles or Excel spreadsheets or in whatever database your territories reside.

**Barriers Used in Territory Assignments**

Network Analyst barriers can now be implemented to shield a section of territories from another. This is important when areas are geographically near but are disconnected in a real-world scenario by a feature such as a river, mountain range, or limited-access highway. In this case, you can set barriers along a river to exclude one territory group from inclusion into a territory group on the opposite side.
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A number of improvements have been made to the Segmentation Module reporting including the addition of volumetric fields.

• Segmentation Profiles
The Segmentation Profile dialog box now displays an Average Volumetric value when volumetric information is included in the profile. For example, segmentation profiles can be weighted by the total dollars for each segment, the total number of purchases, or total volume of goods consumed.
**Tapestry Profile Volume Report**

This new report allows you to incorporate volumetric information in the analysis of Tapestry™ segments. Volumetric information can be in the form of sales, number of visits, dollars spent, and so forth. Built on the original Tapestry Profile Report, this report includes three additional fields: Total Volume, Average Volume, and Volume Index.
Market Potential Volume Report
This new report allows you to incorporate volumetric information in the analysis of market potential. Using volumetric information you specify, the report displays Expected Volume, Average Volume, and a Volume Index for subgeographies in the study market area.

<table>
<thead>
<tr>
<th>Geography ID</th>
<th>Name</th>
<th>Total Household</th>
<th>Expected Household</th>
<th>Percent Penetration</th>
<th>Index</th>
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<tr>
<td>94111</td>
<td>San Francisco</td>
<td>2,345</td>
<td>4</td>
<td>0.2</td>
<td>77</td>
</tr>
<tr>
<td>94133</td>
<td>San Francisco</td>
<td>13,699</td>
<td>23</td>
<td>0.2</td>
<td>76</td>
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<tr>
<td>94102</td>
<td>San Francisco</td>
<td>17,557</td>
<td>26</td>
<td>0.1</td>
<td>67</td>
</tr>
<tr>
<td>94103</td>
<td>San Francisco</td>
<td>11,110</td>
<td>16</td>
<td>0.1</td>
<td>65</td>
</tr>
<tr>
<td>94100</td>
<td>San Francisco</td>
<td>602</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>94105</td>
<td>San Francisco</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>94104</td>
<td>San Francisco</td>
<td>101</td>
<td>0</td>
<td>0</td>
<td>11.76</td>
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</table>

Market Potential Volume Report Variables in BDS Format
This feature allows you to view the variables in the Market Potential Volume Report in an attribute table and use them in further analysis such as thematic mapping and spatial overlay. For example, you can use the output of this report and add a map layer with expected volume for each unit of geography in your area of study. With this capability, you can create thematic maps and even use this information in custom reports and other Business Analyst tools.

Volumetric Options on Charts
The Game plan chart now has an option to change its axis values including some of the volumetric measurements as options: Index & % Composition Volume and Index Volume & % Composition Volume.
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