



MAPLYTICS™ – User Manual



**maplytics.**

# Contents

|  |           |
|--|-----------|
| <b>INTRODUCTION .....</b>                        | <b>10</b> |
| <b>LANGUAGE SUPPORT.....</b>                     | <b>11</b> |
| <b>MAPLYTICS SECURITY TEMPLATE.....</b>          | <b>12</b> |
| <b>INDIVIDUAL RECORD MAP .....</b>               | <b>17</b> |
| Steps to add the Map to other entity forms ..... | 22        |
| <b>AREA OF SERVICE.....</b>                      | <b>24</b> |
| Add Area of Service tab .....                    | 24        |
| View Area of Service data on a map.....          | 25        |
| Using Map button.....                            | 25        |
| Adding Detail map on form.....                   | 26        |
| Advanced Area Of Service.....                    | 26        |
| Attribute Mapping Of Service Area .....          | 26        |
| Working Of Area Of Service .....                 | 26        |
| <b>DETAIL MAP.....</b>                           | <b>31</b> |
| Plot.....  | 35        |
| By Location .....                                | 35        |
| By Region.....                                   | 37        |
| By Drawing .....                                 | 38        |
| By Territory.....                                | 40        |
| By Template.....                                 | 41        |
| Search Record .....                              | 42        |
| Cluster map.....                                 | 46        |
| Cluster Area.....                                | 46        |
| Spider cluster.....                              | 47        |
| <b>CATEGORY .....</b>                            | <b>48</b> |
| Multiple categories for multiple entitles .....  | 48        |
| Multiple categories for single entity.....       | 49        |
| <b>SET COLORS AND SHAPES FOR PUSHpins .....</b>  | <b>52</b> |
| Set pushpins from map .....                      | 52        |



|   |           |
|---|-----------|
| Set pushpins for views .....                            | 52        |
| Set pushpin for categories .....                        | 52        |
| Configure pushpins in Entity map for new category ..... | 53        |
| Category configuration for users .....                  | 54        |
| Category configuration for admins .....                 | 54        |
| <b>DATA GRID IN DETAIL MAP .....</b>                    | <b>56</b> |
| Highlight pushpins .....                                | 58        |
| Mass Action Buttons .....                               | 58        |
| <b>TOOLTIP CARD .....</b>                               | <b>65</b> |
| Quick Call to Action Buttons .....                      | 66        |
| Hover .....   | 71        |
| <b>RESET MAP .....</b>                                  | <b>72</b> |
| <b>SUMMARY CARD .....</b>                               | <b>73</b> |
| <b>LAYER MENU .....</b>                                 | <b>74</b> |
| Show/Hide Labels .....                                  | 75        |
| Show/Hide Territory List .....                          | 75        |
| <b>DOWNLOAD MAP .....</b>                               | <b>76</b> |
| <b>CONTEXTUAL MENU .....</b>                            | <b>78</b> |
| <b>MULTI-ADDRESS PLOTTING.....</b>                      | <b>80</b> |
| <b>POINT OF INTEREST (POI) LOCATIONS.....</b>           | <b>83</b> |
| <b>PROXIMITY SEARCH .....</b>                           | <b>85</b> |
| Proximity by Distance .....                             | 85        |
| Concentric Proximity Search .....                       | 86        |
| Show Travel Distance .....                              | 87        |
| Proximity by Time .....                                 | 88        |
| <b>OVERLAY.....</b>                                     | <b>89</b> |
| Overlay by Territory .....                              | 89        |
| Overlay by File .....                                   | 91        |
| Save Shape/Excel file in territory .....                | 92        |
| Save Shape file .....                                   | 92        |
| Save Excel File .....                                   | 93        |

|   |            |
|---|------------|
| Convert Overlay to territory.....       | 94         |
| Overlay by ArcGIS Online.....           | 89         |
| <b>CENSUS DATA VISUALIZATION .....</b>  | <b>102</b> |
| Configuration for Census data .....     | 102        |
| Configuration for attributes .....      | 103        |
| <b>SHAPE OPERATIONS .....</b>           | <b>106</b> |
| Difference .....                        | 106        |
| Intersection .....                      | 107        |
| Union .....                             | 107        |
| Union Aggregate.....                    | 108        |
| Disjunctive union .....                 | 108        |
| <b>TERRITORY MANAGEMENT.....</b>        | <b>110</b> |
| By File.....                            | 111        |
| By Region .....                         | 112        |
| By Drawing .....                        | 113        |
| By Territory .....                      | 114        |
| By Overlay .....                        | 115        |
| By ArcGIS .....                         | 111        |
| Layer Menu .....                        | 117        |
| Territory Alignment Tool.....           | 117        |
| Create new territory .....              | 118        |
| Auto Territory creation .....           | 120        |
| Assign territories to record .....      | 118        |
| Register to Windows Service.....        | 124        |
| Draft territories .....                 | 128        |
| Create territory on one click .....     | 129        |
| By Shape file .....                     | 129        |
| By Excel file.....                      | 130        |
| Alignment of Existing territories ..... | 131        |
| Move to.....                            | 131        |
| Copy to.....                            | 132        |

|  |            |
|--|------------|
| Edit Existing Territory .....  | 133        |
| Shape Operations in Territory Management .....                       | 134        |
| <b>DEFINING GEOGRAPHIES FOR SALES TERRITORY USING MAPLYTICS.....</b> | <b>135</b> |
| <b>HIERARCHAL TERRITORIES .....</b>                                  | <b>137</b> |
| <b>BULK GEOGRAPHIES BY UPLOADING AN EXCEL FILE .....</b>             | <b>140</b> |
| <b>MULTIPLE TERRITORIES ASSIGNED TO RECORDS.....</b>                 | <b>142</b> |
| <b>DETAIL MAP ON CRM DASHBOARD .....</b>                             | <b>144</b> |
| <b>SAVED TEMPLATE VISUALIZATION ON CRM ENTITY FORM .....</b>         | <b>145</b> |
| <b>ROUTING OPTIMIZATION.....</b>                                     | <b>147</b> |
| Directions Card .....  | 147        |
| Truck Route .....  | 148        |
| Optimize Direction.....  | 151        |
| Unified view for Route and Records .....                             | 158        |
| Default Origin and Destination.....                                  | 159        |
| Snap waypoint.....   | 160        |
| Along the Route.....   | 161        |
| Route Redirect and Copy Route Links.....                             | 163        |
| Redirect with Google Maps.....                                       | 164        |
| Redirect with Waze.....  | 164        |
| Redirect with Apple Maps.....  | 164        |
| Print Route .....  | 166        |
| <b>ROUTE TO A RECORD .....</b>                                       | <b>170</b> |
| <b>AUTO SCHEDULING.....</b>  | <b>172</b> |
| Auto scheduling card .....   | 173        |
| Advanced Preferences .....   | 175        |
| User Details .....   | 176        |
| Meeting Details .....  | 177        |
| Existing meetings.....   | 178        |
| Calendar Navigation Buttons .....                                    | 184        |
| Create Activities .....  | 185        |
| Configuration Details for Auto Scheduling.....                       | 186        |

|   |            |
|---|------------|
| Frequency Detail Feature.....   | 186        |
| <b>CHECK-IN/CHECK-OUT .....</b>   | <b>207</b> |
| Configuration .....   | 207        |
| Related records for Check-In/Check-Out .....  | 208        |
| Check-Out.....  | 208        |
| <b>Default Radius</b> .....   | 209        |
| Geofencing .....  | 210        |
| Enable Notes on Check-In and Check-out .....  | 211        |
| Pending Check-In/Check-Out Requests .....   | 211        |
| Creating Check-In/Check-Out records .....   | 213        |
| Adding Notes while checking-in/out .....  | 215        |
| Creating Pending Check-In/Check-Out requests .....  | 216        |
| Visualize Check-In/Check-Out records on Detail Map .....  | 217        |
| Analyze Check-In/Check-Out records .....  | 218        |
| Visualizing Related Records .....   | 218        |
| Visualizing Related Record (Appointments/Accounts, etc.) for Check-In/Check-Out records .....           | 218        |
| Visualizing related Check-in/Check-Out records for plotted records (Appointments, Accounts, etc.) ..... | 220        |
| Visualize Pending Check-in/out requests .....   | 221        |
| Approve/Reject pending Check-In/Check-Out records .....   | 221        |
| <b>LAND AREA MAPPING.....</b>   | <b>223</b> |
| Create and Assign land areas to entity records.....   | 223        |
| Create 1: N relationship with Geography entity.....   | 223        |
| Attribute Mapping for Landscapes .....  | 224        |
| Assign lands to single record .....   | 225        |
| Assign fgrrghs.....   | 228        |
| Visualizing Assigned lands to the record .....  | 230        |
| Visualizing Assigned lands to the records having no geocoordinates .....                                | 233        |
| <b>REAL-TIME TRACKING .....</b>   | <b>234</b> |
| Configuration .....   | 234        |
| <b>User Settings for CRM Modules other than Field service</b> .....                                     | 235        |

## Maplytics™ – User Manual

|  |            |
|--|------------|
| Maplytics Real-Time Tracking App for Sales and Other Modules ..... | 236        |
| Today's Plan .....   | 239        |
| Sales and Other Modules .....                                      | 239        |
| Field Service .....  | 241        |
| Location History.....  | 244        |
| Sales and Other Modules .....                                      | 244        |
| Field Service .....  | 246        |
| Real-Time Tracking in Mobile.....                                  | 248        |
| <b>MAPLYTICS API .....</b>   | <b>249</b> |
| By Proximity .....   | 250        |
| By Region .....  | 252        |
| By Territory .....   | 253        |
| By Template .....  | 254        |
| Get Time zone .....  | 254        |
| <b>POWERAPPS COMPONENT FRAMEWORK.....</b>                          | <b>256</b> |
| Map View Control for Record .....                                  | 256        |
| Map Edit Control for Record .....                                  | 259        |
| Map View Control for Dataset .....                                 | 260        |
| Detail Map Control for Dataset .....                               | 262        |
| Address Autosuggest Control.....                                   | 306        |
| <b>HEAT MAP .....</b>  | <b>310</b> |
| Select Display .....   | 312        |
| Boundary.....  | 312        |
| No Boundary.....   | 312        |
| Pie chart .....  | 313        |
| Column chart.....  | 313        |
| <b>SUPPORT FOR CDS .....</b>                                       | <b>317</b> |
| Import Maplytics solution .....                                    | 319        |
| Access Maplytics in PowerApps .....                                | 322        |
| <b>MAPLYTICS DASHBOARD .....</b>                                   | <b>323</b> |
| View Category donuts in dashboard .....                            | 324        |

|   |            |
|---|------------|
| Steps to add Maplytics View to Dashboard .....                    | 327        |
| Create a route dashboard .....                                    | 328        |
| Add a template in dashboard.....                                  | 331        |
| Steps to add template to dashboard .....                          | 331        |
| <b>WORKFLOWS.....</b>   | <b>333</b> |
| Configure Geocoding workflows for custom entities .....           | 334        |
| Configure Territory Assignment workflow for custom entities ..... | 338        |
| Configure Get Time Zone workflow.....                             | 339        |
| Configure Driving Instructions workflow .....                     | 343        |
| <b>MAPLYTICS BATCH PROCESSING TOOL .....</b>                      | <b>304</b> |
| <b>TERRITORY ASSIGNMENT RULE.....</b>                             | <b>359</b> |
| Enable Territory Assignment Rule .....                            | 359        |
| Creating Territory Assignment Rule .....                          | 360        |
| General.....  | 360        |
| Assignment query .....  | 360        |
| <b>OVERRIDE EXISTING TERRITORY .....</b>                          | <b>364</b> |
| <b>MAPLYTICS – TABLET / MOBILE .....</b>                          | <b>365</b> |
| Detail Map.....   | 369        |
| Proximity .....   | 370        |
| Concentric Proximity Search .....                                 | 370        |
| Category Filter .....   | 371        |
| Current Location .....  | 372        |
| Set GPS Location as the current location .....                    | 372        |
| Tooltip Card .....  | 373        |
| Contextual Menu .....   | 373        |
| Search Record.....  | 373        |
| Data Grid .....   | 373        |
| Routing – Tablet / Mobile .....                                   | 378        |
| Unified View for Route and Records.....                           | 379        |
| Save Route and Plot Saved Routes .....                            | 379        |
| Along the Route Search .....                                      | 380        |

Maplytics™ – User Manual

Route Redirect and Copy Navigation Links ..... 381

Heat Map – Tablet / Mobile ..... 383

    Summary card ..... 383

    Pie chart in Heat Map ..... 384

    Column chart in Heat Map ..... 384

Dashboards – Tablet / Mobile ..... 385

**CONTACT US ..... 386**

### Introduction

Maplytics™ is a leading geo-analytical mapping app. Maplytics empowers users across verticals with the power of Geographical Data Visualization, Optimized Routing, Automated Appointment Planning, Proximity Search, Heat Maps, Shape Overlay, Census data visualization and Territory Management to drive better sales, improve business processes and engage right customers at the right time.

Maplytics is available for Microsoft Dynamics versions CRM 2013 and above and supports all deployment models of CRM On-Premise (IFD as well), CRM Online and Partner-hosted. It uses the API services provided by Bing maps. The following are the highlights of Maplytics:

- ✓ Ease of access
- ✓ Compatible with Dynamics 365 App for Phones and Tablets
- ✓ Multiple language support
- ✓ Plot multiple OOB & custom entities on map
- ✓ Hierarchal Territories
- ✓ Area of Service
- ✓ Search nearby records with Proximity Search
- ✓ Auto Scheduling for multiple users
- ✓ Track field reps' activities with Check-In
- ✓ Custom icons for pushpins
- ✓ Multiple categories on plot card
- ✓ PowerApps Component Framework
- ✓ Multiple categorizations for single entity
- ✓ Multiple territories for a record
- ✓ Spider Cluster
- ✓ Building Marketing list
- ✓ Pie Charts and Column Charts in Heat Map
- ✓ Overlay
- ✓ Merged Plot and Route view
- ✓ Maplytics Security Template
- ✓ Point of Interest search
- ✓ Layer Menu
- ✓ Concentric Proximity search
- ✓ Land Area Mapping
- ✓ CRM / Dynamics 365 Customer Engagement
- ✓ Bulk geographies upload
- ✓ Shape operations
- ✓ Territory Management
- ✓ Auto-Territory Creation
- ✓ Real-Time Tracking
- ✓ Maplytics API
- ✓ Territory Assignment Rules
- ✓ Draft Territories
- ✓ Census data visualization
- ✓ Support for CDS
- ✓ Data grid resizable
- ✓ Plot Saved Templates on individual records
- ✓ Configurable color-coded pushpins
- ✓ Routing with multiple waypoints
- ✓ Along the Route search
- ✓ Ability to Save & Share Driving directions
- ✓ Sales analysis with Heat Maps
- ✓ Summary Card on Detail and Heat Map
- ✓ Configurable color for Heat Map measure
- ✓ Maplytics Dashboards with configurable queries
- ✓ Geocoding Confidence Rating
- ✓ Turn-by-turn navigation on mobiles & tablets
- ✓ Seamlessly integrated within Dynamics
- ✓ Multi-search layer in Detail map Control



## Language Support

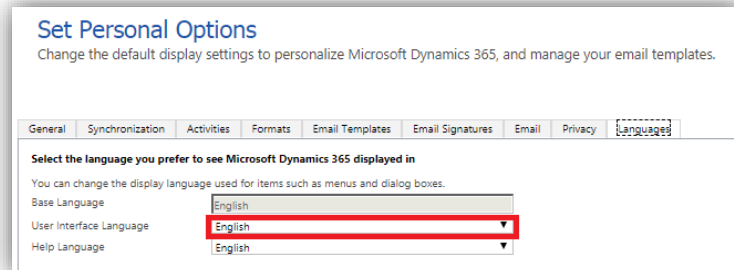
Maplytics is a multi-language solution currently available in eleven different languages namely:

- English
- Spanish (Español)
- German (Deutsche)
- French (Français)
- Portuguese (Português)
- Turkish (Türk)
- Arabic (عربي)
- Hungarian (Magyar)
- Dutch (Nederlands)
- Polish (Polski)
- Russian (Русский)

Maplytics auto-detects the user language set in Dynamics CRM and sets its language accordingly.

To check user language set in Dynamics CRM, please go to **Settings > Options > Languages**

## Maplytics Configuration (Personalization)



Each user of Maplytics can customize Maplytics configuration according to their preference. The user can configure Zoom level, Current Location, default origin and destination and a couple of other settings like Map more, default summary grouping, etc. Please go to **Settings > Maplytics Configuration Details > Select Maplytics Configuration record for the required user (users added in Team Maplytics)> Set** according to the preference

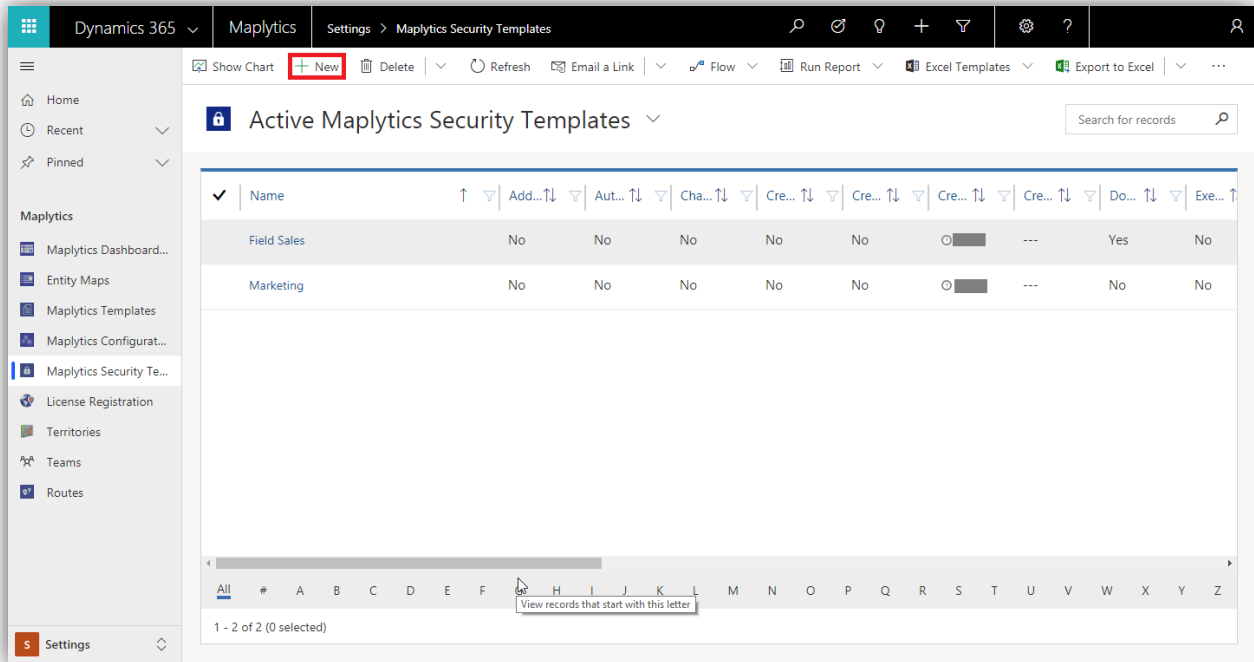
Refer to **‘Maplytics Configuration Details (Personalization)’** section of **Installation Manual** for a detailed description of personalization settings.

## Maplytics Security Template

System admin and Maplytics admin can provide selective access of Maplytics actions to the Maplytics users. They can select the required Mass actions & other actions in the list and save it as a Security template. They can further assign this template to the required users so as to provide the access of the selected actions in the template to the respective Maplytics users.

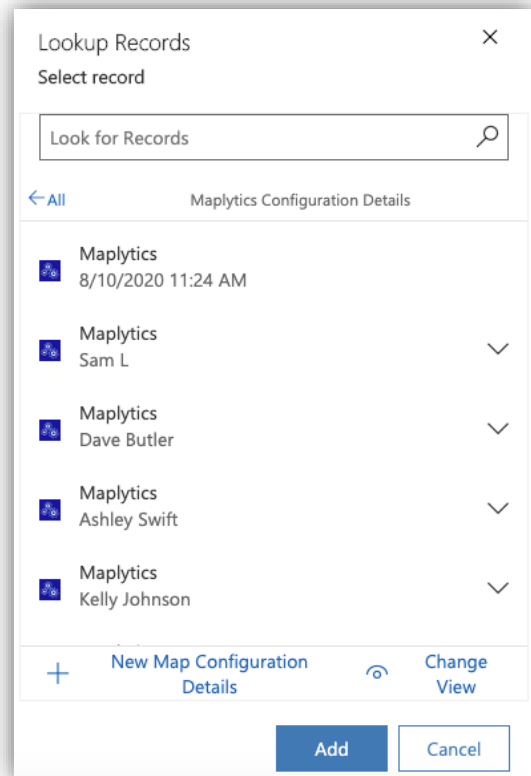
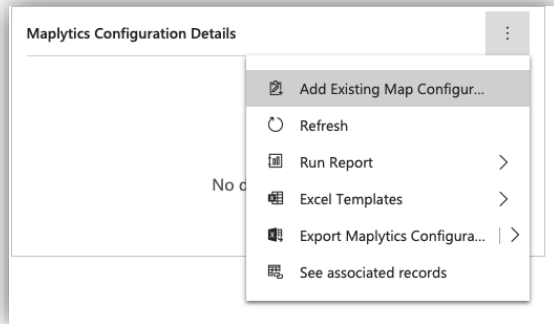
To create a Security Template,

**Go to the Maplytics App > Settings > Maplytics Security Templates > New > 'General' tab > Give a name and 'save' the template.**

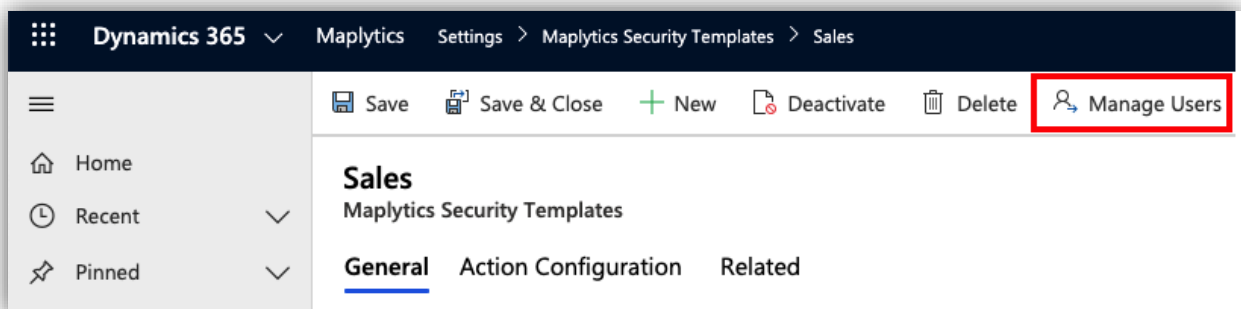


## Maplytics™ – User Manual

To assign a template to the Maplytics users, Admins can add the Maplytics Configuration Detail records of the Maplytics users under the section of 'Maplytics Configuration Details', to whom the template has to be assigned.



In order to assign the Security Template to multiple users at once. Admins can also add teams/users using the button 'Manage users' from the Ribbon bar. They can also remove the required users/teams from the list. Thus, using 'Manage users' admins can easily manage the users assigned with any Security Template.



## Maplytics™ – User Manual

Admins can choose whether they want to assign the template to Users or Teams by adding them. They can also choose to remove the users/teams from the list. They can also see the list of teams and respective users added from those teams.

Maplytics - Manage Users

☒ Add ☐ Remove

Type ✓ Select Type  
Users  
Teams

Add

Maplytics - Manage Users

☒ Add ☐ Remove

Type Users

☒ Dave Butler ☒ Gerard Smith  
☒ William Anderson

Dave Butler  
Kelly Johnson  
Gerard Smith  
William Anderson  
Ashley Swift  
John Pinto  
Sam L

Add

Maplytics - Manage Users

☒ Add ☐ Remove

Type Teams

☒ HR ☒ Maplytics ☒ Marketing

HR  
IT  
Maplytics  
Marketing  
Sales  
Maplytics  
HR, Maplytics  
Maplytics, Marketing  
Maplytics

Page 1 / 1 20 1 to 7 of 7

Add

Maplytics - Manage Users

☐ Add ☒ Remove

Type Users

☒ Dave Butler ☒ Gerard Smith

Dave Butler  
Kelly Johnson  
Gerard Smith  
William Anderson  
Ashley Swift  
John Pinto  
Sam L

Remove

**Note:** A Maplytics Security template can be assigned to the users belonging to any team, however, they should also exist into the Maplytics team.

## Maplytics™ – User Manual

Go to Action Configuration > Select the required actions to be made available to the users assigned with this template and save.

**Sales** - Saved  
Maplytics Security Templates

General **Action Configuration** Related

Mass Actions

|                         |                                     |                            |                                     |
|-------------------------|-------------------------------------|----------------------------|-------------------------------------|
| Select All Mass Actions | <input type="checkbox"/>            |                            |                                     |
| Change Owner            | <input type="checkbox"/>            | Export To Excel            | <input type="checkbox"/>            |
| Manage Territory        | <input type="checkbox"/>            | Add To Route               | <input checked="" type="checkbox"/> |
| Execute Workflow        | <input type="checkbox"/>            | Save Data - Marketing List | <input type="checkbox"/>            |
| Send Email              | <input checked="" type="checkbox"/> | Save Data - Personal View  | <input type="checkbox"/>            |
| Auto Scheduling         | <input type="checkbox"/>            | Create Activities          | <input checked="" type="checkbox"/> |
| Associate Records       | <input type="checkbox"/>            |                            |                                     |

**Sales** - Saved  
Maplytics Security Templates

General **Action Configuration** Related

Actions

|                           |                                     |                          |                                     |
|---------------------------|-------------------------------------|--------------------------|-------------------------------------|
| Select All Actions        | <input type="checkbox"/>            |                          |                                     |
| Save Template - Public    | <input type="checkbox"/>            |                          |                                     |
| Create Route              | <input checked="" type="checkbox"/> | Save Template - Personal | <input type="checkbox"/>            |
| Print Map                 | <input checked="" type="checkbox"/> | Update Route             | <input checked="" type="checkbox"/> |
| Create New Record         | <input type="checkbox"/>            | Download Map             | <input checked="" type="checkbox"/> |
| Related Records           | <input checked="" type="checkbox"/> | Send Route Email         | <input checked="" type="checkbox"/> |
| Territory Management      | <input type="checkbox"/>            | Overlay Layer            | <input type="checkbox"/>            |
| Shape Files Configuration | <input type="checkbox"/>            | Check - In               | <input checked="" type="checkbox"/> |
| Travel Distance           | <input type="checkbox"/>            | Truck Route              | <input type="checkbox"/>            |
| Allow Pushpin Update      | <input type="checkbox"/>            | POI                      | <input checked="" type="checkbox"/> |

## Maplytics™ – User Manual

Along with using the 'Remove' button, to unassign any template to a user, admins can also **Go to Maplytics App > Settings > Maplytics Configuration Details > Select the record of the required user> Remove the lookup value for the field of 'Maplytics Security Templates'**

Maplytics

Map Configuration Details

General

Auto Scheduling

Related

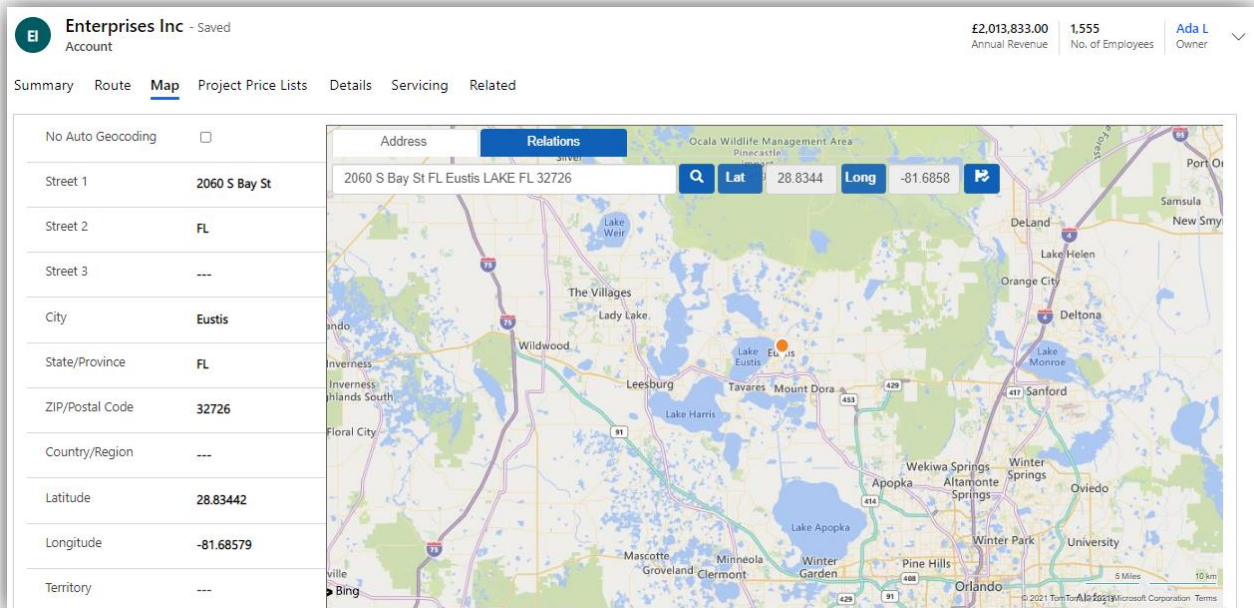
|                       |                                      |                             |                                      |
|-----------------------|--------------------------------------|-----------------------------|--------------------------------------|
| Route Option          | Shortest Time                        | Navigate In                 | Google                               |
| Map Center            | ---                                  | Records Per Page In Grid    | 50                                   |
| Heat Map Type         | Boundary                             | Zoom Level                  | ---                                  |
| Summary Grouping      | City                                 | User                        | <input type="text"/>                 |
| Default Template      | ---                                  | Maplytics Security Template | Sales                                |
| Set As Origin         | Other                                | Set As Destination          | Other                                |
| Other - Set As Origin | 819 Catalpa Dr, Montgomery, AL 36112 | Other - Set As Destination  | 819 Catalpa Dr, Montgomery, AL 36112 |

**Note:**


- **All the actions will be visible to a user, if no template is assigned to the user**
- **Only System Admin and Maplytics Admin will be able to access the Maplytics Security Template Entity**

## Individual Record Map

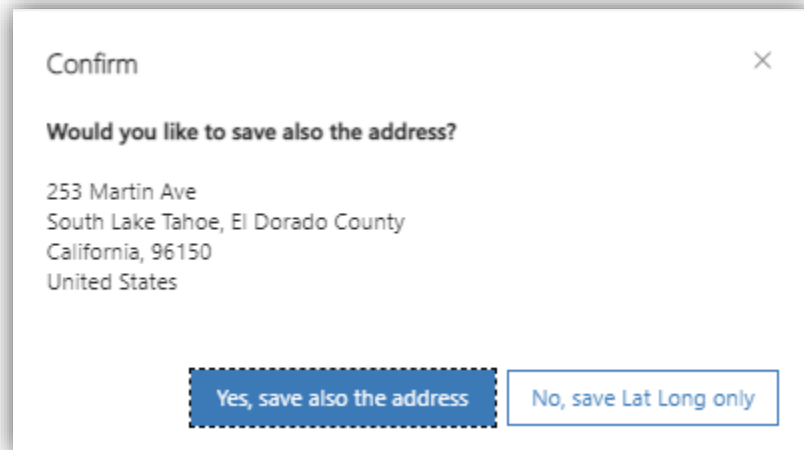
A tab to display an Individual Map section has been added by default on the Account, Contact and Lead records as a part of the Maplytics solution.



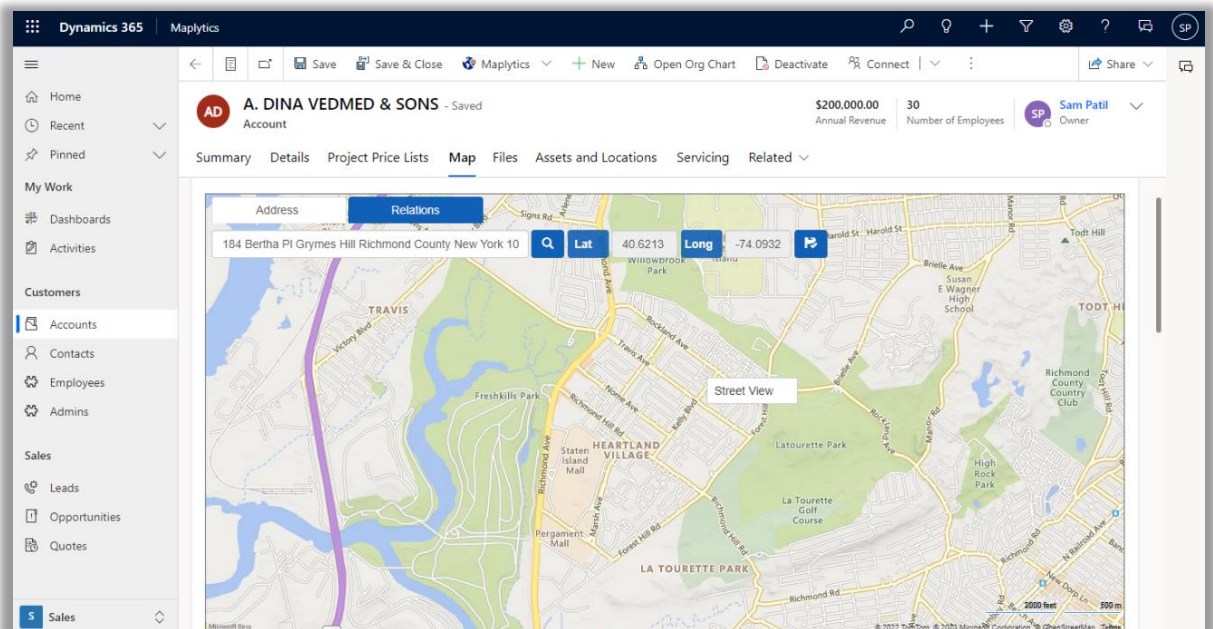
Here, two types of pushpins are plotted on the map:

**Orange color pushpin:** This always indicates the record location on the map. This pushpin is movable on the map. If the user is not satisfied with the automatic geocoding information stored for the record, they can click on the pushpin and drag it around to the required location on the map. As the user moves the pushpin, the geocoding information (*Latitude* and *Longitude*) and the address is updated in the bar at the top. Use the Update button  to save the updated geocoding information. It will ask the user whether they would like to update only the Latitude & Longitude values or the address as well. They can select the required option. This will help the user to geocode the address as per the requirement.

## Maplytics™ – User Manual



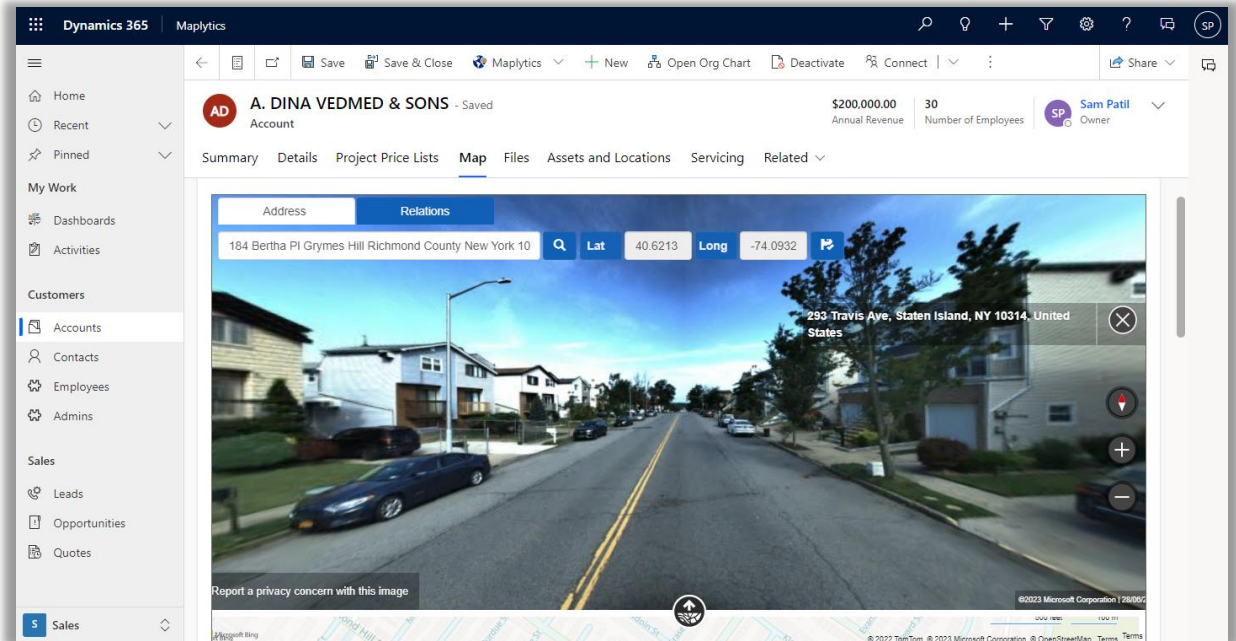
Set the 'No Auto Geocoding' option to 'Yes' available on the left-hand side, if the user has manually set the geocoding information and do not want the automation to override the geocoding information. Right Clicking on the Map gives an option of Street View.



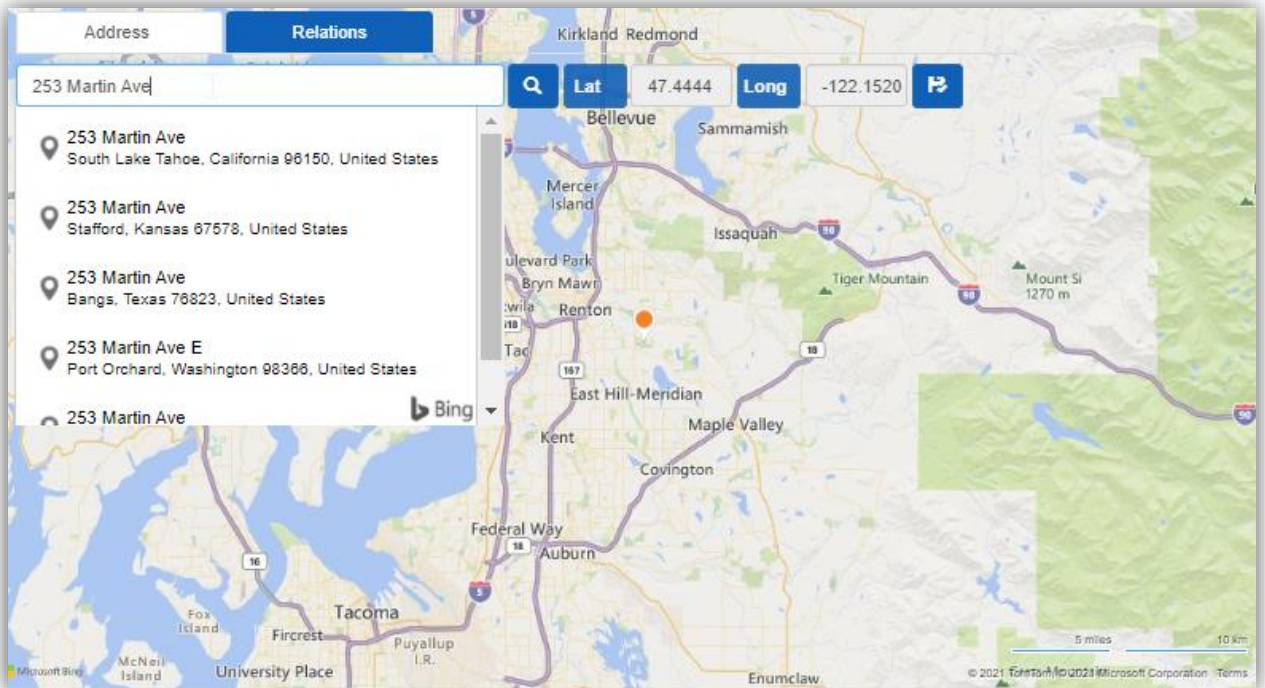
Selecting it would get the User a 3D View.




## Maplytics™ – User Manual



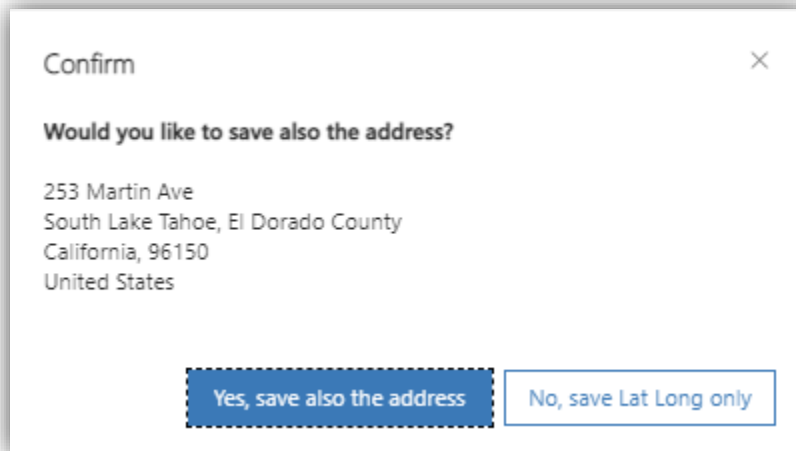
- **Address:** If users want to modify the geocoding for any record, they can click in the *Address text box*.



After that, they can click on 'Update' button  to update the address and Latitude & Longitude values. It will ask the user whether they would like to update only the Latitude & Longitude values or the address as well. They can select the required option. Apart from this, users can also click

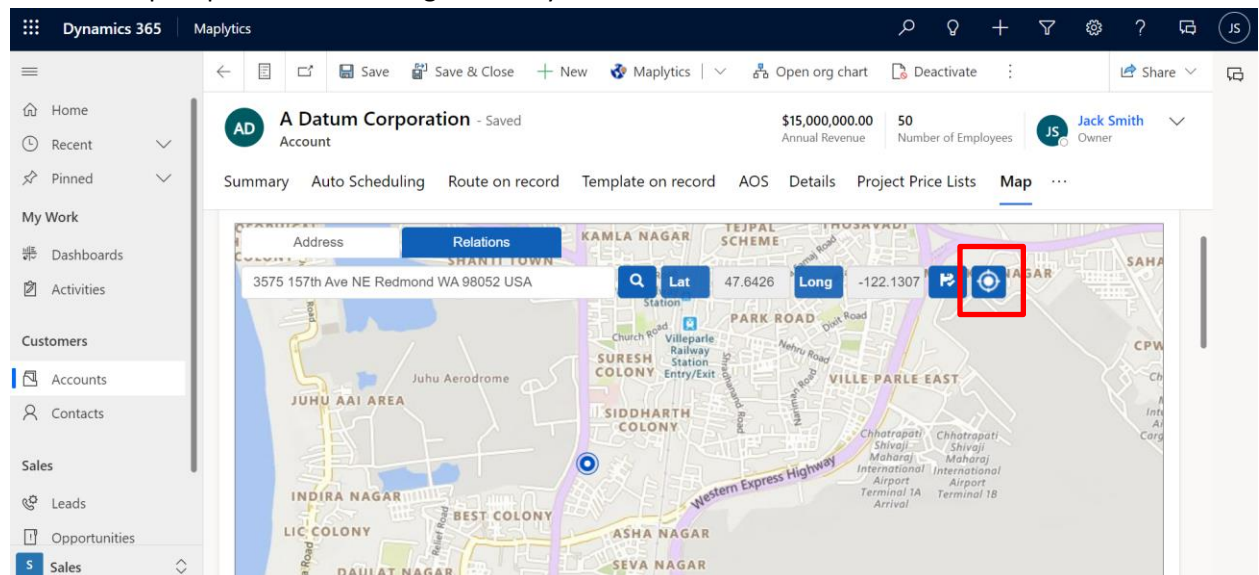
## Maplytics™ – User Manual

on the orange pushpin, drag it around to the required location, and then click on update to update the address and/or Latitude Longitude values.



**Note:** Users can be restricted to update the address and Latitude & Longitude values by assigning them a security template where 'Allow Push Pin Update' is not selected. Please refer to the Maplytics Security template in this User manual to know more about the same.

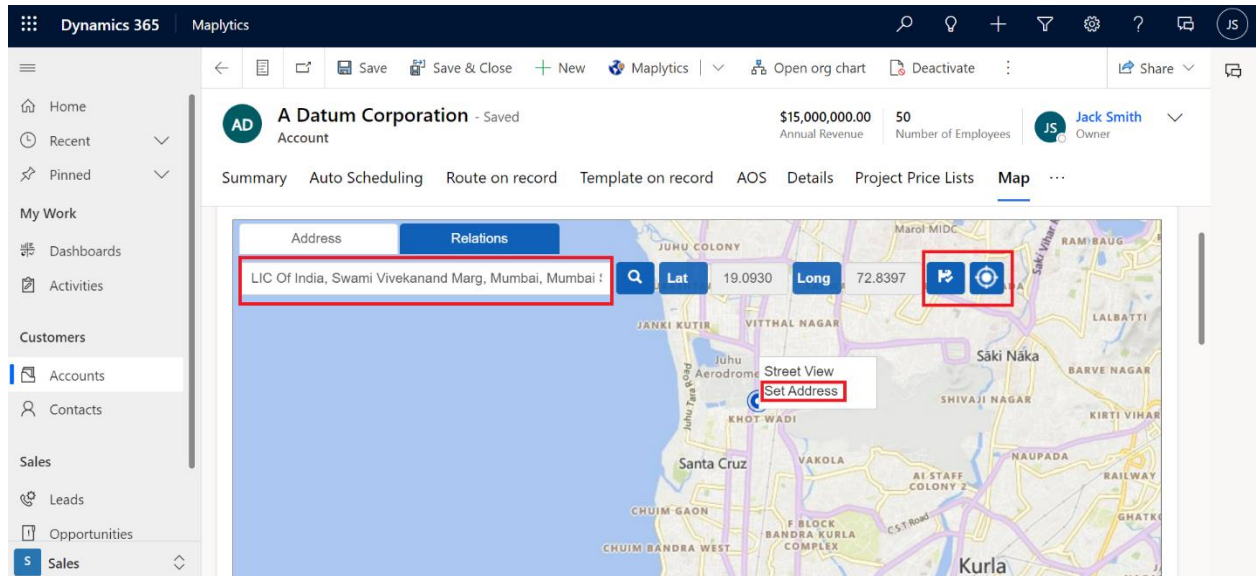
- **Map My Current Location:** Clicking on the 'Locate Me' button the user is asked to allow his current location to be plotted on the map. Once allowed, the user's current location gets plotted with a blue pushpin while the orange one stays as is.



Right-clicking the current location provides two options, Set Address and Street View. Set Address helps in populating the address of the current location to the text box. Similarly, the Latitude and Longitude of this location are populated in the respective fields in the bar above.

## Maplytics™ – User Manual

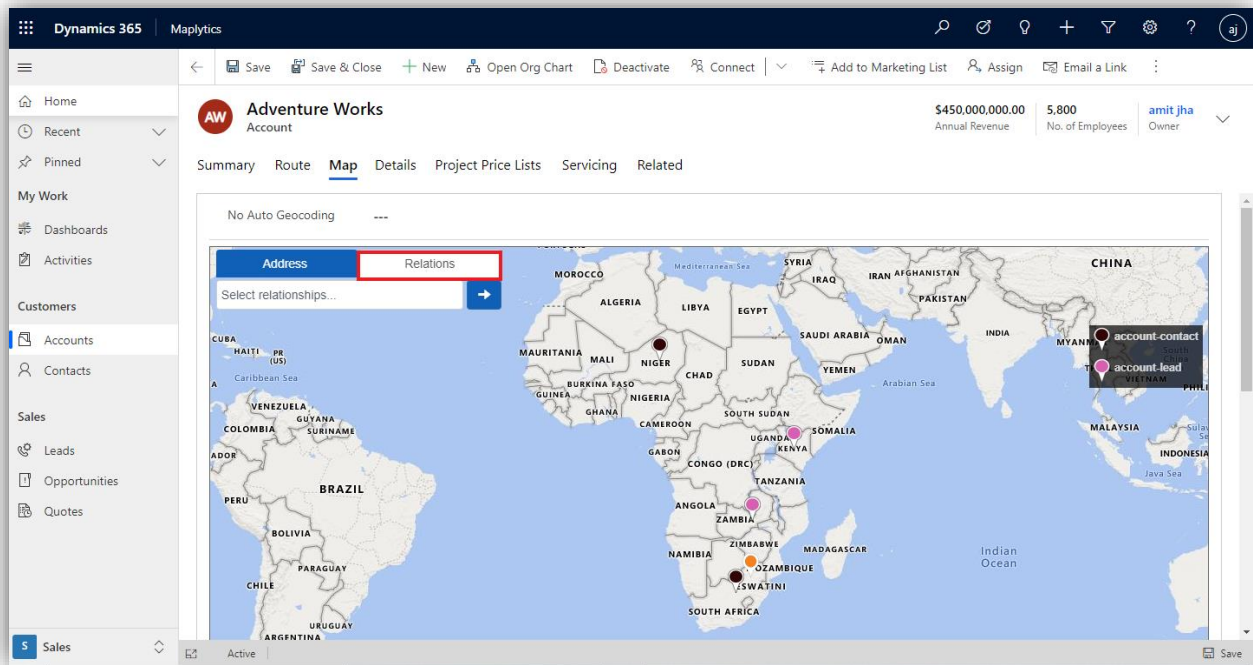
On clicking the Update button and confirming the address, the address, latitude, and longitude get updated successfully for the record.



Map My Current Location function is available for Detail Map as well. Using this functionality, the user can view the travel distance from the Current Location and the User's Location and plan the travel accordingly.

- **Deactivate:** On deactivating a record by selecting the option, all the fields from CRM and on the Individual Map for that record get deactivated.
- **Related Records:** User can use 'Relations' drop-down to select the available relationships for this Entity. Related records correspond to all 1:N relationship between the plotted Entity. The user can further see related record information by clicking or hovering on it. The required attributes like Email Address, Phone Number etc. can be selected within the entity map to be seen on hover or click. At a maximum, user can view 5 relationships at once. Default relationships can also be selected that will be plotted by default whenever this map is loaded. At a maximum, user can select five Default relationships. User can also select the color and pushpin icons for the related records. Check the Entity Map settings (refer to Installation Manual) to set Default relationship, colors & pushpins and adding more relationships to 'Relations' dropdown. In the image below, two relationships (Account-Contact and Account-Lead) are plotted for the account "Adventure Works".

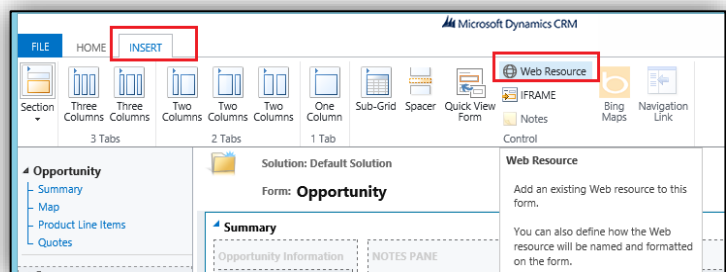
## Maplytics™ – User Manual



### Steps to add the Map to other entity forms

Open the Entity form and go to the 'Insert' tab.

Click on 'Web Resource' button, as shown in the screenshot.





The screenshot shows the 'Add Web Resource' dialog box with the following details:

- Web resource:** A red box highlights the 'Web resource' field, which contains the URL `ikl_/Maplytics/Maplytics.IndividualMap.html`.
- Field Name and Properties:**
  - Name:** `WebResource_Map`
  - Label:** `Map`
  - ☐ Display label on the Form
- Web Resource Properties:**
  - ☐ Restrict cross-frame scripting, where supported.
  - ☒ Pass record object-type code and unique identifier as parameters. (This checkbox and its label are highlighted with a red box.)

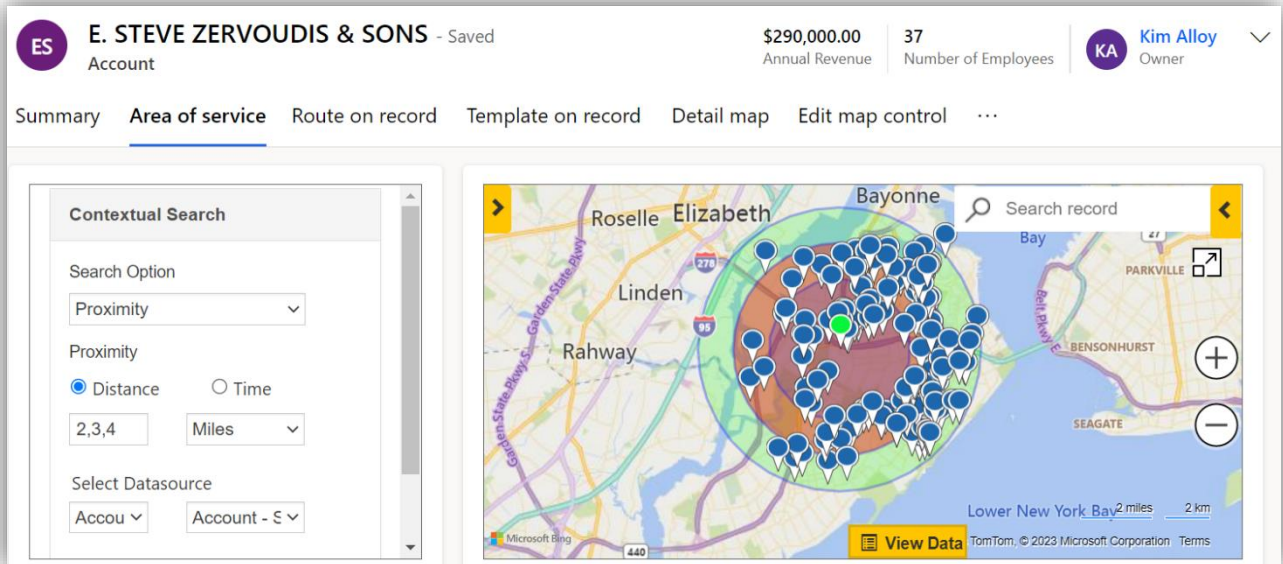
In the Add Web Resource dialog, select ***"ikl\_/Maplytics/Maplytics.IndividualMap.html"*** web resource and check the Pass record object-type checkbox as shown in the screenshot. The recommended number of rows in formatting is minimum 10.

Click **OK**, then **Save and publish** the form to see the Map on the entity form.

**Note:** To plot a particular address on the Map, it should be geocoded and the Latitude & Longitude should be set for that address. For geocoding you need to execute Maplytics Geocoding workflow for the records.

## Area of Service

The user can view the data in a proximity or a region around an individual record as defined by the user in the Area of service.



### Add Area of Service tab

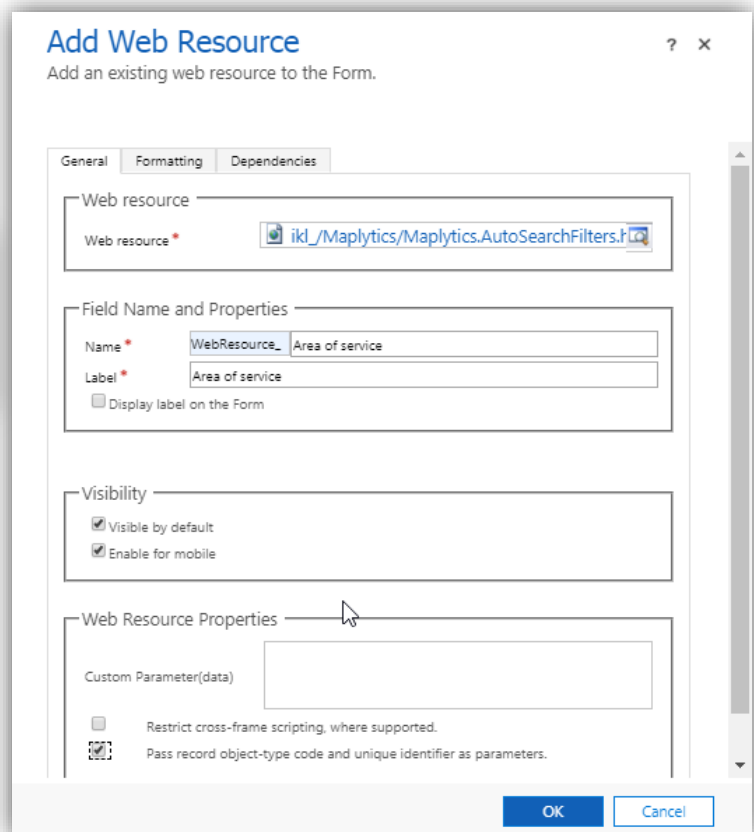
To add Area of Service tab, Open the Entity form and go to the 'Insert' tab. Click on Web Resource button, as shown in the screenshot.



In the Add Web Resource dialog, select **"ikl\_/Maplytics/Maplytics.AutoSearchFilters.html"** web resource and check the 'Pass record object-type' checkbox.

The recommended number of rows in formatting is minimum 10.

Click **OK**, then **Save and publish** the form to see the Map on the entity form.



## Maplytics™ – User Manual

### Create an Area of Service field

To save the values entered in the Area of Service, the user needs to create a field for the Entity for which Area of Service has been added. **Go to Entity form > New field.** Enter the following values:

*Name - Area of Service*

*Data type – Multiple Line of Text*

*Maximum Length – 10000*

Select the field in the respective Entity map for the Area of Service field.

The screenshot shows the 'Attribute Mappings' tab for an 'ENTITY MAP account'. The 'Title' field is set to 'Account Name'. The 'Area of Service' field is highlighted with a red box, and its value is 'Area of Service'. The 'Template' field is empty.

The values when entered and saved into the Area of Service, the corresponding data will be plotted on the map.

### View Area of Service data on a map

To view the Area of Service data on the map, there are two ways:

- Using Map button – the results are shown in a map opened in a different tab
- Adding Detail map on form – the results are shown in a map added on the same record

### Using Map button

The user can open the Detail map to view the corresponding Area of Service data plotted on the map.

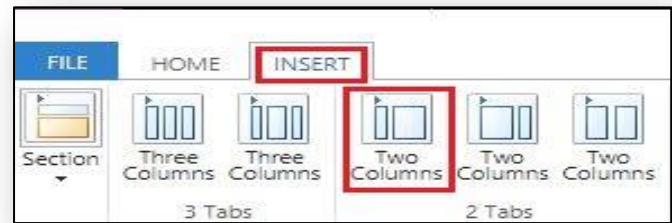
The screenshot shows a table with account details. The 'Map' button is highlighted with a red box.

|  | ACCOUNT                 | Annual Revenue | No. of Employees |
|--|-------------------------|----------------|------------------|
|  | A. HANSA PERSAUD & SONS | \$366,466.00   | ---              |

## Adding Detail map on form

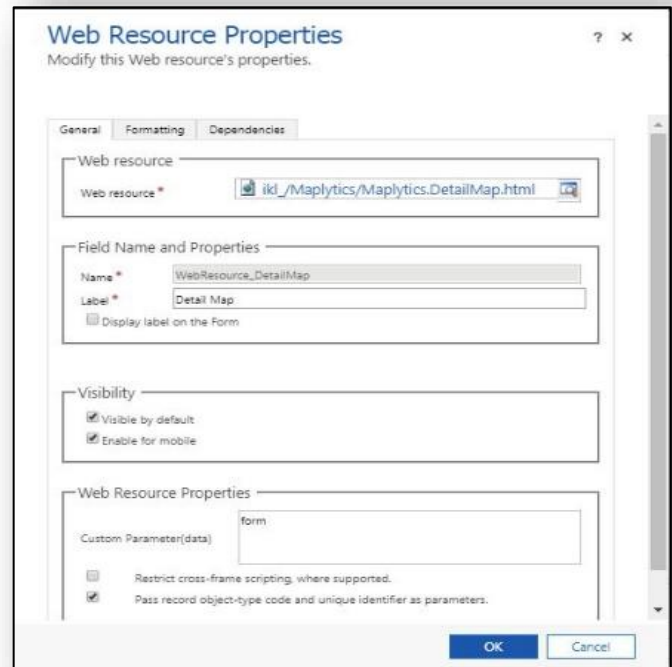
To add a Detail map to show the data of Area of Service, follow the steps mentioned below:

Open the Entity form and go to the 'Insert' tab. Add two columns.



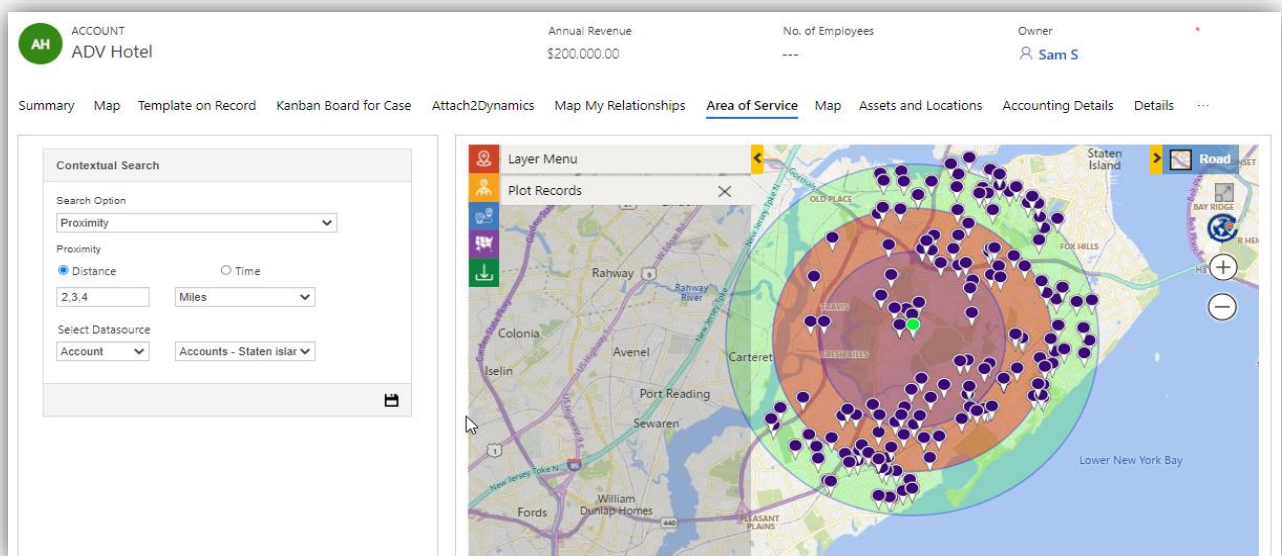
After adding Area of Service tab in the entity form as mentioned above, follow the steps mentioned below to add the Detail map on the entity form.

To add a detail map, Click on 'Web Resource' button. In the Add Web Resource dialog, select **"ikl/\_Maplytics/Maplytics.DetailMap.html"** web resource, add "form" as custom parameter (data) and check the 'Pass record object-type' checkbox as shown in the screenshot. The recommended number of rows in formatting is minimum 10.



Click **OK**, then **Save and publish** the form to see the Map on the Entity form.

Enter the required values into Area of Service, save it and click on the refresh button on the Detail map to view the data plotted.





## Advanced Area Of Service

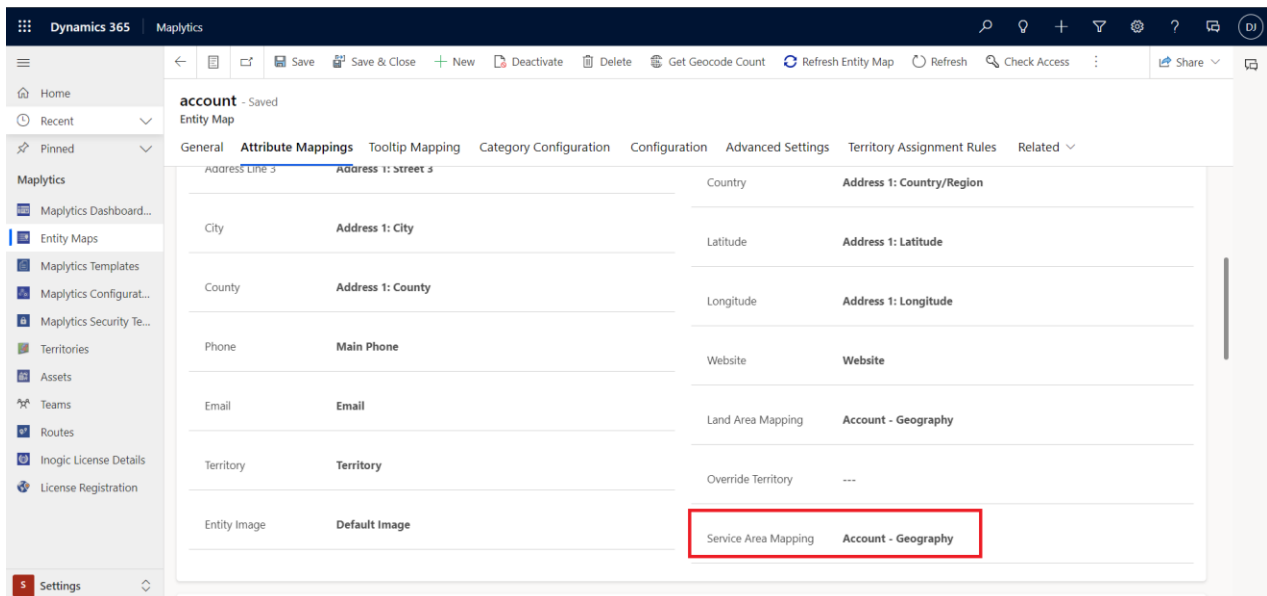
The advanced feature of Area Of Service enables users to determine an area in which services are being offered. It also helps in visualizing the records that lie in that area.

In the case of a Doctor, the Area Of Service helps in determining the region in which the doctor is operating or offering his services. Patient records falling under this service region can also be visualized. Similarly, from a Patient's POV, he can visualize all the doctors that offer services or whose services fall in his area. This helps the patient in selecting the nearest available doctor and the doctor can check the patients falling in his area of work.

## Attribute Mapping of Service Area

Before we start using the advanced features of Area Of Service, the user needs to check the configuration as mentioned at the beginning of the feature.

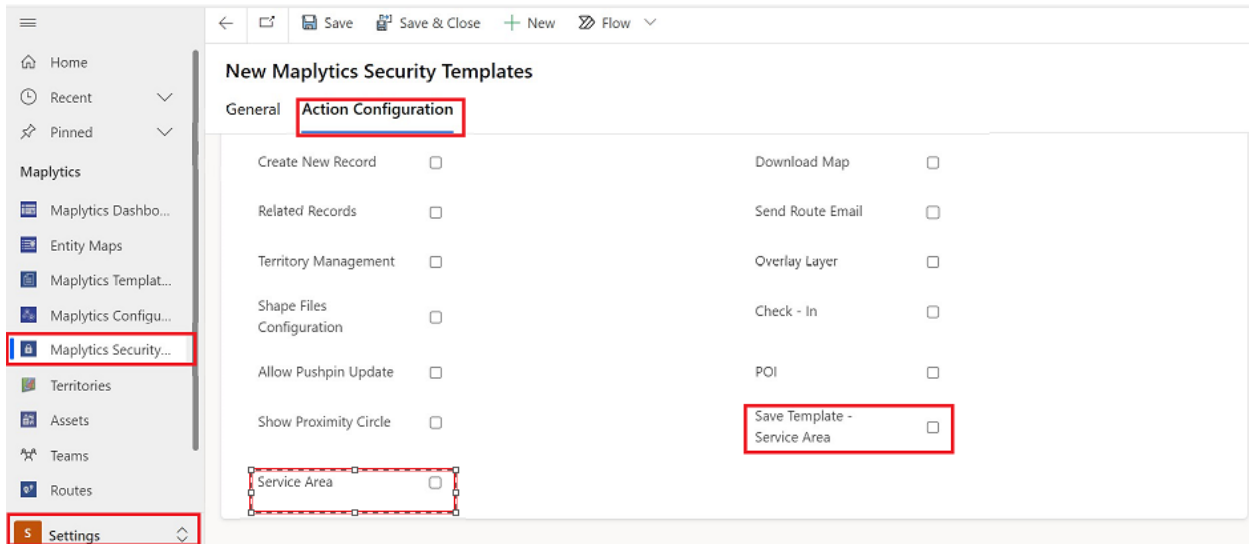
Once the relationship is created, select the same in the respective Entity map. As per our example, the Maplytics admin or system admin needs to **go to Maplytics App > Settings (Left bottom) > Entity Maps > Accounts Entity map > Attributes Mapping > Geography relationship > Select the 1: N relationship of Geography and Account for Service Area Mapping**



To restrict access to creating and assigning of Service Area and saving Template as Service Of Area, the user can move to **Settings>> Maplytics Security Templates>> Action Configuration**

The user can then uncheck Service Area and Save Template- Service Area options to restrict the feature and the Template enabling them again, when required.

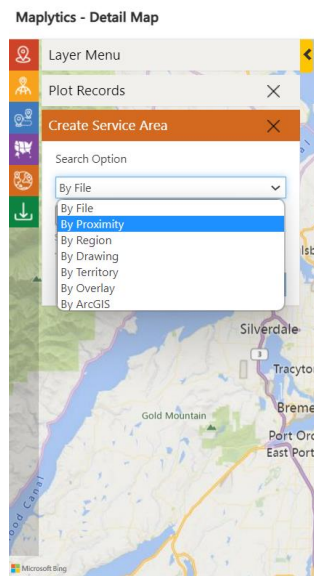
## Maplytics™ – User Manual



### Working of Area Of Service

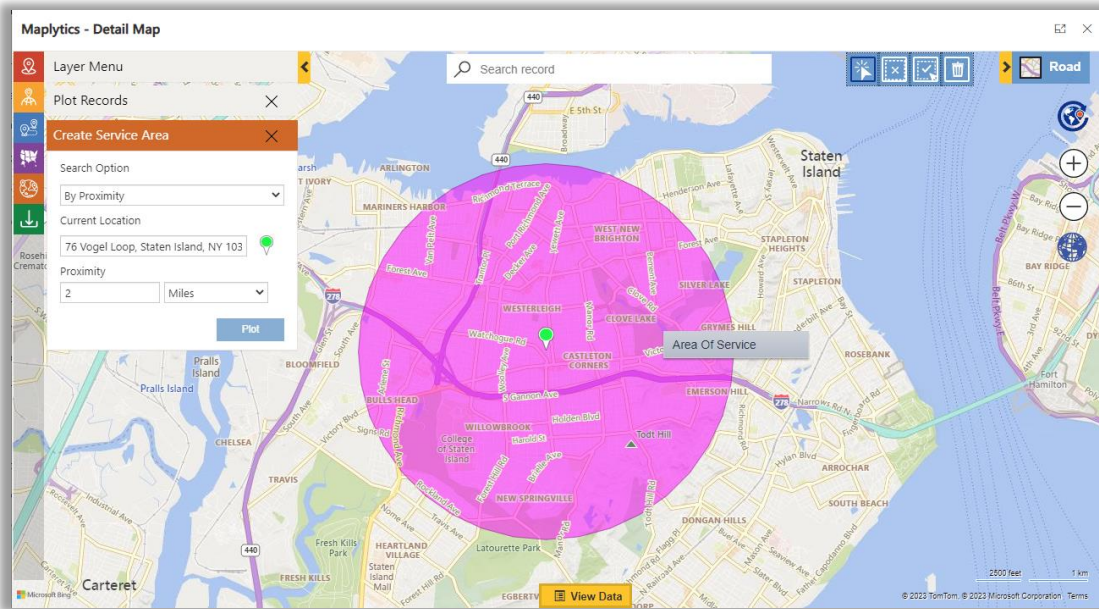
Users can create Service Area in an Individual Detail Map by using 6 ways-

by File, by Proximity, by Region, by Drawing, by Territory & By Overlay. Let us consider by Proximity.



After creating the shape, user can select the shape using align tool & right click over it to select Area of Service option to assign Service Area for individual record.

## Maplytics™ – User Manual

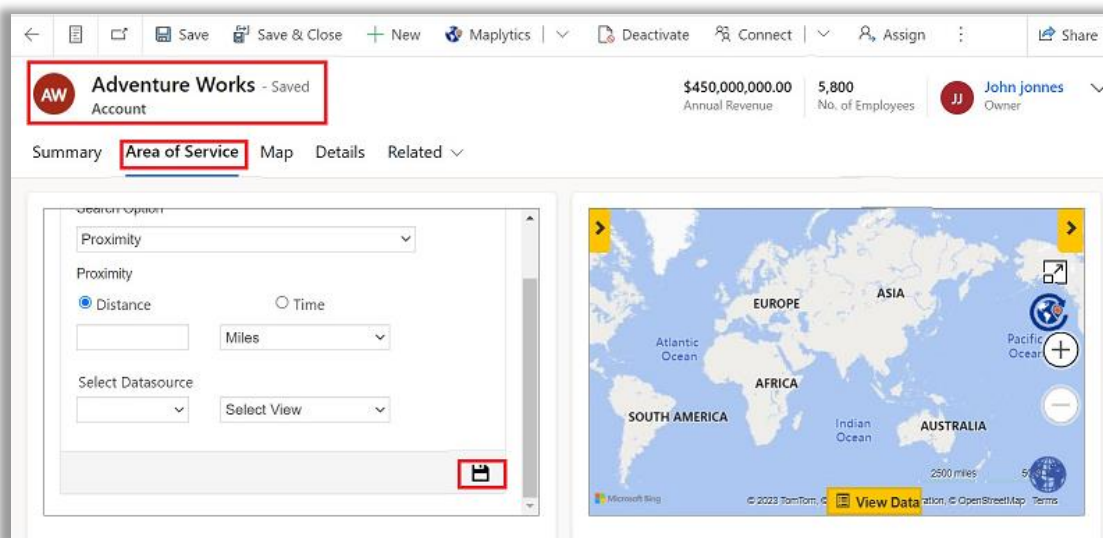


Once the area is assigned, the map can be refreshed to see the assigned Service Area for individual record.

Using Area of Service template, user can see the records that lie within the created Service Area. For example, doctors can see patients' records which are falling under their service region.

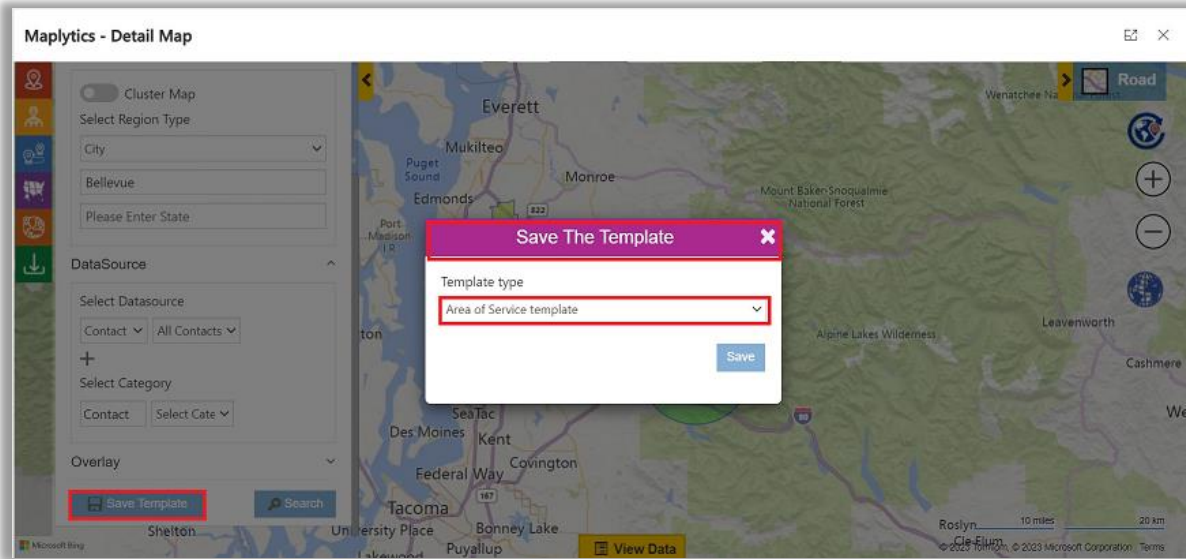
There are two ways to save the Area of Service template,

1. Using the Area of Service tab, which is configured by user,

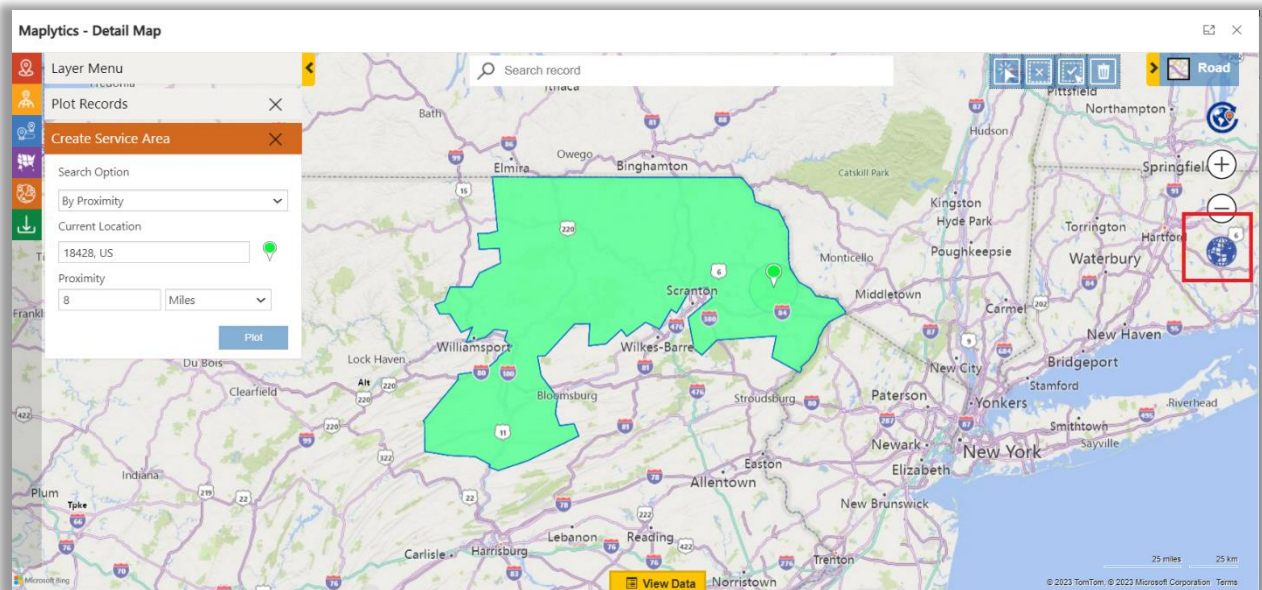


2. Using Plot cards either by location or by region on the individual map

## Maplytics™ – User Manual

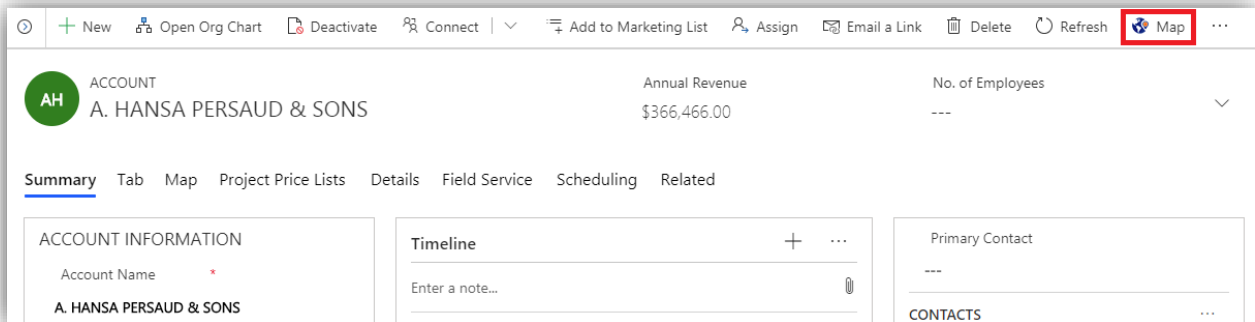


Plotting a Shape Layer on the created Service Area. This can be done by clicking on the 'Show Region Boundary' on the right

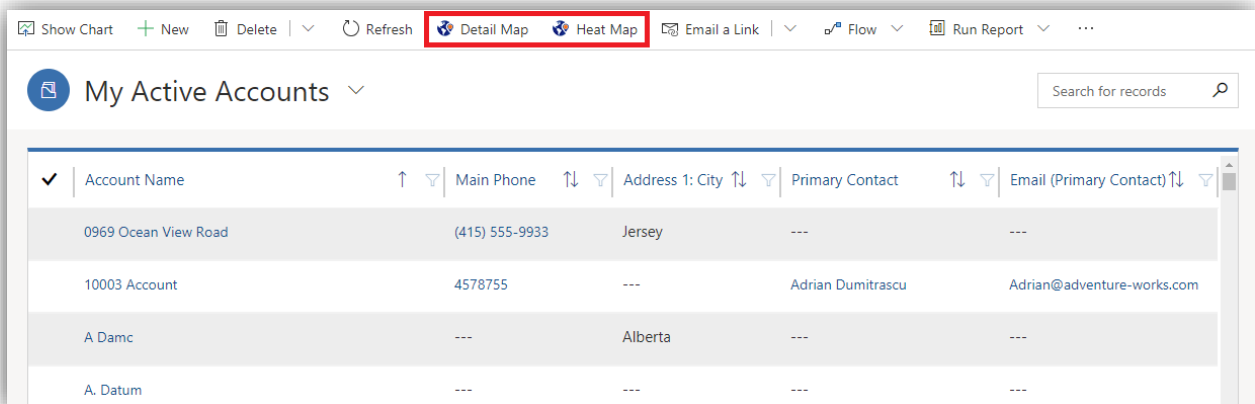


## Detail Map

Maplytics buttons are added to the Entity forms as well as the Entity Homepages so that it can be easily accessed from anywhere.



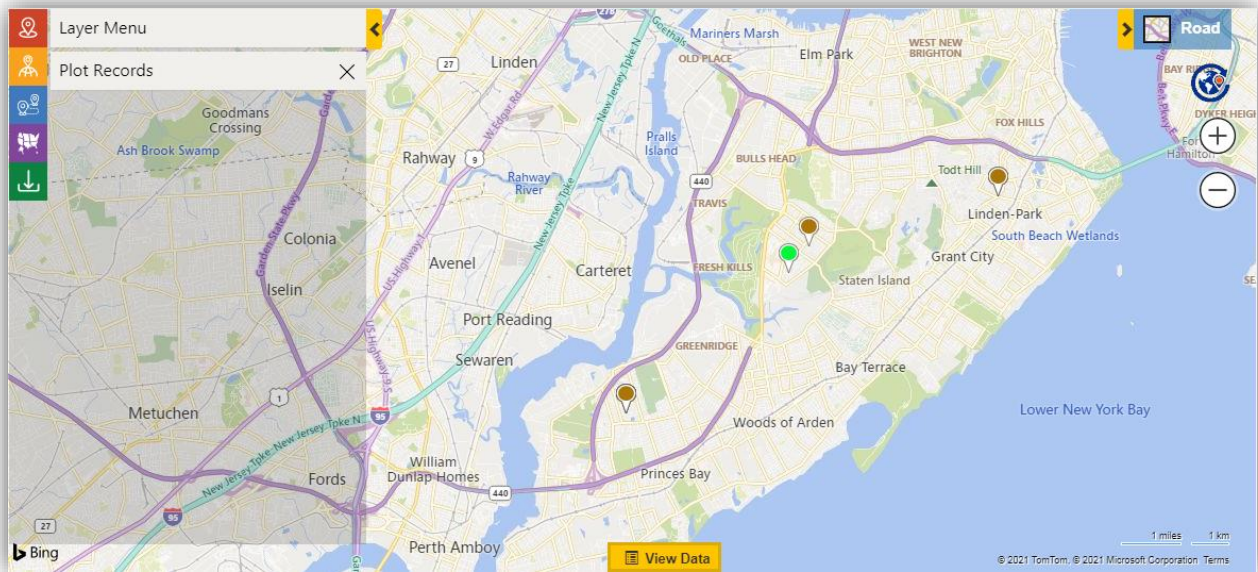
Using this button, the user can invoke the Maplytics application for detailed geographical analysis. Maplytics provides both 'Heat Maps' view as well as 'Detail Map' view of the Dynamics CRM data. These views can be easily accessed from the buttons added to the command bar in entity home pages and other views.





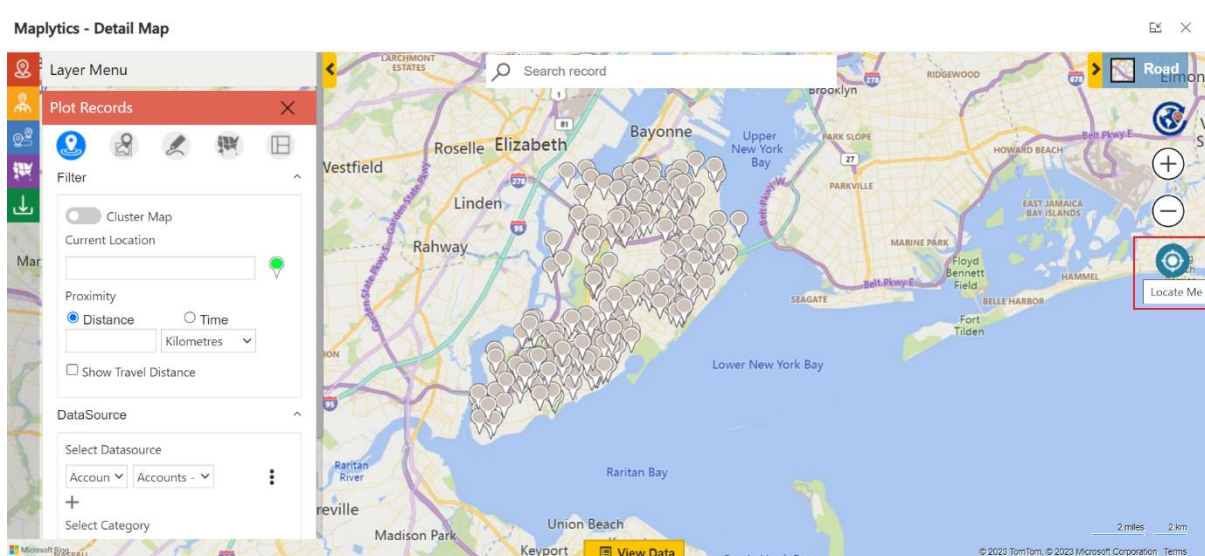
## Maplytics™ – User Manual

Selecting a few records and clicking on the ‘Detail Map’ button on a particular Entity Grid view will open the following window;



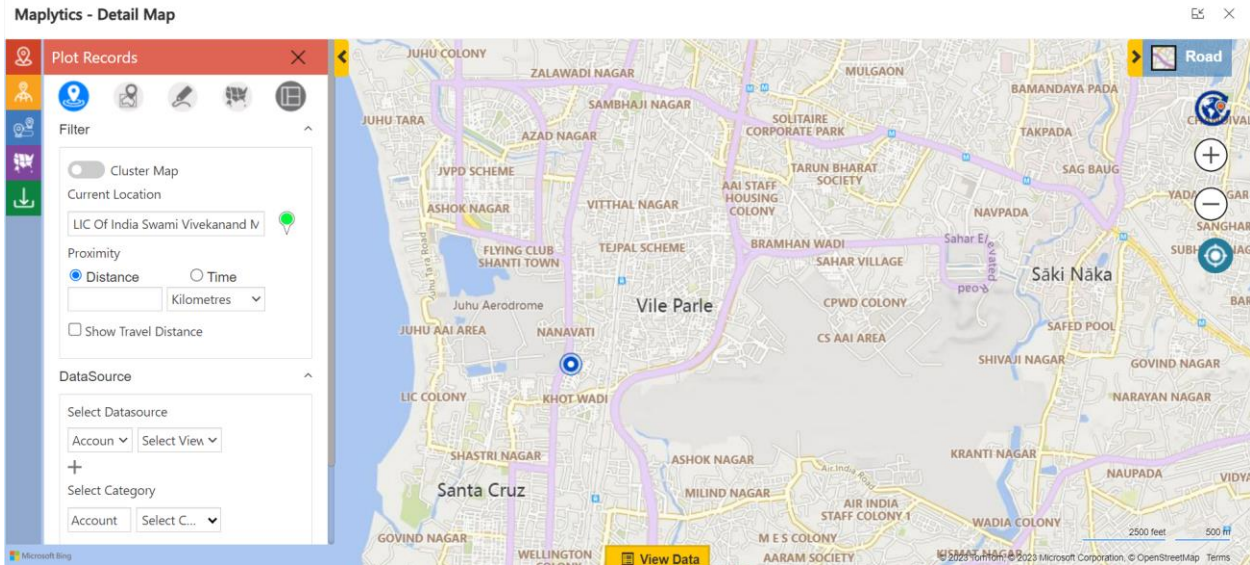
It will automatically plot the selected records from the view on the map. **Records that do not have their latitude/ longitude will be ignored and will not be plotted on the Map.**

### Map My Current Location-



Clicking on the ‘Locate Me’ button the user is asked to allow his current location to be plotted on the map. Once allowed, the user’s current location gets plotted with a blue pushpin.

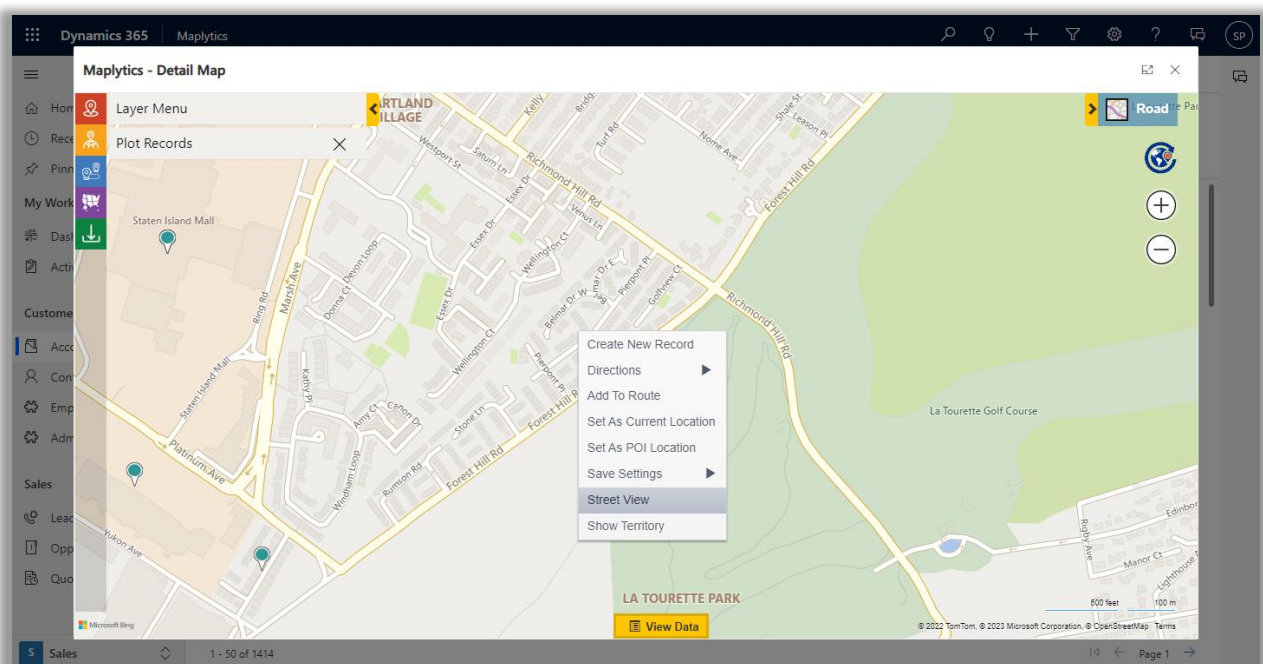
## Maplytics™ – User Manual



Right-clicking the current location provides two options, Set Address and Street View. Set Address populates the address of the current location in the text box. The Latitude and Longitude of this location are populated in the respective fields in the bar above. On clicking the Update button and confirming the address, the address, latitude, and longitude get updated successfully for the record. Using this functionality, the user can view the travel distance from the Current Location and the User's Location and plan the travel accordingly.

### Street View

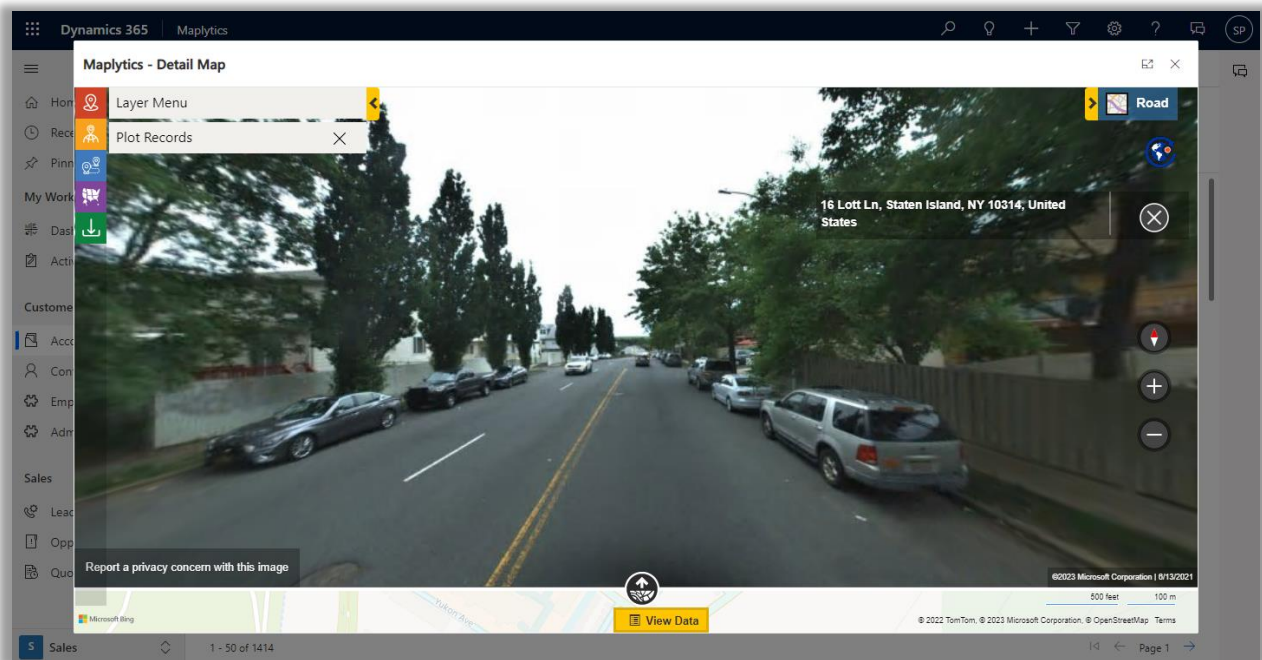
Right Clicking on the Detail Map gives an option of Street View.



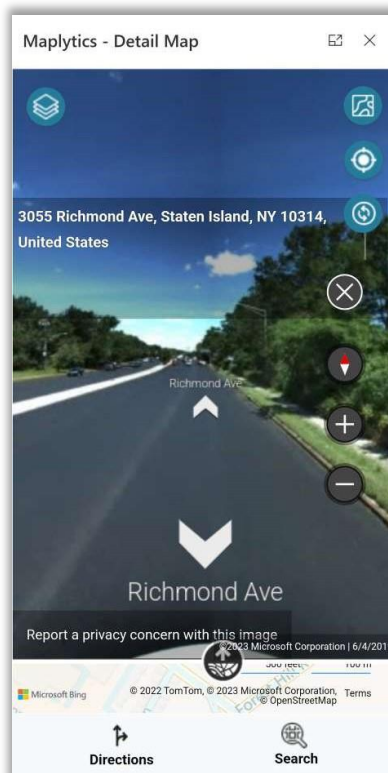
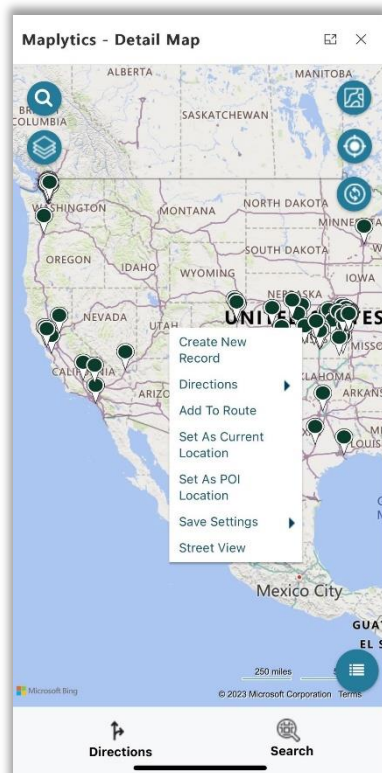


## Maplytics™ – User Manual

Clicking it opens an improved 3D view of the street.



Right Clicking on the Detail Map on the Mobile App also gives an option of Street View and a 3D View.





## Plot

There are five different search options to plot the data on Map:

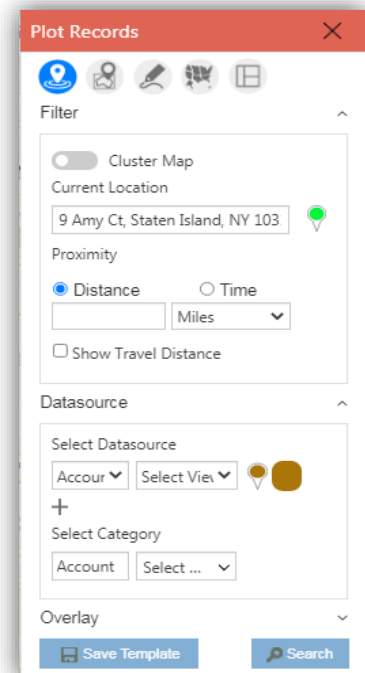
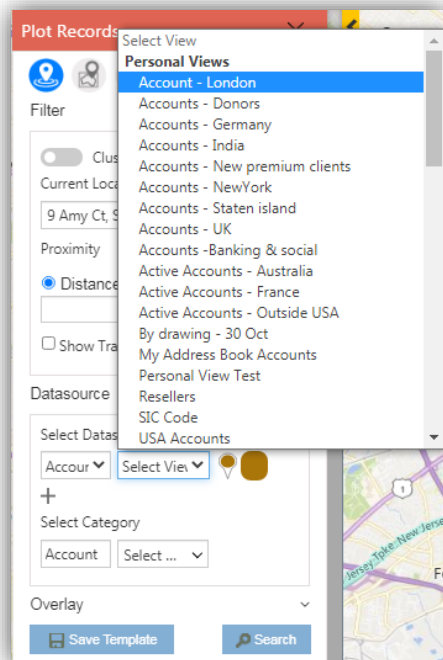
- By Location
- By Region
- By Drawing
- By Shapefile
- By Territory
- By Template

**Note: The user can also configure the ‘Search Options’ to be visible on the map. Refer ‘Setup Entity Map’ section of Installation Manual for further instruction.**

### By Location

This helps the user to plot the data using the geocoding of each record. By Location search option also allows the user to perform Proximity/Radius Search based on Distance or Time.

The Current Location is fetched from the user’s personalization record. The user can also set a new current location using the contextual menu. Refer to the section of the Contextual menu.



**Select Datasource** dropdown will list out all the Entities (OOB and Custom) configured for Maplytics and the active views (System views, Personal views, Maplytics Dashboards and Marketing Lists) that are available for the selected Entity type. The user can choose one of the views to plot all the records available in that view.

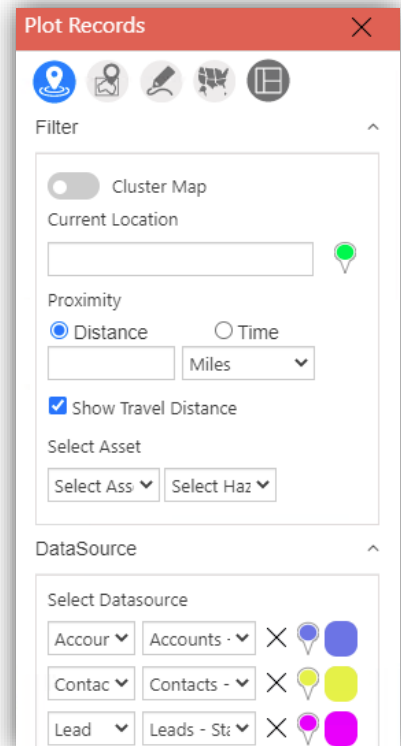
**Note: The user can also configure the ‘Views List’. Refer ‘Setup Entity Map’ section of Installation Manual for further instruction.**

## Maplytics™ – User Manual

The user can select multiple entities using the '+' button. This allows for viewing Dynamics CRM data across Entities in a single view on the map.

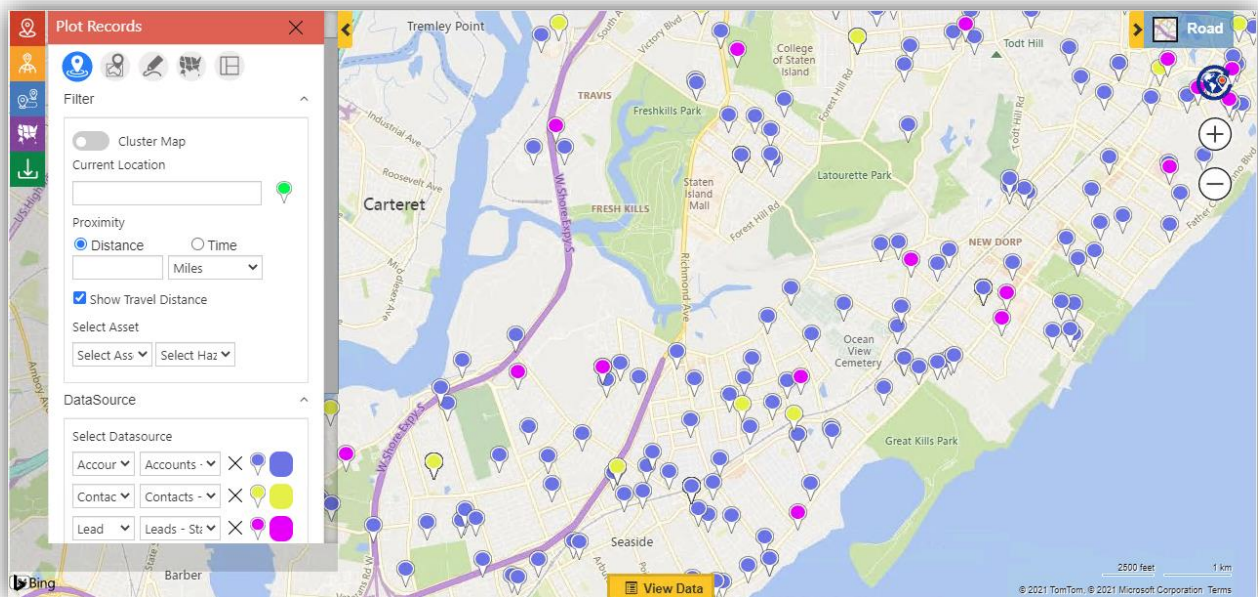
After selecting multiple entities, the user can click on the 'Search' button to plot the records for the selected entities. This helps the user to visualize three entities on a single map.

**Note:** User can define the colors as well as pushpin shapes of the Entity – view combination. Refer to 'Setup Entity Map' section of Installation Manual for further instructions.



The 'Plot Records' dialog box is shown with a red header and a close button. It contains several sections: a 'Filter' section with a 'Cluster Map' toggle, a 'Current Location' input field with a location pin icon, a 'Proximity' section with 'Distance' and 'Time' radio buttons, a 'Miles' input field, and a 'Show Travel Distance' checkbox; a 'Select Asset' section with 'Select Ass' and 'Select Haz' dropdowns; and a 'DataSource' section with a 'Select Datasource' label and a table of data sources. The table has three rows: 'Accour' (Accounts) with a blue pin icon, 'Contac' (Contacts) with a yellow pin icon, and 'Lead' (Leads - St) with a pink pin icon. Each row has a cross icon to its right.

| Select Datasource |            |
|-------------------|------------|
| Accour            | Accounts   |
| Contac            | Contacts   |
| Lead              | Leads - St |



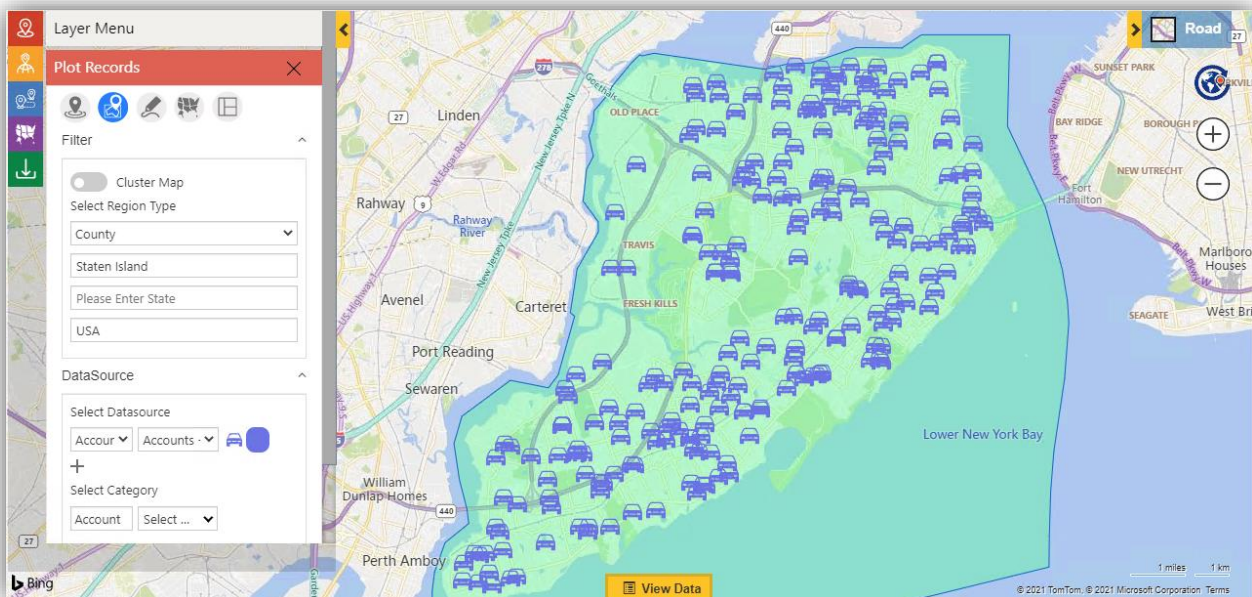
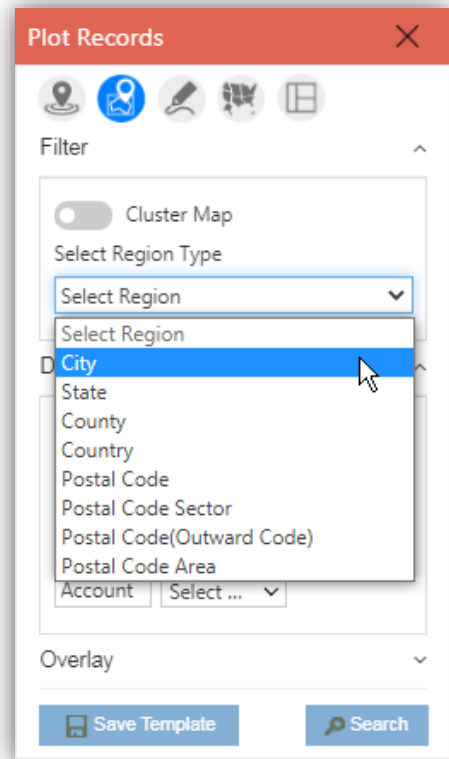
## By Region

This helps the user to plot the data by the region of records, i.e., City, State, County, Country, PostalCode, PostalCode Sector, Postal Code(Outward Code), Postal Code Areas. The user can plot multiple regions under a particular region type.

- **Postal Code:** The smallest postcode category, such as a zip code.
- **Postal Code Sector:** The second '1' is called "Postcode Sector". Example: CA1 1
- **Postal Code(Outward Code):** This is called Outward Code, the part of the postcode before the single space in the middle. Example: CA1
- **Postal Code Areas:** The next largest postcode category after Postcode1 that is created by aggregating Postcode1 areas.

### Note:

- *The regions that were plotted using the option of Post code Areas before will now be plotted by using the option of Post code sector.*
- *The regions will be plotted as per the Bing maps.*



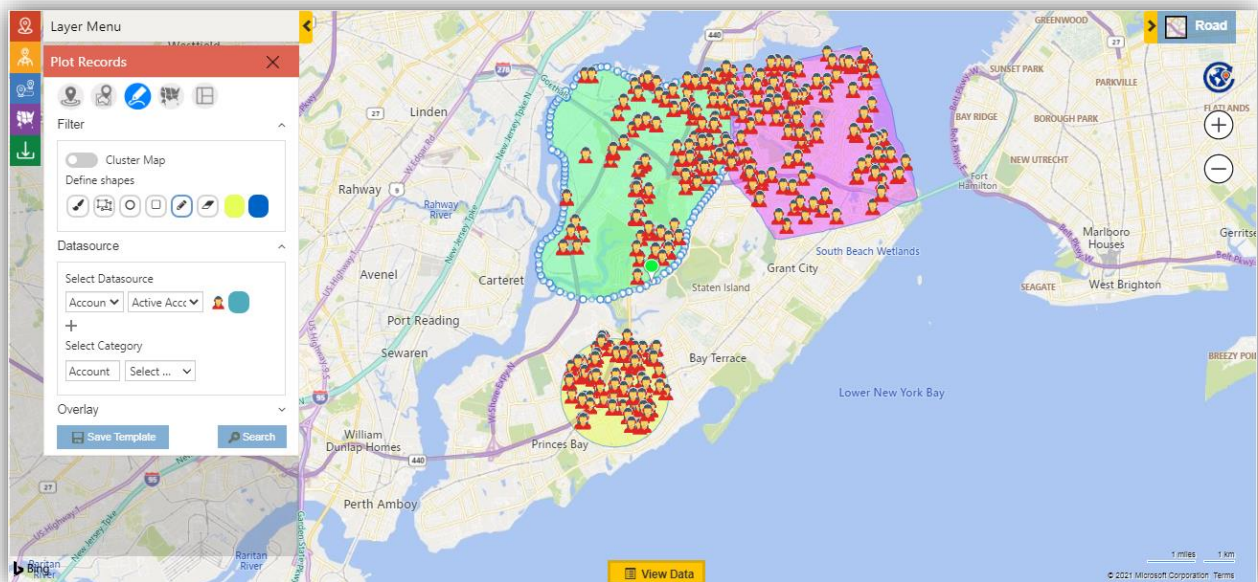
### By Drawing

This helps the user to plot data by defining their own shapes. The user can use the 'Drawing tool bar' to draw the following shapes:

- Freehand drawing
- n-sided polygon
- Circle
- Rectangle

The user can further edit the drawn shapes by using the following options in the Drawing tool bar:

- Edit
- Erase
- Fill color
- Stroke color



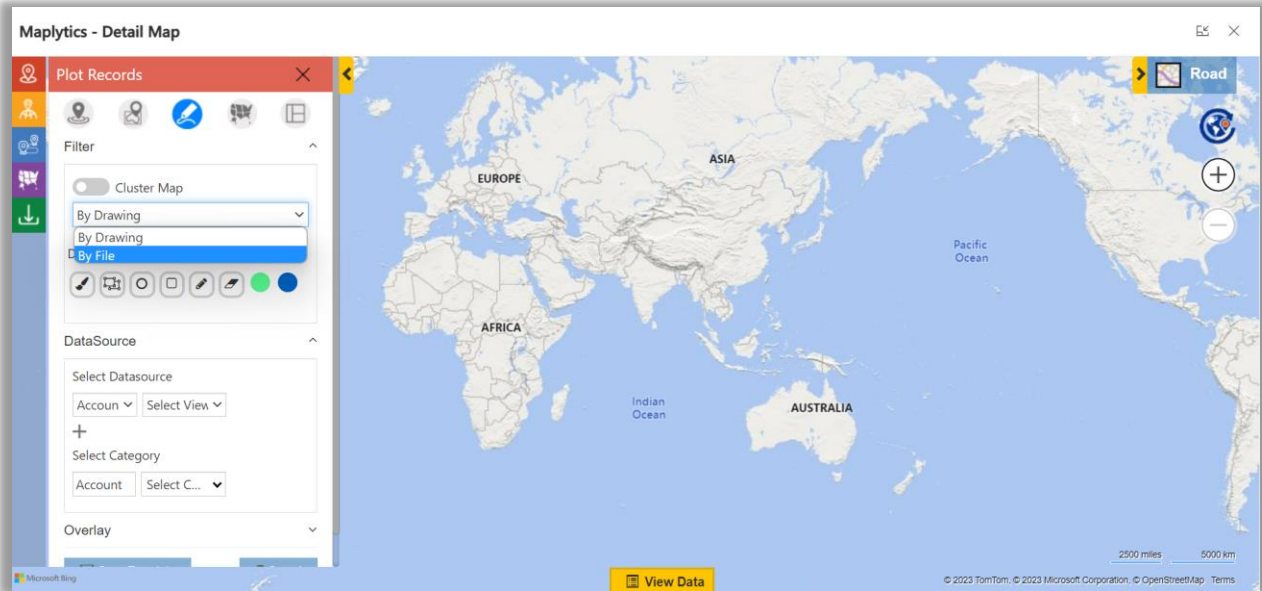
**Note:** While creating an n-sided polygon, use the 'Esc' key from keyboard to close the shape.



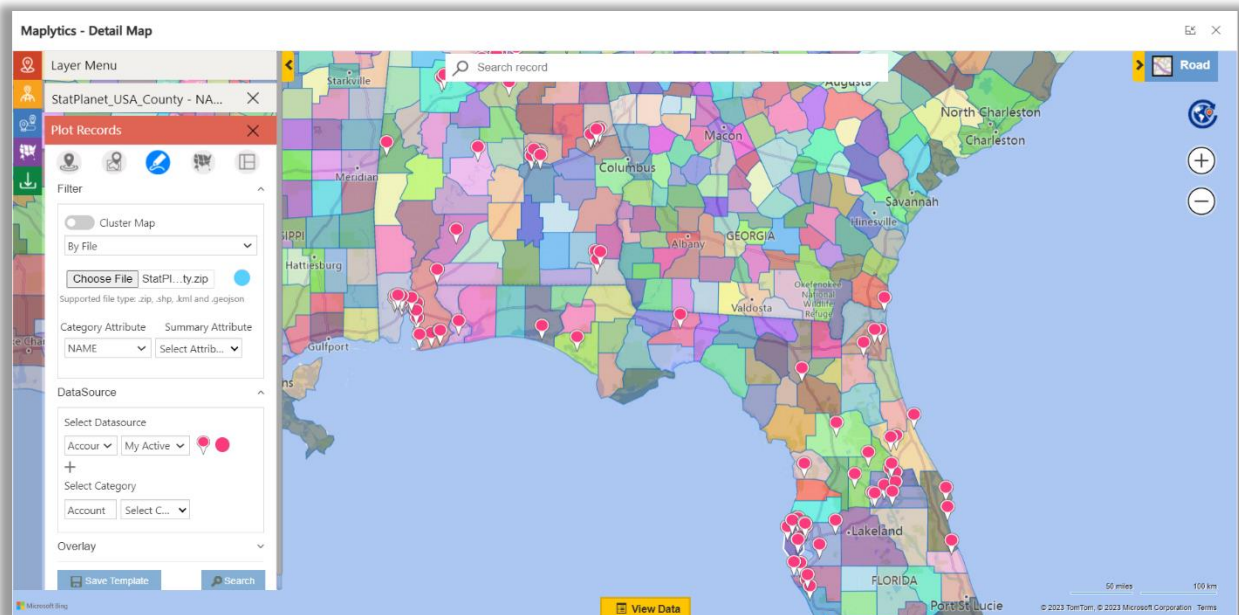
## Maplytics™ – User Manual

### By File within By Drawing

Within the 'By Drawing' Option, there is a 'By File' Option available in the drop-down.



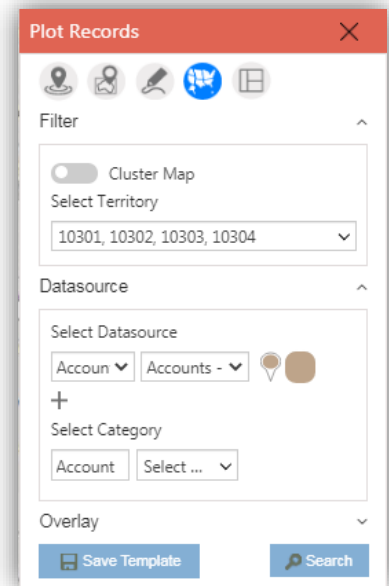
This helps the user to plot data by uploading .zip, .shp, .kml or .geojson file and filter records on the plotted shapes as per the uploaded file. Thus, the user can visualize records as per his requirement within a specific shape.



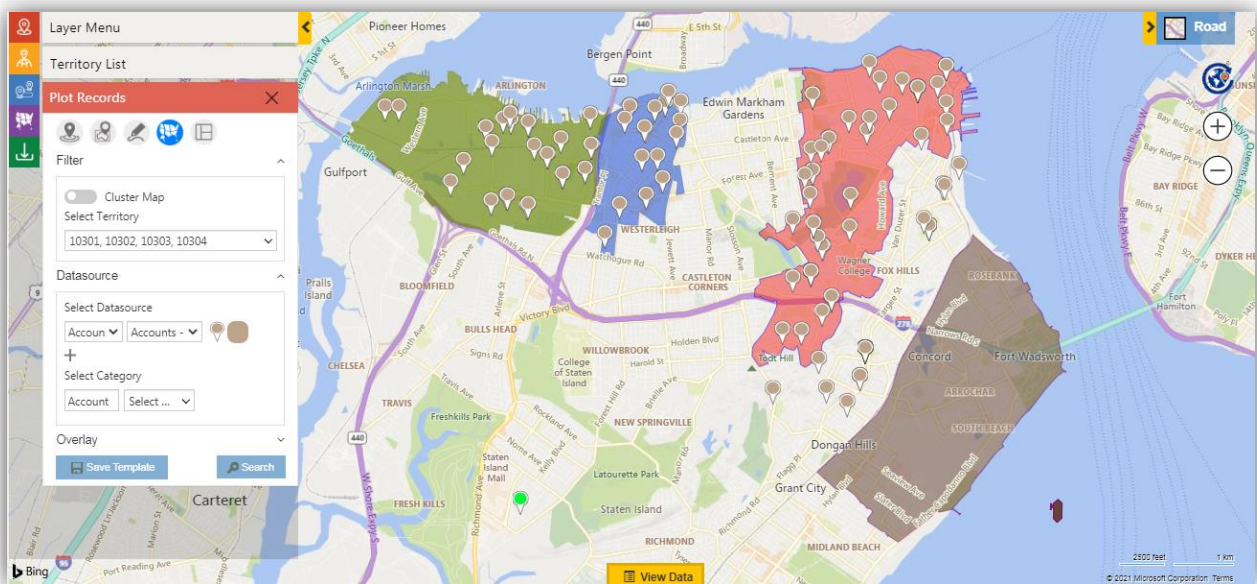
## Maplytics™ – User Manual

### By Territory

This helps the user to plot the data defined in a particular sales territory. The user can select multiple territories in 'Select Territory' option and respective Datasource & view to plot the territories along with the records assigned with them.

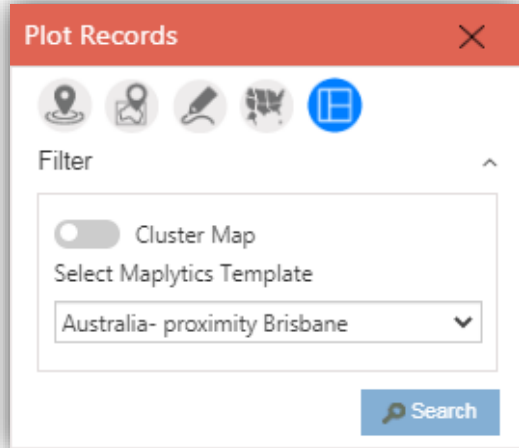


The 'Plot Records' dialog box is shown with a red header and a close button. It contains several sections: 'Filter' with a 'Cluster Map' toggle and a 'Select Territory' dropdown; 'Datasource' with a 'Select Datasource' dropdown, a 'Select Category' dropdown, and a '+' icon; and an 'Overlay' section with 'Save Template' and 'Search' buttons. The 'Select Territory' dropdown is set to '10301, 10302, 10303, 10304'.



### By Template

This helps the user to plot the predefined search criteria in Detail Map. The user can save the search criteria as a template and use the 'By Template' search option to quickly plot the data with that search criteria. This helps the user to save a considerable amount of time.

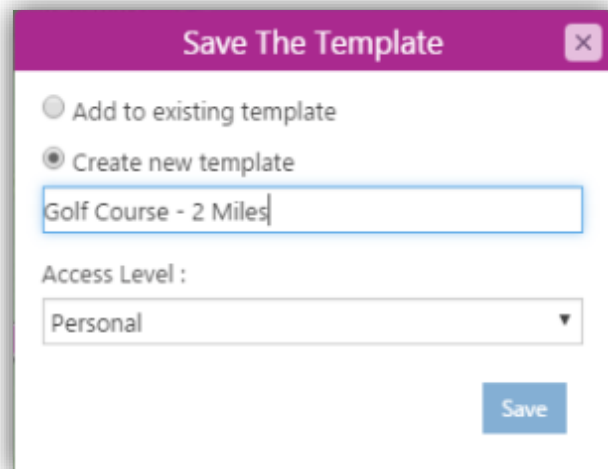
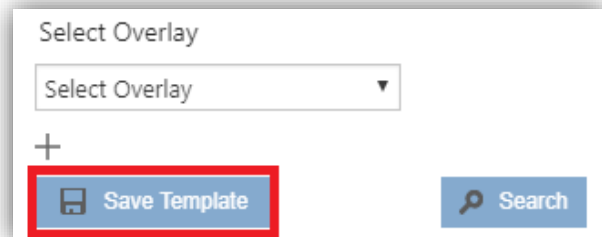


For example, if any user is assigned with a task where the requirement is to regularly plot 'My Active Accounts' records in 2 miles of a particular location and filter a particular Industry, then the By Template option can be beneficial.

The User can plot the required criteria on the map and use the button 'Save template' to save the search criteria as a template and define the access level of the Template while saving the template as described below:

- **Personal** – The users can limit the usage of this template to themselves
- **Public** – Anyone in the organization can use this template

Apart from saving information of Plot Records, Category card, and filters from Grid, it also saves the Zoom level & Center of the map.



#### Note:

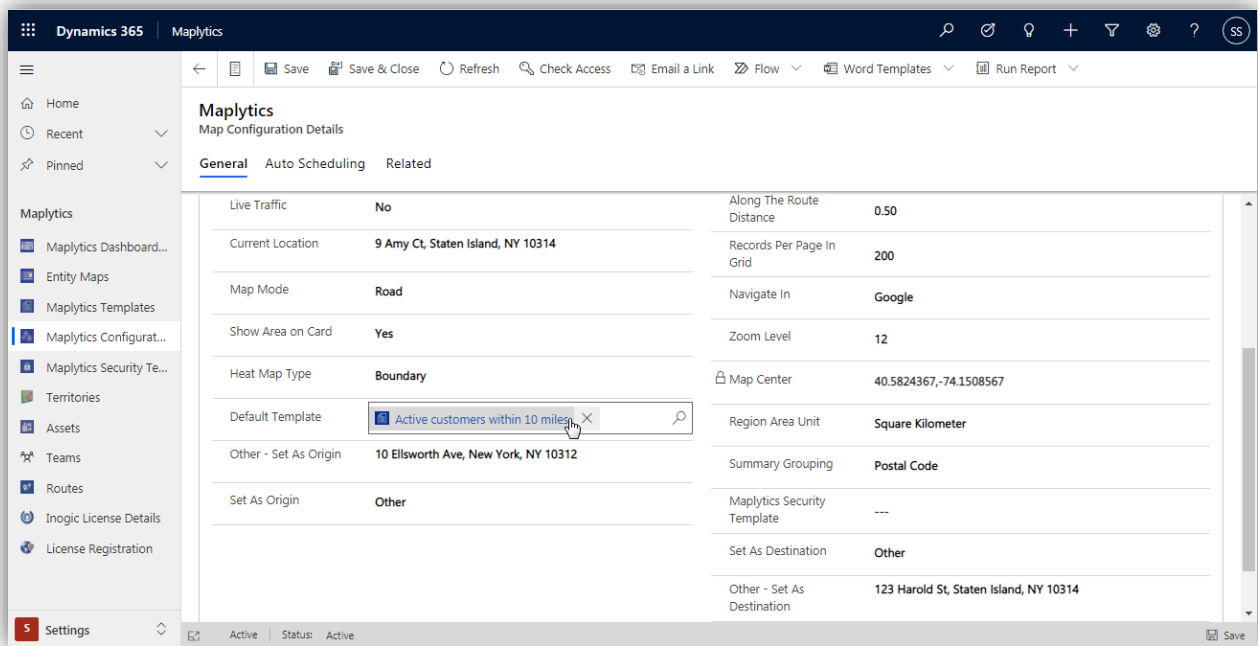
- Please assign 'Maplytics User' security role to Team Maplytics before exploring this functionality.
- If user saves a template with Proximity search and current location as blank, while plotting the template, the current GPS location of the logged-in user will be fetched and the results to the Proximity search will be plotted around the user's current GPS location.

## Maplytics™ – User Manual

### Default Template

User can set the Default Template within their respective Configuration Detail record and view the predefined search criteria saved in the template plotted by default on the Detail Map.

To set a template as Default, user need to **Go to the Maplytics App > Settings > Maplytics Configuration Details > Respective User Configuration Detail record > General > Default Template > Select required template.**



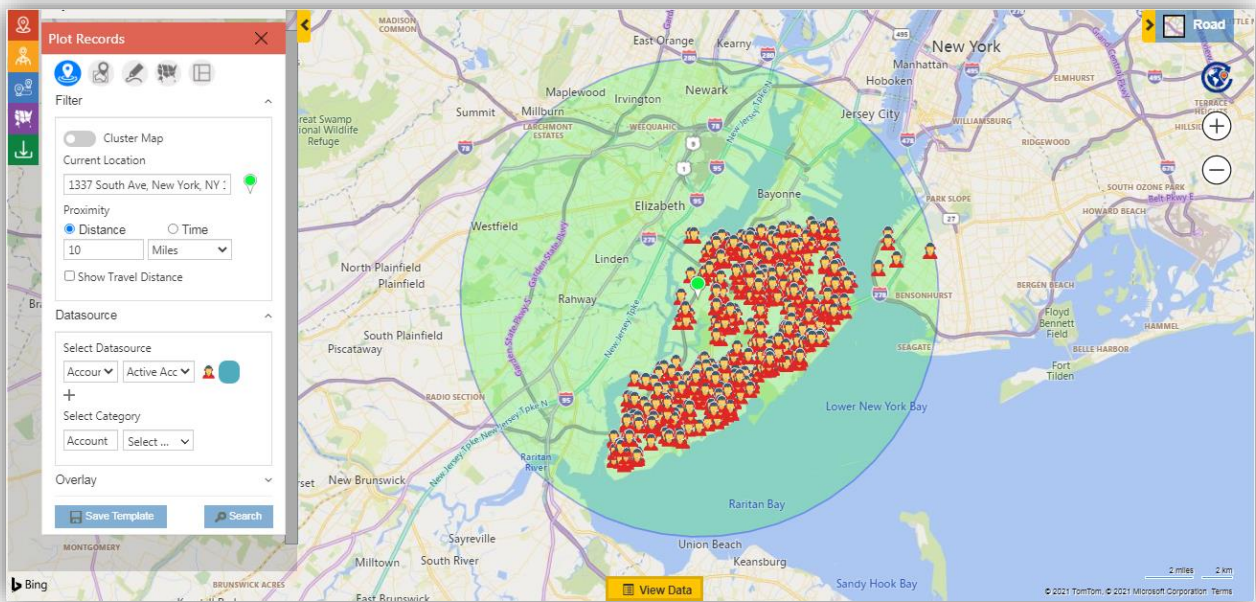
**Note: Default Template will not open if,**

- User selects a few records in Entity home grid and then clicks on Detail map button.
- User expands a dashboard to open on Detail map.
- User has saved Default template with search criteria other than Proximity Search and uses the 'Map' button on a specific record and opened the map

When clicked on the 'Detail Map' button, it will plot the default template selected in the respective user's Maplytics configuration detail record by default on the map.



## Maplytics™ – User Manual



**Note:** Default Template will not open if,

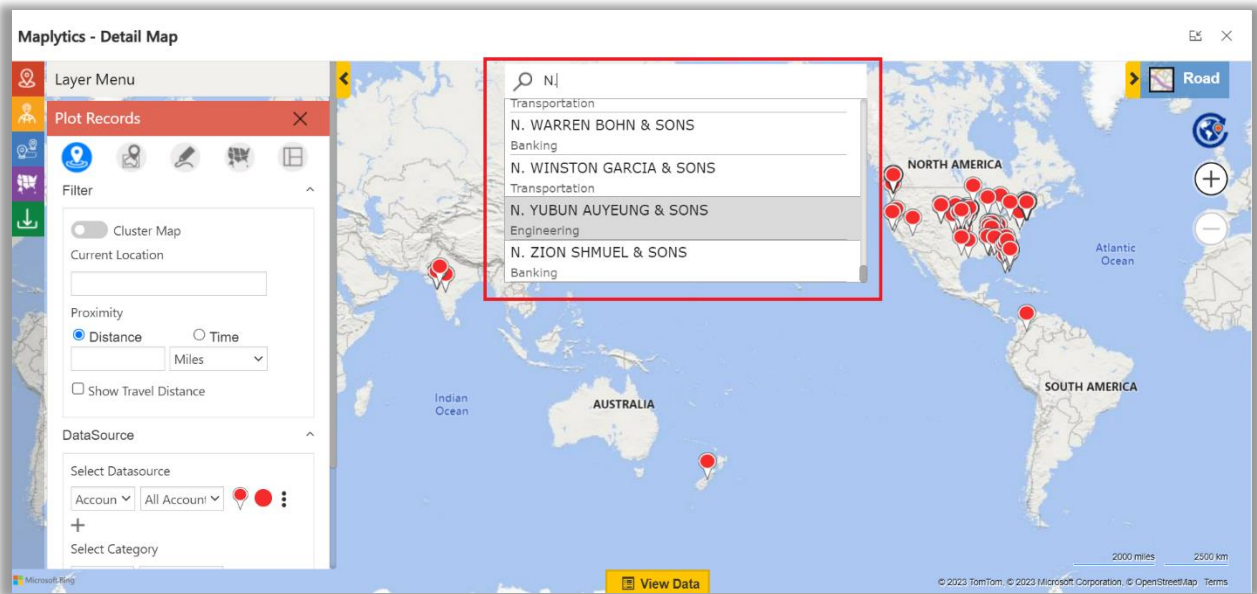
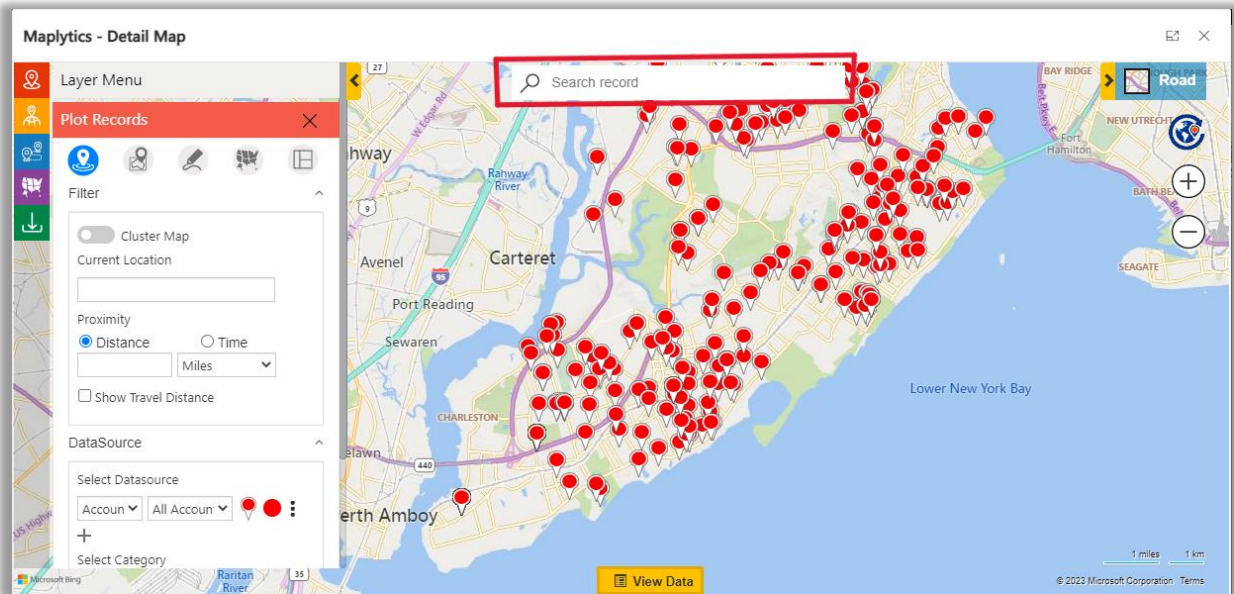
- User selects a few records in Entity home grid and then clicks on Detail map button.
- User expands a dashboard to open on Detail map.
- User has saved Default template with search criteria other than By location/ Proximity Search and uses the 'Map' button on a specific record to open the map. In this case, the respective record will be plotted on map.
- User has set Area of Service on a record and is using the 'Map button' on the record to open the map.

**Note:** Below are some exceptional cases for Default template where the plotted data might vary.

- If Default template has been saved with search criteria By Location and the user uses the 'Map' button on a record to open the Map, in this case, the respective record will be plotted as the current location along with other records selected within the Default template.
- If Default template has been saved with search criteria Proximity Search and the user uses the 'Map' button on a record to open the Map, in this case, the respective record will be plotted as the current location replacing the initial current location set in the template. Thus, the records will be plotted within the specified radius from the respective record's location which is now the current location on the map.

## Search Record

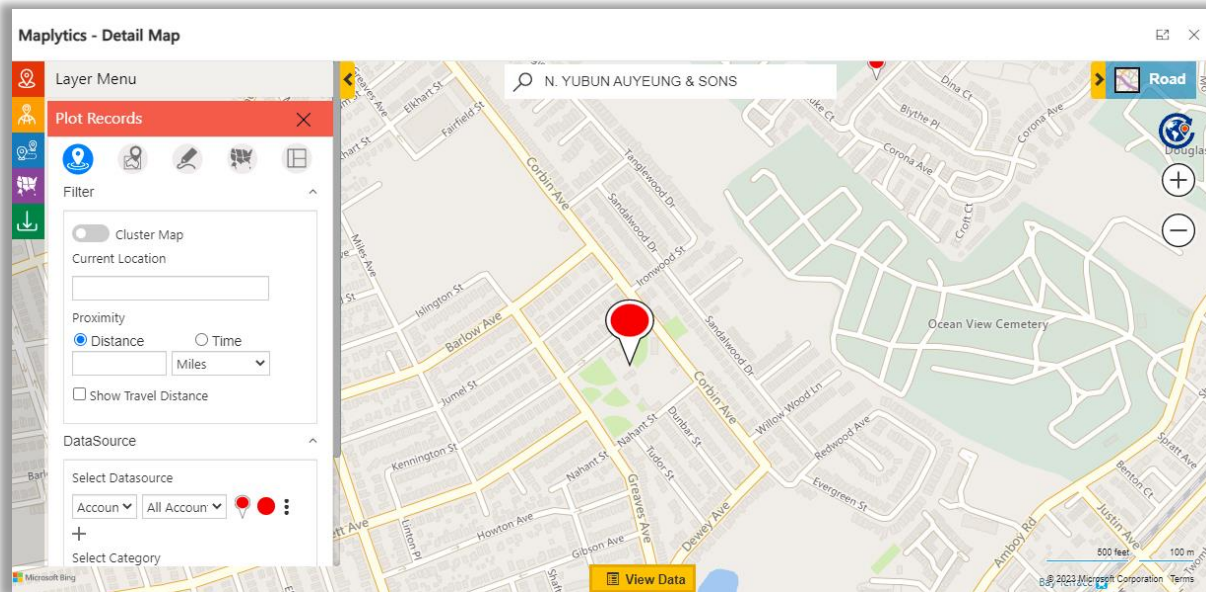
Once the records have been plotted, a search bar appears at top center of the map. This search bar can then be used to search any specific record from among the plotted ones using the primary attribute.



As in the above example, the Industry of 'Engineering' displayed for the search entity appearing in the bar above is derived from the second column of the Quick Find View.

This search zooms the map to the area where the required record is plotted. The preferred pushpin blinks in quick succession to highlight its position from among the records.

## Maplytics™ – User Manual

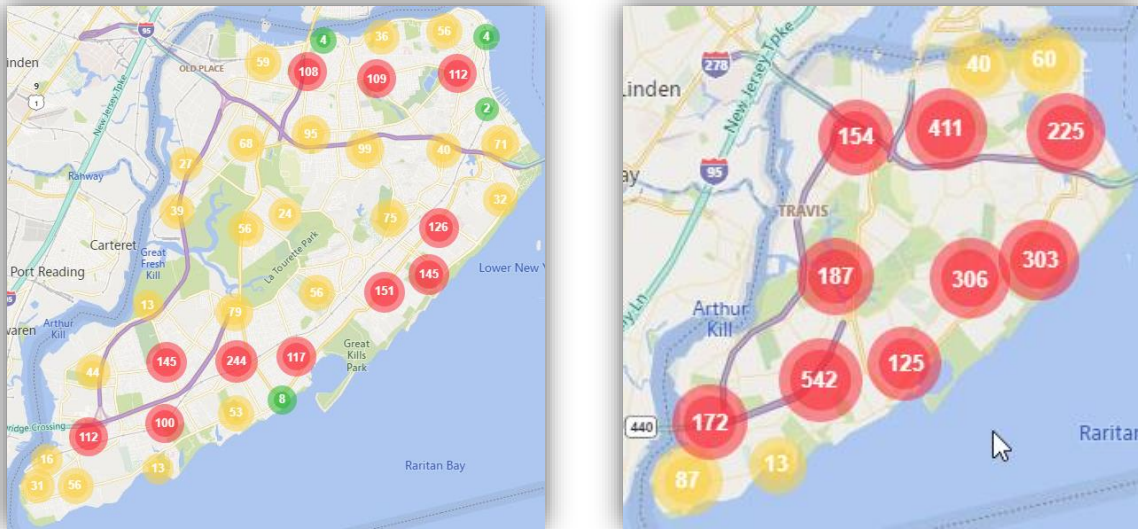


Finding a particular record from among many becomes easy with this feature.



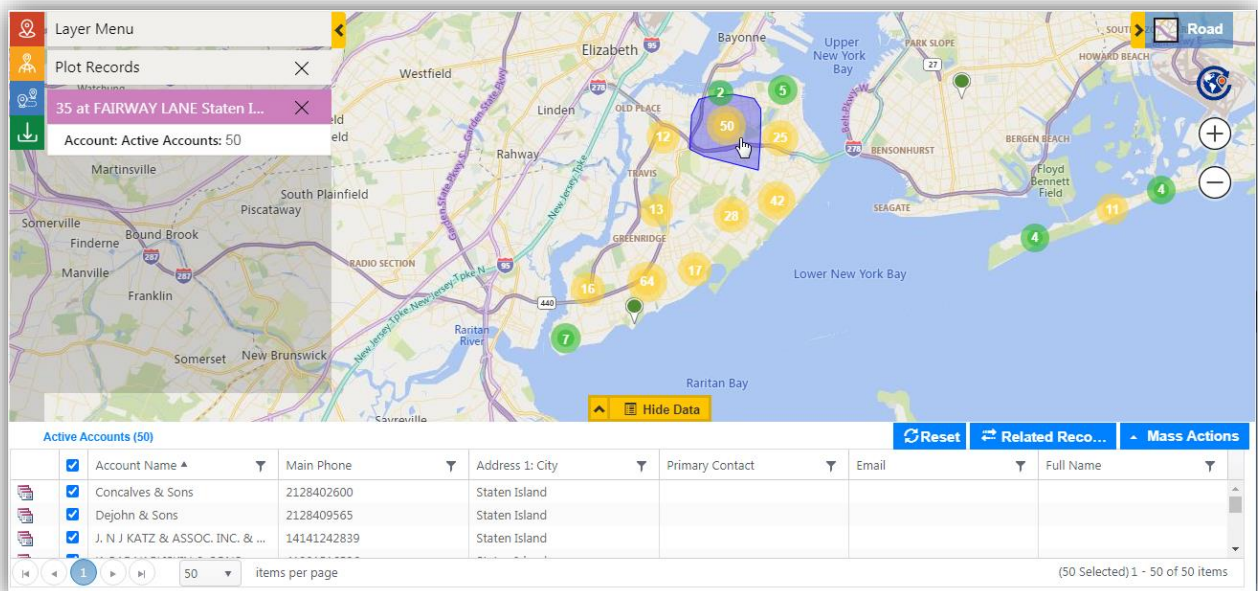
## Cluster map

The user can select this option to group the closely positioned pushpins into a cluster. A cluster shows the number of pushpins in the cluster. The user can zoom in further to break down the cluster into smaller clusters or zoom out to group closely positioned clusters into one.



## Cluster Area

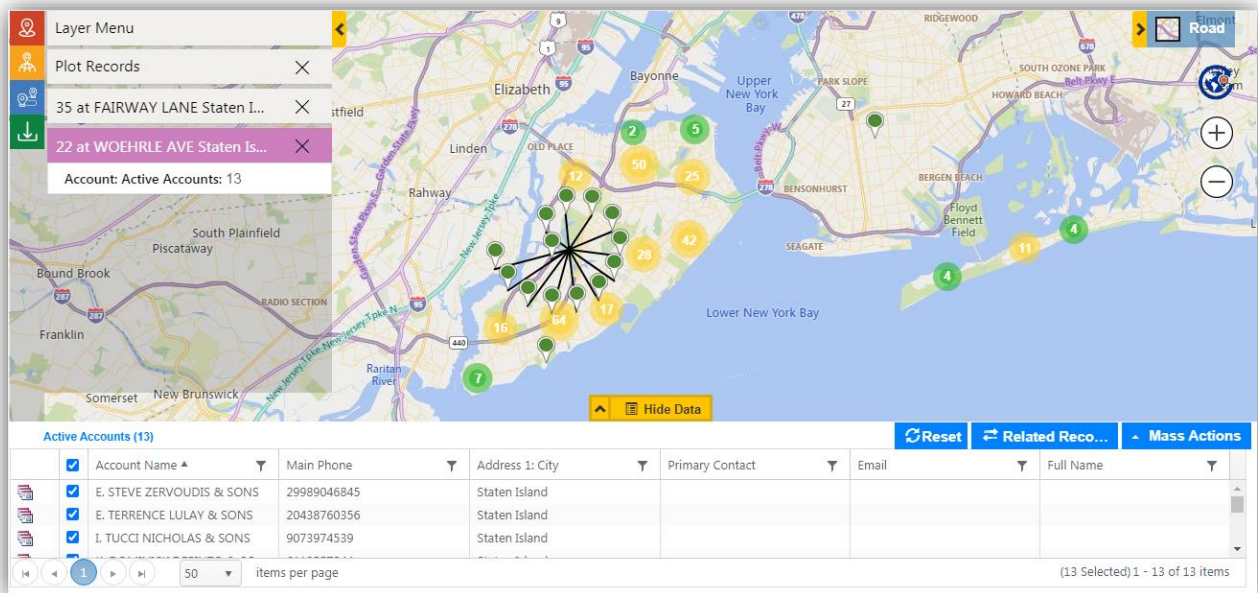
The user can hover on any cluster to see the 'Cluster area' which shows the data spread. The data spread is based on the area covered by the pushpins existing in the cluster.



## Maplytics™ – User Manual

### Spider cluster

The user can click on any cluster to view the pushpins existing in the same in the form of a ‘Spider cluster’.



**Note: Spider clusters can be visualized only for records less than or equal to 50.**

## Category

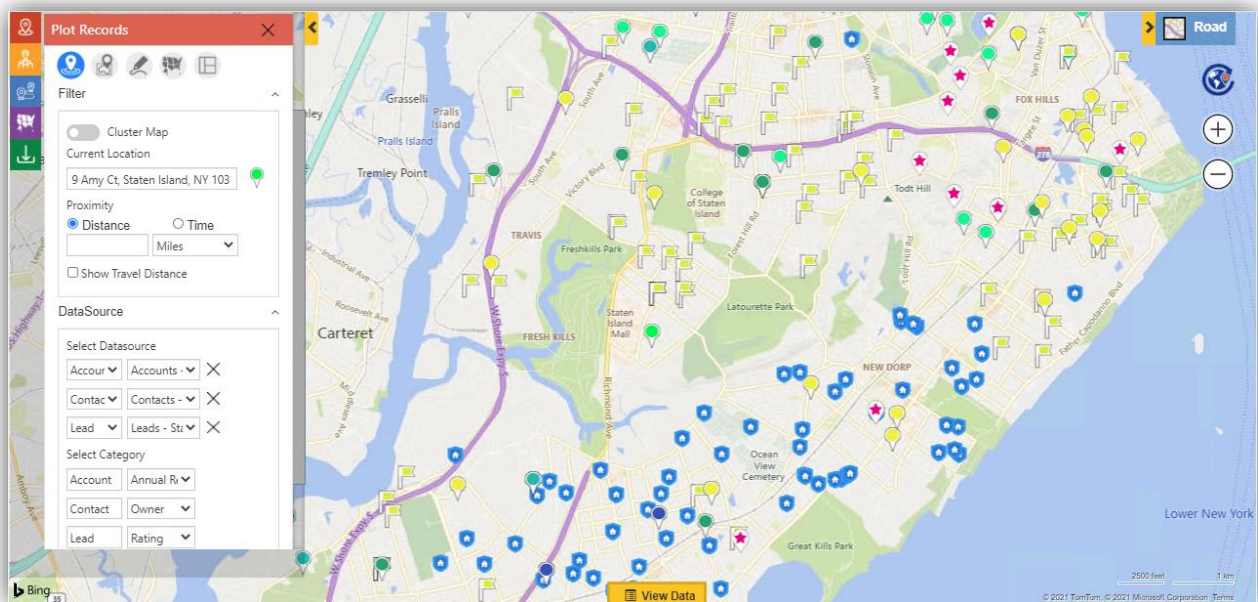
Users can choose any attribute for the selected entity to categorize the data on the map and visualize the pushpins color-coded based on the selected attribute. The category card will further help the user to differentiate between the pushpins.

### Multiple categories for multiple entitles

User can plot entities on the map and can also select attributes for the datasources selected to categorize them. The screenshot below shows the categorization of the records of Account, Lead and Opportunity based on the attributes Annual revenue, Rating and Estimated Revenue respectively.

#### Note:

- **User can choose respective categories for different entities.**
- **The user can define the color as well as shape of pushpins for each parameters of category. Refer to [Pre-Define Colors for Category](#) section for further details.**
- **User can also choose the field attributes to be visible in Category list. Refer to 'Setup Entity Map' section of Installation Manual for further instruction.**



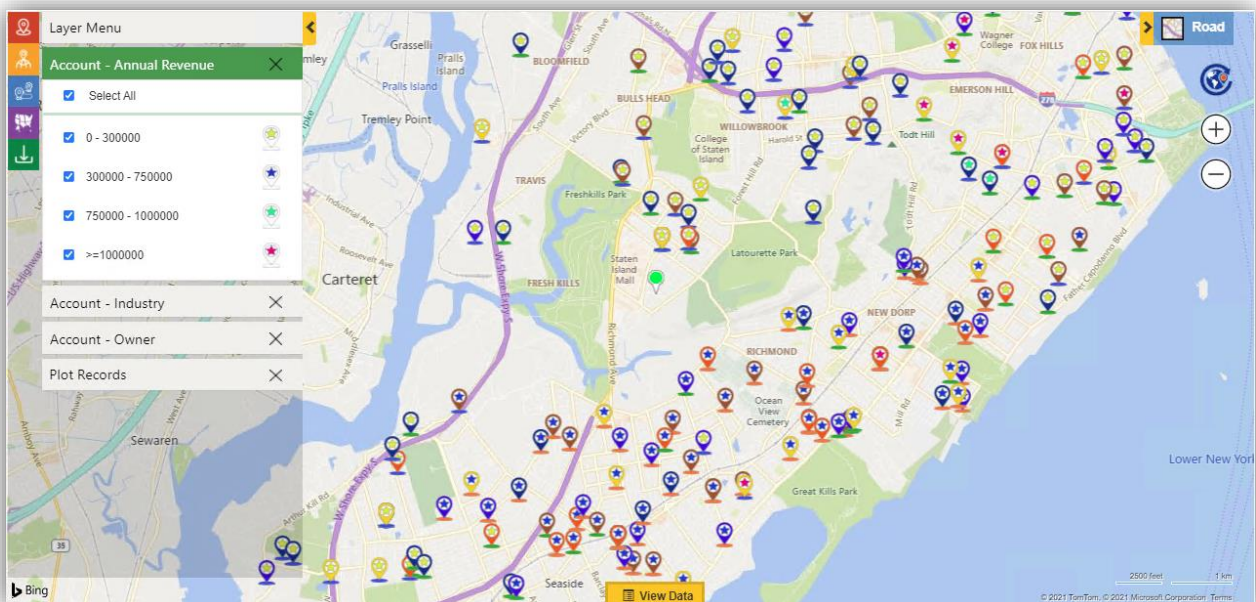
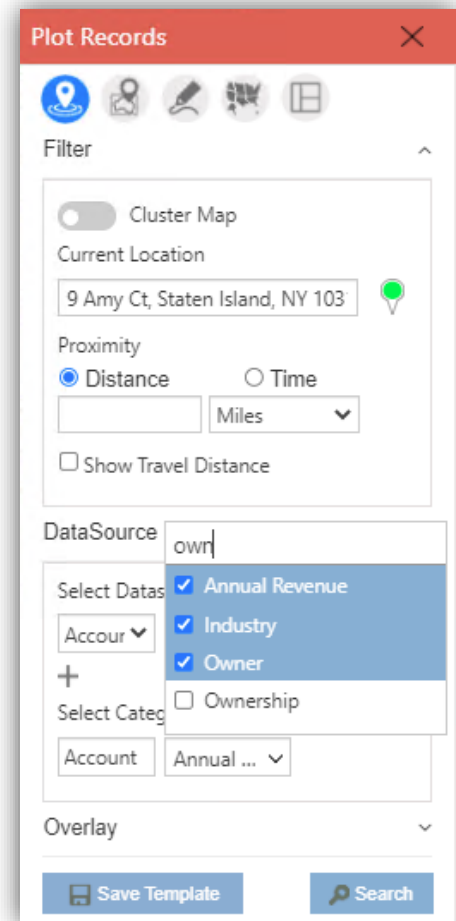


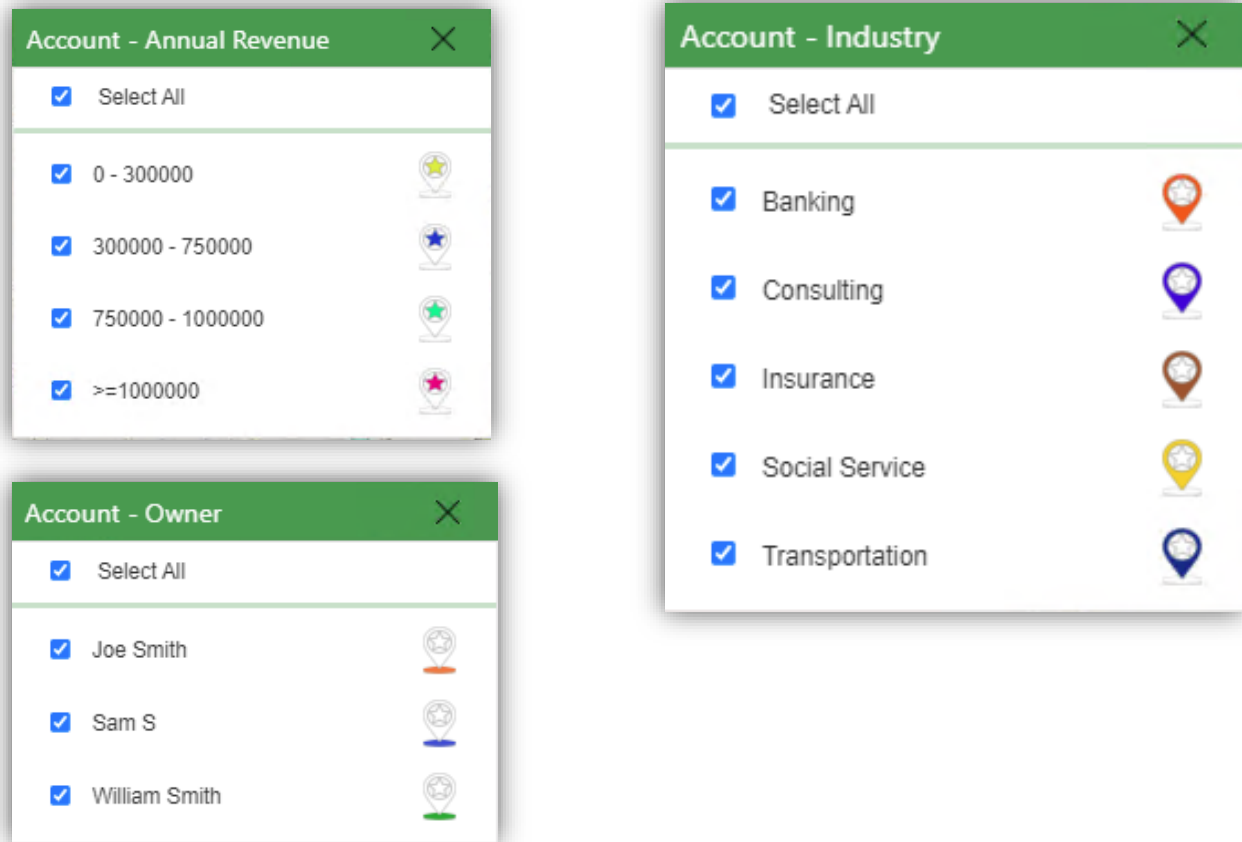
## Multiple categories for single entity

Users can also plot a single entity records categorized by multiple attributes e.g. Account records categorized by Open revenue, Originating lead, Owner. The user can choose an entity twice or thrice with two or three different views respectively and choose required attributes for the respective views to categorize the same entity with different attributes. User can select a maximum of three attributes to categorize a single entity.

**Note: User can select a maximum of three attributes to categorize a single entity.**

While plotting a single entity categorized by three attributes, three category cards will open up for the three attributes. For example, the screenshot below shows Accounts plotted on the map which is categorized by three different attributes viz. Annual Revenue, Industry and Owner and three different cards have opened up for each of them.





The category cards shown above states which category is represented by which pushpin. The categories are represented with the following three different parts of every single pushpin, ☆, ,

All the above three icons combine to form a pushpin which will represent the plotted records. Each of the three parts represent three different categories with different colors shown within the category card. For example, the category card 'Account – Annual revenue' shows that the ☆ icon represents the Account records that belong to different ranges of Annual revenue with different colors. The category card 'Account-industry' shows that the location pin icon represents the Account records that belong to different industries with different colors and the category card 'Account-Owner' shows that the location pin icon represents the Account records that belong to different owners with different colors.

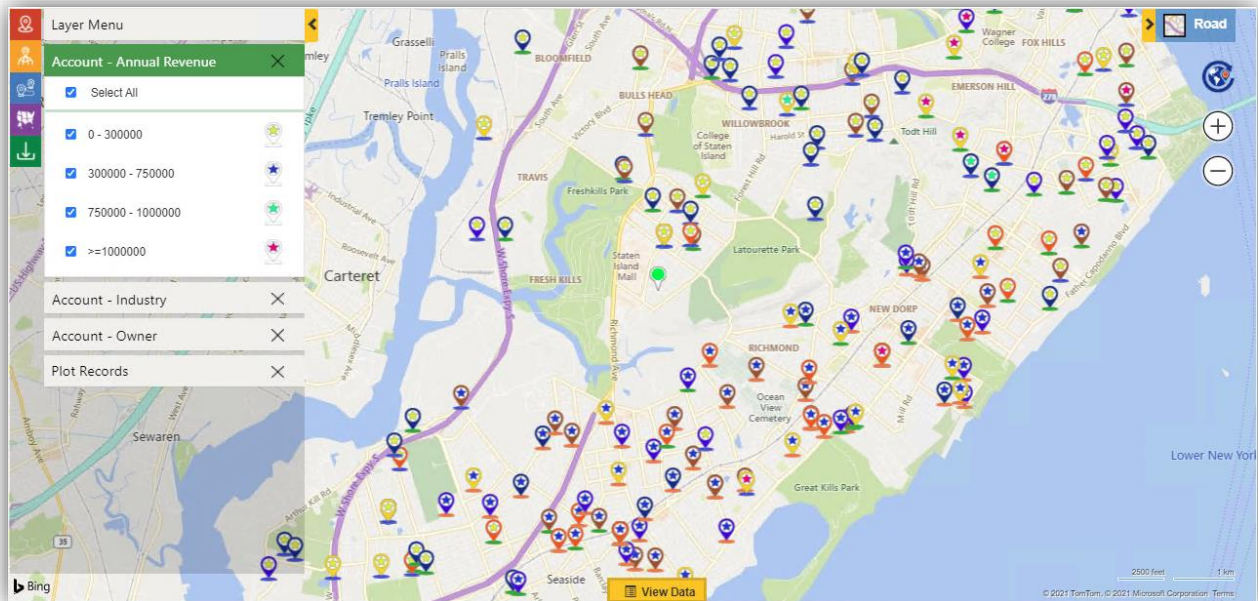
In case, the user has selected only two attributes in order to categorize the entity records, the pushpin that will be used to represent two categories will be .

The plotting of categories follows **AND** condition. This means that if the user deselects a category in one category card, then all the pushpins for records that belonging to that category will be hidden from the map even if any of the records belong to any other categories as well. For instance, if the user deselects the category of Annual revenue between 5000-10000, then all the pushpins for the records that belong to this category will be hidden from the map even if any of these records belong to other category like owner or industry.

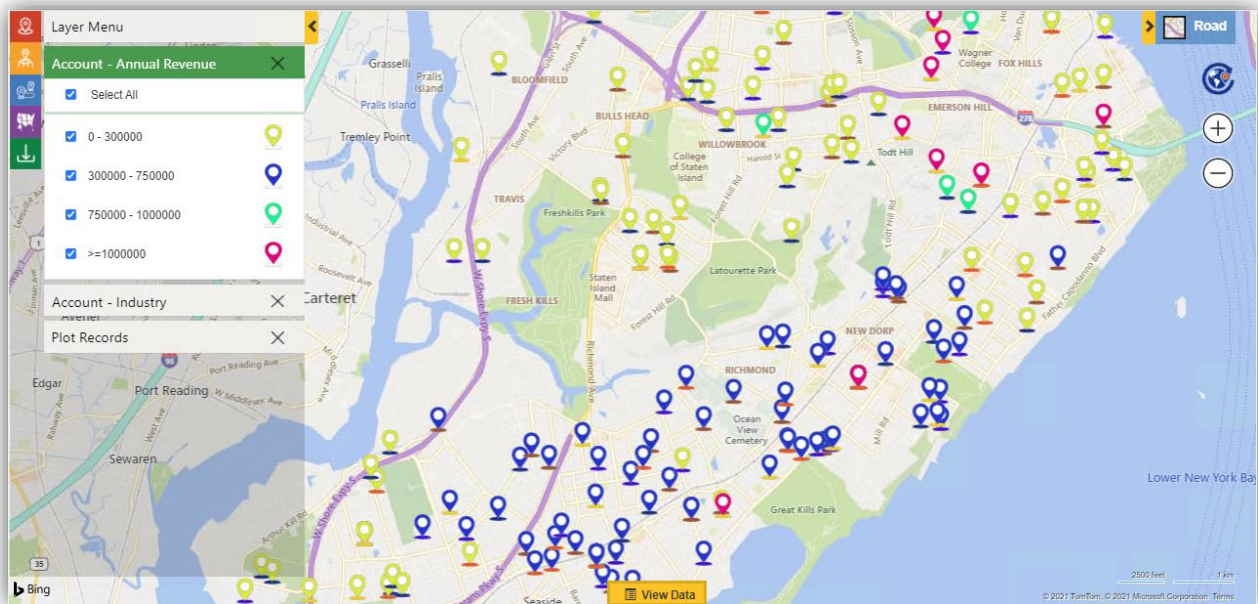


## Maplytics™ – User Manual

In the screenshot below, three categories have been selected viz. Annual Revenue, Industry and Owner.



In the screenshot below, only two categories have been selected viz. Annual Revenue and Industry.



## Set colors and shapes for pushpins

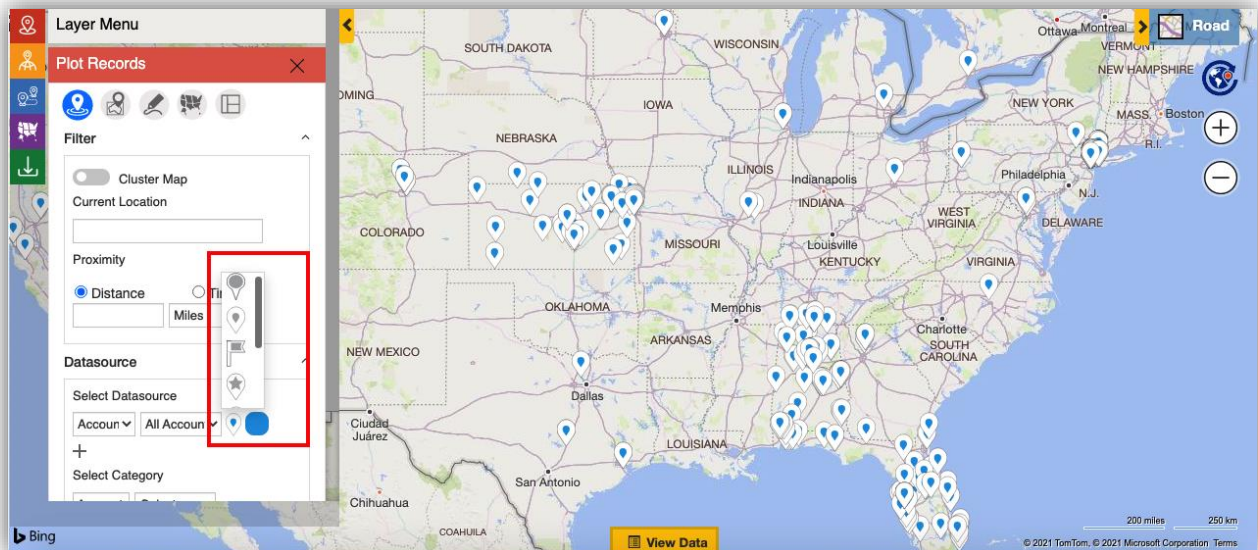
The users have the ability to define colors and shape of the pushpins to visualise the records plotted on the map as per the requirement. This will help the user to differentiate between the records that belong to different views or categories.

### Set pushpins from map

Users can select the pushpin of their choice with the desired color, right from the Detail Map while visualizing CRM records on the map.

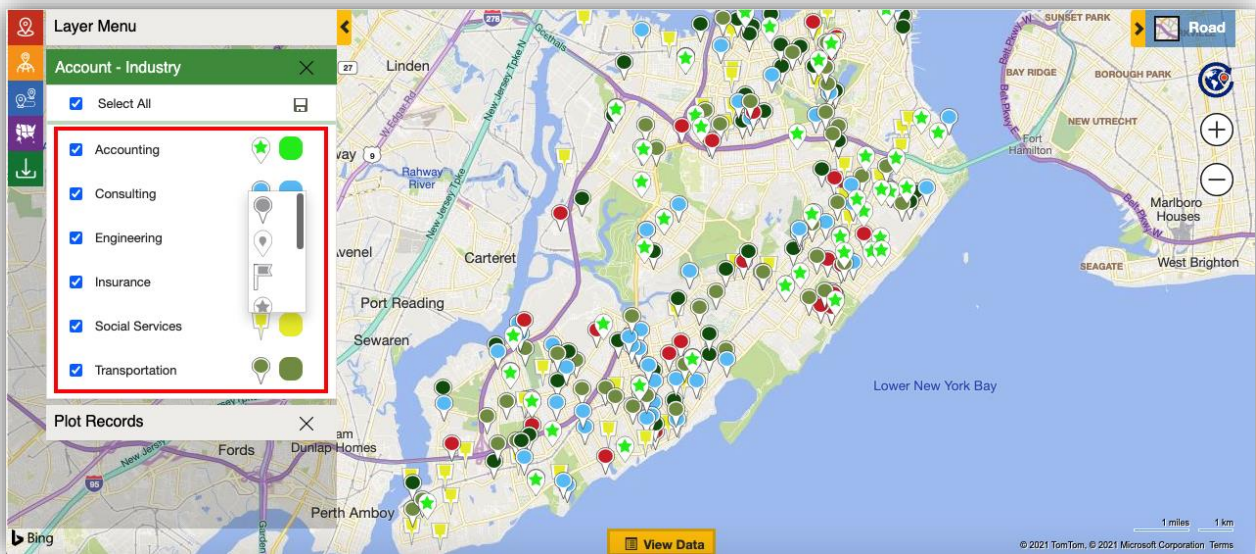
### Set pushpins for views

While plotting records using the Plot card, users can select the required colors and the shape of the pushpins for the records of the view within the Datasource section in the Plot Records card. Once the color or pushpin are selected, it will instantly reflect on the map.



### Set pushpin for categories

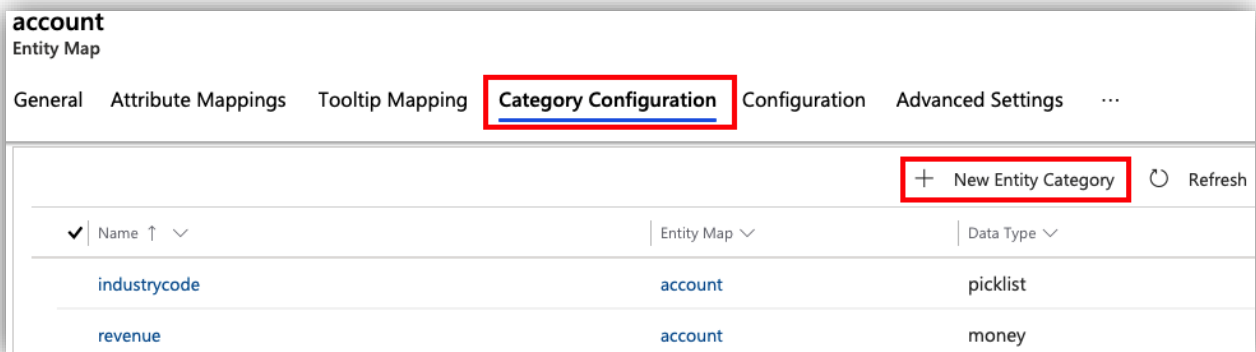
While plotting CRM records along with categorization, user can select the color and shape of the pushpins and also save the selection for future use. Once the categorized data is plotted, user can go to the respective category card, change the color and shape of the pushpins and click on 'Save' to save the pushpins selected for future use.



## Configure pushpins in Entity map for new category

To set the colors and shape of the pushpins for the categories for any entity, the users have to follow the below steps:

- Go to **Maplytics App > Settings > Entity Maps > select the entity map for required entity > Category configuration.**







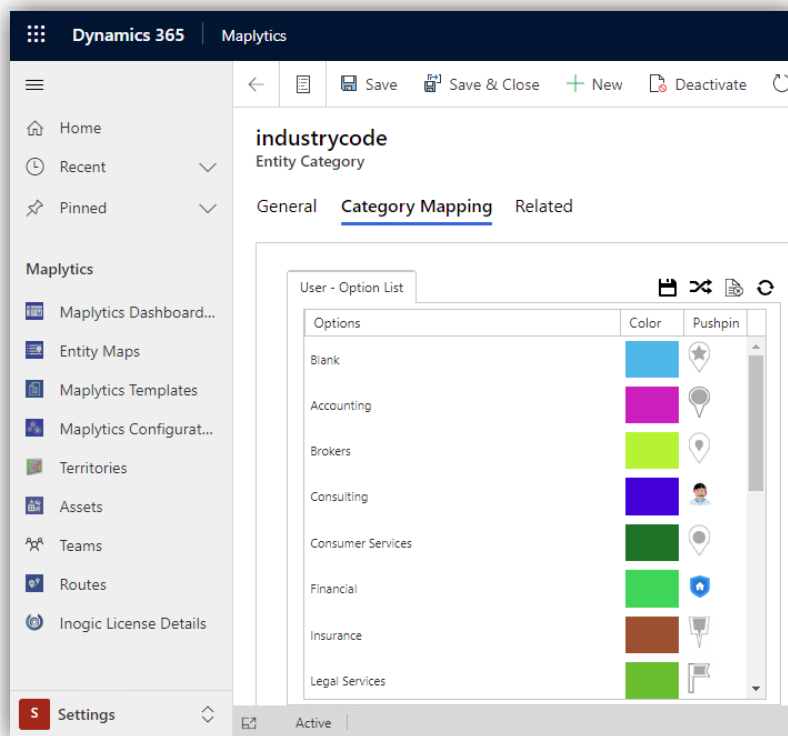
- Click on the plus '+ New Entity Category' in the subgrid to open the new Entity Category form. Select the name of the category attribute in the Category text box and save the form.
- The user can select only OptionSet, Two options, Numeric, String, Lookup and Money attributes to define category colors.
- Colors and shapes will be auto-populated, the user can further set their own preferences.



### Category configuration for users

User can open a category from the Category Configuration tab by going to **Maplytics App > Settings > Entity Maps > select the entity map for required entity > Category configuration**. They can change the colors and shape of pushpins to view the same on the map using the following buttons. If user has saved some colors and pushpins for categories from the map then those saved selections will be shown here.

- Save  : User can change the colors and pushpins and click on this button to save the selection
- Auto-Set  : This button helps to set the colors and pushpins randomly
- Discard Changes  : If user has made any changes to the colors and pushpins, they can click on this button to discard the changes done
- Set to default  : User can click on this to set the selection of the colors and pushpins to default which has been selected by Maplytics admin or System admin.






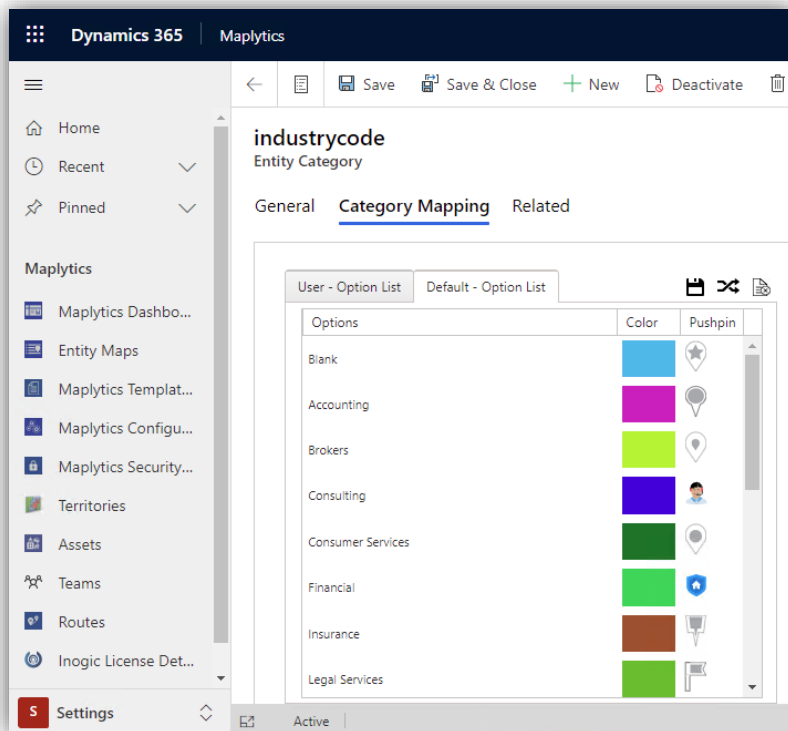
### Category configuration for admins

System Admin and Maplytics admin can also check the colors and pushpin selection in the entity map. Along with this, they will also have the ability to set the required colors and pushpins for all the Maplytics users as well. To do this, admins can **go to the Maplytics App > Settings > Entity Map > Respective Entity map > Category Configuration > Select required category**.

## Maplytics™ – User Manual

Admins will be able to view two Option lists, one for themselves as a user and one for Default selection. The User Option list will work the same as explained above. The admin can further take some actions within the Default Option List using the following buttons.

- Apply to all  : Admins can select the required colors and pushpins and click on this button to save the selection for all Maplytics users
- Auto-Set  : This button helps to set the colors and pushpins randomly
- Discard Changes  : If admin has made any changes to the colors and pushpins, they can click on this button to discard the changes done.



### Note:

- *Selecting pushpins and saving the selection for categorized CRM data is only available for entities plotted with single category.*
- *The selection of pushpins saved will be available for the respective logged-in user only.*
- *If a category does not exist in the list of categories created in the respective entity map, then while saving the pushpin selection, the category will be created automatically for all the users.*
- *If a user has not selected any preference for pushpin colors and shapes for any category, the user will be shown the visualization of the pushpins on the map as per the selection saved by the Maplytics admin or the system admin in within the Default-Option list of the category in the respective entity map.*

## Data Grid in Detail Map

The Data Grid is available at the bottom of the Detail map which can be opened using the yellow button 'View Data'. All plotted pushpins represent a unique record in Dynamics CRM and data grid helps the users to access these records from the map screen, filter the data further and perform some mass actions. Order of columns in the grid depends upon the Dynamics CRM View selected to plot the data and in the case of Marketing Lists & Maplytics Dashboard records, it is same as that of the Entity-View selected in Entity Map. The users can also customize the data columns to be visible in the grid by adding/removing columns from the Entity view.

The screenshot shows the Maplytics interface with a map of Staten Island. A 'Layer Menu' is open on the left, showing 'Account - Annual Revenue' with a color-coded legend. The data grid at the bottom displays the following data:

| Account Name         | Main Phone  | Address 1: City | Primary Contact | Address 1: Country | Email               | Industry | Territory   | Website              | Annual Revenue |
|----------------------|-------------|-----------------|-----------------|--------------------|---------------------|----------|-------------|----------------------|----------------|
| S. BORIS HAYDA ...   | 23258044114 | Staten Island   | Dean Ketelsen   | USA                | rocco1010737@in...  | Banking  | 10308       | www.inogic14276...   | 700000         |
| S. BORIS KOGAN ...   | 20063341225 | Staten Island   | Cristy Lothar   | USA                | jon10572@inogic...  | Banking  | 10305       | http://www.inogic... | 20000          |
| S. BORIS AMINOV ...  | 41851949141 | Staten Island   | Colette Kardas  | USA                | eugene10518@in...   | Banking  | 10305       | http://www.inogic... | 20000          |
| S. BORIS LEVIN & ... | 16910103112 | Staten Island   | An Fritz        | USA                | louis10746@inogi... | Banking  | 10306       | www.inogic14285...   | 400000         |
| Bagel World          | 718-9803398 | Richmond        | Alecia Bubash   | USA                |                     |          | Territory 4 |                      | 46546276       |

### Filter & Sort Data:

The user can use the filter present on the top of every column to filter the data further selecting any of the conditions and entering the respecting value.

The screenshot shows the Maplytics interface with a map of Staten Island. A filter dialog box is open over the 'Email' column, showing a dropdown menu with 'Is equal to' selected, and a text input field for the filter value. The data grid at the bottom displays the same data as the previous screenshot.



## Maplytics™ – User Manual

User can see the filter icon at the column header to understand based on which column the data has been filtered. Further, user can also click on any of the column header to sort the data and can see the arrow icon at the column header to understand based on which column the data has been sorted. User can deselect some of the records and see at the bottom the number of records selected from the list

|                                     | Account Name       | Main Phone | Address 1: City | Annual Revenue | No. of Employees | Website             | Email                    |
|-------------------------------------|--------------------|------------|-----------------|----------------|------------------|---------------------|--------------------------|
| <input type="checkbox"/>            | Abbas & Sons       | 7188520069 | Staten Island   | 64801          | 200              | www.inogic12952.com | meir9489@inogic.com      |
| <input checked="" type="checkbox"/> | Abdelkader & Sons  | 2125548182 | Staten Island   | 63244          | 200              | www.inogic14376.com | james10835@inogic.com    |
| <input checked="" type="checkbox"/> | Abdelmessih & Sons | 2122501122 | Staten Island   | 259962         | 200              | www.inogic14580.com | michael11030@inogic.c... |
| <input checked="" type="checkbox"/> | Abraham & Sons     | 2127510545 | Staten Island   | 861945         | 200              | www.inogic14015.com | ely10491@inogic.com      |
| <input checked="" type="checkbox"/> | Adams & Sons       | 2122068501 | Staten Island   | 763923         | 200              | www.inogic13828.com | bruce10306@inogic.com    |
| <input type="checkbox"/>            | Addeo & Sons       | 2126618995 | Staten Island   | 161278         | 200              | www.inogic14272.com | robert10733@inogic.com   |
| <input checked="" type="checkbox"/> | Aguiyza & Sons     | 2123082665 | Staten Island   | 378729         | 500              | www.inogic13856.com | david10334@inogic.com    |
| <input checked="" type="checkbox"/> | Ahmad & Sons       | 2129205723 | Staten Island   | 132192         | 500              | www.inogic14483.com | william10937@inogic.com  |
| <input checked="" type="checkbox"/> | Ellison & Sons     | 2126867933 | Staten Island   | 325947         | 500              | www.inogic14043.com | nader10519@inogic.com    |
| <input type="checkbox"/>            | Falconite & Sons   | 7182217672 | Staten Island   | 793294         | 500              | www.inogic13987.com | yosi10464@inogic.com     |

### Reset:

This will reset the grid to the initial search.

### Parent Record / Related Record:

This is useful when the user is dealing with plot related records functionality. The user can switch between child data and parent data using this button.

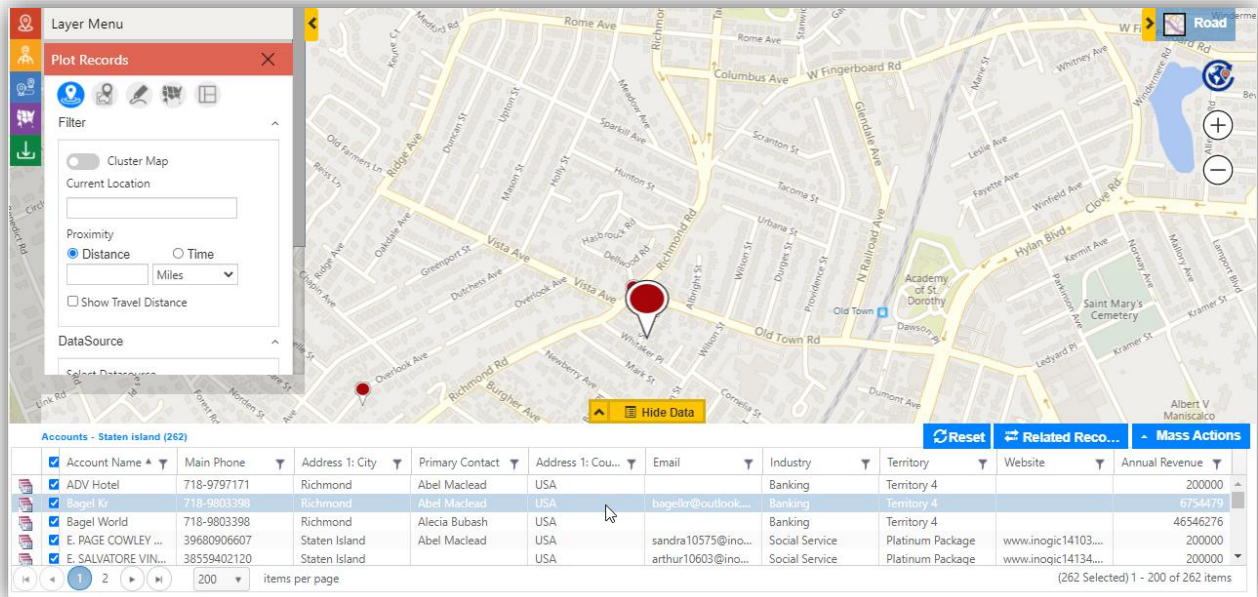
### Resizable Data grid:

Double click on Expand button to view the data grid in full screen. Double click on Collapse button to view the default size of the data grid. Use can also click once and drag to resize the data grid to the desired size.

|                                     | Account Name         | Main Phone  | Address 1: City | Primary Contact | Address 1: Cou | Email                | Industry       | Territory        | Website              | Annual Revenue |
|-------------------------------------|----------------------|-------------|-----------------|-----------------|----------------|----------------------|----------------|------------------|----------------------|----------------|
| <input checked="" type="checkbox"/> | S. BORIS HAYDA ...   | 23258044114 | Staten Island   | Dean Ketelsen   | USA            | rocco1010737@in...   | Banking        | 10308            | www.inogic14276...   | 700000         |
| <input checked="" type="checkbox"/> | S. BORIS KOGAN ...   | 20063341225 | Staten Island   | Cristy Lother   | USA            | jon10572@inogic...   | Banking        | 10305            | http://www.inogic... | 20000          |
| <input checked="" type="checkbox"/> | S. BORIS AMINOV ...  | 41851949141 | Staten Island   | Colette Kardas  | USA            | eugene10518@in...    | Banking        | 10305            | http://www.inogic... | 20000          |
| <input checked="" type="checkbox"/> | S. BORIS LEVIN & ... | 16910103112 | Staten Island   | An Fritz        | USA            | louis10746@inogi...  | Banking        | 10306            | www.inogic14285...   | 400000         |
| <input checked="" type="checkbox"/> | Bagel World          | 718-9803398 | Richmond        | Alecia Bubash   | USA            |                      | Banking        | Territory 4      |                      | 46546276       |
| <input checked="" type="checkbox"/> | ADV Hotel            | 718-9797171 | Richmond        | Abel Maclead    | USA            |                      | Banking        | Territory 4      |                      | 200000         |
| <input checked="" type="checkbox"/> | Bagel Kr             | 718-9803398 | Richmond        | Abel Maclead    | USA            | bagelkr@outlook...   | Banking        | Territory 4      |                      | 6754479        |
| <input checked="" type="checkbox"/> | E. PAGE COWLEY ...   | 39680906607 | Staten Island   | Abel Maclead    | USA            | sandra10575@ino...   | Social Service | Platinum Package | www.inogic14103...   | 200000         |
| <input checked="" type="checkbox"/> | E. SALVATORE VIN...  | 38559402120 | Staten Island   |                 | USA            | arthur10603@ino...   | Social Service | Platinum Package | www.inogic14134...   | 200000         |
| <input checked="" type="checkbox"/> | E. STEVE LANE & S... | 14080554006 | Staten Island   |                 | USA            | dean10373@inogi...   | Social Service | Platinum Package | www.inogic13895...   | 200000         |
| <input checked="" type="checkbox"/> | E. STEVE ZERVOU...   | 29989046845 | Staten Island   |                 | USA            | paul10637@inogi...   | Social Service | Territory3       | www.inogic14169...   | 290000         |
| <input checked="" type="checkbox"/> | E. TERRENCE LULA...  | 20438760356 | Staten Island   |                 | USA            | christian10667@in... | Social Service | Territory3       | www.inogic14204...   | 290000         |
| <input checked="" type="checkbox"/> | E. TERRENCE O'NE...  | 38293456910 | Staten Island   |                 | USA            | laurence10470@in...  | Social Service | Sales #301       | www.inogic13993...   | 750000         |

## Highlight pushpins

User can click on any record within the Data Grid to highlight the respective pushpin on the map. User can also click on any pushpin on the map to highlight the respective record in the Data grid.



## Mass Action Buttons

The user has the option to take actions on the plotted records like adding to route or executing the workflow on selected records in the grid. Defined mass actions are as follows:

- **Add To Route:** This option will add selected data points to the route. The user can add at max 25 data points to the route
- **Save Data:** The selected records can be saved as static Marketing List or Personal View in Dynamics CRM
- **Change Owner:** The user can assign the owner of the plotted records by selecting a user or a Team
- **Manage Territory:** The User can assign or change the territory of selected records
- **Send Email:** The user can send a mass email to the selected records. User can select any one the available email templates or a new email to write their own content. User can also choose to keep the recipient as To/Cc/Bcc in the email.

Send Email

Select Email Template.

New Email

Select Email recipient

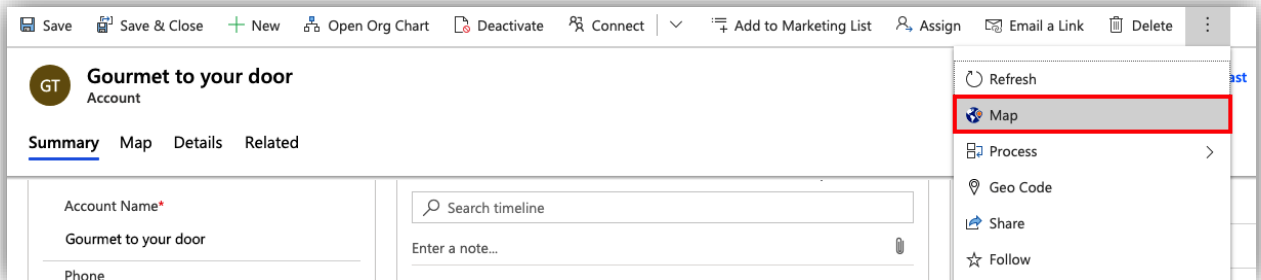
To

Proceed

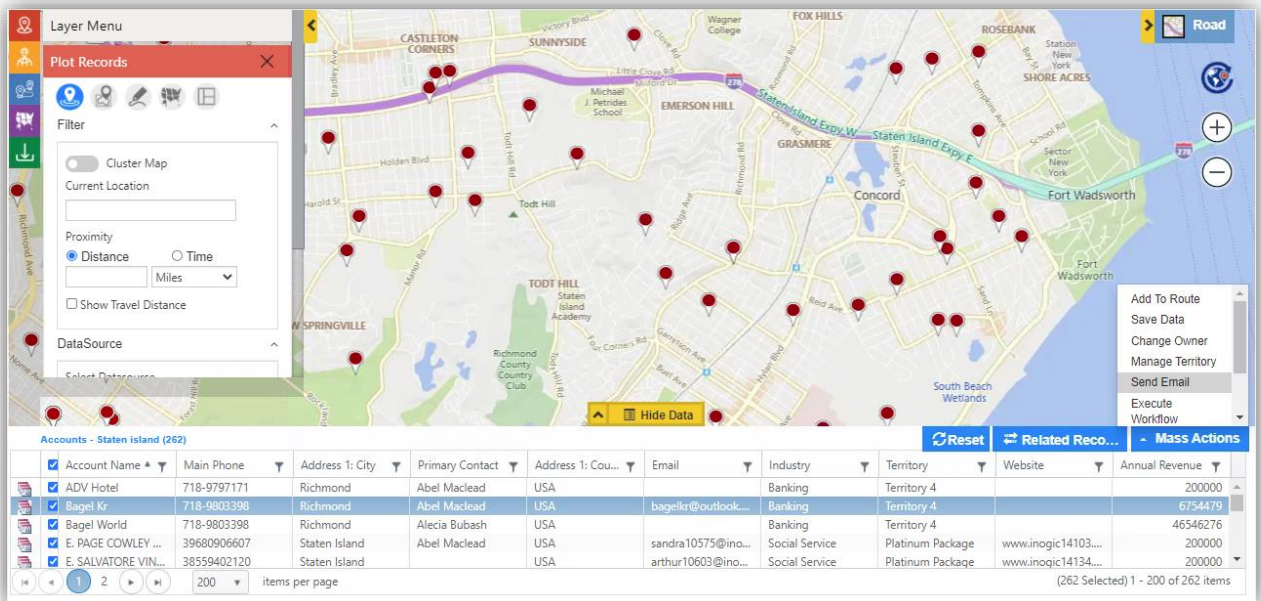
## Maplytics™ – User Manual

**Select regarding:** If user needs to send bulk emails and also wants to keep a specific record in the Regarding field into the email. They can select the option of 'Select Regarding'. To view this option, they can follow the steps mentioned below.

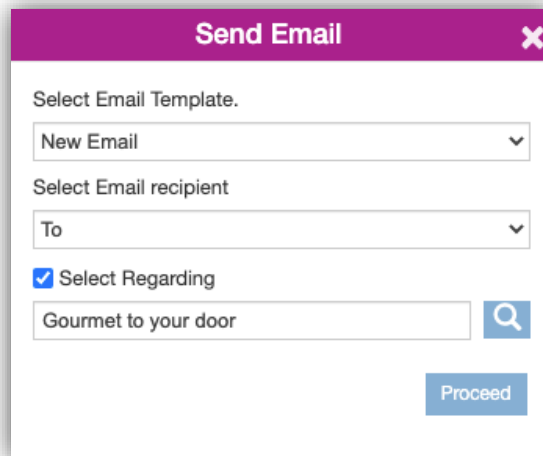
- Open the respective record to be set in Regarding field from the 'Map' button on the record. In the screenshot below, we have taken an Account 'Gourmet to your door' as an instance.



- Now plot the required records to whom the mail has to be sent and Go to Mass actions to choose the option of 'Send email'. Here, we have plotted Contacts.



- Once clicked on 'Send Email' from 'Mass Actions', user can select the option of 'Select Regarding' and the Account that we plotted earlier 'Gourmet to your door' will be set by Default within the Regarding field.



The 'Send Email' dialog box has a purple header with a close button (X). It contains the following fields:

- Select Email Template:** A dropdown menu with 'New Email' selected.
- Select Email recipient:** A dropdown menu with 'To' selected.
- Select Regarding:** A checkbox that is checked, followed by a text input field containing 'Gourmet to your door' and a search icon (magnifying glass).
- Proceed:** A blue button at the bottom right.

**Note:** This option will be visible only if the map has been opened using map button on a record.

- **Execute Workflow:** The user can execute any on-demand workflow with this functionality
- **Export To Excel:** The user can use this feature to export data from the map to excel. This functionality adhere to CRM security roles, if the user does not have the permission to 'Export Data to Excel' in CRM then that user will not be able to export data from Maplytics
- **Create Activities:** User can create activities for non-activity Entity records currently selected in "View Data grid." The user can define the Activity, Subject, Schedule Start date and Schedule end Time, Duration, Owner(User/Team) and Priority. The activities selected in respective Entity maps can be seen in the list of activities available to create using the button of "Create activities". By clicking this button below window will open and the activities will be created based on the inputs given in the window by the user.

For example: If a user selects the appointment as the activities to be created for 20 records plotted on the map. Now if they select the Schedule start date to be let's say 1<sup>st</sup> August 2022 at 10 am and schedule end time to be 5 pm along with the duration as 1 hour. So the appointments will start getting created for record 1 at 10 am for 1 hour and record 2 at 11 am for 1 hours and so on till the appointment for record 7 is created for 1 hour till 5 pm. Here it meets the schedule end time i.e. 5 pm. Now for the rest of the records will be handled in the following days. So the appointments for the next 7 records will get created for the next day i.e. 2<sup>nd</sup> August starting from 10 am, each for an hour till 5 pm. Likewise, the appointment for the rest of the 6 records will get created for the third day i.e. 3<sup>rd</sup> August 2022.

The user can also select the required owner or the record's owner for the appointments being created. If the user has selected 'Record's owner' in the space for owner, the appointments will be assigned with the owner of the respective record i.e. if Record 1 has user A as the owner, then the appointment for the Record 1 will be User A itself.

Create Activities

Select Activity \*

Appointment

Subject \*

Schedule Start Date \*

Schedule End Time \*

Duration \*

30 Minutes

Owner

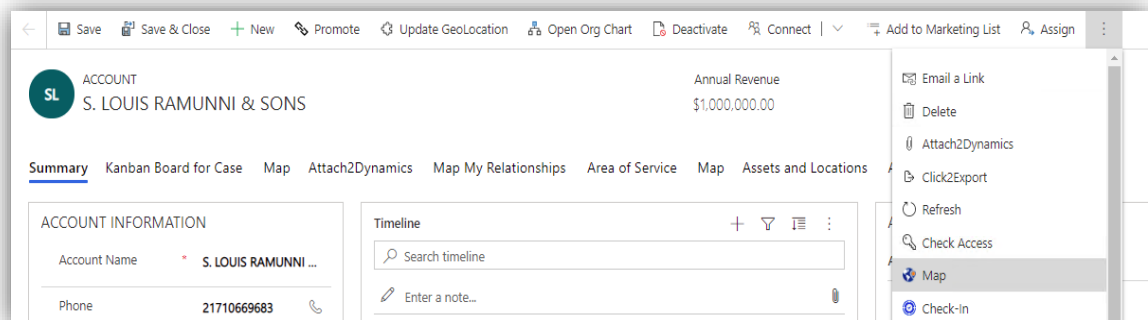
Record's Owner

Priority

Select Priority

Create

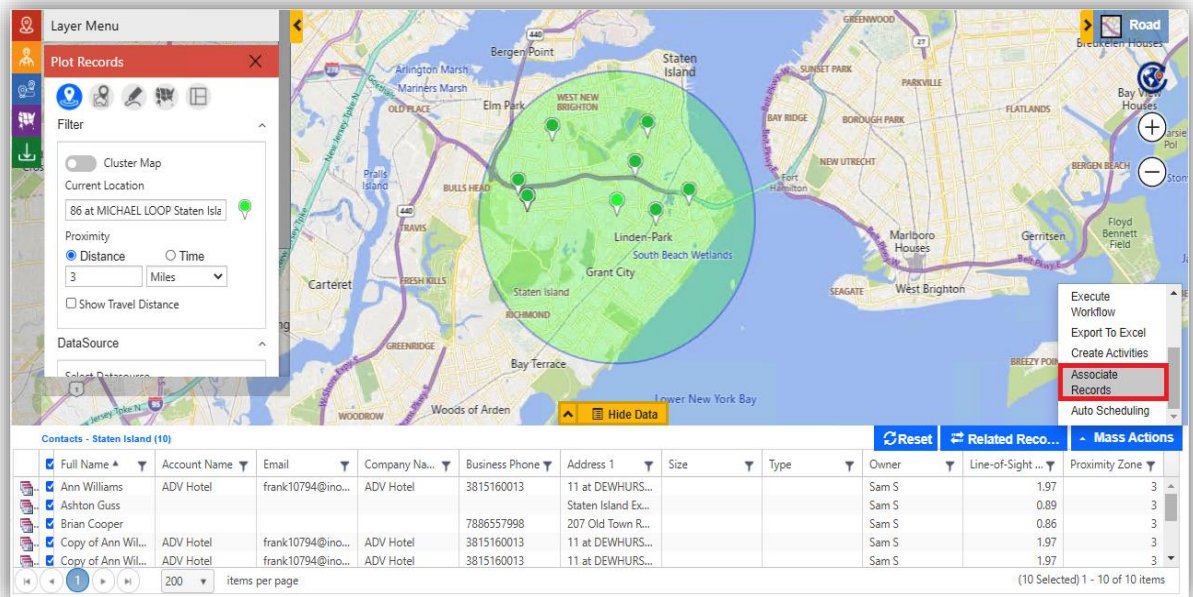
- Associate Records:** This helps the user to associate a record with the plotted record(s) on map. To do this, user needs to open the map using 'Map' button on the record they want to associate. In the below screenshot the Account record is being opened using the 'Map' button.



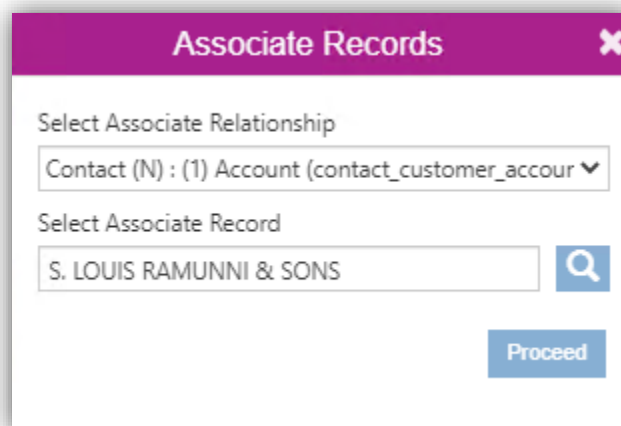


## Maplytics™ – User Manual

Once the map is opened, plot the required Entity & View to associate the Account. Now, click on 'Mass actions'. In the below screenshot, Contacts are plotted on the map using Proximity Search.



Within Mass Actions, click on 'Associate Records' to open the window. Here, the relationships between both of the entities, the records plotted and the record from which the map has been opened will be listed. User can select the relationship through which they want to associate the records. Here, the record from which the map was opened earlier has been selected by default. User can also select another record as per their requirement to associate with the plotted records.



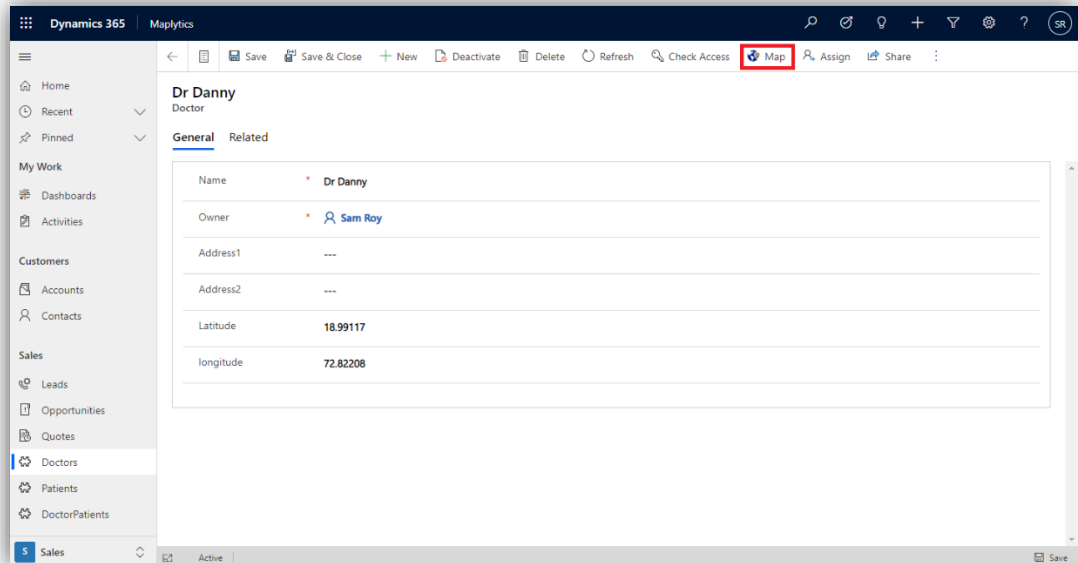
**Note:** This option will be visible in Mass Actions only if the map has been opened using map button on a record.



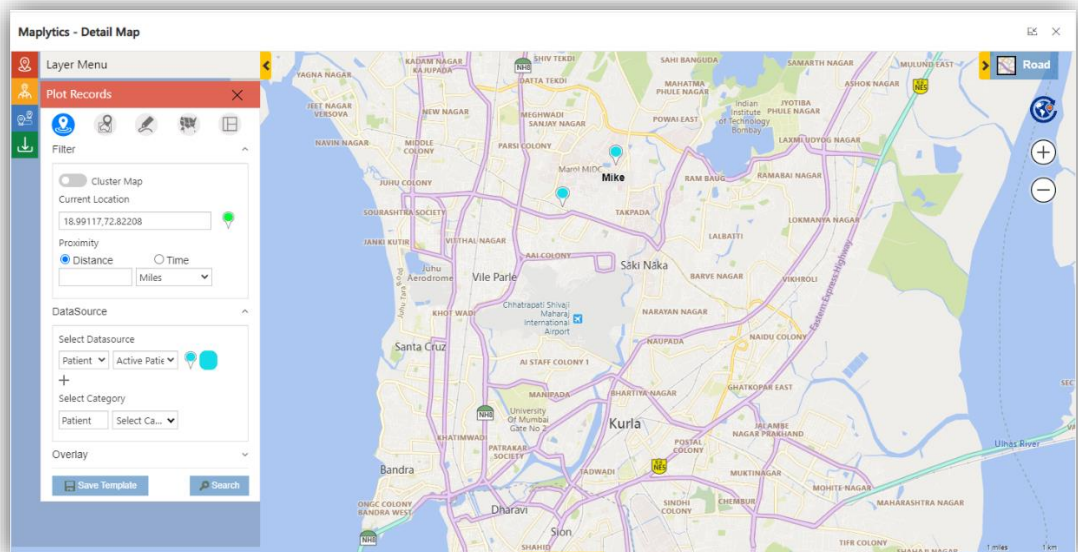
## Maplytics™ – User Manual

- **Associate records with many-to-many relationship:** 'Associate records' feature can also be used for many-to-many relationship. Users can associate multiple records of an entity with another related entity record. The related entity record can be an existing or new one.

For an instance, we have two entities Doctor and Patient with many-to-many relationship. Let's say, the user opens the record of 'Dr Danny' of the entity 'Doctor' and clicks on 'Map' button to plot the record on the map.



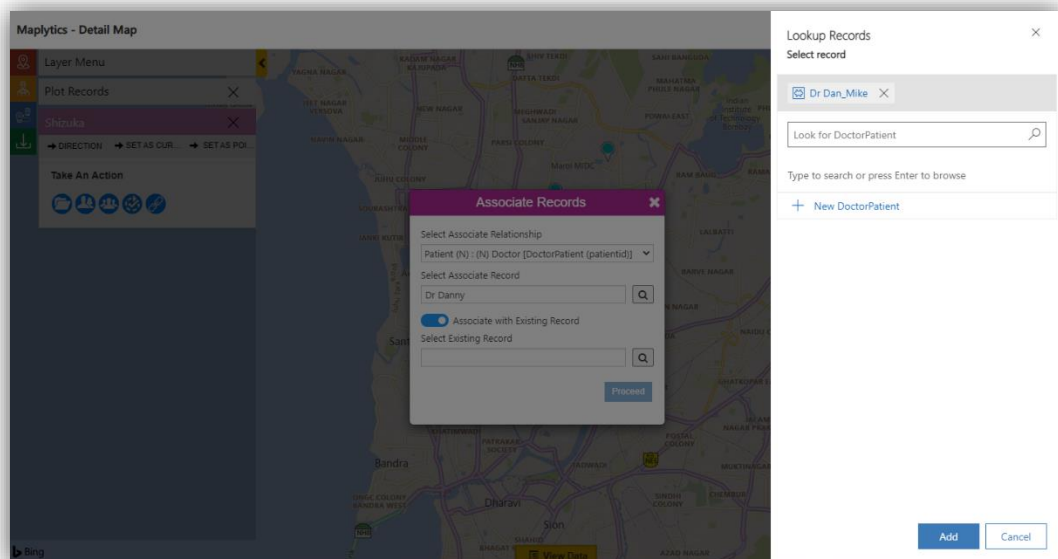
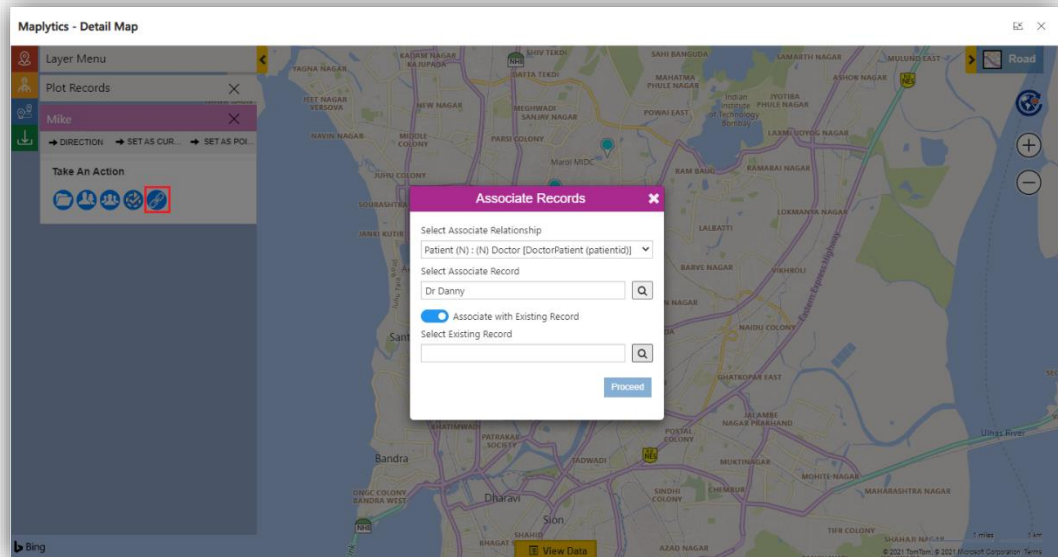
Now in the map, user can choose entity Patient as Datasource to plot multiple patients on the map. In this case, the Active patients are plotted.



Now user can click on a record of Patient and select the option of 'Associate Records' from the Tooltip card to open the window. Here, select the relationship Patient N:N Doctor.

## Maplytics™ – User Manual

**Associate with Existing Record:** This option can be selected in order to view the list of the Existing Records of the Middle Entity. Here select a record from the list and 'add' to associate the records of the Entities Doctor and Patient.

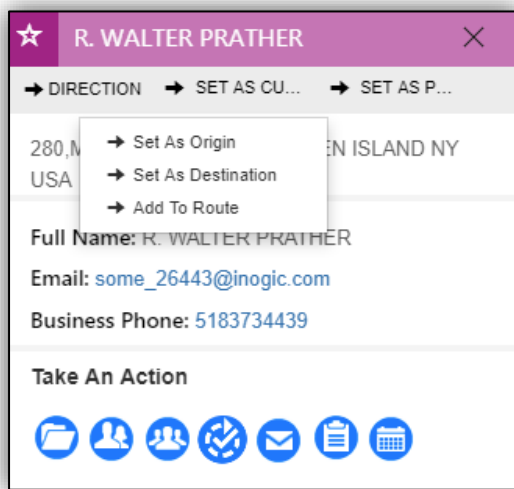
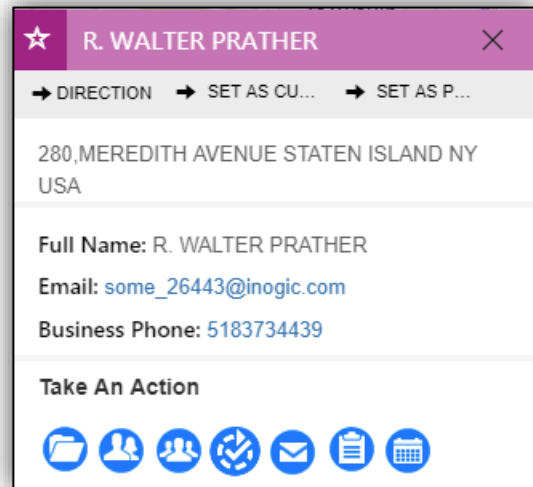


**Note:** Associate record for many-to-many relationship can only be performed through the tooltip card and cannot be performed from the Mass Actions.

- **Auto Scheduling:** This can be used to create a schedule for one or more users automatically. Refer to the section of Auto scheduling to know how Auto Scheduling works.

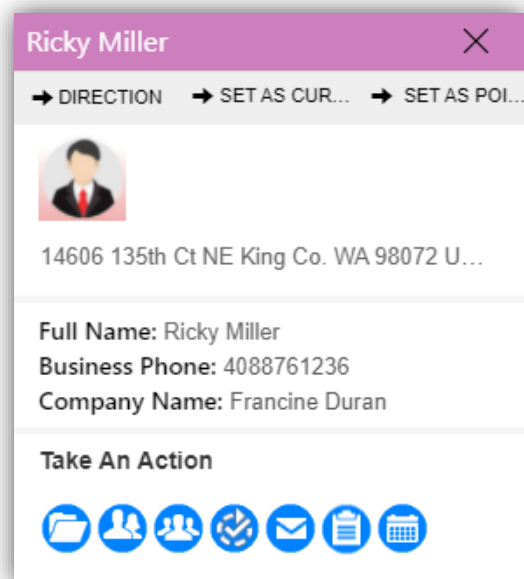
## Tooltip Card

User can click on any pushpin to open a tooltip card. This card will display the data like Address, Account name etc. along with the Image set for the record. These attributes and image can be configured within the Tooltip Mapping section of the Entity Map so as to show on the Tooltip card.

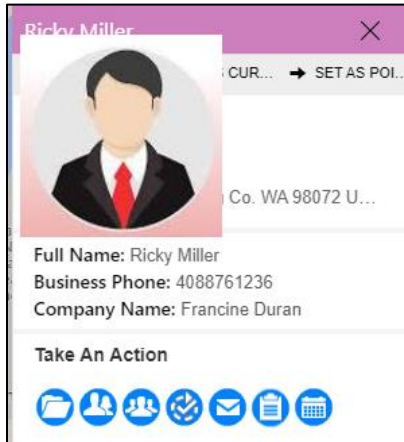


User can also set a particular record as 'Origin', 'Destination', 'Add to Route' under Direction, 'Set as Current Location' and 'POI location' from the Tooltip card.

User can also **click on the pushpin** of that contact to open the tooltip card to view the respective image on the card. User needs to select the 'Default Image' field in the field of 'Entity image' in Entity map to view the record image on hover and tooltip card. Please refer to the installation manual.



## Maplytics™ – User Manual

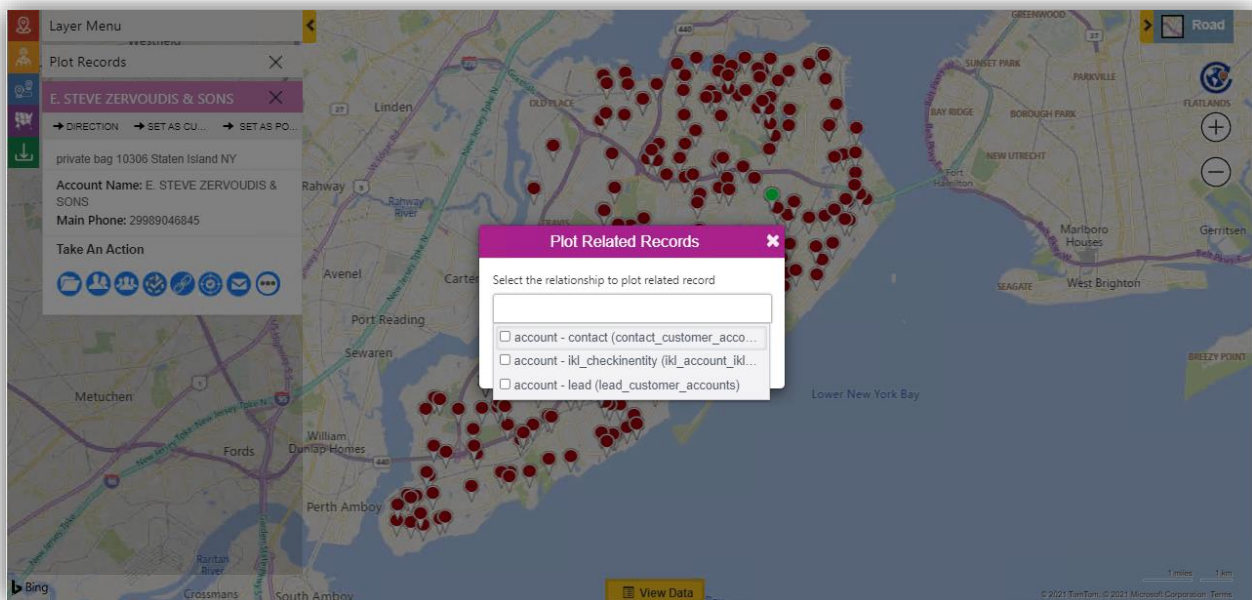


Moreover, the user can **hover on the image** appearing in tooltip card to zoom in the image.

### Quick Call to Action Buttons

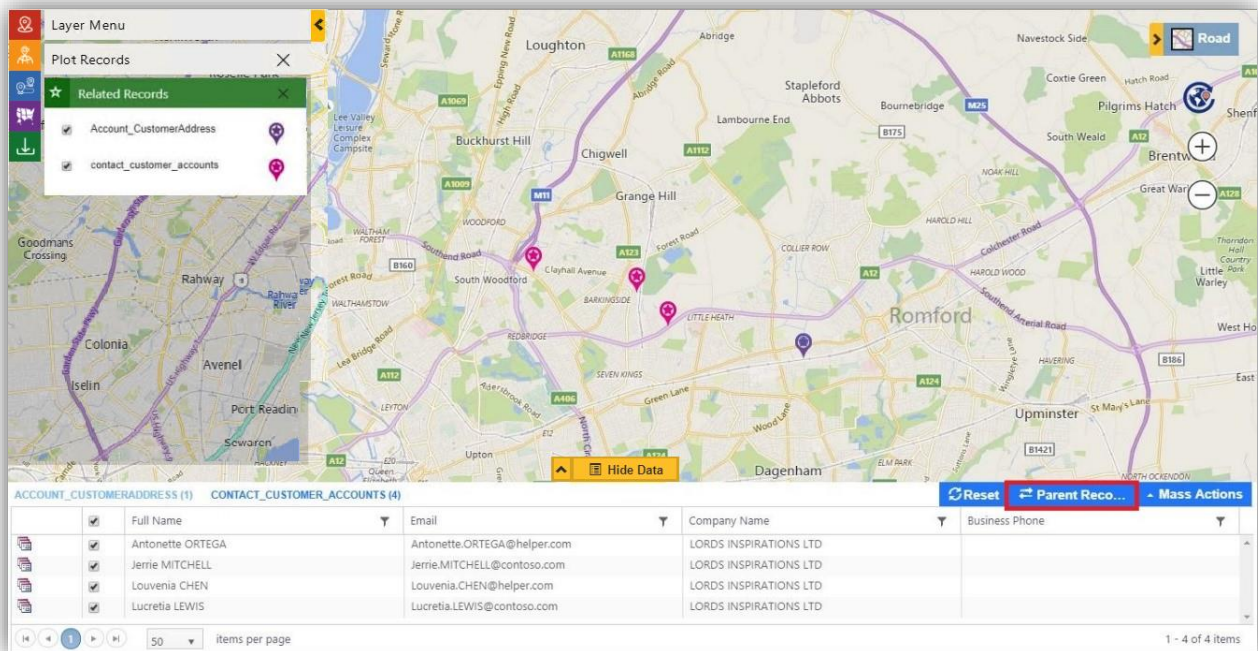
User can associate quick action buttons. This helps in saving time while switching between screens to take actions. First four actions are the default actions and cannot be changed by the user. User can further add actions for creating records for activities and related entities. The default records are as follows:


- **Change Owner** : Assign an owner to the respective record by selecting a user or a team
- **Open Record** : Open record directly from this screen to edit any field
- **Plot Related Record** : Plot One-to-Many Relationships/Related records of a particular record as shown below:

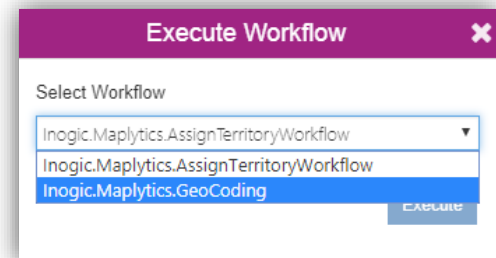


Select the required relationships from the list and click on 'Plot Records' button. Related records will be plotted as shown below. Use 'Parent Records' button to switch between Parent and Related records data points.





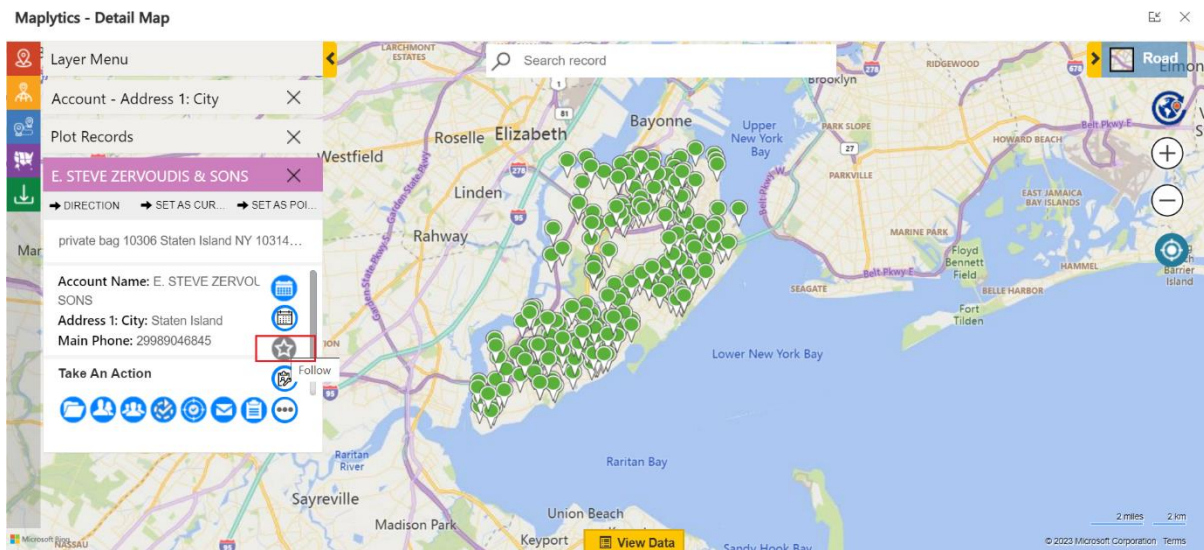
- **Run workflow** : The user can execute on-demand workflows on an individual record. When clicked on this button, it will open a window which will list down all the on-demand workflows available for respective Entity as shown below:



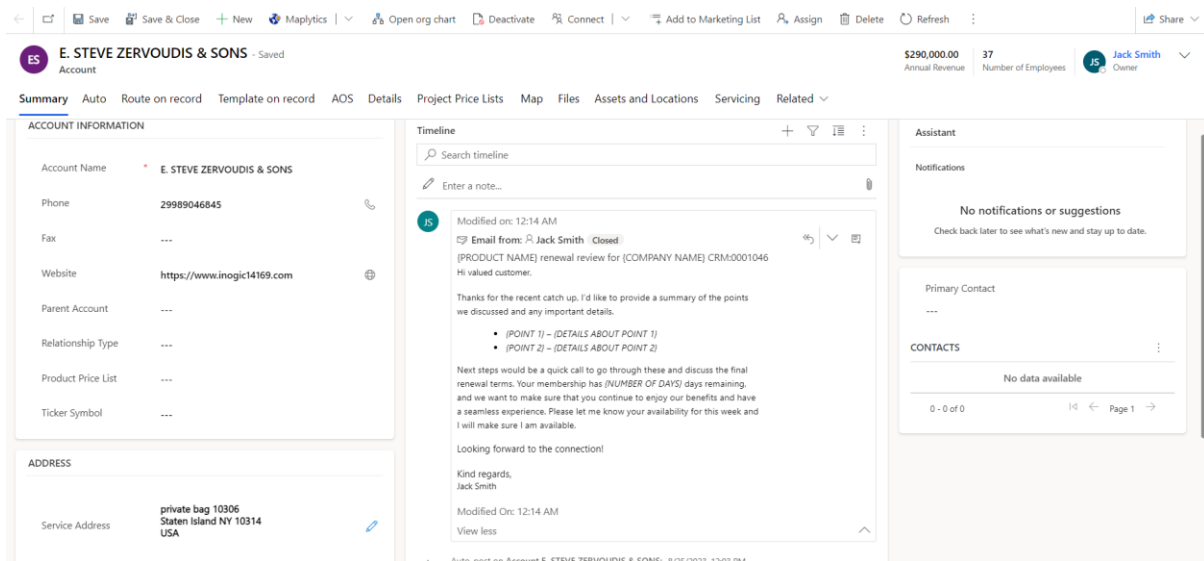
- **Follow and Unfollow:** When clicked on the pushpin the respective Tooltip card opens that has actions on it. The follow/unfollow action is visible among them.



## Maplytics™ – User Manual

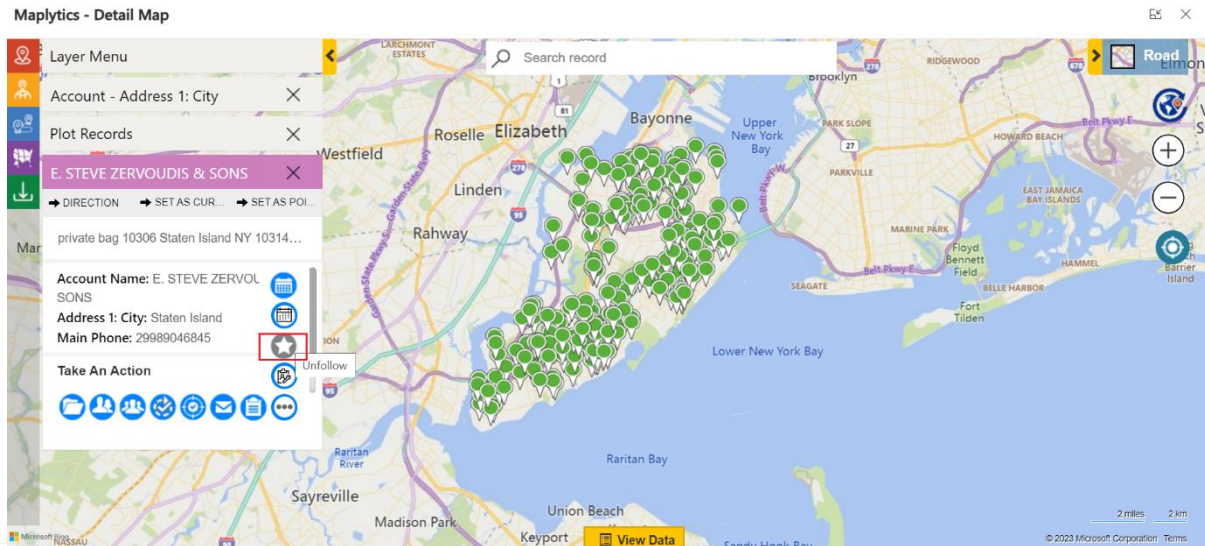


This action enables the Admin and all the users to follow the record.



In this way, the activities performed on the record by the users get listed within the timeline. The emails sent, contacts updated, and more can be easily viewed and tracked. With these updates, the admin or the users can understand the activities performed on the record by any of the users or the admin himself.

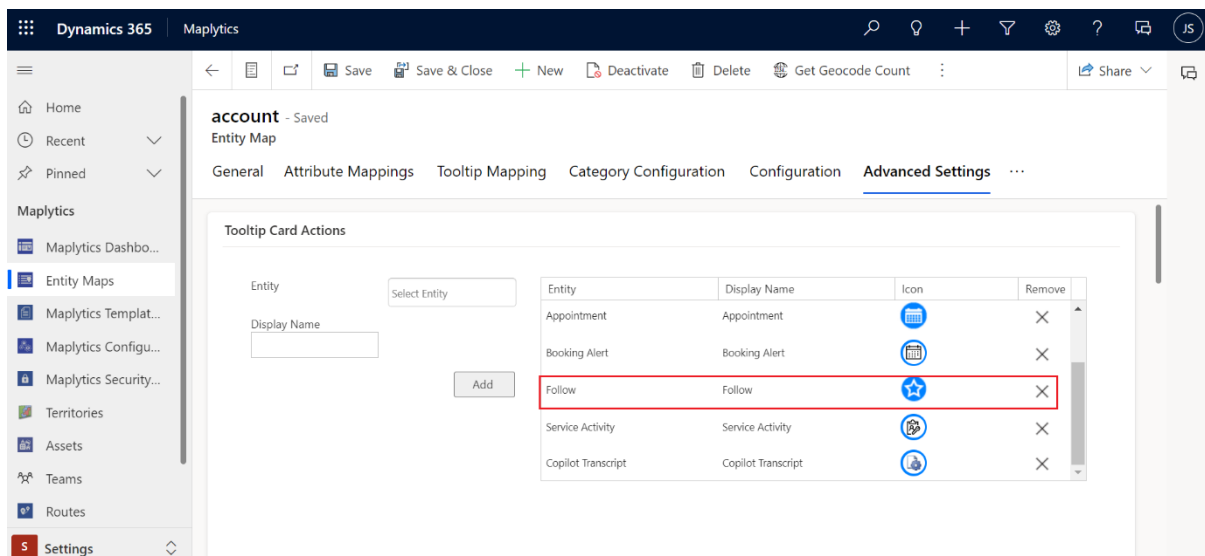
## Maplytics™ – User Manual







The same button switches to unfollow if the record is already being followed. With 'unfollow', the activities will not be visible on the timeline. This means User A will not be able to check if an Email invite has been shared with the record by User B, and so on.

The principle of follow/unfollow in Maplytics is similar to the one within Dynamics 365 CRM.

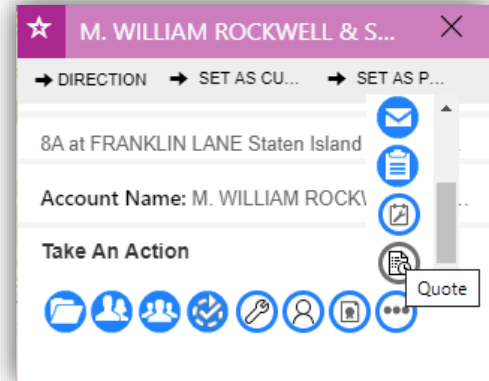
The user can define this action under 'Advance Settings' in Entity Maps. **Go to Setting > Entity Map Advance Settings > Tooltip Card Actions** or refer to the 'Setup Entity Map' section of the Installation Manual for further instructions.



The user can customize the rest of the actions according to their requirement. For example, user can add Email, Add Task, Appointment and Quote and many more.

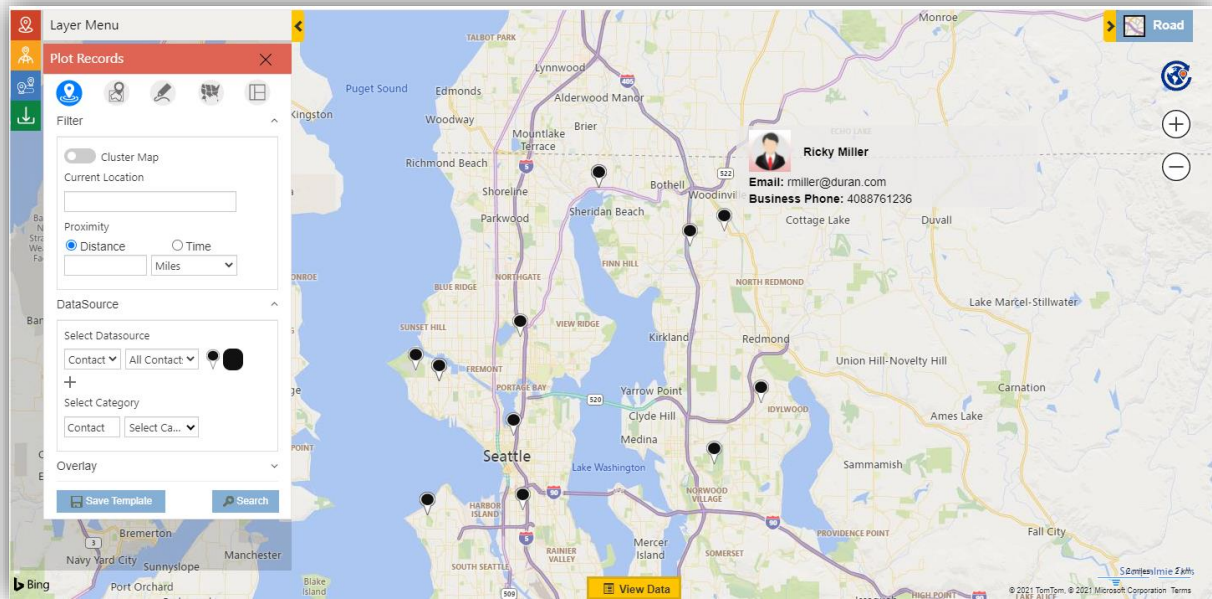
- **Email** : Send email to this record
- **Add Task** : Add task to this particular record
- **Appointment** : Schedule appointment with this record
- **Quote** : Create Quote related to the plotted entity record

The user can define these actions under 'Advance Settings' in Entity Maps. **Go to Setting > Entity Map > Select Required Record > Advance Settings > Tooltip Card Actions** or refer to 'Setup Entity Map' section of Installation Manual for further instructions.



### Hover

User can hover on Dynamics CRM Records plotted on the map to have a quick glance at its details and the record image. The user can have a maximum 6 different attributes here apart from the title attribute. Refer to the 'Setup Entity Map' section of Installation Manual for steps to configure attributes and image on hover.



### Reset Map

User can use the button of 'Reset Map' to reload the map with the initial Detail map settings.



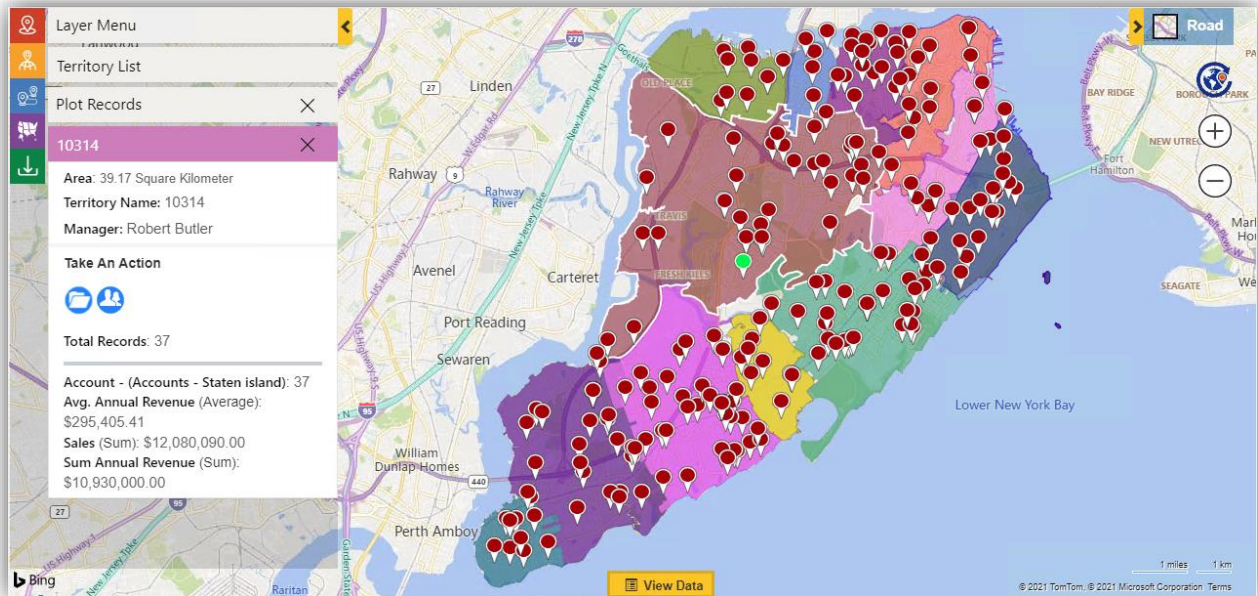
**Note:**

- *This action will clear all the data plotted on map*
- *The refresh map button will show the same data on the map in the following conditions:*
  - *Expanding the map or plotting a route from a dashboard*
  - *Using the map button from an individual Entity record page*
  - *Plotting a route or a template*
  - *Plotting records by selecting the records from the Entity records page*
  - *User had set a default template for the Detail map*

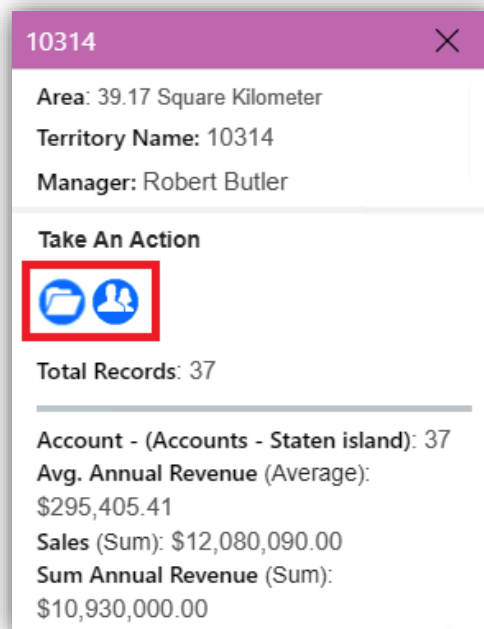


## Summary Card

The user can click on any enclosed area to get the summarized information of the plotted records in that area in a summary card. The area clicked will get highlighted and the respective data will be visible in the data grid. The user can customize the settings for this under the Summary card section in the respective 'Entity Maps'. Refer to 'Setup Entity Map' section of Installation Manual for further details.

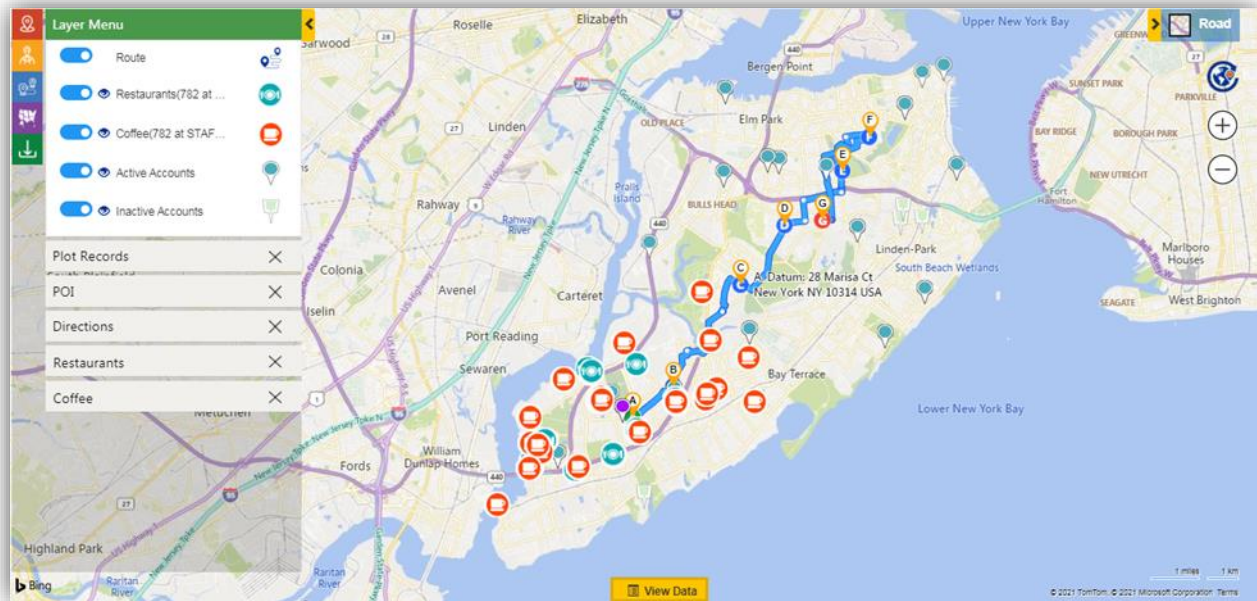


With territories plotted on the map, Summary card also provides a button to 'Open Record' that can be used to open the respective territory from the map itself and 'Change Manager' to change the Territory Manager for the selected territory.



## Layer Menu

This helps the user to select the required data among the multiple data plotted on the map. The user can use the toggle buttons on the Layer menu card to show or hide the required layers of the data to be shown on the map without removing the same from map.



**Note:** Layer menu card is collapsible but a user cannot close this card exclusively.



The layer menu card will show the following icons for the respective layers mentioned:

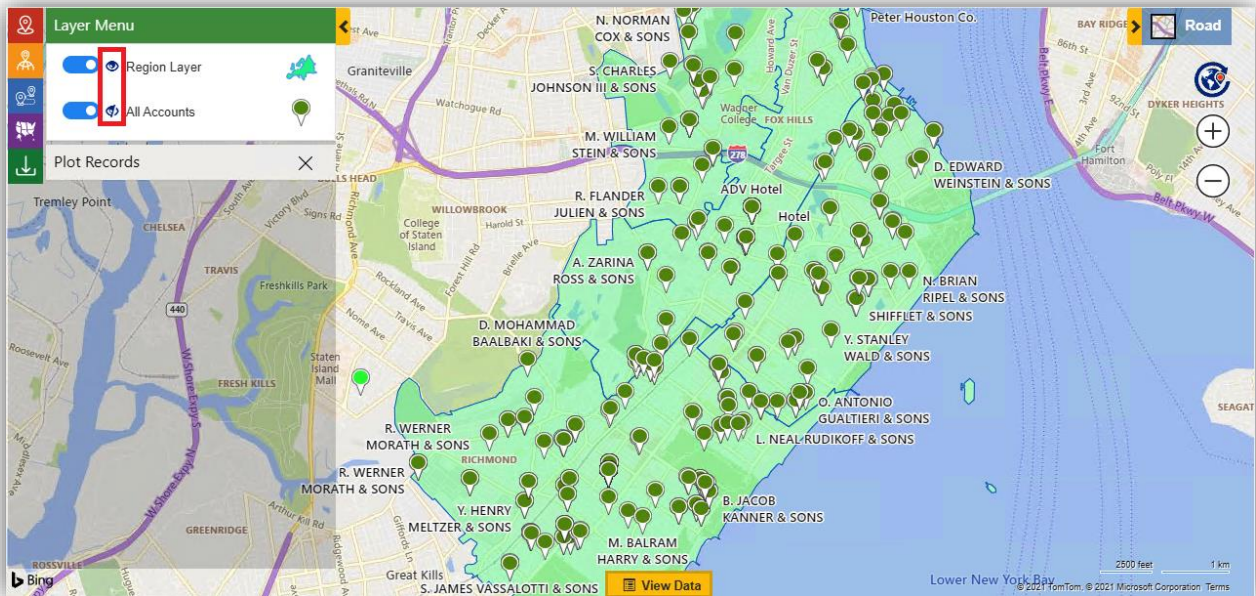
| Layer type    | Icon | Layer type                        | Icon |
|---------------|------|-----------------------------------|------|
| Data source   |      | Territory                         |      |
| Route         |      | POI                               |      |
| Proximity     |      | Cluster Pushpin                   |      |
| Drawing Shape |      | Shape Operation                   |      |
| Region Shape  |      | Overlay- Shape file               |      |
| Plot-child    |      | Territory Management – Shape file |      |

**Note:**

- Layer icon for Data source layer, POI layer and Plot-child layer will change depending upon pushpins visible on map
- If category is selected in the plot card, the layer menu card will show only the default pushpin for the Data source layer


## Show/Hide Labels

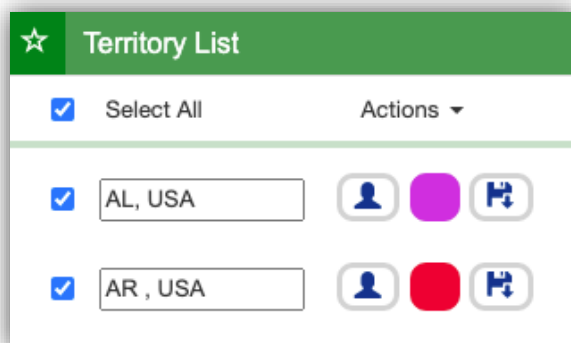
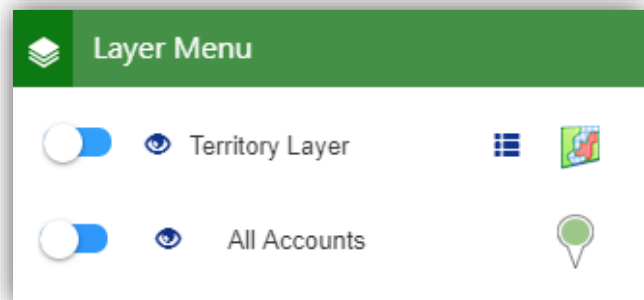
User can click on the 'Show label'  button to view the labels for the pushpins, regions as well as territories plotted on the map. User can again click on 'Hide Label'  to hide the labels showing on the map. The option for showing/hiding labels is available for every individual layer of data plotted on the map.



**Note: Show Labels is available for less than 5k records.**

## Show/Hide Territory List

With territories plotted on the map, layer menu will also show an option of Show/Hide List for the layer of territories. User can click on the show/hide list button  option to open the list of territories plotted on the map.



User can select or deselect the territories which are required to be plotted on map. User can further change the name, select a color and select the manager for the respective territories and also save the same with the 'Save' button within the 'Territory List' card.

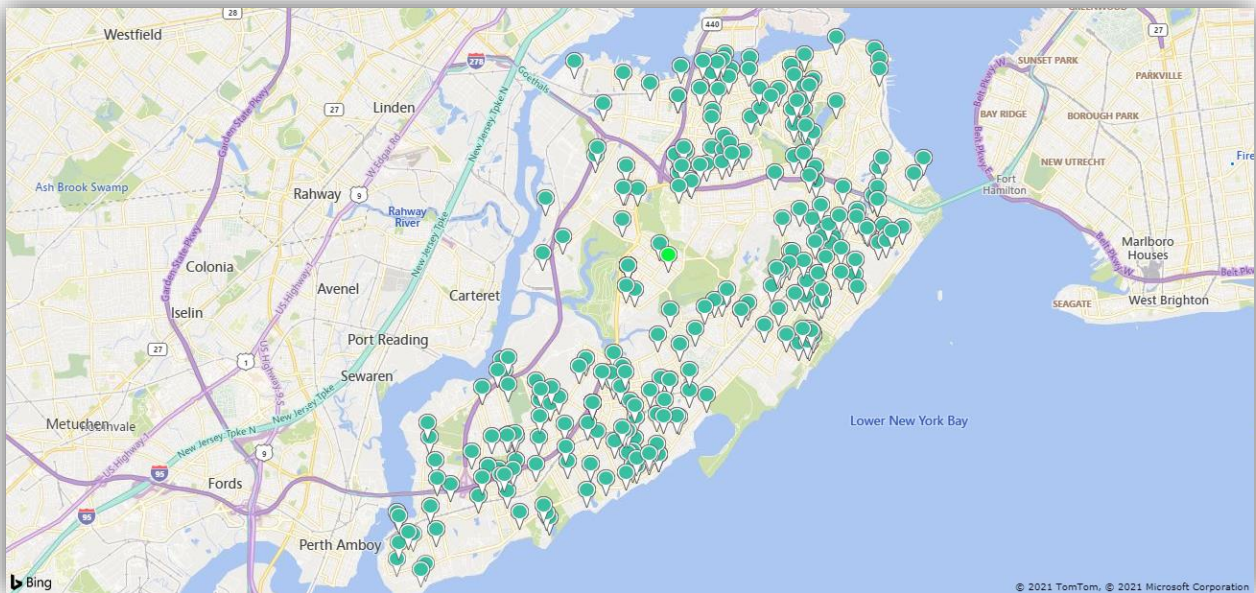
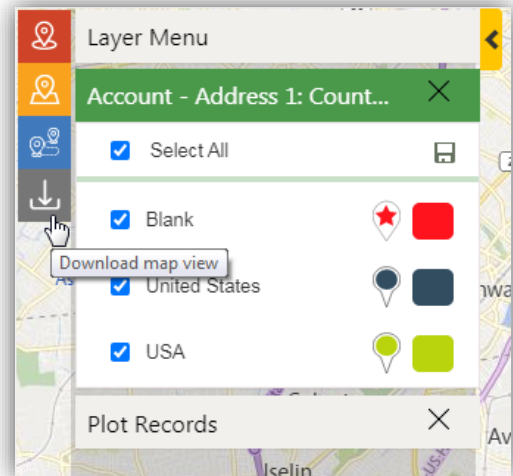


## Download map

Using the Download map button, the user can download the map as visible on the screen.

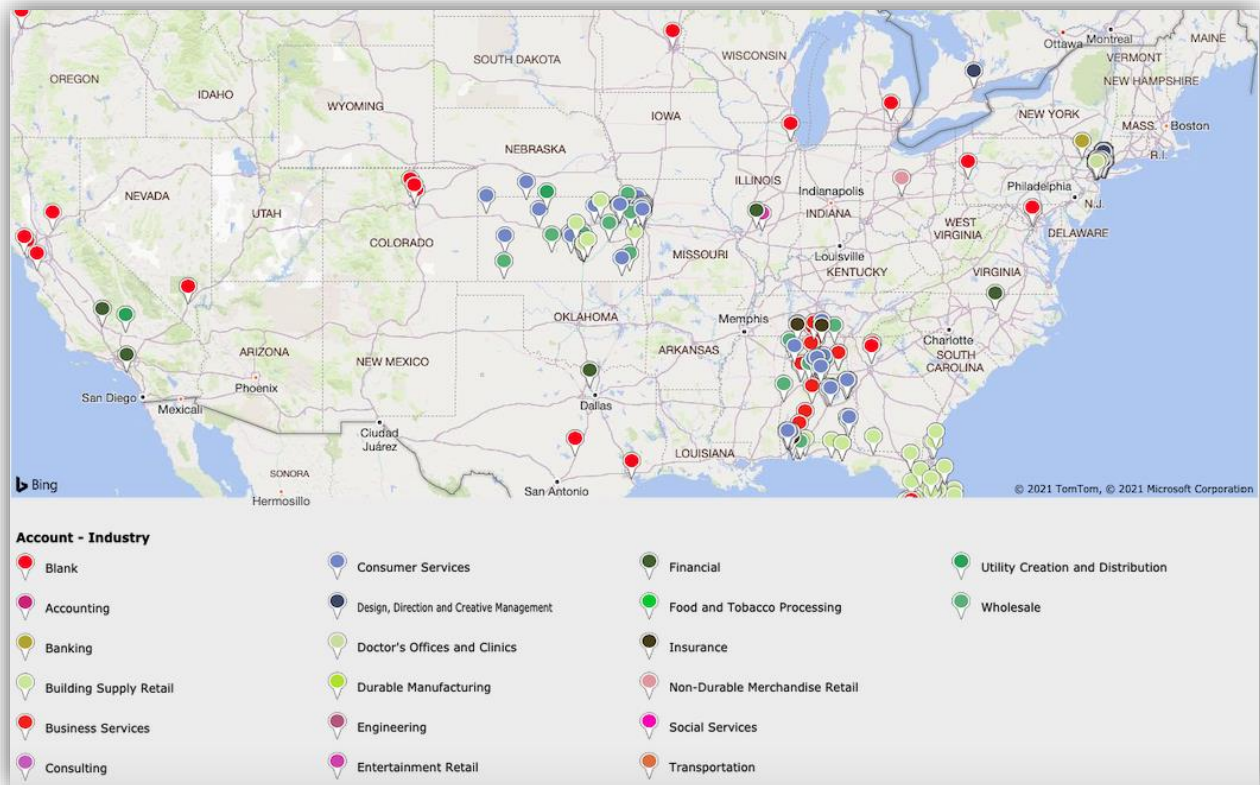
**Note: Download map is not supported for Internet Explorer.**

This helps the user to get the map download for using offline.



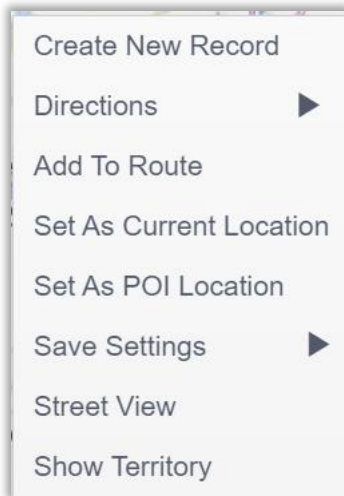
## Maplytics™ – User Manual

If the user has plotted data with categorization, the map will be downloaded with a legend showing the categories.





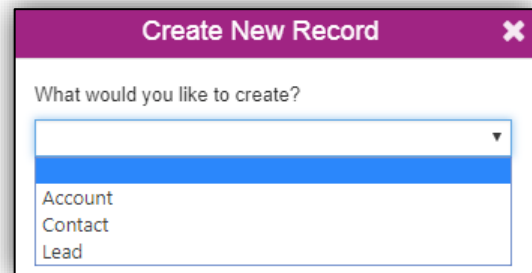
## Contextual Menu



User can right click on the map to open Contextual menu. It provides commonly used features in Dynamics CRM like creating a new record, set origin/destination or selecting map zoom level on the map, etc. The contextual menu provides the following options:

### Create New Record:

User can right-click anywhere on the map or POI result icons and create a record for that particular location. This will save the record with the details of the address and the geo-coordinates



(Latitude & Longitude).

**Note: Create new record option will not available for existing record pushpin**

### Directions:

- **Set As Origin:** This option will set the address of the pushpin/map location as the start location of the route.
- **Set As Destination:** This option will set the address of the pushpin/map location as the end location of the route.

**Add to Route:** This option will set the address of the pushpin/map location as a middle waypoint(s) of the selected route. For example, the user has selected Point A & B as origin & destination respectively for a route and now clicks on the 'Add To Route' option, the Point B will remain as the destination and will become the Point C. The address of the selected pushpin will become the Point B of the route.

**Set as Current location:** User can click on any pushpin or anywhere on the map to set the address of the pushpin or the location as the current location respectively, which can be used for Proximity search.

### Set as POI Location:

This option helps the user to set the location for the Point of Interest (POI) searches like ATMs, restaurants, Airports, etc. Setting the POI location, user can search for various Geo-tagged & Bing mapped locations around it.

### Save Settings:

User can save the default settings for the following options. These settings will be saved in the Configuration details record of the user:

- **Current location:** This will save the location as the default current location.
- **Map zoom level:** This sets the zoom level and map center for the Map. After this setting is done, whenever the user will open the Detail Map, it will be zoomed down to the location set here.

## Maplytics™ – User Manual

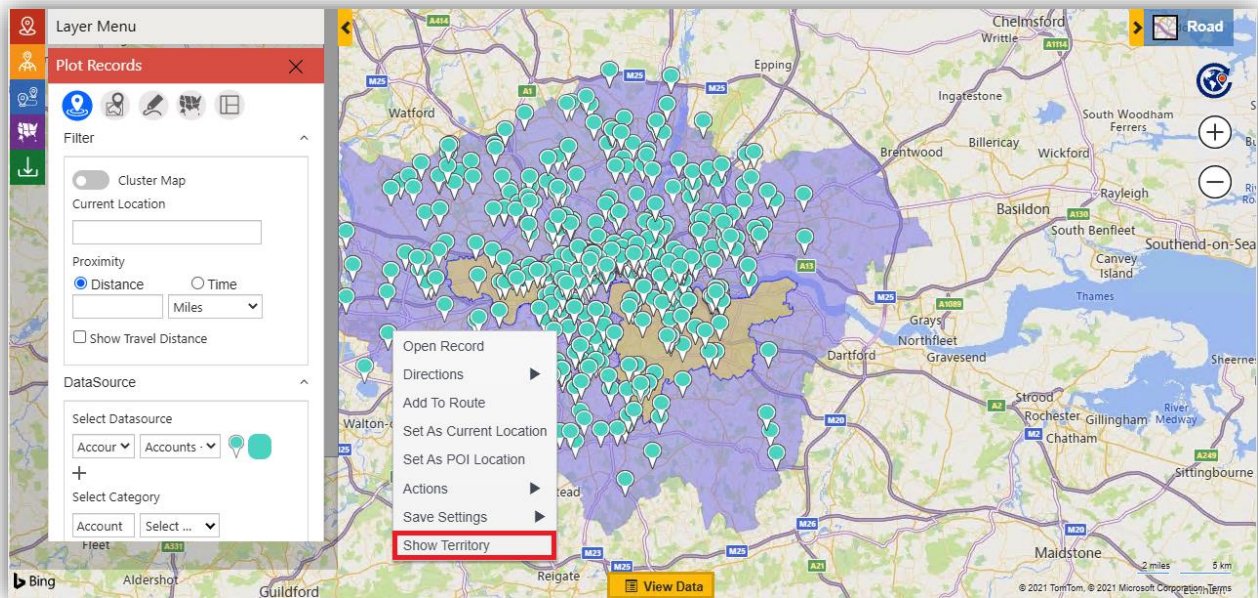
- Origin: This sets the location as the default origin.
- Destination: This sets the location as the default destination

### Street View:

User can right click on map to get a Street view option. This will open a 3D view of the Map

### Show Territory:

User can right click anywhere on the map or at any record to select the option 'Show Territory' from the Contextual menu. This will plot the respective territory to which the selected location or the record belongs to. Further, user can click on 'Hide territory' from Contextual Menu to hide the plotted territory.

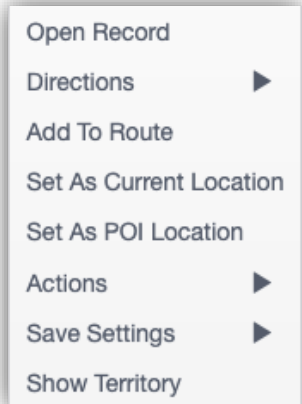


User can also click on any pushpin to get a contextual menu. Along with the options mentioned above, this will provide the following options:

Open record: User can open the record form right from the map and can further edit the details for the record.

Actions: User can perform the following actions on the pushpin selected:

- Add Task: This option helps the user to create a new task in Dynamics CRM regarding the selected record.
- Schedule Appointment: The user can use this option to create a new appointment for the selected record.
- Manage Territory: The user can assign/re-assign a territory to the selected record from the map and hence can manage the territory.



## Multi-Address Plotting

If the entities in CRM contains more than one addresses, users can plot the records based on multiple addresses at once. This feature will enhance the visualization experience of those records that have presence in multiple cities or states etc. Admins can configure required addresses within the Entity map of the entity so as to view the option of selecting the addresses to plot the same on the map. Please refer to the Entity map section of the Installation manual to know how to configure multiple addresses in Maplytics to plot records based on multiple addresses.

While selecting the Datasource and View within the Plot records card, user can click on the ‘Select address’



to select the addresses based on which they would like to plot the records. This will open the window that lists out all the addresses saved within the ‘Address Attribute’ Section of Entity map. User can select the required addresses and click on Search.



**Note:** The icon for ‘Select Address’ will only appear if multiple addresses are configured in the Attribute Mapping section of the respective entity map.

The below screenshot shows the Accounts plotted based on the two addresses, Billing address and Shipping address. Here 4 records have been plotted and due to the two addresses of each of the records the map is showing 8 pushpins in total.

## Maplytics™ – User Manual

The screenshot displays the Maplytics interface. On the left, there's a sidebar with a 'Layer Menu' and a 'DataSource' section. The 'DataSource' section includes a 'Select Datasource' dropdown set to 'Accounts', a 'Select Category' dropdown set to 'Account', and a 'Show Travel Distance' checkbox. The main map area shows a map of Kansas with several location pins. Below the map is a table titled 'Accounts - Kansas (8)'.

|                                     | Account Name           | Main Phone | Address 1: City | Email                        | Status | Address Name     |
|-------------------------------------|------------------------|------------|-----------------|------------------------------|--------|------------------|
| <input checked="" type="checkbox"/> | Gourmet foods          | 9864627622 | Shawnee         | Julie@gourmetfoods.com       | Active | Billing address  |
| <input checked="" type="checkbox"/> | Gourmet foods          | 9864627622 | Shawnee         | Julie@gourmetfoods.com       | Active | Shipping address |
| <input checked="" type="checkbox"/> | Electro Power LLC      | 9865727212 | Kansas City     | Brunn@Electropower.com       | Active | Billing address  |
| <input checked="" type="checkbox"/> | Electro Power LLC      | 9865727212 | Kansas City     | Brunn@Electropower.com       | Active | Shipping address |
| <input checked="" type="checkbox"/> | Bolt Fencing solutions | 9857267287 | Kansas City     | Peterj@Bolt.com              | Active | Billing address  |
| <input checked="" type="checkbox"/> | Bolt Fencing solutions | 9857267287 | Kansas City     | Peterj@Bolt.com              | Active | Shipping address |
| <input checked="" type="checkbox"/> | Woodgrove Bank         | 9867825611 | Kansas City     | darren.parker@woodgroveba... | Active | Billing address  |
| <input checked="" type="checkbox"/> | Woodgrove Bank         | 9867825611 | Kansas City     | darren.parker@woodgroveba... | Active | Shipping address |

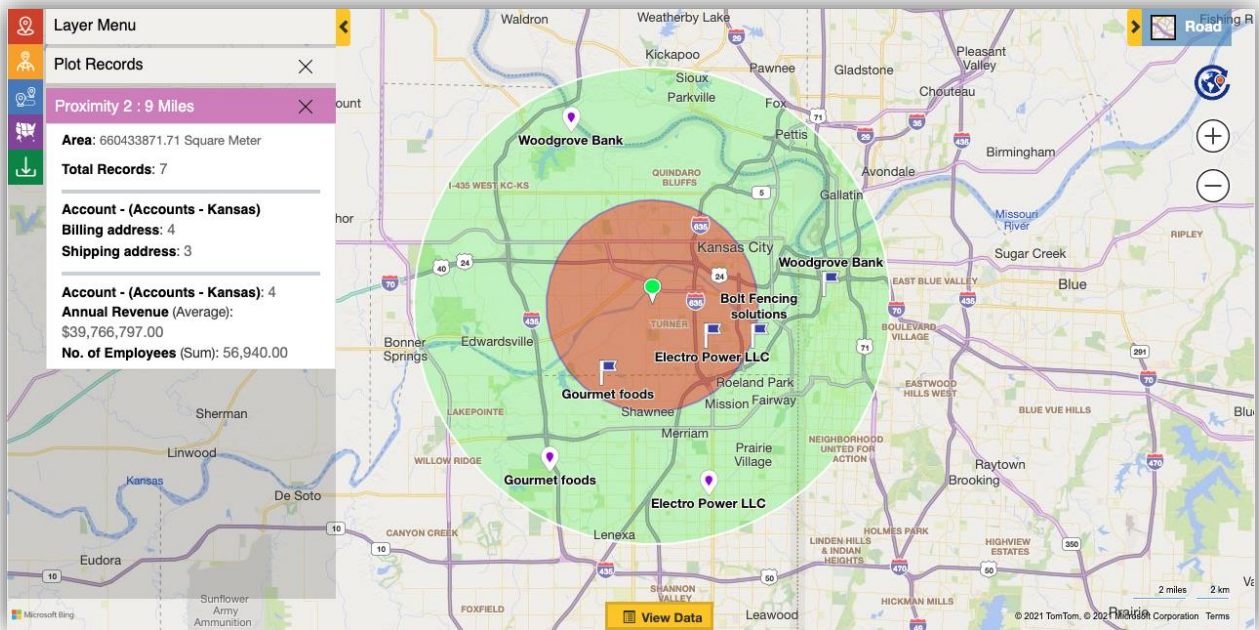
At the bottom of the table, it says '(8 Selected) 1 - 8 of 8 items'.

The Layer menu will list both of the addresses, the Billing address and the Shipping address for Accounts.

The screenshot shows the 'Layer Menu' with two layers listed: 'Accounts - Kansa...' and 'Accounts - Kansa...'. Each layer has a toggle switch and an eye icon. The second layer is highlighted with a tooltip that says 'Accounts - Kansas-Shipping address'.

While working with any enclosed shape like proximity, drawn shape or a territory, user can click on the enclosed shape to view the Summary card. The below screenshot shows Proximity search performed on the above Accounts that were plotted based on two addresses Billing address and Shipping address.

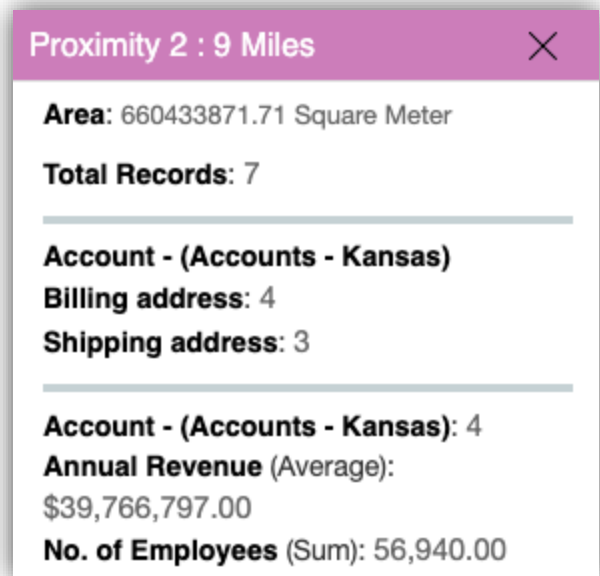




With the click on the outer circle it is showing the Summary card for the same. Within the summary card, the Total Records will show the count based on the total number of pushpins plotted on the map i.e. 7 pushpins in total.

The second section of the Summary card shows the classification of the count of records based on the two types of the addresses i.e. 4 pushpins are plotted based on the Billing address and 3 pushpins are plotted based on the Shipping address.

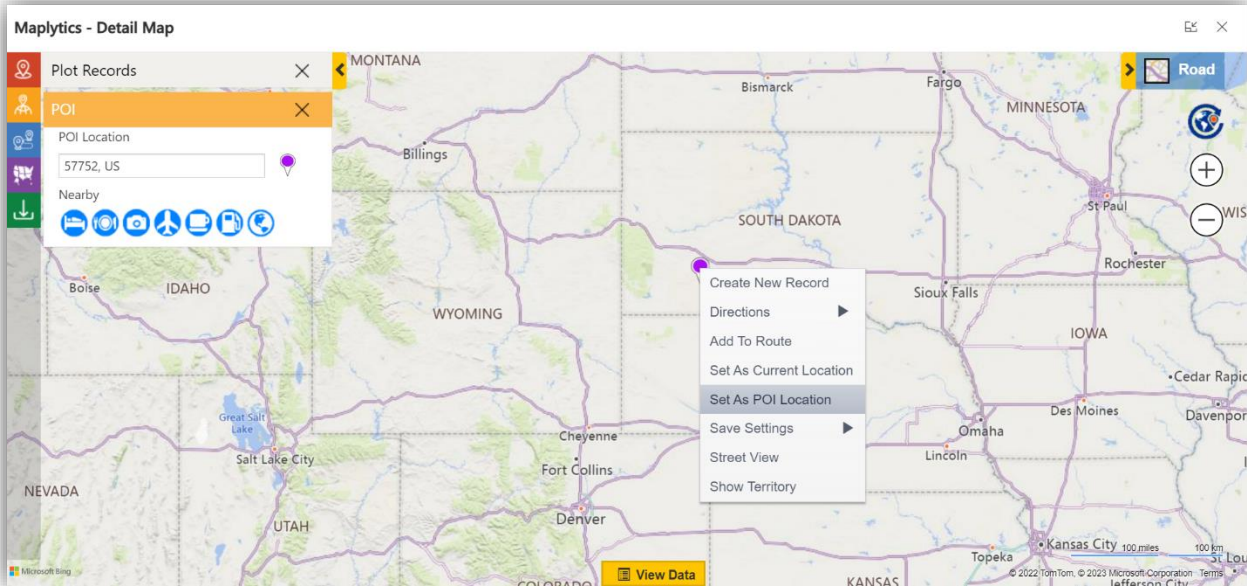
In the third section, it shows the summary of the Annual revenue and the no. of Employees based on the actual(unique) count of the records plotted i.e. 4 Accounts.



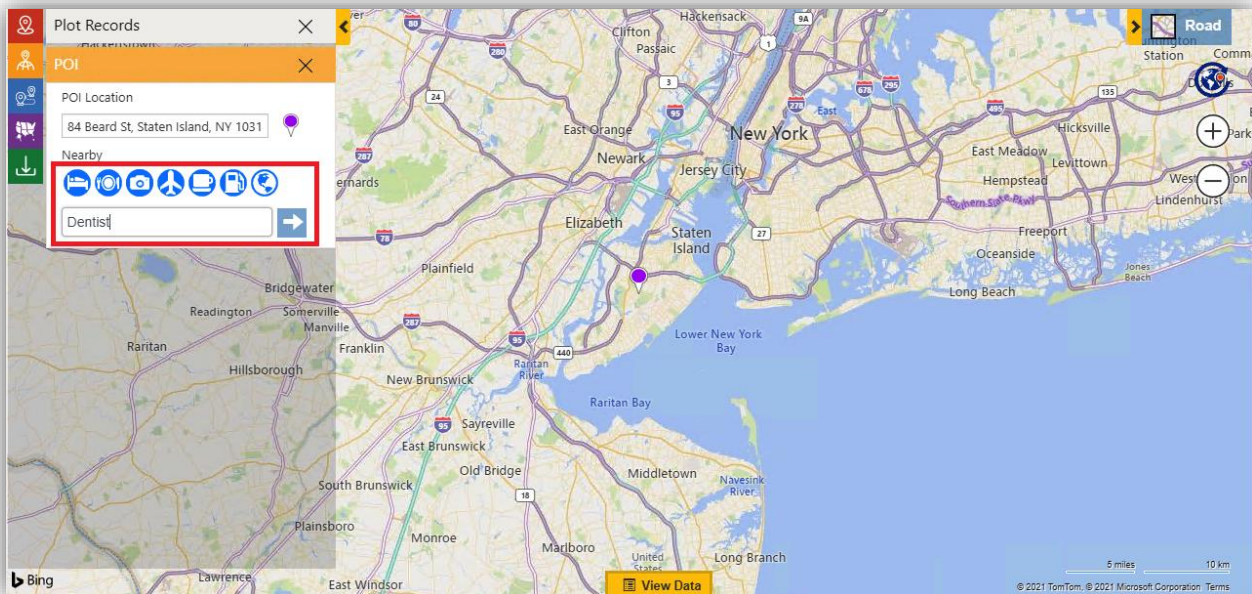


## Point of Interest (POI) Locations

User can search for any geo-tagged Bing-mapped locations called points of interest (POI) like ATMs, restaurants, hotels, coffee shops, etc. near a specified location. This can also be plotted alongside the CRM data. User either can right-click on map to set the location as the POI location or can directly enter the required location in the POI card.

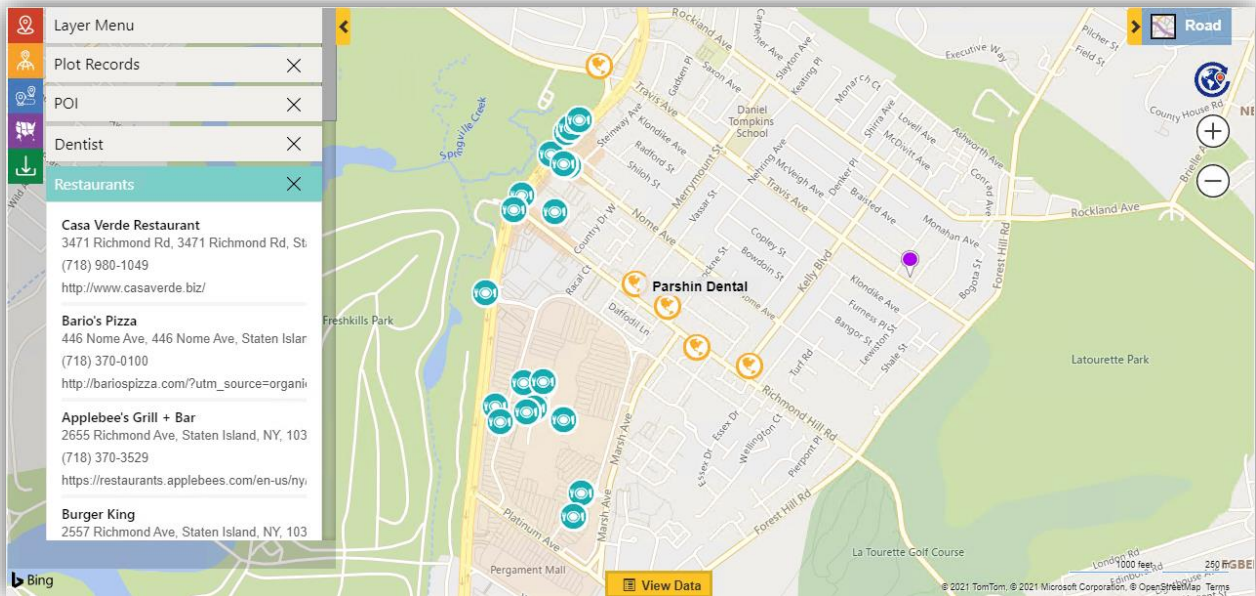


User can either click on any of the POI icons or manually search for required POI location by entering the respective keyword in the search bar.



## Maplytics™ – User Manual

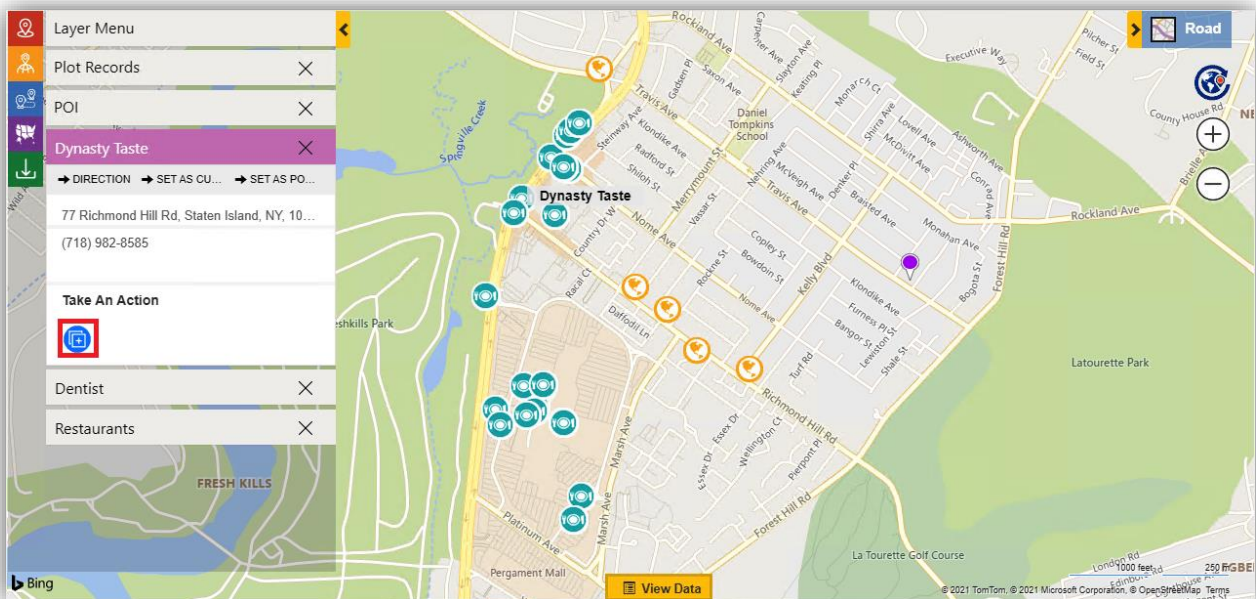
Based on the selected POI location icon or the entered keyword, the results will be loaded.



### Note:

- **The option to enter a keyword to search POI locations is only available while searching in USA.**
- **For each POI location search, only 25 locations will be plotted on the map.**

Apart from plotting POI data, user can also add the plotted businesses in Dynamics CRM record as leads, accounts, contacts, or any custom entity by using the Create New Record option in the POI card or Contextual menu. (Refer to Contextual menu section)





## Proximity Search

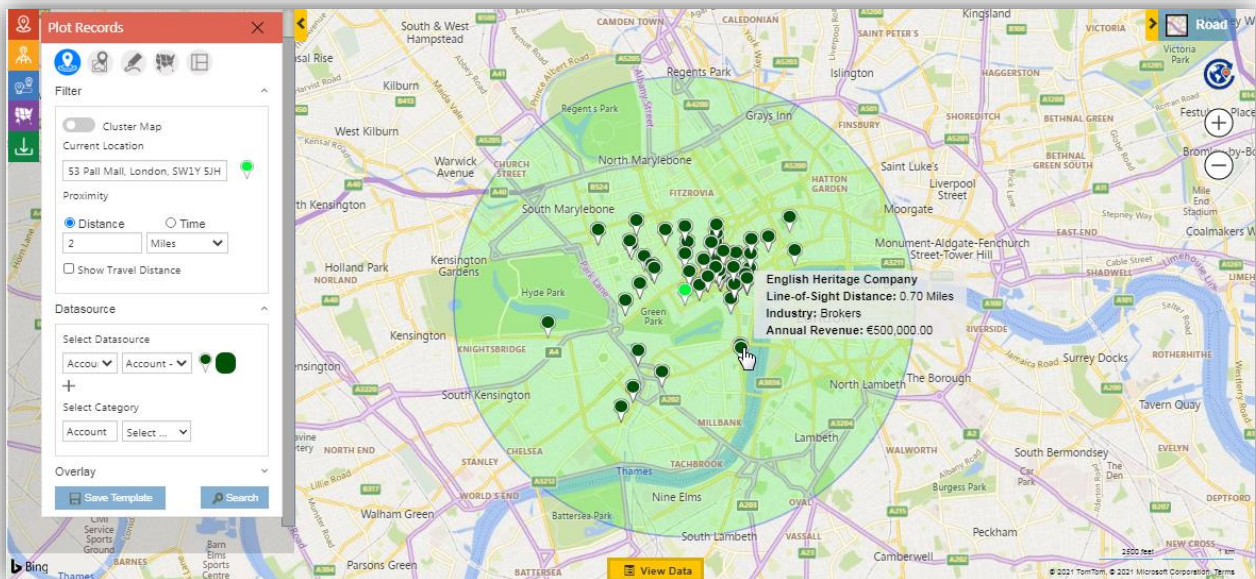
User can search for the nearby records around a required location using Proximity Search. This will help the users to understand the proximity of the nearby records in regards to the selected location. There are two different options to perform a Proximity Search:

1. Proximity by Distance
2. Proximity by Time.

**Current Location:** User can select any location or a record as the current location. This is used to specify the center point for the Proximity search. By default, this field displays the address stored in the Maplytics personalized record of the logged in user. This is always represented by a green color pushpin on the map and also indicated right next to the current location message box.

### Proximity by Distance

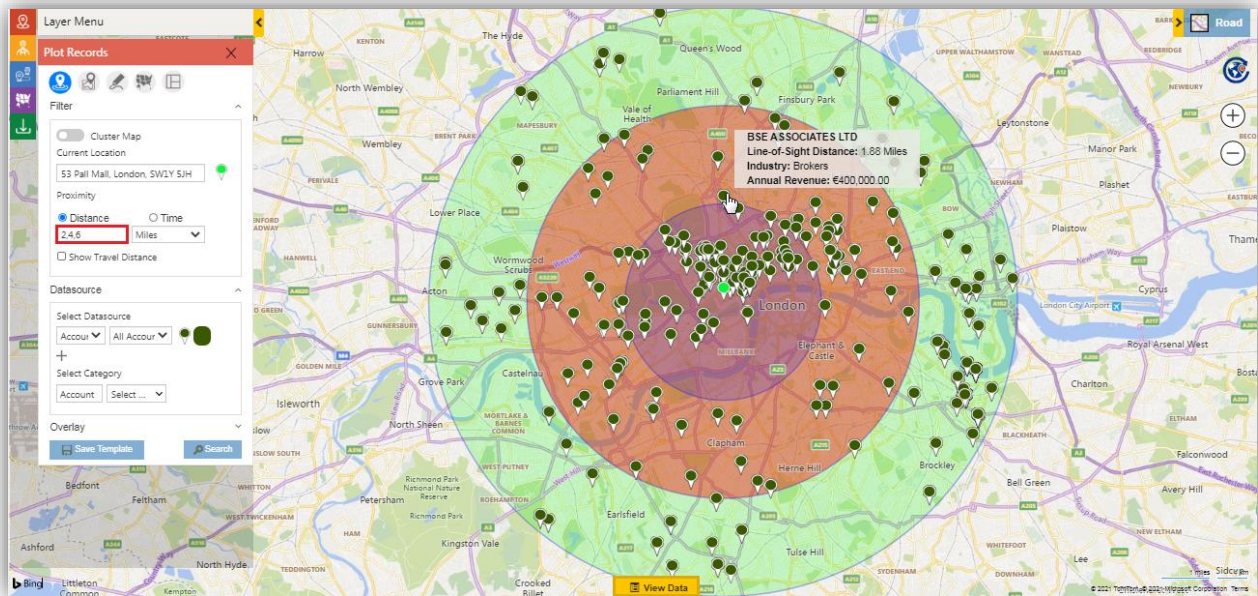
This option will calculate the straight-line distance between the current location and all the points which fall in the proximity parameter as shown below:



Enter the radius for the Proximity search. The user can also add decimal values with a scale of 2 for the radii. The Proximity can be provided either in Miles or Kilometers. The User can also hover over a pushpin and see the distance from current location.

## Concentric Proximity Search

This new addition to Proximity based on Distance allows users to perform up to 3 proximity searches simultaneously. The user needs to enter the distance values separated by a comma (,) and all the points that fall in the defined proximity parameter will be plotted.



The Concentric proximity zones are represented by different colors for easy visual analysis. The user can also click on individual proximity zones to highlight the circle and open the Summary Cards for that proximity parameter.





The user can also filter the data points based on the proximity zone and their proximity distance from the current location in the 'View Data' grid.

| Accounts - Staten Island (130) |                    |                   |            |                          |                        | Reset | Related Records | Mass Actions |
|--------------------------------|--------------------|-------------------|------------|--------------------------|------------------------|-------|-----------------|--------------|
|                                | Account Name       | Primary Contact   | Main Phone | Shortest Travel Distance | Line-of-Sight Distance |       | Proximity Zone  |              |
|                                | Abbas & Sons       | Abraham McCormick | 7188520069 | 2.5                      | 1.84                   |       | 2               |              |
|                                | Abdelmessih & Sons |                   | 2122501122 | 2.04                     | 1.32                   |       | 2               |              |
|                                | Adamita & Sons     | Adrienne McMillan | 2124180645 | 0.43                     | 0.39                   |       | 1               |              |
|                                | Adams & Sons       | Benno Kurmann     | 2122068501 | 1.55                     | 1.1                    |       | 2               |              |
|                                | Aguayza & Sons     |                   | 2123082665 | 3.21                     | 2.96                   |       | 3.56            |              |
|                                | Aiello & Sons      |                   | 2128165282 | 3.88                     | 2.85                   |       | 3.56            |              |

**Note:** User can enter integer value from 0.1 to 2000 for distance proximity search.

### Show Travel Distance

While performing Proximity Search by Distance or Time, if the user wants to see the actual travelling distance from the current location till each of the individual pushpins, they can select the checkbox of 'Show Travel Distance' to view the Shortest Travel Distance on the hover and view data grid.

| Accounts - Staten Island (103)  |                                     |                    |                   |            | Reset                    | Related Records        | Mass Actions   |
|---|-------------------------------------|--------------------|-------------------|------------|--------------------------|------------------------|----------------|
|   | <input checked="" type="checkbox"/> | Account Name       | Primary Contact   | Main Phone | Shortest Travel Distance | Line-of-Sight Distance | Proximity Zone |
|  | <input checked="" type="checkbox"/> | Abbas & Sons       |                   | 7188520069 | 2.5                      | 1.84                   | 3              |
|  | <input checked="" type="checkbox"/> | Abdelmessih & Sons | Abraham McCormick | 2122501122 | 2.04                     | 1.32                   | 3              |
|  | <input checked="" type="checkbox"/> | Adamita & Sons     | Adrienne McMillan | 2124180645 | 0.43                     | 0.39                   | 3              |
|  | <input checked="" type="checkbox"/> | Adams & Sons       | Benno Kurmann     | 2122068501 | 1.55                     | 1.1                    | 3              |

*Show Travel Distance for Truck*

Plot Records

Filter

Cluster Map

Current Location

9 Amy Ct, Staten Island, NY 103

Proximity

Distance

1,2,3

Miles

Time

Show Travel Distance

Select Asset

Select Ass

Select Haz

Datasource

Select Datasource

Accour

All Accour

+

Select Category

Once the user selects the option of 'Show Travel Distance', user will get an option to an Asset and Hazardous material. This will provide the list of the assets created in the Asset entity within the CRM. If the user wants to search for the shortest travel distance for truck, they can choose to select the respective Asset and if any Hazardous material is being carried out or select none from the following list:

- Combustible
- Corrosive
- Explosive
- Flammable
- Flammable Solid
- Gas
- Goods Harmful To Water
- Organic
- Poison
- Poisonous Inhalation
- Radioactive
- Other
- None

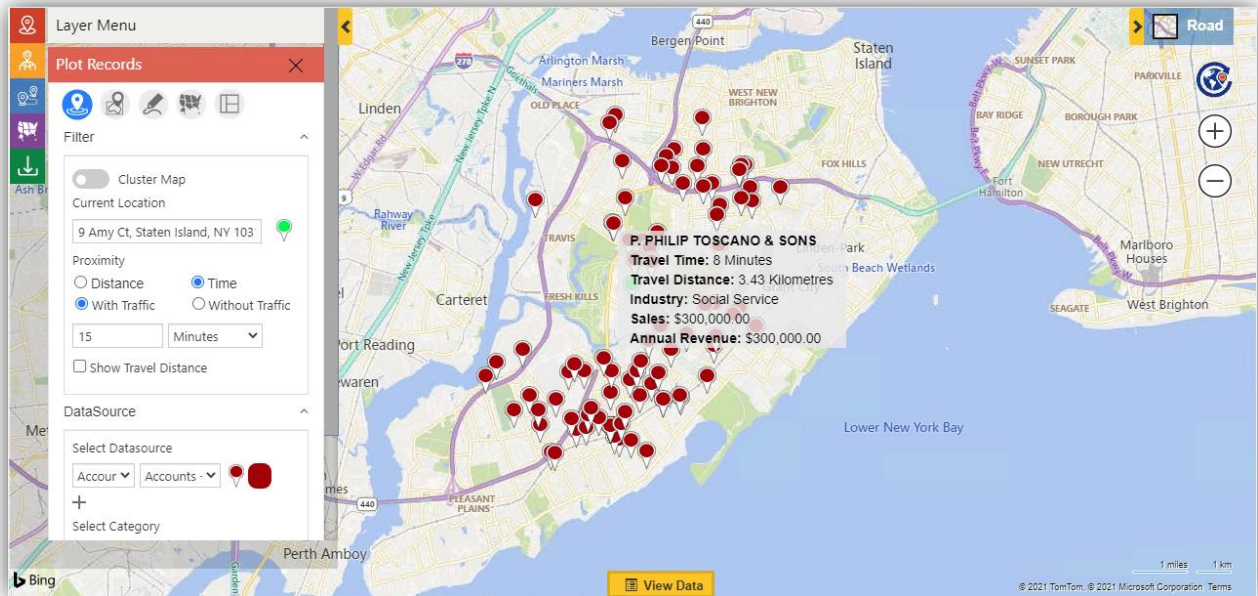
**Note:**

- *If user has not selected any asset here, by default, the travel distance will be calculated as per driving by car.*
- *The feature of 'Show Travel Distance' based on driving by truck uses a separate key. Every time the travel distance is searched based on driving by truck, 3 transaction limits of the key are consumed for each pushpin that appears within the proximity.*



## Proximity by Time

This option will calculate how many points fall in 'x' minutes or hours of driving distance from current location. The Proximity can be provided in either Minutes or Hours. The User can also hover over a pushpin and see the distance from current location.



## Overlay

This helps user to view the Dynamics CRM records along with shape/excel files, existing territories, and ArcGIS Online feature layers plotted on the map. User can also view the 'layer menu' to select or deselect the layers so as to show or hide the same respectively. Using Overlay user will easily be able to understand and analyze the data spread in required shape file regions and territories.

User can select the following three options:

- Territory – This option helps the user to select among the list of existing territories
- File – This option helps the user to select among the list of shape/excel files. The file should be in a territory in order to be visible in the list.
- ArcGIS - This option helps the user to select from among the live feature layers hosted by ArcGIS Online. The file need not be in territory and can be used even with real-time changes.

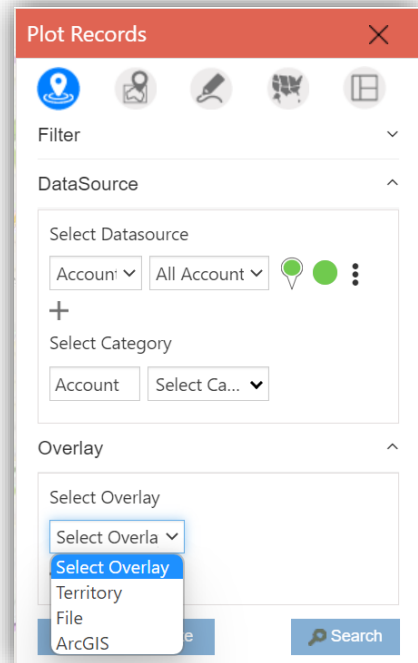
Let us consider a Sales and Marketing Manager of a Food and Beverage brand planning on Sales Area expansion. He would want to know the demographic of the Target Group in the new area. Knowing the information about the population, their age groups, spending capacities, buying patterns, sex ratio, etc. would be helpful in categorizing them and designing marketing campaigns for them. The sales processes could then be planned to cater to young adults, working population, senior citizens, and so on. Strengthening the location data with demographics would help in better decision making. With the overlay feature, the Manager would be able to-

- View the existing territories within the new area by plotting them over the map and know the head count in all the territories along with other details
- Import external shape/ excel files, save them in CRM and plot the same over the map to view the territorial data in-depth, or
- Seamlessly integrate the ArcGIS Online feature layers with the Map and view the collated data of the new area

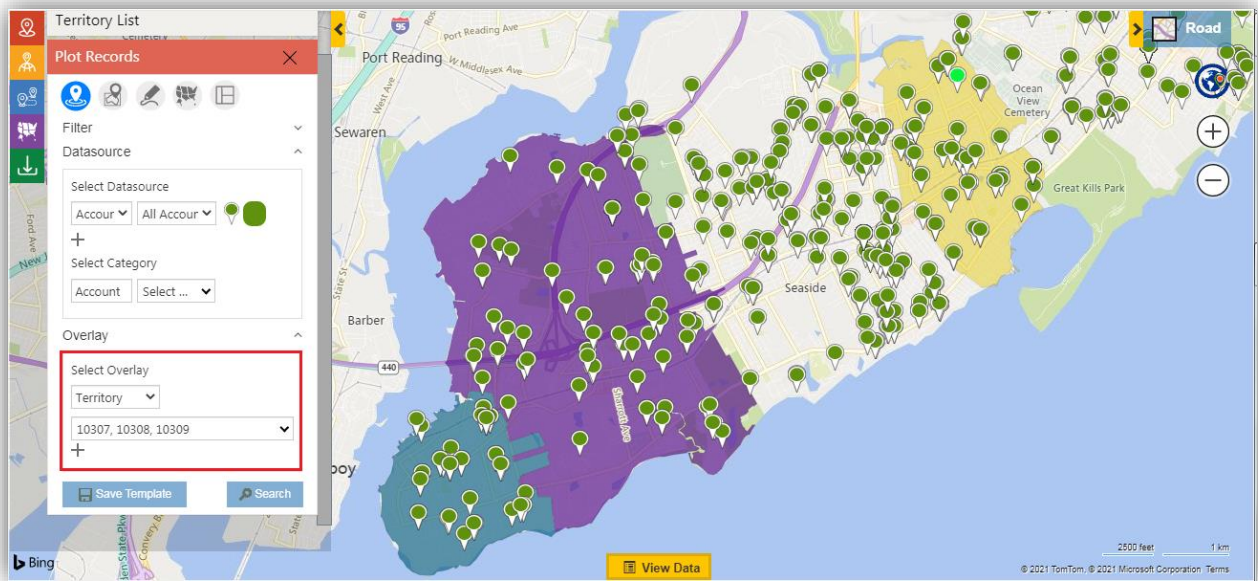
Viewing this organized data spread in the new sales area he might decide on targeting 3 main territories with the right population age group and create marketing and selling plans for the young adults there.

### Overlay by Territory

User can select the option of Territory and select the territories they want to plot. Along with this, they can also select any datasource & view. This will help them view the datasource records along with the Overlay of territories selected.



## Maplytics™ – User Manual



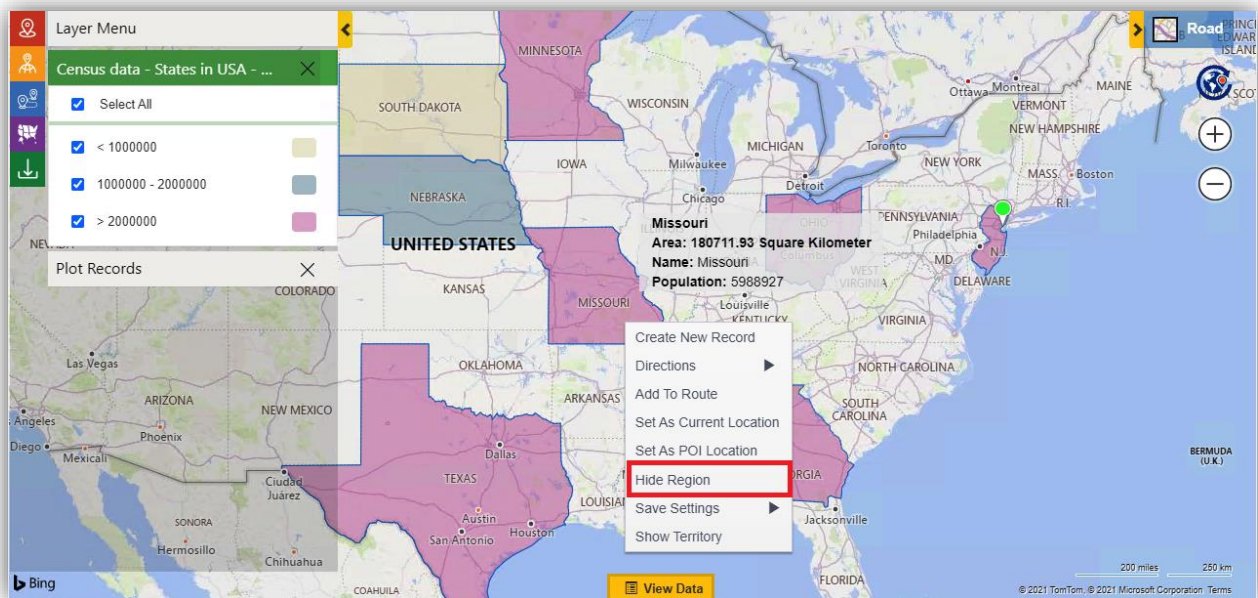
### Overlay by File

User can select a excel/shape file saved in CRM to plot the same on the map. Further users can select the following options as well.

**Category Attribute:** An attribute can be selected to categorize the regions plotted by file.

**Summary Attributes:** One or more attributes can be selected to show the same in the Summary card. The attributes selected within the 'Configuration' of the saved file in the Territory Entity will be selected by default. User can deselect them in the plot card and can select other attributes.

Users can also uncheck the option of 'Plot All Regions' if they do not want to plot all regions from the file. In this case, they can right click at any location on the map to select the option of 'Show region' from the Contextual Menu. This will help them to view the region for the respective selected location. User can again click on 'Hide Region' from the Contextual Menu to hide the region for the respective selected location. Further, user can also open the respective territory within which the file is saved using the 'Open record' button on the Summary card.

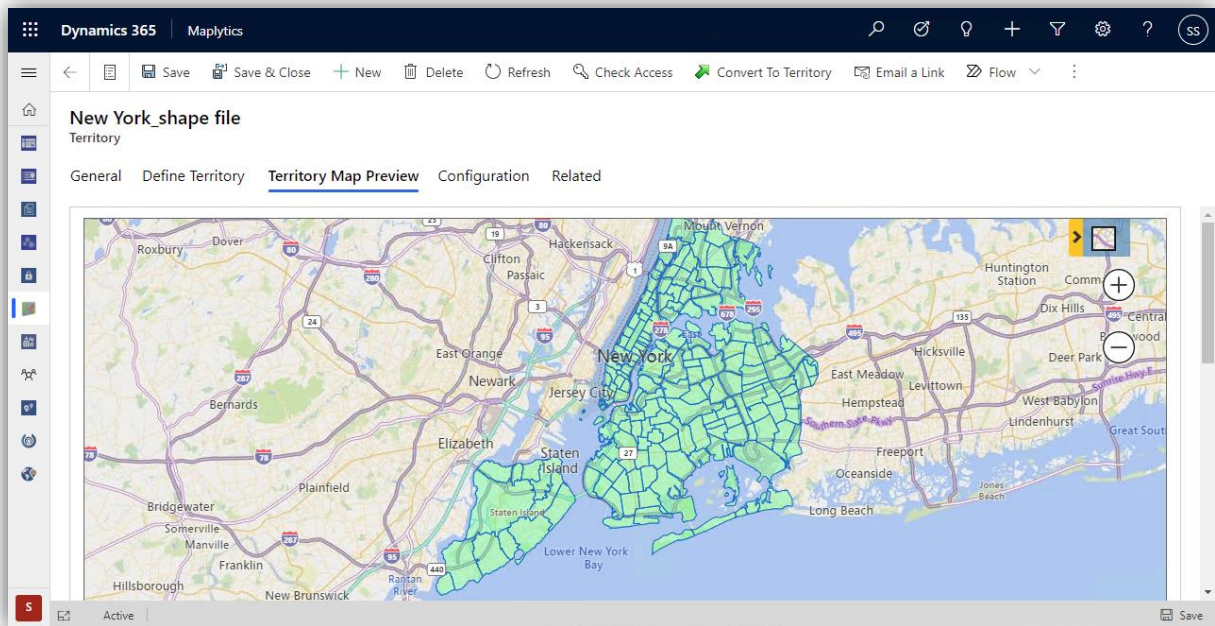




### Save Shape/Excel file in territory

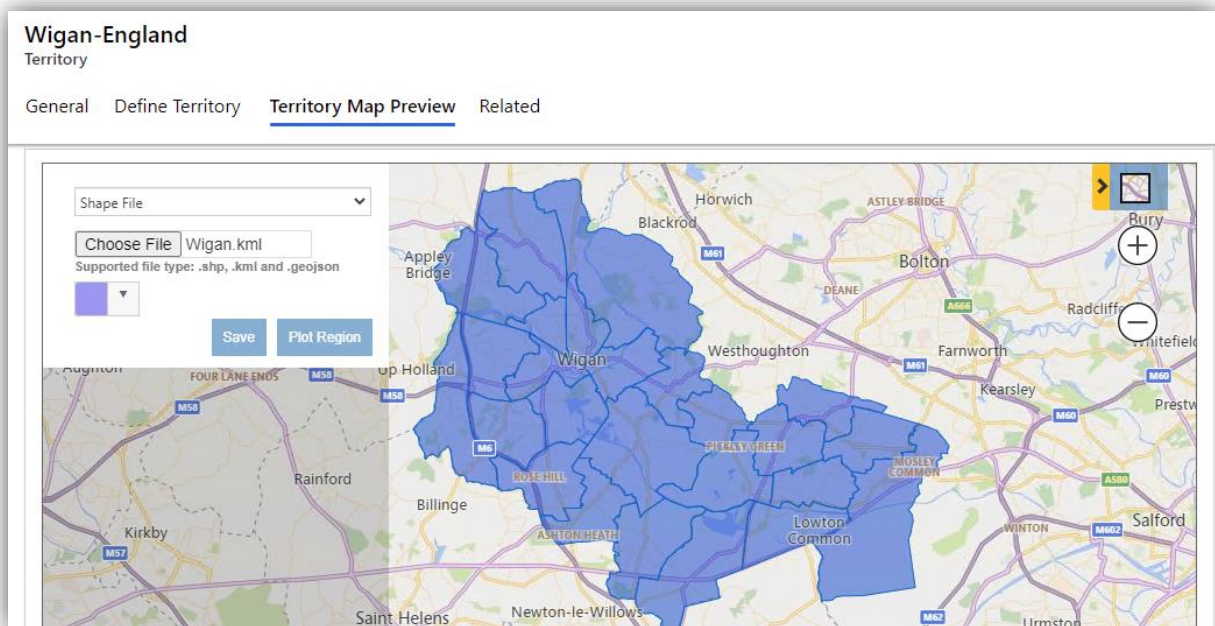
A file should be saved in a territory in order to be visible in the list of the files to be plotted as an Overlay. Follow the steps mentioned below to save the shape/excel file in a territory:

- **Go to Settings > Business Management > Sales Territories > Create a sales territory > Save**
- **Go to Territory Map Preview > Select Option > Shape file/Excel file > Save**



### Save Shape file

Within the Territory Map preview, user can select the option of 'Shape file' and select the color to view the regions in the same.



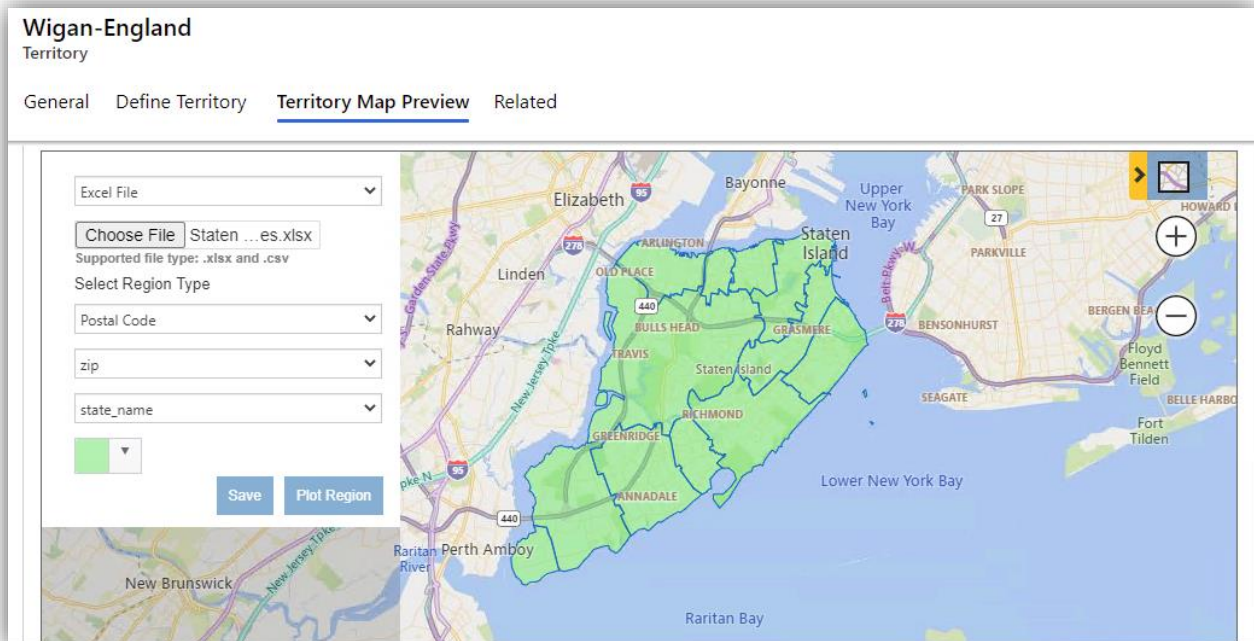
### Save Excel File

Within the Territory Map preview, user can select the option of 'Excel File' to select an excel file to the territory. User can also select the color to view the regions in the same. They further need to select the following options in order to save the excel file as per their requirement:

Select Region Type: User should select the region type based on which the boundaries of the regions from the excel file is to be plotted.

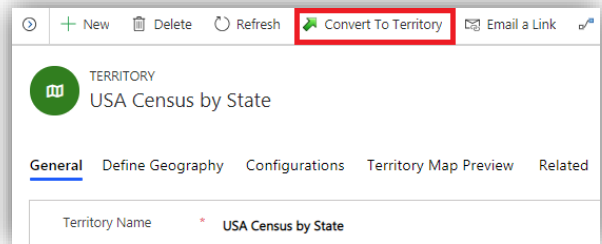
Select Region Value: User needs to select the column from the excel file that contains the values for the selected Region Type.

Select Main Region: User needs to select the column from the excel file that contains the value for the biggest region for the selected Region type in order to plot the regions accurately. For example, if the Region type selected is Postal code, so the Main Region should be preferably Country. If the column of country is not available then the column with the values for respective States or Cities can be selected.



### Convert Overlay to territory

User can use this button to convert an overlay record to a territory. After the overlay record is converted, it becomes a territory which can be searched in the option of 'Territory' in Overlay.

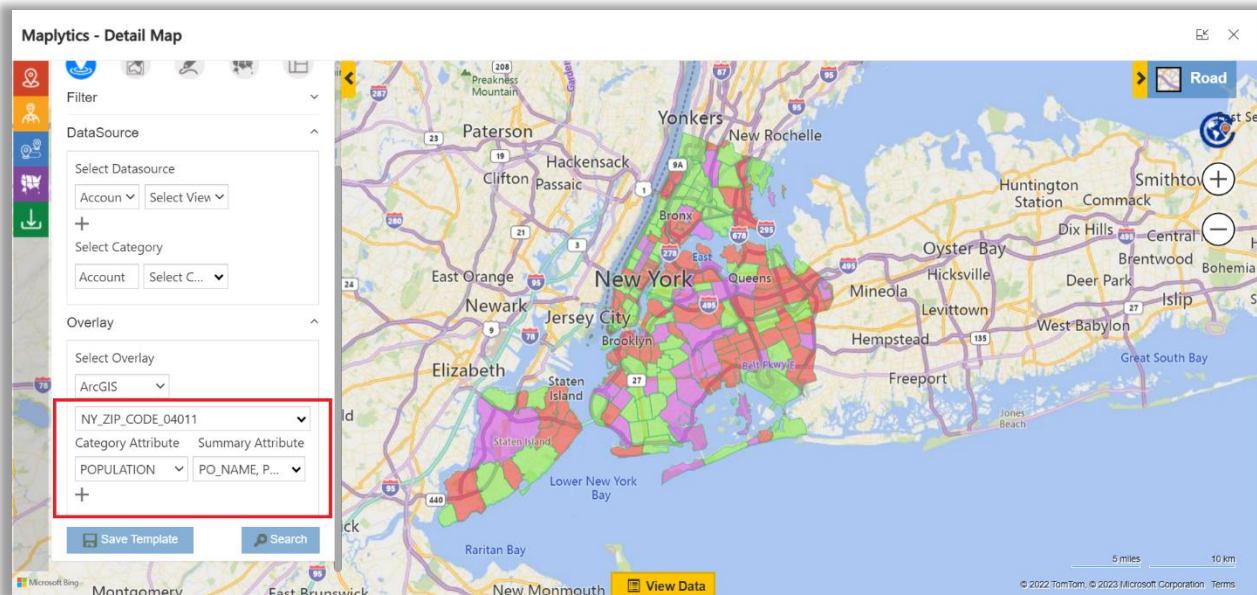


#### Note:

- **Supported file types for shape files are .shp, .kml and .geojson and excel files are .xlsx, .csv**
- **In a territory, either a shape/excel file can be saved or geographies can be created**
- **Only one shape/excel file can be saved in one Territory**

### Overlay by ArcGIS Online

User can begin with establishing a seamless integration between Maplytics and ArcGIS Online with a few configuration steps. Once done, the user can select from among the various feature layers available online on the ArcGIS portal and plot the same on the map. Further users can select the following options as well.



**Category Attribute:** An attribute can be selected to categorize the regions plotted using the ArcGIS feature layer. The plotted regions are differentiated with multiple colors. This visual representation makes regional analysis easy.

**Summary Attributes:** One or more attributes can be selected to show the same in the Summary card. All attributes will be selected by default. User can deselect them in the plot card and can select other

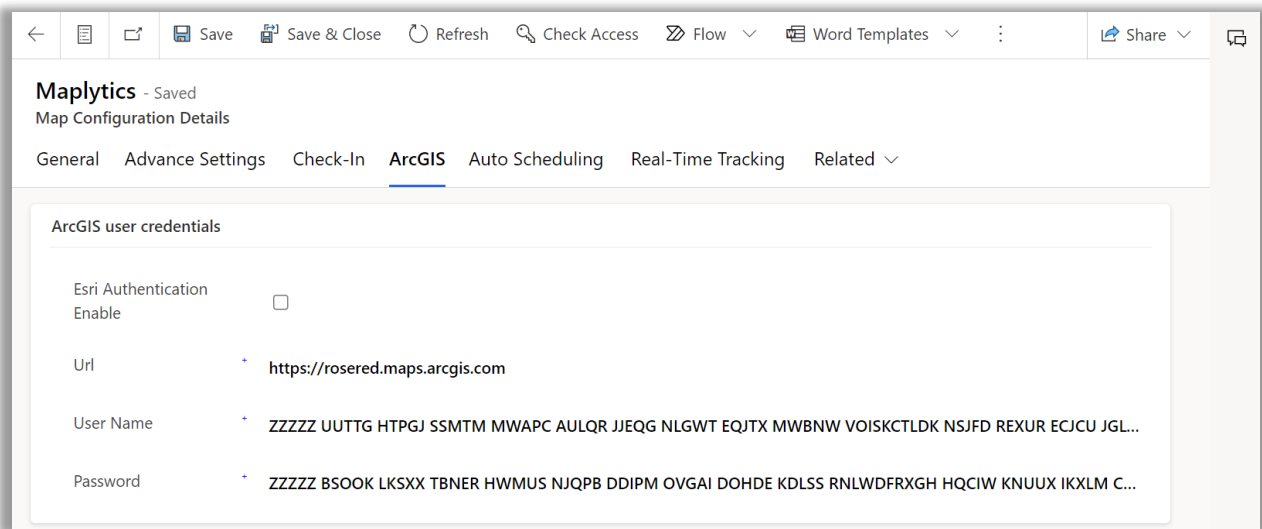
attributes. Attributes selected in summary attribute field will also be displayed when hovered over region boundary.

### Integrate ArcGIS Online with Maplytics

For a seamless integration and to be able to utilize the hosted feature layers of ArcGIS Online, the user can perform the following steps-

#### Single factor authentication

**Go to Settings > Maplytics Configuration Details > Default configuration record> ArcGIS**



The screenshot shows the Maplytics web interface. At the top is a toolbar with icons for navigation and actions like Save, Save & Close, Refresh, Check Access, Flow, Word Templates, and Share. Below the toolbar, the page title is "Maplytics - Saved" and the subtitle is "Map Configuration Details". A horizontal menu contains tabs for General, Advance Settings, Check-In, ArcGIS (which is selected and underlined), Auto Scheduling, Real-Time Tracking, and a Related dropdown. The main content area is titled "ArcGIS user credentials" and contains a form with the following fields:

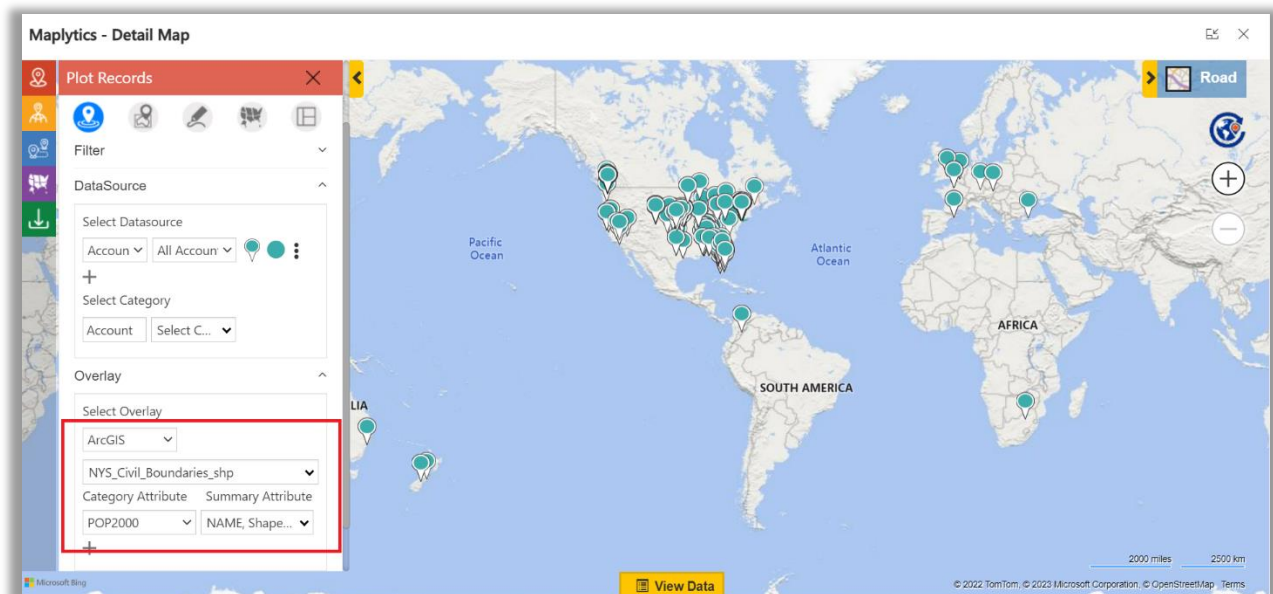
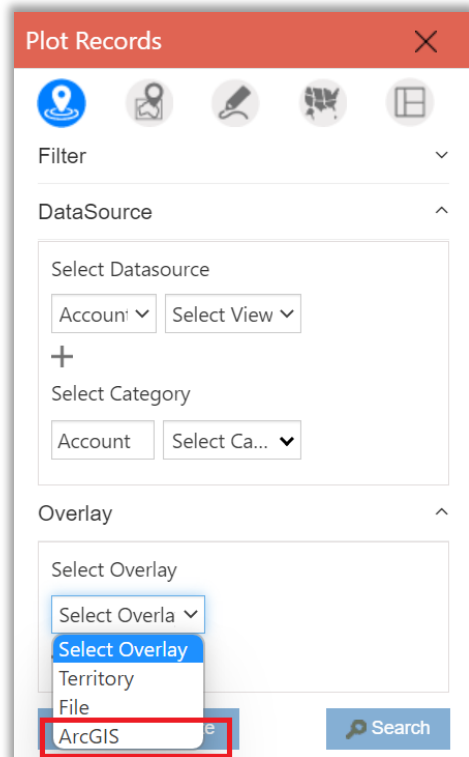
| ArcGIS user credentials    |   |
|----------------------------|---|
| Esri Authentication Enable | <input type="checkbox"/>  |
| Url                        | https://rosered.maps.arcgis.com   |
| User Name                  | ZZZZZ UUTTG HTPGJ SSMTM MWAPC AULQR JJEQG NLGWT EQJTX MWBNW VOISKCTLDK NSJFD REXUR ECJCU JGL... |
| Password                   | ZZZZZ BSOOK LKSXX TBNR HWMUS NJQPB DDIPM OVGAI DOHDE KDLSS RNLWDFRXGH HQCIW KNUUX IKXLM C...    |

In case the multi factor authentication option has not been enabled, the user can enter the URL from the ESRI Website, user name and password.



## Maplytics™ – User Manual

Once saved, the user can avail the option of ArcGIS in the Overlay dropdown.



### Multi- factor authentication

The user needs to have a Developer's Account on the ArcGIS Website by Esri. Once an account is created, the user will have his user name and password. Having access to this account, the user can select the feature layer that is suitable for his overlay needs.

**Go to Settings > Maplytics Configuration Details > Default configuration record> ArcGIS**

The screenshot shows the 'Maplytics - Saved' configuration page. The 'ArcGIS' tab is selected. Under 'ArcGIS user credentials', the following fields are visible:

| Field                      | Value  |
|----------------------------|--|
| Esri Authentication Enable | <input checked="" type="checkbox"/>  |
| Url                        | https://rosered.maps.arcgis.com  |
| User Name                  | ZZZZZ XLPTI HPOLK ADEOG SDOLV PFUEE TUSKH PGGFQ EPLDC LCMHT VVKRKEQKJA NQLFW TTEXV NANML HMQ...                |
| Client ID                  | 2kl702wDTlwjdpGz   |
| Client Secret              | 308ec55d66d24b80983d9eb1becfc166   |
| Esri Redirect Url          | https://apps.powerapps.com/play/e/c69c8778-8541-e3ce-99f2-cedf735f16d7/a/7367749a-f2ef-4758-95e4-42d70d6a00... |

The user needs to provide a Client ID and a Secret Code that is available for the developer account. On saving the entered configuration record, a redirection URL gets generated.

The screenshot shows the ArcGIS Online authorization page. The URL bar displays: `arcgis.com/sharing/rest/oauth2/authorize?client_id=2kl702wDTlwjdpGz&redirect_uri=htt...`. The page content includes:

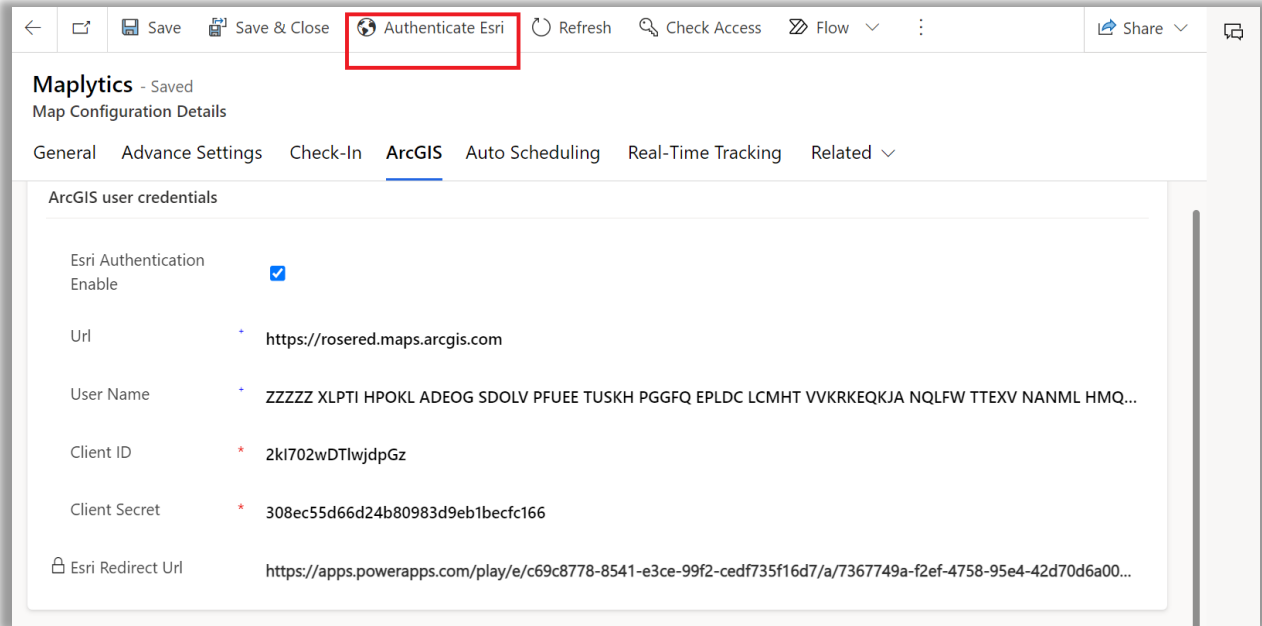
- A message: "Testing Purpose wants to access your ArcGIS Online account information".
- A "Sign in with" section with the Esri logo.
- An "ArcGIS login" form with fields for username (displayed as "xxxxxxx") and password (displayed as dots).
- "Sign In" and "Cancel" buttons.
- Links for "Forgot username?" and "Forgot password?".
- A dropdown for "Your ArcGIS organization's URL".
- Social media icons for GitHub, Facebook, Google, and Apple.
- A "Privacy" link at the bottom right.

## Maplytics™ – User Manual

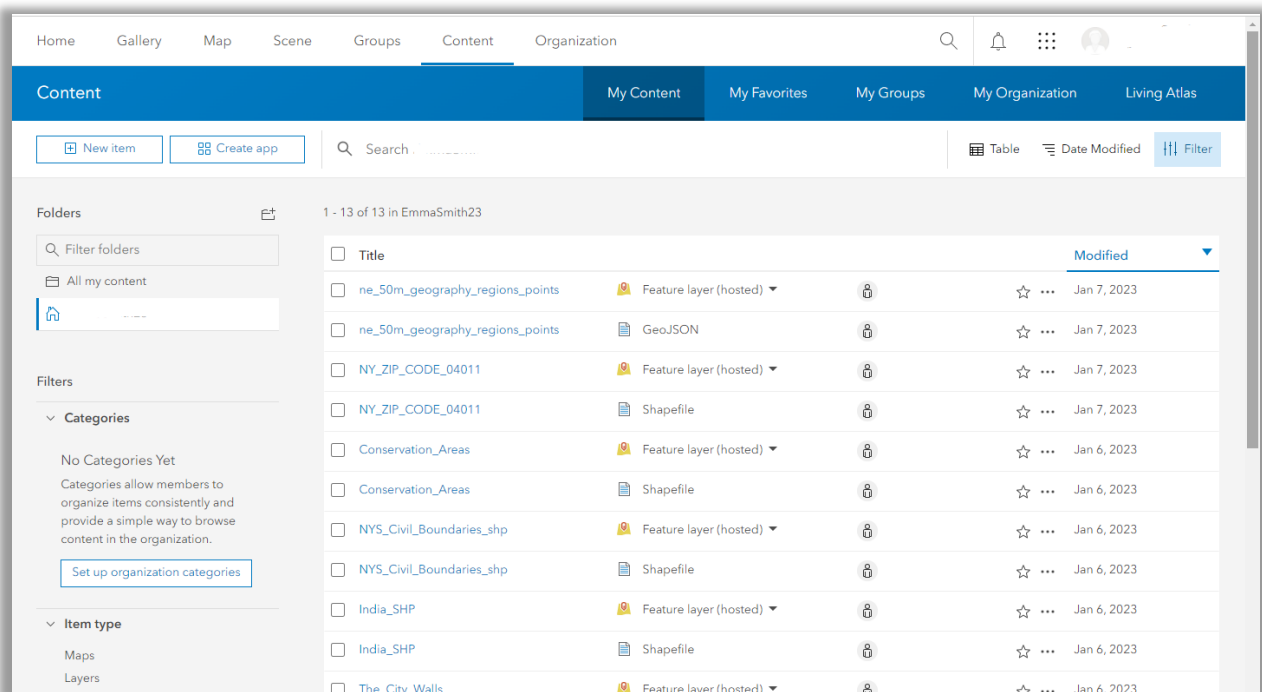
The top screenshot shows the 'Dashboard / OAuth 2.0' interface. The 'Testing Purpose' page is active, showing 'Overview', 'Proxies', 'Usage', and 'Settings' tabs. The 'Overview' tab is selected, displaying 'OAuth 2.0 Credentials' and 'Redirect URLs'. The 'Redirect URLs' section has a red box around the '+ Add URI' button. The bottom screenshot shows the same page with a modal dialog titled 'Add Allowed URI' open. The dialog contains a text input field for the 'Full URL to a web page or server endpoint where the user will be redirected after sign in. See [implementing OAuth 2.0](#) for more information.' and 'Cancel' and 'Add URI' buttons.

This URL needs to be put up on the ArcGIS Developer's Account.

## Maplytics™ – User Manual

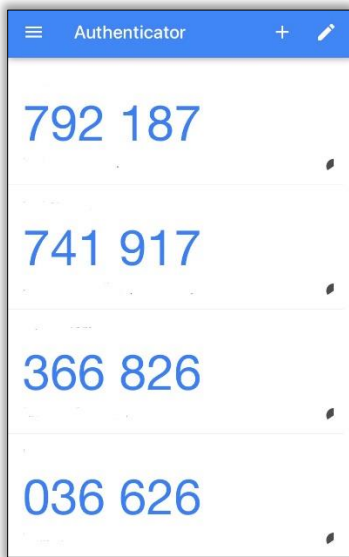


A new button, 'Authenticate Esri' will then appear on the Maplytics Default Configuration page. On clicking this button, the user will get a window to enter username, password and code. Once done, a connection will be established between Maplytics and user's ArcGIS Account allowing an access to Feature Layer hosted by Esri

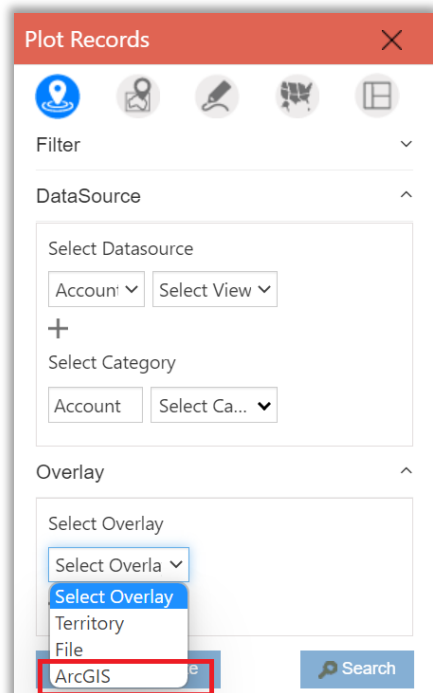




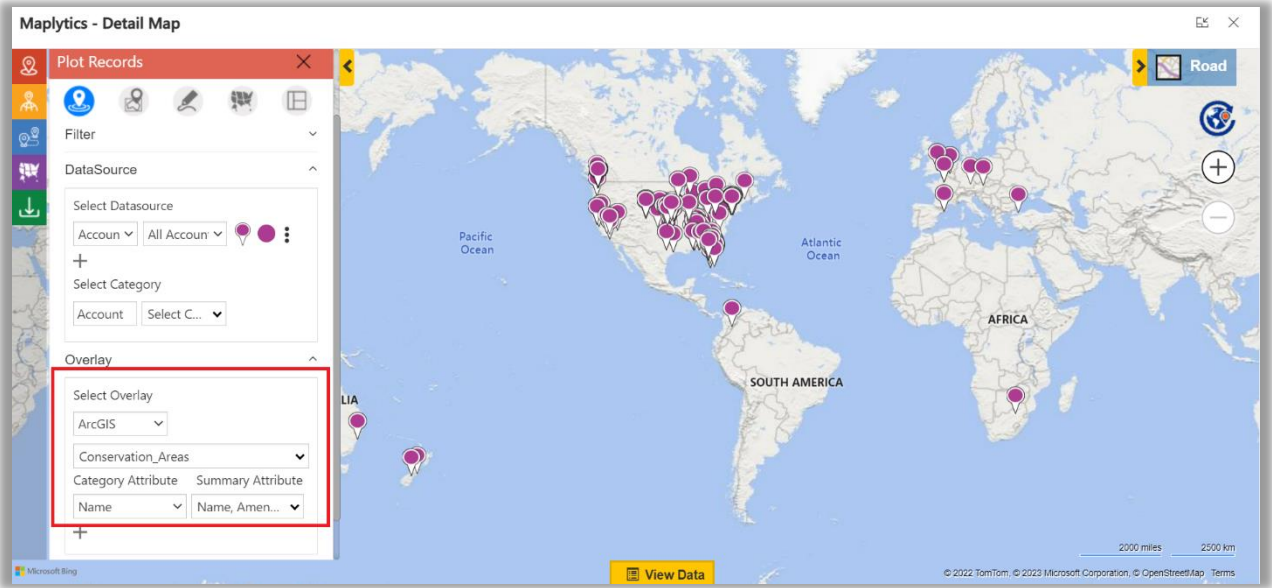
A code will then be sent on authenticator app which the user has selected while enabling multi factor authentication.



The User then needs to enter that code and avail an access to an option of ArcGIS in the Overlay dropdown.



## Maplytics™ – User Manual



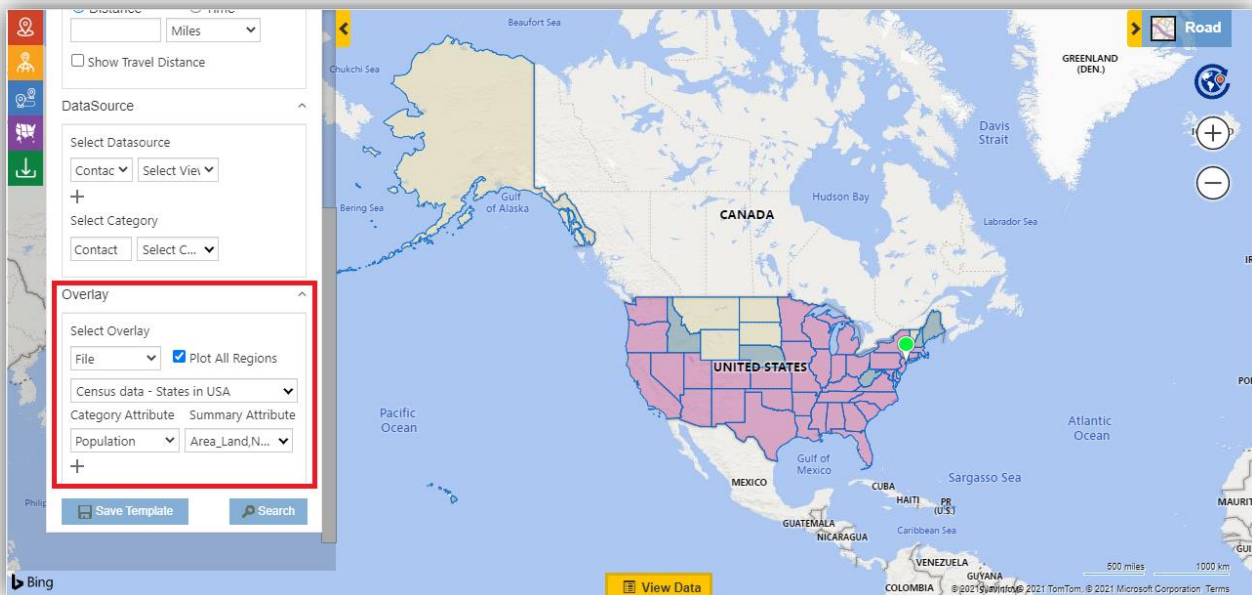
## Census data Visualization

This feature helps the user to visualize census data on the map. Census data provides the information about the population for a whole country or parts of country. Visualization of this data on Maplytics will help the user to analyze various information of the required area in a country like Housing units, Area land, Area water, population demographics, etc. and take strategic decisions. A few census data are available by default within Maplytics. These default census data are provided by Bing maps for USA. User can also plot their own census files on the map which contains census data. User can configure categories to see colored regions as per the configuration and also configure attributes to see on Summary card and hover on region.

To plot the census data, user can choose the option of 'Files' in the feature of Overlay. Please refer to the section of 'Overlay'. Further users can select the following options as well.

**Category Attributes:** An attribute can be selected to categorize the regions plotted by file.

**Summary Attributes:** One or more attributes can be selected to show the same in the Summary card. The attributes selected within the 'Configuration' of the saved file in the Territory Entity will be selected by default. User can deselect them and can select other attributes.



## Configuration for Census data

User can configure the Census files provided by Maplytics in the Dynamics CRM. Please refer to the section of 'Configure' in Installation manual for the steps to configure. This will save some census files in CRM provide by Maplytics.

While configuring the census data into Dynamics CRM, territories will get created within which the respective census data will be saved in the form of geographies. To view the saved census data, **Go to Settings > Business Management > Sales Territories**. Following are the territories for census data saved on configuration:

- England-Cities
- Germany-Postalcodes
- NewYork-Postalcodes
- USA 111th Congressional Districts
- USA Counties
- USA States
- USA-Postalcodes

### Configuration for attributes

User can configure the attributes available in the census data/shape files to show on the map, create categories for attributes and select the colors to visualize the categorized data on the map. This allows the user to frame the data how they want to view on the map.













**Go to Settings > Business Management > Sales Territories > Territories with census data/shape files saved > Configuration**

- Attribute Configuration:
  - **Summary Attributes:**  
User can select the attributes to show on the Summary card shown on the click on the regions in the census data/shape file plotted on the map.
  - **Hover Attributes:**  
User can select at a maximum of 6 attributes that will be shown on the hover on the regions in the census data/shape file plotted on the map.
  - **Data grid Attributes:**  
User can select the attributes from the census data/shape file to be shown as columns in the data grid in Detail map.

| Attribute Configuration     |         |
|-----------------------------|---------|
| Summary Attributes          | Actions |
| Select Summary Attribute(s) | +       |
| Name                        | 🗑️      |
| Population                  | 🗑️      |
| Area_Land                   | 🗑️      |
| Hover Attributes            | Actions |
| Select Hover Attribute(s)   | +       |
| Name                        | 🗑️      |
| Population                  | 🗑️      |
| StateCode                   | 🗑️      |
| Data Grid Attributes        | Actions |
| Select Grid Attribute(s)    | +       |
| Name                        | 🗑️      |
| Population                  | 🗑️      |
| Area_Land                   | 🗑️      |


- Category Configuration  
User can create categories for the attributes in the census data/shape file. Creating categories will help the user to view the categorized census data for the required attributes in the desired colors. Some categories are provided by default for configured census data. User can click on **+ New** New button to create a new category for any attribute. User can also click on **✎ 'Edit'** and **🗑️ 'Remove'** to make changes or delete the existing categories respectively.






| Create Categories <span>+ New</span> |   |
|--------------------------------------|---|
| Name                                 | Actions   |
| Population                           |   |
| Area_Land                            |   |
| Area_Water                           |   |
| Pop_Over16                           |   |
| Pop_Male_Over16                      |   |
| Pop_Female_Over16                    |   |

#### ■ Create filters and define colors

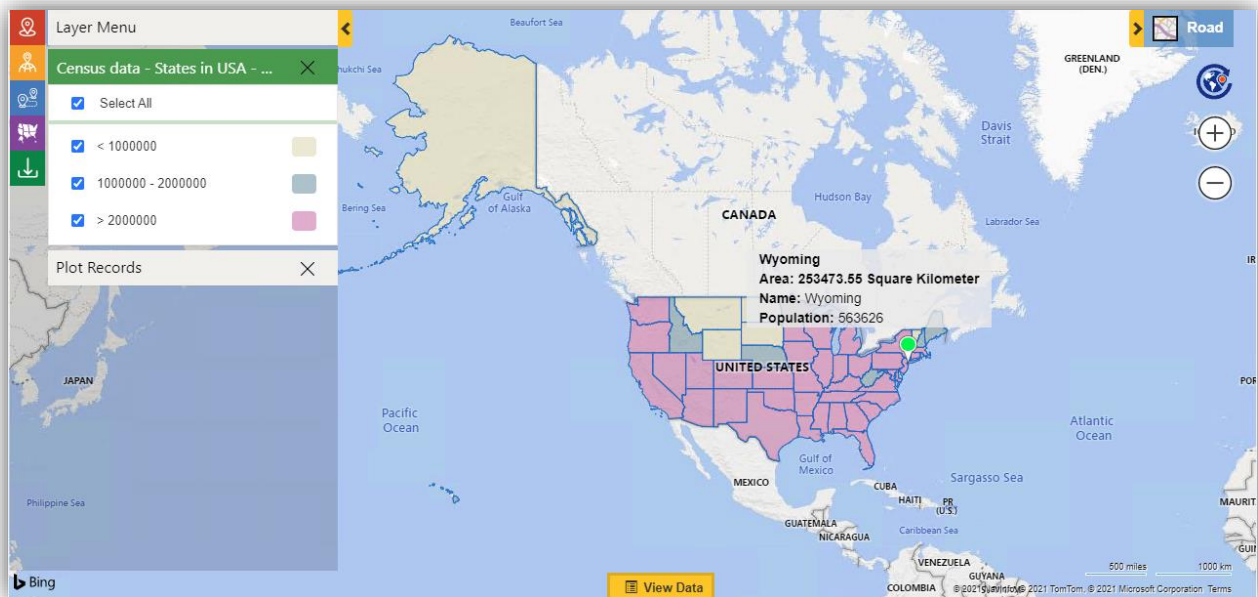
After clicking on Edit/New button, user can filter the attributes and define colors for the ranges of the filtered attributes.

- **Attribute:** This shows the name of the Attribute for which the category has been created/will be created.
- **Display Name:** User can type a name for the category which should be displayed in the list of the categories.
- **Save:** User can click on save button to save the changes made.
- **Discard:** User can click on Discard button to discard the changes made.
- **Filter:** User can set various filter conditions for the category.
- **Value:** User can set values for respective filters set.
- **Color:** This can be used to set colors for individual filters set. The user can click on the  Auto Set button to set random colors for all the values.
- **Add/Remove:** Click on Add or Remove to add a new filter or delete the filter respectively.

| Attribute  | Population              | Display Name      | Population |  |  |  |
|------------|-------------------------|-------------------|------------|---|---|---|
| Attribute  | Filter                  | Value             | Color      | Add   | Remove  |   |
| Population | Is Less Than Equal To ▼ | 1000000           | #88d888    | +   | ×   |   |
| Population | Is Between ▼            | 1000000 - 2000000 | #fc0c66    | +   | ×   |   |
| Population | Is Greater Than Equal ▼ | 2000000           | #8001ff    | +   | ×   |   |

## Maplytics™ – User Manual

After the user has created categories, user can plot the census data along with an attribute selected to visualise the categorised Census data on the map as shown below:



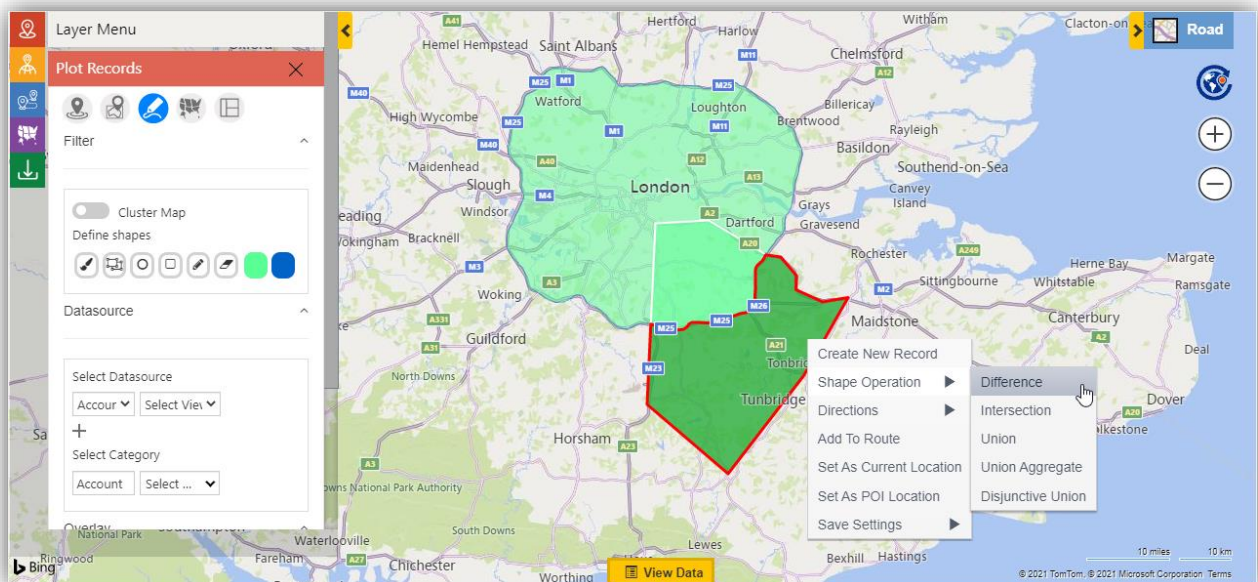
## Shape Operations

With the help of Shape operations, users can perform Binary operations on the shapes drawn on the map. These operations can only be performed under the Search option of 'By Drawing' in the Plot card and Territory management section. Please refer to the section of Territory management for the shape operations in Territory management.

User can open the 'by drawing' search option and right click on the shapes and can choose the option of 'Shape operations'. The following five operations can be performed on the shapes:

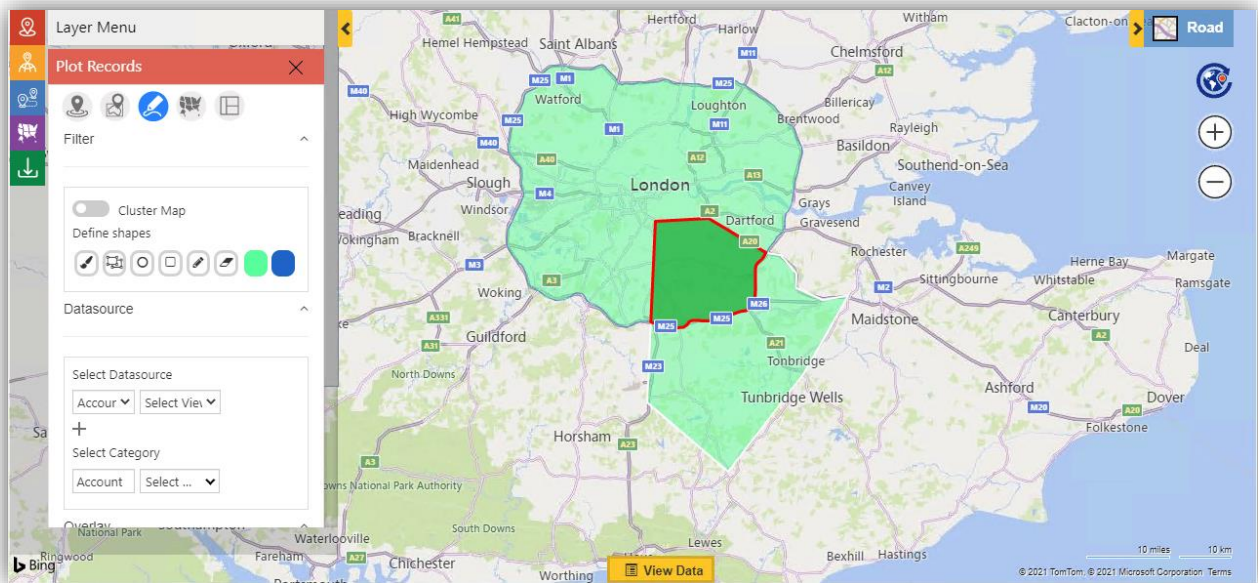
### Difference

This highlights the shape(s) obtained by subtracting the overlapped ones from the selected shape



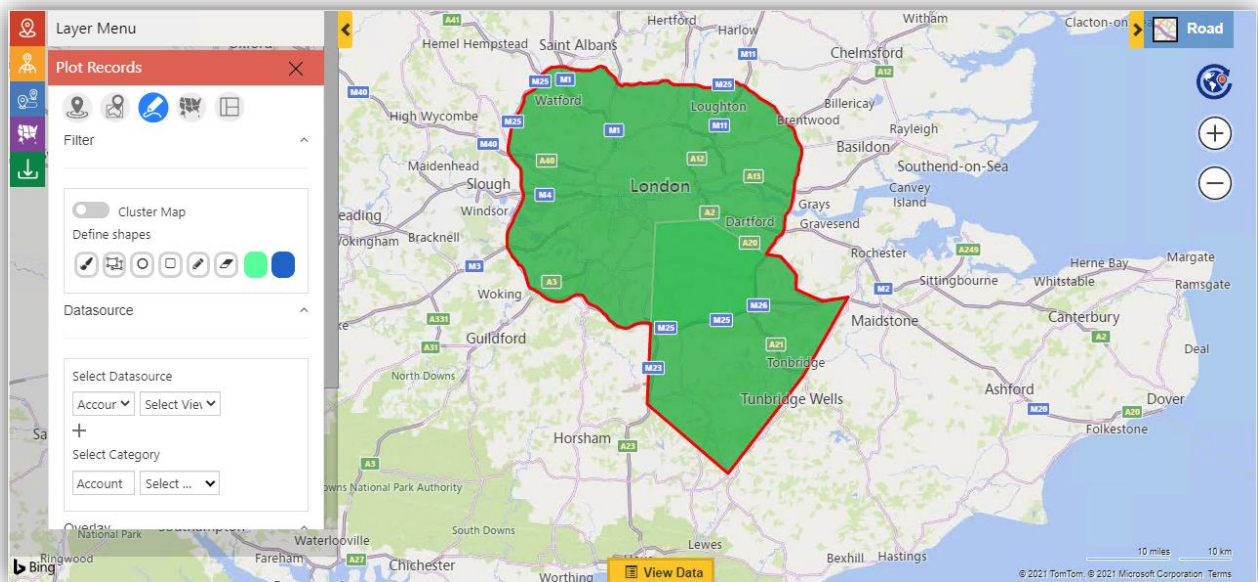
## Intersection

This highlights the shape(s) where the selected shape and other shapes overlap.



## Union

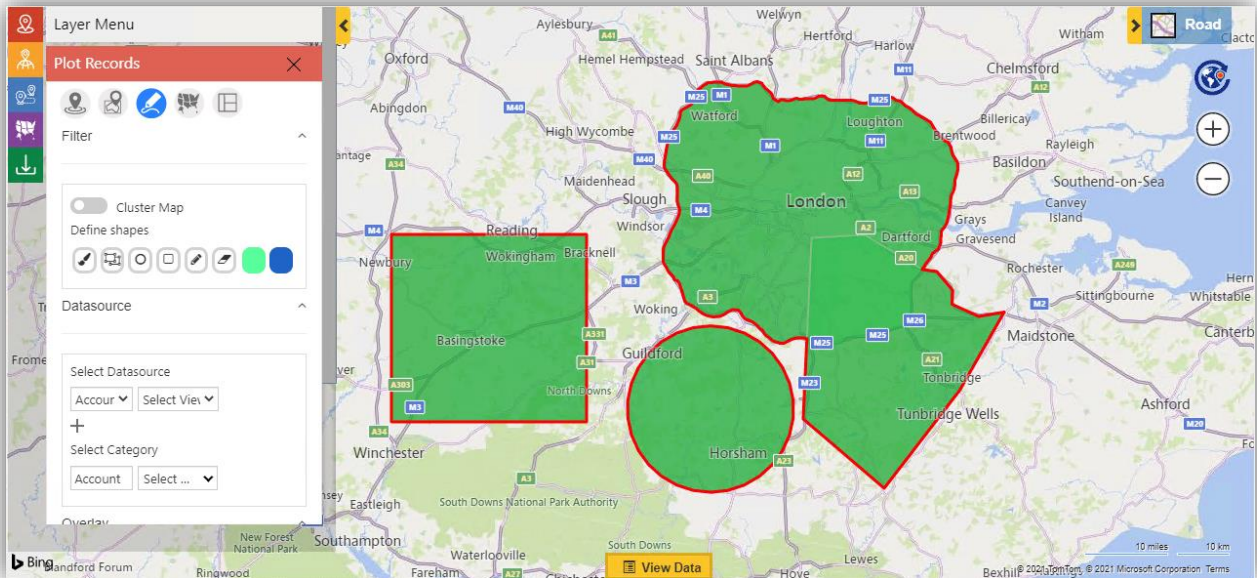
This adds all the shapes overlapped on the selected shape





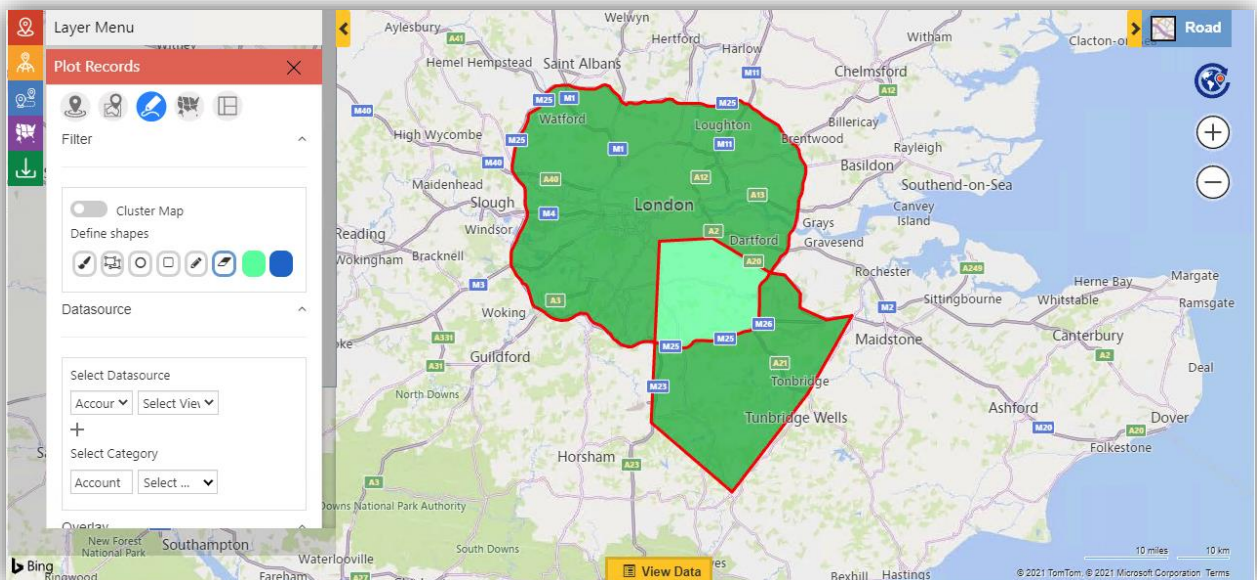
## Union Aggregate

This performs union operation on all the shapes that are drawn on the map. If a shape does not overlap with any other shapes, it highlights such shapes and the union of the rest of the overlapping shapes.



## Disjunctive union

This highlights the shapes that are not overlapped and lie in the selected shape & the shapes that are linked with the selected shape.





Undo – While performing operations, user can use the option of ‘Undo’ to go only one step back into the binary operations performed

Reset – Using the option of reset, user can remove all the operations that are performed on the shapes drawn on the map

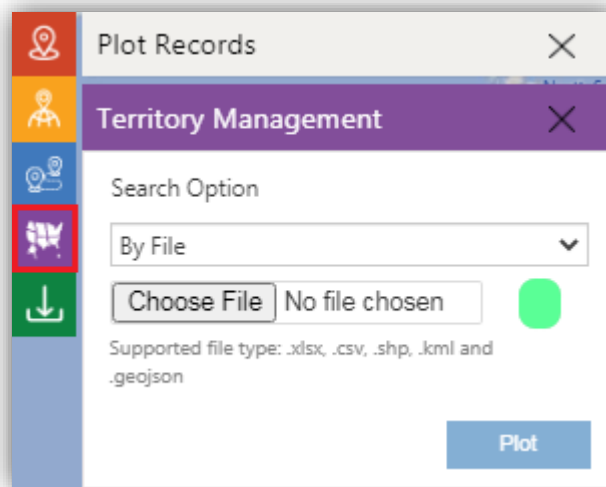
**Note:**

- *To perform any operation, two or more shapes should overlap.*
- *For Union Aggregate, there should be more than one shapes with or without overlap.*
- *The highlighted shapes are new shapes as resultants of the operations performed. User can click on the highlighted shapes to view the summary card and the data in the view data grid.*

## Territory Management

Territory management helps the user to create new territories manually as well as automatically and align the existing territories as well to get proper distribution of territories. User can plot required regions, draw shapes or directly upload shape files/excel files to get the required regions plotted on the map to create territories for the same. User can create multiple territories automatically based on count of records or use the territory Alignment tool to select the required regions and create new territories for the same. While creating multiple territories automatically, user can also save the territories as a draft and rework on the draft to get the territories created as per the requirement. Further, user can plot the existing territories and edit them to get proper distribution of territories.

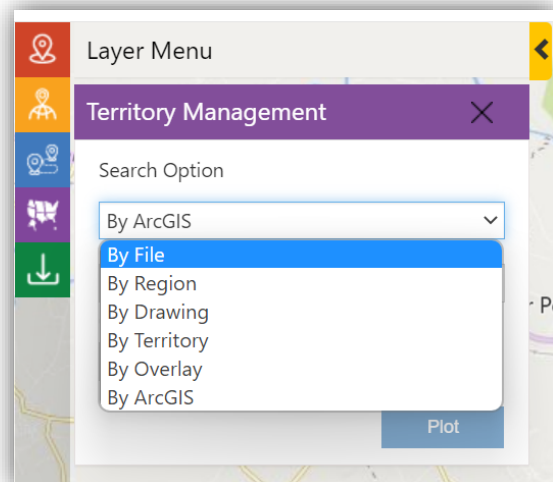
**To access Territory Management, Go to Detail map > Territory Management**



**Note: Users other than System Admin, can use Territory management only if they are given the role of Maplytics Territory Manager**

User can use the search options to plot shape files, excel files, search by region, draw a shape or plot existing territories on the map. There are five search options:

- By File
- By Region
- By Drawing
- By Territory
- By Overlay
- By ArcGIS

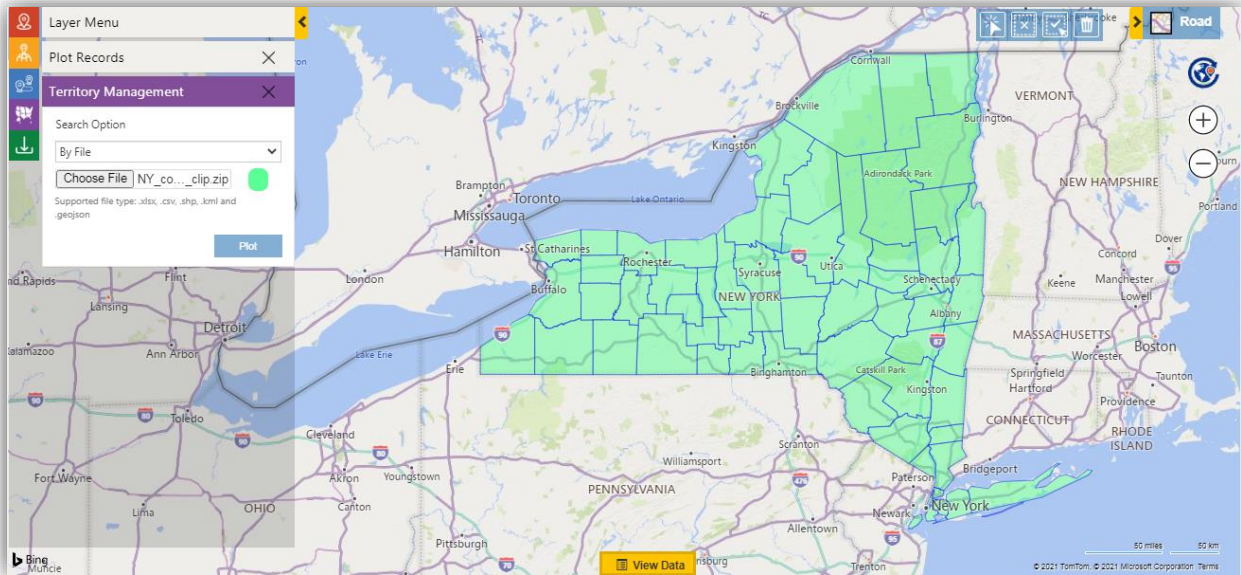


## Maplytics™ – User Manual

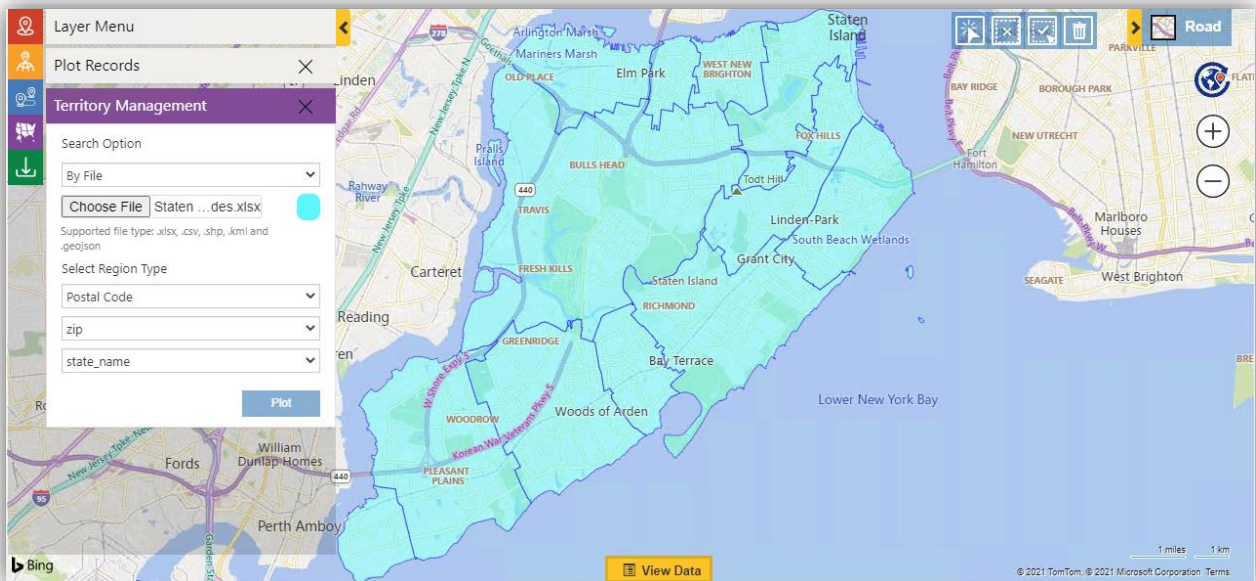
### By File

This helps user to plot the shape files and excel files on the map that store geographical information and attributes of the geographic features. User can plot the following two types of files:

- Shape files: The supported file formats are .shp, .kml and .geojson



- Excel files – The supported file formats are .xlsx, .csv



## By Region

This options helps the users to search for regions on the map by City, State, County, Country, PostalCode, PostCode Sector, PostCode(Outward Code), PostalCode Area.

**Territory Management**
✕

Search Option

By Region
 ▼

Select Region Type

City

Select Region

City

State

County

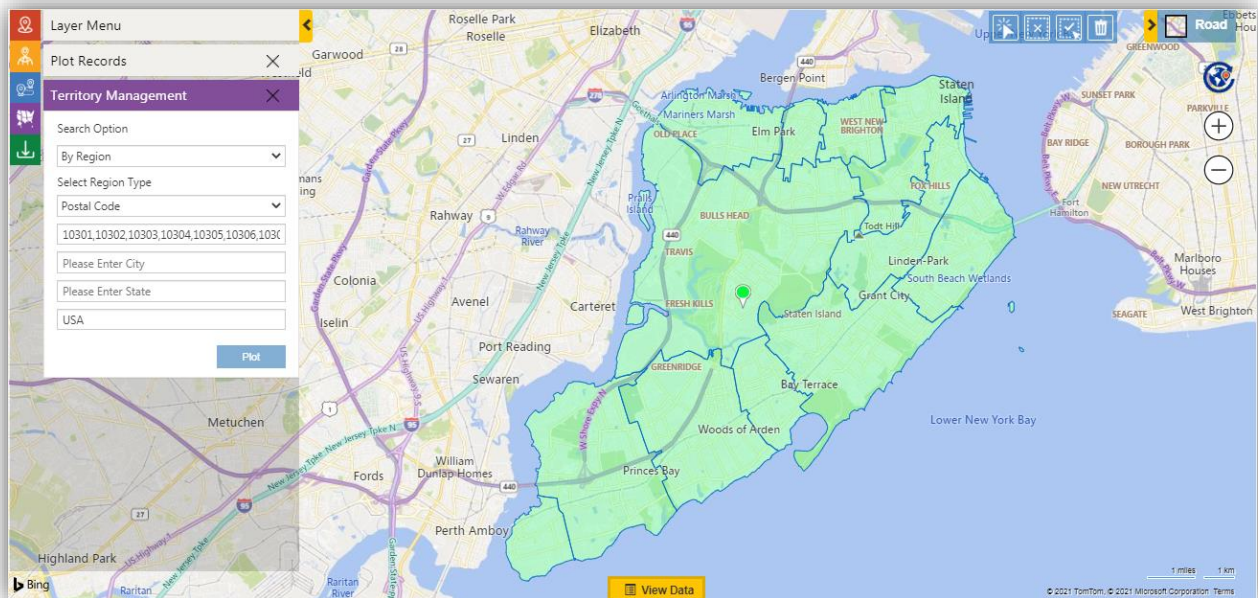
Country

Postal Code

Postal Code Sector

Postal Code(Outward Code)

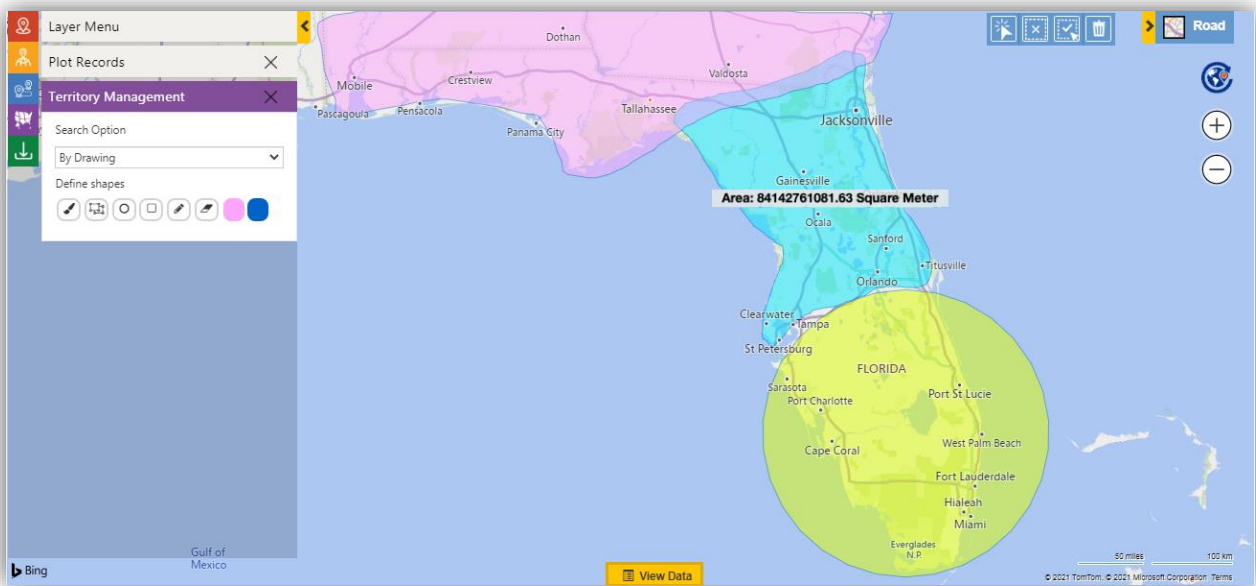
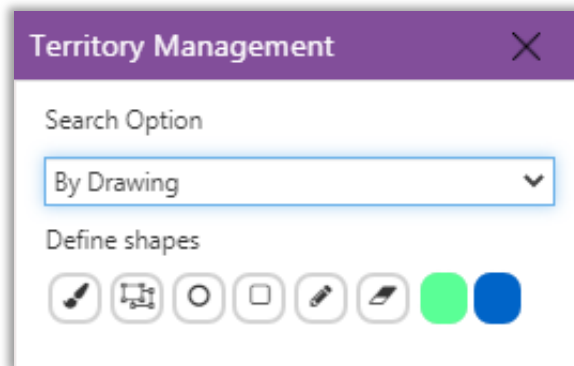
Postal Code Area





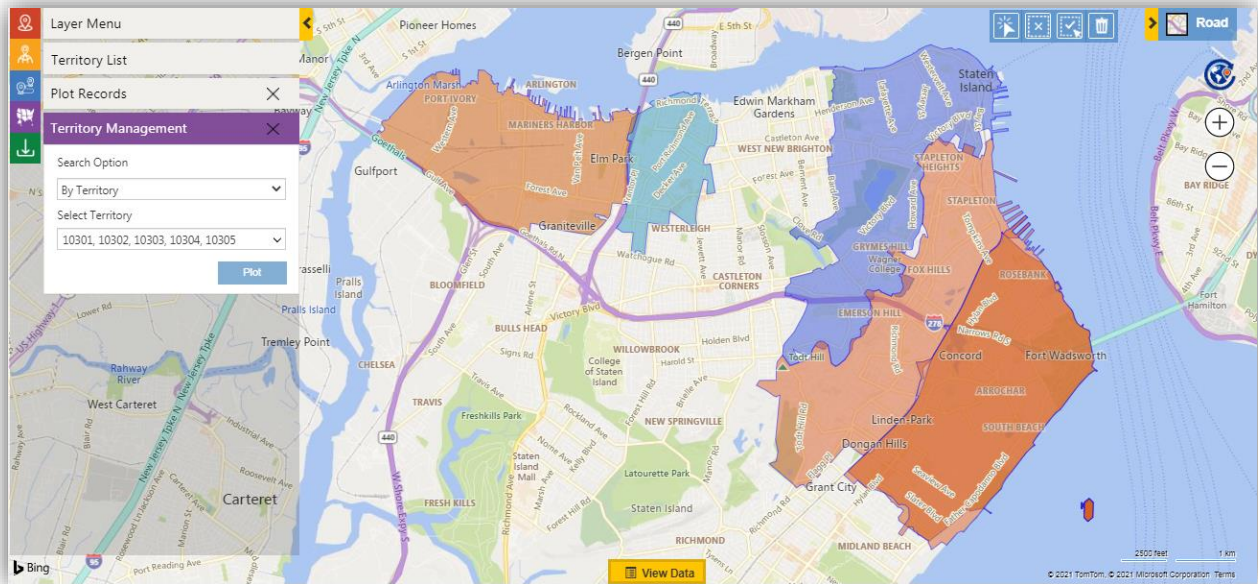
## By Drawing

This helps the user to draw a shape on the map using the Drawing Tool Bar.



## By Territory

This helps user to plot the existing territories on the map.



## By Overlay

Users can select this option of 'By Overlay' to select any shape/excel file saved in CRM to plot the same on the map. Users can also select an attribute within 'Category Attribute' to categorize the regions plotted on map. Also, they can select one or more attributes within 'Summary Attribute' to show on Summary card when clicked on any region plotted on the map.

Territory Management

Search Option

By Overlay

Select Overlay

Census data - Counties in USA

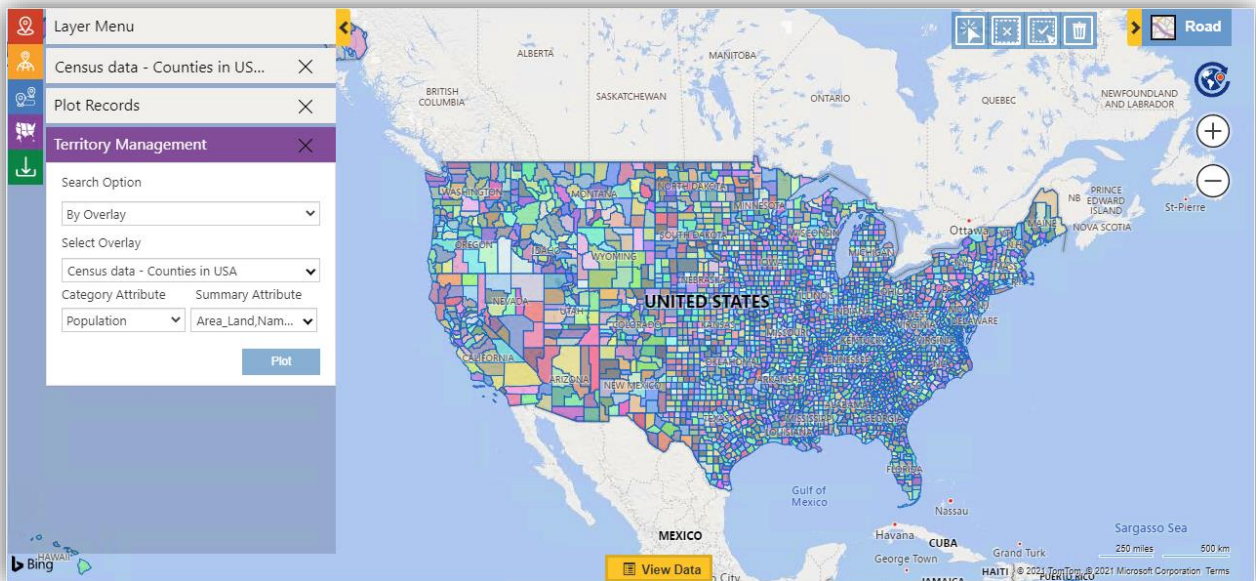
Category Attribute

Population

Summary Attribute

Population, Pop...

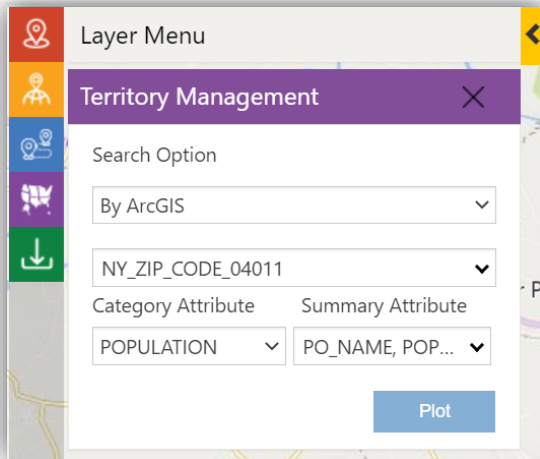
Plot



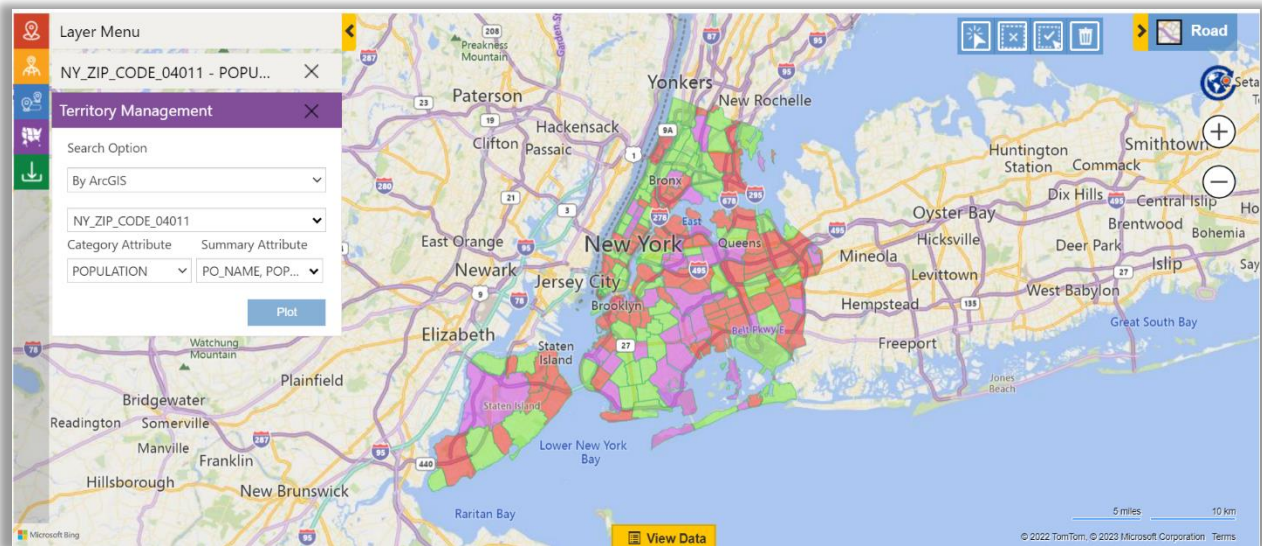
**Note:** If user has plotted any territory or shape/excel file using the feature of 'Overlay' within the 'Plot records' card and moves to 'Territory Management' card so the option of 'By Overlay' will retain the selection of the same while working with Territory Management.

### By ArcGIS

This option helps the user to select from among the live feature layers hosted by ArcGIS Online. The file need not be in a territory and can be used even when updated in real-time.



A seamless integration can be experienced with the online files. Users can choose this option to select any live feature layer hosted by ArcGIS Online to plot the same on the map. Users can also select an attribute within 'Category Attribute' to categorize the regions plotted on map. Also, they can select one or more attributes within 'Summary Attribute' to show on Summary card when clicked on any region plotted on the map.

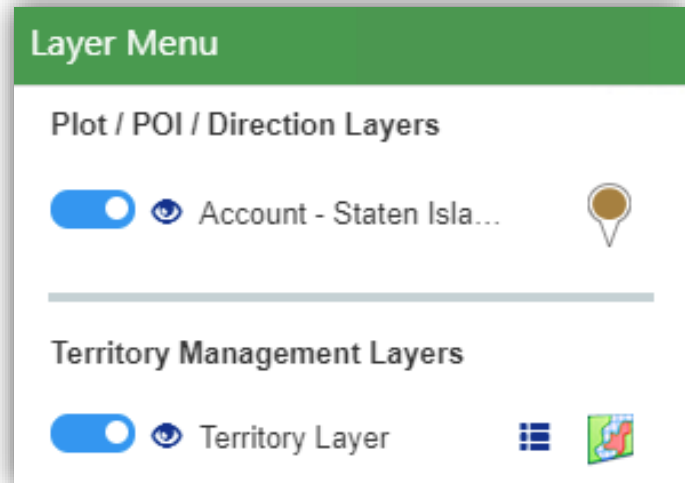


**Note:** If user has plotted any territory using the feature of 'ArcGIS' within the 'Plot records' card and moves to 'Territory Management' card so the option of 'By ArcGIS' will retain the selection of the same while working with Territory Management.



## Layer Menu

This helps the user to select the required data among the multiple data plotted on the map. The user can use the toggle buttons on the Layer menu card to show or hide the required layers of the data to be shown on the map without removing the same from map. If user is using the 'Plot Records/POI/Directions card' and has plotted Datasource Records, POI locations or Route and has proceeded for Territory Management, the plotted layers of data will be retained and will be listed in the section of 'Plot/POI/Direction Layers' of the Layer menu. The data plotted using the Territory Management card will be listed in the 'Territory Management Layers' section of the Layer menu.



## Territory Alignment Tool

This tool has four options respectively as mentioned below:

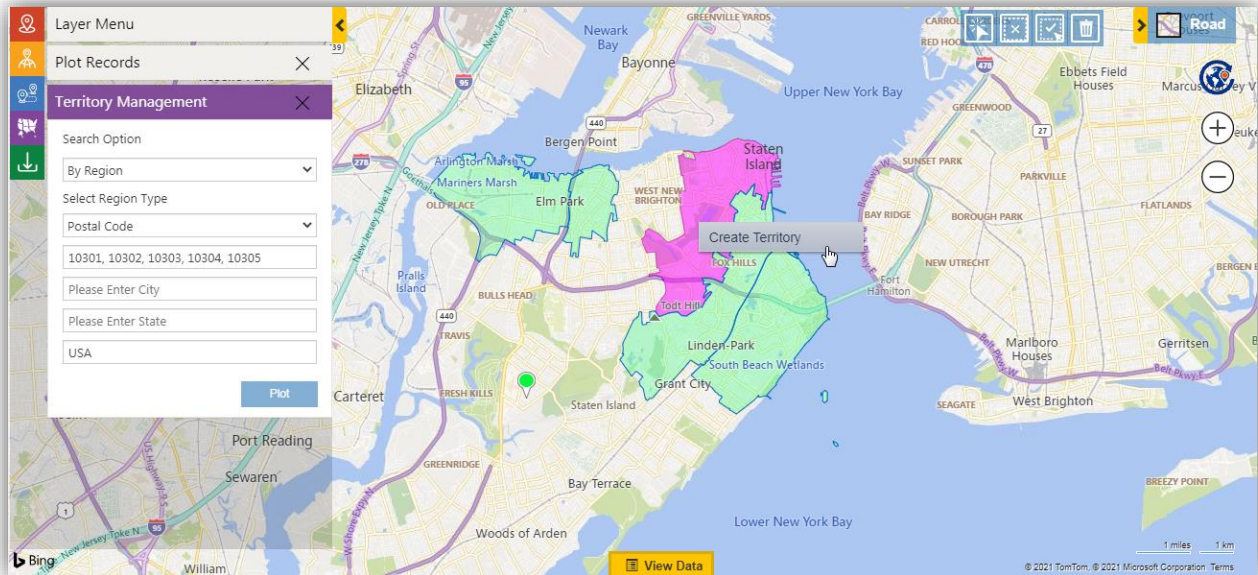
- Select/Deselect: User can select regions/shapes/territories one by one on the map
- Deselect All: User can deselect all the selected regions/shapes/territories on the map
- Select Multiple: This is a freehand selection which helps the user to select multiple regions/shapes/territories on the map
- Delete: User can delete the shapes/regions/geographies plotted on the map



**Note: If the delete option is used on the existing territories, it will delete the selected geographies from the existing territories.**

## Create new territory

User can select some of the regions/shapes using the 'Alignment Tool' and right click to create a new territory. User can also select the required manager who will be responsible for the respective territory.



**Create Territory**
✕

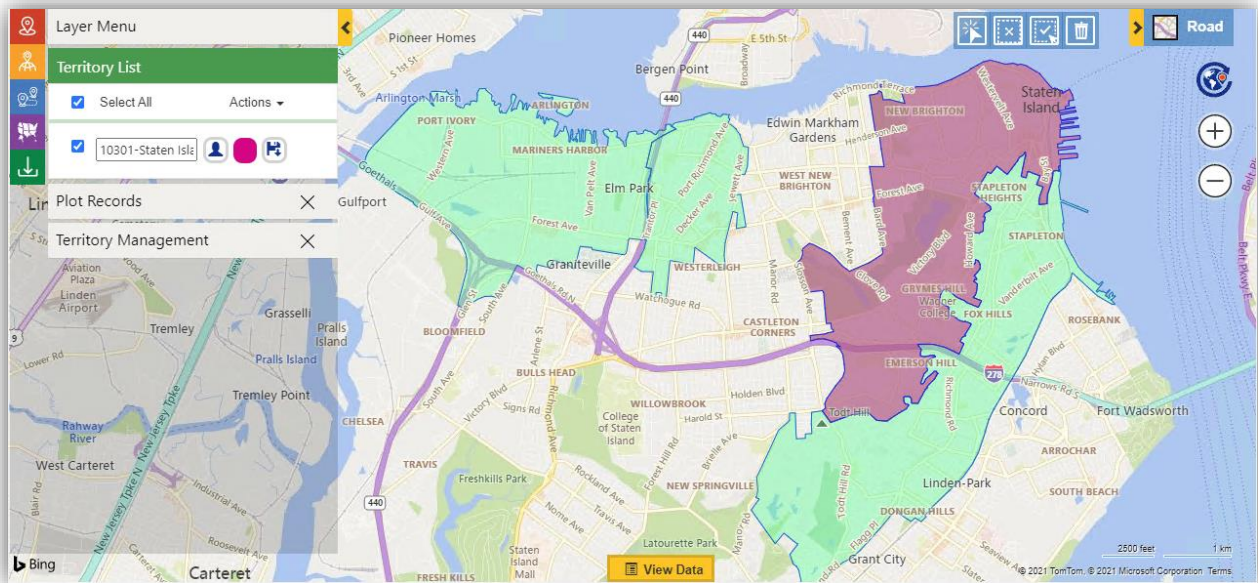
☐ Add To Existing Territory
   
☒ Create Single Territory

**Select Manager**

☐ Create Multiple Territories

**Note:** Users who have already been assigned as a manager for another territory will not be visible in the list of users to be selected as a manager of the territory.

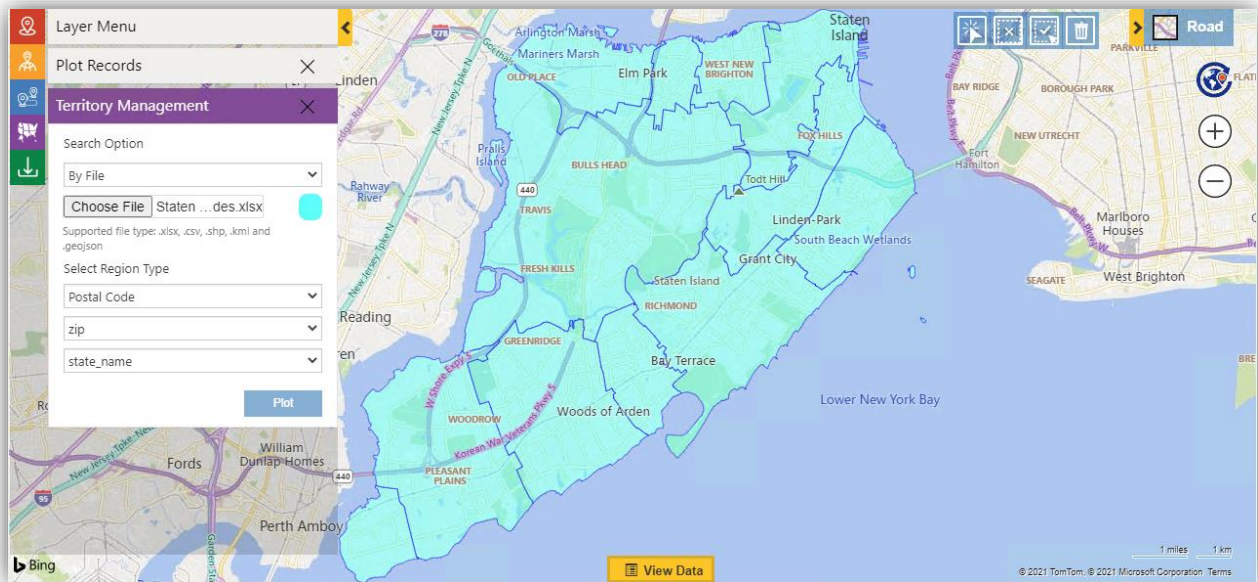
## Maplytics™ – User Manual



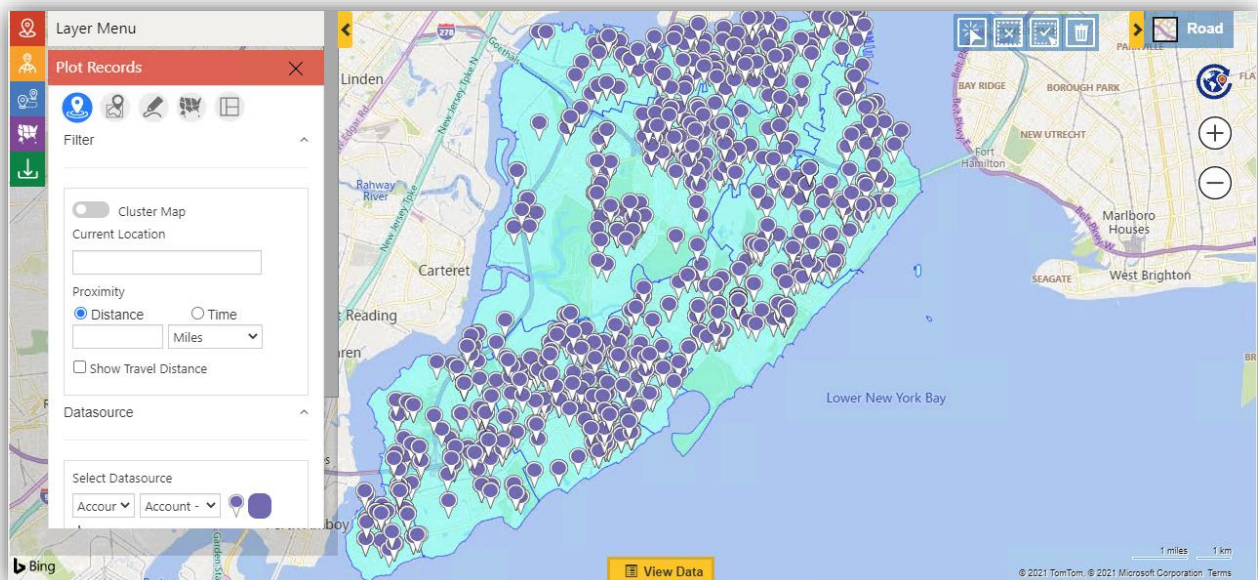


## Auto Territory creation

User can create territories automatically based on a shape/excel file and count of records plotted on the map to get the desired number of balanced territories. To do this, user can go to Territory Management and use the option of 'By File' to upload a Shape file or an Excel file to get it plotted on the map. User can also choose the option of 'By Overlay' to plot a saved shape/excel file on the map.



Now, user can go to the 'Plot Records Card' and select the required 'DataSource' and the respective 'View' to plot the same on the map. These records will be distributed among the territories that are to be created.





**Note: Only those records which lie within the regions selected will be considered while creating multiple balanced territories.**

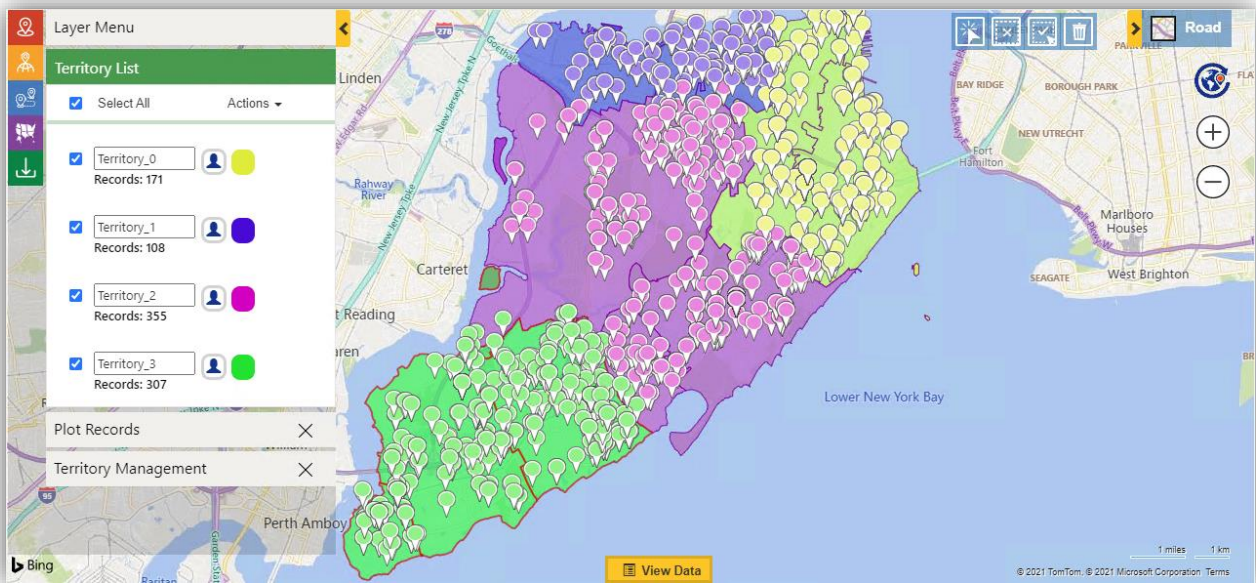
Using the options of 'Select' or 'Multi-select' from the 'Alignment Tool' user can choose the required regions and right click to select the option of 'Create Territory' to open the window. Here, user can select the option to 'Create Multiple Territories' and enter the number of territories they want to create out of the selected regions on the map. In the screenshot below, we have entered 4 for an instance.

The image displays two versions of the 'Create Territory' dialog box. The left dialog box has the 'Create Single Territory' option selected (indicated by a blue dot). It includes three input fields: 'Please enter the name of territory', 'Select Geography Name', and 'Select Manager'. The right dialog box has the 'Create Multiple Territories' option selected. It features a text box containing the number '4' and a 'Proceed' button at the bottom right.

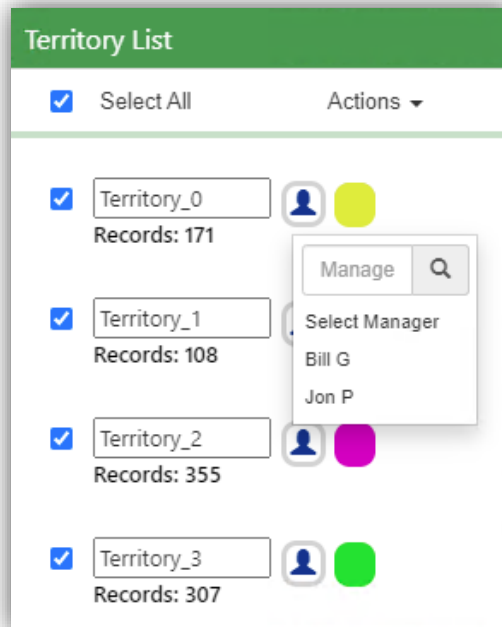
This will calculate the number of records and divide the selected regions automatically to get 4 balanced territories. By default, territories will be named as Territory\_0, Territory\_1, Territory\_2 and so on. User can change the names as per their requirement.

**Note: The count of records in the territories created automatically might vary slightly.**

## Maplytics™ – User Manual

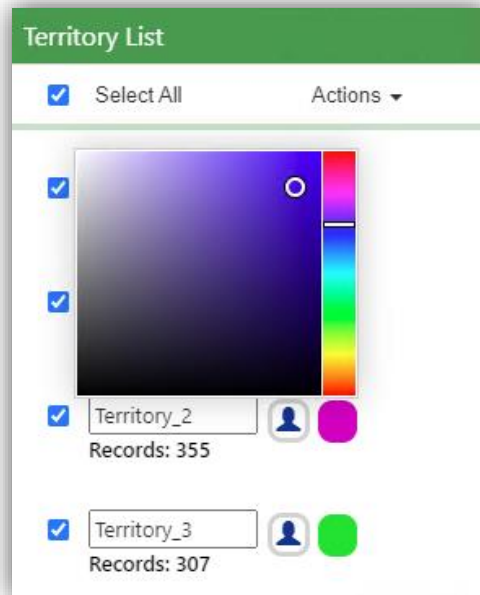


User can also set the required user as a manager for the territories processed, by clicking on the 'Select manager' icon.



**Note:** Users who have already been assigned as a manager for another territory will not be visible in the list of users to be selected as a manager of the territory.

User can also set the colors for the territories using the option of 'Fill color'.



User can further choose to take an action on the territories processed on the map by using 'Actions'. There are three Actions available:

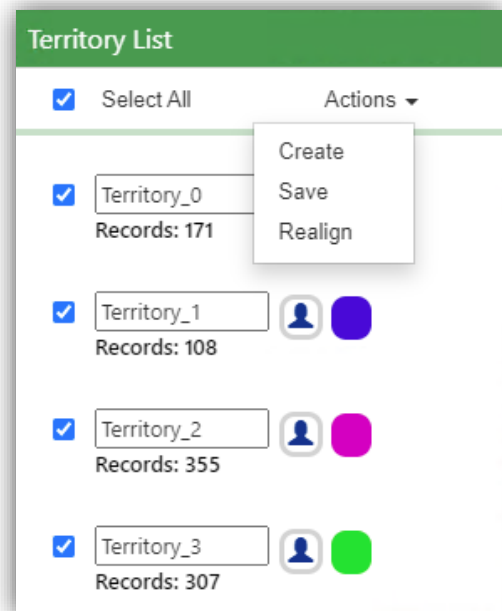
**Create:** If the user is satisfied with the territories processed, then they can choose this option to create the territories processed on the map within the CRM.

**Save:** If user needs to work on the territories processed to further make any changes or take an opinion on the same from a colleague, they can use this option to save the territories processed as Draft Territories within the CRM.

**Realign:** User can further rework on the territories processed using this option. This will allow the user to revise the number of territories processed.

### Assign territories to record

If user chooses to create territories from the 'Actions', then after creating the territories, user will be asked if they want to assign the territories created to the respective records plotted on the map. User can click on 'Yes' to do so.



### Confirm!

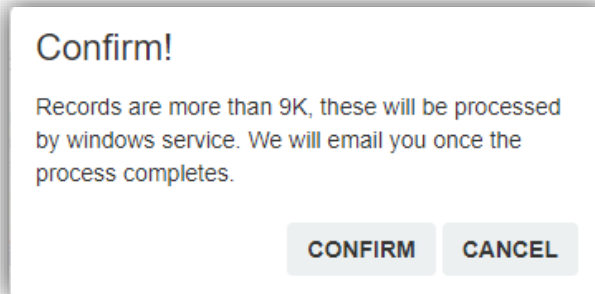
Territory(ies) created successfully. Click on confirm to assign territories to records.

CONFIRM

CANCEL

### Register to Windows Service

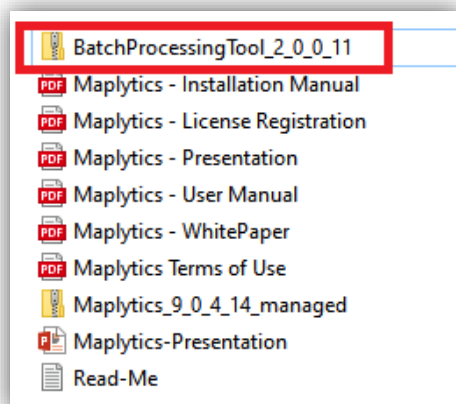
If the number of records is more than 9K, then user needs to register to Windows service in order to create multiple territories. With more than 9K records plotted on the map when user tries to create multiple territories then the below message will be shown and these records will be processed by Windows Service. When the user clicks on 'Confirm' then it will create the territory records with the status 'Process by WS' and Windows Service will process these territories by distributing the records to create the specified number of balanced territories based on the number of records.



Windows service runs at the interval that user will set. For example, user can set it for every 1 hour. When windows service runs and finds territories with the status 'Process by WS' then it will process them one by one. It takes one territory and performs the logic and distributes the records properly to create the respective number of territories and while updating these territories it changes the status of those territories to draft. User can plot this draft territory and create the respective territories into the CRM.

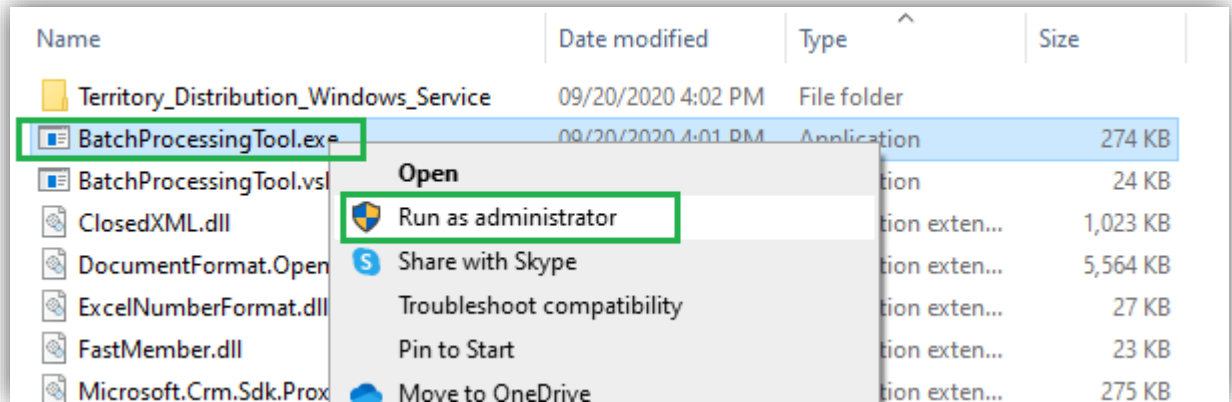
To install Windows Service, user can go to the 'Batch processing tool'.

1. To get the tool, Extract the Batch Processing tool .zip file from the extracted Zip folder of downloaded Maplytics solution.

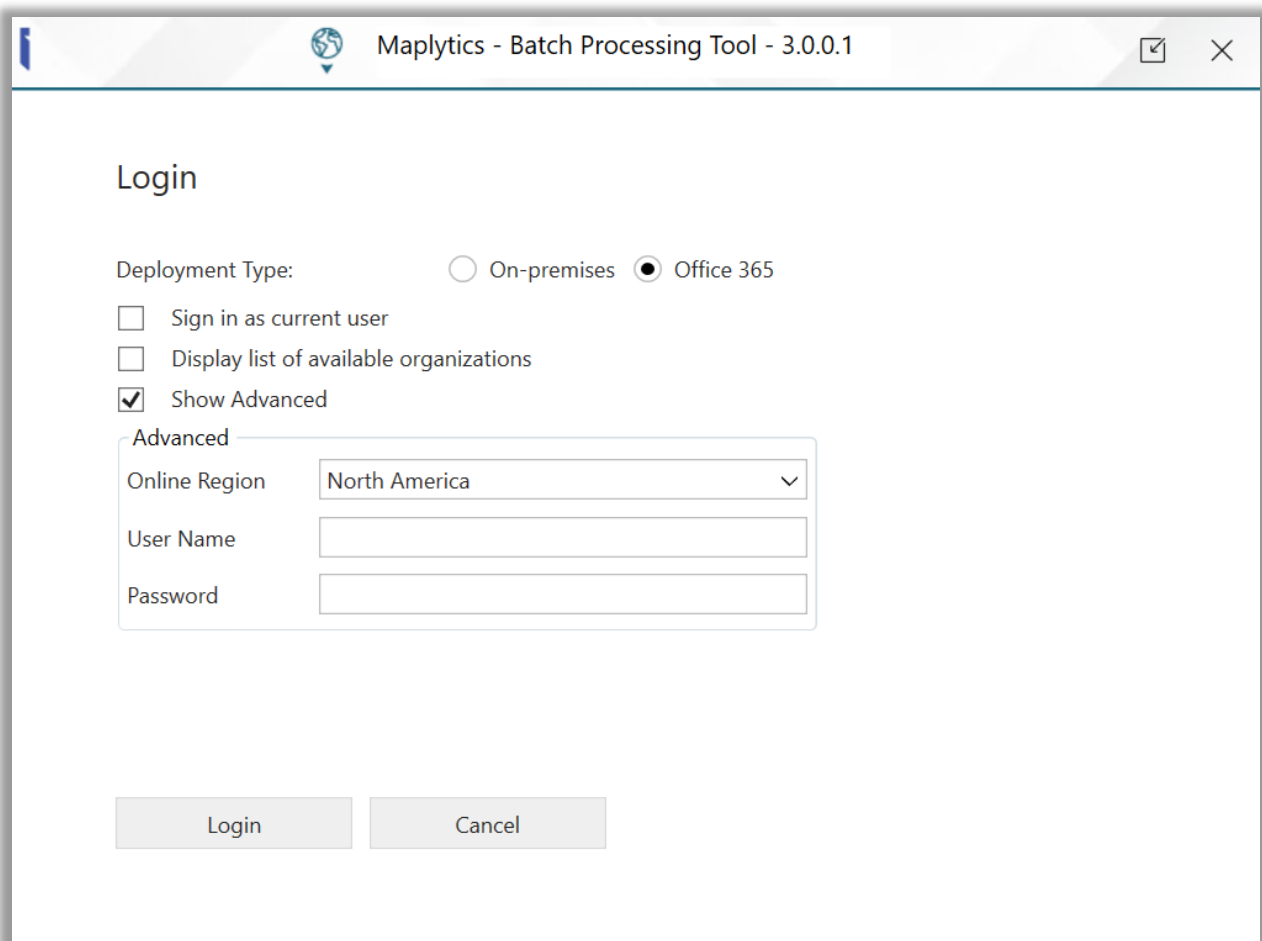




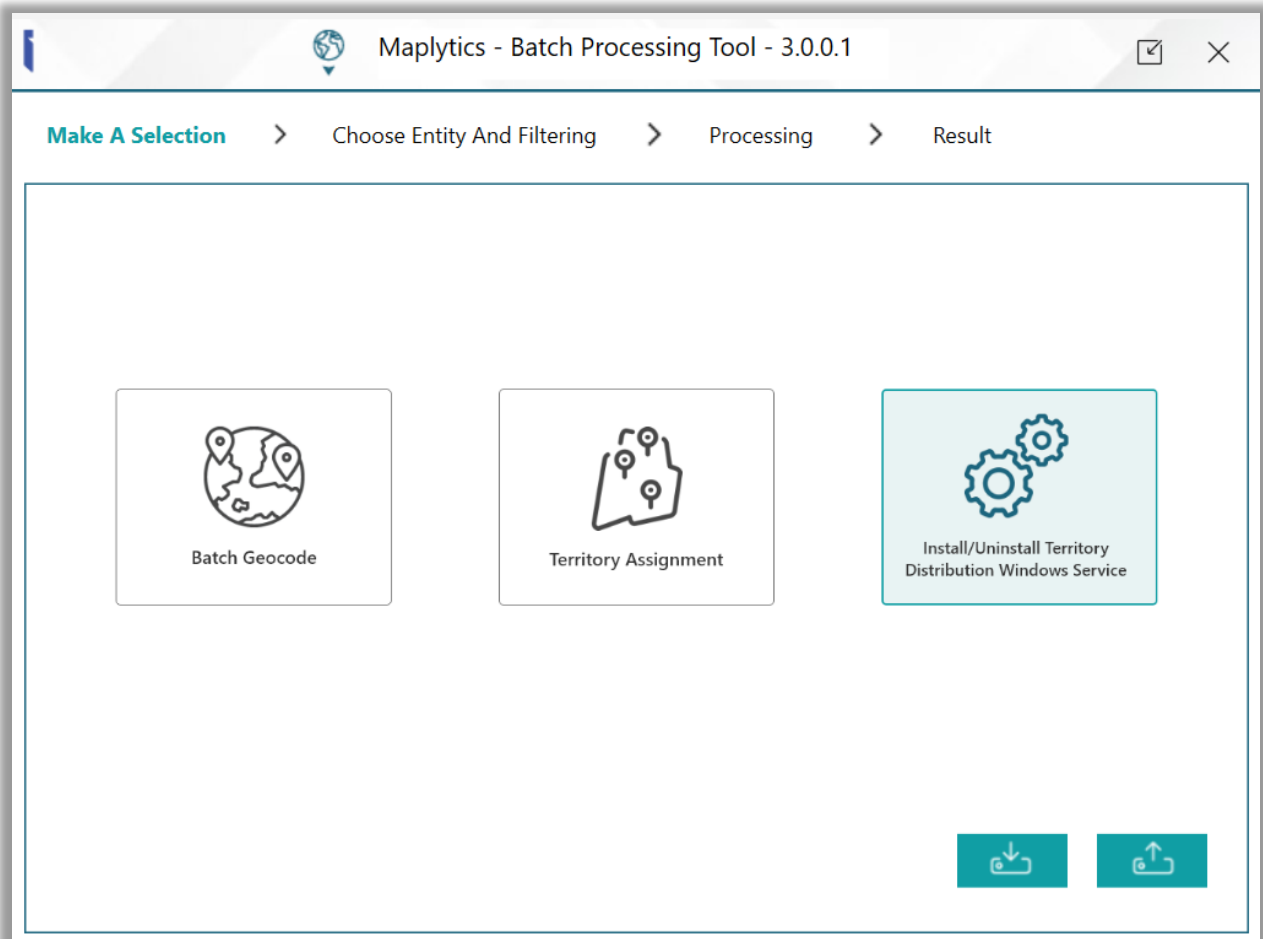
- Run the **BatchProcessingTool** as Administrator as shown below.



- Once the user runs the tool, the following window will open where they need to enter the credentials and click on 'Next'.



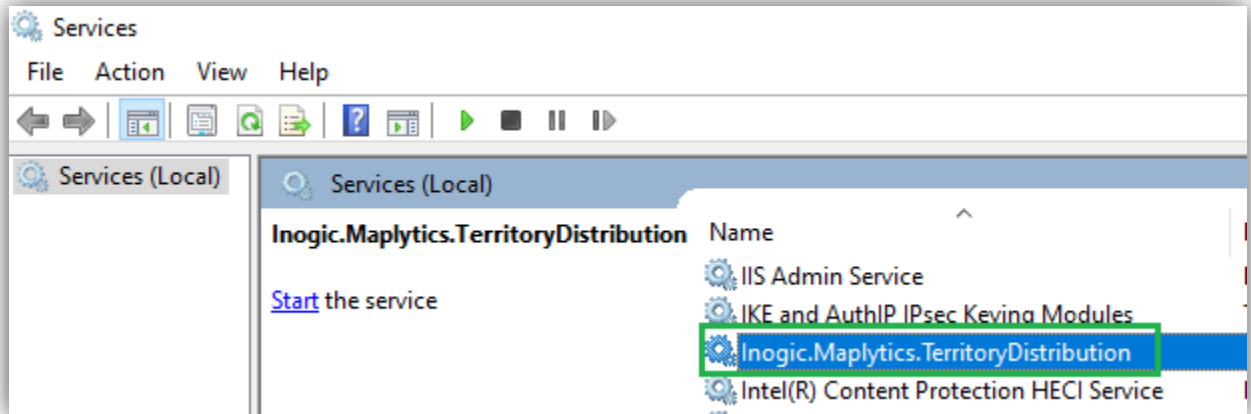
4. Once user clicks on 'Next', it validates the credentials and if credentials are valid then the below window shows up. Here, user needs to select the option to Install/Uninstall Territory Distribution Windows Service and click on 'Install'.



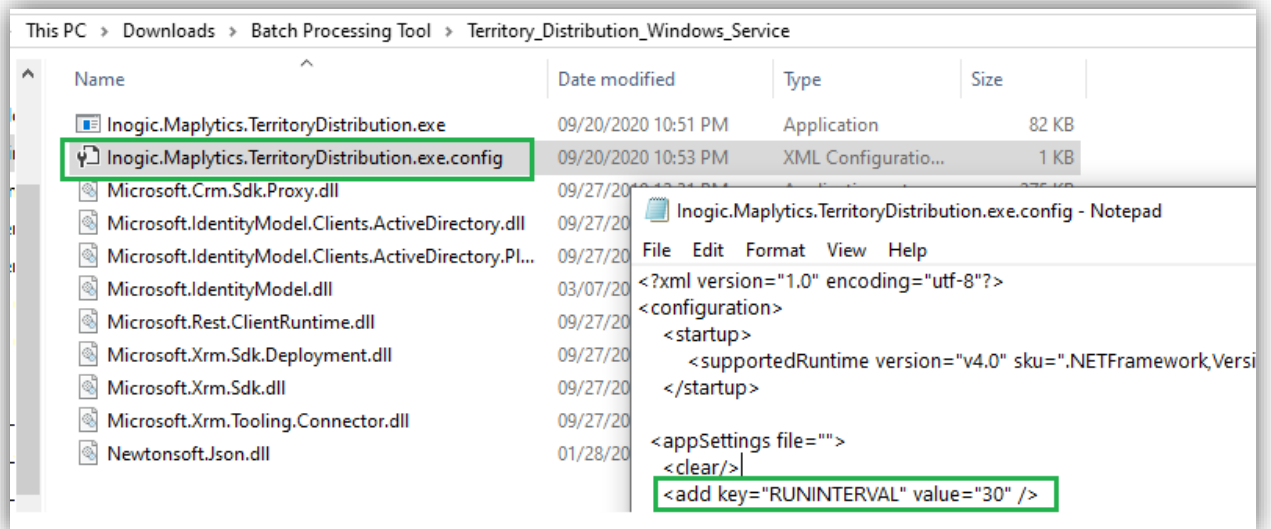
Once clicked on 'Install' the 'Territory Windows Service' will be installed in the PC as shown below. User can click on 'Uninstall' to uninstall 'Territory Windows Service'.

## Maplytics™ – User Manual

User can start and stop windows service using 'Start' and 'Stop' button.



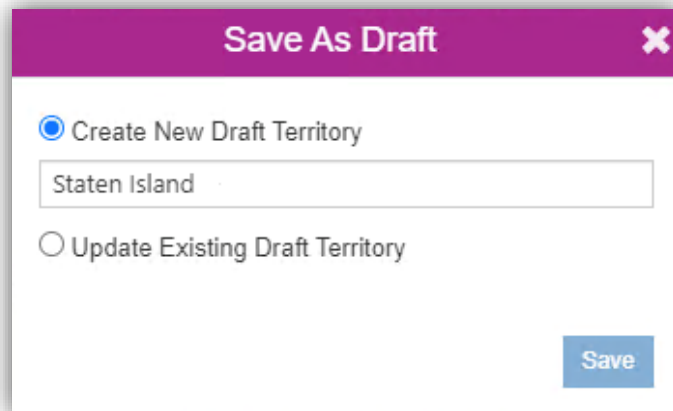
To update the windows service run interval, user needs to change "RUNINTERVAL" in the app config of windows service (Inogic.Maplytics.TerritoryDistribution.exe.config).



**Note:** Make sure the PC in which the Windows Service is installed is running all the time because if the PC is turned off, the Territory Windows Service will also get turned off and it will not perform any task.

## Draft territories

If the users need to further work on the territories processed or needs to make any changes, they can choose the 'Save' from the Actions and save the territories processed as a 'Draft territories' within the CRM.









**Save As Draft** [X]

☒ Create New Draft Territory

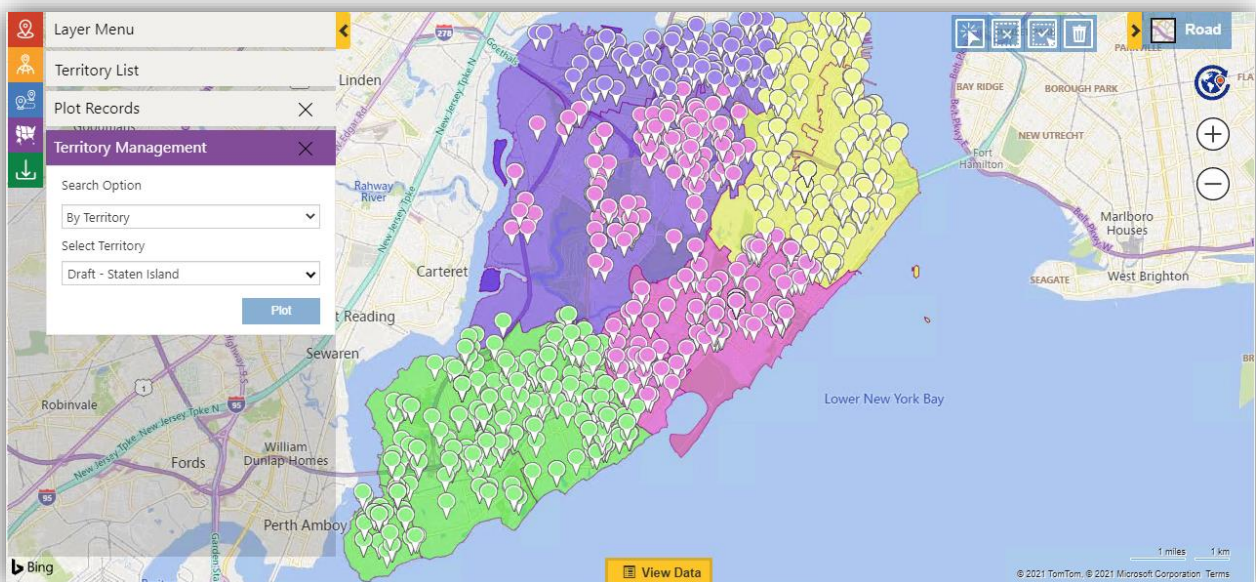
Staten Island

☐ Update Existing Draft Territory

Save

| Territory List                      |                             |   |
|-------------------------------------|-----------------------------|---|
| <input checked="" type="checkbox"/> | Select All                  | Actions ▾   |
| <input checked="" type="checkbox"/> | Territory_0<br>Records: 171 | <div> Create<br/> <b>Save</b><br/> Realign </div>   |
| <input checked="" type="checkbox"/> | Territory_1<br>Records: 108 |   |
| <input checked="" type="checkbox"/> | Territory_2<br>Records: 355 |   |
| <input checked="" type="checkbox"/> | Territory_3<br>Records: 307 |   |

After saving a draft, user can use the option of 'By Territory' within the 'Territory Management' card to plot the draft territories saved in CRM and rework on them. Further, user can choose to save it again as a draft with the updates done or create the respective territories in the CRM using the option of 'Create' from the Actions. If user wants to create the respective territories from the draft, they can also choose whether or not to delete the respective draft territory.



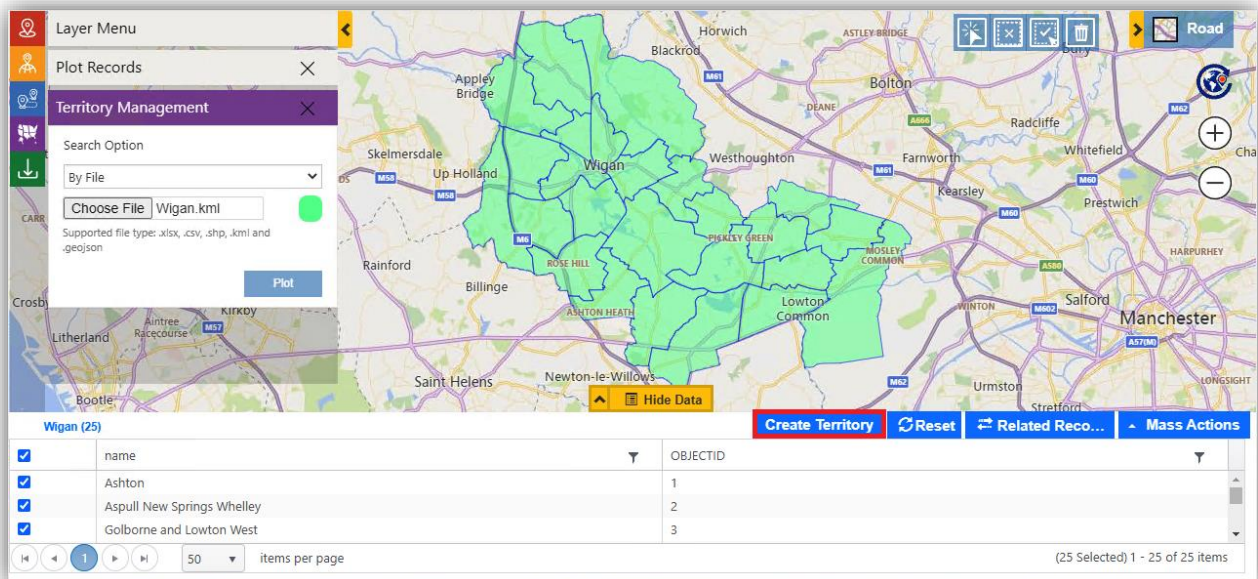


## Create territory on one click

User can create multiple territories with a single click on 'Create Territory' button. User can plot shape files or excel files on the map to view the shapes required as geographies and follow the steps mentioned below to create territories:

### By Shape file

After plotting a shape file on the map, user can click on the 'Create Territory' button to create a new territory with the plotted shapes as geographies or create the plotted shapes as geographies into a selected existing territory.



**Create Territory**
✕

☐ Add To Existing Territory  
☒ **Create Single Territory**

**Select Geography Name**

**Select Manager**

☐ Create Multiple Territories

Proceed

User can provide the name for the new/existing Territory to be created and select the column from the excel file for 'Select Geography Name' and the respective names of geographies will be fetched from the file.

### By Excel file

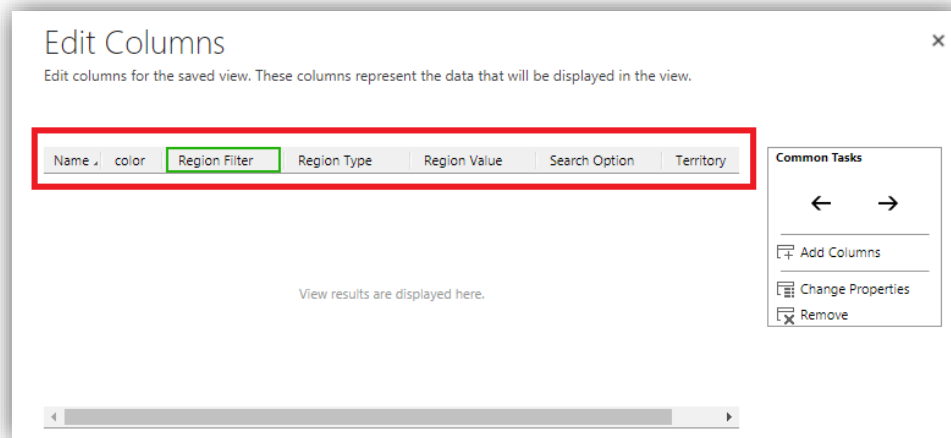
After plotting an excel file, user can click on the 'Create Territory' button to create territories with the shapes plotted on the map as Geographies. The names of the territories and the respective Geographies will be fetched from the excel file.

The excel file should be in the supported file format as mentioned below.

**Name:** Name of the Geography.

**Search Option:** Bulk geography feature is available only for the 'By Region' option, so this value should always be '1'.

**Color:** Color should be in Hexadecimal format i.e. (#DAF7A6). If the user enters the color in other format then the default color (Blue) will be set.



### Region

**Type:** There are 6 region types that the user can define to create the geography. (Country, State, County, City, PostalCode1, PostalCode2).

**Region Value:** If the user needs to create the geography based on Postal Code, then they can define the postal code values in this column. To define multiple geographies in single territory, use the comma separator (,).

**Territory:** This is a lookup value to define which geography belongs to which territory.

**Manager:** The names of the users can be provided here. While creating territories, the managers for the respective territories. However, the column of 'Manager' is not mandatory to be in the excel file.

#### **Note: For Territory management:**

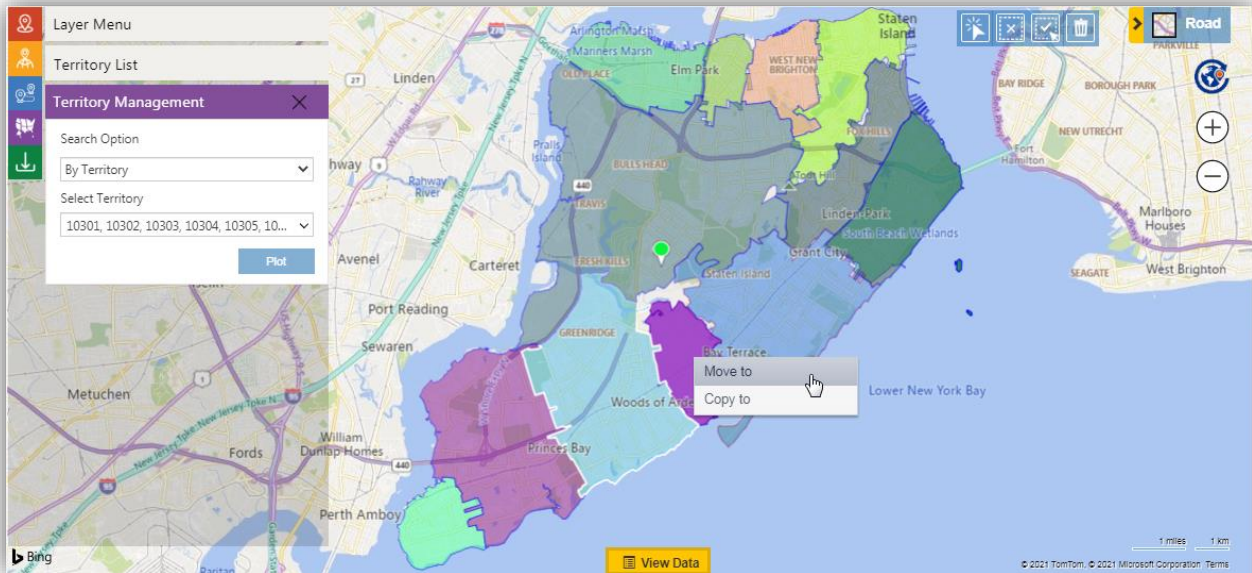
- **The column of 'Territory' should contain the Names of the territory(ies)**
- **Color: Color should be in Hexadecimal format i.e. (#DAF7A6). If the user enters the color in other format then the default color (Green) will be set.**
- **There are 8 region types that the user can define to create the geography. (Country, State, County, City, PostalCode1, PostalCode2, PostalCode3, PostalCode4).**

## Alignment of Existing territories

User can plot the existing territories and align them to get the proper distribution of the regions. User can use the following two options to align the territories.

### Move to

User can select some geography(ies) of one or more territories and move it to another plotted existing territory or create a new territory. This will remove the geographies from the original territory.



Move to

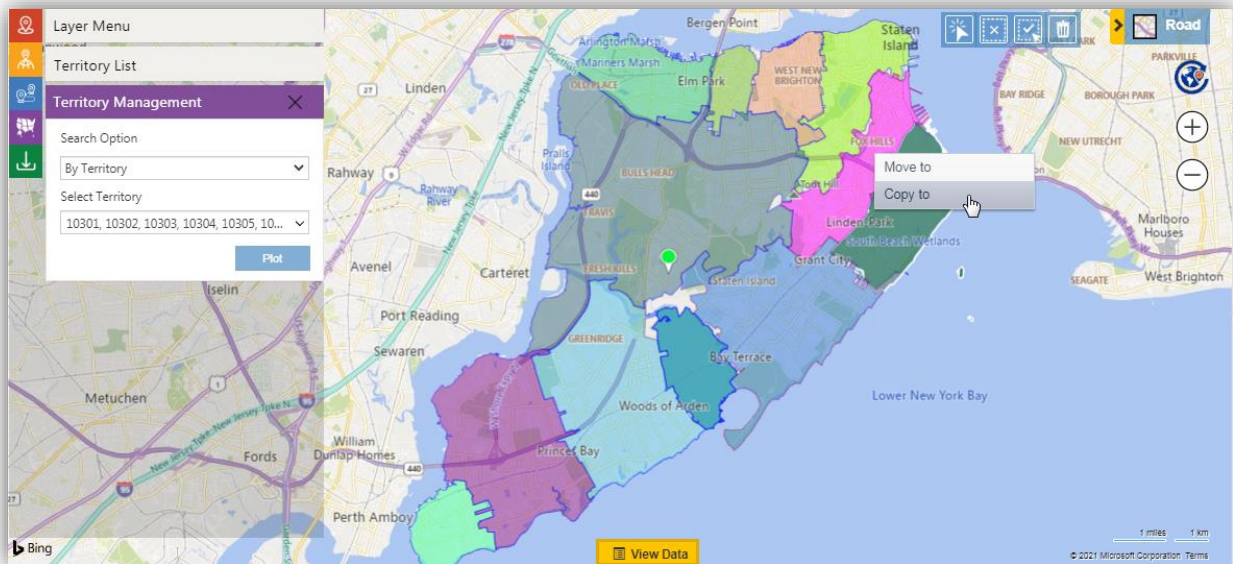
☒ Existing Territory

☐ Create New Draft Territory

Proceed

### Copy to

User can select some geography(ies) of one or more territories and copy it to another plotted existing territory or create a new territory while keeping the geography in the original territory.



**Copy to** ✕

☒ Existing Territory

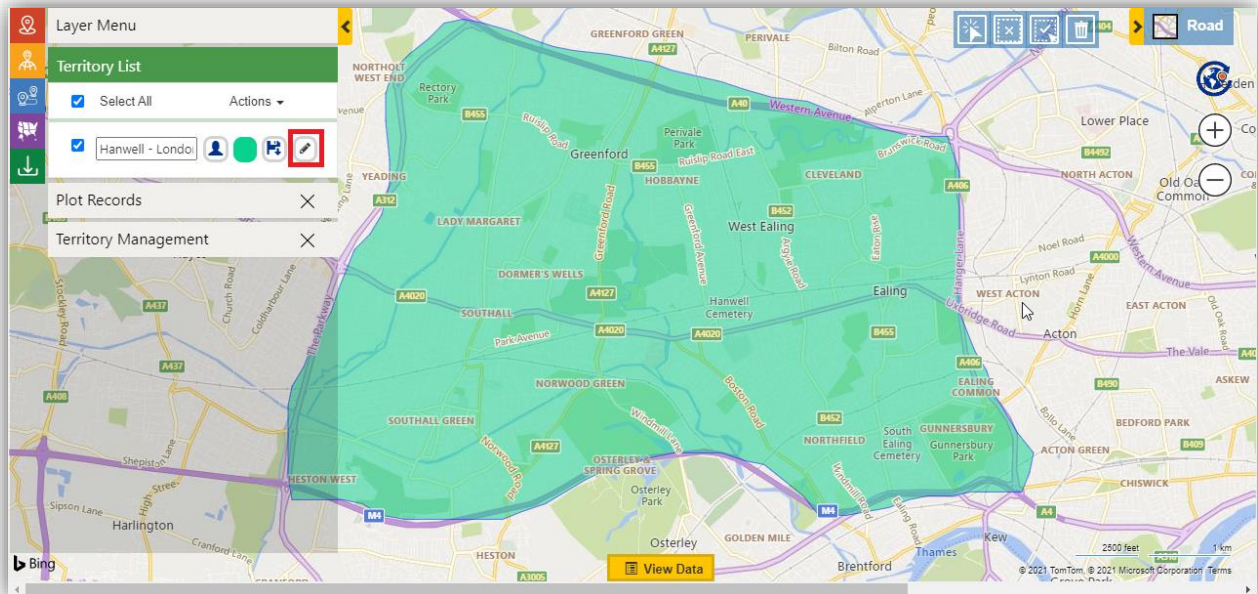
☐ Create New Draft Territory

**Proceed**

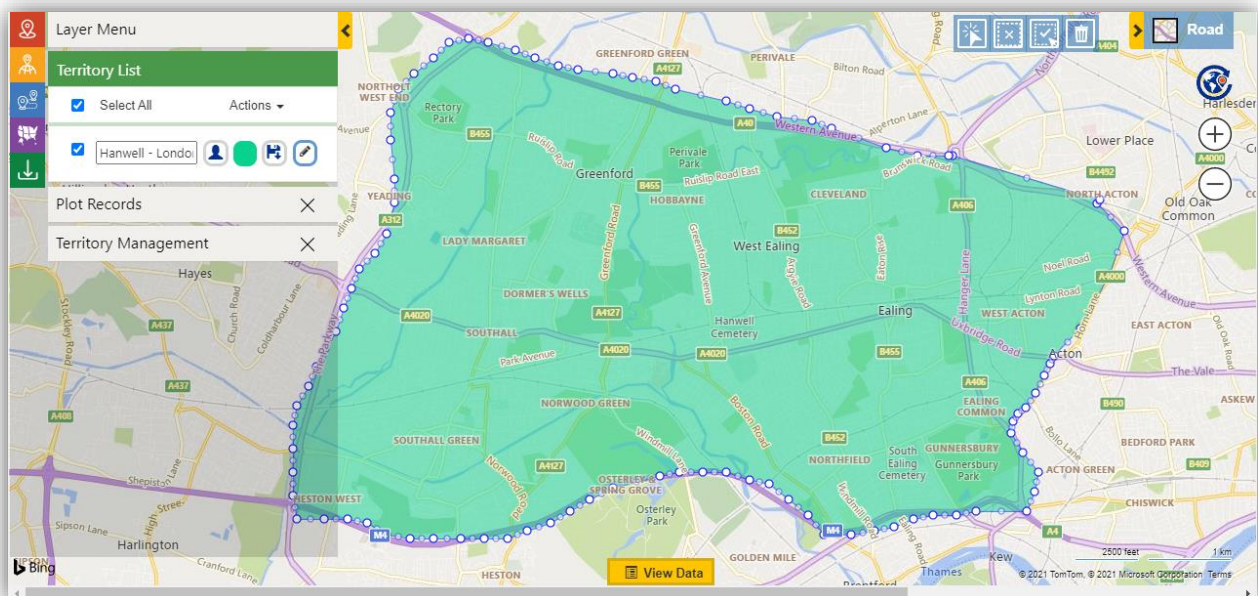


### Edit Existing Territory

Users can modify the boundaries of the drawn shapes in existing territories using this option. To do this first plot the existing territories on the map. Now, go to the 'Territory List' and click on the 'Edit' button for the required territory and click on the required shape to modify.



Now user will be able to drag the boundaries of the shape to modify it according to the requirement.



**Note: Only the territories that contains shapes created using the Drawing tool can be edited by Edit Existing Territory option.**



### Shape Operations in Territory Management

User can perform Binary operations on the shapes, regions or territories plotted on the map. User can select the shapes on which they want to perform operations and right click on them to select the Binary operations. There are five Binary options available: Difference, Intersection, Union, Union Aggregate and Disjunctive Union. Please refer to the section of the Shape operations to know more about these Binary operations.

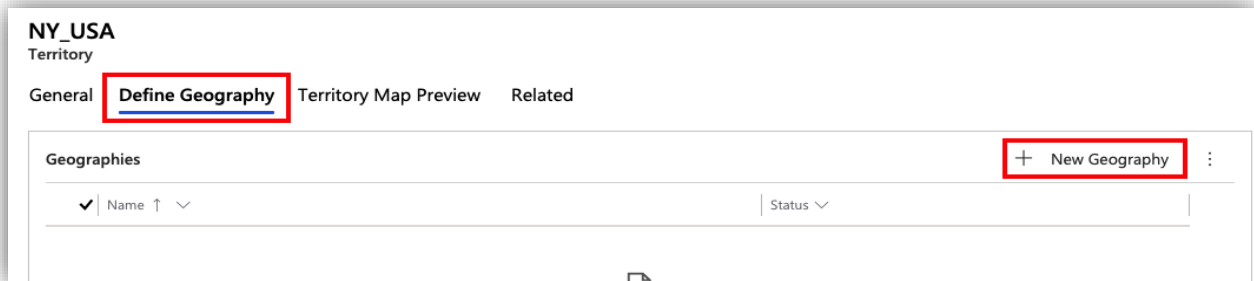
**Note:**

- *The shapes should overlap each other to be available for performing shapes operations*
- *There should be a layer of drawing overlapped with the shapes on which binary operations has to be performed*
- *The required shapes should be selected before performing Binary operations*

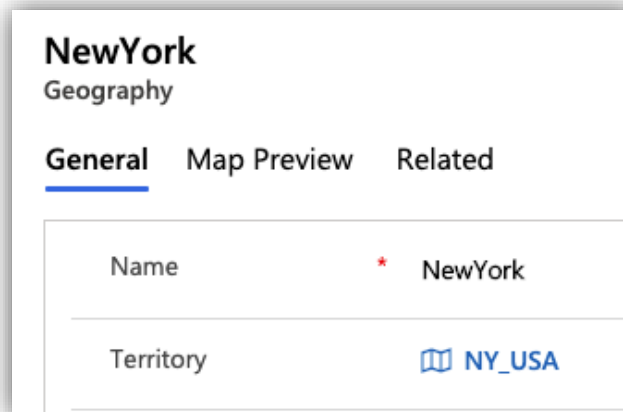
## Defining Geographies for Sales Territory using Maplytics

The users can create sales territories using the native Dynamics CRM 'Sales Territories' feature and define geographies for the sales territories on a map using Maplytics.

To create geographies for sales territory, go to **Settings > Territories** and click on 'New' to create a sales territory. With Maplytics a 'Geographies' Entity is added on the territory. User can use this feature to visualize and create geographies for the sales territory. To create a new geography, click on '**Add New Geography**'.

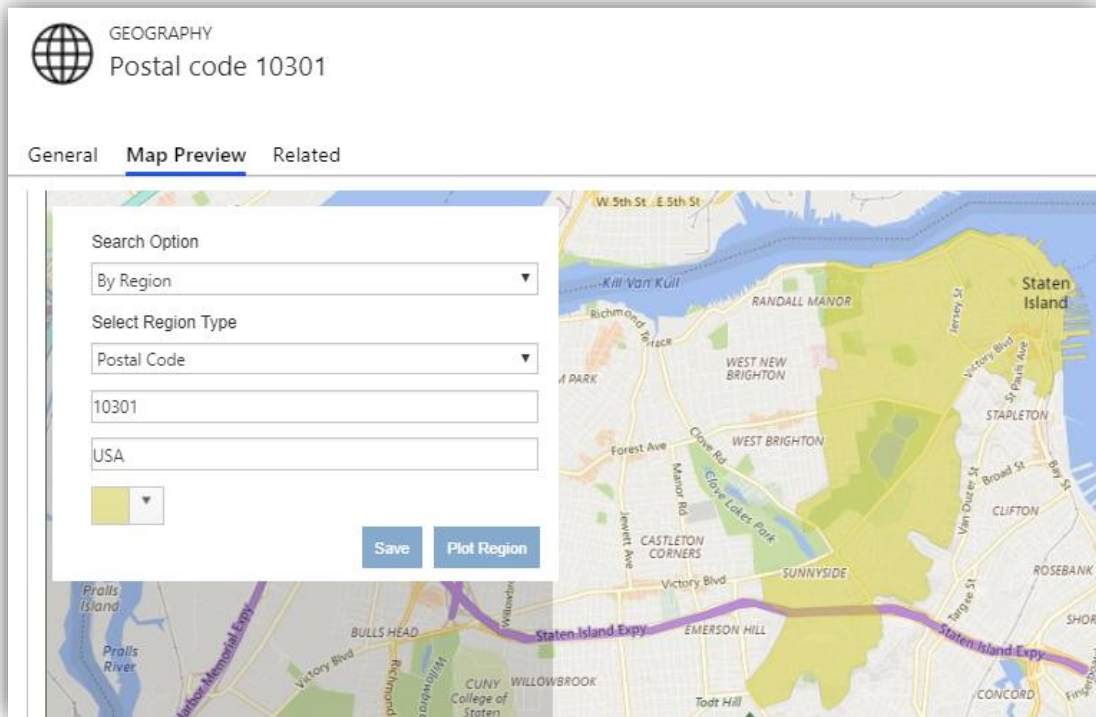


In the section '**General**', provide a name for the Geography.

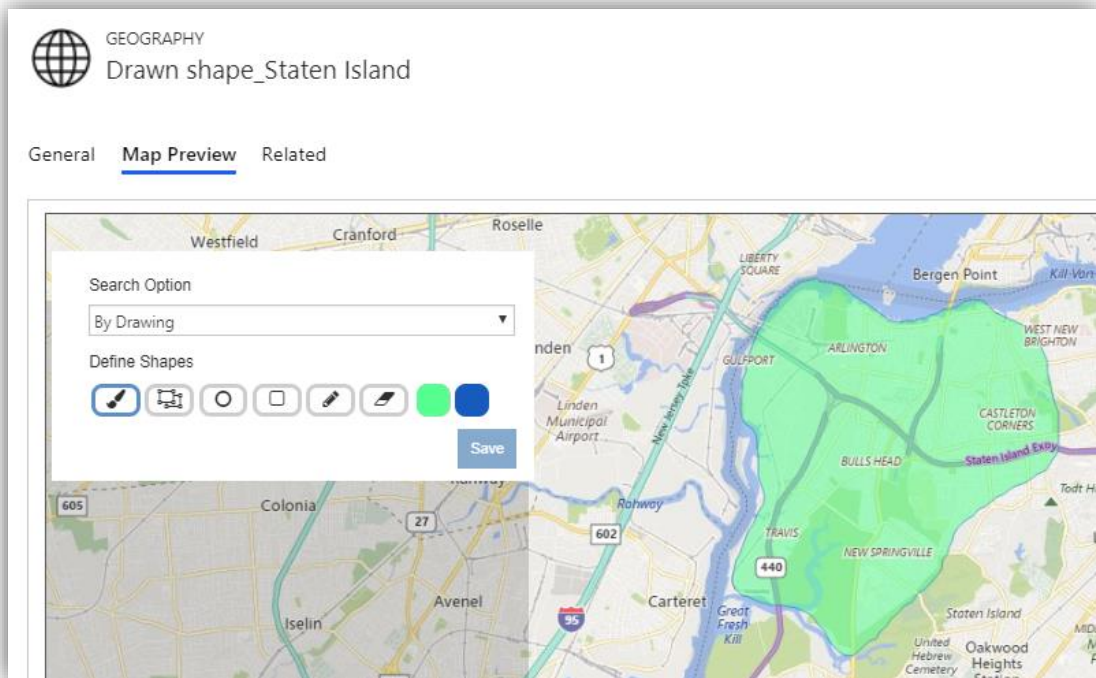


Within the section '**Map preview**', the user has the option to visualize the geography on a map 'By Region' or 'By Drawing'. The 'By Region' option lets the user to plot the geography based on region types and the user has the freedom to choose the color for the plotted region.

## Maplytics™ – User Manual



The 'By Drawing' option lets the user to plot the geography by drawing a shape on the map and the user can further edit the shape based on their needs.




**Note:** User can define multiple geographies for a single territory.

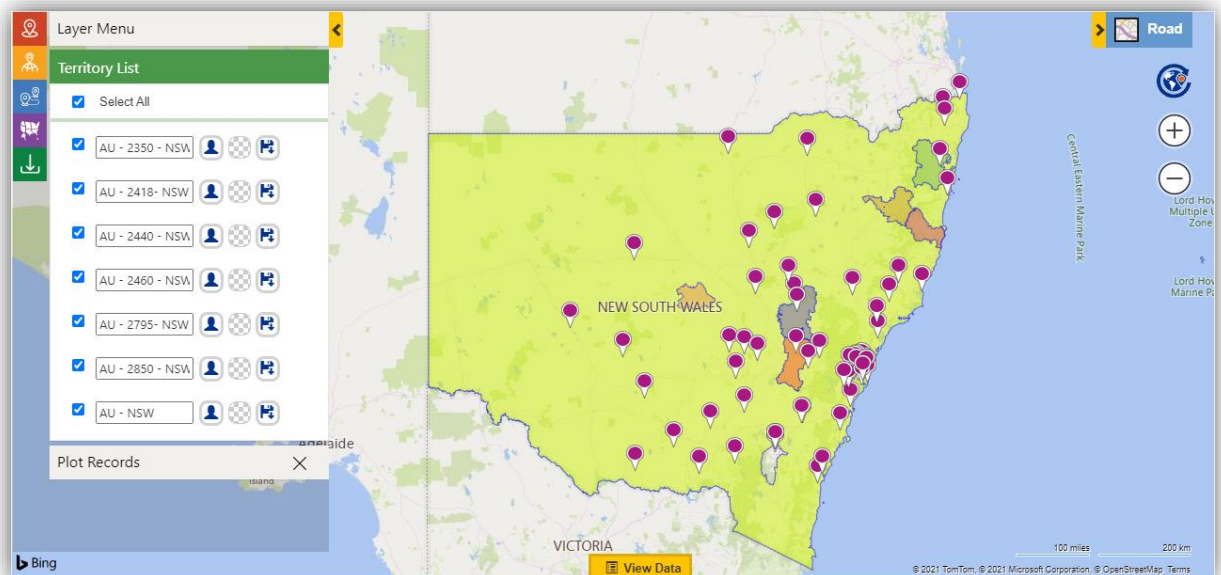
## Hierarchal Territories

Dynamics 365 supports the hierarchy of territory where user can manage multi-level territories. If an organization has enabled the Hierarchical territories in the CRM, the users can plot the territories to plot and manage multi-level territories. So, if there are any child territories created for the selected territories, then those will also get plotted on the map along with the selected territories.

User can select and plot the territories on the map using the three ways as follows:

- By Territory using plot card in Detail map


User can open the Detail map to choose the icon of 'By territory'  in the Plot card. They can select the territories from the list, select Data source & view and click on Search to plot the same.

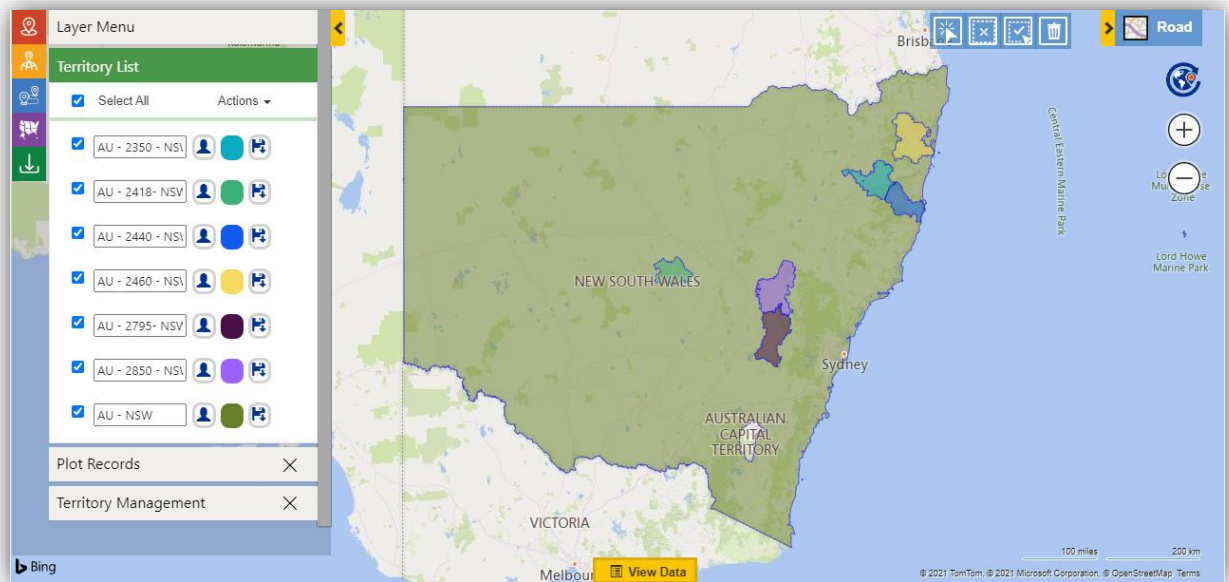




## Maplytics™ – User Manual

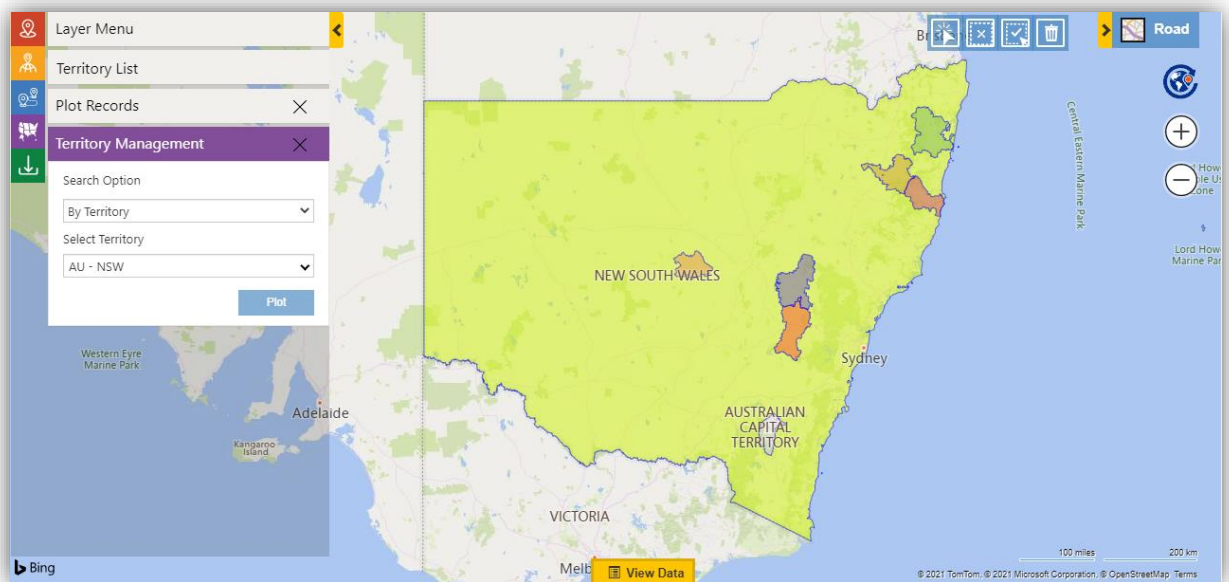
- By Territory using Territory Management in Detail map

Within the Detail map, user can click on the icon of 'Territory Management'  and select the option of 'By territory'. Now, select the territories and click on Plot.



- Overlay in Detail map

User can use the option of Overlay within the Plot card or Territory management to plot the territories.

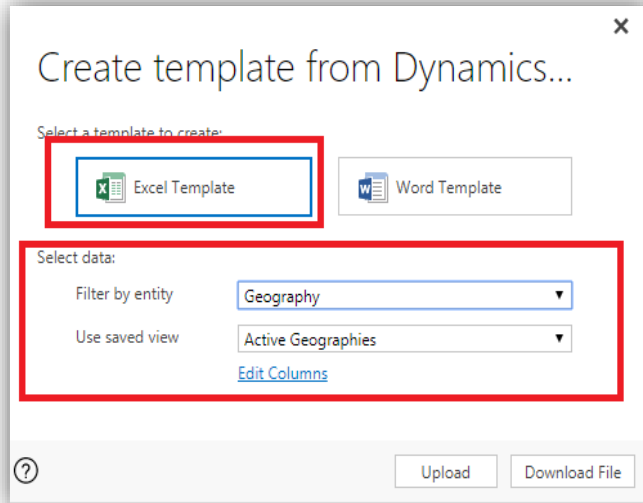
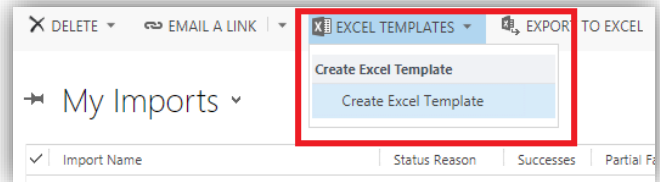


**Note:**

- *System admin and Territory Manager will have access to all territories*
- *The visualization of the territories to the rest of the users will be dependent on the usage of the option of 'Show All Territories' within the Default Configuration Detail record > Advanced Settings > Configure Option>Show All Territories. If the option is not selected then the user will be able to view only the territories for which they are the Territory Manager or the member.*
- *If a user is the Territory Manager or the member of a parent territory, then the user will be able to access the child territories as well, either using the Maplytics maps as mentioned above or by going to the respective child territory records within the Territory entity to visualize it in the Territory Map Preview.*

## Bulk Geographies by uploading an Excel file

The users also have the option to upload multiple geographies through an Excel files supported by CRM using the Bulk Geographies feature in Maplytics.



To upload the geographies in bulk, the user first needs to export an Excel template. Go to **Settings > Data Management > Imports >** select the '**Excel Templates**' and then click on the 'Create Excel Template' option. Select the 'Excel Template' and in the 'Select data' section, select the 'Geography' Entity in the 'Filter by entity' field.

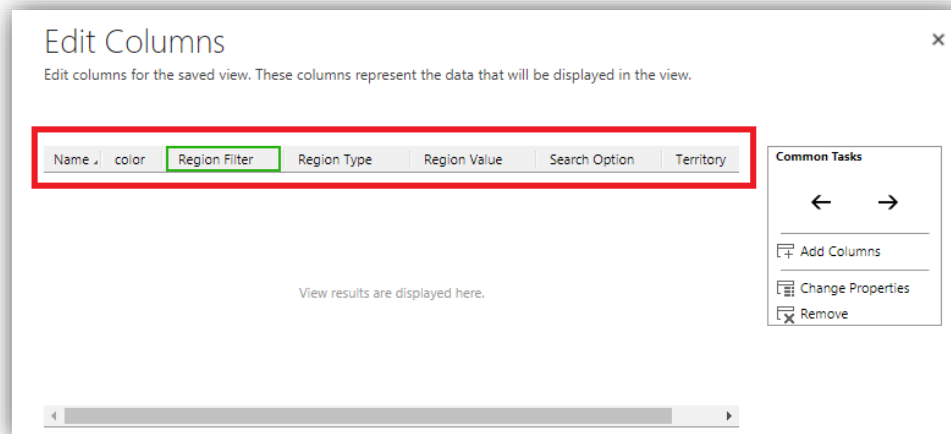
Click on 'Edit Columns' and select the below columns;

The excel file should in the supported file format as mentioned below:

**Name:** Name of the Geography.

**Search Option:** Bulk geography feature is available only for the 'By Region' option, so this value should always be '1'.

**Color:** Color should be in Hexadecimal format i.e. (#DAF7A6). If the user enters the color in other format then the default color (Blue) will be set.



**Region Type:** There are 6 region types that the user can define to create the geography. (Country, State, County, City, PostalCode1, PostalCode2).

**Region Value:** If the user needs to create the geography based on Postal Code, then they can define the postal code values in this column. To define multiple geographies in single territory, use the comma separator (,).

**Territory:** This is a lookup value to define which geography belongs to which territory.

**Note: For Territory management:**

- *The column of 'Territory' should contain the Names of the territory(ies)*
- *Color: Color should be in Hexadecimal format i.e. (#DAF7A6). If the user enters the color in other format then the default color (Green) will be set.*
- *There are 8 region types that the user can define to create the geography. (Country, State, County, City, PostalCode1, PostalCode2, PostalCode3, PostalCode4).*



## Multiple Territories assigned to records

If a user needs to assign more than one territory to the entity records, user can enable the feature of Multiple Territories for a record. This feature will help the user to visualize records which lie in single or multiple territories. After assigning the territories, they can plot the territories to visualize the respective records lying into them.

To start using the feature of Multiple Territories for a record, user can follow the steps mentioned below:

### **Step 1: Enable Multiple Territories**

Go to Settings > Maplytics > Maplytics Configuration Details > Default configuration detail record > Configuration option > Select 'Enable Multiple Territories'.

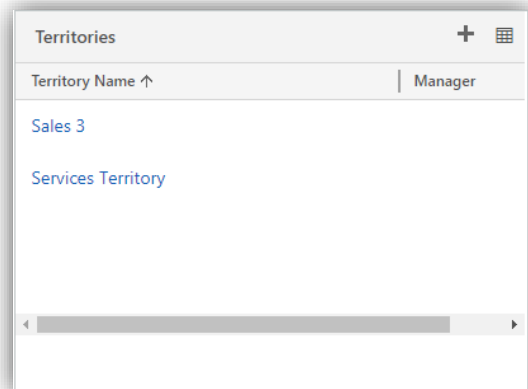
**Note: User cannot undo this option, once selected and saved.**

### **Step 2: Creating N: N relationship of entity with Territory.**

Go to Settings > Customizations > Customize the System > Entities > Select Entity > N: N Relationships > New Many-to-Many Relationship

### **Step 3: View the list of territories assigned to a record**

User can add a sub-grid to show the territories that an entity record is associated with. This step is optional, even if a sub grid is not added, the assigned territories will get associated with the records in background.



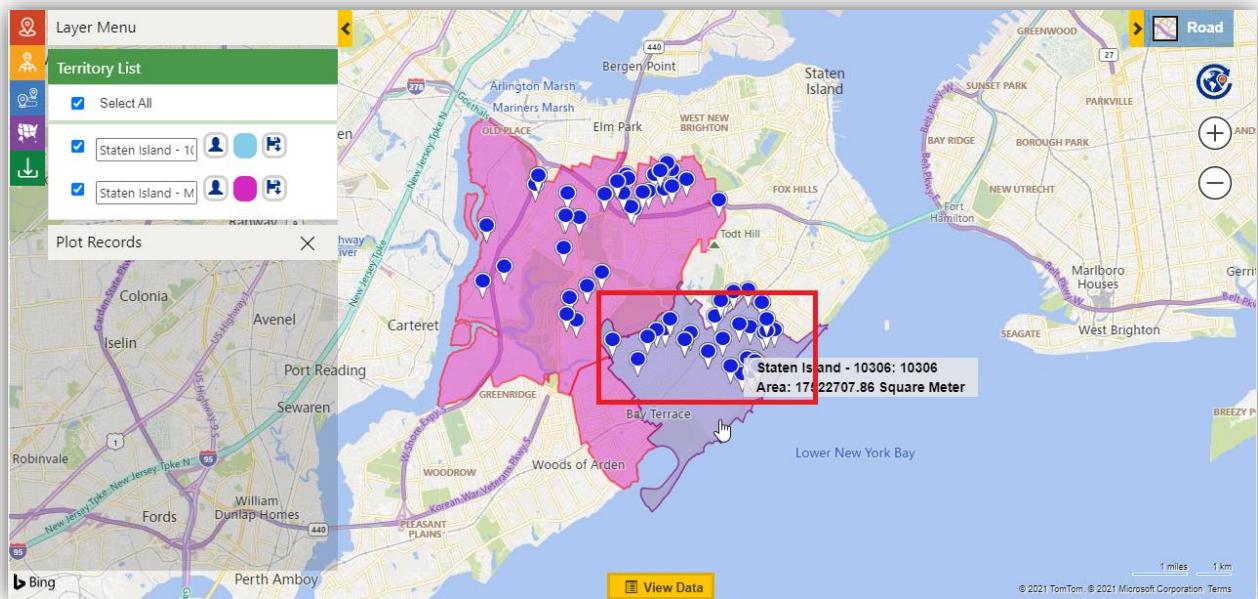
### **Step 4: Select relationship for the field 'Territory Relationship' in Attribute mapping section of Entity map.**

Go to Settings > Maplytics > Entity maps > Attribute mappings > Territory Relationship > Select 'Entity - Territory' relationship

### Step 5: Assign territories to records

User can either run **Batch Processing tool** or the **Inogic.Maplytics.AssignTerritoryWorkflow** on the records to assign the territories to the records.

After assigning the territories, user can choose the Search option of 'By territory' to plot the territories along with the respective records. The below screenshot shows two territories plotted on the map, 'Staten Island – 10306' and 'Staten Island- Mid' which overlap on each other and have pushpins in common as highlighted.



## Detail Map on CRM Dashboard

To include the Maplytics Detail Map component on the Dashboard, click on the 'new' button and select 'Add Web Resource'. Select '**ikl\_/Maplytics/Maplytics.DetailMap.html**' web resource. The User can further modify this web resource by including some custom parameter. For Example, if the user wants to plot a route from a dashboard like Appointment Planner. The user can automate the complete process.

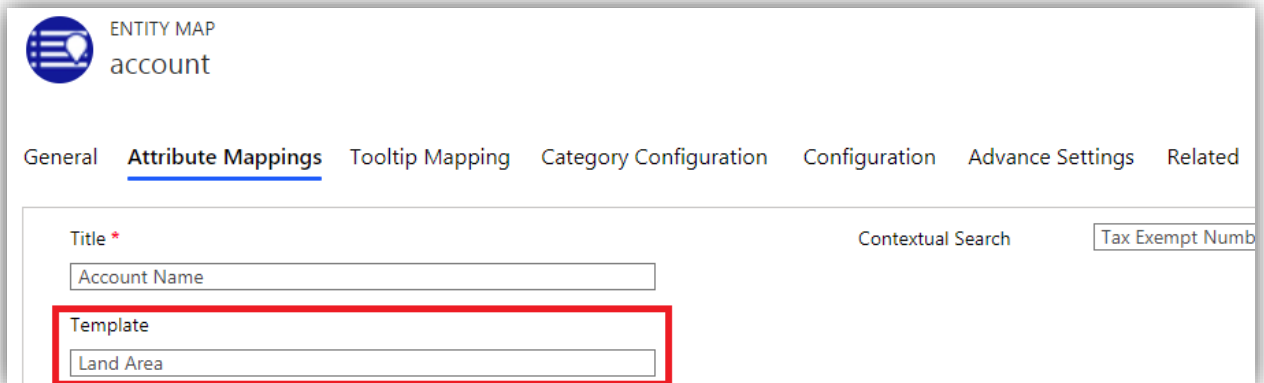
Custom Parameter(data) : You need to provide the Custom Parameter(data) as

- **<Dashboard Name>| |dashboard| |true**
- **Appointment Planner| |dashboard| |true**

*The recommended number of rows in formatting is minimum 10.*

## Saved Template Visualization on CRM Entity Form

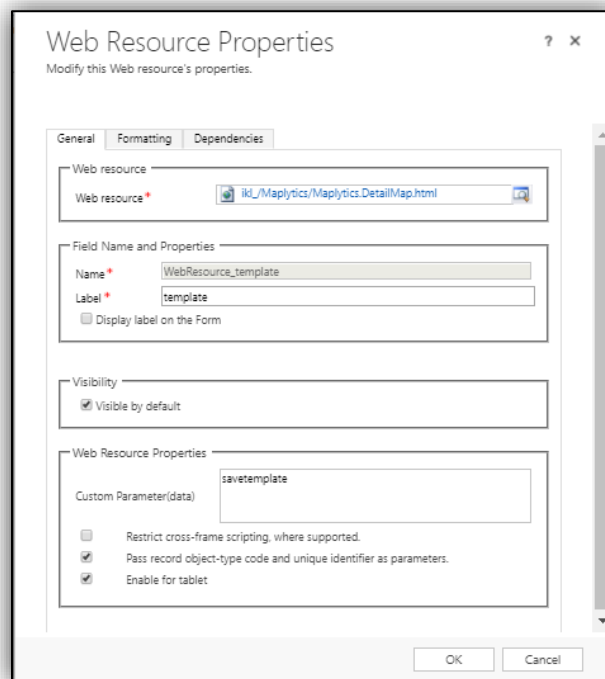
Users can include the Maplytics Detail Map component that loads a saved template associated with the Entity record on the Entity Form. For this, the user needs to create a 'Template' lookup field on the Entity form where user can select the required Maplytics Template. The user also needs to select the name of that field in the 'Template' field under 'Define Attributes' section on the Entity Map for that particular entity.



The screenshot shows the 'ENTITY MAP' interface for an 'account' entity. The 'Attribute Mappings' tab is selected. Under the 'Define Attributes' section, the 'Template' field is highlighted with a red box, and the 'Land Area' value is visible in the dropdown. Other fields like 'Title' (Account Name) and 'Tax Exempt Number' are also visible.

On the Entity form, the user needs to 'Insert' a new Tab and select 'Add Web Resource'. Select '*ikl\_/Maplytics/Maplytics.DetailMap.html*' web resource. The user now needs to add a Custom Parameter for the saved templates. The recommended number of rows in formatting is minimum 10.

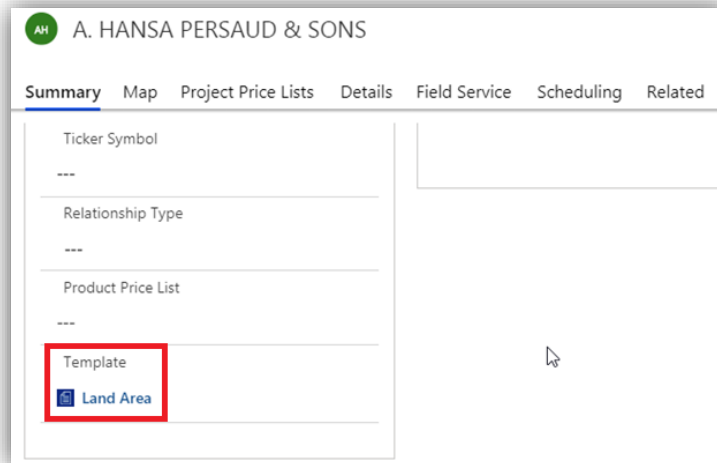
- Custom Parameter (data): Provide the Custom Parameter(data) as **savetemplate**



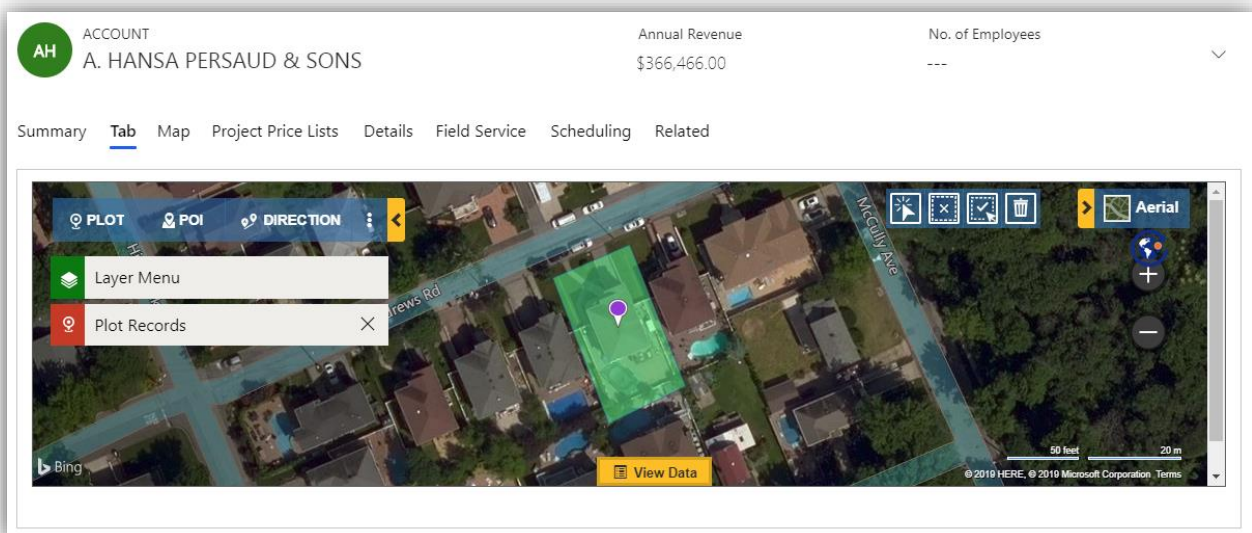
The screenshot shows the 'Web Resource Properties' dialog box. The 'Web resource' field is set to 'ikl\_/Maplytics/Maplytics.DetailMap.html'. The 'Field Name and Properties' section shows 'Name' as 'WebResource\_template' and 'Label' as 'template'. The 'Web Resource Properties' section shows 'Custom Parameter(data)' as 'savetemplate'. The 'Visible by default' checkbox is checked. The 'Restrict cross-frame scripting, where supported.' checkbox is unchecked. The 'Pass record object-type code and unique identifier as parameters.' checkbox is checked. The 'Enable for tablet' checkbox is checked. The 'OK' and 'Cancel' buttons are at the bottom.

## Maplytics™ – User Manual

Now, when the user selects a Maplytics Saved Template on the 'Template' lookup field on the Entity form, the selected template will be plotted on the Detail Map component added on the Entity form.



The screenshot shows the 'A. HANSA PERSAUD & SONS' entity form. The 'Summary' tab is selected. The form contains several fields: 'Ticker Symbol', 'Relationship Type', 'Product Price List', and 'Template'. The 'Template' field is highlighted with a red box, and a 'Land Area' option is visible below it. The 'Map' tab is also visible in the navigation bar.





## Routing Optimization

User can select some locations on the map as waypoints to plot an optimized route. User can follow this route to visit the required locations and complete their meetings. User can also redirect themselves for turn-by-turn navigation in order to reach the right location on time.

### Directions Card

Directions card provides the user with all the routing features. The user can open the Directions Card directly by clicking on Directions tab.

The Directions Card also opens up when the user adds a waypoint(s) to the route either through the Contextual Menu, ToolTip Card or using the 'Add to Route' mass action. User can select the required waypoints and the leaving/arriving time. The user can drag and drop the waypoints to change the order of route

The screenshot shows the 'Directions' card with a close button (X) in the top right. Below the title bar are icons for car, walking, bus, train, and a trash can. The 'Options' section is expanded, showing a list of waypoints: A. I. YUJI KANEKO & SONS: 620 €, B. R. TAHIR DEMIRCIOGLU & SOI, and C. R. PETER CHIANG & SONS: 1€. There are 'Add destination' and 'Go' buttons. Below this is a 'Leave now' button and a 'Leave at' section with a time picker set to 1:15 AM. At the bottom is a calendar for May 2021 with days S, M, T, W, T, F, S.

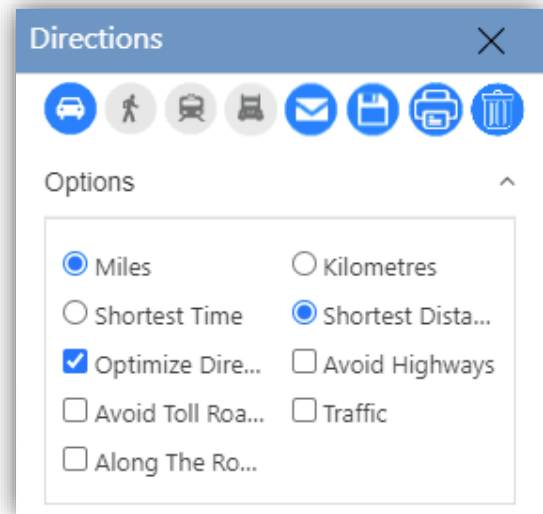
The screenshot shows the 'Directions' card with a close button (X) in the top right. Below the title bar are icons for car, walking, bus, and train. The 'Options' section is expanded, showing settings for Miles/Kilometres, Shortest Time/Shortest Distance, Optimize Directions, Avoid Highways, Avoid Toll Roads, Traffic, and Along The Road. There are 'From' and 'To' input fields, an 'Add destination' button, and a 'Leave now' button. A 'Go' button is at the bottom right. Below this is the 'Open Saved Routes' section with 'Select Start Date' and 'Select End Date' fields, each with a calendar icon, and a 'Search' button.

**Note:** The user can add a maximum of 25 waypoints in the direction functions.

Once the waypoints are selected, the user can choose the mode of transports like Driving, Walking, Transit or Truck to view the route.

The user can select different options to reduce the time, toll, highways, etc. by clicking on the Options button. Some of these can be auto-selected using Maplytics Configuration Settings.

**Note:** To start using Truck route, please contact [crm@inogic.com](mailto:crm@inogic.com)



### Truck Route

To start using Truck route, please contact [crm@inogic.com](mailto:crm@inogic.com). Once the user has contacted us at [crm@inogic.com](mailto:crm@inogic.com) for the truck route, the user will be provided with a Maplytics license with Truck routing enabled into it. To start using Truck route, user needs to update the license and then configure as mentioned below:

**Update the license:** Go to Maplytics App > Settings > License registration > Click on Activate.

**Configure:** Go to Maplytics App > Settings > License registration > Configure Tab > Configure. Here the Asset data will be configured to the users Dynamics CRM.

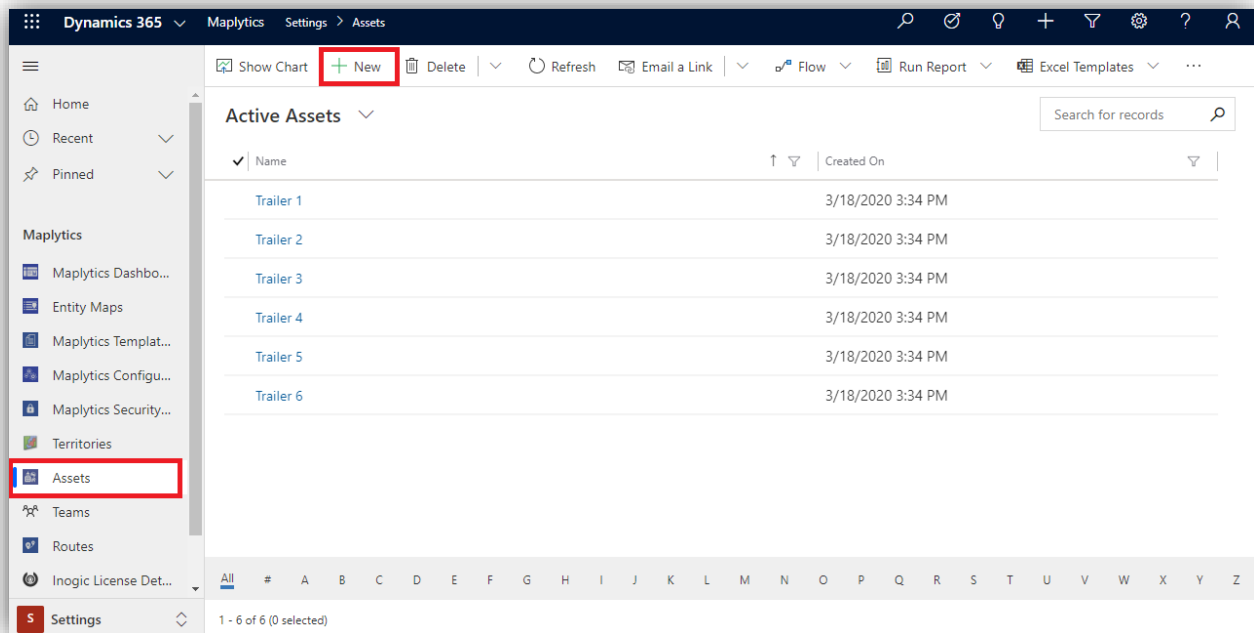
The screenshot shows the 'Maplytics Configuration' app with tabs for 'Core Records', 'Sales', 'Customer Service', and 'Field Service'. The 'Assets Data' tab is selected, showing a table with columns for checkboxes and names. The table lists 'Trailer 1' through 'Trailer 6'. At the bottom, there is a checkbox for 'Create Personalized Records' which is checked, and a 'Proceed' button.

|                          | Name      |
|--------------------------|-----------|
| <input type="checkbox"/> | Trailer 1 |
| <input type="checkbox"/> | Trailer 2 |
| <input type="checkbox"/> | Trailer 3 |
| <input type="checkbox"/> | Trailer 4 |
| <input type="checkbox"/> | Trailer 5 |
| <input type="checkbox"/> | Trailer 6 |

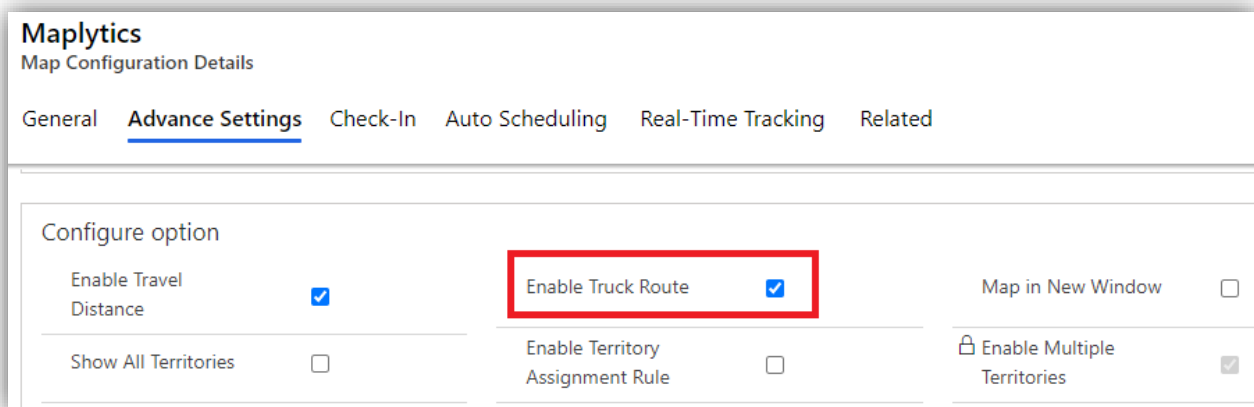
☒ Create Personalized Records Proceed

## Maplytics™ – User Manual

Assets data configuration will create some sample records for Trucks which user can select while using the feature of Truck routing. User can click on the 'New' button to create new records of Assets. They can also edit and save changes to the configured Assets.



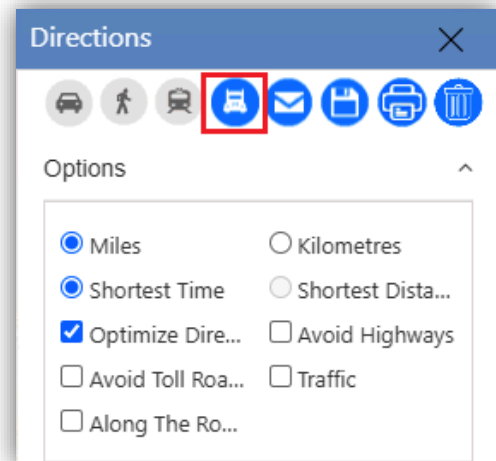
After the sample records for trucks have been configured, user can enable the truck routing. To enable truck routing, go to Maplytics App > Settings > Maplytics Configuration Details > Default Configuration Detail record (with no user) > Advanced Settings > Enable Truck Route.



User can choose the truck icon on the Direction card to plot the route for a truck. On the selection of the truck icon a window will pop up to enter the Asset details.

Within the Asset Details, user can either select one of the sample truck types or select the custom option to enter their own details and then click on 'Go' to plot the route.

**Note: Optimization of the route with the Shortest Distance will not be available when Truck is selected as the mode of transport.**



The Asset Details will be as follows:

1. **Asset type:** The asset for which the route has to be plotted. It can be selected from the following list of configured sample records. User can also select 'custom' to enter their own details.
  - Trailer 1
  - Trailer 2
  - Trailer 3
  - Trailer 4
  - Trailer 5
  - Trailer 6
  - Custom
2. **Axles:** The number of axles.
3. **Dimension Unit:** The unit of measurement of width, height, length. Can be one of the following values:
  - Meter
  - Feet
4. **Height:** The height of the vehicle in the specified dimension units.
5. **Length:** The length of the vehicle in the specified dimension units.
6. **Width:** The width of the vehicle in the specified dimension units.
7. **Weight Unit:** The unit of measurement of weight. Can be one of the following values.
8. **Weight:** The weight of the vehicle in the specified weight units.
9. **Hazardous Materials:** List of one or more hazardous materials for which the vehicle is transporting. Possible values are:
  - Combustible
  - Corrosive
  - Explosive
  - Flammable

- Flammable Solid
- Gas
- Goods Harmful to Water
- Organic
- Other
- Poison
- Poisonous Inhalation
- Radioactive
- None

**Directions** [X]

Options [^]

☒ Miles
 ☐ Kilometres

☒ Shortest Time
 ☐ Shortest Distance

☒ Optimize Direction
 ☐ Avoid Highways

☐ Avoid Toll Roads
 ☐ Traffic

☐ Along The Road

A 10 Ellsworth Ave, New York,

B 123 Harold St, Staten Island

(+) Add destination

**Go**

### Optimize Direction

This can be selected from the Options. This option will provide the users with the optimized route direction between their waypoints keeping Origin & Destination as fixed waypoints based on Shortest Time or Shortest Distance as per the selection.

Once the user clicks on 'Go' the route will be plotted and the directions will be available on the Directions Card.

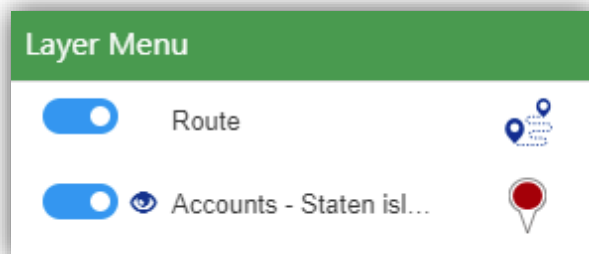
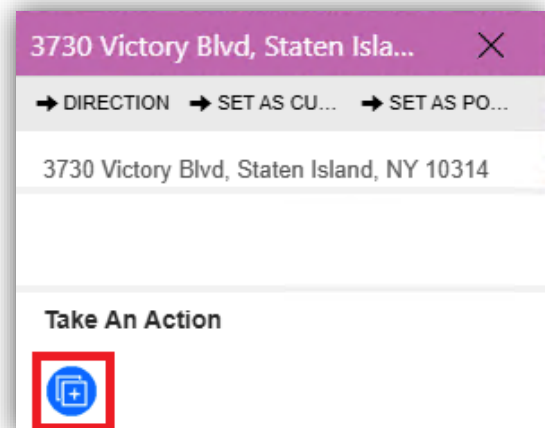


## Maplytics™ – User Manual



User can view all the details regarding the pushpins on the route in the view data grid in the tab named as entity\_Route. for example: Contact\_Route. Each waypoint on the route will be represented by a pushpin. User can hover or click on any pushpin to view the details of the waypoint. If the waypoints are records saved within Dynamics CRM, it will open the tooltip card on its click showing the respective data configured for tooltip card.

If the waypoint is just a location, on a click it will open a tooltip card showing its address and an icon which can be used to create a record for the location. This includes the Default origin and destination pushpin as well.



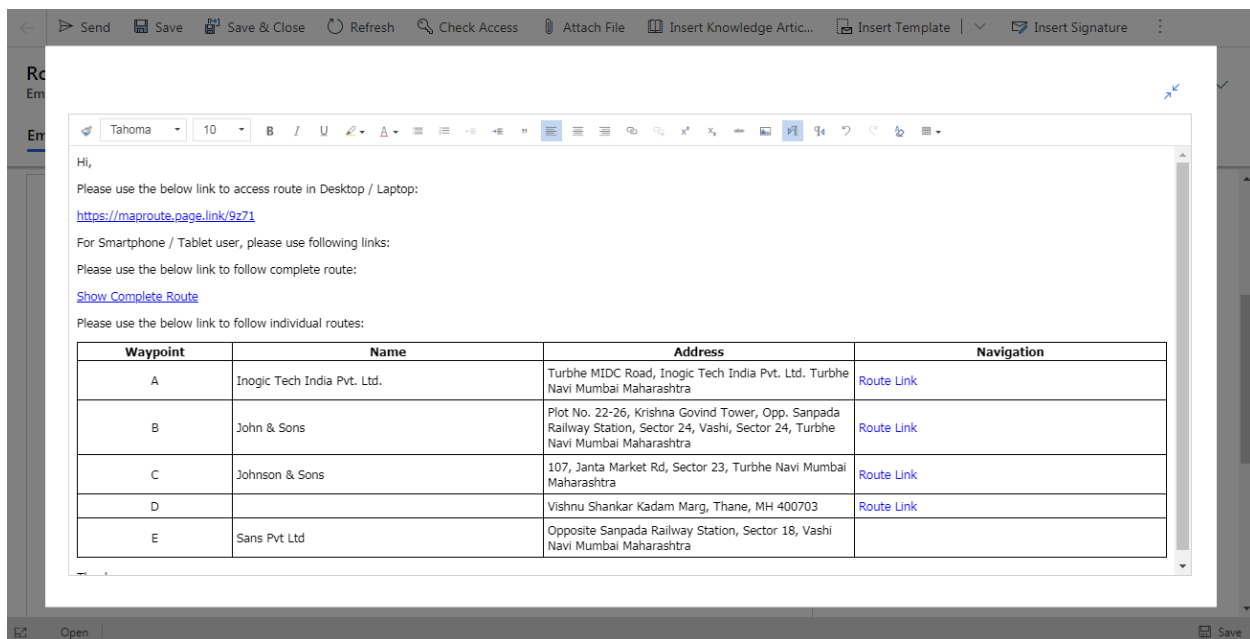
User can also choose to show or hide the layer of route from the layer card.

### Send Route email:

Maplytics also helps the user to send the route details in an email using 'Send route email' button. This will automatically fetch all the details of the route like the account details, waypoints, links etc. in the mail.



Users can click on 'Show Complete Route' to see the entire route with all the waypoints or use the individual 'Route link' to see the routes between two waypoints. The user will be redirected to their preferred navigation app, Google, Waze, or Apple Maps, to visualize the route on the map based on the app selected in their Map Configuration Detail Record



Maplytics admin or System admin can add four more columns to the existing route table to view more details on the same. To do this, they can **go to Maplytics App > Settings > Entity maps > Entity map of respective entity > Advanced Settings > Route Email Configuration > Attributes > Select Attributes > Add.**

## Maplytics™ – User Manual

### account

Entity Map

General Attribute Mappings Tooltip Mapping Category Configuration Configuration Advanced Settings Related

#### Route Email Configuration

Attributes

Select Attribute

Display Name

Add

| Attribute      | DisplayName    | Remove |
|----------------|----------------|--------|
| Annual Revenue | Annual Revenue | ×      |
| Email          | Email          | ×      |

Tahoma 10 B I U A - [Icons]

Hi,

Please use the below link to access route in Desktop / Laptop:

<https://maproute.page.link/psFc>

For Smartphone / Tablet user, please use following links:

Please use the below link to follow complete route:

[Show Complete Route](#)

Please use the below link to follow individual routes:

| Waypoint | Name                           | Address  | Annual Revenue | Email  | Navigation                 |
|----------|--------------------------------|--|----------------|--|----------------------------|
| A        | R. VLADIMIR CONSTANT & SONS    | 262 at BETHEL AVENUE Staten Island NY 10307 USA    | \$1,000,000.00 | <a href="mailto:charles10723@inogic.com">charles10723@inogic.com</a> | <a href="#">Route Link</a> |
| B        | L. DAL CHUN & SONS             | 5714 at AMBOY RD Staten Island NY 10309 USA        | \$200,000.00   | <a href="mailto:stavros776@inogic.com">stavros776@inogic.com</a>     | <a href="#">Route Link</a> |
| C        | K. FRANK MARTARELLA III & SONS | 255 at VINELAND AVENUE Staten Island NY 10312 USA  | \$300,000.00   | <a href="mailto:david11016@inogic.com">david11016@inogic.com</a>     | <a href="#">Route Link</a> |
| D        | K. DOMINICK DEPINTO & SONS     | 2795 at RICHMOND AVENUE Staten Island NY 10314 USA | \$290,000.00   | <a href="mailto:josh10399@inogic.com">josh10399@inogic.com</a>       | <a href="#">Route Link</a> |
| E        | Y. JEFFREY GOLDBERGER & SONS   | 1932 at RICHMOND AVENUE Staten Island NY 10314 USA | \$290,000.00   | <a href="mailto:louisa10348@inogic.com">louisa10348@inogic.com</a>   | <a href="#">Route Link</a> |

### Save Route:



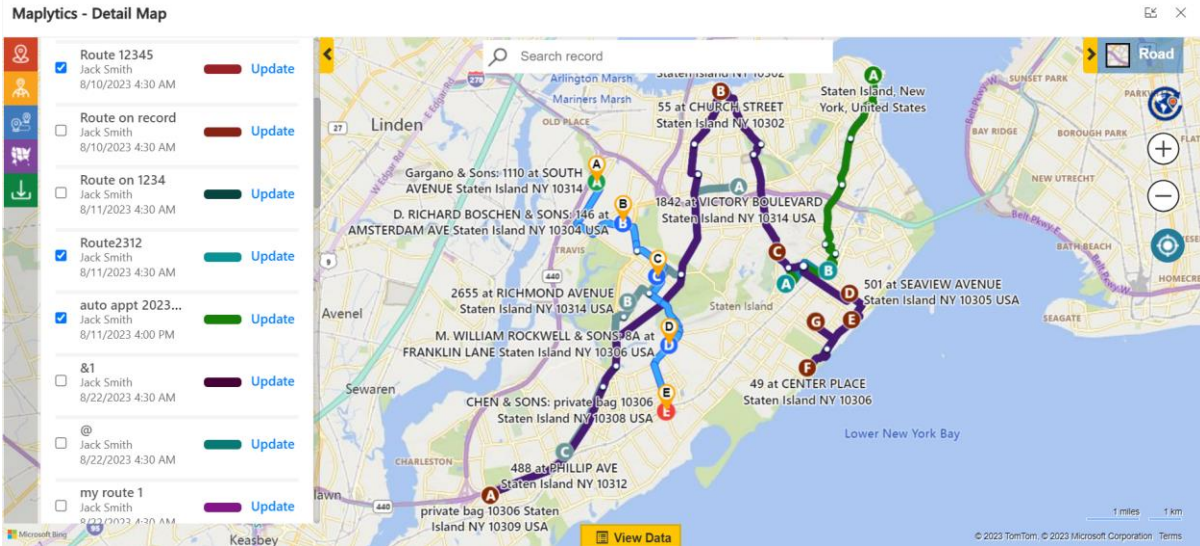
Users can also save their route plotted. The route record will also save the information like number of waypoints, total distance and time for the route. User can add the route to an existing route or save the route with a name & owner as a new route.

User can also update any route using the 'Update' button. User can search for routes existing in the required duration using the option of 'Open Saved Routes' and click on the 'Update' button for the required route.

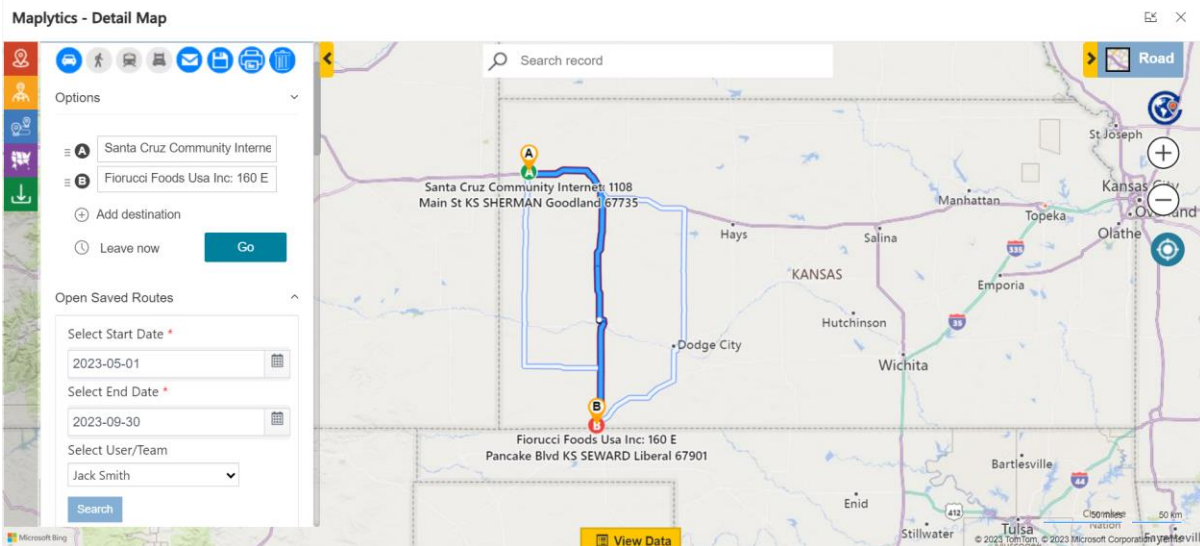
### Multiple Routing:

With Multiple Routing, the users are enabled to view multiple saved routes together on the map. For instance, if Shawn is the manager of a Sales Team of 5 members, he can create and save the travel routes for these 5 sales reps. Later, using multiple routing, he can view all 5 routes for all the team members on the map.

## Maplytics™ – User Manual

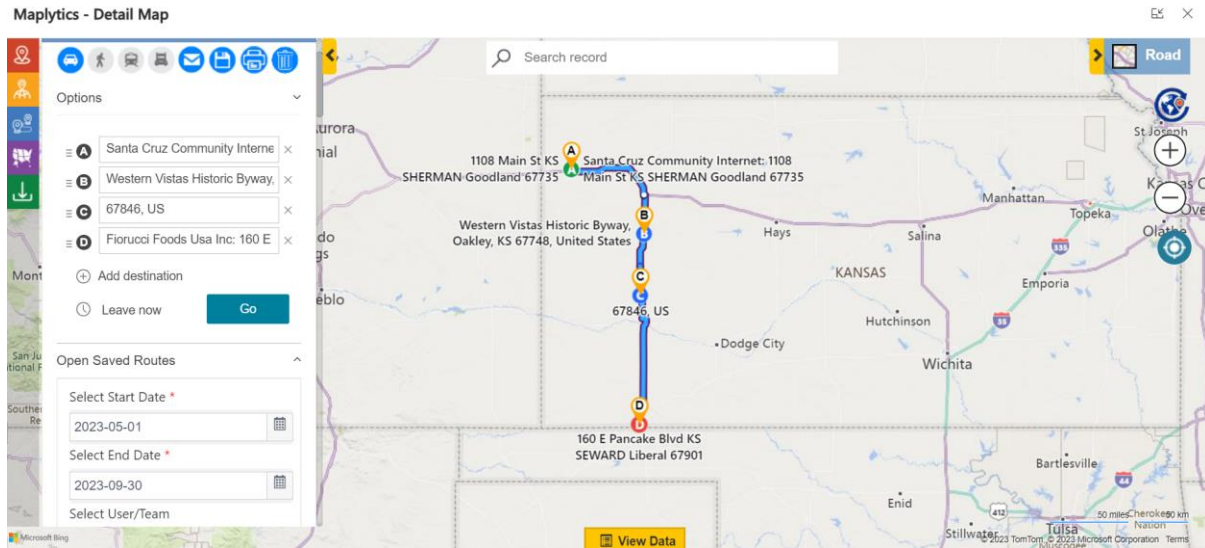


Up to 10 routes can be viewed and saved at once within a certain date range on the map in this manner. All the Routes are color-coded in color legends. The same color legend is followed in the Saved Route Summary Card and on the Map.





## Maplytics™ – User Manual



Users can add or remove waypoints within any of these saved routes as per requirement. When clicked on one of the route names, the map zooms onto it. The route that needs an edit can be clicked upon, and the details open on the map. Additional waypoints can be added or deleted from the route panel. Clicking on Go, the route reroutes itself and can be saved using the save button.

Back on the Saved Route Summary Card, the Update button can be clicked upon and the changes shall be reflected in that respective route.

### Clear Route:

The user can use the **Clear Route** button to clear the route from the map. This will just clear the route and directions card will still be opened for further use.



### Unified view for Route and Records

While user plots the data and then creates a route, both the plotted data and the route will stay on the map for an easy Route Management. This makes it easy for the user to add more waypoints to the route and also update the route with the added waypoints.



**Note: The route will remain on the map unless the user clicks on the 'Clear Route' button or closes the Directions Card**



## Default Origin and Destination

User can set default origin and destination for Route management.

**Go to Settings > Maplytics > Maplytics Configuration Details > Record of the user**

**Maplytics**  
Map Configuration Details

General   Auto Scheduling   Related

|                       |                                      |                             |   |
|-----------------------|--------------------------------------|-----------------------------|---|
| Defaults              |                                      |                             |   |
| Distance Unit         | Mile                                 | Region Area Unit            | Square Meter  |
| Map Mode              | Road                                 | Plot Data                   | Non Cluster   |
| Optimize Direction    | No                                   | Along The Route Distance    | ---   |
| Live Traffic          | No                                   | Current Location            | ---   |
| Route Option          | Shortest Time                        | Navigate In                 | Google  |
| Map Center            | ---                                  | Records Per Page In Grid    | 50  |
| Heat Map Type         | Boundary                             | Zoom Level                  | ---   |
| Summary Grouping      | City                                 | User                        |   |
| Default Template      | ---                                  | Maplytics Security Template | ---   |
| Set As Origin         | Other                                | Set As Destination          | Other   |
| Other - Set As Origin | 819 Catalpa Dr, Montgomery, AL 36112 | Other - Set As Destination  | 819 Catalpa Dr, Montgomery, AL 36112  |

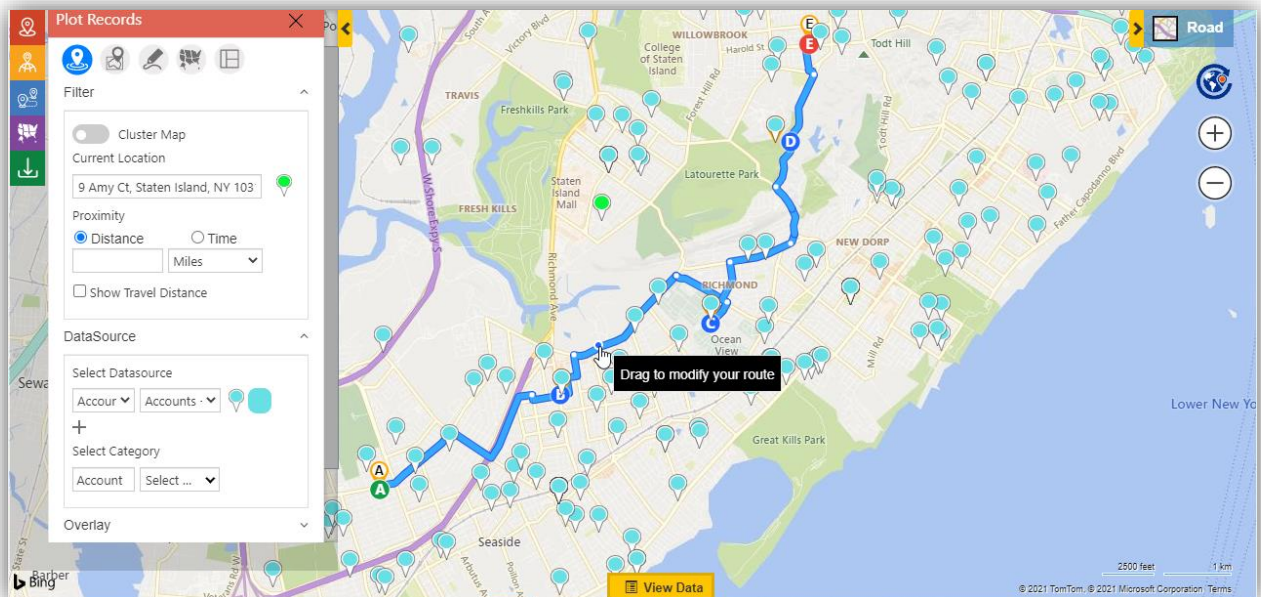
There are six options to select:

- **User Mailing Address** - Reads address from User mailing address
- **User Other Address** - Reads address from User other address
- **Business unit Bill to Address** - Reads address from logged in user's Business units bill to address
- **Business unit Ship to Address** - Reads address from logged in user's Business units ship to address
- **None** - If user do not want to set default origin/destination
- **Other**: It will have its own multiline textbox associated where user can enter their own address

**Note: If a user uses the "Plot route" button to plot a "Route" activity record on the Detail map, the Default origin/destination will not be set in the Direction card**

### Snap waypoint

This helps the user to edit a plotted route just by dragging the route to the required point on the map.

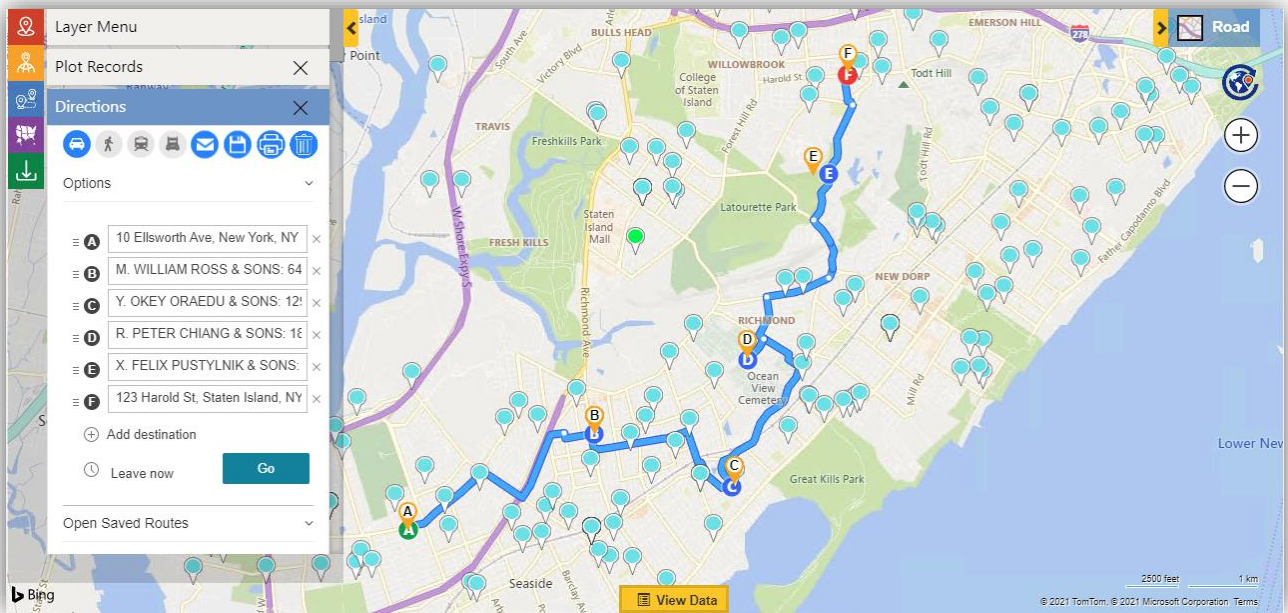


Drag to a location: User can drag a point on the route to a required location on the map. This will add the location as a waypoint at the dragged point in the route. This will also update the Directions card with the newly added waypoint.

Drag to a pushpin: User can also drag a point on the route to a pushpin plotted on the map. This will detect the record and add the record's location at the dragged point in the route. This will also update the Directions card with the newly added waypoint.

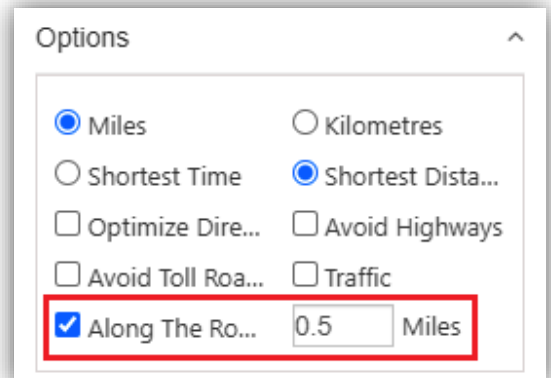
***Note: The option of snapping waypoints is not available for a route create for trucks.***





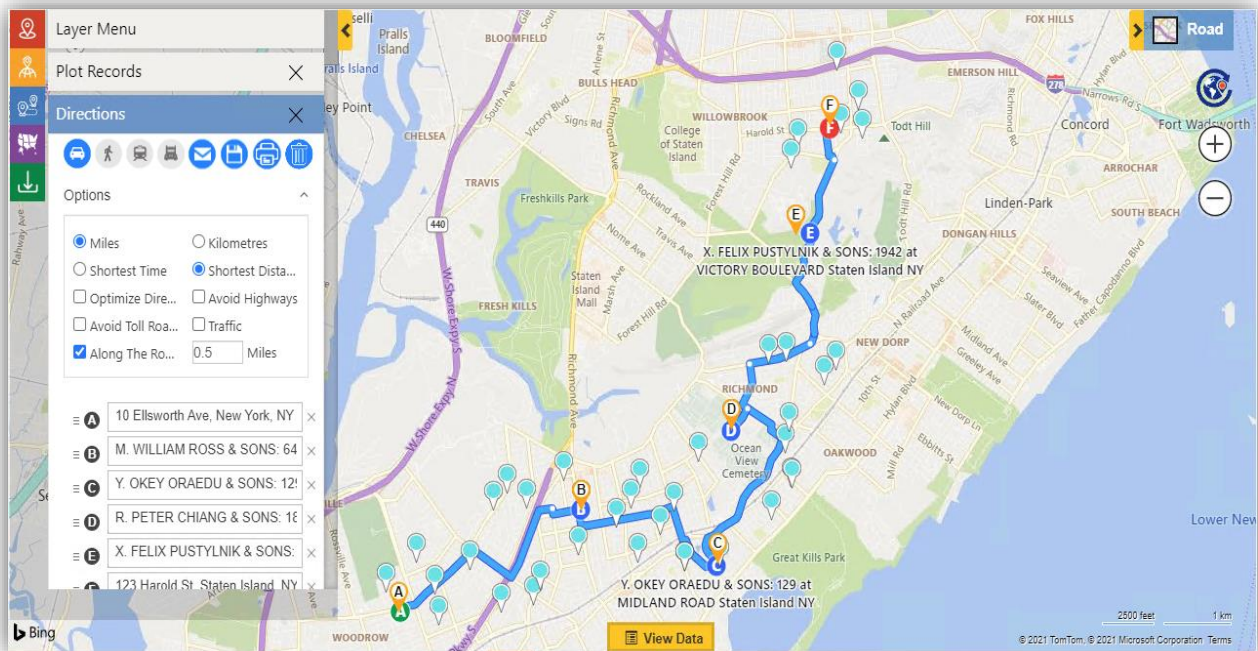
## Along the Route

This feature provides the user the ability to search the records that fall in the defined proximity along the route. The default value for Along the Route search can be configured in the Maplytics Configuration record. This will find all the records with the defined search parameter and that falls in the entered proximity along the route.



**Note:** The user can add the value between 0 – 25. The user can also add decimal values with a scale of 2 for the radius.





The Along the route records is also saved when the user saves the route. However, if the user has selected multiple Datasources on the Plot Card, only the first Entity and View combination in the Select Datasource will be saved for along the route search in the saved route.

If the user has plotted data on the map and opens a saved route that has along the route parameter saved as well:

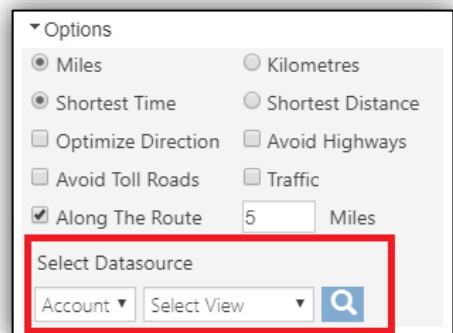
- The user can either click on 'Confirm' to clear the plotted records and search along the route records with the Datasource saved in the route.
- Or, the user can click on 'Cancel' to search along the route records with the existing plotted data, ignoring the Datasource saved in the route.

### Confirm!

This action will clear the plotted records and will plot the Datasource saved in the route. Click 'OK' to continue Or Click 'Cancel' to plot the route using the existing search criteria.

CONFIRM CANCEL

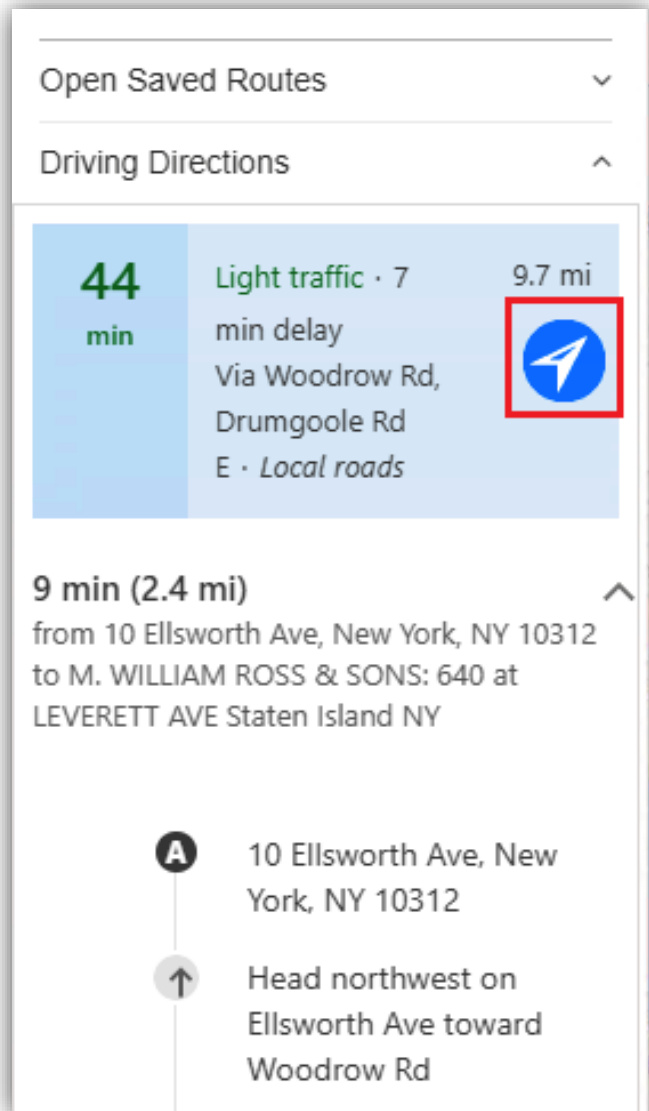
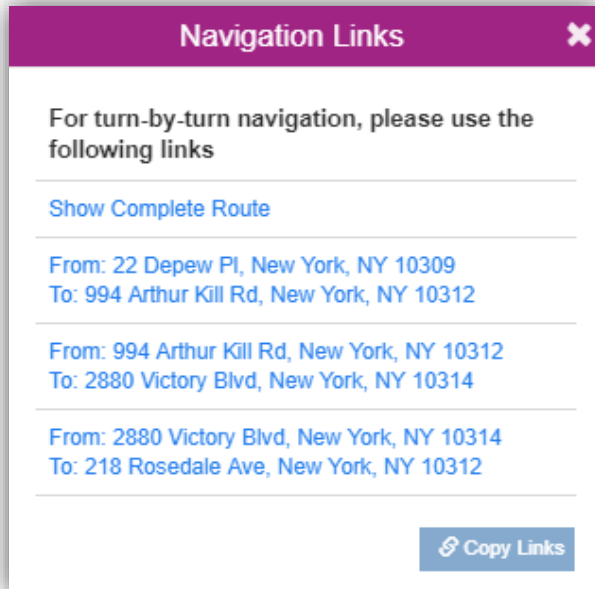
If the user opens the Directions card directly without plotting the data or opens a saved route without the along the route parameter saved, they have the option to select the Datasource for the Along the route search directly on the Directions Card.



## Route Redirect and Copy Route Links

After plotting the route, user can use the 'Redirect' button to open the 'Navigation Links' popup on the browser as well as the Dynamics 365 App for Phones and Tablets.

The user can click on individual links for route navigation from point A – B, B – C, and so on. User can also select the application within the User Configuration record to navigate the route. Refer the section of 'Maplytics Configuration Details (Personalization)' in the installation manual to select the application. These links will redirect the route to the app selected in the configuration.



### Redirect with Google Maps

User can view the turn-by-turn navigations on Google Maps site on desktop and Google Maps App on Phones and Tablets. User can also choose to view the complete route.

**Note:**

- ***The maximum waypoints to show the complete route is 10 waypoints.***
- ***By Default, the navigation will be redirected to Google Maps.***

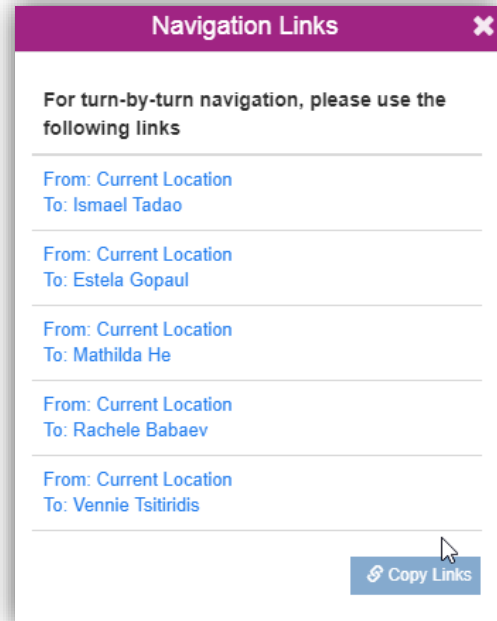
### Redirect with Waze

User can view the turn-by-turn navigations on Waze site on desktop and Waze App on Phones and Tablets. This will show the navigation links from current location to the waypoints.

**Note: The checkpoints should be under 3000 miles from the current location to view routes on Waze.**

### Redirect with Apple Maps

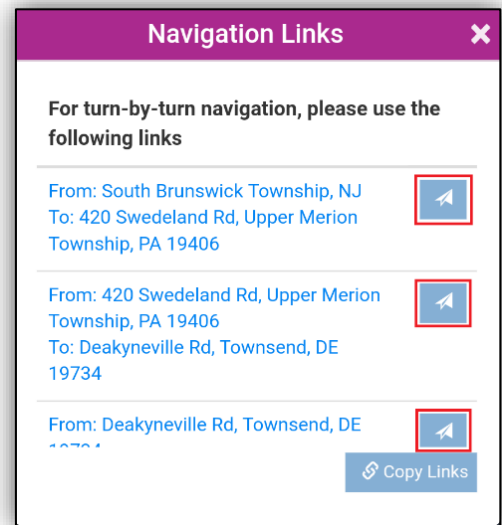
User can view the turn-by-turn navigations on Apple Maps on desktop and Apple Maps on iPhones and iPads. This will show the navigation links from current location to the waypoints.



**Redirection on mobiles:** User can click on the route navigation buttons to redirect to the Google maps/Waze/ Apple Maps. The user can also use the 'Copy Links' button to copy the links to send them as an email or save it into a note.

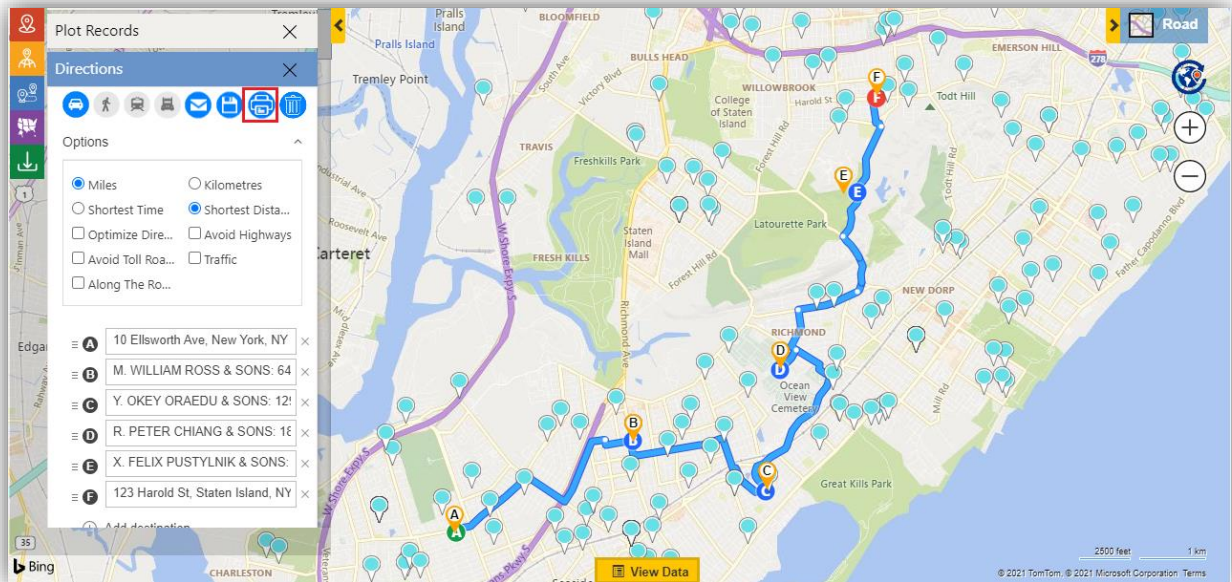
**Note:**

- ***By default, the links will be redirected in Google Maps.***
- ***The links redirect on the Dynamics 365 App for Phones and Tablet works with Dynamics 365 v9.x***
- ***For other devices and Dynamics 365 v8.2, users can use the 'Copy Links' button.***

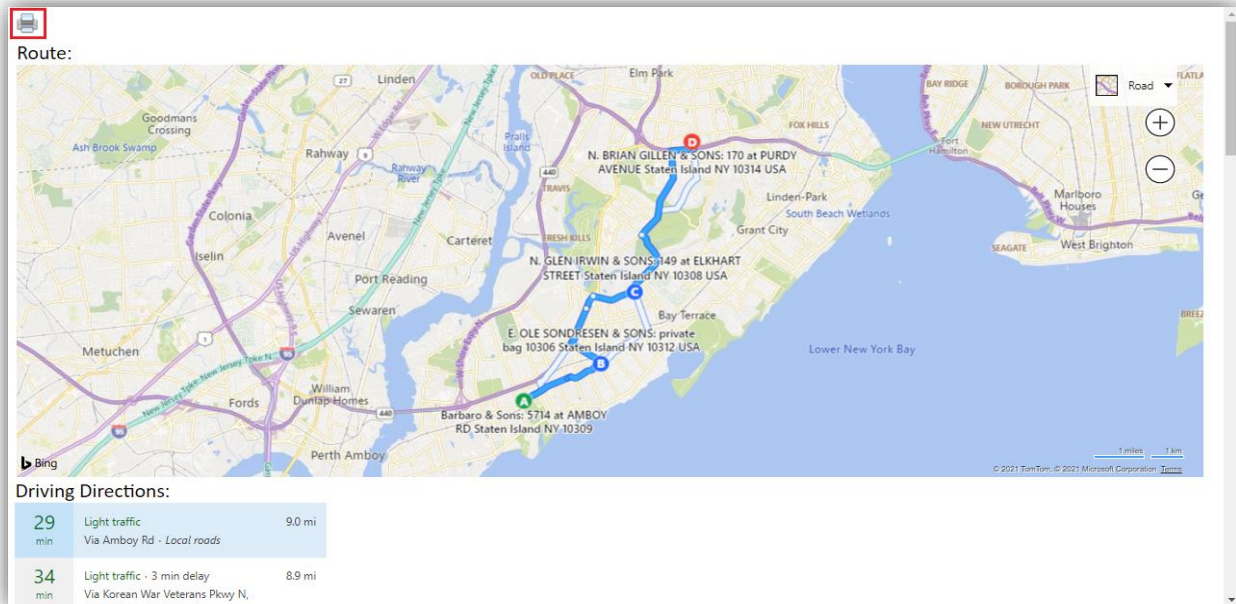


## Print Route

User can print a Route as well as the adjoining Map. User can plot a route on map, click on the 'Print Route' button to print the route. It will also print the Driving Directions as well.



Clicking on the 'Print Route' button will open a new window with the map and Route on the page, which can be seen in the below screenshot. Click on the **Print Icon** to print the map and route instructions.



### Note:

- **Routing requires a minimum of two waypoints provided to create a route.**
- **A4 size paper with landscape mode is recommended while printing.**



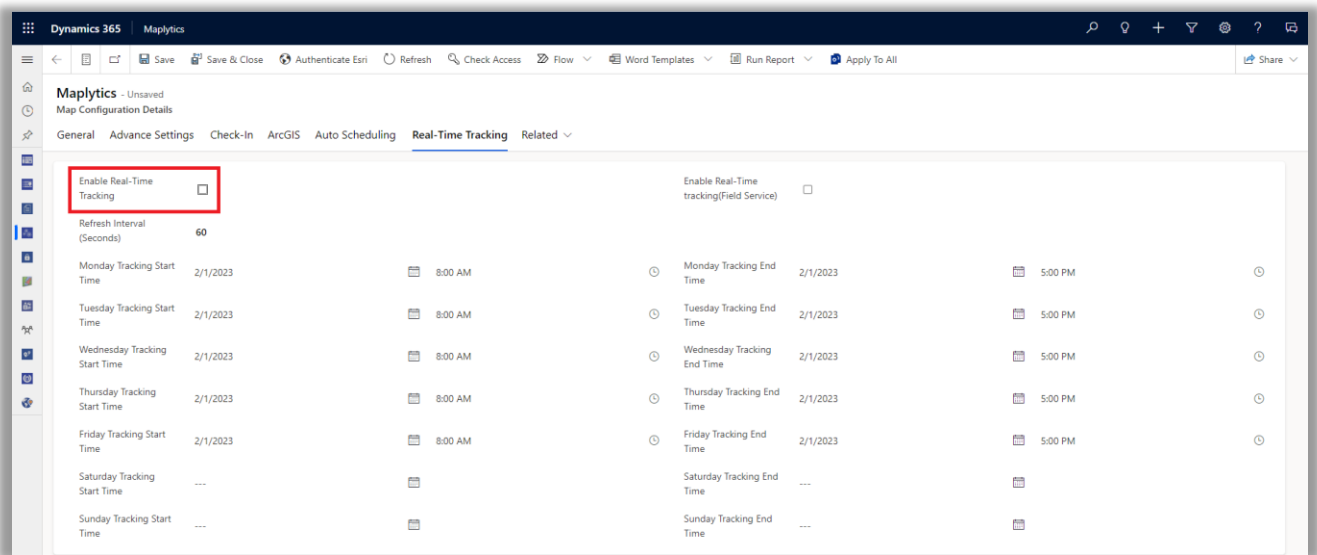
## Proposed and Actual Route Tracking

With Route Tracking, an optimized route can be plotted for a field rep by the Manager. However, in certain situations, the actual route followed by the rep would be different from the plotted one. The rep could have taken an uncommon shortcut, he could have taken a different turn to avoid the highway traffic/accident sight, or may have rushed away in between to address a personal emergency. These actions would take him away from the plotted route and the same can be recorded.

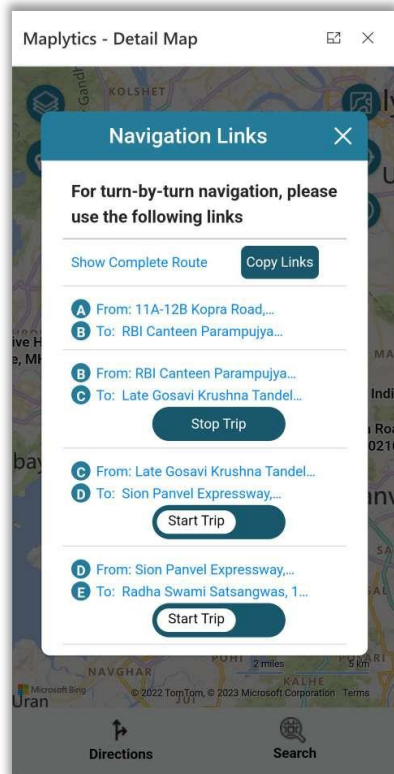
The tracking of the actual route followed could help in analyzing the rep's productivity, the new shortcut if more optimized could be incorporated into the route for the next time, or could give insights about frequent congestion, accident-prone regions, etc.

**Enable Route Tracking:** User needs to enable the Real-Time tracking option for the route followed by the field user to be tracked.

**Maplytics > Settings > Map Configuration Details > Real-Time Tracking**



## Maplytics™ – User Manual



**Start Mobile Tracking:** Within the Maplytics Mobile App, the user can start the tracking for estimated and actual route tracking.

**View Tracked Route:** The user can view the route plotted and followed with a few configuration setup.

**Maplytics > Settings > Routes > Route Entity > Route Activity Waypoints**

Dynamics 365 | Maplytics

Product Demo Feb 2023 - Saved

Route

Normal Priority 2/2/2023 4:30 AM Open Activity Status Sam Patil Owner

General Route Activity Waypoints Route Details Related

Route WayPoints List

| Route Point | Route Options   | Est Travel Distance | Est Travel Time | Start Time              | End Time                | Act Travel Distance | Actual Travel Time |   |
|-------------|---|---------------------|-----------------|-------------------------|-------------------------|---------------------|--------------------|---|
| A           | 11A-12B Kopra Road, Kharghar, Panvel, MH-410210, India                            |                     |                 |                         |                         |                     |                    |   |
| B           | RBI Canteen Parampujya Shree Nilamra Devi Marg, Belapur, Thane, MH-400614, India  | 2.93 mile           | 8 minutes       | 2023-02-01 14:18:23+000 | 2023-02-01 14:18:26+000 | 3.58 mile           | 18 minutes         | → |
| C           | Late Gosavi Krushna Tandel Marg, Nerul, Thane, MH-400706, India                   | 3.76 mile           | 15 minutes      | 2023-02-01 14:20:13+000 | 2023-02-01 14:21:32+000 | 5.24 mile           | 23 minutes         | → |
| D           | Sion Panvel Expressway, Turbhe, Thane, MH-400703, India                           | 4.54 mile           | 13 minutes      | 2023-02-01 14:21:40+000 | 2023-02-01 14:21:53+000 | 6.17 mile           | 30 minutes         | → |
| E           | Radha Swami Satsangwas, 10 Sion Panvel Expressway, Vashi, Thane, MH-400702, India | 1.27 mile           | 4 minutes       | 2023-02-01 14:21:57+000 | 2023-02-01 14:22:06+000 | 2.54 mile           | 9 minutes          | → |
| F           | C/17 Late Masahelo Minatal Thakane Road, Nerul, Thane, MH-400706                  | 4.22 mile           | 15 minutes      | 2023-02-01 14:22:09+000 | 2023-02-01 14:22:17+000 | 6.43 mile           | 42 minutes         | → |
| G           | Nirmal Cooperative Housing Society, Vashi, Thane, MH-400703, India                | 1.96 mile           | 9 minutes       | 2023-02-01 14:22:24+000 | 2023-02-01 14:26:30+000 | 2.67 mile           | 14 minutes         | → |

Clicking on the Blue 'Navigate' Arrow opens up the Detail Map with the route for that particular travel.

Clicking the 'Show Full Route' button opens the Detail Map again with all the routes followed for all the waypoints for the Entity.

# Maplytics™ – User Manual

**Dynamics 365 | Maplytics**

Product Demo Feb 2023 - Saved

Route

Normal Priority 2/2/2023 4:30 AM Open Activity Status Sam Patil Owner

General Route Activity Waypoints Route Details Related

**Route Waypoints List**

| Route Point | Route Options  | Est Travel Distance | Est Travel Time | Start Time              | End Time                | Act Travel Distance | Actual Travel Time |
|-------------|--|---------------------|-----------------|-------------------------|-------------------------|---------------------|--------------------|
| A           | 11A-12B Koppa Road, Kharghar, Panvel, MH-410210, India                             |                     |                 |                         |                         |                     |                    |
| B           | RB Canteen Parampuya Shree Nirmala Devi Marg, Belapur, Thane, MH-400614, India     | 2.93 mile           | 8 minutes       | 2023-02-01 14:18:20+000 | 2023-02-01 14:18:26+000 | 3.58 mile           | 18 minutes         |
| C           | Late Gosavi Krishna Tandel Marg, Nerul, Thane, MH-400706, India                    | 3.76 mile           | 15 minutes      | 2023-02-01 14:20:13+000 | 2023-02-01 14:21:32+000 | 5.24 mile           | 23 minutes         |
| D           | Sion Panvel Expressway, Turbhe, Thane, MH-400703, India                            | 4.56 mile           | 13 minutes      | 2023-02-01 14:21:40+000 | 2023-02-01 14:21:53+000 | 6.17 mile           | 30 minutes         |
| E           | Radha Swami Satsangwadi, 10 Sion Panvel Expressway, Vashi, Thane, MH-400703, India | 1.27 mile           | 4 minutes       | 2023-02-01 14:21:57+000 | 2023-02-01 14:22:06+000 | 2.34 mile           | 9 minutes          |
| F           | C/17 Late Masabho Minatar Thakare Road, Nerul, Thane, MH-400706                    | 4.22 mile           | 15 minutes      | 2023-02-01 14:22:09+000 | 2023-02-01 14:22:17+000 | 6.43 mile           | 42 minutes         |
| G           | Nirmal Cooperative Housing Society, Vashi, Thane, MH-400703, India                 | 1.96 mile           | 9 minutes       | 2023-02-01 14:22:24+000 | 2023-02-01 14:26:30+000 | 2.87 mile           | 14 minutes         |

**Maplytics - Detail Map**

Layer Menu Plot Records Directions Sam Patil

Sam Patil - Today's Plan

Start Time : 2/1/2023 09:38 AM


Total Travel Distance : 35.11 miles

Total Travel Time : 2 hr 21 min

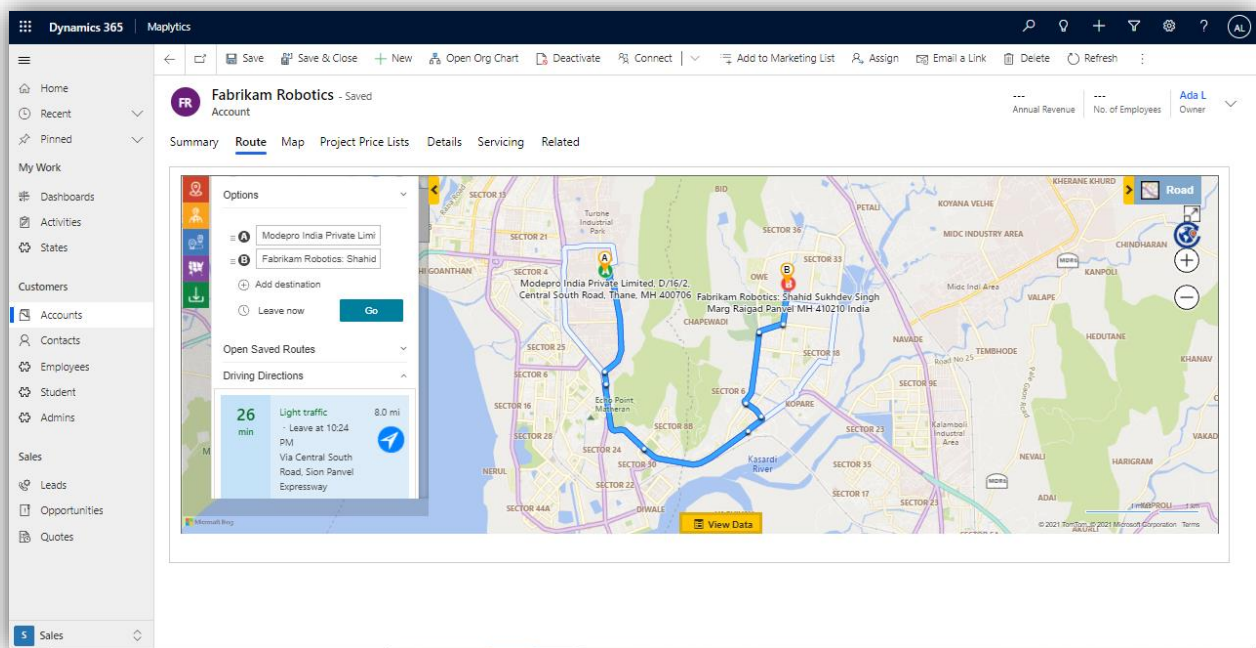
Total Scheduled Appointments : 5

## Route to a record

Users can add the 'Route to a Record' tab to any entity to view the route plotted to a record's location from their current location automatically. If user needs to meet any client, they can open the client's record, go to this tab and view the route to reach the client's location directly. Further, they can click on

the Navigation button  to navigate themselves with the turn-by-turn directions. They can also use the map to perform other Maplytics actions like Along the route, plotting more records etc.

User's location will be represented by 'A' in map, while the record's location will be denoted by 'B'.



**Steps to add 'Route to a Record' tab to an entity form:**

**Go to Settings > Advance Settings > Customize the system > Entities > Account > Main Form > Add a tab.**  
Here we have taken Accounts form for an instance.



**Now select the tab and click on Insert > Add Web Resource (ikl\_/Maplytics/Maplytics.DetailMap.html)**  
The recommended number of rows in formatting is minimum 10.

## Web Resource Properties

Modify this Web resource's properties.

General Formatting Dependencies

Web resource

Web resource \*  ikl\_/Maplytics/Maplytics.DetailMap.html 

Field Name and Properties

Name \*

Label \*

☐ Display label on the Form

Visibility

☒ Visible by default

☒ Enable for mobile

Web Resource Properties

| Custom Parameter(data) | Route |
|------------------------|-------|
|                        |       |

☐ Restrict cross-frame scripting, where supported.

☒ Pass record object-type code and unique identifier as parameters.

OK Cancel



## Auto Scheduling

Auto Scheduling helps users to create an optimized schedule to be followed on the field over a span of days by the concerned field professionals. The user can perform Auto scheduling on the required set of records (e.g., clients) to create Appointments and optimized routes, with the considerations of existing appointments, the preferred days of working, different meeting durations, availability of the selected users etc. This feature will help user to create appointments and optimized routes based on shortest time in order to provide an effective plan, hence saving the time and increasing the field productivity.

Users can contact at [crm@inogic.com](mailto:crm@inogic.com) to get the access of the feature and they will be provided with a Maplytics license with Auto Scheduling enabled into it.

**Note: The visibility of the option of 'Auto scheduling' into Mass Actions will be based on the Maplytics Security Template if any assigned to the user. Please refer to the section of 'Maplytics Security Template'.**

To perform Auto Scheduling user can go to the Mass Actions within the View Data grid. They can plot the Entity records on the map that are needed to be visited and open the 'view data' grid at the bottom to check the number of records plotted on the map and deselect the records that are not required.

**Note: Auto Scheduling can be performed on a maximum of 100 records plotted on the map**

After plotting the required records to be scheduled for, user can Go to **Mass actions > Auto scheduling**. This will consider all the records that are plotted on the map and will proceed to the Auto Scheduling page.

### Auto scheduling card

User can set the basic preferences as per the requirement so as to consider the same while creating a schedule. Users can also have these prefilled by setting default values for the preferences within their Configuration Detail Record. Please refer 'Configuration Detail Record' section Installation Manual to see configuration for Auto Scheduling.

**Consider Existing meetings:** Select this option to consider existing meetings saved in CRM assigned to the selected users.

**Select users:** Select the Maplytics user(s) to create Automated schedule for them. *A maximum of 10 users can be selected to create an automated schedule.*

**Period:** The number of days the schedule should be for. The meetings will be distributed among the number of days selected here. User can choose any one option from the following:

- 1 Day
- 2 Days
- 3 Days
- 4 Days
- 5 Days
- 1 Week
- 2 Weeks
- 3 Weeks
- 1 Month

**Duration:** The time frame required for each meeting. User can choose any one of the following options. User can also change duration for individual meetings in Advanced Preferences. User can further change the duration of individual meetings in the 'Advanced Preferences'.

- 1 Minute
- 5 Minutes
- 10 Minutes
- 15 Minutes
- 20 Minutes
- 30 Minutes
- 45 Minutes
- 60 Minutes
- 75 Minutes
- 90 Minutes
- 120 Minutes

**Start Time:** Time to start the schedule of each day. User can enter the time in 12-hour format (hh:mm)

End Time: Time to end the schedule of each day. User can enter the time in 12-hour format (hh:mm)

Break Time: Starting time of Break for each day. User can enter the time in 12-hour format (hh:mm)

Break Duration: Duration of the break during each day. User can select any one of the following options:

- 0 Minutes
- 5 Minutes
- 10 Minutes
- 15 Minutes
- 20 Minutes
- 30 Minutes
- 45 Minutes
- 60 Minutes
- 75 Minutes
- 90 Minutes
- 120 Minutes

Buffer time: User can add extra time to the schedule as buffer to be used in case of unforeseen situations to avoid changing the schedule.

- 0 Minute
- 5 Minutes
- 10 Minutes
- 15 Minutes
- 20 Minutes
- 30 Minutes

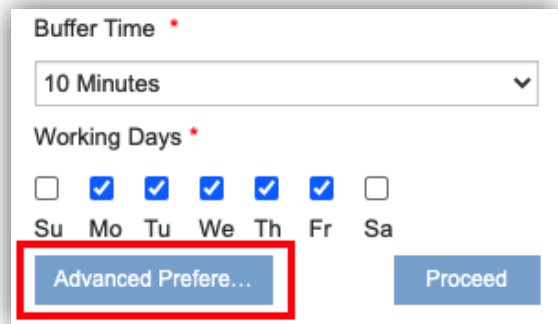
Working days: User can select the days for which the selected users will be working. The meetings will be distributed only within the working days selected here. User can select any day between Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday. *At least one day should be selected.*

**Note:**

- *If the logged-in user has set default values for the preferences in the respective Maplytics Configuration detail record, while opening the Auto scheduling section, the preferences will get prefilled with the same.*
- *If the logged-in user selects any other single user, the preferences will get prefilled if there are default values set in the Maplytics Configuration detail record of the respective selected user.*
- *If the logged-in user selects multiple users, the preferences will get prefilled if there are default values set in the Default Configuration detail record.*

### Advanced Preferences

User can further click on 'Advanced preferences' within the Auto Scheduling card to select further preferences to be considered while creating an automated schedule.



Buffer Time \*

10 Minutes

Working Days \*

☐ Su ☒ Mo ☒ Tu ☒ We ☒ Th ☒ Fr ☐ Sa

Advanced Prefere... Proceed

**Meetings Per Day:** User can select the average meetings that should be scheduled for a day. A minimum of 1 and a maximum of 20 meetings can be selected.

**Continuous Schedule:** Instead of starting the route from the origin every day, if the route should be started on the ending location of the previous day, user can set it as 'Yes'. For example: A user starts the first day from Brookwood in Alabama, USA to follow the route assigned and reaches Alexander city, Alabama which is the destination of the route for the day. Now, if the 'Continuous Schedule' is enabled, the user does not need to go all the way to Brookwood to start the route for the next day, instead the user can directly go to the first appointment scheduled for the second day, from Alexander City itself.

**Reschedule Existing Meetings:** If the option of 'Consider Existing Meetings' has been selected within the Auto scheduling card, then the option of enabling 'Reschedule Existing Meetings' will be available. User can select 'Yes' in order to reschedule existing meetings. This might change the respective owners as well to get the highest optimization. If the existing meetings are needed to be met at the set appointment time, the user should select 'No'.

**Note:** If both Onsite and Offsite existing meetings have been considered, then, enabling reschedule existing meetings will make changes only to the Onsite meetings.

Update Address

Origin \*

221 Brighton Ave, Staten Island, NY 10301, United St

Destination

445 Castleton Ave, Staten Island, NY 10301, United S

OK

### User Details

Selected users will be listed here along with the space provided for the Origin and Destination locations for the same. If the default locations for Origin and Destination are set in the default configuration details of the users, the same will be prefilled here. If not, then user can click on 'Edit' and enter the required locations for Origin and Destination for the respective users. *Location for Origin will be mandatory here.*

User can also uncheck any users in this list if they do not want to create an automated schedule for any user.

| Selected Users                      |         |                              |                              |      |
|-------------------------------------|---------|------------------------------|------------------------------|------|
| <input checked="" type="checkbox"/> | User    | Origin                       | Destination                  |      |
| <input checked="" type="checkbox"/> | Brian L | 221 Brighton Ave, Staten ... | 445 Castleton Ave, State...  | Edit |
| <input checked="" type="checkbox"/> | Missy L | 6581 Hylan Blvd, Staten I... | 48-182 Torrice Loop, Stat... | Edit |
| <input checked="" type="checkbox"/> | Olli L  | 345 Cole St, Staten Islan... | 106 Alverson Ave, Staten...  | Edit |



## Meeting Details

The details of the records selected to create the schedule will be listed here. Users can also deselect any record if they do not want to add the record to be considered while creating the schedule.

User Details
Meeting Details
Existing Meetings

| <input checked="" type="checkbox"/> | Duration(M) | Account Name    | Main Phone  | Address 1: City | Primary Contact | Email |
|-------------------------------------|-------------|-----------------|-------------|-----------------|-----------------|-------|
| <input checked="" type="checkbox"/> | 30          | I. SANDI HAC... | 33750490760 | Staten Island   |                 |       |
| <input checked="" type="checkbox"/> | 30          | K. FRANK QU...  | 24466139806 | Staten Island   |                 |       |
| <input checked="" type="checkbox"/> | 30          | L. DANIEL O'... | 37737519342 | Staten Island   |                 |       |
| <input checked="" type="checkbox"/> | 30          | N. ADRIAN FI... | 12770700146 | Staten Island   |                 |       |
| <input checked="" type="checkbox"/> | 30          | N. JOHN BRE...  | 19025268787 | Staten Island   |                 |       |
| <input checked="" type="checkbox"/> | 30          | N. NORMAN ...   | 16758268417 | Staten Island   |                 |       |
| <input checked="" type="checkbox"/> | 30          | N. NYRON H...   | 26401356824 | Staten Island   |                 |       |

Page 1 of 1
50
Displaying 1 to 10 of 10 items.

User can also click on the individual duration of meetings to change it for the respective meetings as well as enter a value in the blank space to filter the data based on the entered value. In the below screenshots the data has been filtered by meetings with the duration of 30 minutes and city Staten Island. User can filter the data for with the values for other columns as well.

User Details
Meeting Details
Existing Meetings

| <input checked="" type="checkbox"/> | Duration(M) | Account Name   | Main Phone  | Address 1: City | Primary Contact | Email |
|-------------------------------------|-------------|----------------|-------------|-----------------|-----------------|-------|
| <input checked="" type="checkbox"/> | 30          |                |             | Staten Island   |                 |       |
| <input checked="" type="checkbox"/> | 30          | N. ADRIAN F... | 12770700146 | Staten Island   |                 |       |
| <input checked="" type="checkbox"/> | 30          | N. JOHN BR...  | 19025268787 | Staten Island   |                 |       |

## Existing meetings

If user has selected 'Consider Existing Meetings' in the Auto Scheduling card, the Appointments, Bookable resource bookings etc. saved in CRM owned by the selected users will be listed here. User can also change the Meeting type of Onsite meetings to Offsite. They can further deselect the listed meetings or Activities they do not want to consider and also filter the meetings based on specified values. User can choose one among the options under 'Select Meeting', i.e. All Meetings, Appointments, Service activities or Bookable resource bookings to view the same in the list below that. Admins can also select the Activities within the Default Configuration Detail records that are needed to be considered here while Considering Existing Meetings.

User Details

Meeting Details

Existing Meetings

✕

Select Meeting

All

▼

| <input checked="" type="checkbox"/> | Subject/ | Regardir | Owner   | Resourc | Start Time       | End Time         | Duration | Activity 1 | Meeting |
|-------------------------------------|----------|----------|---------|---------|------------------|------------------|----------|------------|---------|
| <input checked="" type="checkbox"/> | Pho...   | N. A...  | Brian L |         | 2023/01/09 10... | 2023/01/09 10... |          | Pho...     | Offsite |
| <input checked="" type="checkbox"/> | App...   | Test ... | Brian L |         | 2023/01/09 1:... | 2023/01/09 3:... | 90       | App...     | Onsite  |
| <input checked="" type="checkbox"/> | App...   | Test ... | Brian L |         | 2023/01/09 3:... | 2023/01/09 4:... | 90       | App...     | Onsite  |
| <input checked="" type="checkbox"/> | App...   | Test ... | Brian L |         | 2023/01/10 1:... | 2023/01/10 3:... | 90       | App...     | Onsite  |
| <input checked="" type="checkbox"/> | App...   | Test ... | Brian L |         | 2023/01/10 3:... | 2023/01/10 4:... | 90       | App...     | Ons ▼   |

Page 1 of 1

50

Displaying 1 to 12 of 12 items.

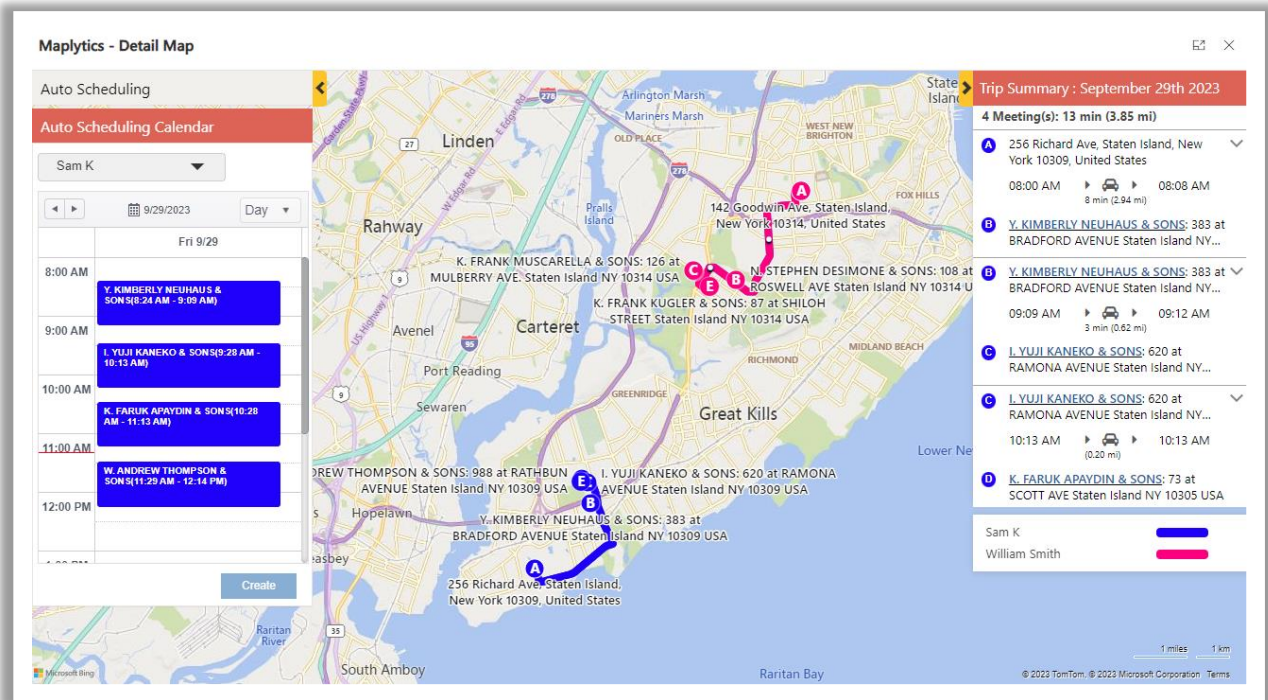
Onsite

Offsite

Once the User clicks on 'Proceed' a route based on user/resource selected will get planned and a schedule will be displayed on the calendar along with the plotted routes on map and a trip summary will get displayed for first day schedule.

Consider a field rep, Mark, representing a pharmaceutical brand utilizing the schedule for his business trip. An Auto-Scheduling Calendar along with a Trip Summary Panel and a map with the travel route on it makes understanding the planned schedule easier for him. The resource legend is maintained the same for the route, the meeting details, and the trip summary. This makes visualization quick, especially for the users on the go. Mark can also get a quick access to the navigation directions and be aware of his next destination, in advance. He has the knowledge of the total distance he would be traveling in a day or every day for a week and also the total time of this travel. Overall, Mark will be better equipped with a proper plan, directions, and be punctual for the meetings.

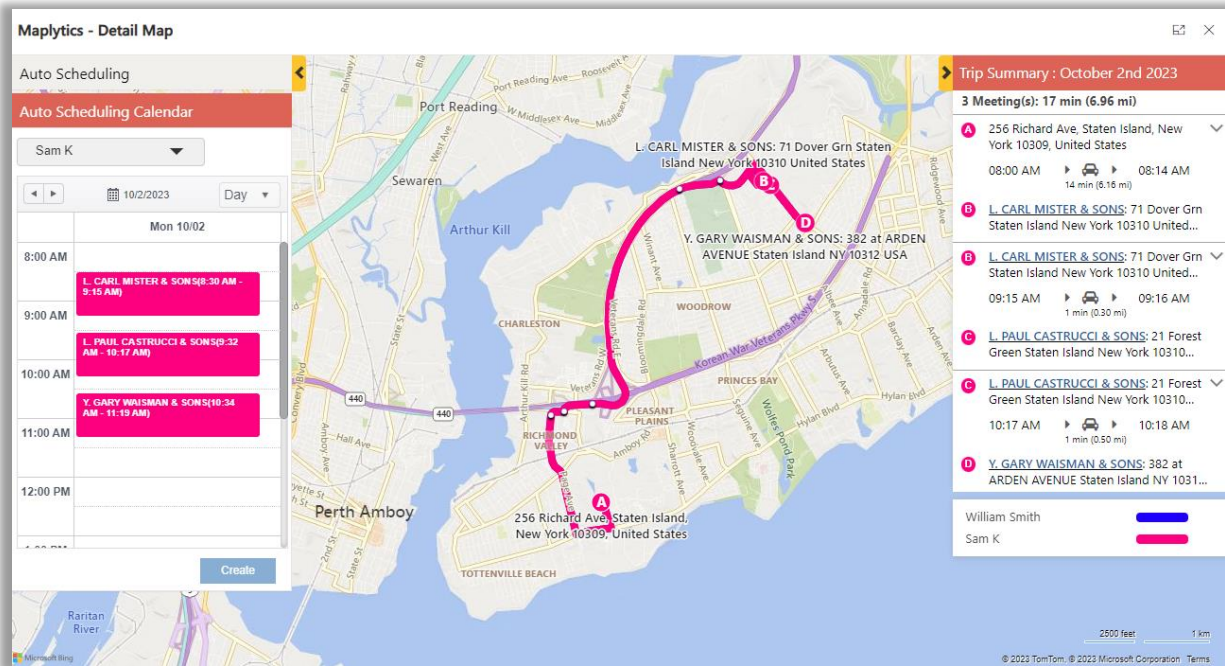
## Maplytics™ – User Manual



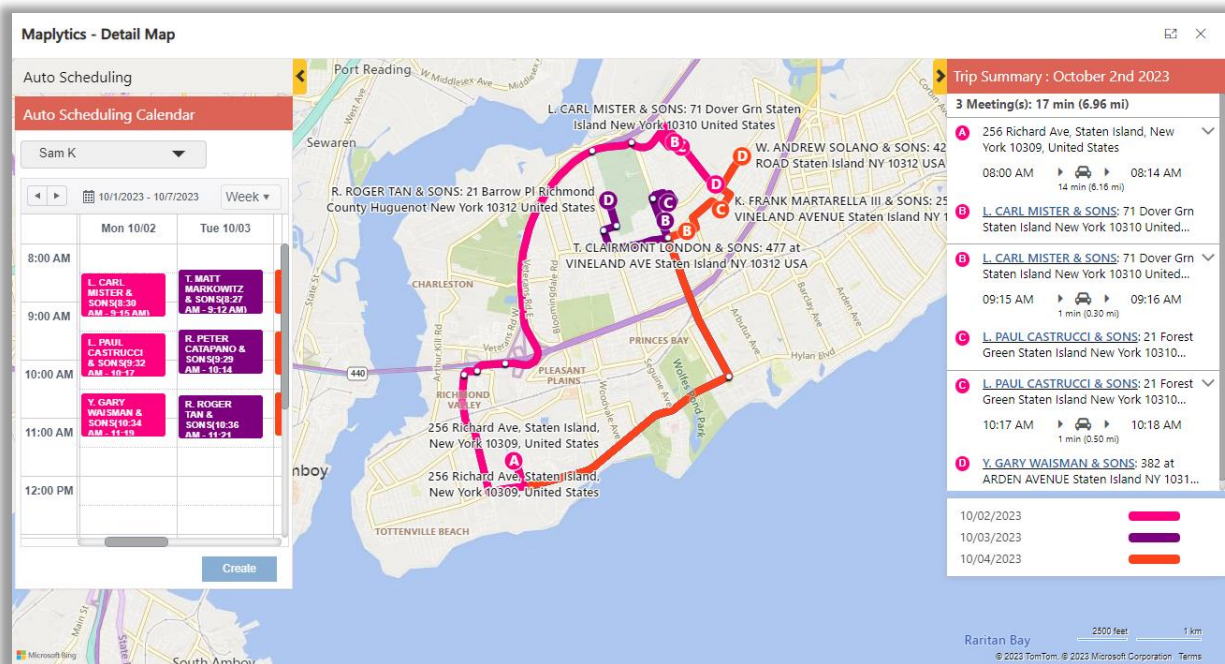
### Auto-Scheduling Calendar-

The Auto-Scheduling Calendar on the left shows the schedule for the day/week of different users. Each individual user can be selected and an optimized schedule for them will be displayed. The meeting details as well as the allotted time slots can be viewed. The user can choose from the drop-down option available on the tool bar of the Calendar panel and view the schedule for day/week. An optimized route corresponding to the schedule in the calendar is plotted over the map. Every user is automatically assigned a specific route legend and the route is displayed in user specific colors for easy readability.

## Maplytics™ – User Manual



Though the map has routes plotted for all the users in the calendar, the route for the user currently selected is zoomed in the map view.



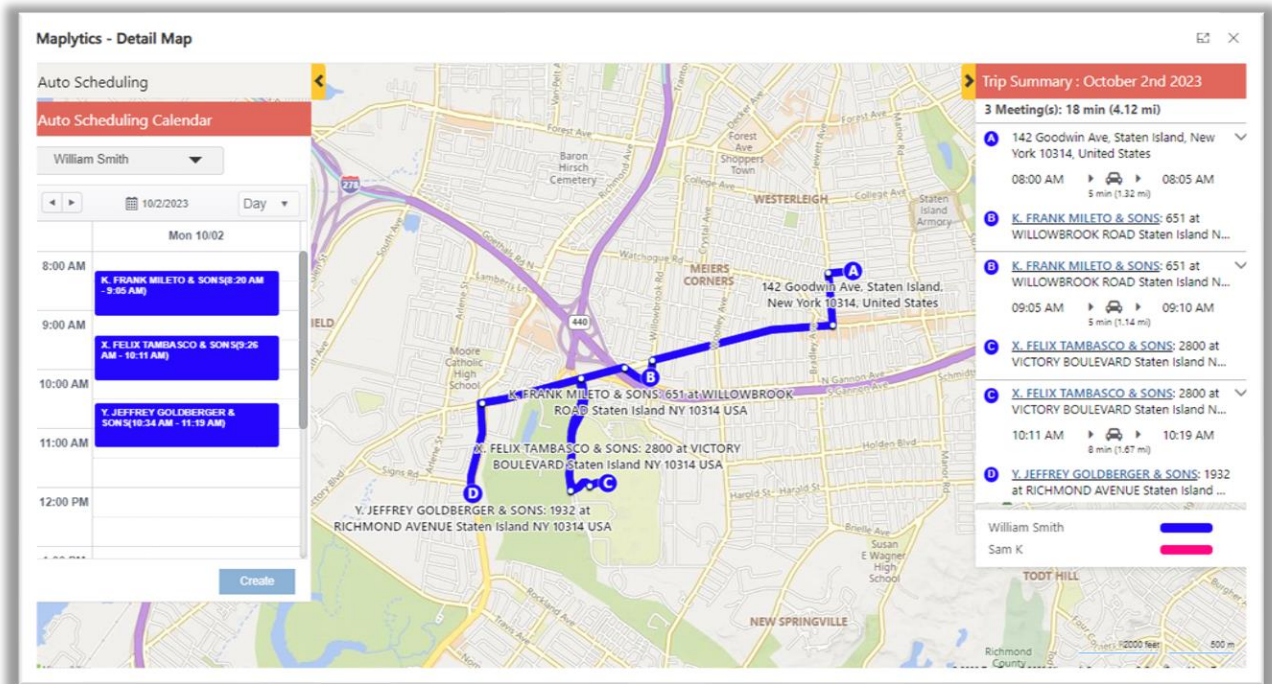
In case of display being selected for weeks, the scheduling calendar shows all the meetings and their timeslots for all the days of the week. The days with no meetings are blank. All the days of the week and



## Maplytics™ – User Manual

the routes on the map follow the route legend. The optimized routes for all the meetings of the week can be seen on the map and the route legend aids in day-to-day differentiation.

**Note: The default view of the meetings and the route is of the first user added to the list**



### Trip Summary-

The Trip Summary panel on the right shows the scheduled meetings for the day for the selected user. It includes information about the origin and destination. The destination is assigned to the record that is hosting the meeting.

For instance, if the first meeting starting at 8 AM requires the user to start from his office, the office location (A) would become the origin and the meeting location (B) would be the destination. For the next meeting, the first meeting location (B) would then become the origin and the next meeting location (C) would be the destination. This pattern continues throughout for all the scheduled meetings.

The total number of meetings of the day, total time taken to travel to each of those meetings and all the meetings of the day, the total distance traveled for individual meetings and all the meetings scheduled is all shown on this panel.

The origin and the destination of the multiple meetings are denoted by alphabets which are referenced on the route map as well. In case of a day's view, the route legend at the bottom shows the color codes for different users.



# Maplytics™ – User Manual

## Trip Summary : January 16th 2023

**H** From **L. DANIEL O'CONNOR & SONS:** 33 at COLLEGE AVENUE Staten Island NY...  
**I** To **N. NORMAN LOK & SONS:** 78 at GERARD STREET Staten Island NY 1030...  
21 min (13.84 mi)

**H**

- 0.07 mi Head east on College Ave toward Brookside Ave
- 0.08 mi Bear right onto Brookside Ave, then immediately bear left onto Martling Ave
- 0.74 mi Turn right onto Slosson Ave
- 0.07 mi Turn right onto N Gannon Ave toward Goethals Brg / Staten Island Expy W
- Take the ramp on the left for I-278 West

Missy L

Turn-by-turn navigation directions can be seen when clicked on the down arrow below a meeting slot.

Maplytics - Detail Map

Auto Scheduling

Auto Scheduling Calendar

Missy L

<

>

1/15/2023 - 1/21/2023

Week

|          | Mon 1/16   | Tue 1/17                                      |
|----------|--|---|
| 8:00 AM  | R. AMADOR PONS & SONS 9:00 AM - 9:15 AM          | K. FRANK QUATELA & SONS 9:00 AM - 9:15 AM     |
| 9:00 AM  |  |   |
| 10:00 AM | S. CHARLES JOHNSON III & SONS 9:30 AM - 10:30 AM | N. NYRON HALL & SONS 9:30 AM - 10:47 AM       |
| 11:00 AM | N. STEPHEN DIGIUSEPPI & SONS 11:00 AM - 12:24 PM | N. JOHN BREDEHORST & SONS 11:00 AM - 12:21 PM |
| 12:00 PM |  |   |

Create

Trip Summary : January 16th 2023

3 Meeting(s): 16 min (3.19 mi)

A

From 53 Penbrooke Ave, Staten Island, NY 10301, United States

To R. AMADOR PONS & SONS: 256 at MORRISON AVE Staten Island NY 1031...

7 min (1.38 mi)

B

From R. AMADOR PONS & SONS: 256 at MORRISON AVE Staten Island NY...

To S. CHARLES JOHNSON III & SONS: 35 at FAIRWAY LANE Staten Island NY...

5 min (0.99 mi)

C

From S. CHARLES JOHNSON III & SONS: 35 at FAIRWAY LANE Staten Island NY...

To N. STEPHEN DIGIUSEPPI & SONS: 29 at BROOKS POND PLACE Staten Island...

3 min (0.82 mi)

1/16/2023

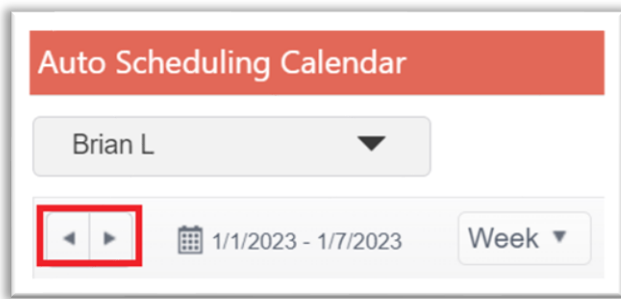
1/17/2023

1/18/2023

In case of display being selected for a week, the trip summary is displayed for the first scheduled day. The route legend for the next scheduled days of the week is shown at the bottom. When the user manually clicks on the next scheduled day of the week in the calendar, the corresponding trip summary of that scheduled day is seen with total travel time and distance for the selected user.

***Note: A change in the Entity Map shall reflect a change in the Title Attribute given to the destination***

### Calendar Navigation Buttons



Users can use the Next- Previous calendar navigation buttons to view the schedule for the next day of the week for a user. The same buttons can be used to see the schedule for the next week in case the weekly schedule is being viewed.

Users can scroll through the meetings of the day displayed in the Scheduling calendar with the scroll bar at the side. They can use the scroll bar at the bottom to scroll through all the meetings of the week while viewing a weekly display.

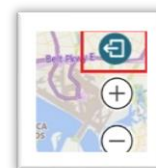
## Create Activities

User can save the schedule as Routes and Activities in the Dynamics 365 using 'Create' button. The user can create the following activities:

- Appointments
- Service Activities
- Bookable Resource Bookings

User can also select the option of 'Create Route(s)' in order to save the planned routes into 'Route' Activity Entity.

**Note:** To make the option of Bookable resource booking visible, user needs to enable the OOB or any custom entity to create the bookable resource bookings.



Go to Detail Map: Using this button, user can go back to the Detail map

**Note:** All the scheduled data will be cleared, if 'Go to Detail Map' button will be used. To save the schedule created, user can use the option of 'Create activities'.

## Configuration Details for Auto Scheduling

System admin and Maplytics admin can set the default settings for Auto Scheduling in the Default Maplytics Configuration Detail record. They can also set the start time as the default start time for the first activity as well as default values for other preferences for Auto Scheduling.

***Go to Maplytics App > Settings > Maplytics Configuration Details > Default Configuration details record for the user > Auto Scheduling***

Maplytics - Saved

Map Configuration Details

General
Advance Settings
Check-In
ArcGIS
Auto Scheduling
Real-Time Tracking
Related

|                            |                                     |                                       |                                     |
|----------------------------|-------------------------------------|---------------------------------------|-------------------------------------|
| Start Time                 | 8:00 AM                             | End Time                              | 5:00 AM                             |
| Period                     | 3 Day                               | Duration                              | 75 Minutes                          |
| Break                      | 1:00 PM                             | Break Duration                        | 60 Minutes                          |
| Buffer Time                | 15 Minutes                          | Round Time                            | No                                  |
| Schedule Existing Meetings | <input checked="" type="checkbox"/> | Schedule first activity at start time | <input checked="" type="checkbox"/> |

Maplytics - Saved

Map Configuration Details

General
Advance Settings
Check-In
ArcGIS
Auto Scheduling
Real-Time Tracking
Related

Working Days

|     |                                     |     |                                     |
|-----|-------------------------------------|-----|-------------------------------------|
| Mon | <input checked="" type="checkbox"/> | Tue | <input checked="" type="checkbox"/> |
| Wed | <input checked="" type="checkbox"/> | Thu | <input checked="" type="checkbox"/> |
| Fri | <input checked="" type="checkbox"/> | Sat | <input type="checkbox"/>            |
| Sun | <input type="checkbox"/>            |     |                                     |

Admins can also select the Activities that are needed to be considered while Considering Existing Meetings in Auto Scheduling. If no Activities are selected here Auto Scheduling will consider all the Activities while



## Maplytics™ – User Manual

Considering Existing Meetings. If Admins have selected Activities here then only selected activities will be considered while Considering Existing Meetings in Auto Scheduling.

Maplytics - Saved

Map Configuration Details

General

Advance Settings

Check-In

ArcGIS

Auto Scheduling

Real-Time Tracking

Related

▼

Auto Schedule Activities Configuration

Select Entity

Select Entity

Select View

Add

| Entity Name | Entity View      | Remove |   |
|-------------|------------------|--------|---|
| Phone Call  | All Phone Calls  | ×      | ▲ |
| Task        | All Tasks        | ×      |   |
| Appointment | All Appointments | ×      | ▼ |

Users can also set the default settings for Auto Scheduling in their respective Maplytics Configuration Detail record. **Go to Maplytics App > Settings > Maplytics Configuration Details > Configuration details record for the user > Auto Scheduling**

Maplytics - Saved

Map Configuration Details

General

Auto Scheduling

Real-Time Tracking

Related

▼

|             |            |                |            |
|-------------|------------|----------------|------------|
| Start Time  | 8:00 AM    | End Time       | 7:00 PM    |
| Period      | 5 Day      | Duration       | 60 Minutes |
| Break       | 1:00 PM    | Break Duration | 30 Minutes |
| Buffer Time | 15 Minutes | Round Time     | No         |

Maplytics - Saved

Map Configuration Details

General

**Auto Scheduling**

Real-Time Tracking

Related ▾

Working Days

|     |                                     |     |                                     |
|-----|-------------------------------------|-----|-------------------------------------|
| Mon | <input checked="" type="checkbox"/> | Tue | <input checked="" type="checkbox"/> |
| Wed | <input checked="" type="checkbox"/> | Thu | <input checked="" type="checkbox"/> |
| Fri | <input checked="" type="checkbox"/> | Sat | <input type="checkbox"/>            |
| Sun | <input type="checkbox"/>            |     |                                     |

**Note: Create Activities for Custom Entity:**

- **A custom entity should be linked to any OOB Entity into Entity Maps in order to Create Activities for the Entity**

## Frequency Detail Feature

With the traditional Auto Scheduling feature, the appointments for the working days at regular time slots are scheduled. An enhancement to its functionality is offered in the form of a Frequency Detail Feature. Suppose Jack, the sales manager at a pharma company is in charge of scheduling the weekly appointments for all his sales reps using Maplytics. It is easy to schedule regular appointments with Auto Scheduling but how can it be managed when certain clients are available only for a few days of the week and within fixed timeslots? Frequency Detail Feature would be helpful then. Using this feature, Jack would be able to schedule appointments for his on-field reps according to the availability of the clients at multiple locations.

### Adding Client Frequency Details

To avail Client Frequency Details option, the checkbox for 'Enable Meeting Frequency' needs to be checked. The user can go to **Settings > Default Maplytics Configuration Details > Auto Scheduling Tab** and check on it.

Follow the [link](#) for the detailed steps or check the **Configuration Details** section ahead

To begin the process of scheduling according to the clients' availability, the user needs to add the available days and time slots of the clients for appointments. For this, the Entity on which Auto Scheduling is to be performed needs to be considered. The records that have a selective availability need to be worked upon.

## Maplytics™ – User Manual

The screenshot displays the Maplytics interface within the Dynamics 365 environment. The top navigation bar includes options like 'Save', 'Save & Close', 'New', 'Maplytics', 'Open org chart', 'Deactivate', 'Connect', 'Add to Marketing List', 'Assign', and 'Share'. The main header shows the client 'D. LENFORD PINNOCK & SONS' with an annual revenue of \$2,031,833.00 and 1,595 employees. The 'Auto Scheduling' tab is active, showing a table for frequency details. The table has columns for days of the week, checkboxes, and time slots. The 'Frequency (days)' field is set to 7. The 'Save' button is visible at the bottom of the table.

| Frequency Detail | Day | Check                               | Time Slot 1 | Time Slot 2 |
|------------------|-----|-------------------------------------|-------------|-------------|
| Sunday           |     | <input type="checkbox"/>            |             |             |
| Monday           |     | <input type="checkbox"/>            |             |             |
| Tuesday          |     | <input type="checkbox"/>            |             |             |
| Wednesday        |     | <input type="checkbox"/>            |             |             |
| Thursday         |     | <input checked="" type="checkbox"/> | 14:00       | 17:00       |
| Friday           |     | <input checked="" type="checkbox"/> | 14:00       | 17:00       |
| Saturday         |     | <input checked="" type="checkbox"/> | 14:00       | 17:00       |
| Frequency (days) |     | 7                                   |             |             |

Suppose we are performing Auto Scheduling on the Accounts Entity. Within the Client record, the User would go to the Auto Scheduling tab which is a PCF Control.

**Follow the [link](#) to understand the steps to add PCF Control or follow the Configuration Details section ahead**

### Accounts> Client Record> Auto Scheduling

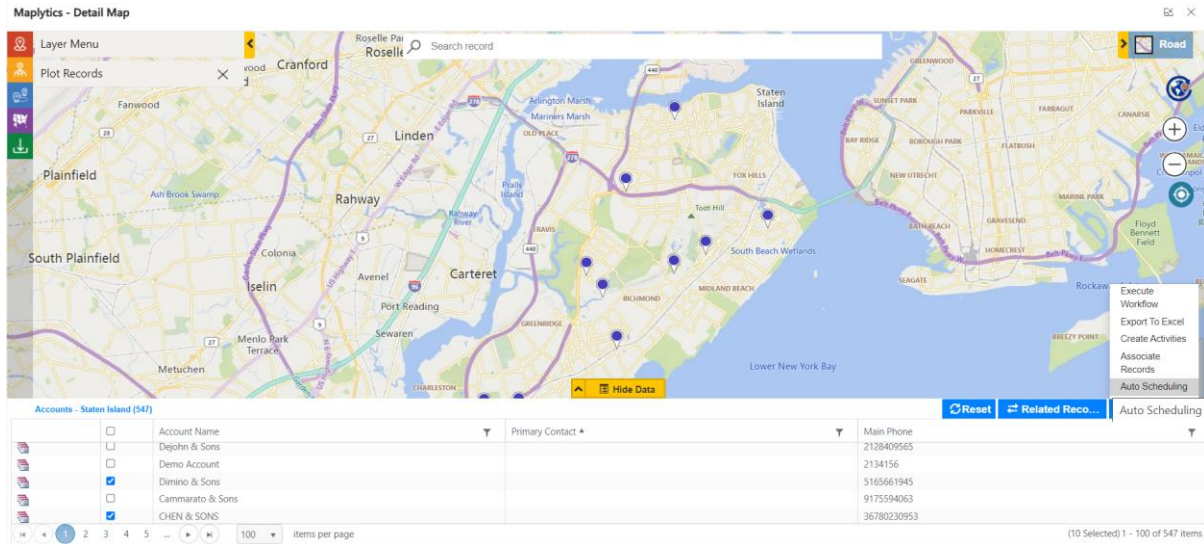
There he would fill in the frequency detail of working days of the week and the corresponding work time slots the client would be available for. The user will have to repeat it for all the records that have an availability constraint.

Certain records may not have this constraint, so, during the final scheduling process, the records with defined frequency details would be plotted on priority and the open slots would be filled in with records without any availability constraint.

**Note: The existing client records of the CRM that have an availability constraint, need to be updated with these details. The newly added records can be updated at the time of creation. Certain accounts may not have availability constraints and can be left as is.**

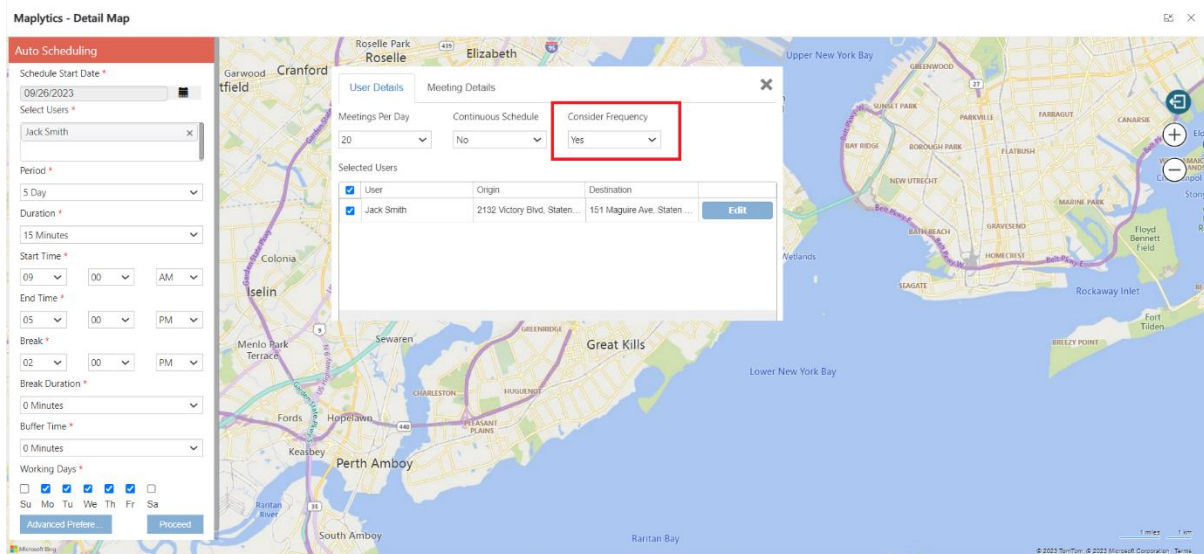
Once done, the standard Auto Scheduling process as described above can be followed where the user can go to the Mass Actions within the View Data Grid and select the Auto Scheduling option.

## Maplytics™ – User Manual



### Auto Scheduling Card

The appointment Scheduler/ Admin can select the user to be scheduled. Start and End locations can be provided as before.

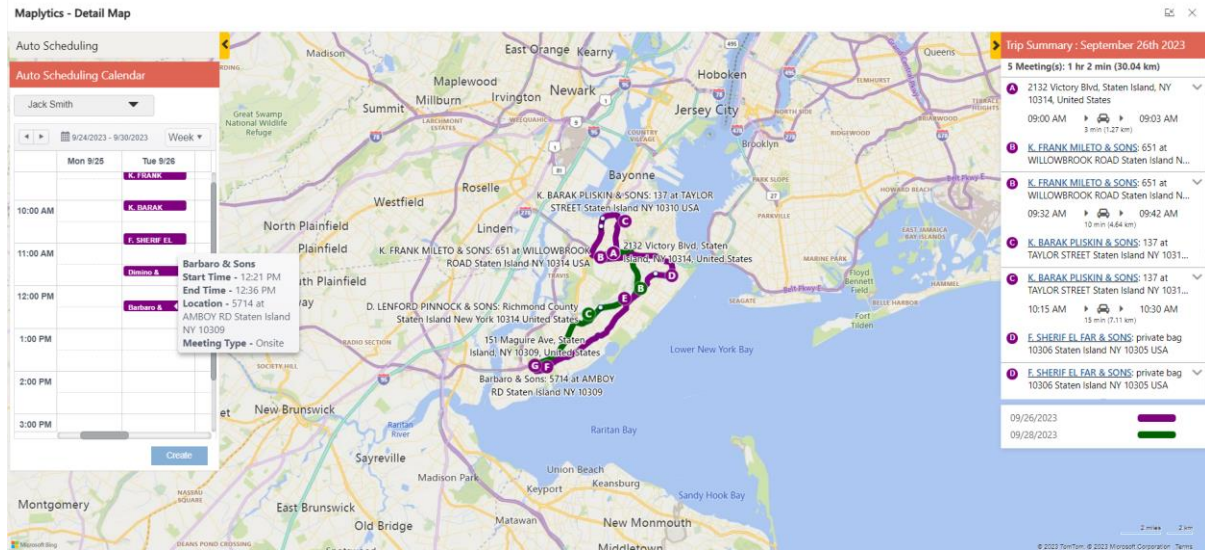


With the Frequency Detail Feature, an additional slot of **Consider Frequency** gets added in User Details. If the Frequency Detail feature is enabled in the configuration, as seen above, the slot will be 'Yes' by default, else it'll appear as 'No'. In case the slot is 'No' the traditional Auto Scheduling process with no Frequency Details added can be carried out.

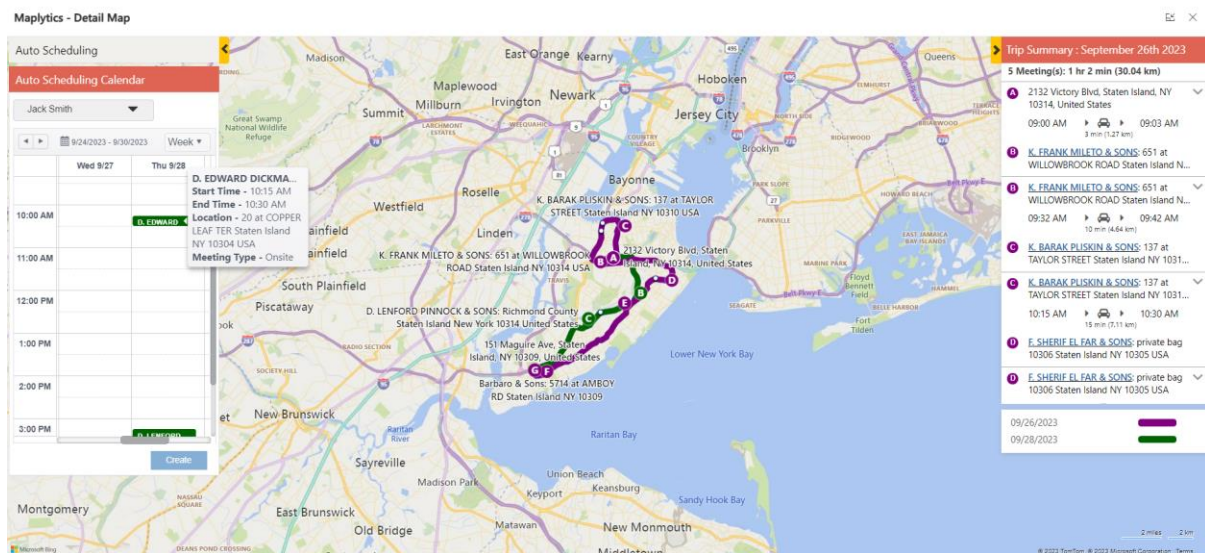
Once done, the Scheduler/ Admin can specify the Start Time and End Time, like the traditional Auto Scheduling Process, and Proceed.



# Maplytics™ – User Manual



Thus, a proper Appointment Schedule shall be created with the Frequency Details specified for the client records taken into consideration.



For two of the records available only on Thursday, the appointment gets scheduled on Thursday within the working/available time slot.

## Recursive Scheduling with Frequency Detail Feature

Let us consider a situation Jack, our Pharma Sales Manager has while scheduling his field sales reps. Certain clients' of Jack's company reorder their standard orders every 7 days. Some patients who directly buy from the company place this order every 10 days. Thus, scheduling the same set of appointments every few days is added work for Jack. Besides, at times the patients fail to place these reorders although they need the new stock of medicines impacting their treatments. In addition, the clients could also have availability constraints for delivery. Thus, to solve both situations, Jack and others like him can refer to the Recursive Scheduling form within the Frequency Detail Feature.



## Adding Frequency Details for Recursive Scheduling

| Frequency Detail | Sunday                   | Monday                              | Tuesday                  | Wednesday                           | Thursday                            | Friday                              | Saturday                 |
|------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|
|                  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
|                  |                          | 08:00                               |                          | 10:00                               | 10:00                               | 07:00                               |                          |
|                  |                          |                                     |                          |                                     |                                     |                                     |                          |
|                  |                          |                                     |                          |                                     |                                     |                                     |                          |
|                  |                          |                                     |                          |                                     |                                     |                                     |                          |
|                  |                          |                                     |                          |                                     |                                     |                                     |                          |
|                  |                          |                                     |                          |                                     |                                     |                                     |                          |
| Frequency (days) | 7                        |                                     |                          |                                     |                                     |                                     |                          |

Save

Last Schedule Date: ---

Next Schedule Date: ---

Schedule Status: ---

Priority: ---

While adding the Frequency Details for an Account Entity, the user could specify the number of days after which the appointment needs to be rescheduled. In Jack's case, this appointment would be of his sales rep going in to deliver the same medicine order. If the frequency is set to 7 days, the appointment shall be rescheduled every 7 days while setting up the appointment for weeks/month.

| Frequency Detail | Sunday                   | Monday                   | Tuesday                             | Wednesday                | Thursday                            | Friday                   | Saturday                 |
|------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|
|                  | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|                  |                          |                          | 09:00                               |                          | 09:00                               |                          |                          |
|                  |                          |                          |                                     |                          |                                     |                          |                          |
|                  |                          |                          |                                     |                          |                                     |                          |                          |
|                  |                          |                          |                                     |                          |                                     |                          |                          |
|                  |                          |                          |                                     |                          |                                     |                          |                          |
|                  |                          |                          |                                     |                          |                                     |                          |                          |
| Frequency (days) | Frequency (days)         |                          |                                     |                          |                                     |                          |                          |

Save

Last Schedule Date: 9/26/2023

Next Schedule Date: ---

Schedule Status: Yes

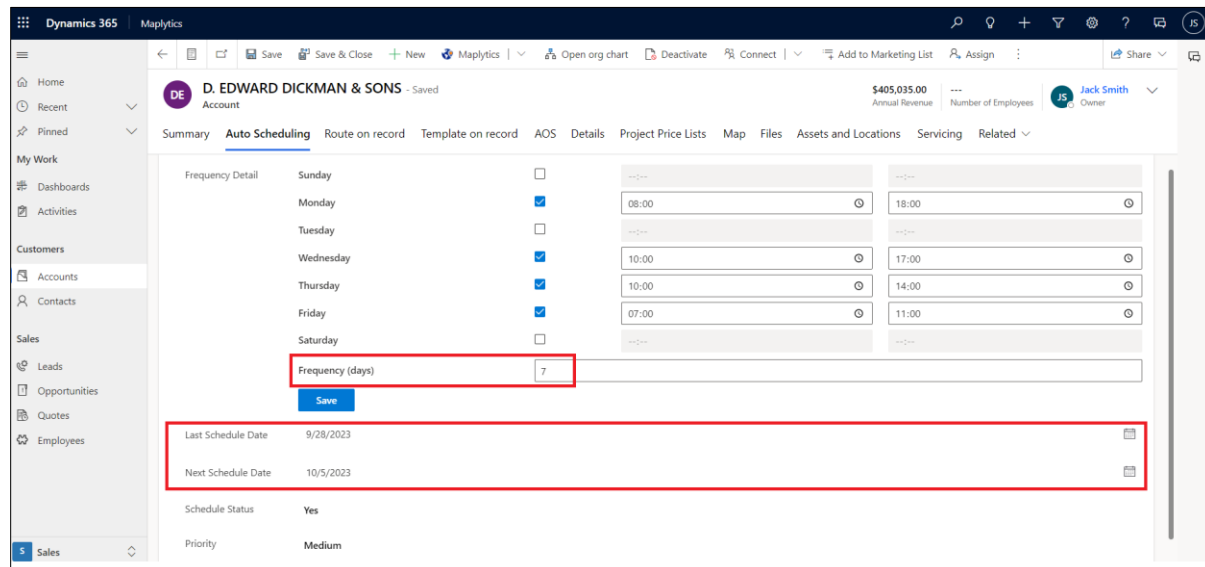
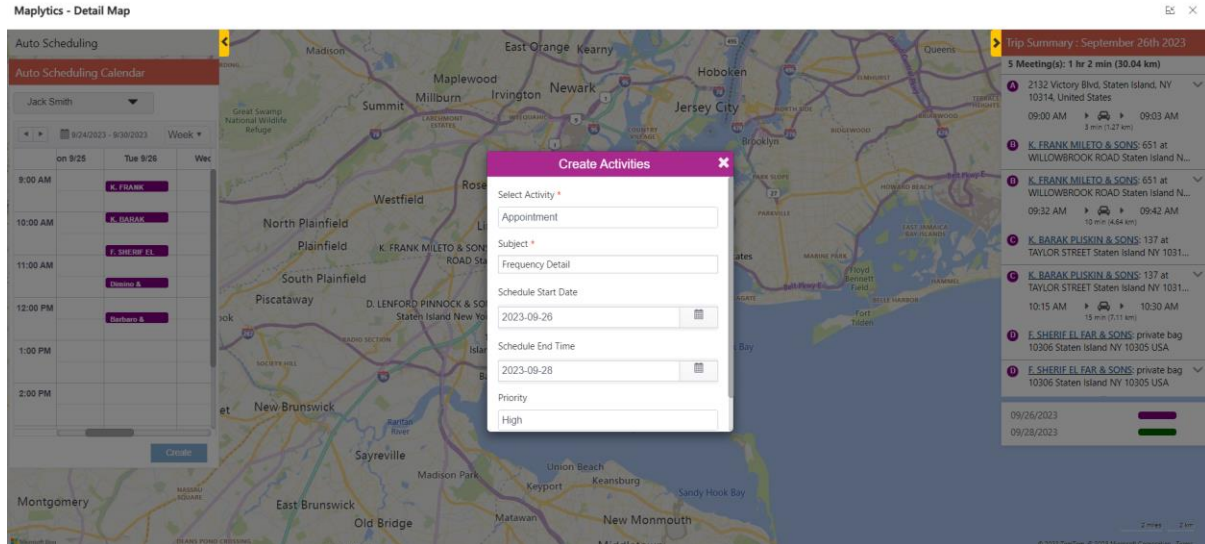
Priority: ---

The next appointment date after 7 days will be automatically counted based on the date of the first appointment. i.e. If the first appointment has been set on the 7<sup>th</sup> of a month, the next would get scheduled on the 14<sup>th</sup> of that month.

The date of the previous appointment is populated automatically at the time of appointment creation as the 'Last Schedule Date' and the upcoming would be populated as the 'Next Schedule Date'. Both the dates get updated with Appointment/ Activities Creation.

## Maplytics™ – User Manual

**Note:** Using the Advanced Find feature and the auto-populated Next Schedule Dates after appointment creation, records that would be due for a repeat appointment on a particular date can be selected and Auto Scheduling can be run only for those records.



## Schedule Status

The screenshot shows the 'Auto Scheduling' tab for account 'D. EDWARD DICKMAN & SONS'. The 'Frequency Detail' section displays a table with days of the week and time slots. The 'Schedule Status' is set to 'Yes' and is highlighted with a red box. The 'Priority' is set to 'Medium'.

| Day       | Frequency                           | Start Time | End Time |
|-----------|-------------------------------------|------------|----------|
| Sunday    | <input type="checkbox"/>            |            |          |
| Monday    | <input checked="" type="checkbox"/> | 08:00      | 18:00    |
| Tuesday   | <input type="checkbox"/>            |            |          |
| Wednesday | <input checked="" type="checkbox"/> | 10:00      | 17:00    |
| Thursday  | <input checked="" type="checkbox"/> | 10:00      | 14:00    |
| Friday    | <input checked="" type="checkbox"/> | 07:00      | 11:00    |
| Saturday  | <input type="checkbox"/>            |            |          |

Frequency (days): 7

Last Schedule Date: 9/28/2023

Next Schedule Date: 10/5/2023

Schedule Status: Yes

Priority: Medium

If an account has been enabled for recursive scheduling but has missed its last appointment due to conflicting client availability and has crossed the frequency interval, its Schedule Status will appear as 'No'. In case the Schedule Status is 'No' then that appointment would be taken up on priority for the next frequency schedule. This will prevent the account from being skipped in the next appointment cycle.

## Priority

The screenshot shows the 'Auto Scheduling' tab for account 'D. LENFORD PINNOCK & SONS'. The 'Frequency Detail' section displays a table with days of the week and time slots. The 'Schedule Status' is set to 'Yes' and the 'Priority' is set to 'High', both highlighted with red boxes.

| Day       | Frequency                           | Start Time | End Time |
|-----------|-------------------------------------|------------|----------|
| Sunday    | <input type="checkbox"/>            |            |          |
| Monday    | <input type="checkbox"/>            |            |          |
| Tuesday   | <input type="checkbox"/>            |            |          |
| Wednesday | <input type="checkbox"/>            |            |          |
| Thursday  | <input checked="" type="checkbox"/> | 14:00      | 17:00    |
| Friday    | <input checked="" type="checkbox"/> | 14:00      | 17:00    |
| Saturday  | <input checked="" type="checkbox"/> | 14:00      | 17:00    |

Frequency (days): 7

Last Schedule Date: 9/28/2023

Next Schedule Date: 10/5/2023

Schedule Status: Yes

Priority: High

When 2 or more accounts are available on the same days during the same time slots, the account with priority 'High' is scheduled first followed by 'Medium' and 'Low'. In case, all the accounts have the same priority the account nearest to the sales rep is scheduled first.

## Configuration Details for Frequency Detail Feature

Follow the entire procedure in a video format [here](#)

### Step 1: Enable flag from Map Configuration Record

To avail Client Frequency Details option, the checkbox for 'Enable Meeting Frequency' needs to be checked. The System admin or Maplytics admin can go to **Settings > Default Maplytics Configuration Details > Auto Scheduling Tab** and check on it.

### Step 2: Add PCF Control

Next, a PCF Control needs to be added to the Entity form that is being used for Frequency Detail. So, if Account is the entity being used, the control is added to its form

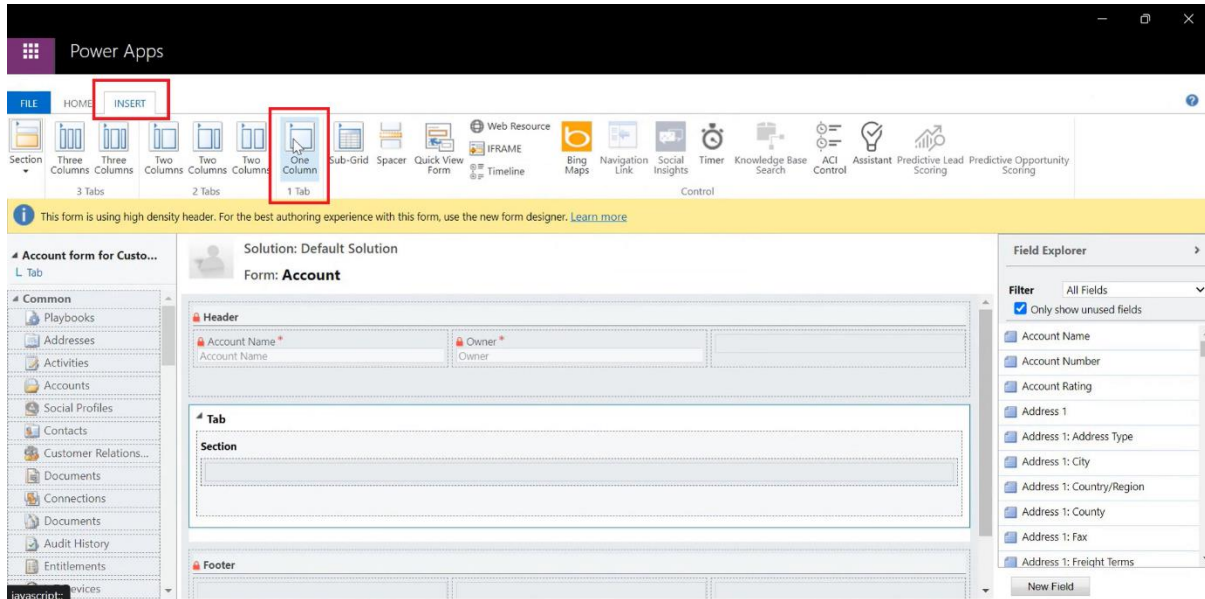
The user needs to follow the path of **Advanced Settings > Customization > Customize the System > Entities > Account > Forms**

Here, the main form of the Account entity needs to be opened.

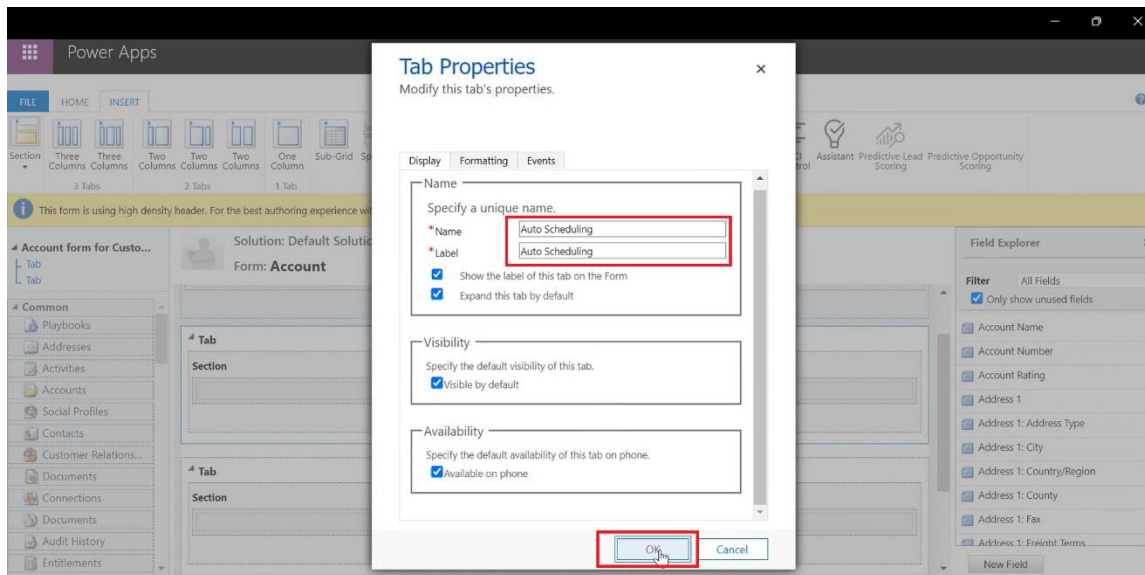
| Name                              | Form State | Form Type       | State   | Customizable | Version  | Description                                    |
|-----------------------------------|------------|-----------------|---------|--------------|----------|--|
| Sales Insights                    | Active     | Main            | Managed | True         | 1.0      | Updated default Account form.                  |
| Account                           | Active     | Main            | Managed | True         | 5.0.0.0  | Updated default Account form.                  |
| Account Quick Create - Field S... | Active     | Quick Create    | Managed | True         | 8.8.39.0 | Quick Create Form for Field Service            |
| Account Quick Create              | Active     | Quick Create    | Managed | True         | 6.0.0.0  | Default quick create form for Account          |
| Account Summary Card              | Active     | Quick View F... | Managed | True         | 3.1.0.3  |  |
| Account Hierarchy Tile Form       | Active     | Quick View F... | Managed | True         | 7.0.0.0  | This is the account hierarchy definition.      |
| Social Profile                    | Active     | Quick View F... | Managed | True         | 6.1.0.0  | A form that displays social profile of account |

## Step 3: Add Auto Scheduling Tab

On the main form within the Insert Tab, Select One Column Option



Double-click on the Tab and fill in the details as follows. Here, we are naming the Tab.

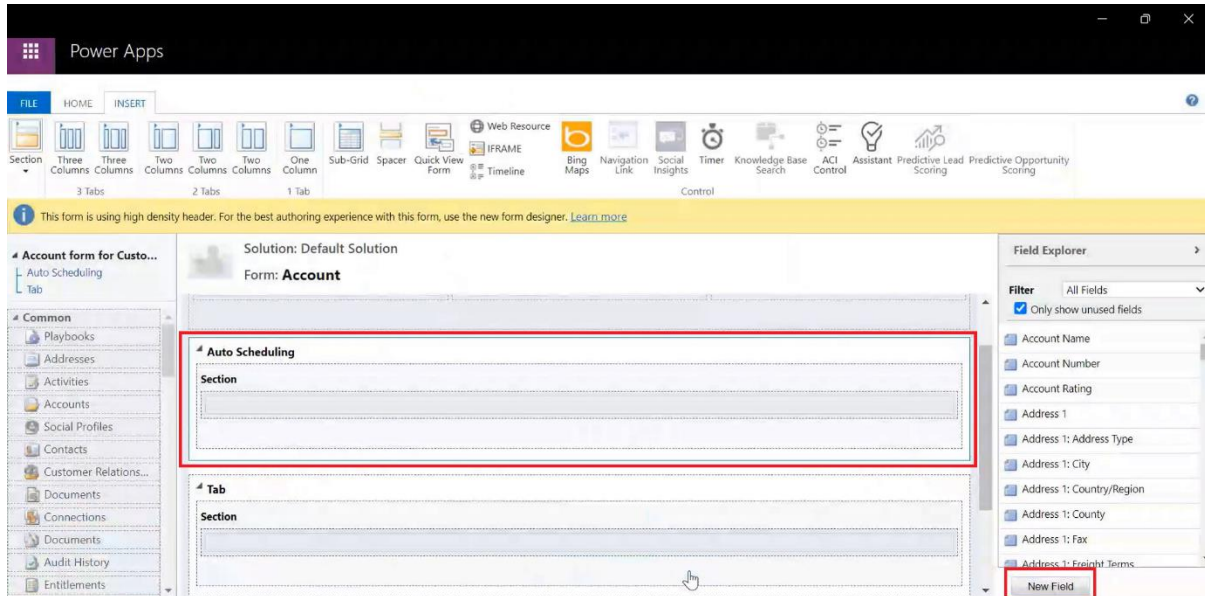


## Step 4: Create and Add New Fields for

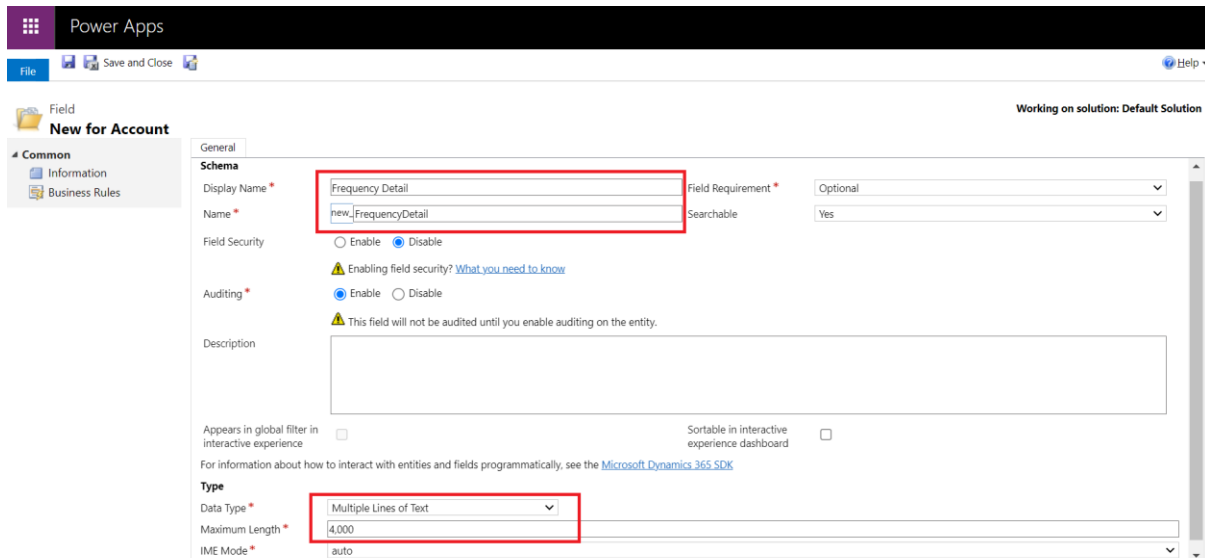
- Frequency Detail
- Last Schedule Date
- Next Schedule Date
- Schedule Status and
- Priority



Once the Auto Scheduling tab is renamed, click on New Field to create a new Multiple Lines of Text Field



A convenient Display Name can be provided by the user. In our context, we have given it as Frequency Detail. The other values need to be changed as seen below and the window can be Saved and Closed.



## Maplytics™ – User Manual

The screenshot shows the 'New for Account' field configuration interface in Power Apps. The 'General' tab is active, displaying the following fields:

- Display Name \***: Frequency Detail
- Name \***: new\_FrequencyDetail
- Field Requirement \***: Optional
- Searchable**: Yes
- Field Security**: (Empty)
- Auditing \***: (Empty)
- Description**: (Empty)
- Appears in global filter in interactive experience**: ☐
- Sortable in interactive experience dashboard**: ☐
- Type**: Multiple Lines of Text
- Data Type \***: Multiple Lines of Text
- Maximum Length \***: 4,000
- IME Mode \***: auto

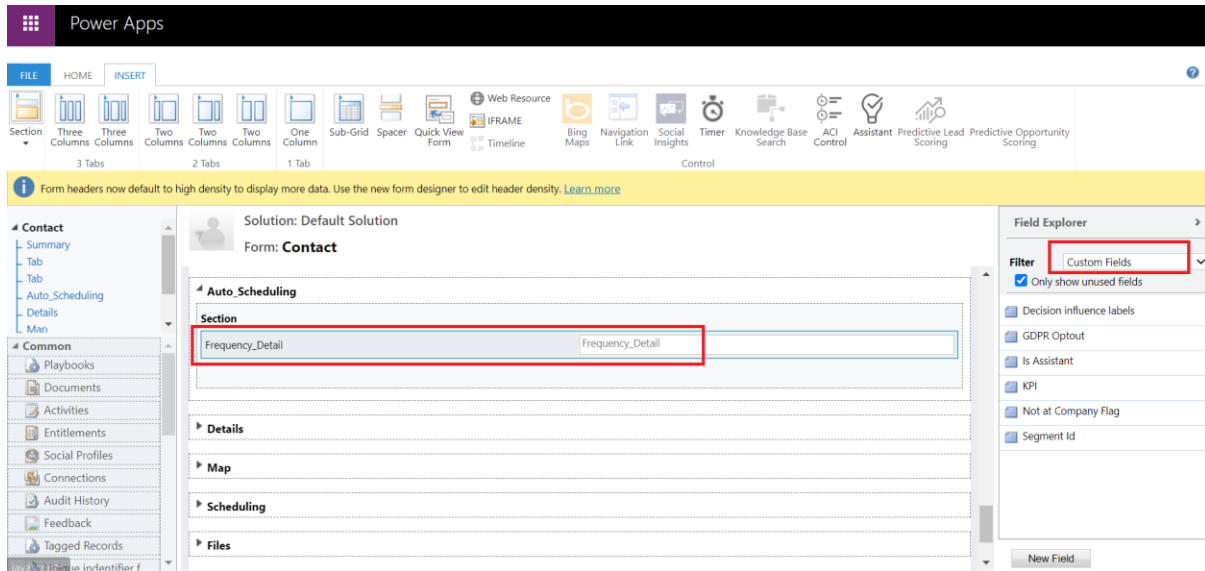
A large yellow box with the text 'Creating field...' is overlaid on the 'Field Security' and 'Auditing' sections.

The new custom field of Frequency Detail then needs to be added to the form. From the Custom Fields panel, it could be dragged and dropped within the Auto Scheduling Section

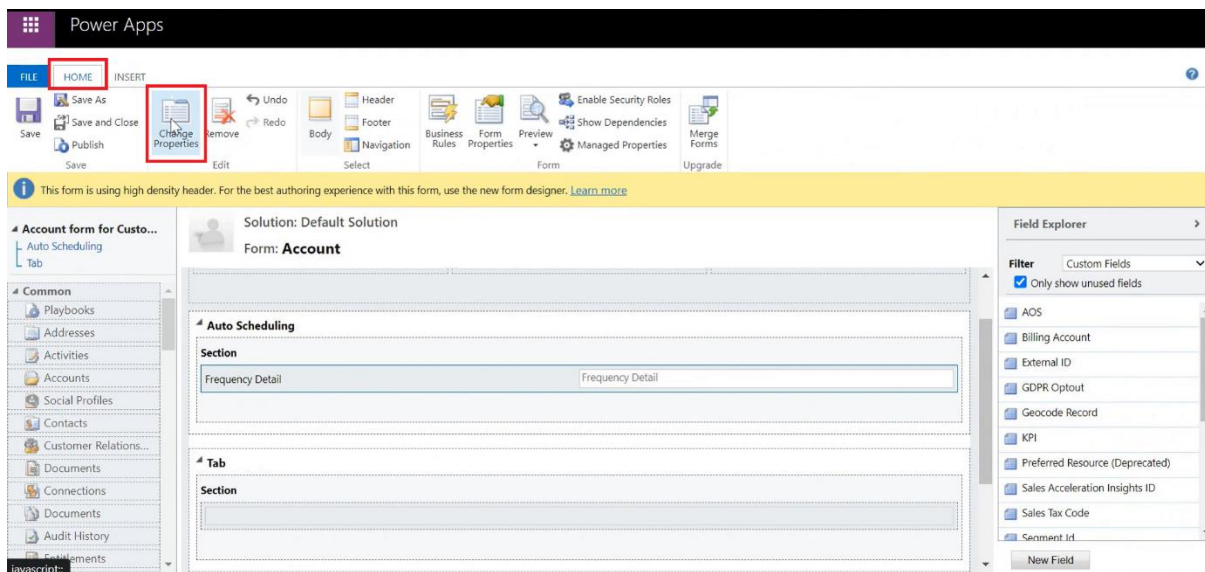
The screenshot shows the Power Apps form editor for the 'Account' form. The 'Auto Scheduling' section is selected, and the 'Frequency Detail' field is being added to it. The 'Field Explorer' panel on the right shows the 'Frequency Detail' field highlighted in blue. The 'Filter' dropdown is set to 'Custom Fields', and the 'Only show unused fields' checkbox is checked. The 'Frequency Detail' field is listed in the 'Field Explorer' panel with the following details:

- Display Name: Frequency Detail
- Name: new\_frequencydetail
- Type: memo

## Maplytics™ – User Manual

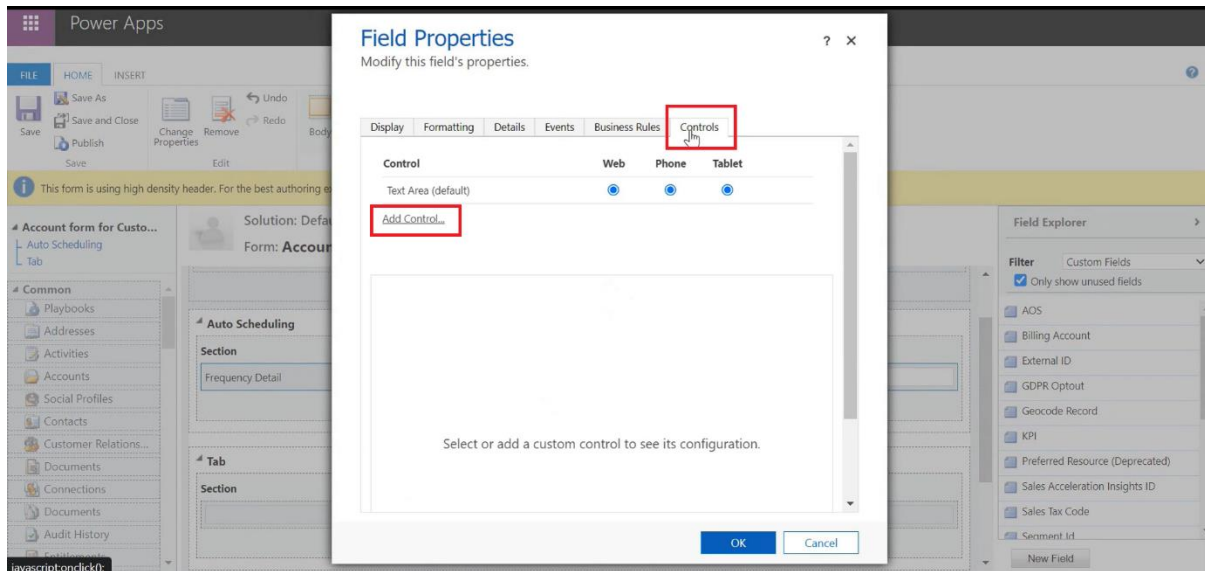


Select the Field, Frequency Detail and select 'Change Properties' option in the Home Tab

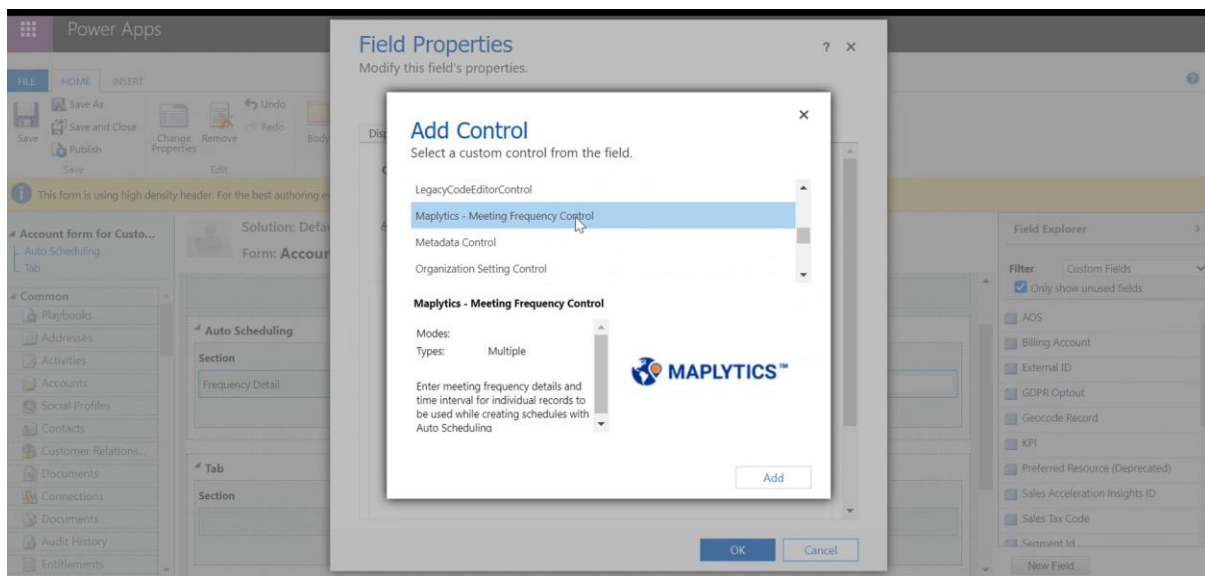


On the properties that open, select the Control Tab and click on Add Control

## Maplytics™ – User Manual

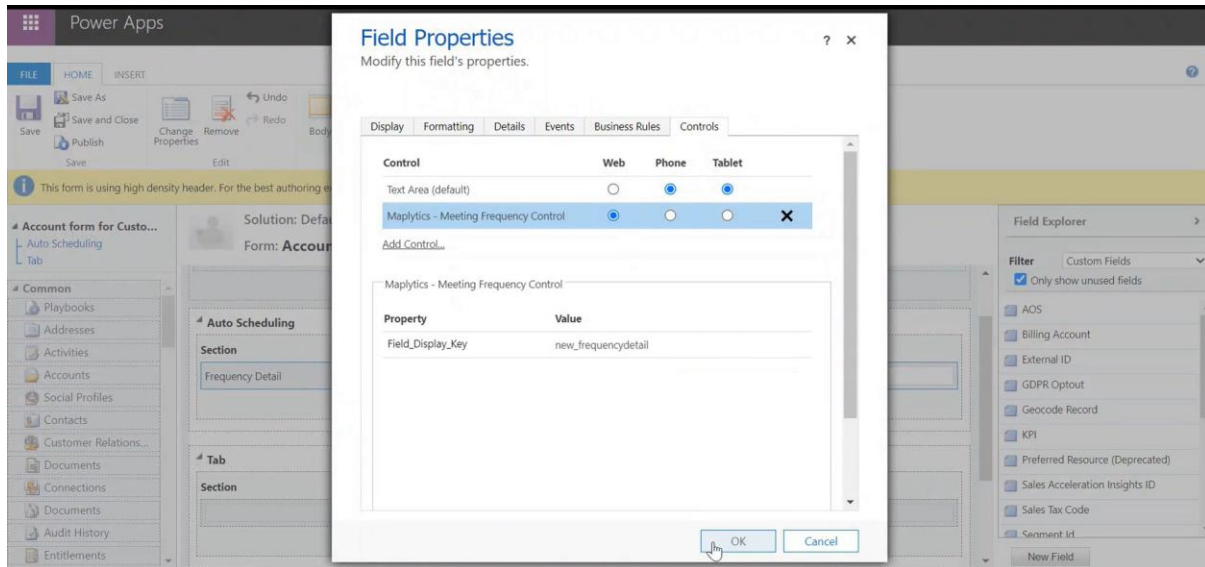


Select the Maplytics Meeting Frequency Control and add it



Select Web Control and Click on Ok

## Maplytics™ – User Manual

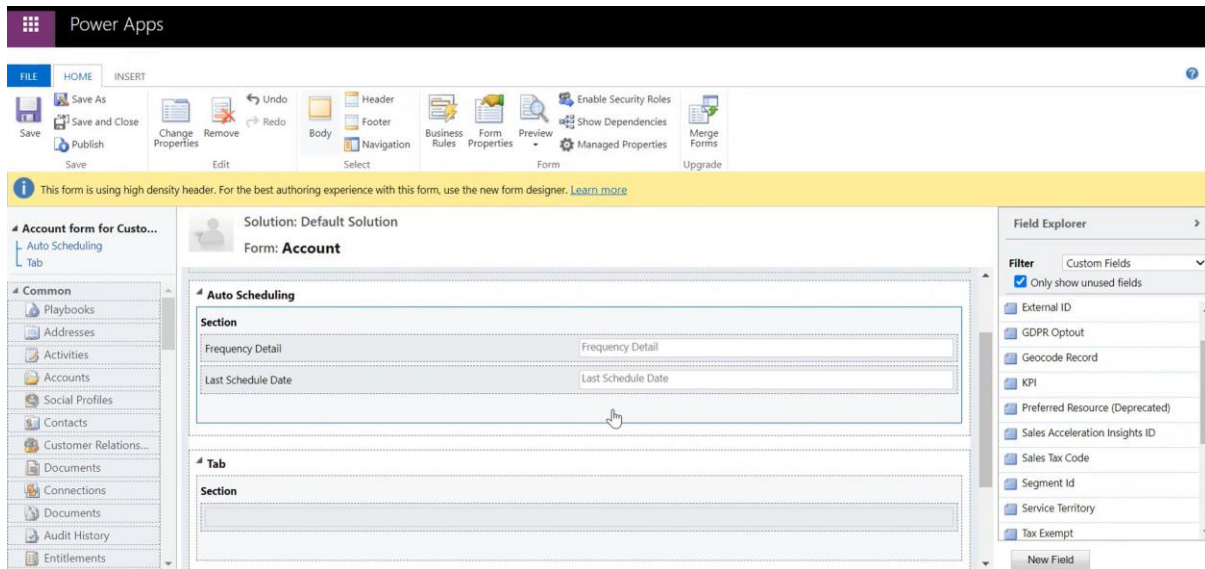


This will generate the days of the week and the time slots for the Account Entity. Now let us create a New Field in the Main form for the Last Schedule Date. Click on the New Field button on the main form and fill in the details as follows. Once filled, Save & Close.

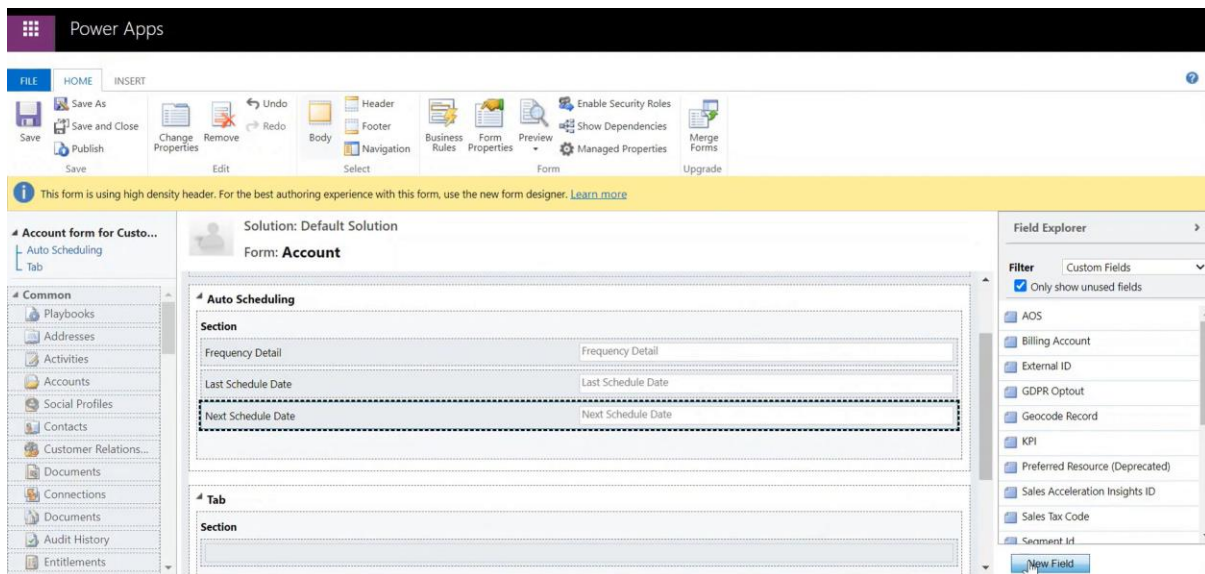
Again, drag the Last Schedule Date field from the Custom Fields column and drop it below the Frequency Detail



## Maplytics™ – User Manual



The process shall be repeated for the field Next Schedule Date and it will be dragged on the form as follows



To add Schedule Status, the Data Type selected would be Two Options as it offers Yes and No answers

## Maplytics™ – User Manual

Power Apps

File Save and Close Help

Field

New for Account

Working on solution: Default Solution

General

Schema

Display Name \* Schedule Status

Name \* new\_ScheduleStatus

Field Requirement \* Optional

Searchable Yes

Field Security

Enable ☐ Disable ☒

Enabling field security? [What you need to know](#)

Auditing \*

Enable ☒ Disable ☐

This field will not be audited until you enable auditing on the entity.

Description

Appears in global filter in interactive experience ☐

Sortable in interactive experience dashboard ☐

For information about how to interact with entities and fields programmatically, see the [Microsoft Dynamics 365 SDK](#)

Type

Data Type \* Two Options

Field Type \* Simple

No

Move Up

This too shall be dragged and dropped on the Form like earlier values

Power Apps

FILE HOME INSERT

Save Save As Save and Close Change Properties Remove Undo Redo

Header Footer Body Navigation Business Rules Form Properties Preview Managed Properties Merge Forms Upgrade

This form is using high density header. For the best authoring experience with this form, use the new form designer. [Learn more](#)

Account form for Custo... Auto Scheduling Tab

Solution: Default Solution

Form: Account

Section

Frequency Detail Frequency Detail

Last Schedule Date Last Schedule Date

Next Schedule Date Next Schedule Date

Schedule Status Schedule Status

Tab

Section

Field Explorer

Filter Custom Fields

Only show unused fields

AOS

Billing Account

External ID

GDPR Optout

Geocode Record

KPI

Preferred Resource (Deprecated)

Sales Acceleration Insights ID

Sales Tax Code

Segment Id

New Field

The last field to be created is Priority with 3 Options. This would be an Option Set Field. The Priority options of High, Medium, and Low need to be added as new items with a value of 3,2,1 respectively.

## Maplytics™ – User Manual

**Power Apps**

File Save and Close Help

Field New for Account Working on solution: Default Solution

**Common**

Information Business Rules

**General**

**Schema**

Display Name \* Priority

Name \* new\_Priority

Field Requirement \* Optional

Searchable Yes

Field Security

Enable ☐ Disable ☒

Enabling field security? [What you need to know](#)

Auditing \*

Enable ☒ Disable ☐

This field will not be audited until you enable auditing on the entity.

Description

Appears in global filter in interactive experience ☐

Sortable in interactive experience dashboard ☐

For information about how to interact with entities and fields programmatically, see the [Microsoft Dynamics 365 SDK](#)

**Type**

Data Type \* Option Set

Field Type \* Simple

Use Existing Option Set ☐ Yes ☒ No

Default Value Unassigned Value

**Options**

High

Medium

Low

Label \* Low

Value \* 1

Description

Color #0000ff

### Step 5: Save and Publish Customizations

Once Saved and Closed, the Priority Field will appear in the New Field column. It needs to be dragged and dropped like the previous field. With all the options added, the Account Form can be Saved and Published

**Power Apps**

FILE HOME INSERT

Save Save As Save and Close Publish

Change Properties Remove Undo Redo

Edit

Body Footer Header Navigation

Select

Business Rules Form Properties Preview

Form

Enable Security Roles Show Dependencies Managed Properties

Merge Forms Upgrade

This form is using high density header. For the best authoring experience with this form, use the new form designer. [Learn more](#)

**Account form for Customization**

Auto Scheduling Tab

**Common**

Playbooks

Addresses

Activities

Accounts

Social Profiles

Contacts

Customer Relations...

Documents

Connections

Documents

Audit History

Customizations

**Solution: Default Solution**

**Form: Account**

**Section**

Frequency Detail

Frequency Detail

Last Schedule Date

Last Schedule Date

Next Schedule Date

Next Schedule Date

Schedule Status

Schedule Status

Priority

Priority

**Tab**

**Section**

**Field Explorer**

Filter Custom Fields

Only show unused fields

Geocode Record

KPI

Preferred Resource (Deprecated)

Sales Acceleration Insights ID

Sales Tax Code

Segment Id

Service Territory

Tax Exempt

Tax Exempt Number

Template on record

New Field

## Step 6: Check the Account Entity

After Publishing the Customizations, the fields would appear as follows in the Account Entity. If they do not, the previous steps in the form need to be rechecked.

The screenshot shows the Dynamics 365 Maplytics interface for an account entity named 'A Datum Corporation'. The 'Auto Scheduling' tab is active, displaying a table for frequency details. The table has columns for days of the week (Sunday through Saturday) and a 'Frequency (days)' column. Below the table, there are fields for 'Next Schedule Date', 'Last Schedule Date', 'Schedule Status', and 'Priority'. A 'Save' button is visible at the bottom of the frequency details section.

## Step 7: Map Attribute in Account Entity

As the last step of the Configuration process, all the fields created in this manner need to be linked to the Entity Map.

The user can follow the flow of **Entity Maps > Account > Attribute Mapping**

The following values can be selected from the drop-down

The screenshot shows the Dynamics 365 Maplytics interface for an account entity, specifically the 'Attribute Mappings' tab. A table is displayed with columns for 'Last scheduled date', 'Last Schedule Date', 'Priority', and 'Frequency'. Below this table, there are fields for 'Next schedule date', 'Next Schedule Date', 'Frequency', and 'Frequency Detail'. At the bottom, there are fields for 'Address Name', 'Address 1', 'Address Line 1', 'Address 1: Street 1', 'State', and 'Address 1: State/Province'. A red box highlights the 'Last scheduled date', 'Last Schedule Date', 'Priority', and 'Frequency' columns and their corresponding fields.

Once added, it needs to be saved.

With this, the Frequency Detail feature is up and ready for use for the Account Entity

# Maplytics™ – User Manual

The screenshot shows the 'Auto Scheduling' tab for 'A Datum Corporation' in the Maplytics interface. The interface includes a left sidebar with navigation options like Home, Recent, My Work, Dashboards, Activities, Customers, Accounts, Contacts, Sales, Leads, Opportunities, Quotes, and Employees. The main content area displays a table for scheduling details.

| Frequency Detail | Day       | Check                               | Start Time | End Time |
|------------------|-----------|-------------------------------------|------------|----------|
|                  | Sunday    | <input type="checkbox"/>            | --:--      | --:--    |
|                  | Monday    | <input type="checkbox"/>            | --:--      | --:--    |
|                  | Tuesday   | <input checked="" type="checkbox"/> | 09:00      | 11:00    |
|                  | Wednesday | <input checked="" type="checkbox"/> | 13:00      | 16:00    |
|                  | Thursday  | <input checked="" type="checkbox"/> | 19:00      | 20:00    |
|                  | Friday    | <input type="checkbox"/>            | --:--      | --:--    |
|                  | Saturday  | <input type="checkbox"/>            | --:--      | --:--    |
| Frequency (days) | 7         |                                     |            |          |

Below the table, there is a 'Save' button and summary information:

- Next Schedule Date: 9/29/2023
- Last Schedule Date: 9/22/2023
- Schedule Status: Yes
- Priority: Medium

Follow the entire process [here](#) in a convenient video format



## Check-In/Check-Out

Check-In feature enables users (sales person/service person) to register their arrival and departure time for the meeting locations while navigating on field with the help of Check-In and Check-Out buttons. These buttons will help to tag the geo-coordinates of the location while a user is visiting a client. This will also help the management to track the activities of the field professionals as well as the time they have spent on every meeting.

### Configuration

To get started with the feature of Check-In, the first step is to configure Maplytics. Configuration will create the Entity Map for the Check-In entity. Please refer to the section of '**Configure**' under the '**Initial Setup - Maplytics License Activation, Configuration for Entity Map, Dashboards and Census data**' within the Installation manual.

This feature can be enabled for any OOB or custom entity within their respective Entity Maps. To enable this, System Admin/Maplytics Admin can follow the steps mentioned below. The following screenshot shows the entity map of Appointment for an instance.

**Go to Maplytics App > Settings > Entity Maps > Open Required Entity Map > General Tab > Enable Check-In > Set the value to 'Yes' & click on 'Save'.**

ENTITY MAP  
appointment

General Attribute Mappings Tooltip Mapping Category Configuration Configuration Advance Settings Related

Entity Name \* Appointment Link To Regarding

🔒 Total Records 22

🔒 Geocoded Records 22

🔒 Enable Check-In Yes

**Note:**

- The default value for 'Enable Check-In' is set to 'No'.
- User cannot undo this option, once selected and saved.
- After enabling this feature, please wait for a while before using this.

### Related records for Check-In/Check-Out

User can use the feature of 'Plot Related Records' to view the related records (Appointments, Accounts, etc.) for Check-In/Check-Out records that are plotted records on the map. using. This will help the managers to understand for which record has the sales person/service person checked-in/out. To plot related records for Check-In/Check-Out, user needs to select the relationship. To select the relationships, admins can follow the steps mentioned below. We have provided the steps for Appointments for an instance.

**Go to Maplytics App > Settings > Entity Maps > Required Entity Maps record > Configuration > Related Records Configuration > Relationship List > Select appointment - ikl\_checkinentity**

User can also refer to the section of 'Related Record Configuration' under the Entity Maps within the Installation manual for the same.

**Note:** User needs to select the respective Relationship with Check-in for every entity within their respective entity maps for which they want to see the related Check-In/Check-Out records.

**ENTITY MAP appointment**

General Attribute Mappings Tooltip Mapping Category Configuration **Configuration** Advance Settings Related

**Related Records Configuration**

| Relationship List   | Relation Schema                   | Default Relations... |
|---|-----------------------------------|----------------------|
| <input type="checkbox"/> appointment - annotation                   | Appointment_Annotation            |                      |
| <input type="checkbox"/> appointment - slakplinstance               | slakplinstance_appointment        |                      |
| <input type="checkbox"/> appointment - syncerror                    | Appointment_SyncErrors            |                      |
| <input type="checkbox"/> appointment - actioncard                   | appointment_actioncard            |                      |
| <input type="checkbox"/> appointment - queueitem                    | Appointment_Queueitem             |                      |
| <input type="checkbox"/> appointment - bookableresourceboo          | msdyn_appointment_bookableresour  |                      |
| <input type="checkbox"/> appointment - msdyn_resourcerequir         | msdyn_appointment_msdyn_resource  |                      |
| <input checked="" type="checkbox"/> appointment - ikl_checkinentity | ikl_appointment_ikl_checkinentity |                      |

**View Configuration**

| View List   | View Type        | Color      | Pushpin                  |
|---|------------------|------------|--------------------------|
| <input checked="" type="checkbox"/> Views                     |                  |            |                          |
| <input checked="" type="checkbox"/> All Appointments          | System View      | Green      | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> Appointment Planner       | Dashboard Record | Dark Green | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> My Appointments           | System View      | Olive      | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> My Completed Appointments | System View      | Purple     | <input type="checkbox"/> |
| <input checked="" type="checkbox"/> My Draft Appointments     | System View      | Red        | <input type="checkbox"/> |

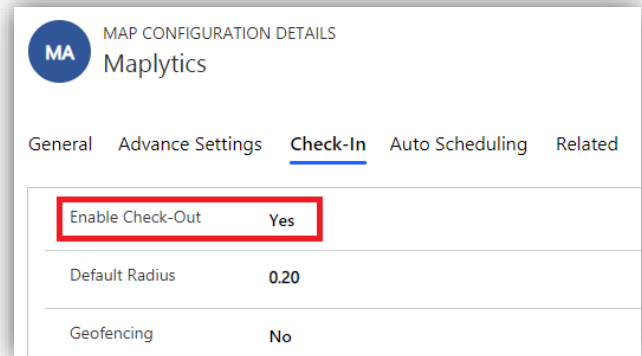
### Check-Out

After enabling the feature, user can also enable the option of 'Check-Out'. This way the user can first click on the Check-In button while visiting the meeting and then can click on the Check-Out button while completing the meeting. Here, as the geo-coordinates for both the locations will be saved, it will also help the management to track the time spent on the meetings.

## Maplytics™ – User Manual

In order to enable Check-Out, System Admin/Maplytics Admin can follow the steps mentioned below:

**Go to Maplytics App > Settings > Map Configuration Details > Default Configuration Detail Record (the one with no user name) > Check-In tab > Set the value for Enable Check-Out to 'Yes' & click on 'Save'.**



The screenshot shows the 'MAP CONFIGURATION DETAILS' interface for Maplytics. The 'Check-In' tab is selected. A table lists configuration options: 'Enable Check-Out' is set to 'Yes' (highlighted with a red box), 'Default Radius' is '0.20', and 'Geofencing' is 'No'.


| MAP CONFIGURATION DETAILS |                  |          |                 |         |
|---------------------------|------------------|----------|-----------------|---------|
| Maplytics                 |                  |          |                 |         |
| General                   | Advance Settings | Check-In | Auto Scheduling | Related |
| Enable Check-Out          | Yes              |          |                 |         |
| Default Radius            | 0.20             |          |                 |         |
| Geofencing                | No               |          |                 |         |

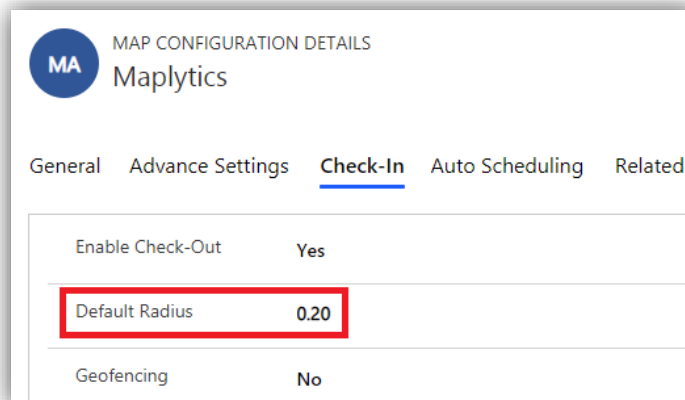
### Note:

- The default value for 'Enable Check-Out' is set to 'No'.
- User can anytime disable this option.
- Check-Out option can only be enabled for entities for which the feature of Check-In has been enabled.
- Check-Out can be enabled/disabled only at Organization level.
- Check-Out button will only be available for the records for which the user has checked-in.

### Default Radius

It is the distance that the System admin/Maplytics admin can set to consider the accuracy of the Check-In/Check-Out records created by the field professionals. If the Check-In/Check-Out record do not lie within this radius then it will be considered as invalid record and will be shown with a pushpin with this Red

Cross. For example: 



This screenshot is similar to the one above, but the 'Default Radius' value of '0.20' is highlighted with a red box.

| MAP CONFIGURATION DETAILS |                  |          |                 |         |
|---------------------------|------------------|----------|-----------------|---------|
| Maplytics                 |                  |          |                 |         |
| General                   | Advance Settings | Check-In | Auto Scheduling | Related |
| Enable Check-Out          | Yes              |          |                 |         |
| Default Radius            | 0.20             |          |                 |         |
| Geofencing                | No               |          |                 |         |

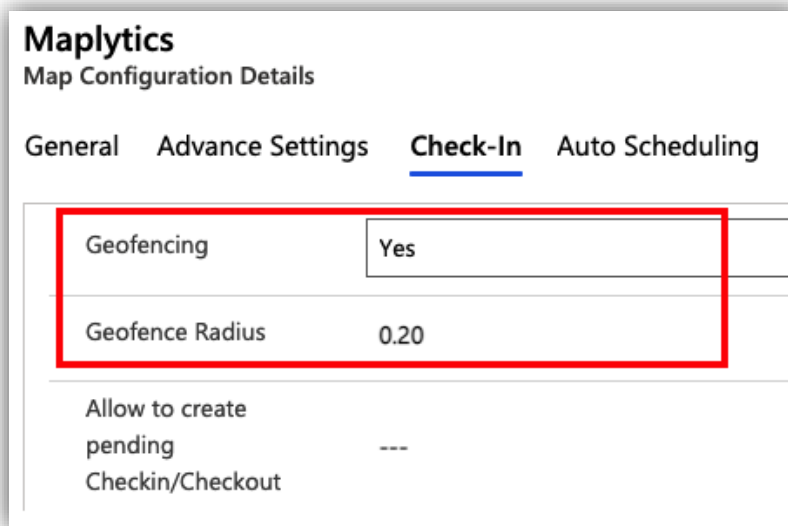
**Note: By default, Geofence radius is 0.20 kilometers or miles depending on the unit set in User Configuration Detail record.**

### Geofencing

Geofencing is creating a virtual geographical boundary of a specified Geofence radius around a record. If Geofencing is enabled, user needs to be within this radius to successfully Check-In/Check-Out for a record. If the user is not within this radius, the user will not be able to Check-In/Check-Out and will be shown a message specifying that they need to be within 'n' Km/Mi of distance from the Check-In/Check-Out location. This will help the management to have only valid Check-In and Check-Out records done by the field professionals.

In order to enable Geofencing, System Admin/Maplytics Admin can follow the steps mentioned below:

**Go to Settings > Map Configuration Details > Default Configuration Detail Record > Check-In tab > Geofencing > Set the value for Geofencing as 'Yes'**



**Maplytics**  
Map Configuration Details

General   Advance Settings   Check-In   Auto Scheduling

|  |      |
|--|------|
| Geofencing                               | Yes  |
| Geofence Radius                          | 0.20 |
| Allow to create pending Checkin/Checkout | ---  |

### Geofence Radius

After enabling Geofencing, System Admin/Maplytics Admin can set the default value for Geofence radius, which will be considered while a user Checks-In, or Checks-Out.

**Note:**

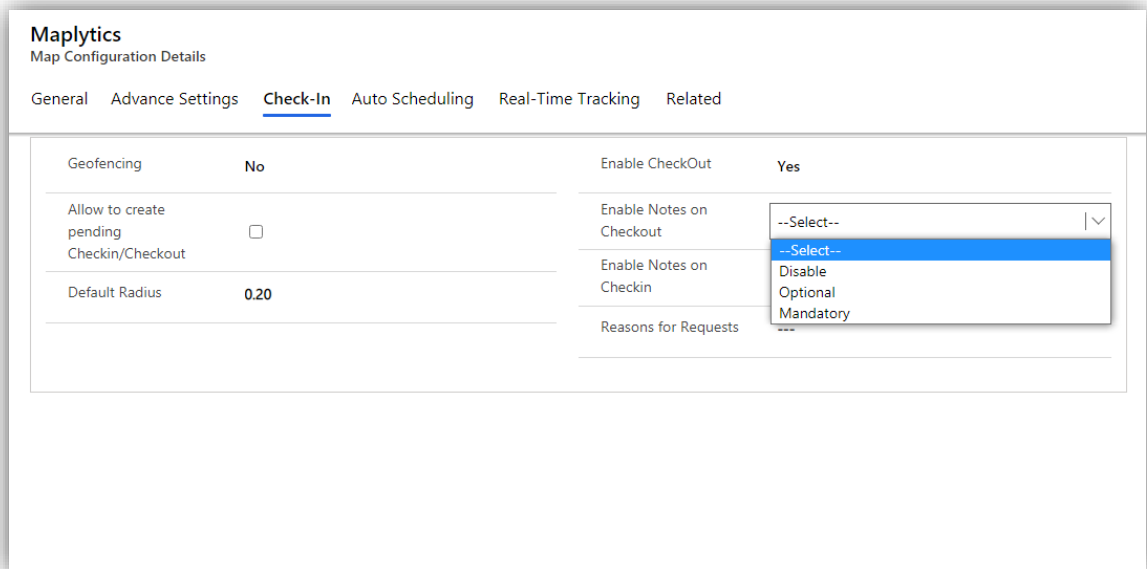
- **By default, Geofencing is disabled in which case the user can Check-In/Check-out from any location.**
- **By default, Geofence radius is 0.20 kilometers or miles depending on the unit set in User configuration Detail record.**

### Enable Notes on Check-In and Check-out

Admins can enable this option to let the users add notes to the record for which they are checking in/out. To enable this option, **go to Map Configuration Details > Default Configuration Detail Record > Check-In tab > Enable Notes on Check-In / Enable Notes on Check-Out.**

The admins will have three options to select:

- **Disable:** This will disable the option to add notes while Checking-In or Checking-out.
- **Optional:** The user is shown the pop up for notes but they can check-in or check-out without adding the notes.
- **Mandatory:** It is necessary for the user to add notes while checking-in or checking-out.



**Maplytics**  
Map Configuration Details

General Advance Settings **Check-In** Auto Scheduling Real-Time Tracking Related

|  |                          |                          |            |
|--|--------------------------|--------------------------|------------|
| Geofencing                               | No                       | Enable CheckOut          | Yes        |
| Allow to create pending Checkin/Checkout | <input type="checkbox"/> | Enable Notes on Checkout | --Select-- |
| Default Radius                           | 0.20                     | Enable Notes on Checkin  | Disable    |
|  |                          | Reasons for Requests     | Optional   |
|  |                          |                          | Mandatory  |

### Pending Check-In/Check-Out Requests

System Admins and Maplytics Admin can enable this option to allow the users to create the requests for Check-in/Check-out for meetings in the past. For example, if a user had an offsite meeting or missed to check-in/out for any meeting, they will be able to create requests for check-in/out for such meetings if this option is enabled.

**To enable it, go to Map Configuration Details > Default Configuration Detail Record > Check-In> Create pending Check-In/Check-Out Requests > Select the checkbox**



## Maplytics™ – User Manual

Maplytics

Map Configuration Details

General

Advance Settings

Check-In

Auto Scheduling

Real-Time Tracking

Related

|  |                                     |                          |     |
|--|-------------------------------------|--------------------------|-----|
| Geofencing                               | No                                  | Enable CheckOut          | Yes |
| Allow to create pending Checkin/Checkout | <input checked="" type="checkbox"/> | Enable Notes on Checkout | --- |
| Default Radius                           | 0.20                                | Enable Notes on Checkin  | --- |
|  |                                     | Reasons for Requests     | --- |

**Note:** Any user who would be inside the defined Default Radius/Geofence radius of a record will not be able to create pending check-in or check-out for the respective record.

Once this option is enabled, the admins can also see the 'Reasons for Requests' which shows the list of acceptable reasons that are predefined. The users can select anyone while creating pending Check-In/Out records. The admins can also configure custom Request Reasons by going to Check-in Entity within CRM Customizations.

Maplytics

Map Configuration Details

General

Advance Settings

Check-In

Auto Scheduling

Real-Time Tracking

Related

|  |                                     |                          |   |
|--|-------------------------------------|--------------------------|---|
| Geofencing                               | No                                  | Enable CheckOut          | Yes   |
| Allow to create pending Checkin/Checkout | <input checked="" type="checkbox"/> | Enable Notes on Checkout | ---   |
| Default Radius                           | 0.20                                | Enable Notes on Checkin  | ---   |
|  |                                     | Reasons for Requests     | <div>--Select--<div>--Select--<div>Unable to find the gps location</div><div>Network issue</div><div>Forgot to Check in/out on field</div><div>Meeting on off-site location</div><div>Other</div></div></div> |

### Creating Check-In/Check-Out records

While navigating on field, user can Check-In and Check-Out for any record. This can be done in the following two ways:

- **From Record Form:** User can open the respective record (Appointments, Accounts etc.) and click on Check-In/Check-Out button on the ribbon.

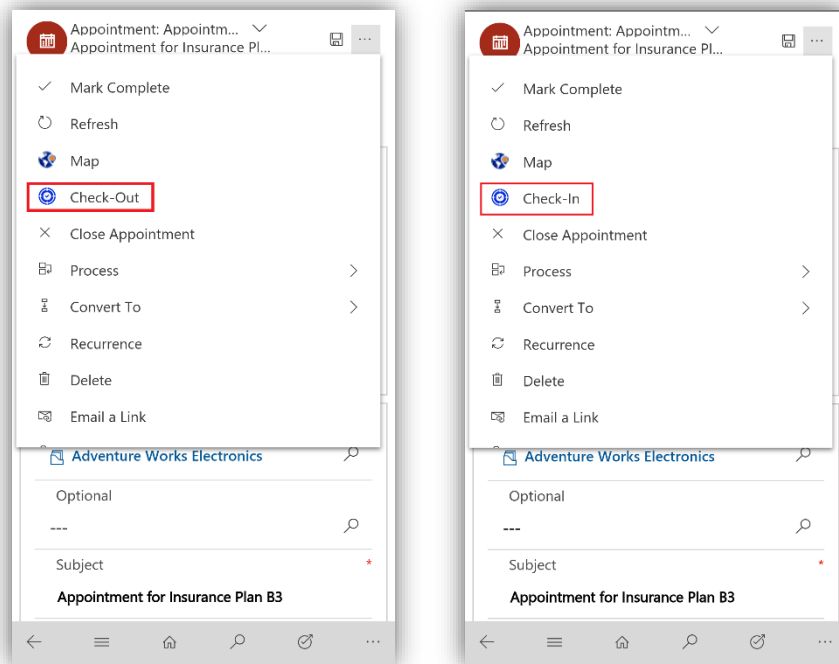
The screenshot shows the 'Appointment for Insurance Plan B3' record form. The ribbon at the top includes buttons for 'Save', 'Mark Complete', 'Refresh', 'Map', 'Check-In' (highlighted with a red box), 'Close Appointment', 'Process', 'Convert To', and 'Recurrence'. The form displays the following details:

| Appointment | Tab | Related                                     |
|-------------|-----|---|
| Required    |     | <a href="#">Adventure Works Electronics</a> |
| Optional    |     | ---   |
| Subject     | *   | Appointment for Insurance Plan B3           |
| Location    |     | ---   |
| Regarding   |     | <a href="#">Adventure Works Electronics</a> |

The screenshot shows the 'Appointment for Insurance Plan B3' record form. The ribbon at the top includes buttons for 'Save', 'Mark Complete', 'Refresh', 'Map', 'Check-Out' (highlighted with a red box), 'Close Appointment', 'Process', 'Convert To', and 'Recurrence'. The form displays the following details:

| Appointment | Tab | Related                                     |
|-------------|-----|---|
| Required    |     | <a href="#">Adventure Works Electronics</a> |
| Optional    |     | ---   |
| Subject     | *   | Appointment for Insurance Plan B3           |
| Location    |     | ---   |
| Regarding   |     | <a href="#">Adventure Works Electronics</a> |

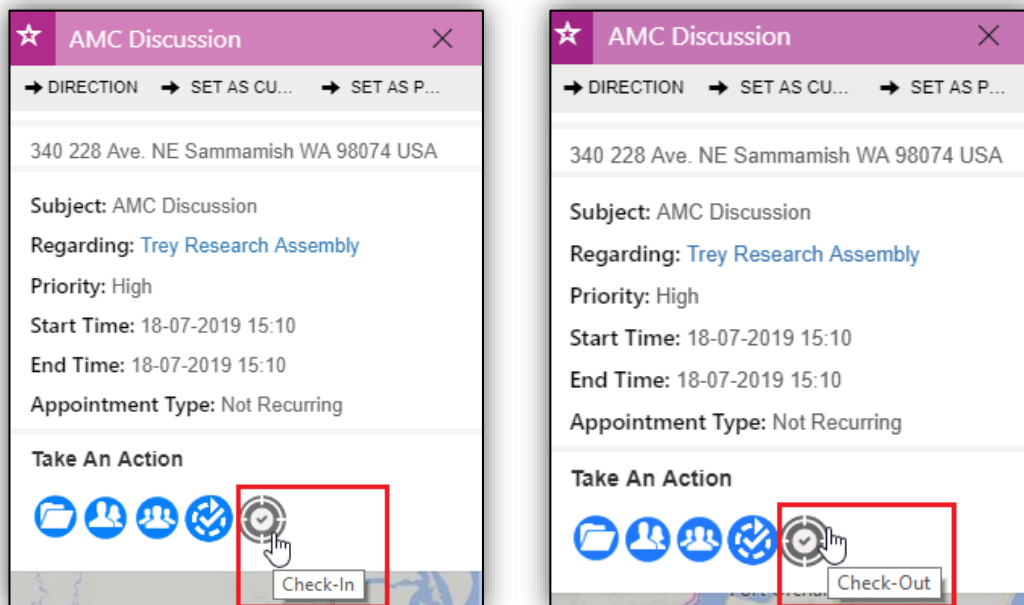
## Maplytics™ – User Manual



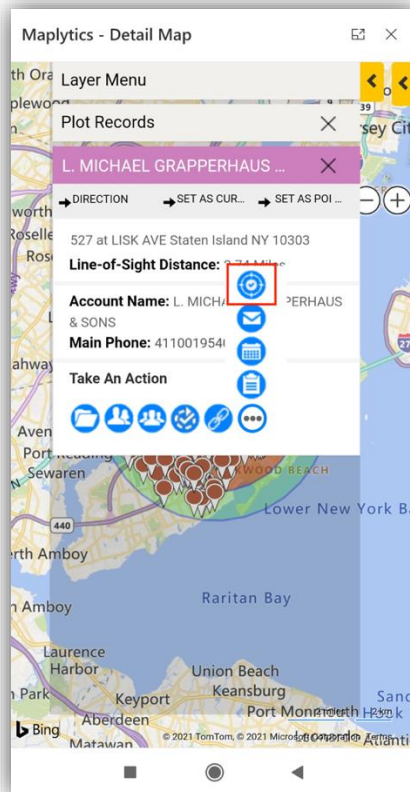
### Note:

- **User needs to allow to read the GPS location of the device in order to Check-In/Check-Out.**
- **Once checked-in, user can click on the same button to check-out.**

- Through Detail Map: User can click on any plotted records (Appointments, Accounts etc.) to open the respective Tooltip Card and click on the button to Check-In/Check-Out.



## Maplytics™ – User Manual



**Note: Multiple Check-In/Check-Out records can be created for any record (Appointments, Accounts, etc.)**

### Adding Notes while checking-in/out

While a user registers a check-in/out, they can add some notes or attachment for the respective record. For example, if they want to add some notes related to the meeting they did, or any documents they need to attach regarding the requirements of the client, they can use this option to add the notes or attachment.

Users can further go to the respective record to see the notes and attachments within the timeline of the Activities. If a user is checking-in/out for an activity record like appointments or Bookable resource bookings and has added notes or attachments then in such cases the notes and attachments will be saved within the respective related record (for example, Account/work order) saved in the regarding field.

Check-In

Client needs 50 premium-A chairs

Select Attachment

Choose file

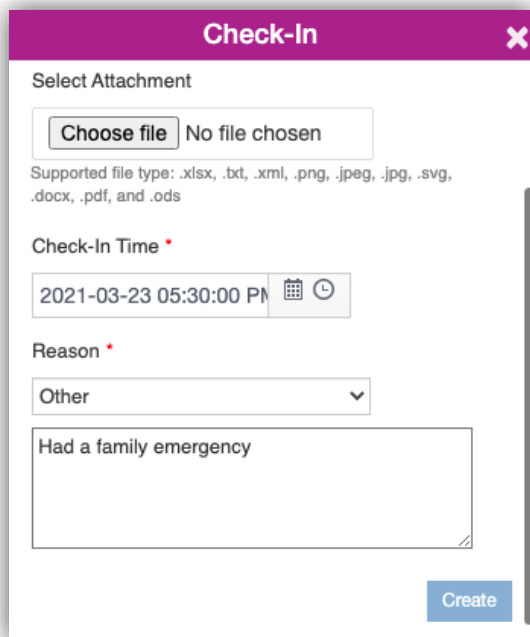
MOM 1...21.docx

Supported file type: .xlsx, .txt, .xml, .png, .jpeg, .jpg, .svg, .docx, .pdf, and .ods

Create

### Creating Pending Check-In/Check-Out requests

If users want to check-in or check-out for a record for which the meeting/service has been done in the past but they missed to check-in/out at that time, because of an off-site meeting or let's say if they forgot to check-in/out, so they can create check-in/out requests for those records later sometime. They can select the reason why they missed and select the date & time of the meeting for which they missed to check-in/out and click on 'Create'. The requests will be pending for approval from managers. Unless the records have been approved by the manager, the records will not become active check-in/out records and will remain as pending check-in/out requests.



**Check-In** ✕

Select Attachment

No file chosen

Supported file type: .xlsx, .txt, .xml, .png, .jpeg, .jpg, .svg, .docx, .pdf, and .ods

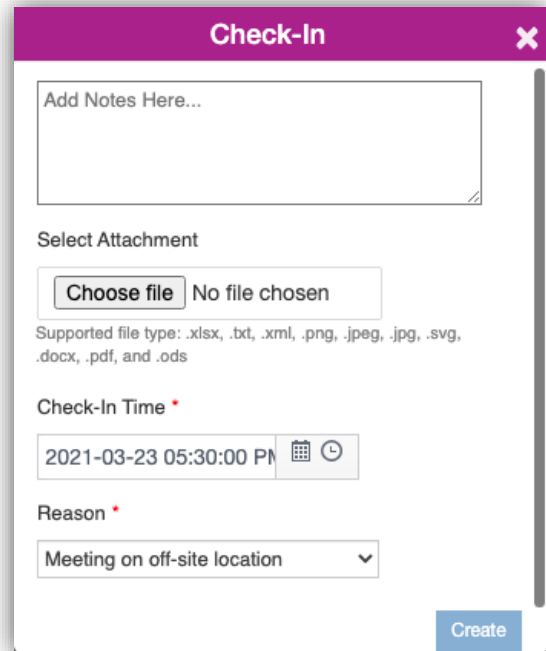
Check-In Time \*

2021-03-23 05:30:00 PM

Reason \*

Other ▼

Had a family emergency



**Check-In** ✕

Add Notes Here...

Select Attachment

No file chosen

Supported file type: .xlsx, .txt, .xml, .png, .jpeg, .jpg, .svg, .docx, .pdf, and .ods

Check-In Time \*

2021-03-23 05:30:00 PM

Reason \*

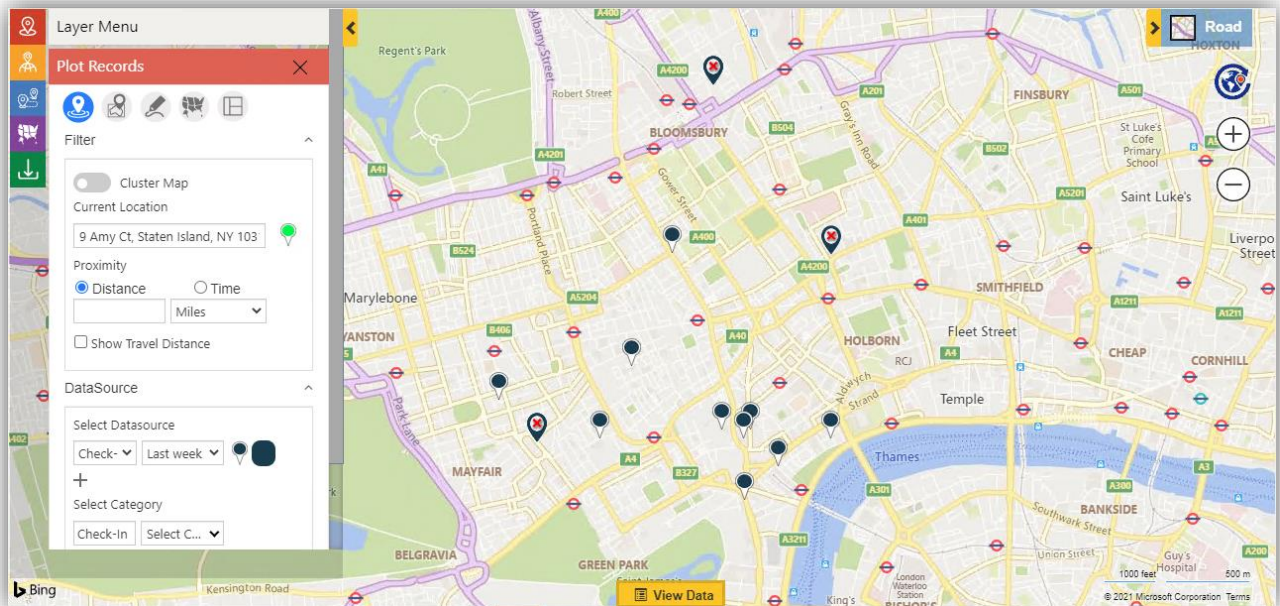
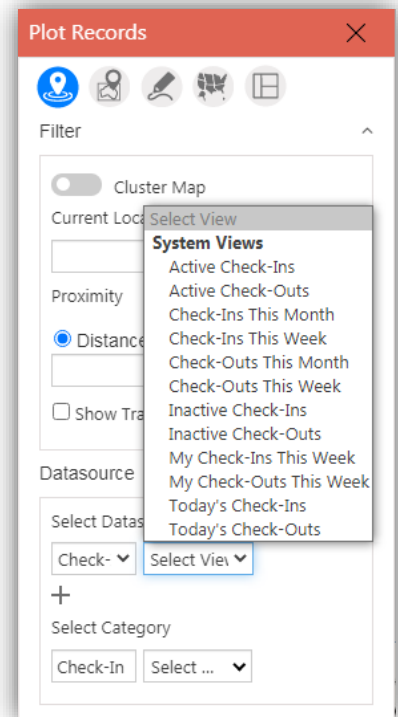
Meeting on off-site location ▼

If the user wants to enter a reason which is not listed then the user can select the 'Other' option and enter their reason in the provided text box and click on Create. These check-in/out requests will be converted to an active check-in/out record only when the respective manager approves the reason for missing the check-in/out and hence approves it to be a valid check-in/out records.





## Visualize Check-In/Check-Out records on Detail Map

The managers can visualize the activities of field professionals by plotting the Check-In/Check-Out records on the map just like any other entities with the help of the Plot Card. User can select 'Check-In' as the Datasource and select a required view to visualize the records from that view.



### Analyze Check-In/Check-Out records

After plotting the records for Check-In and Check-Out, user can analyze the pushpins by distinguishing between the following two kinds of pushpins:

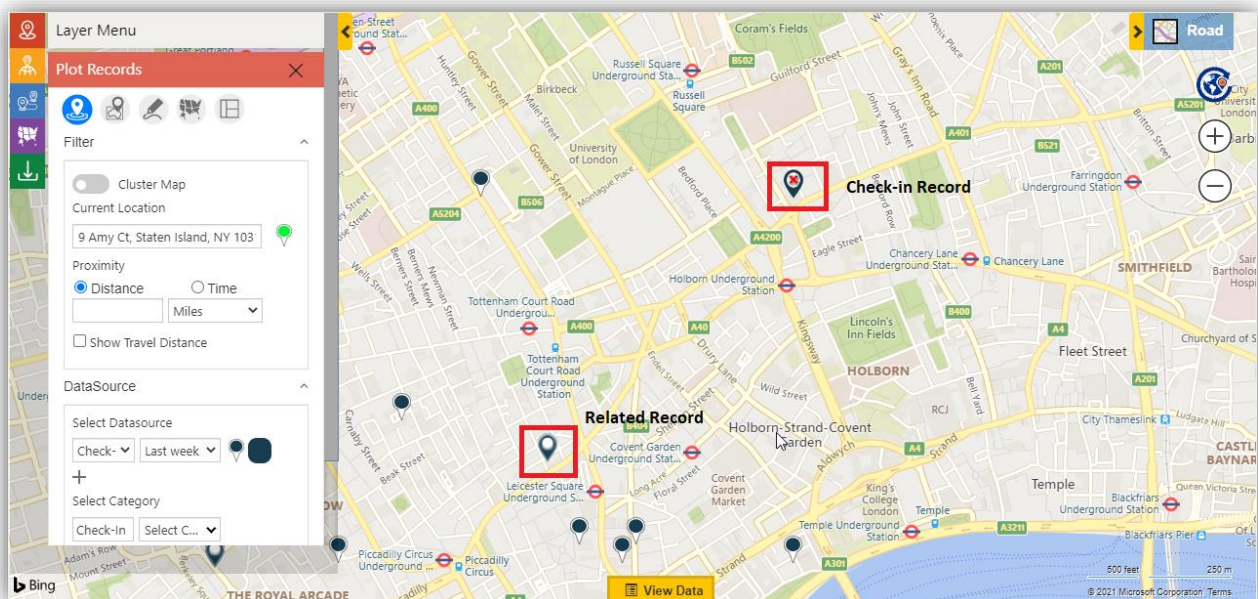
- Valid Check-In/Check-Out: When a user Checks-In/Checks-Out within the Default Radius or Geofence Radius, it is a valid record and will be represented by  pushpin.
- Invalid Check-In/Check-Out: When a user Checks-In/Checks-Out outside the Default Radius it is represented by  pushpin.

### Visualizing Related Records

After plotting the records for Check-in, user can also choose to view the records (Appointments, Accounts etc.) against which the plotted check-ins and check-outs were created.

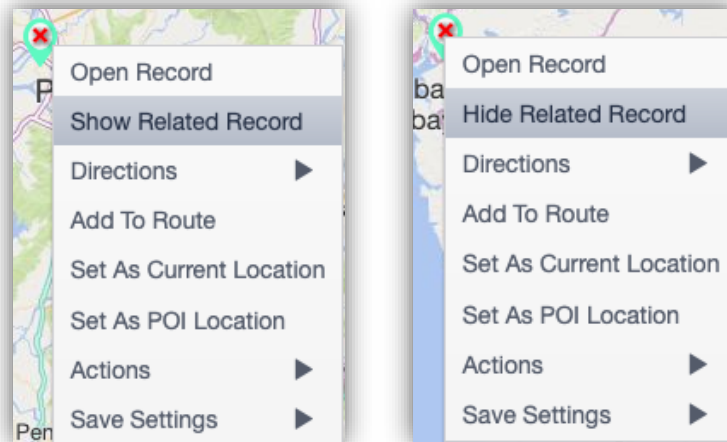
#### Visualizing Related Record (Appointments/Accounts, etc.) for Check-In/Check-Out records

After selecting the relationship, user can choose to view the related record for any Check-in and Check-out record plotted on the map.

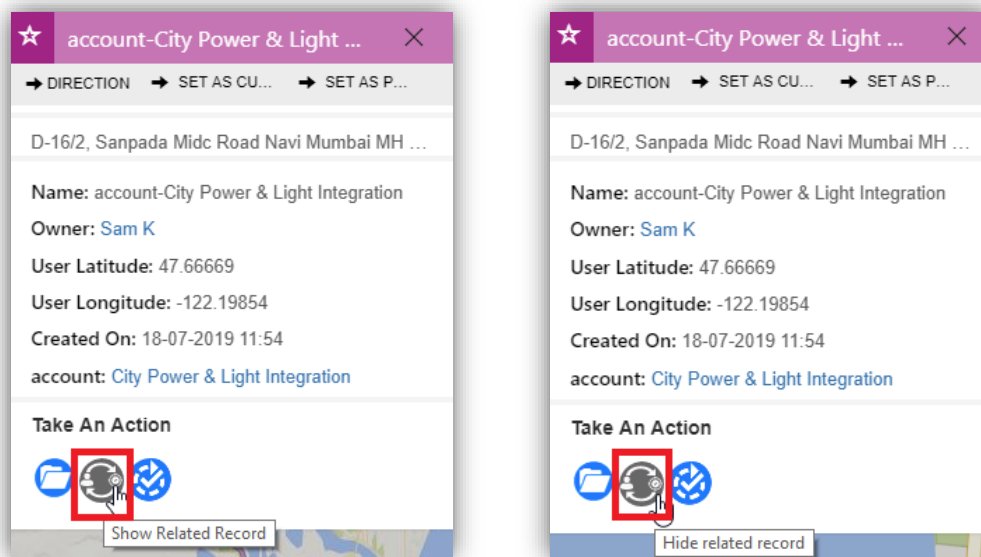


The related record can be visualized in the following two ways:

- By Contextual Menu: User can right click on any Check-In/Check-Out pushpin to open the 'Contextual menu' and click on 'Show Related Record'. This will plot the related record for the selected pushpin. To hide the related record, user can again right click on the same Check-In/Check-Out pushpin to open 'Contextual Menu' and click on 'Hide Related Record'.



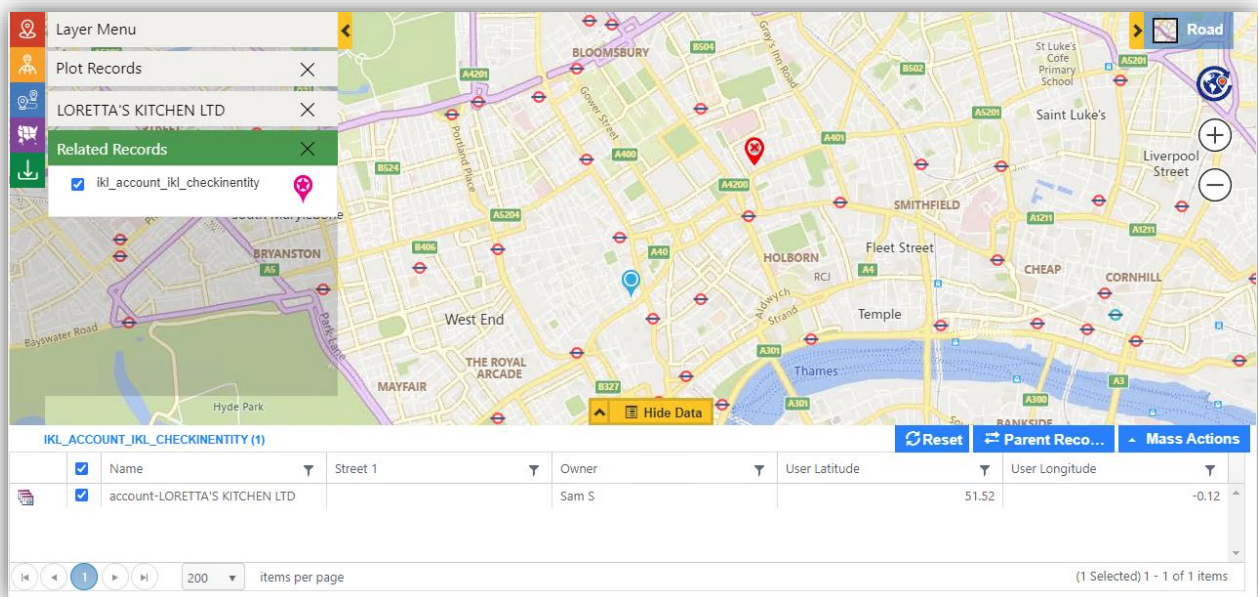
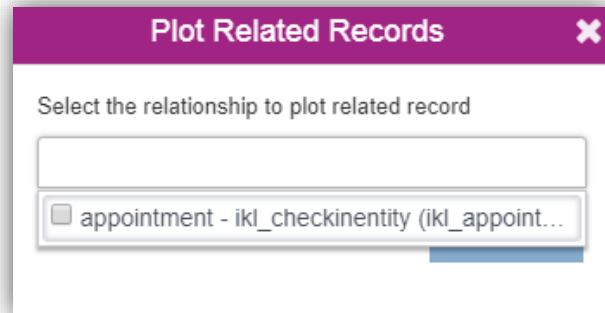
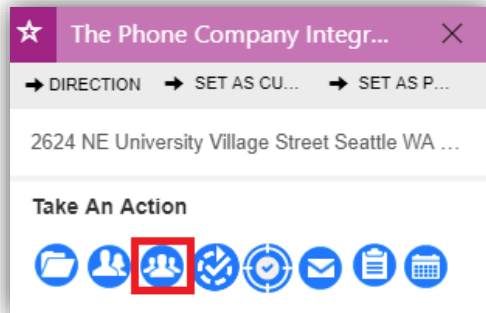
- By Tooltip Card: User can click on the Check-In/Check-Out pushpin to open the Tooltip Card and click on 'Show Related Record' from the 'Tooltip Card Actions'. To hide the related record, user can again click on same Check-In/Check-Out pushpin to open the Tooltip Card and click on 'Hide Related Record'.



## Maplytics™ – User Manual

Visualizing related Check-in/Check-Out records for plotted records (Appointments, Accounts, etc.)

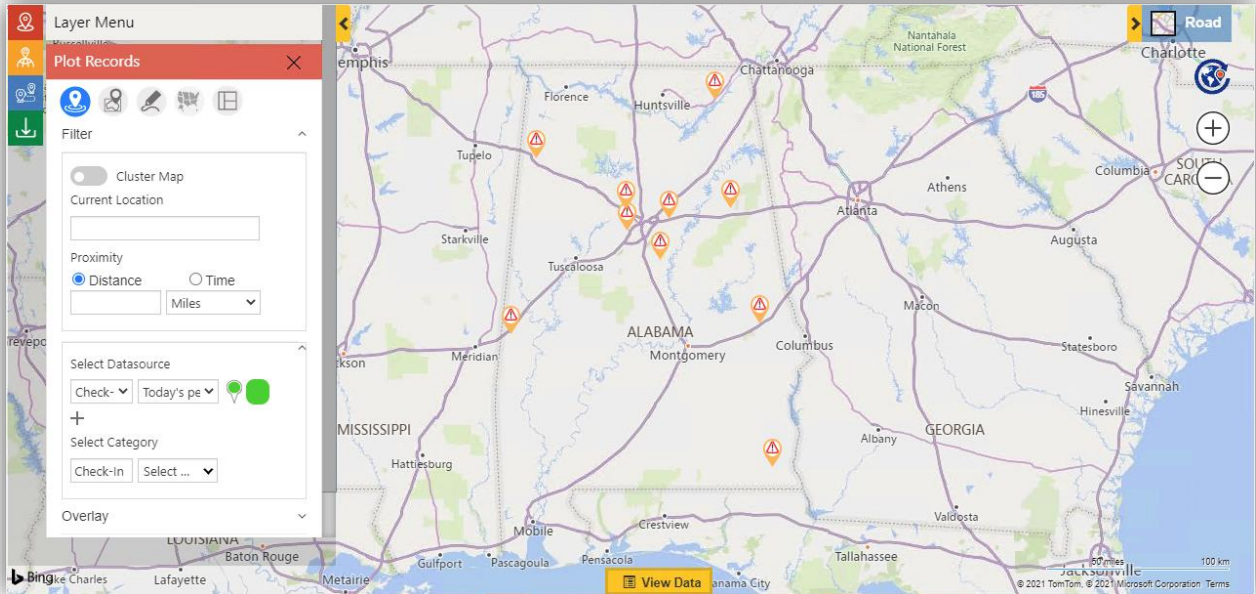
After selecting the relationship for the required entity within the entity map as suggested above, user can click on any plotted record to open the Tooltip card and click on 'Plot related record' to plot the related Check-In/Check-Out records.





## Visualize Pending Check-in/out requests

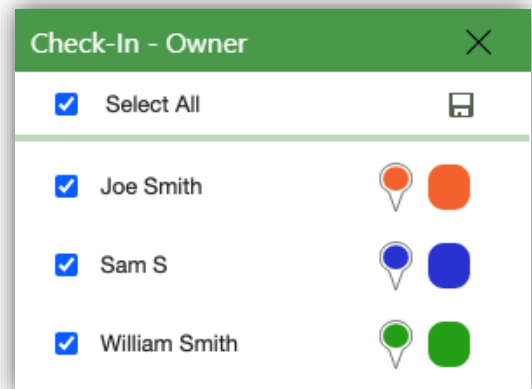
Managers can select the required view for the Check-in/out requests and plot the same on the map in order to visualize the pushpins.



## Approve/Reject pending Check-In/Check-Out records

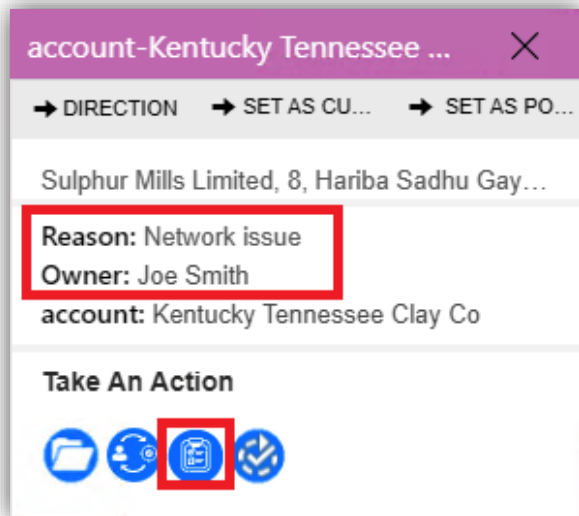
Once the manager has plotted the pending check-in/out request records on the map as shown above, they can check the request records created by field team and approve or reject the records in order to accept it as an active check-in/out record or reject it.

If manager needs to approve/reject the requests from a particular salesperson, they can also select 'Owner' within the 'Category' in the 'Plot Records' card to categorize the request records with Owners. Manager can further go to the category card to deselect the other owners so as to visualize only the records created by salesperson who reports to them.





## Maplytics™ – User Manual



Now, manager can click on a pushpin from the map and to see the Approve/Reject button. Admins can also **go to Maplytics App > Settings > Entity map > Check-in entity map > Tooltip Mappings > Add Request reason**. This will show the Reason for request on the tooltip card while a manager clicks on a pending check-in/out. After checking the reason, manager can decide and click on the button to open the window and select Approve or Reject and click on save.



Manager can also use the option of Approve/Reject from the Mass Actions to approve or reject all the pending check-in/out request records plotted on the map.

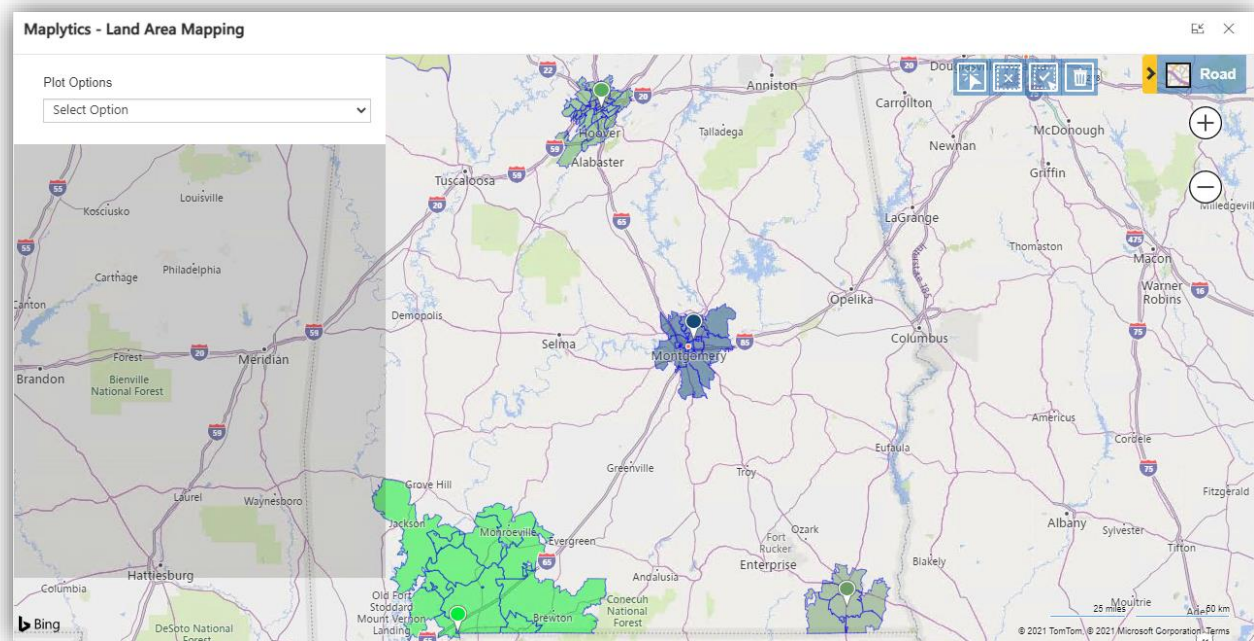
|                                     | Name                     | Street 1                 | Owner     | User's Latitude | User's Longitude | Reason                  | Status Reason | Status Reason |
|-------------------------------------|--------------------------|--------------------------|-----------|-----------------|------------------|-------------------------|---------------|---------------|
| <input checked="" type="checkbox"/> | account-Kentucky Te...   | Sulphur Mills Limited... | Joe Smith | 33.66           | -87              | Unable to find the g... | Active        |               |
| <input checked="" type="checkbox"/> | account-Kentucky Te...   | Sulphur Mills Limited... | Joe Smith | 33.17993        | -86.61626        | Network issue           | Active        |               |
| <input checked="" type="checkbox"/> | account-Laitinen, Ste... | Sulphur Mills Limited... | Joe Smith | 33.45465        | -86.98836        | Had Family emergency    | Active        |               |

### Note:

- **Only the system Admin, Maplytics Admin, or the Manager of a user can approve or reject the respective pending check-in or check-out records.**
- **Once the manger/admin approves/rejects a record, they cannot approve/reject the same record again.**

## Land Area Mapping

If users work with lands, real estates or farms etc. they can visualize their lands on map with this feature. Users will be able to assign land regions to the records and visualize them on the map to understand the coverage of area for each of the records using this feature.

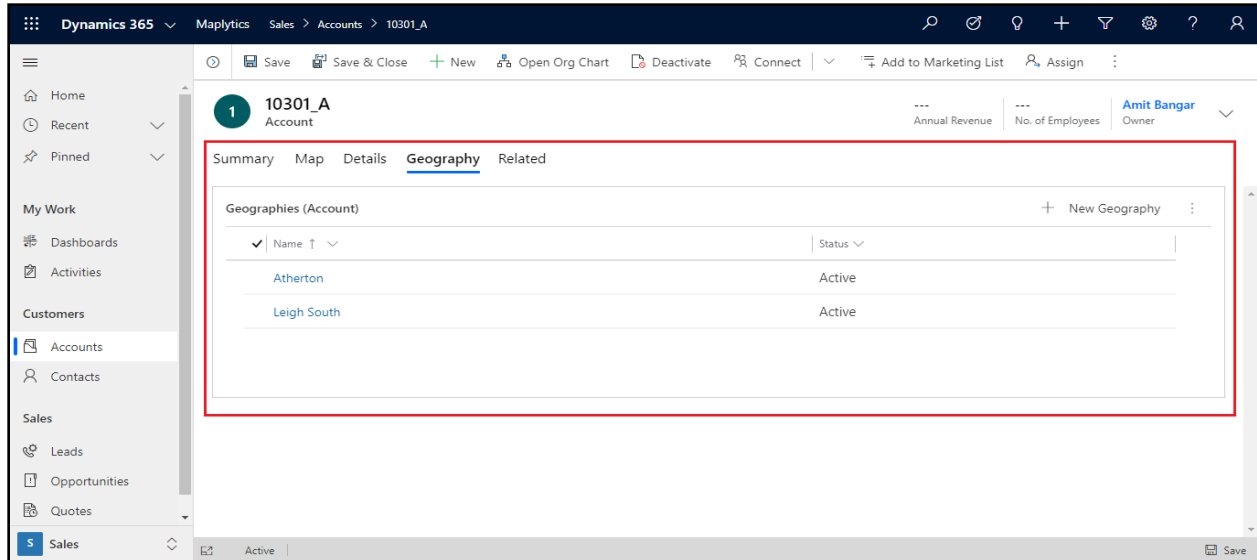


### Create and Assign land areas to entity records

#### Create 1: N relationship with Geography entity

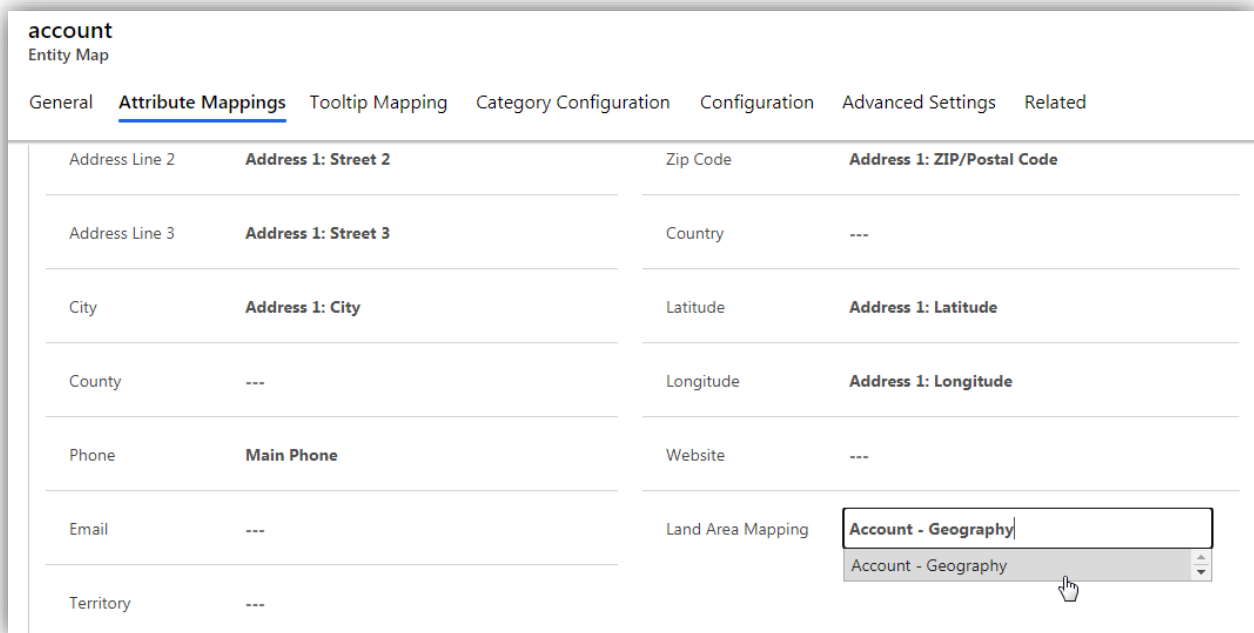
User first needs to assign the land regions (Geographies) to the records of the CRM entity for which the lands are to be visualized. For this, the user needs to create 1: N relationship between that entity and the Geography entity. For example, if the user wants to visualize the landscapes for Account records, so to create a 1: N relationship between the Accounts entity and the Geography entity. User can also add a grid on the Accounts form in order to see the list of landscapes that have been assigned to the record.

## Maplytics™ – User Manual




### Attribute Mapping for Landscapes

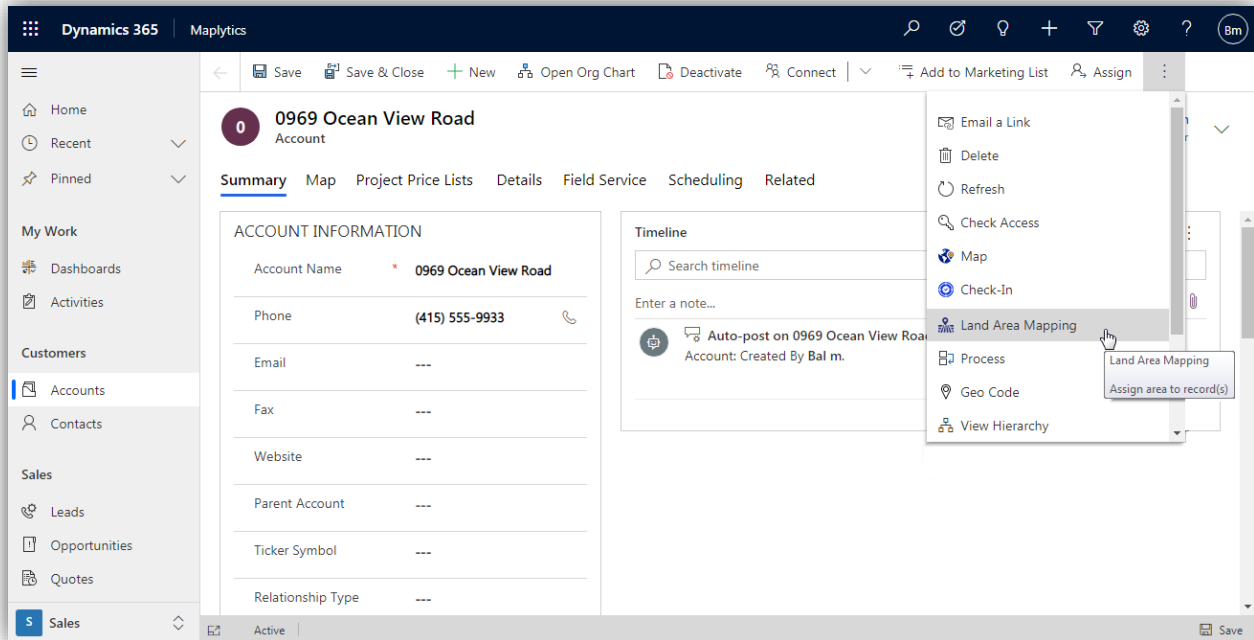
Once the relationship is created, select the same in the respective Entity map. As per our example, the Maplytics admin or system admin needs to **go to Maplytics App > Settings (Left bottom) > Entity Maps > Accounts Entity map > Attributes Mapping > Geography relationship > Select the 1: N relationship of Geography and Account.**



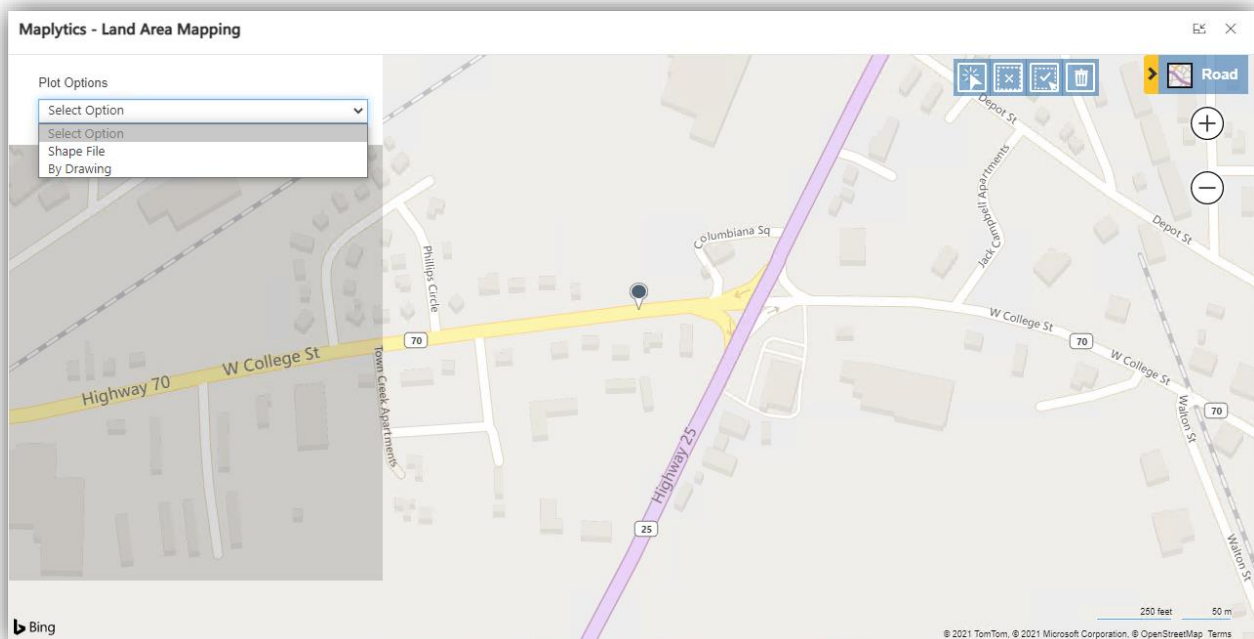
# Maplytics™ – User Manual

## Assign lands to single record

In order to visualize the land of a record, user first needs to create the geography for the landscape and assign the geography to the respective record. To do this, ***open the required record and click on ‘more commands’***  ***to click on the button of ‘Land Area Mapping’***.



After clicking on '**Land Area Mapping**', a new window will open as shown below where the user can upload Shape files or Excel files or draw shapes for the landscapes on the map.





## Maplytics™ – User Manual

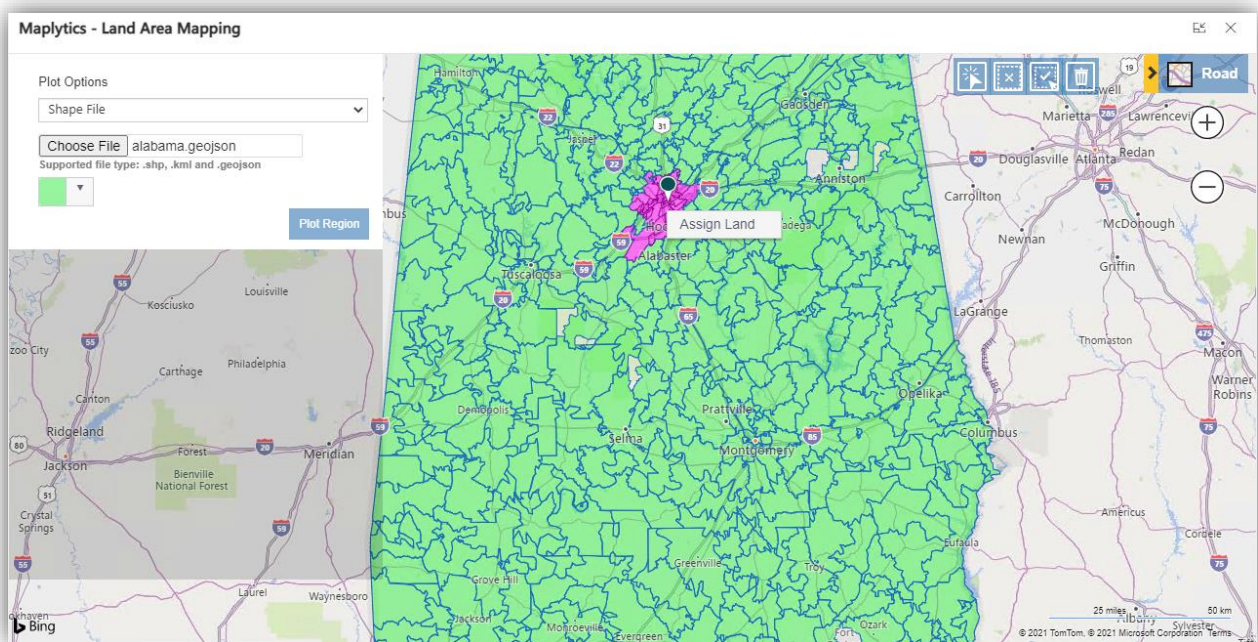
### Plot Options

There will be two options that can be used to plot the landscapes on the map.

- Shape File
- By Drawing

### Shape File

Users can select a shape file or an excel file to plot the respective lands on the map. The supported file formats are .shp, .kml, .geojson. Once the file is plotted on the map, user can use the selection tool at the right top corner to select, deselect, multi-select or delete the regions plotted on the map. Now user can select the required regions and right click to Assign Area.



User can here select the name for the selected region and click on 'Proceed' to save it.

Assign Land

Area Name \*

STATEFP10

Select Record \*

A. HARRIS PERSAUD & SONS

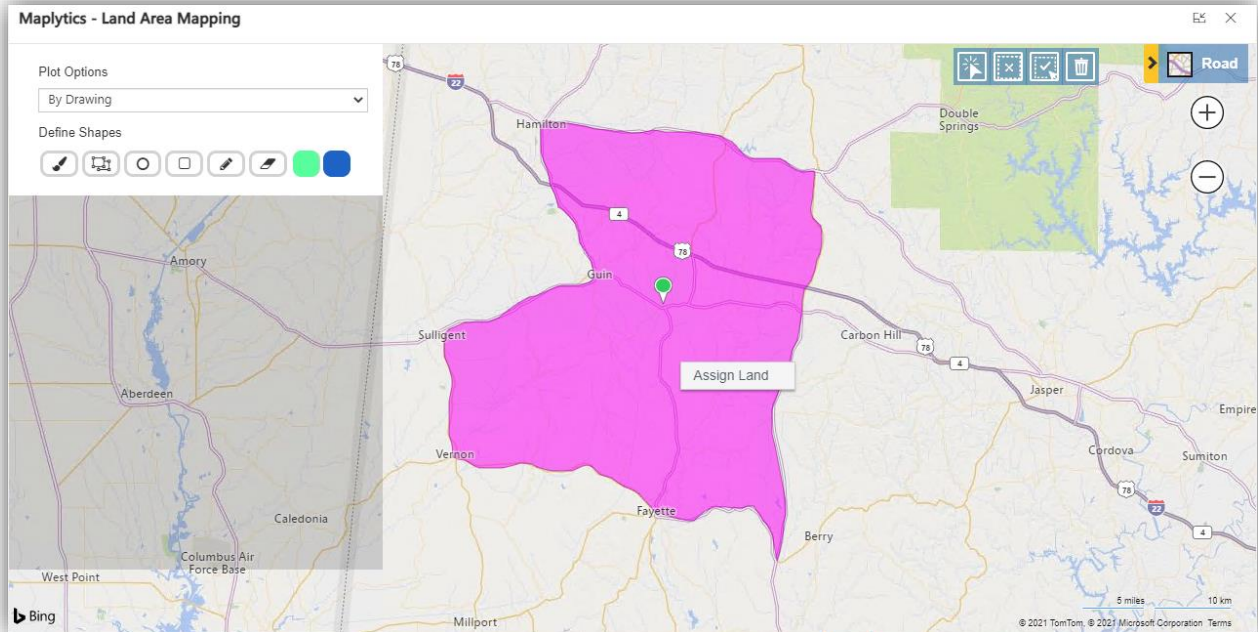
Proceed



## Maplytics™ – User Manual

### By Drawing

Users can also create geographies for the landscaping using the option of 'By Drawing'. They can use the drawing tool to draw the shapes for the required landscape on the map. Further, use the selection tool to select drawn shape(s) and right click to assign area.



Enter the name of the geography and click on 'Proceed'. The color of the drawn shape changes after getting assigned to the record.

Assign Land

Land Name \*

Hamilton

Select Record \*

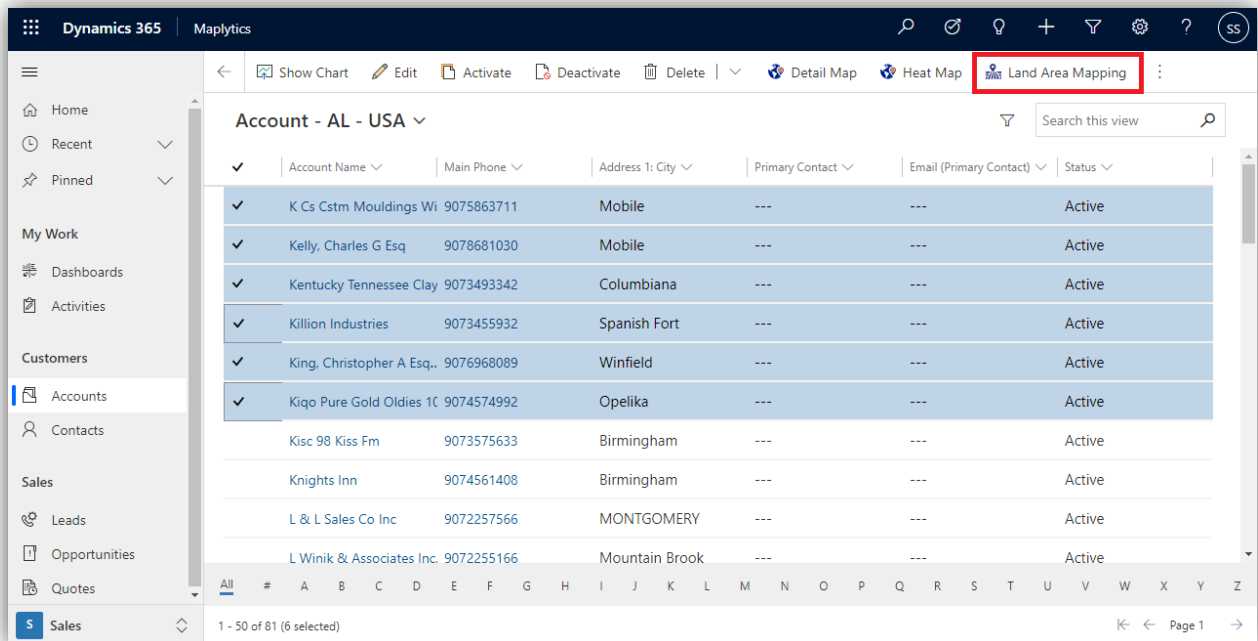
King, Christopher A Esq

Proceed

## Maplytics™ – User Manual

### Assign lands to multiple records

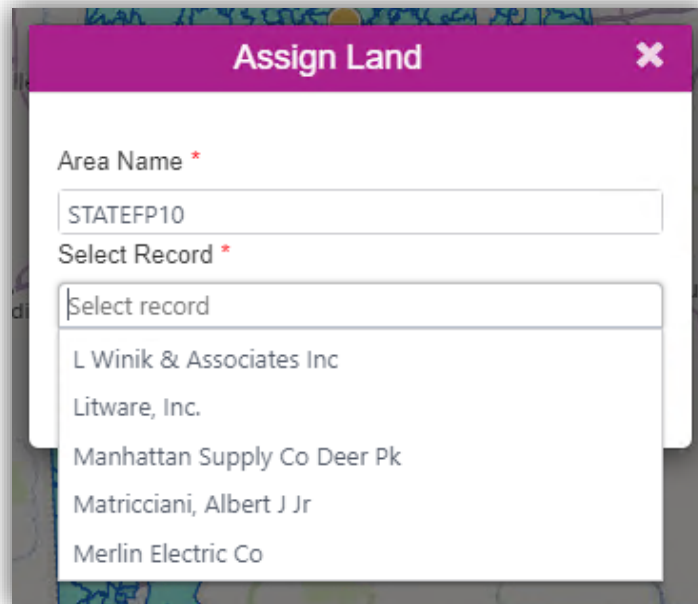
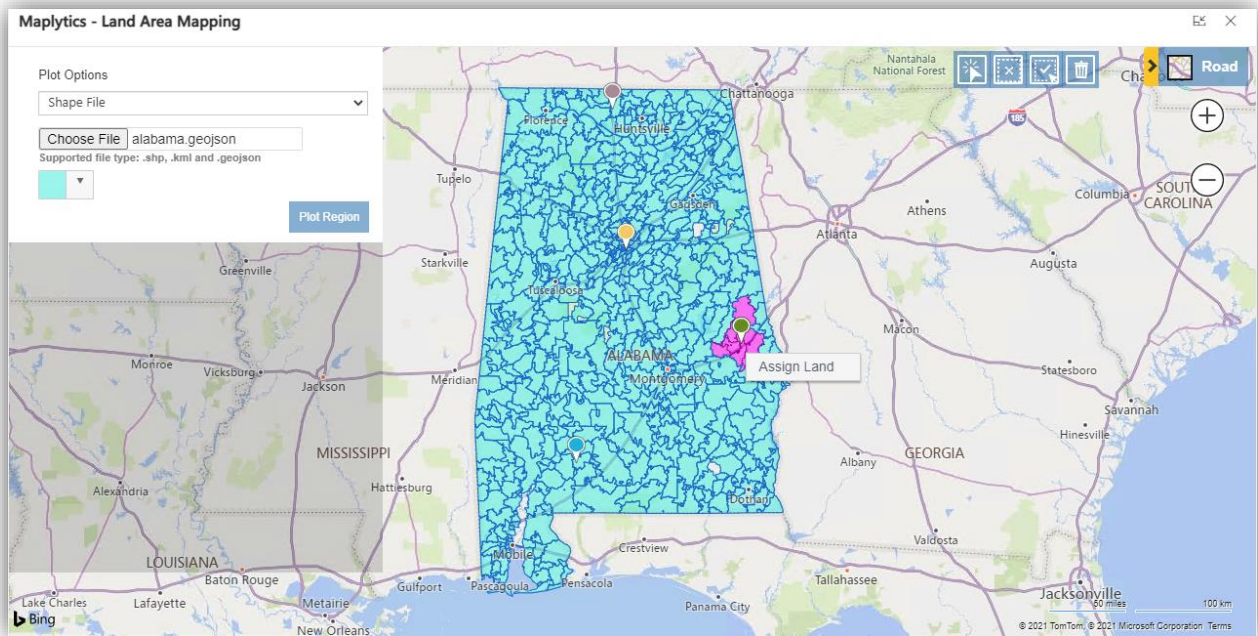
User can select multiple records from the home grid and assign lands to the selected records from the same map. After selecting required records, user can click on the 'Land Area Mapping' button.



After clicking on 'Land Area Mapping', a new window will open as shown below where the user can upload Shape files or Excel files or draw shapes for the landscapes on the map as mentioned in the section of 'Plot Options' above. Now just like mentioned in the sections, use the selection tool to select the required land on the map and right click to 'Assign Geographies'.

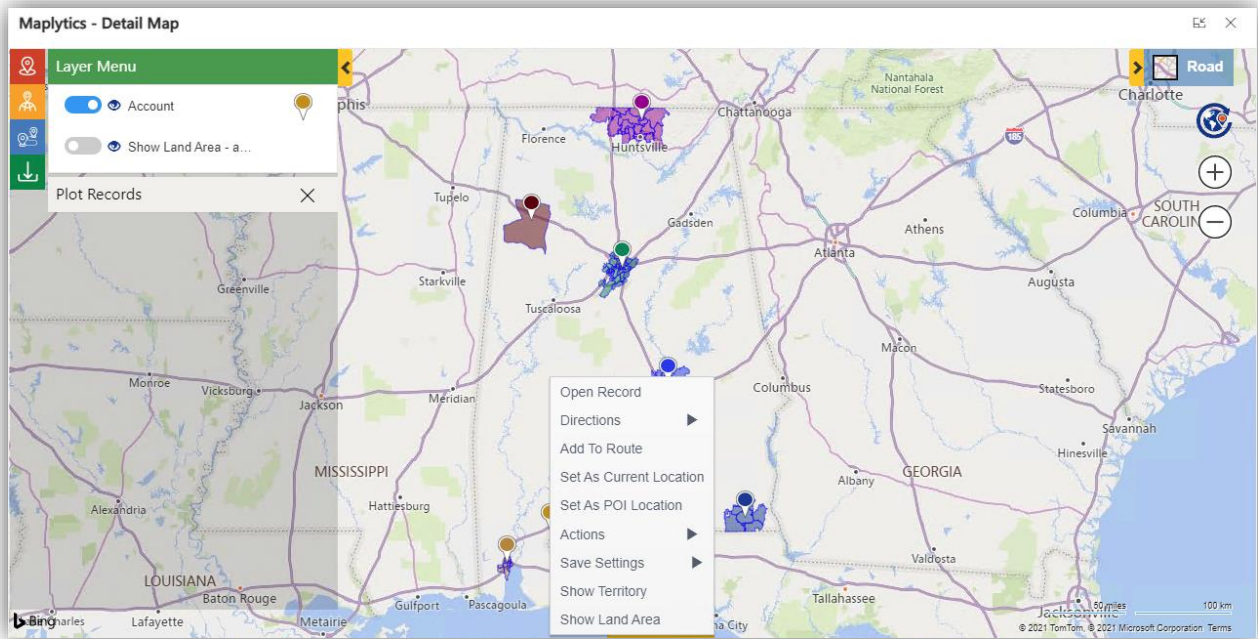
User can now select the area name if used a shape file or enter the area name if used the drawing tool and further select the record to which the respective land has to be assigned. This is how user can select the required region and assign it to all the records.

## Maplytics™ – User Manual



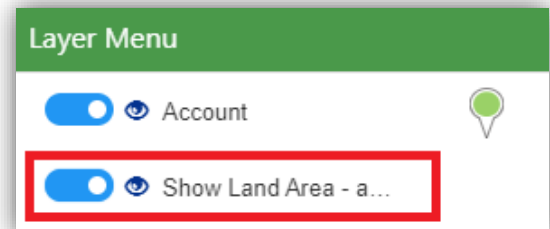
### Visualizing Assigned lands to the record

Users can select the entity in Datasource and the respective view in the 'Plot Records' card in Detail map to plot the record on the map as pushpins. While visualizing records on the Detail map, users can right click on any pushpin to open the Contextual menu and use the 'Show Land Area' button to plot the land that is assigned to the respective record.



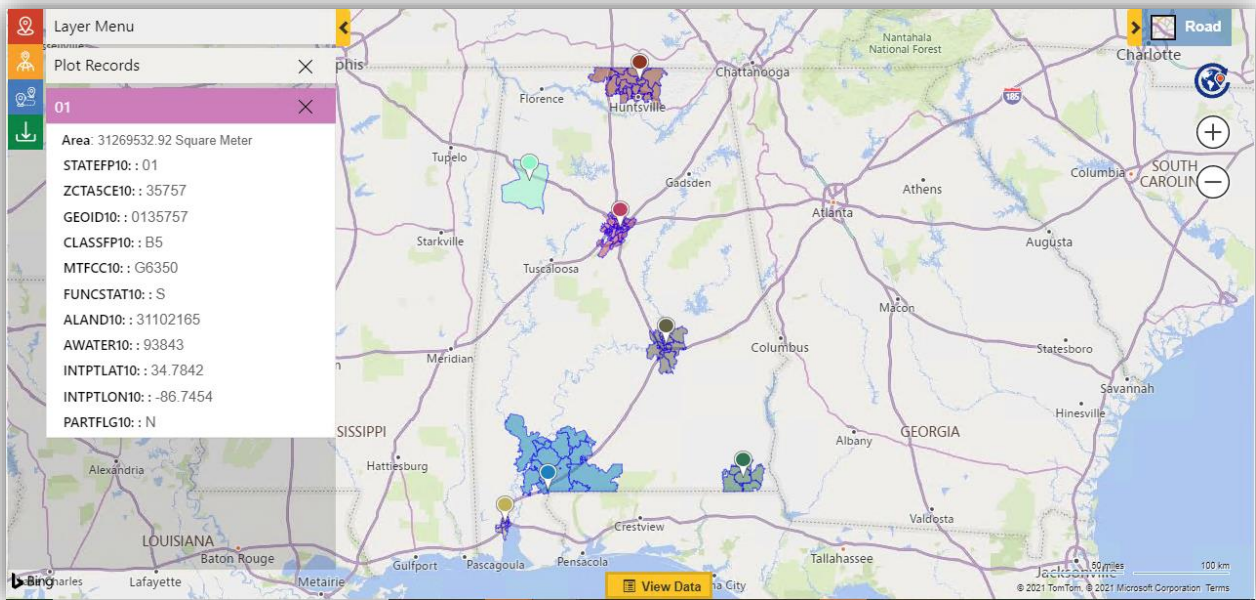
If the user wants to see all the lands that have been assigned to all the records that are plotted on the map, they can use the 'Show Land Area' toggle button on the Layer Menu to show/hide the same.

User can also click on any area plotted on the map to open the Summary card to view the metadata (information from the shape file) of the region.





## Maplytics™ – User Manual



User can also select records from the home grid and click on 'Land Area Mapping' button from the ribbon to view all the lands assigned to the records. They can further assign more lands to the required records as mentioned in the section of 'Assign lands to multiple record' above.

**Dynamics 365 | Maplytics**

**Account - AL - USA**

**Land Area Mapping**

| ✓ | Account Name               | Main Phone | Address 1: City | Primary Contact | Email (Primary Contact) | Status |
|---|----------------------------|------------|-----------------|-----------------|-------------------------|--------|
| ✓ | Knights Inn                | 9074561408 | Birmingham      | ---             | ---                     | Active |
| ✓ | L & L Sales Co Inc         | 9072257566 | MONTGOMERY      | ---             | ---                     | Active |
| ✓ | L Winik & Associates Inc.  | 9072255166 | Mountain Brook  | ---             | ---                     | Active |
| ✓ | Laitinen, Stephen B Esq... | 9072259451 | Hueytown        | ---             | ---                     | Active |
| ✓ | Lba Savings Bank           | 9072790647 | Moody           | ---             | ---                     | Active |
| ✓ | Leading Sales Distributor  | 9076882268 | Meridianville   | ---             | ---                     | Active |
|   | Lease-a-Sales Shop         | 9076967813 | Auburn          | ---             | ---                     | Active |
|   | Ledecky, David Esq         | 9073763244 | Dothan          | ---             | ---                     | Active |
|   | Lensbower, Gregory L Es    | 9075228683 | MONTGOMERY      | ---             | ---                     | Active |
|   | Life-Style Sales           | 9077477827 | Orange Beach    | ---             | ---                     | Active |

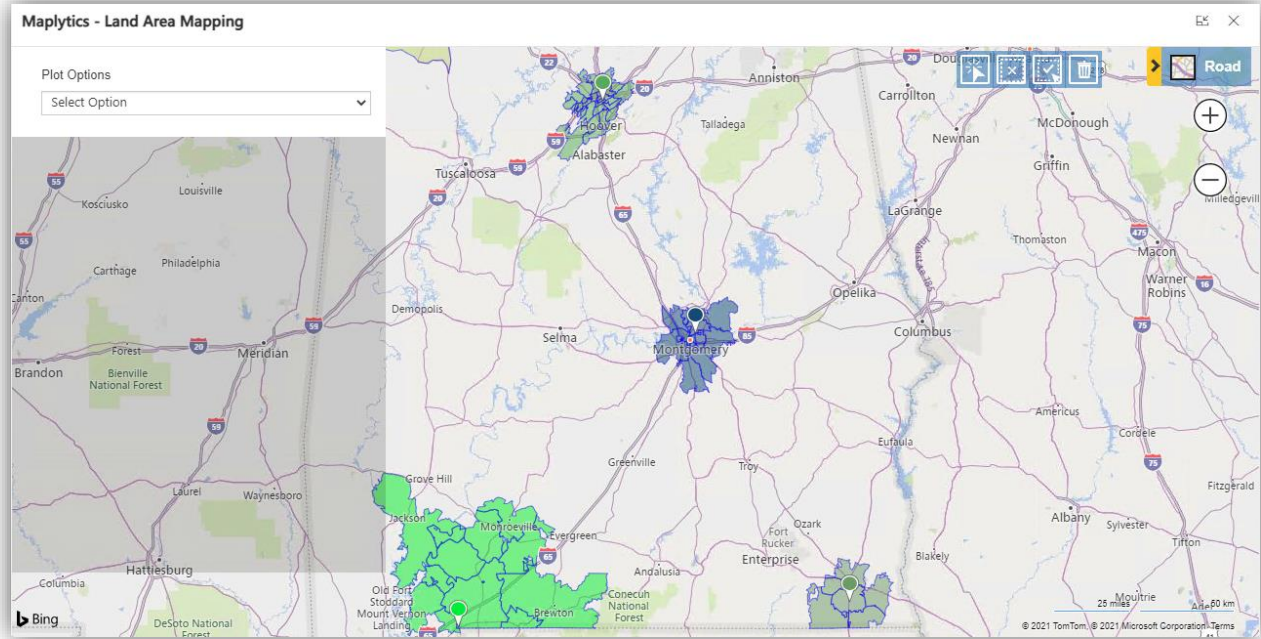
1 - 50 of 81 (11 selected)

Page 1



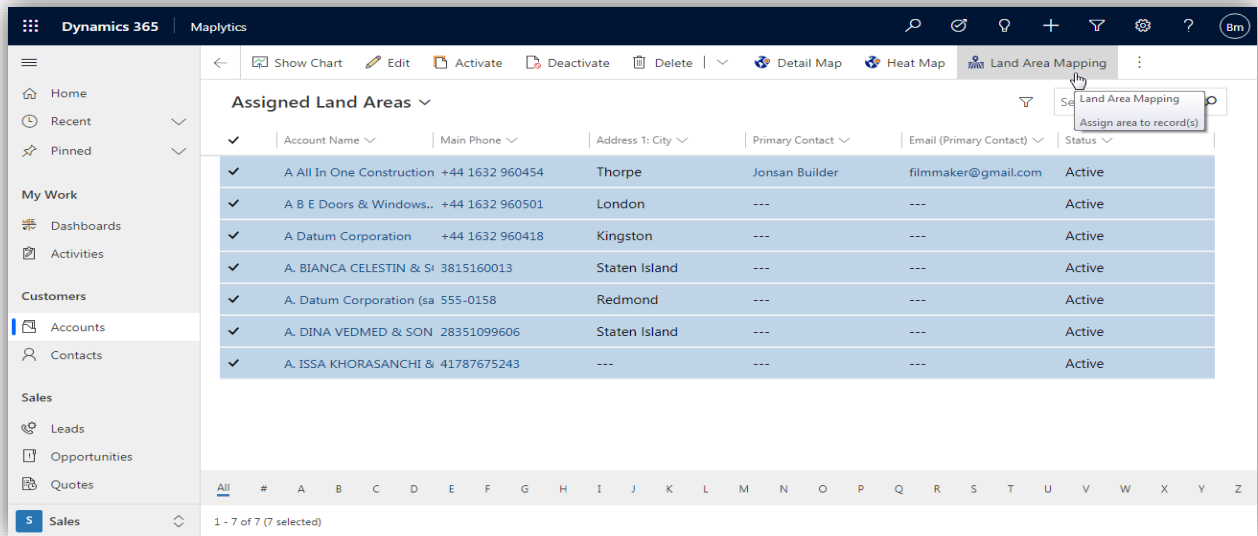
## Maplytics™ – User Manual

The below screenshot shows the lands assigned to the records selected from the Entity home grid.



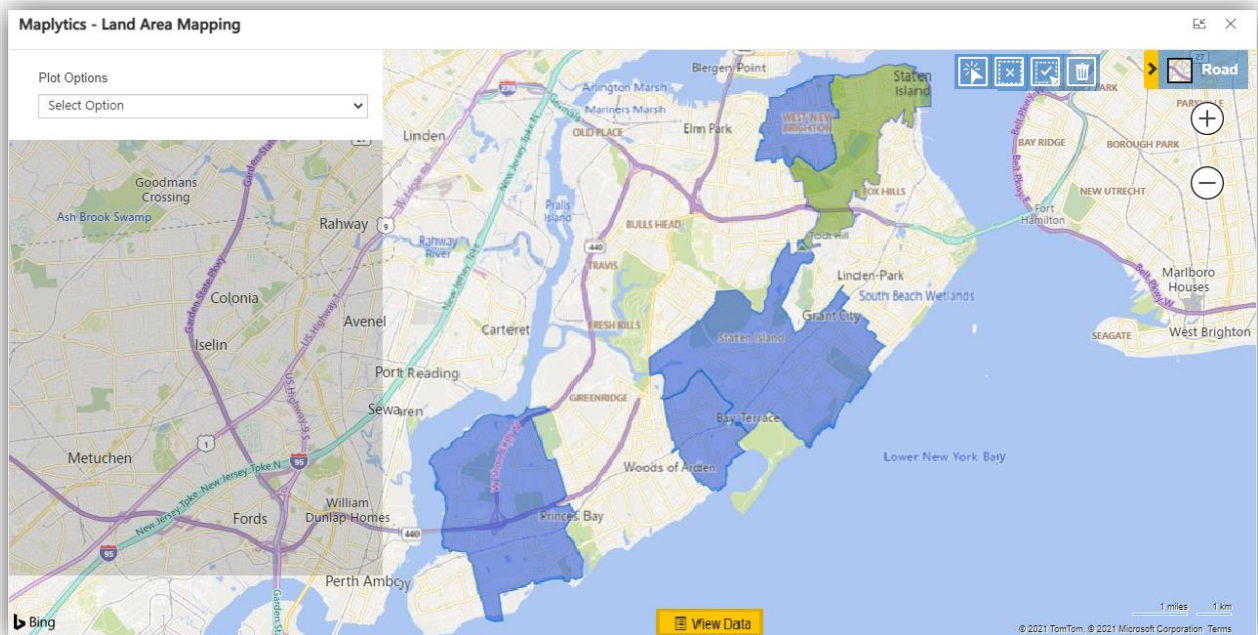
## Visualizing Assigned lands to the records having no geocoordinates

If the users are using an entity for landscapes which doesn't have its own address or are not geocoded, but have assigned lands to the records, they can still plot the lands assigned to the entity records. To do this select required record(s) from the entity dataset and click on 'Land Area Mapping' button from the Ribbon. This will open a window plotting all the lands that have been assigned to the records. User can further use the 'Plot Options' to plot lands on the map and assign them to the required records as mentioned in the section of the 'Plot Options' above.



The screenshot shows the Dynamics 365 Maplytics interface. The left sidebar contains navigation options: Home, Recent, Pinned, My Work, Dashboards, Activities, Customers, Accounts, Contacts, Sales, Leads, Opportunities, and Quotes. The main area displays a table titled 'Assigned Land Areas' with columns: Account Name, Main Phone, Address 1: City, Primary Contact, Email (Primary Contact), and Status. The table lists seven records, all with a status of 'Active'. A 'Land Area Mapping' button is visible in the top right corner of the table area.

| Account Name              | Main Phone      | Address 1: City | Primary Contact | Email (Primary Contact) | Status |
|---------------------------|-----------------|-----------------|-----------------|-------------------------|--------|
| A All In One Construction | +44 1632 960454 | Thorpe          | Jonsan Builder  | filmmaker@gmail.com     | Active |
| A B E Doors & Windows..   | +44 1632 960501 | London          | ---             | ---                     | Active |
| A Datum Corporation       | +44 1632 960418 | Kingston        | ---             | ---                     | Active |
| A. BIANCA CELESTIN & Sr   | 3815160013      | Staten Island   | ---             | ---                     | Active |
| A. Datum Corporation (sa  | 555-0158        | Redmond         | ---             | ---                     | Active |
| A. DINA VEDMED & SON      | 28351099606     | Staten Island   | ---             | ---                     | Active |
| A. ISSA KHORASANCHI &     | 41787675243     | ---             | ---             | ---                     | Active |



## Real-Time Tracking

With Real-Time Tracking, sales reps, service reps and resources can be tracked within all modules of CRM in real time. This will help to view the routes that are being followed by reps/resources as well as the routes that had been followed by them in the past. The appointments/bookable resource bookings that have been assigned to the resources can also be seen with the help of this feature. This feature also works in the Dynamics CRM app, Dynamics CRM sales app and Field Service app.

### Configuration

**To enable this feature, go to Maplytics App > Settings > Map Configuration Details > Default Configuration details record (the one with no user) > Real-Time Tracking > Enable Real-Time Tracking > select the checkbox.**

**Maplytics** - Saved  
Map Configuration Details

General   Advance Settings   Check-In   Auto Scheduling   Real-Time Tracking   Related

**Enable Real-Time Tracking** ☒

Refresh Interval (Seconds) \* **30**

**Maplytics** - Saved  
Map Configuration Details

General   Advance Settings   Check-In   Auto Scheduling   Real-Time Tracking   Related

**Enable Real-Time Tracking** ☒

Refresh Interval (Seconds) \* **30**

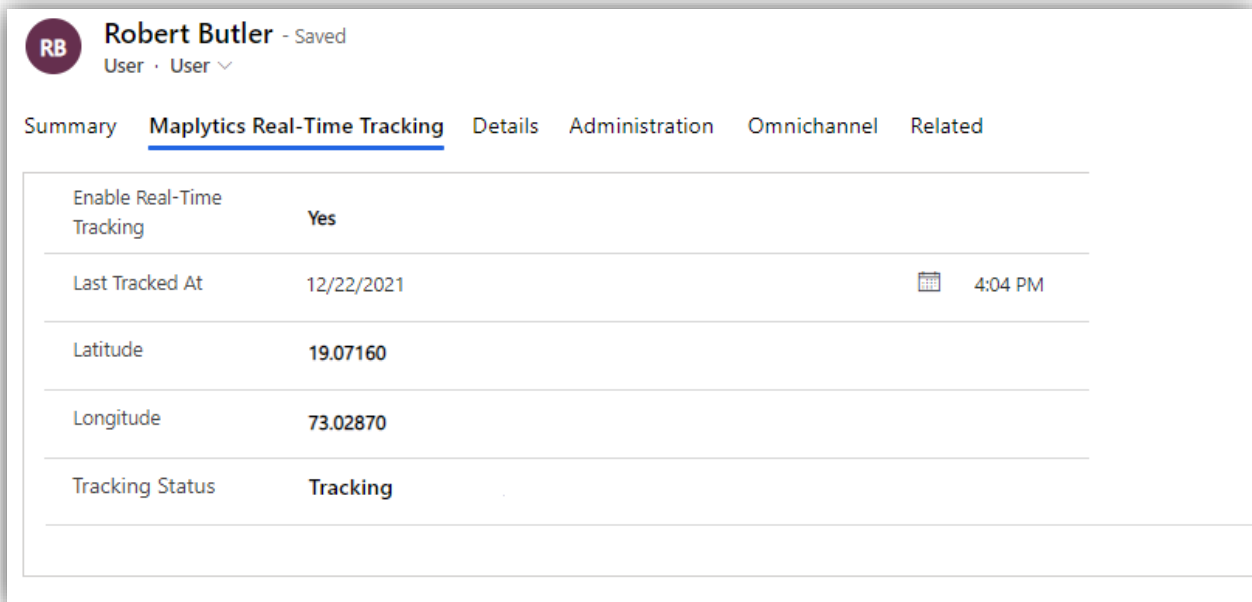
|                               |            |  |         |  |                             |            |  |          |  |
|-------------------------------|------------|--|---------|--|-----------------------------|------------|--|----------|--|
| Monday Tracking Start Time    | 12/13/2021 |  | 8:00 AM |  | Monday Tracking End Time    | 12/13/2021 |  | 10:00 PM |  |
| Tuesday Tracking Start Time   | 12/14/2021 |  | 8:00 AM |  | Tuesday Tracking End Time   | 12/14/2021 |  | 10:30 PM |  |
| Wednesday Tracking Start Time | 12/15/2021 |  | 8:00 AM |  | Wednesday Tracking End Time | 12/15/2021 |  | 10:30 PM |  |
| Thursday Tracking Start Time  | 12/16/2021 |  | 8:00 AM |  | Thursday Tracking End Time  | 12/16/2021 |  | 11:30 PM |  |
| Friday Tracking Start Time    | 12/17/2021 |  | 8:00 AM |  | Friday Tracking End Time    | 12/17/2021 |  | 11:30 PM |  |
| Saturday Tracking Start Time  | 12/18/2021 |  | 8:00 AM |  | Saturday Tracking End Time  | 12/18/2021 |  | 11:30 PM |  |
| Sunday Tracking Start Time    | 12/19/2021 |  | 8:00 AM |  | Sunday Tracking End Time    | 12/19/2021 |  | 11:30 PM |  |

**Refresh Interval:** Admins can select the 'Refresh Interval' to decide the interval (in seconds) at which the location of the Resources/Sales reps will be tracked. For example, every 30 seconds.

**Day and Time:** Working days and the start & end timings can be selected from the list. Based on this selection the reps/resources will be tracked. If admins do not want the reps/resources to be tracked on any particular day, they can leave the timings blank to avoid tracking on those days. Admins can also go to the Maplytics Configuration Detail record of individual reps to set different required timings for tracking.

### User Settings for CRM Modules other than Field service

Real-time tracking can be used to track the reps/resources that have been added to the Maplytics team as users. The admin needs to **go to the user's record > Maplytics Location Tracking > Enable the tracking** for the individual users and can view the other details.



**Robert Butler** - Saved  
User · User ▾

Summary **Maplytics Real-Time Tracking** Details Administration Omnichannel Related

|                           |                    |
|---------------------------|--------------------|
| Enable Real-Time Tracking | Yes                |
| Last Tracked At           | 12/22/2021 4:04 PM |
| Latitude                  | 19.07160           |
| Longitude                 | 73.02870           |
| Tracking Status           | Tracking           |

**Enable Location Tracking:** Select “Yes” to track the respective user.

**Last Tracked At:** This will show the date and time when the respective user was last tracked at.

**Latitude & Longitude:** These will be the coordinates at which the user was last tracked.

**Tracking Status:** This will show the current status of tracking for the user. Based on three situations the status will be as follows:

- Tracking - The user has enabled tracking in the Maplytics app and the tracking is on
- Tracking Stopped - Outside business hours – Tracking has stopped as current time is outside business hours.

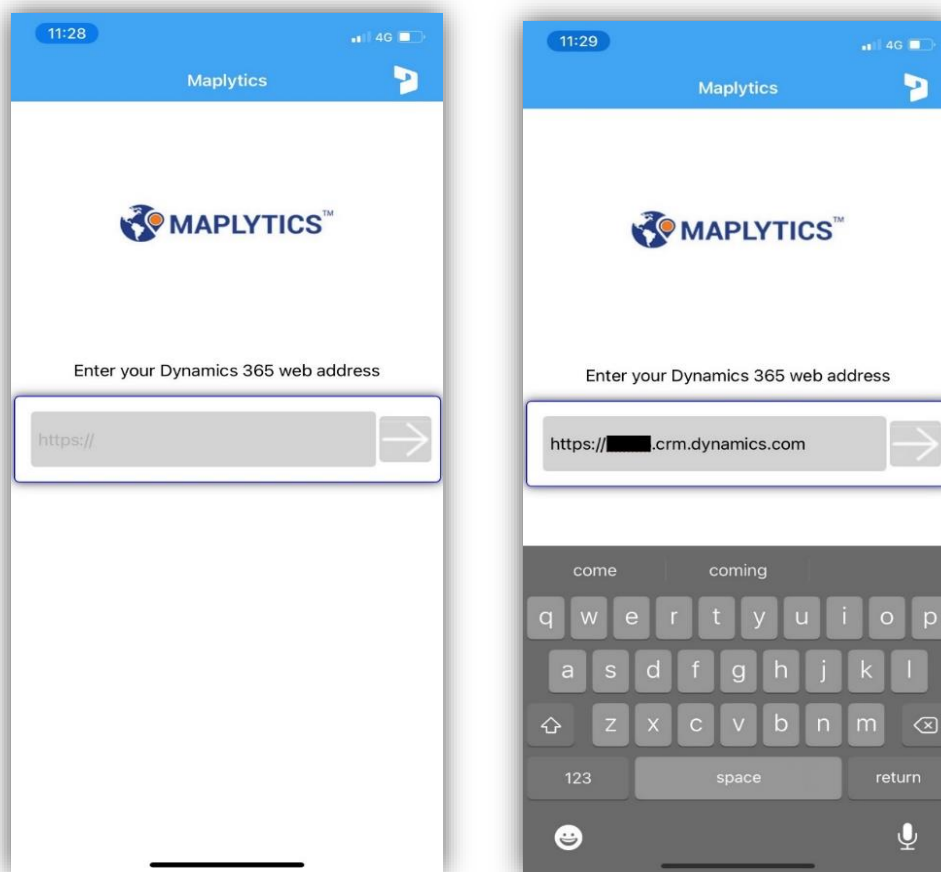
## Maplytics™ – User Manual

- Tracking Stopped - Tracking Disabled/ GPS Issue/ Location Service Issue – Tracking has stopped due to one of the three reasons:
  - The user has disabled tracking in the Maplytics app
  - GPS information is not available
  - There is issue with the location service.

### Maplytics Real-Time Tracking App for Sales and Other Modules

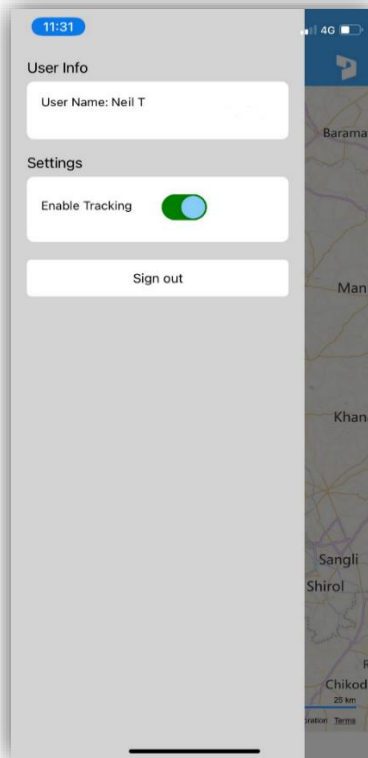
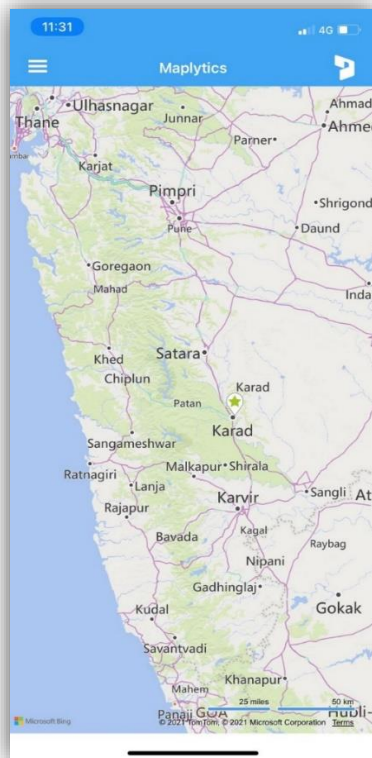
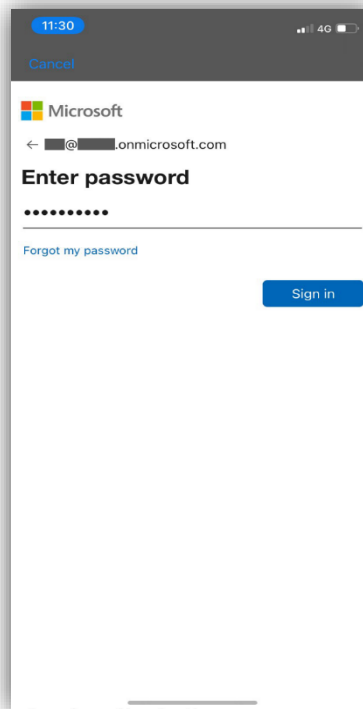
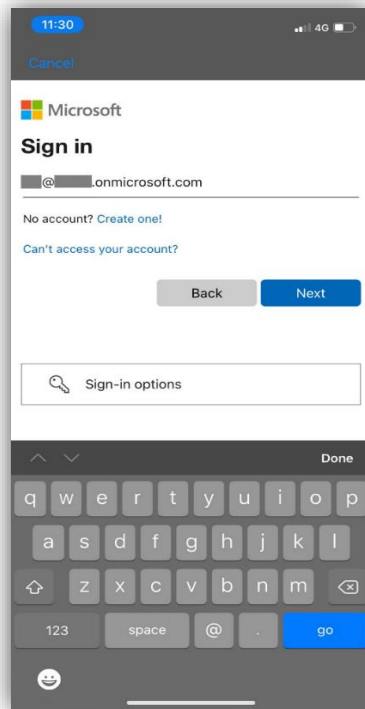
The Reps can download & install the Maplytics App and log in to their CRM credentials. The app is available on Playstore and Appstore for Android or iOS devices.

When the reps log in to the Maplytics App they can view their current location on map in the form of a pushpin. The pushpin will move on the map whenever the rep makes any movement. The rep can select the toggle button to start the tracking. Once they have finished their work they can use the toggle button to stop the tracking and log out from the app.





## Maplytics™ – User Manual

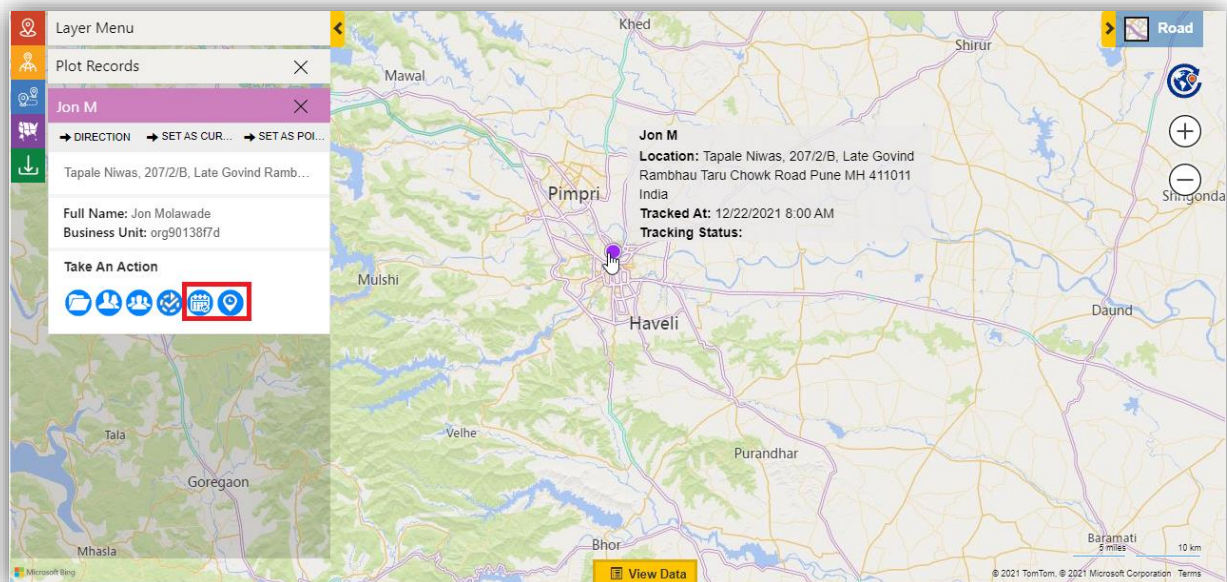


### Note:

- ***Users should be added to the Maplytics team in order to be tracked.***
- ***For field service, admin also need to enable 'Location tracking' within the Geolocation Settings of Dynamics 365 field service and select the timings, for example, every 1 minute to track the location of the Resources at every specified interval.***
- ***The users should be logged in to the Field Service app for tracking in Field Service CRM.***
- ***The users should be logged in to Maplytics app and the tracking option should be enabled for tracking in CRM with other Modules like Sales, Customer Service etc.***

Once the Real-Time Tracking has been enabled, users can **go to the Detail map > Select Data source > select the Resource/User as the entity and the required view > click on Search**. Once the users/resources are plotted as pushpins on map, the resource location that is being tracked at every interval will be updated on the map. Users can click on the pushpins of the users/resources to open the tooltip card for that user/resource. Users can view the tracking information for only those Resources/Users that have been added to the Maplytics team and have Location tracking enabled in the User Settings. Users can click on the Users/Resources to view the tooltip card to find the two buttons for Real-time tracking, i.e., 'Today's plan' and 'Location History'.

**Note: To view the Users as an entity in the option for 'Select Datasource', an entity map for the entity 'Users' should be created.**



### Today's Plan

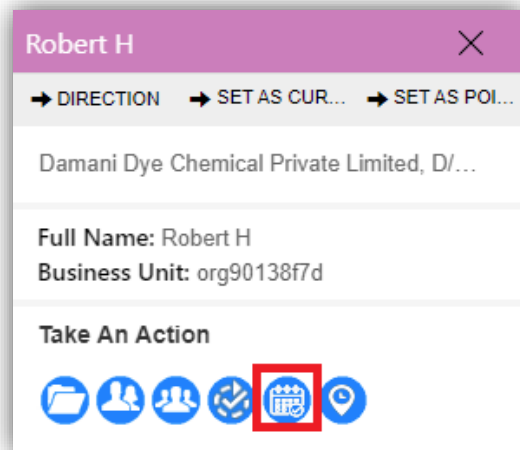
'Today's Plan' button will allow the managers to view route assigned to the respective rep/resource to be followed today as well as the route that is being traveled by the respective rep/resource in real-time, and the appointments assigned to them for today. The route assigned to the rep/resource will be shown in **sky blue** color and the route that is being traveled by the rep/resource in real-time will be shown in **navy blue** color. As the rep/resource moves on the field, the pushpin for the rep/resource can also be seen as moving on the map.

### Sales and Other Modules

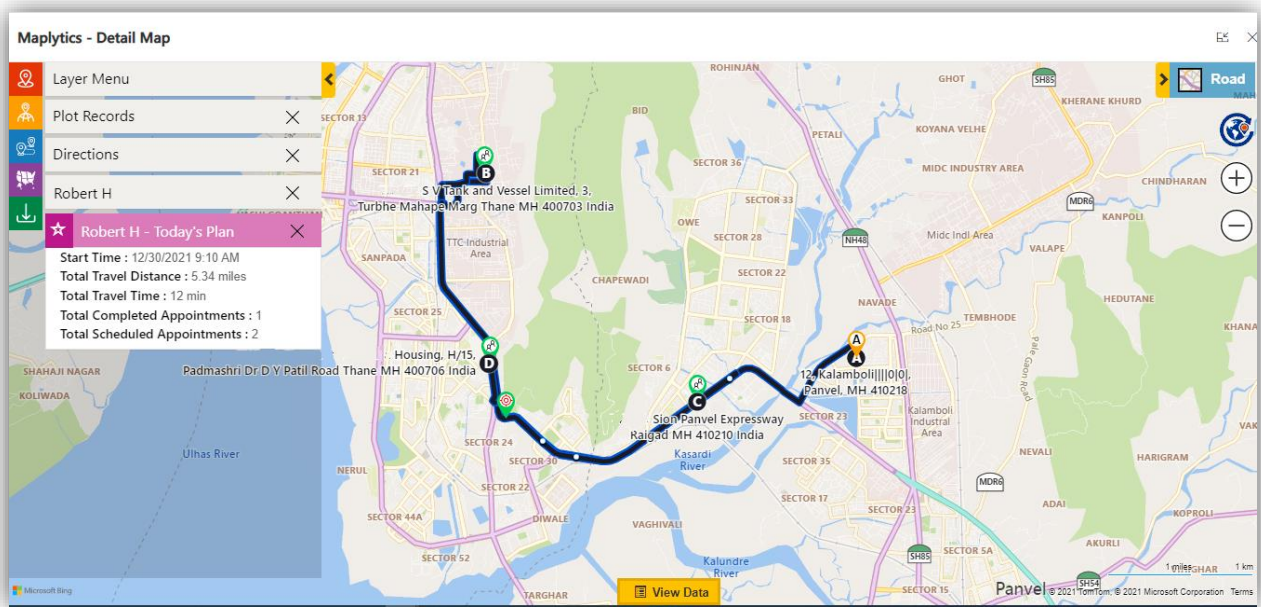
Clicking on the User's pushpin, its tooltip card opens up. User can also hover on the plotted user's pushpin to see further information about the rep. The below screenshot shows the information about the rep in the tooltip card for the rep 'Robert H'. Here user can click on the 'Today's plan' button to track Robert for today.

Users can view the following information of Appointment Timestamps on the Summary card opened up for the respective rep. They can also hover on the resource pushpin to see these details.

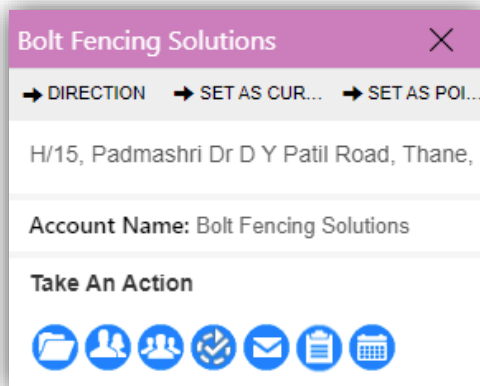
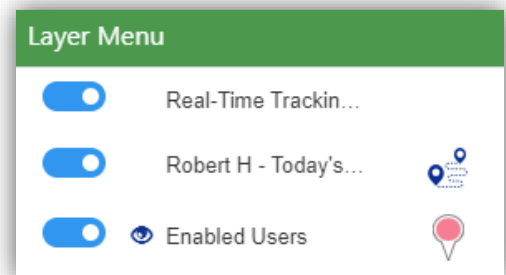
- Start Time
- End Time
- Total Travel Distance
- Total Travel time
- Total Appointments
- Total Completed Appointments
- Total Canceled Appointments
- Total InProgress Appointments
- Total Scheduled Appointments



## Maplytics™ – User Manual



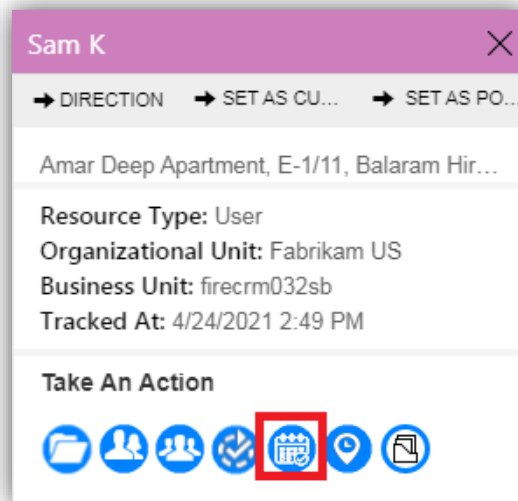
User can go to the Layer Menu and use the toggle button to show/hide the route being tracked in the real-time and the route that was assigned to the resource.



User can also click on the pushpins of the waypoints on the map to view the details of the respective Account/Contact.

### Field Service

Clicking on the Resource's pushpin, the tooltip card opens up. The below screenshot shows the Tooltip card of the Resource Sam K.

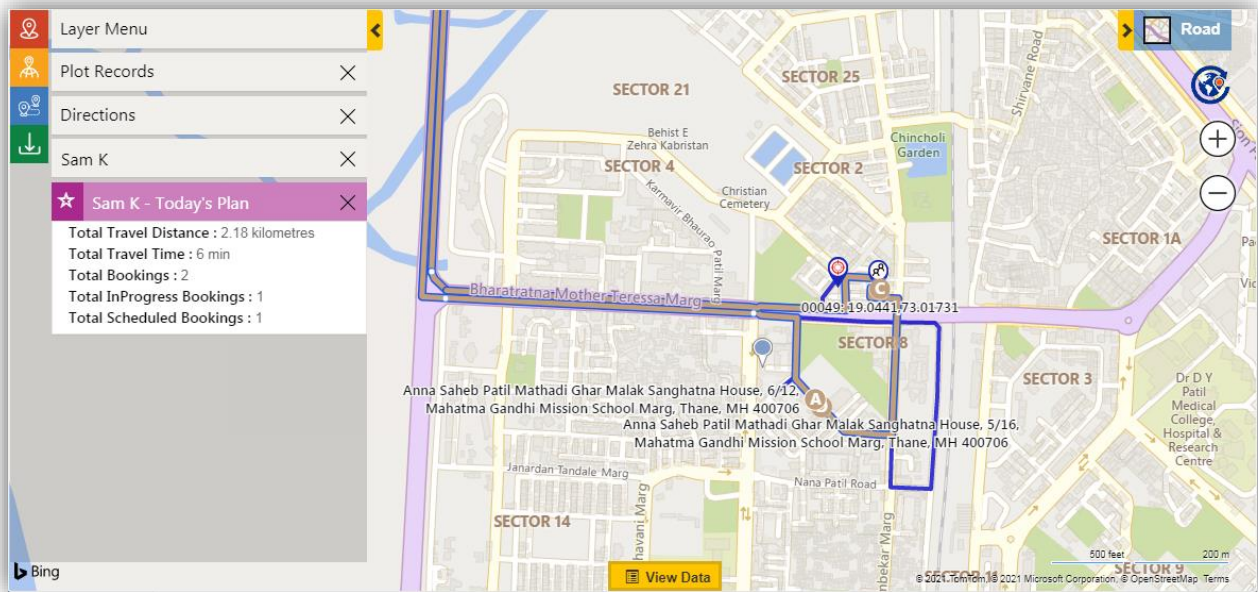


Users can view the following information of Booking Timestamps on the Summary card opened up for the respective resource. They can also hover on the resource pushpin to see these details.

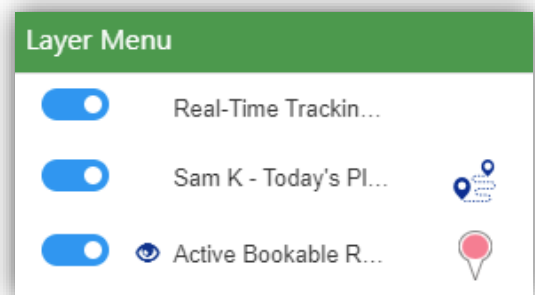
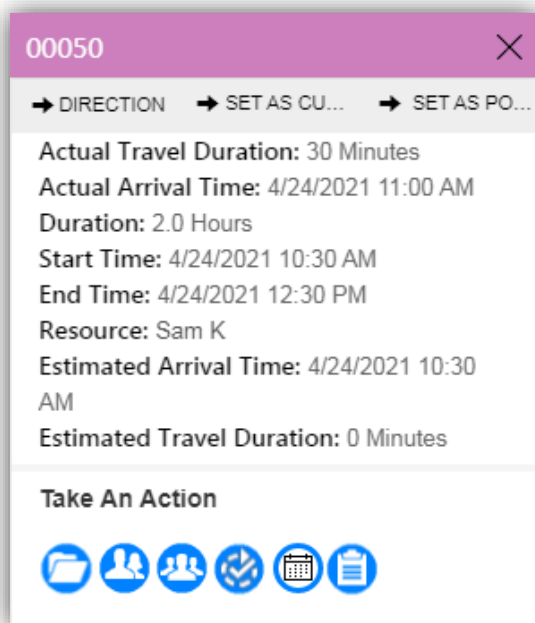
- Total Travel Distance
- Total Travel time
- Total Bookings
- Total Completed Bookings
- Total Canceled Bookings
- Total InProgress Bookings
- Total Scheduled Bookings
- End Time
- Start Time



## Maplytics™ – User Manual



User can go to the Layer Menu and use the toggle button to show/hide the route being tracked in the real-time and the route that was assigned to the resource.



User can also click on the pushpins of the Bookable resource bookings plotted on the map to see information about that booking.

## Maplytics™ – User Manual

User can also click on 'View Data' button to view the details of the resources.

The screenshot displays the Maplytics interface. On the left, a 'Layer Menu' lists 'Plot Records', 'Sam K', 'Akshi A', and 'Sam K - Location History ...'. The 'Location History' entry is selected, showing a summary: 'Total Travel Distance : 2.18 kilometres', 'Total Travel Time : 6 min', 'Total Bookings : 2', 'Total InProgress Bookings : 1', 'Total Scheduled Bookings : 1', 'Start Time : 4/24/2021 2:22 PM', and 'End Time : 4/24/2021 2:49 PM'. The map shows a path through Shivaji Garden, Cidco Garden, and Nilgrish Garden. A 'Hide Data' button is visible. Below the map, a 'Resources (2)' table lists two resources: 'Akshi A' and 'Sam K', both of type 'User' from 'Fabrikam US'. The table has columns for Name, Resource Type, Organizational Unit, Business Unit, and Target Utilization. At the bottom, there are navigation controls, a '50 items per page' dropdown, and a status bar indicating '(2 Selected) 1 - 2 of 2 items'.

|                                     | Name ▲  | Resource Type ▼ | Organizational Unit ▼ | Business Unit ▼ | Target Utilization ▼ |
|-------------------------------------|---------|-----------------|-----------------------|-----------------|----------------------|
| <input checked="" type="checkbox"/> | Akshi A | User            | Fabrikam US           | firecrm032sb    |                      |
| <input checked="" type="checkbox"/> | Sam K   | User            | Fabrikam US           | firecrm032sb    |                      |

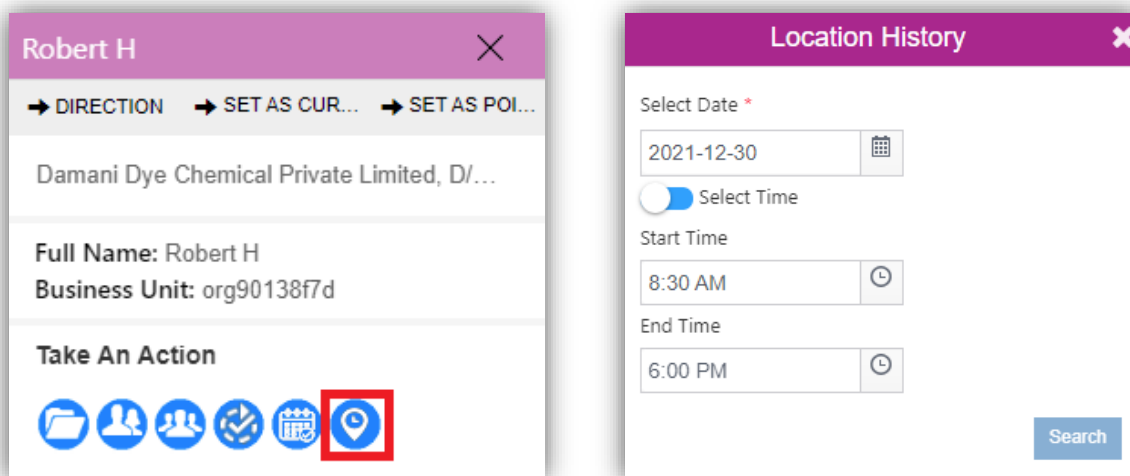
(2 Selected) 1 - 2 of 2 items

### Location History

'Location History' button will allow the managers to view the routes that have been travelled by the reps/resources in the past. To do this, they can click on the 'Location History' button on the tooltip card, select the required date and click on search. Users can also select the time if they want to view the history between a specific duration on the selected date.

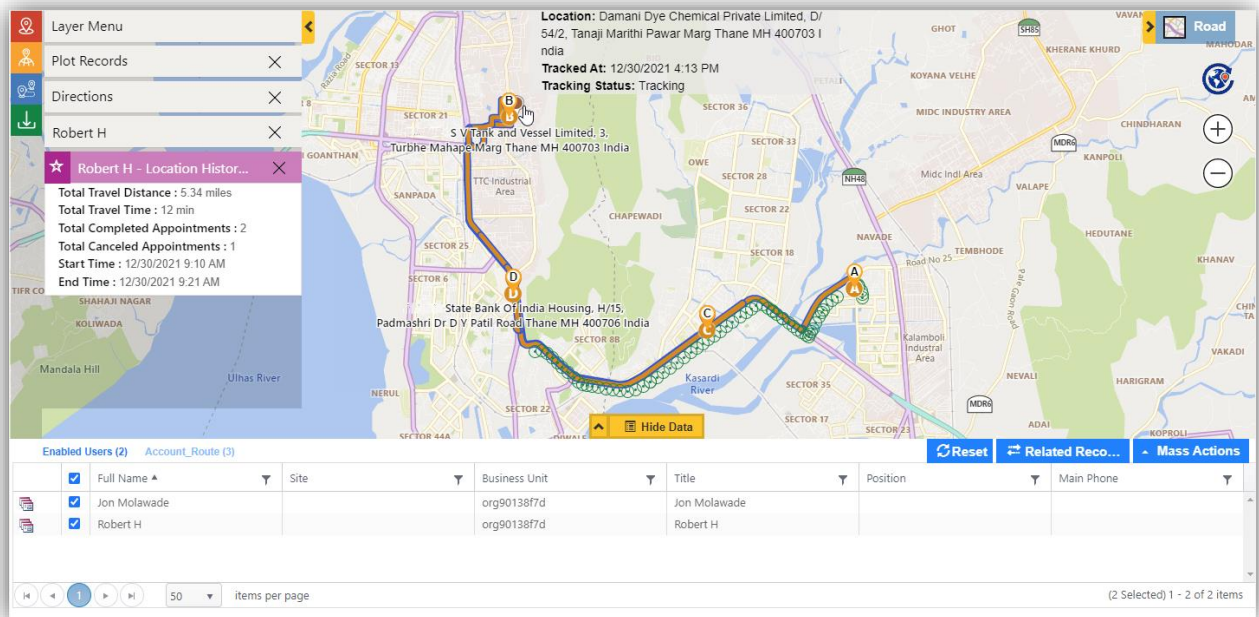
### Sales and Other Modules

Clicking on the rep's pushpin opens up the tooltip card. The below screenshot shows the tooltip card for the Sales rep Robert H. Users can click on the highlighted button of Location History and select the date & time required and click on Search.

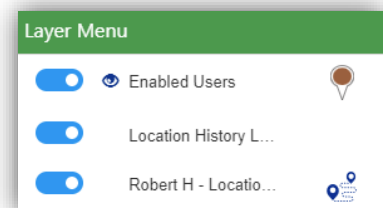
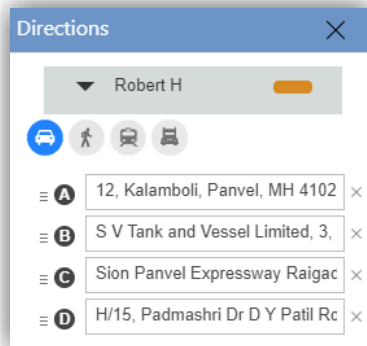


This will show the route assigned to the respective rep to follow on the selected date as well as the route that was actually travelled by the respective rep. Here we can see that Robert H is travelling the exact route that was assigned to him. Users can view the information of Appointment Timestamps on the Summary card opened up for the respective rep. They can also hover on the rep pushpin to see the details. User can also click on 'View Data' button to view the details of the reps.

## Maplytics™ – User Manual



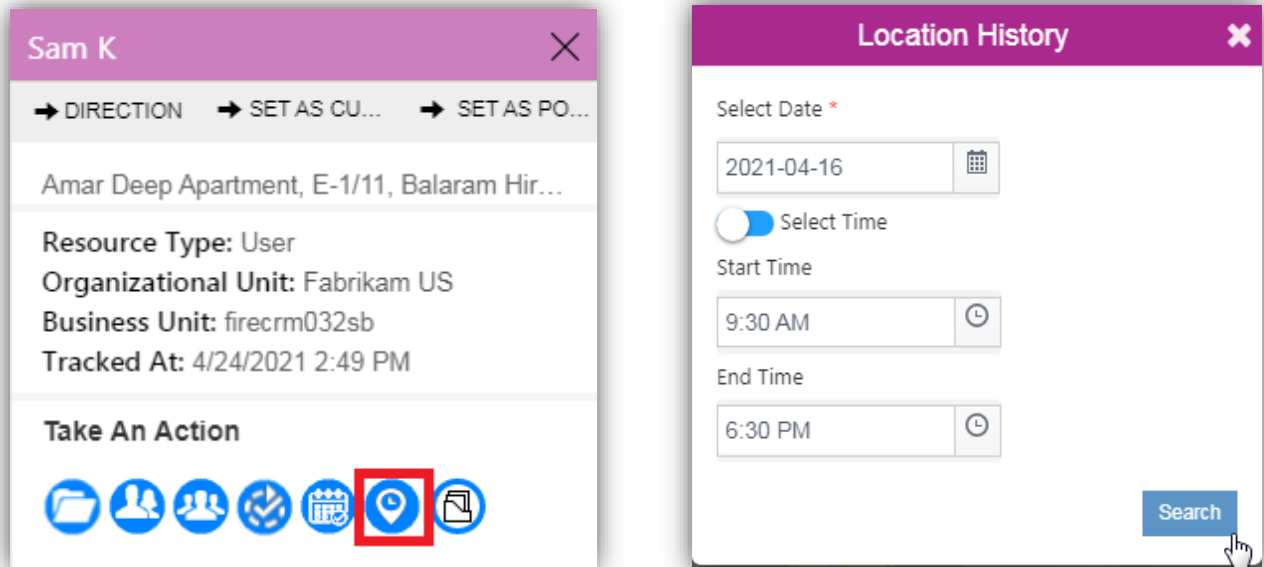
User can go to the Layer Menu and use the toggle button to show/hide the route being tracked for the selected date and the route that was assigned to the rep.



Users can go to the Direction card to select the reps required from the list there and click on Today's plan or Location history button to view the tracked information for the respective resource.

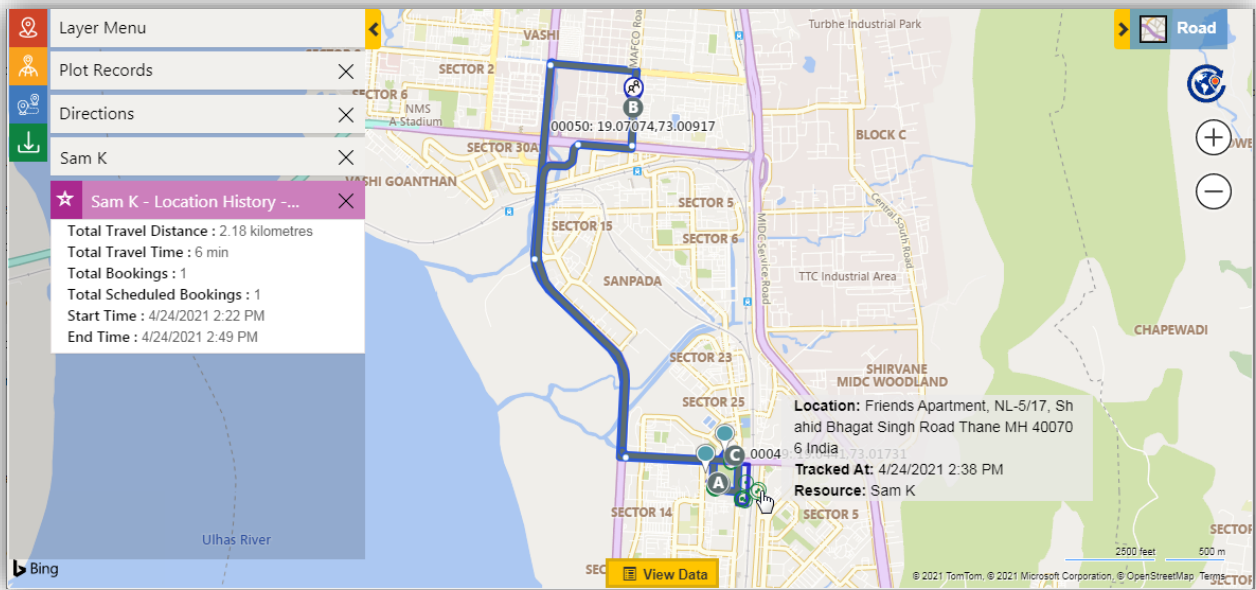
### Field Service

Clicking on the resource pushpin opens up the tooltip card. The below screenshot shows the tooltip card for the resource Sam K. Users can click on the highlighted button of Location History and select the date & time required and click on Search.



This will show the route assigned to the respective resource to follow on the selected date as well as the route that was actually travelled by the respective resource. Here we can see that Sam K had travelled the exact route that was assigned to him. Users can view the information of Booking Timestamps on the Summary card opened up for the respective resource. They can also hover on the resource pushpin to see the details.



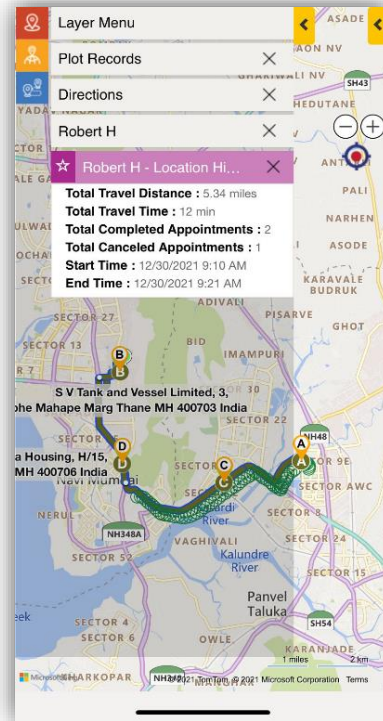
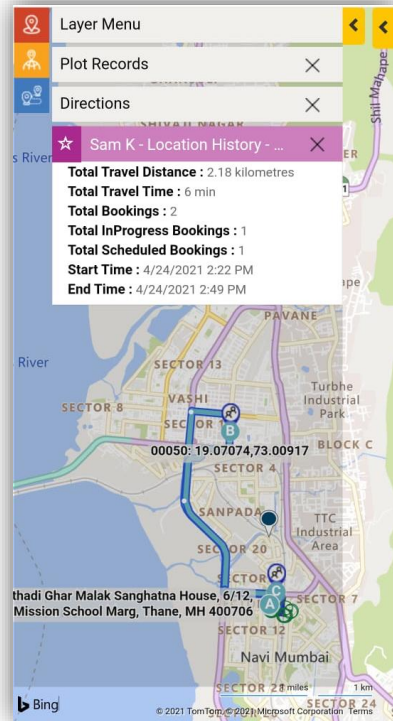


If users are visualizing the tracking information for multiple reps/resources or multiple days, each route will be plotted into different colors so as to be able to differentiate between individual routes. Further users can close the Summary card to remove the tracking information for the respective rep/resource from the map. Thus, users can track reps/resources in the following ways.

- Single rep/resource for multiple days
- Multiple reps/resources for single day
- Multiple reps/resources for multiple days

## Real-Time Tracking in Mobile

Users can use Real-Time Tracking within the Field Service App/Dynamics CRM app/Dynamics CRM Sales App as well, just like the way explained above for desktop. Once they have plotted the reps/resources on the map, they can click on the pushpins to open the tooltip card and see the buttons for Location History and Today's Plan to view the travel history of the rep/resource for the required dates and time or the travel plan of the rep/resource for today respectively.



---

### Maplytics API

---

Maplytics API allows users to retrieve geographical data from Maplytics maps to use it outside of CRM. If a user needs to show CRM data based on a Proximity search or from a specific region etc. on a portal or website, they can use Maplytics API to do the same. Maplytics API will be used to make API request to give the response as per user input like proximity, region etc. For example, if a user has a website that provides training for driving and they want to allow the visitors to find trainers nearby their location. If the trainers are stored in Dynamics CRM, then Maplytics API can be used to show the results of Maplytics Proximity search i.e., the trainers around a specified location on the website while a visitor searches for it.

Maplytics API will be provided with a transaction limit. The transaction count will be provided as per the user's requirement. The API transaction usage will be counted into three ways. Please contact Inogic at [crm@inogic.com](mailto:crm@inogic.com) if interested into using Maplytics API.

- Daily
- Monthly
- Yearly

The transaction limit will be provided based on the required usage among the three mentioned above. Let's say, based on user's requirement, if they have been provided with daily transaction limit of 100 then the user will be allowed to make 100 API requests per day. If the user exceeds the limit for a day, then a message will be shown that will inform the user that they are not allowed to make any more API requests for today. Then the user will be able to make API requests the next day. It will work the similar way for the Monthly and Yearly usages.

***Note: To execute API request you should have active Maplytics license.***

#### List of APIs:

1. Proximity Search
2. Region Search
3. Territory Search
4. Template Search
5. Direction instruction
6. Get Timezone

API accepts following parameters. Based on the value passed in the parameter of the respective operation it will get the response. Also, Parameters are optional.

## By Proximity

Suppose you want to search using proximity. For this, we have created the custom action with name “Inogic.Maplytics.API.Proximity” (ikl\_InogicMaplyticsAPIProximity).

Custom action accepts following parameters:

- **CurrentLocation:** Location for which you want to do the proximity search.
- **Proximity:** Provide the proximity radius. e.g., 3. If you want to do Concentric Proximity search, then specify multiple proximity radii separated by comma ','. For example, 5, 10, 15.
- **DistanceUnit:** Provide the radius unit. It can be either “mile or kilometer”. If the unit is not specified then by default mile will be considered as the radius unit.
- **Records:** EntityCollection
- **Entity:** Provide the entity name. e.g. “Account”
- **ViewName:** Specify the view name. e.g., “My Active Accounts”

When user passes the required parameters and executes this action then it will return records collection.

**Note: As custom action has 2 minutes timeout so maximum records that are processed is around 90K- 100K. If you have a view having records more than 100K then it may throw a timeout issue. So, make sure to enter the viewname of the view that has less than 100K records.**

To execute proximity action using the C#, use the following code.

```
//create request object
string requestName = "ikl_InogicMaplyticsAPIProximity";

//create request object
OrganizationRequest orgReq = new OrganizationRequest(requestName);
//for proximity
orgReq["CurrentLocation"] = "New York";
orgReq["Proximity"] = "10,25";
orgReq["DistanceUnit"] = "Mile";
//Entity & view
orgReq["Entity"] = "account";
orgReq["ViewName"] = "My Active Accounts";
OrganizationResponse response = service.Execute(orgReq);

EntityCollection recordsCollection =
(EntityCollection)response.Results["RecordsCollection"];
```

To execute the action using the javascript (web api) you can use following code.

```
function executeCustomAction() {
    try {
        var actionObj = {
            CurrentLocation: "New York",
            Proximity: "10,25",
            DistanceUnit: "Mile",
            Entity: "account",
            ViewName: "My Active Accounts",
```

```

    }

    // call this function to execute the action
    execute(actionObj, "ikl_InogicMaplyticsAPIProximity()", function (data) {

        alert("Success: " + data);

    }, function (error) {
        debugger;
        alert("Error: " + error.message);
    });

} catch (e) {
    alert(e.message);
}
}

function execute(req, reqName, successCallback, errorCallback) {

    //create AJAX request
    $.ajax({
        type: "POST",
        contentType: "application/json; charset=utf-8",
        datatype: "json",
        url: encodeURI(getWebAPIPath() + reqName),
        data: window.JSON.stringify(req),
        beforeSend: function (xhr) {
            //Specifying this header ensures that the results will be returned as JSON.
            xhr.setRequestHeader("Accept", "application/json");
            //xhr.setRequestHeader("Content-Type", "application/json; charset=utf-8");
            xhr.setRequestHeader("OData-MaxVersion", "4.0");
            xhr.setRequestHeader("OData-Version", "4.0");
        },
        success: function (data, textStatus, xhr) {
            //successCallback function
            if (data != null && data.value != undefined) {
                successCallback(data.value);
            } else {
                successCallback(data);
            }
        },
        error: function (xhr, textStatus, errorThrown) {
            errorCallback(Inogic.Maplytics.ApiLib.errorHandler(xhr));
        }
    });
}

function getWebAPIPath() {
    return Xrm.Page.context.getClientUrl() + "/api/data/v8.0/";
}

```



### By Region

Suppose you want to search records within a specified region. For this, we have created the custom action with name **"Inogic.Maplytics.API.Region"** (**ikl\_InogicMaplyticsAPIRegion**). Custom action accepts the following parameters.

- **RegionType**: Provide the type of region based on which user wants to search. , i.e., City, State, County, Country, PostalCode, PostCode Sector, PostCode(Outward Code), PostalCode Areas "City/Postalcode/State". You need to provide any of the above.
- **Region**: Provide the region where you need to search. E.g., New York.
- **Entity**: Specify the entity name. e.g., "Account"
- **ViewName**: Specify the view name. e.g., "My active accounts"

When user passes the required parameters and executes this action then the action will return records collection.

To execute region action using the C#, use following code.

```
string requestName = "ikl_InogicMaplyticsAPIRegion";

//create request object
OrganizationRequest orgReq = new OrganizationRequest(requestName);

//for region
orgReq["RegionType"] = "city";
orgReq["Region"] = "New york";

//Entity & view
orgReq["Entity"] = "account";
orgReq["ViewName"] = "My Active Accounts";

OrganizationResponse response = service.Execute(orgReq);

EntityCollection recordsCollection =
(EntityCollection)response.Results["RecordsCollection"];
```

To execute the action using the javascript (web api) you can use following code.

```
var actionObj = {
    RegionType: "City",
    Region: "New York",
    Entity: "account",
    ViewName: "My Active Accounts",
}

// call this function to execute the action
execute(actionObj, "ikl_InogicMaplyticsAPIRegion()", function (data) {

    alert("Success: " + data);

}, function (error) {
    debugger;
    alert("Error: " + error.message);
});
```

## By Territory

Suppose you want to search records within specified territories. For this, we have created the custom action with name “**Inogic.Maplytics.API.Territory**” (**ikl\_InogicMaplyticsAPITerritory**).

Custom action accepts the following parameters.

- **Territories:** Specify the names of territories. E.g., “FL, NY”.
- **Entity:** Specify the entity name. e.g., “Account”
- **ViewName:** Specify the view name. e.g., “My active accounts”

When user passed the required parameters and executes this action then the action will return the collection of records.

To execute region action using the C#, use following code.

```
string requestName = "ikl_InogicMaplyticsAPITerritory";

//create request object
OrganizationRequest orgReq = new OrganizationRequest(requestName);

//for Territories
orgReq["Territories"] = "NY";

//Entity & view
orgReq["Entity"] = "account";
orgReq["ViewName"] = "My Active Accounts";

OrganizationResponse response = service.Execute(orgReq);

EntityCollection recordsCollection =
(EntityCollection)response.Results["RecordsCollection"];
```

To execute the action using the javascript (web api) you can use following code.

```
//By territory
var actionObj = {
    Territories: "NY",
    Entity: "account",
    ViewName: "My Active Accounts",
}

// call this function to execute the action
execute(actionObj, "ikl_InogicMaplyticsAPITerritory()", function (data) {

    alert("Success: " + data);

}, function (error) {
    debugger;
    alert("Error: " + error.message);
});
```

### By Template

If you want to search records based on Maplytics template then for this we have created the custom action with name “**Inogic.Maplytics.API.Template**” (**ikl\_InogicMaplyticsAPITemplate**).

Custom action accepts the following parameters.

**Template:** Specify the Template name. E.g., “Accounts with 10 miles”.

When user passes the required parameters and executes this action then the action will return the collection of records.

To execute Template action using the C#, use following code.

```
string requestName = "ikl_InogicMaplyticsAPITemplate";

//create request object
OrganizationRequest orgReq = new OrganizationRequest(requestName);

orgReq["Template"] = "Accounts with 10 miles";

//execute the request
OrganizationResponse response = service.Execute(orgReq);

EntityCollection recordsCollection =
(EntityCollection)response.Results["RecordsCollection"];
```

### Get Time zone

To get the time zone of a region, when we pass address or latitude/longitude then it will return the time zone.

To execute time zone action using the C#, use following code.

```
string requestName = "ikl_InogicMaplyticsAPIGetTimeZone";

//create request object
OrganizationRequest orgReq = new OrganizationRequest(requestName);

orgReq["TimezoneLocation"] = "new york";

//execute the request
OrganizationResponse response = service.Execute(orgReq);

string TimeZone = "TimeZone: " + (string)response.Results["TimeZone"];

string TimeZoneAbbreviation = "TimeZoneAbbreviation: " +
(string)response.Results["TimeZoneAbbreviation"];
```

To execute the action using the javascript (web api) you can use following code.

```
var actionObj = {  
    TimezoneLocation: "New york",  
}  
  
// call this function to execute the action  
execute(actionObj, "ikl_InogicMaplyticsAPIGetTimeZone()", function (data) {  
    alert("Success: " + data);  
}, function (error) {  
    debugger;  
    alert("Error: " + error.message);  
});
```

## PowerApps Component Framework

User can add custom controls on fields or grids within Dynamics CRM. These custom controls will help the user to view the respective records on the map on the record form or the entity grid without switching to any other screen. This will enhance the user experience while working with views and individual records. User can add the following custom controls:

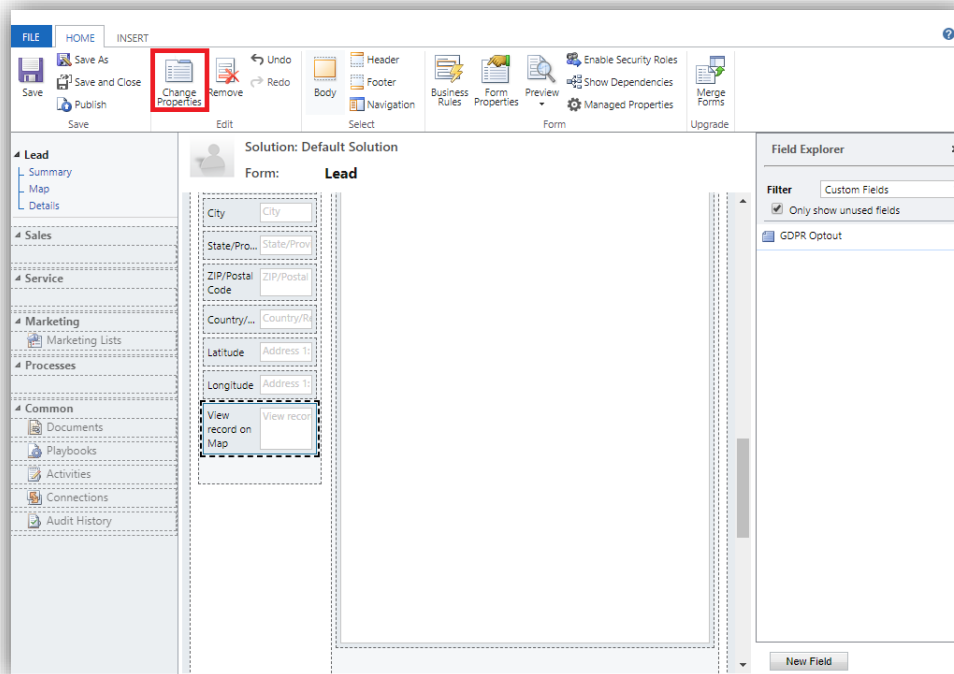
### Map View Control for Record

User can add this control on any of the field with the Data type 'Single Line of Text' of the record to view the respective record plotted on the map. User can further view the Address and geo-coordinates on the hover of the pushpin.

**Steps to Add control:** To add the control to a field within a record form, user can follow the steps mentioned below:

1. **Go to Settings > Advanced Settings > Customizations > Customize the System > Components > Entities > Required Entity**

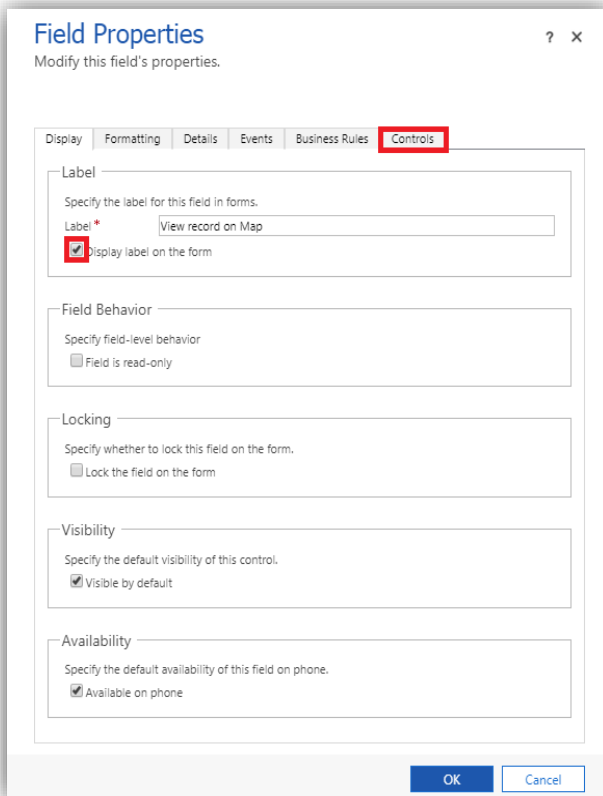
Here, we have taken the Lead entity for an instance. **Within Leads, go to Forms > Main Form > Select a field > Change Properties**



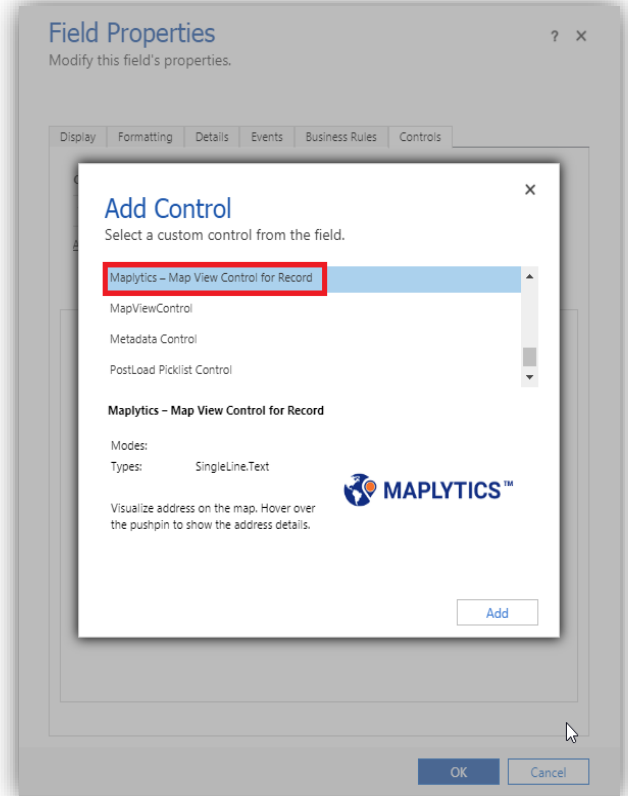
**Note:** The data type of the field on which user needs to add control should be 'Single Line of Text'.



### 2. Go to Controls > Add Control > Select Map View Control for Record > Add



The 'Field Properties' dialog box is shown with the 'Controls' tab selected. The 'Label' section has a red box around the 'Display label on the form' checkbox, which is currently checked. The 'Field Behavior' section has a 'Field is read-only' checkbox. The 'Locking' section has a 'Lock the field on the form' checkbox. The 'Visibility' section has a 'Visible by default' checkbox. The 'Availability' section has an 'Available on phone' checkbox. The 'OK' and 'Cancel' buttons are at the bottom right.

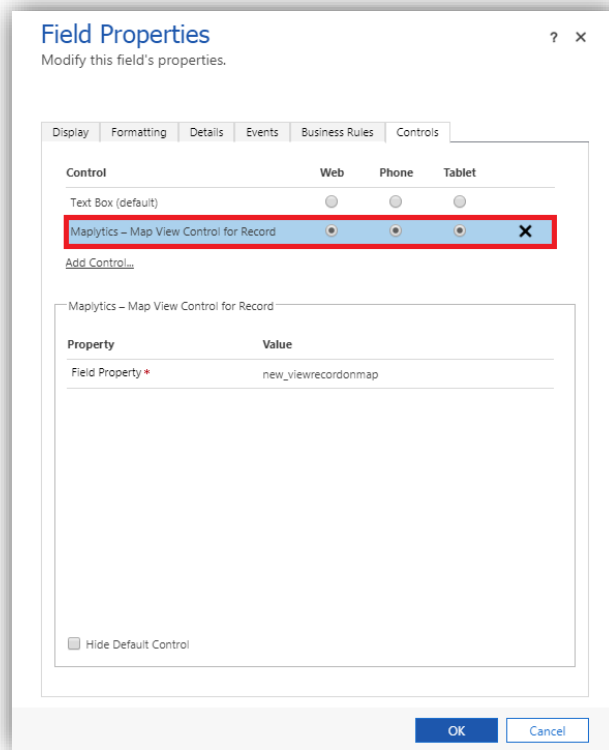


The 'Field Properties' dialog box is shown with the 'Add Control' dialog box open. The 'Add Control' dialog box has a red box around the 'Maplytics – Map View Control for Record' option in the list. The 'Add' button is at the bottom right of the 'Add Control' dialog box. The 'OK' and 'Cancel' buttons are at the bottom right of the 'Field Properties' dialog box.

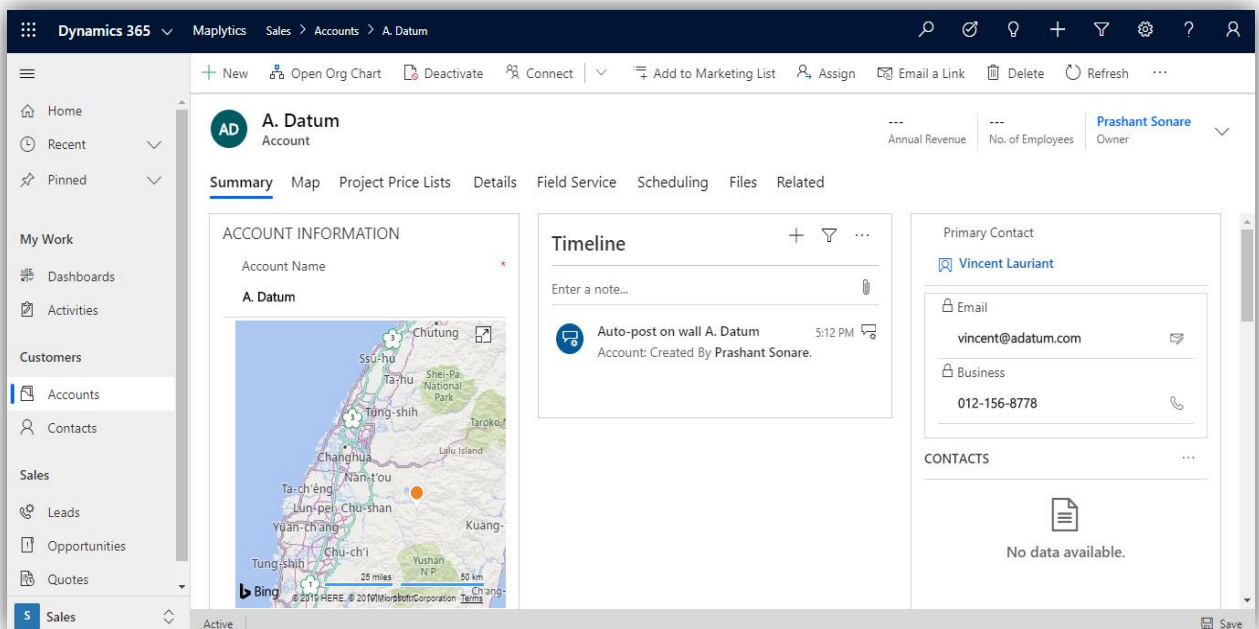
**Note: Please uncheck the option of 'Display label' within the field properties for better visualization.**

## Maplytics™ – User Manual

3. User can choose to allow the control on Web, Phone or Tablet. Click on '**OK**' > **Save & Publish**.



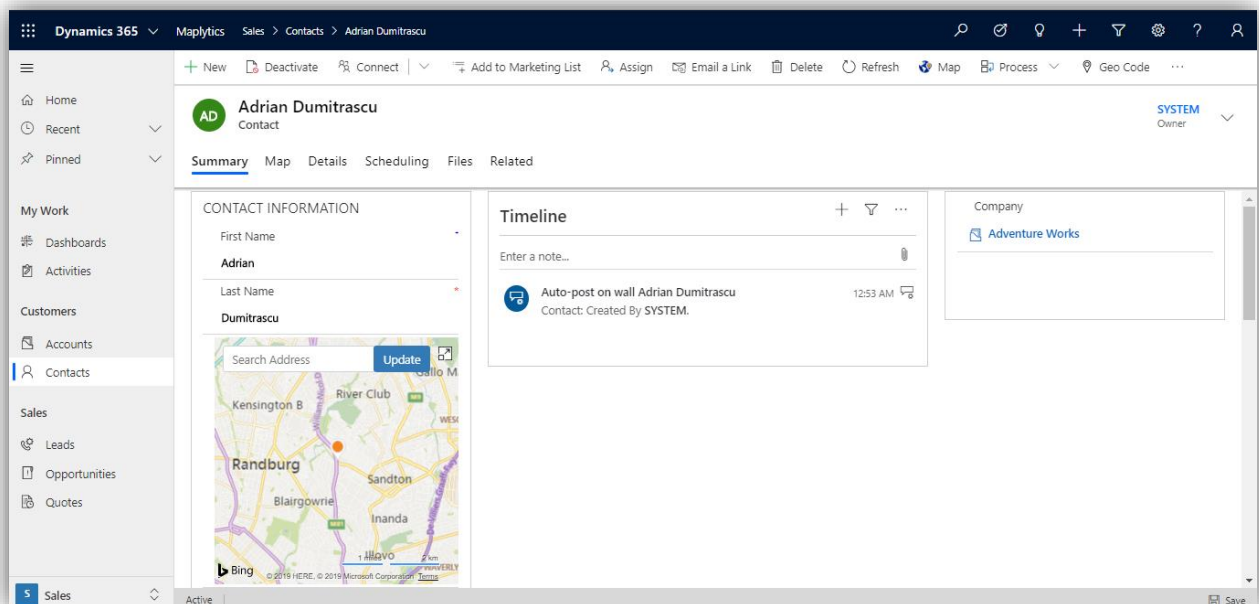
4. User can open any record of the entity to view this control added on the field.



### Map Edit Control for Record

User can add this control on any of the field with the Data type 'Single Line of Text' of the record to view the respective record plotted on the map. User can hover on the pushpin to see the coordinates as well as the address of the pushpin. User can further drag the pushpin around and drop it on the required location to update the new Address and the geo-coordinates for the record. User can also type in the address in the space provided and click on the update button to update the Address and the geo-coordinates for the record. Before updating this, the user will be shown a message where user can also choose if they want to save address and the geo coordinates or only the geo coordinates.

**Steps to Add control:** To add the control to a field within a record form, user can follow the steps mentioned above while selecting 'Map Edit Control for Record' in the Step2. After adding the control user can open any record of the entity to view this control added on the field.



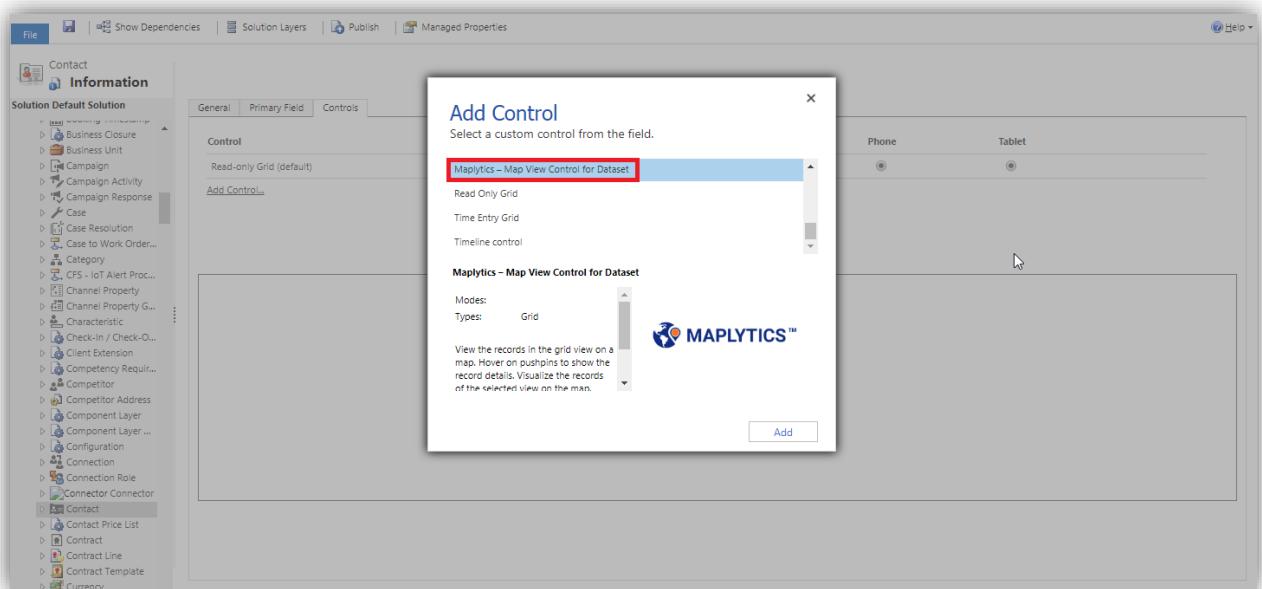
## Map View Control for Dataset

User can add this control to any entity to visualize all of the records of the view or sub-grid on a map. User can further hover on the pushpins to view the information regarding the records. The information on the hover of the records is customizable. To add more information on hover, please refer to the section of Advanced Settings within the Entity maps in the Installation manual. User can also click on the pushpins to highlight them. Highlighting multiple pushpins can help the users to perform various actions from the ribbon on all the highlighted records at once. User can also right click on any pushpin to open the respective record.

**Steps to Add control:** To add this control on an entity grid, user can follow the steps mentioned below:

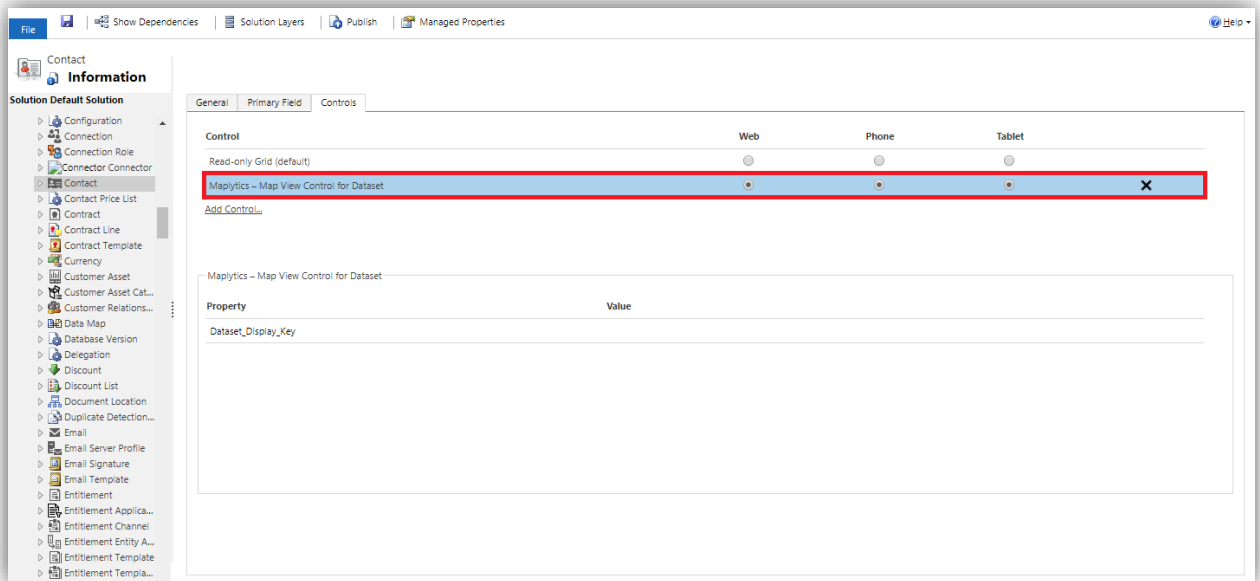
- 1. Go to Settings > Advanced Settings > Customizations > Customize the System > Components > Entities > Required Entity**

Here, we have taken the Contact entity for an instance. **Within Contacts, go to Controls > Add Control > Select Map View Control for Dataset > Add**

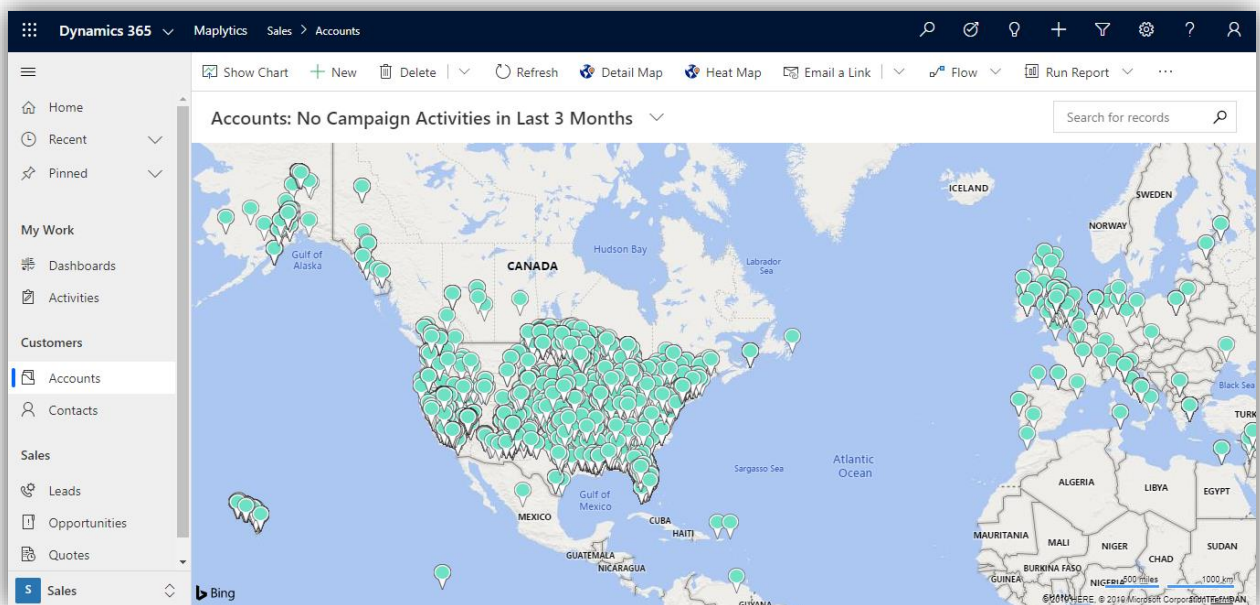


## Maplytics™ – User Manual

2. User can choose to allow the control on Web, Phone or Tablet. Click on Save > Publish.



3. User can open any view of the entity to view this control.



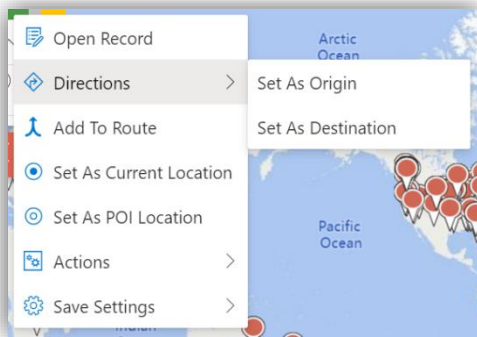


### Detail Map Control for Dataset

User can add this control to any entity dataset or dashboard to visualize all of the records of the view, sub-grid or dashboard on a map. User can also click on the pushpins to highlight them. Highlighting multiple pushpins can help the users to perform various actions from the ribbon on all the highlighted records at once. Detail Map Control provides the user with the freedom of using Maplytics features right from the page without switching to any other screens. User can also perform the following Maplytics features within the Detail map control. To know about these features in detail, please refer to the respective feature section in this manual.

**Note: Visibility of Maplytics actions within the Detail map control will be dependent on the actions selected within the Security Template if any assigned to the logged-in user. Please refer to the Security Template section.**

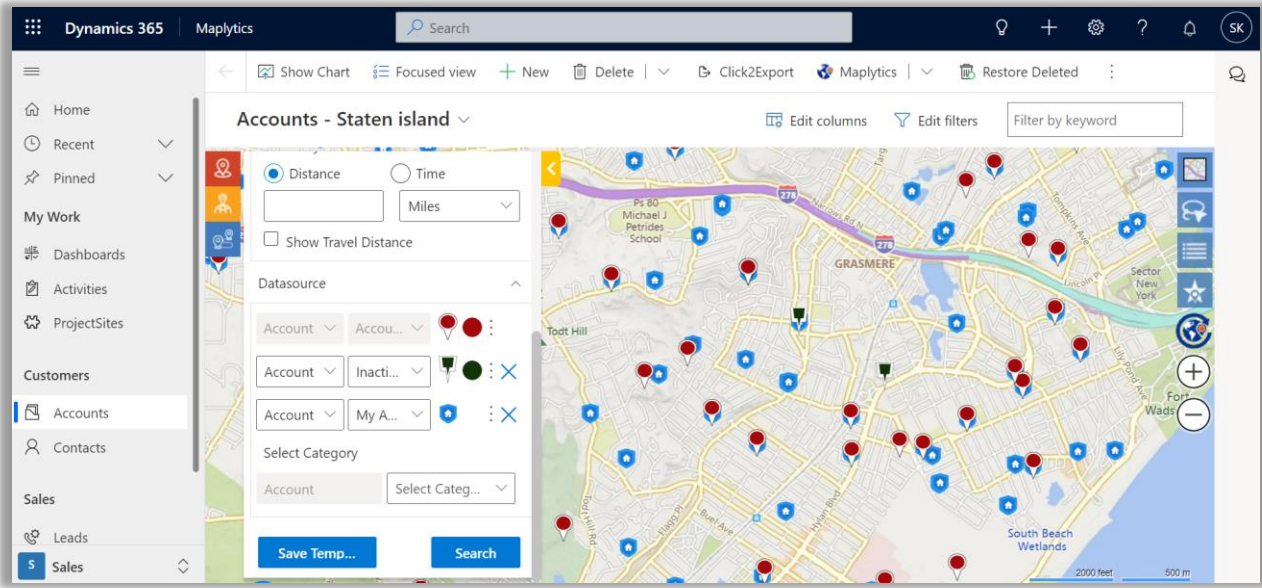
- Plot entity records – The records of the entity dataset on which this control has been added will be plotted on the map by default. They can hover on the pushpins to view the details regarding the pushpin and click on the pushpins to open the respective tooltip card. Users can use right-click to open the contextual menu which allows to take certain actions on the respective pushpin. They can open the record, set the respective record's location as origin, destination or a waypoint to a route. They can further set the record's location as current location,



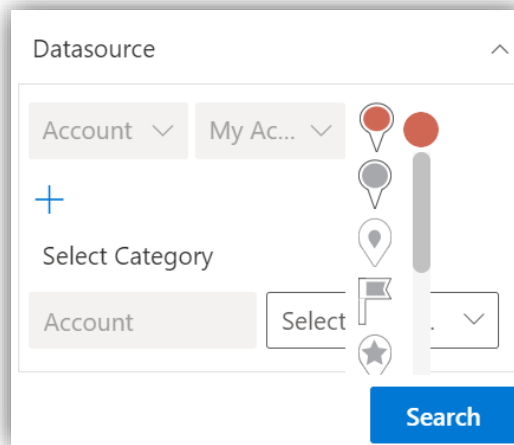
POI location or take actions like add tasks or Schedule Appointment based on the actions configured for the Tooltip card. With the Contextual Menu, user can use the option of 'Save Settings' to save the default locations for current location, Origin, Destination and the default Map Zoom Level & map centre.

- Plot multiple datasources - Other than the default data plotted on the map i.e. the Entity dataset on which the Detail map control has been added, user can also select two more Data sources and their respective active views to plot the same on the map. Thus, a maximum of three datasources can be visualized on map.

## Maplytics™ – User Manual



- Users can also select the required colors and the shape of the pushpins for the records of the view within the Datasource section in the Plot Records card. Once the color or pushpin is selected, it will instantly reflect on the map.





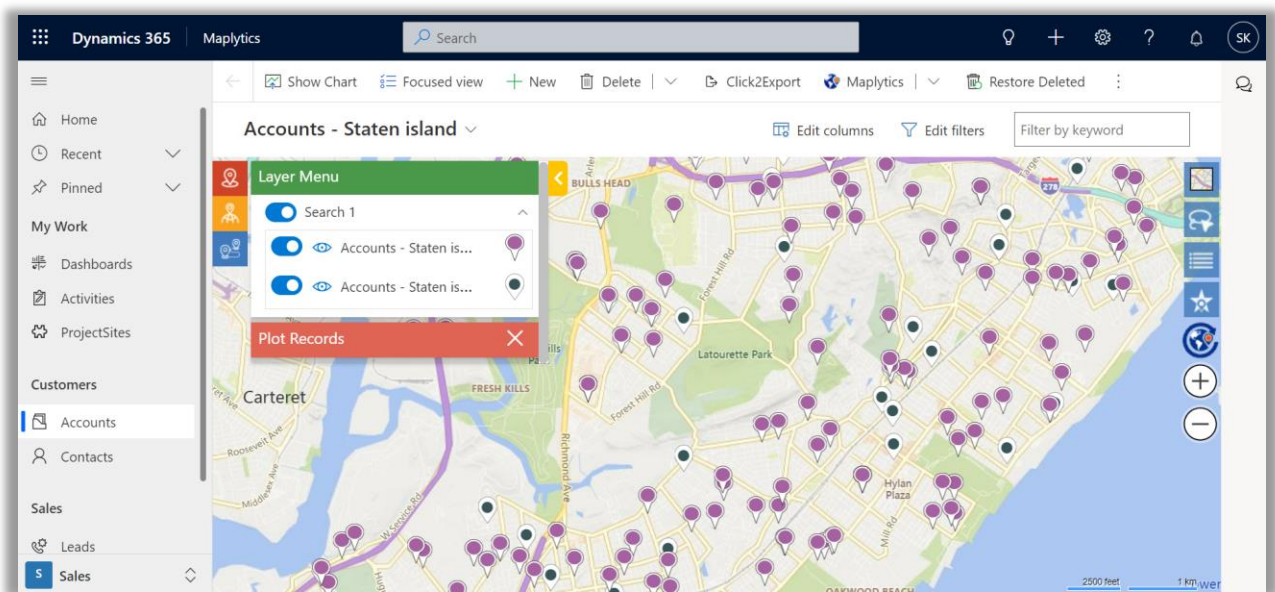
**Note:** By default, the color and shape of the pushpins will be plotted based on View configuration in the Entity map.




- Multi-Address Plotting – If users have multiple addresses saved for their entities then users can use the feature of Multi-address plotting to plot the records based on multiple addresses at once in the same map. This feature enhances the visualization experience of those records that have a presence

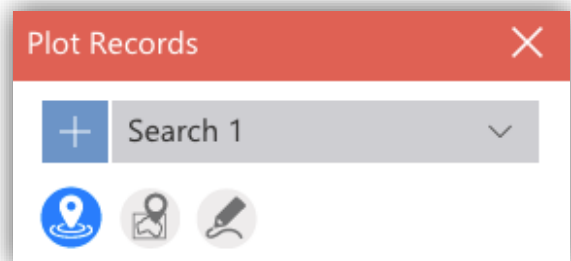
## Maplytics™ – User Manual

in multiple cities or states etc. The required addresses once configured within the Entity map can be selected and plotted on the map.

In the Plot Records Card, the user can click on the three ellipse  and then click on the 'Select Address'  button after selecting the Datasource & View and select the multiple addresses based on which the records need to be plotted and hit the search button. The respective addresses plotted on the map will also be listed in the layer menu which can be toggled to focus on the required data on the map.

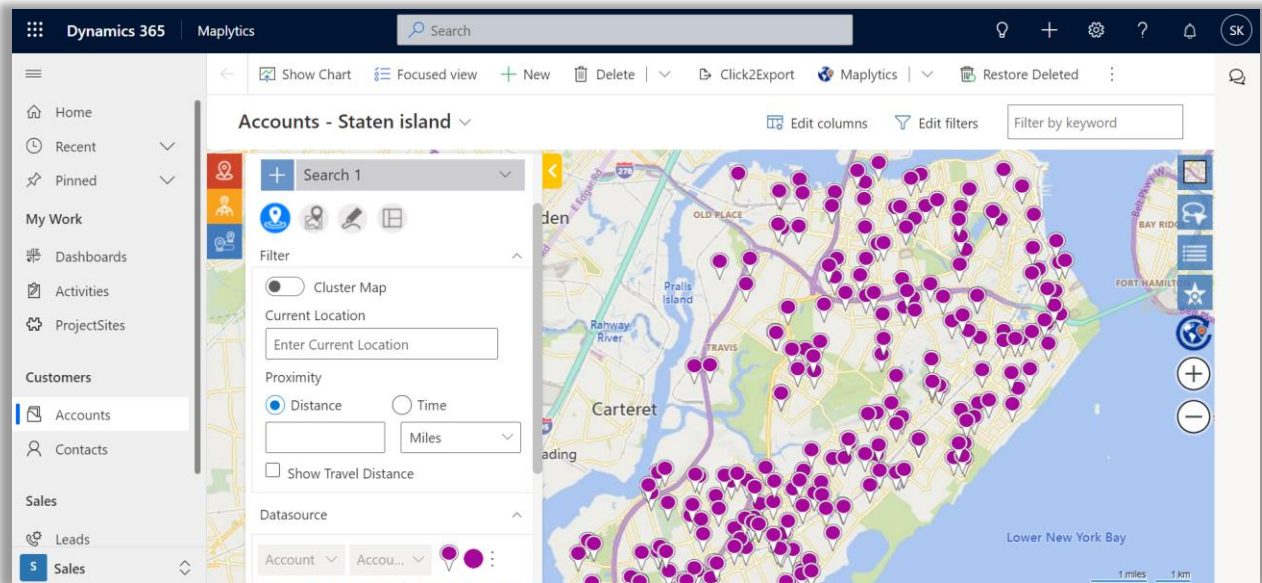


- Search Options – User can choose the search options By Location , By Region , or By Drawing  to plot the data as per their requirement.

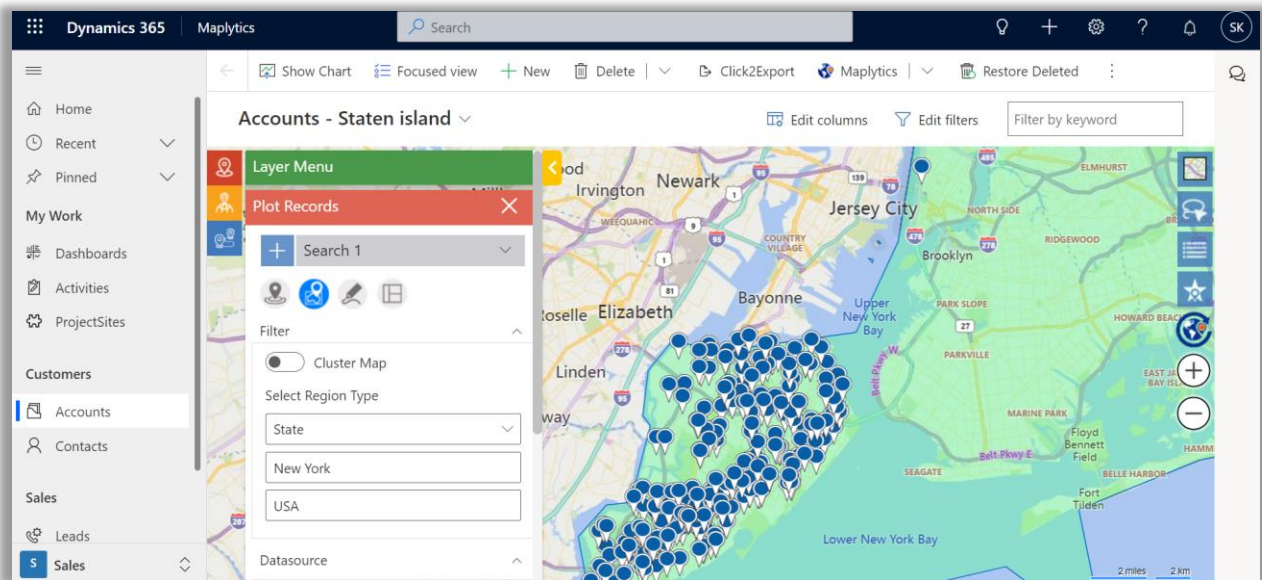


## Maplytics™ – User Manual

**By Location:** This search option will be selected by default. The following screenshot shows records of the default view My Active Accounts been plotted by location.



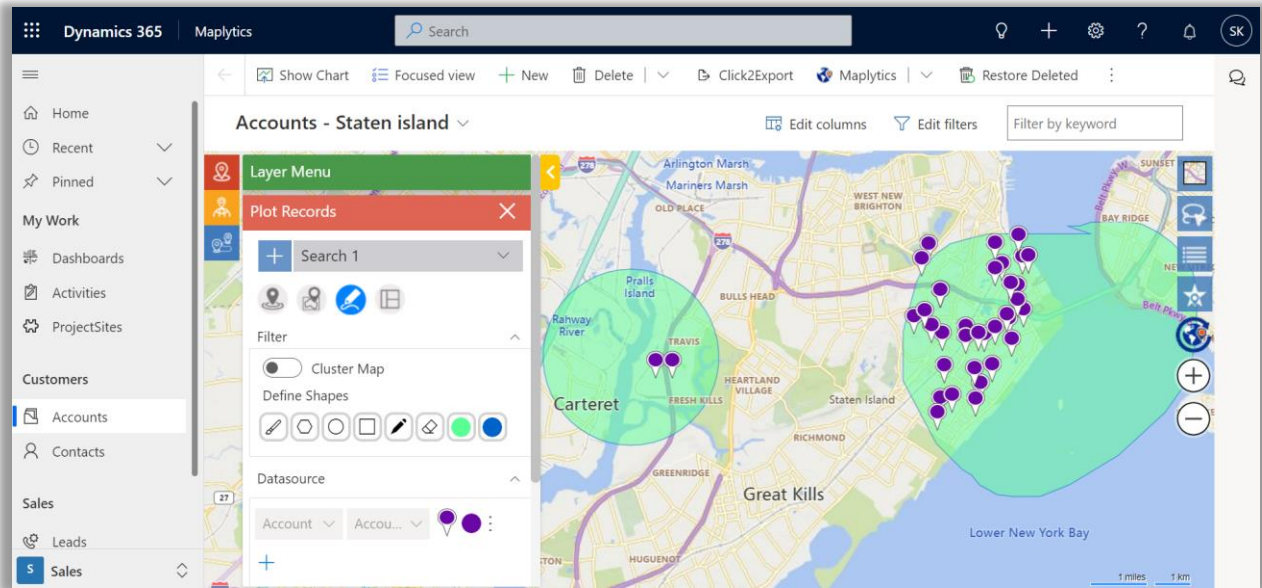
**By Region:** The below screenshot shows the active account records falling in New York, USA.



**By Drawing:** The below screenshot shows the accounts falling into the drawn shapes.

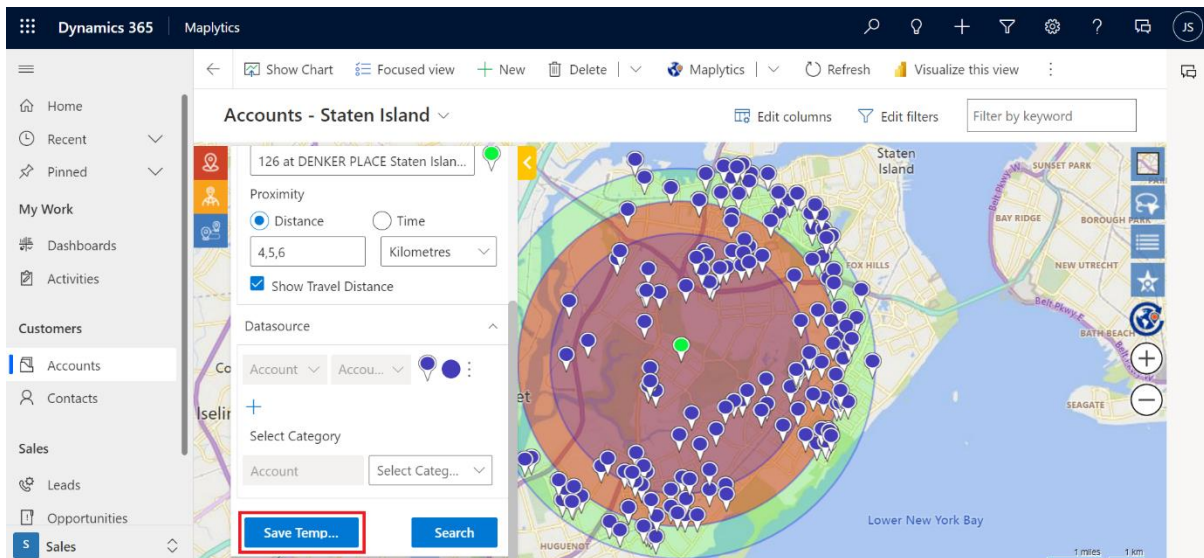


## Maplytics™ – User Manual



**By Template:** The user can save the search criteria as a template using the 'Save Template' button within the Plot Records Card. They can plot the respective saved templates using the 'By Template' search option. All the Templates saved by the client publicly are available for plotting.

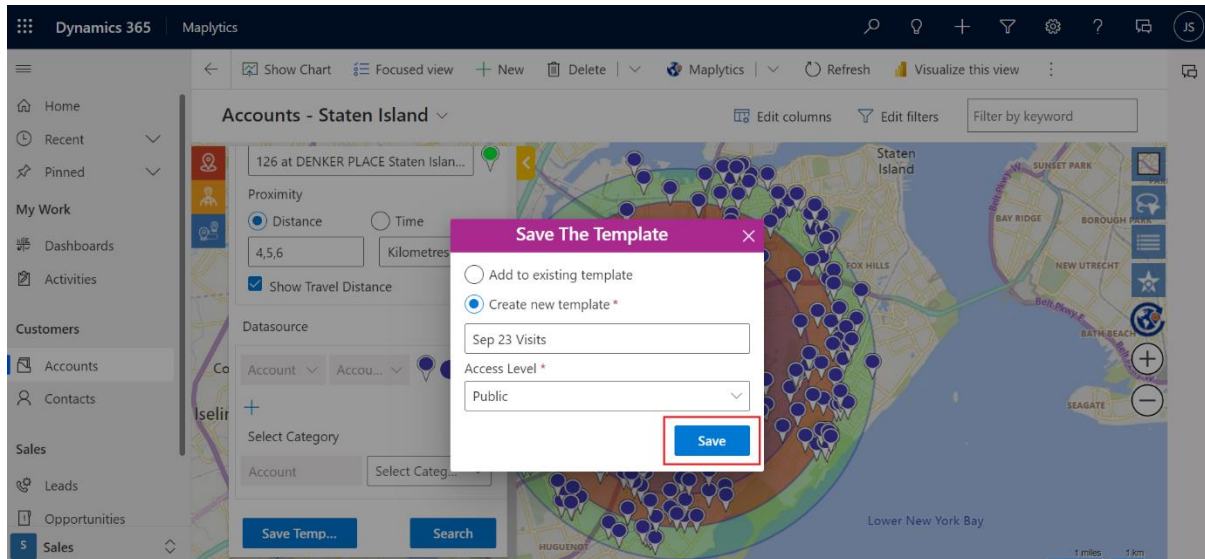
The following Proximity Search has been plotted for records in Staten Island. This search result can be saved as a Template using the Save Template option.



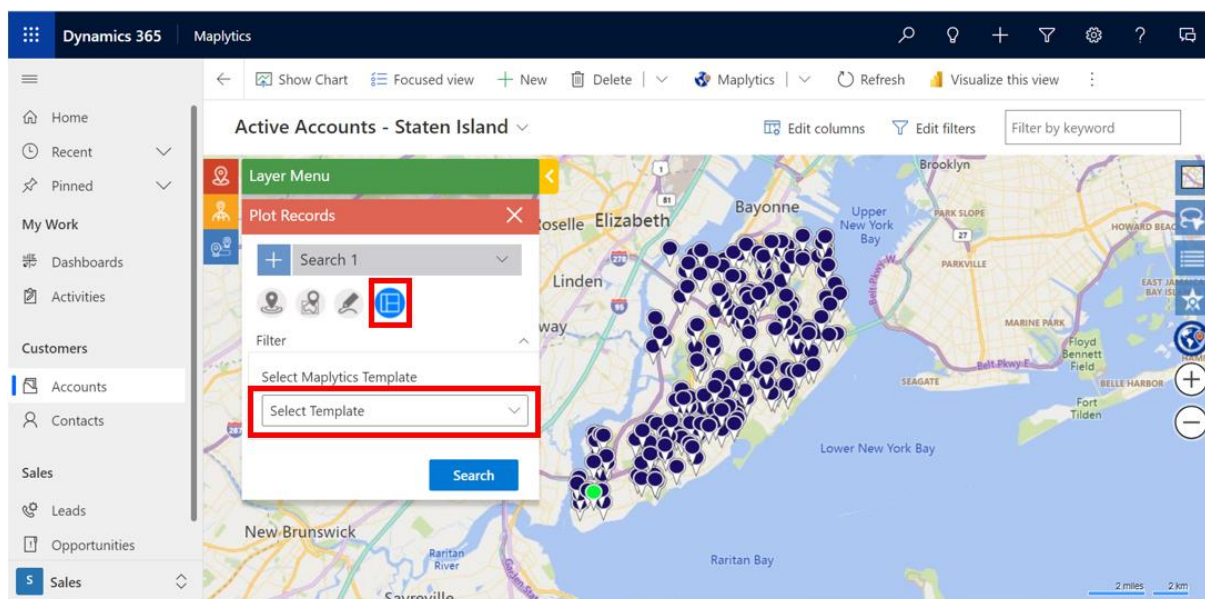
Adding a convenient name it shall be saved for Public access.



## Maplytics™ – User Manual

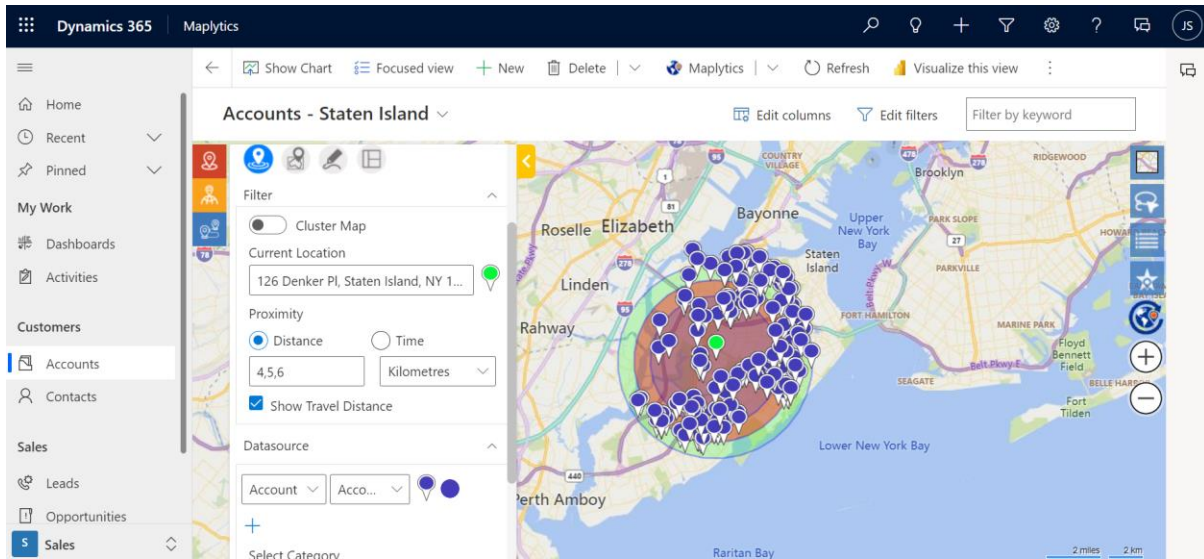


The same Template or a different one can then be plotted using the 'By Template' option in the Plot Records Card

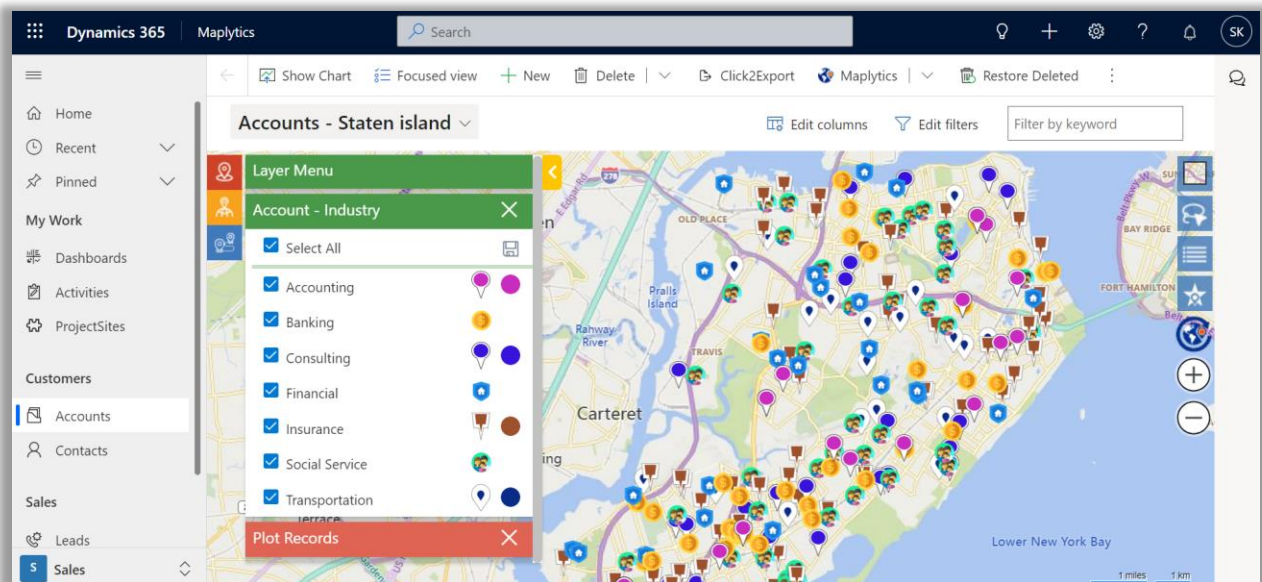


When the template is plotted from the default search layer, it will appear in the new search layer with the default search layer being disabled. It can then be enabled manually from the Layer Menu. When the template is plotted in a new Search Layer, it appears in the same layer with the default layer visible as is. The below screenshot shows account records within the User's Proximity plotted using a Template 'Sep 23 Visits'.

## Maplytics™ – User Manual

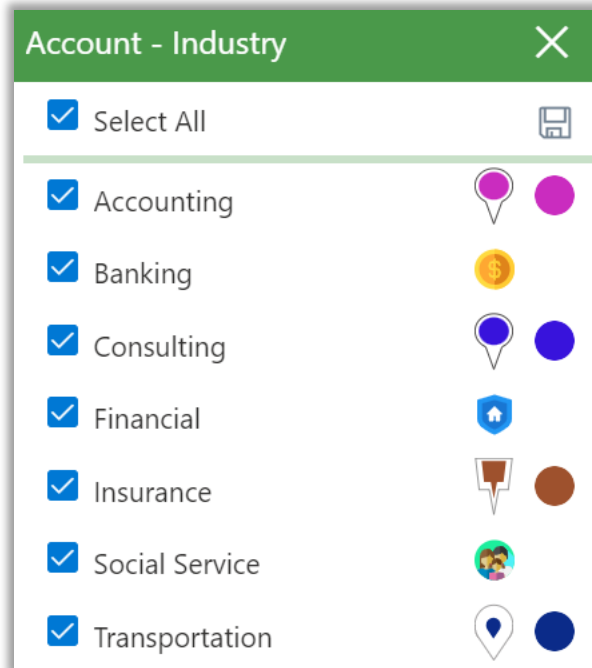


- Plot categorized data- User can also select an attribute for each data sources plotted on the map with the option of 'Select category' to categorize the data sources based on the selected respective attribute.

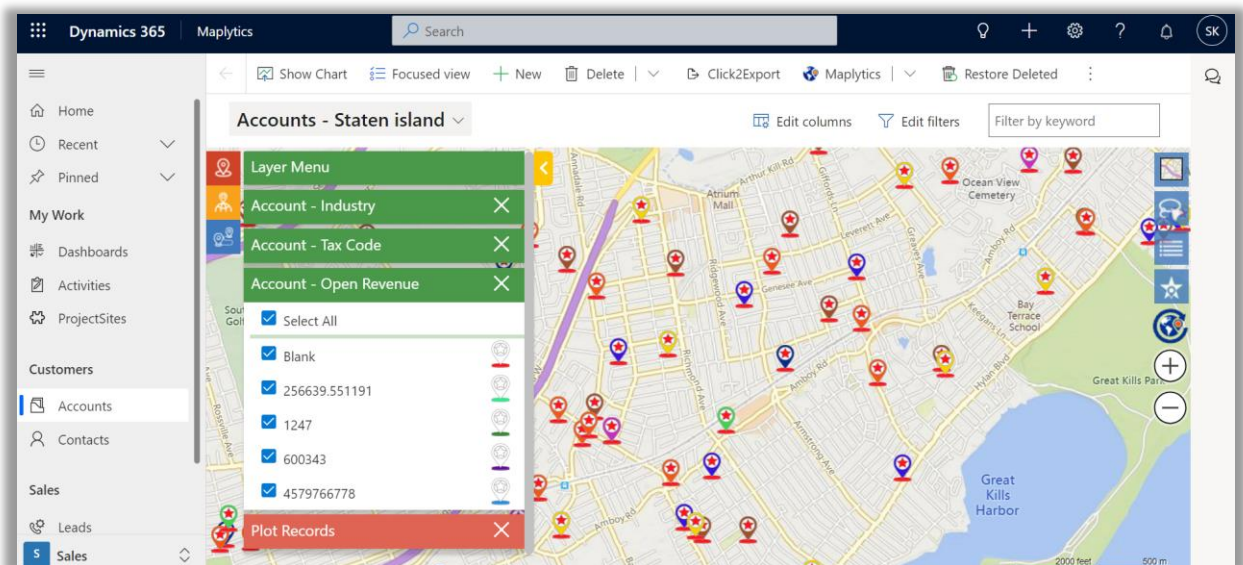


## Maplytics™ – User Manual

Users can also select the required colors and the shape of the pushpins for the respective category within the category card. Once the color or pushpin are selected, it will instantly reflect on the map.



- Multiple-Category for single entity - User can also plot a single entity records categorized by multiple attributes. For e.g. Account records categorized by Open revenue, Originating lead, Owner. The user can choose an entity twice or thrice with two or three different views respectively and choose required attributes for the respective views to categorize the same entity with different attributes. User can select a maximum of three attributes to categorize a single entity.

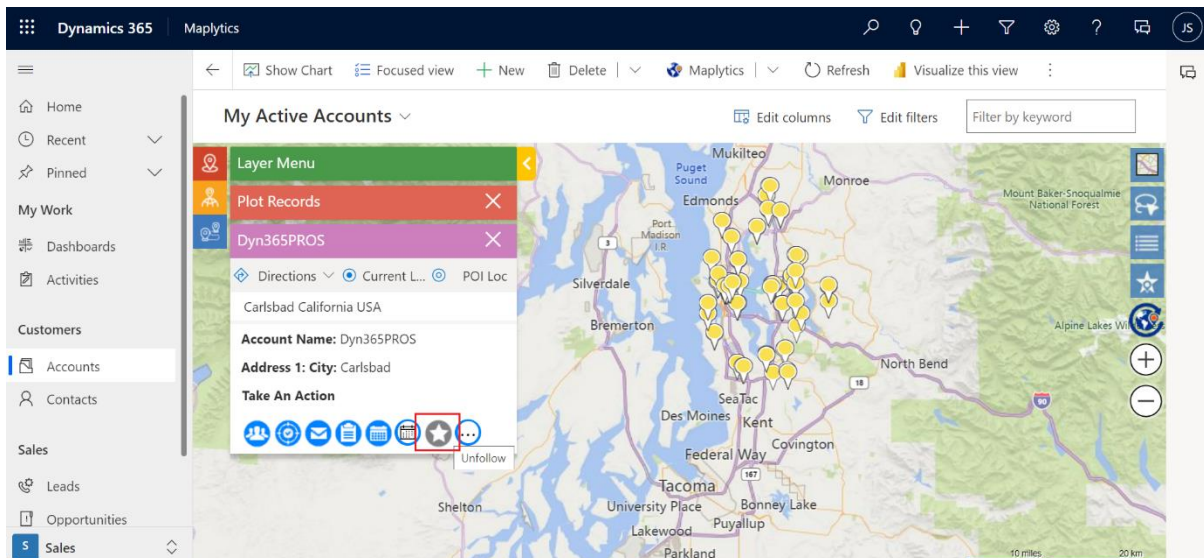
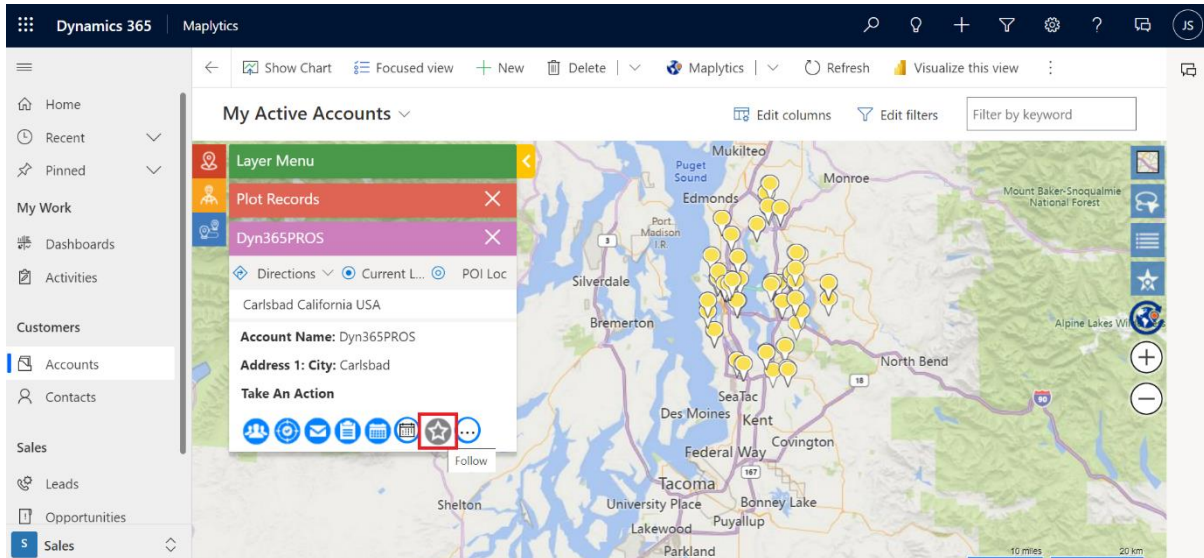




## Maplytics™ – User Manual

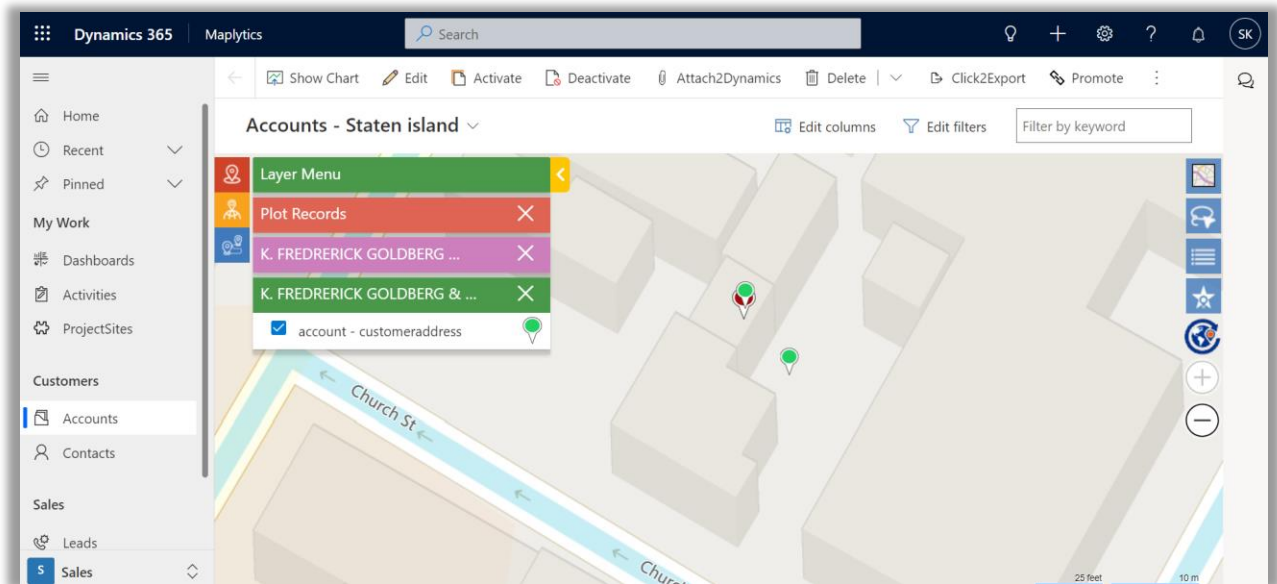
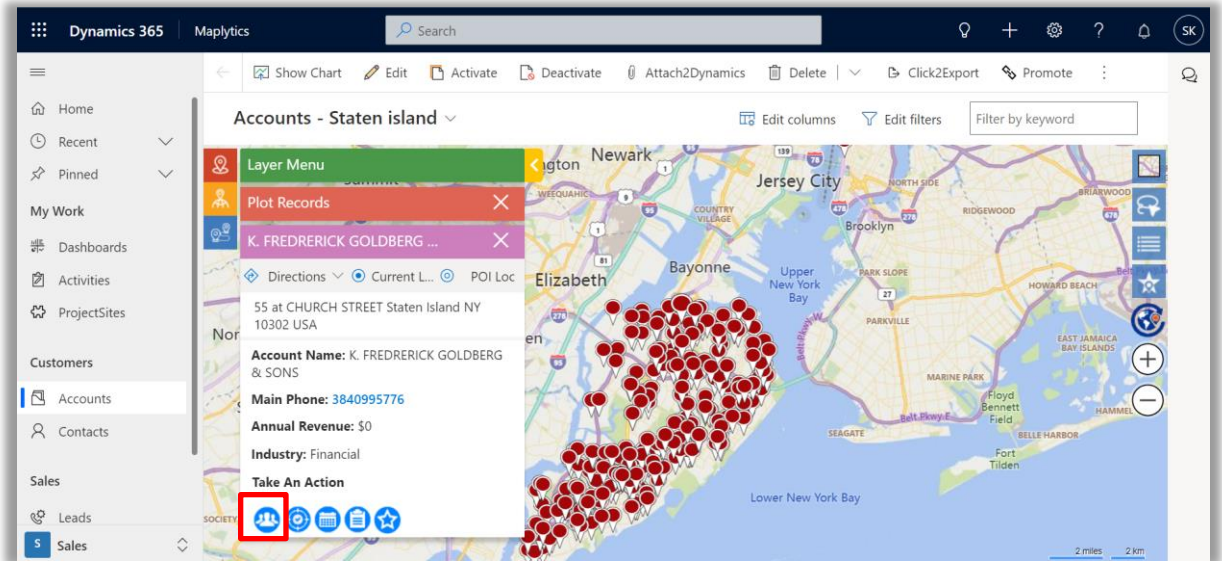
- **Tooltip card:** While users clicks on any record's pushpin, the pushpin will be highlighted and the tooltip card will open for the respective record. User can view more details of the record on the tooltip card. The tooltip card actions buttons will allow the user to perform required actions like Show related records, create tasks, create phone calls, follow, etc. on the selected record. The screenshot shows the use of the Tooltip card action button 'Plot related records' that plots related records based on the selected relationships for the respective record.

All the users of the record can follow/unfollow the record in order to enable/disable viewing of the timeline with a note of all the actions performed on the record.



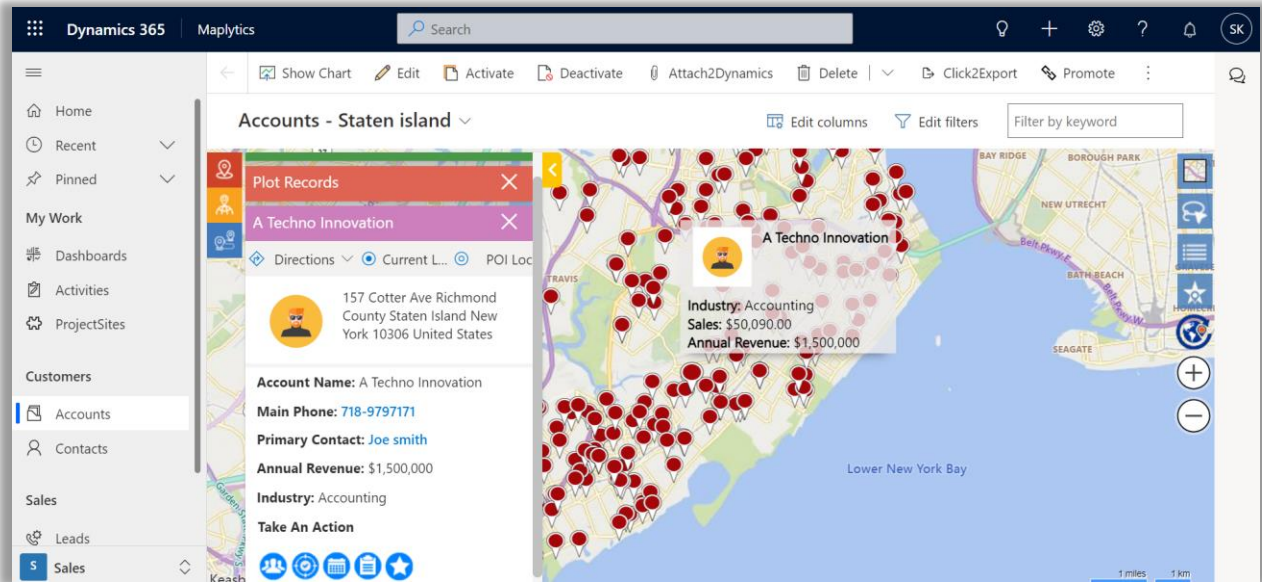


## Maplytics™ – User Manual

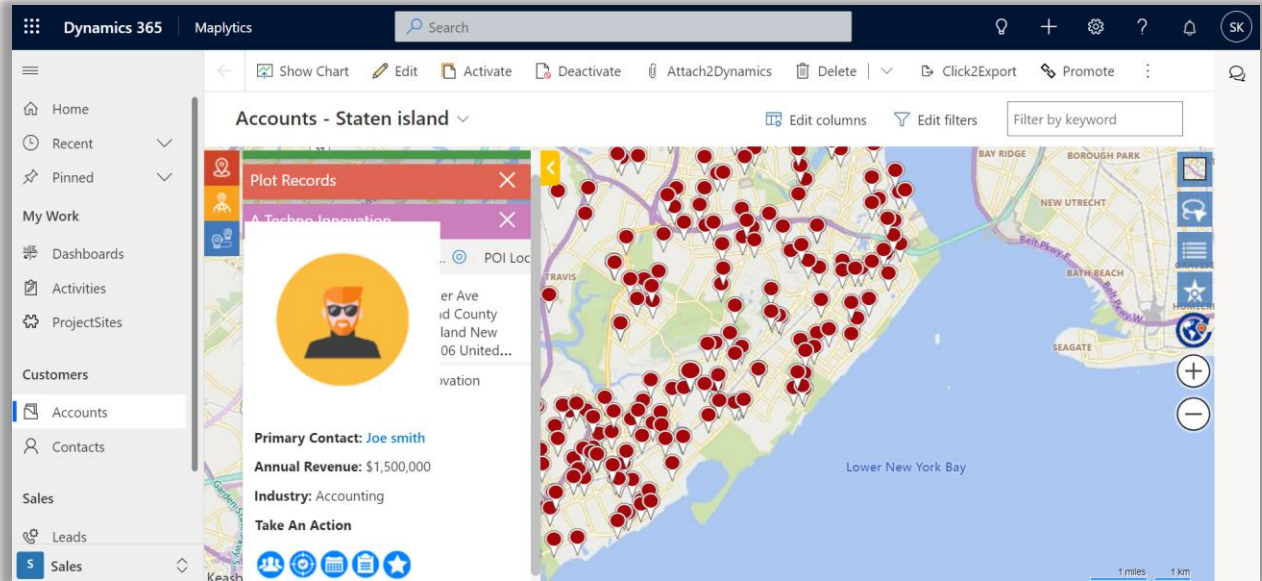


- Show Entity Image – If a record has an image saved within, while the user clicks on such record they will be able to see the image record on tooltip card. Moreover, the user can also hover on the image appearing in the tooltip card to zoom in on the image. User needs to select the 'Default Image' field in the field of 'Entity image' in Entity map to view the record image on hover and tooltip card. Please refer to the installation manual.

## Maplytics™ – User Manual

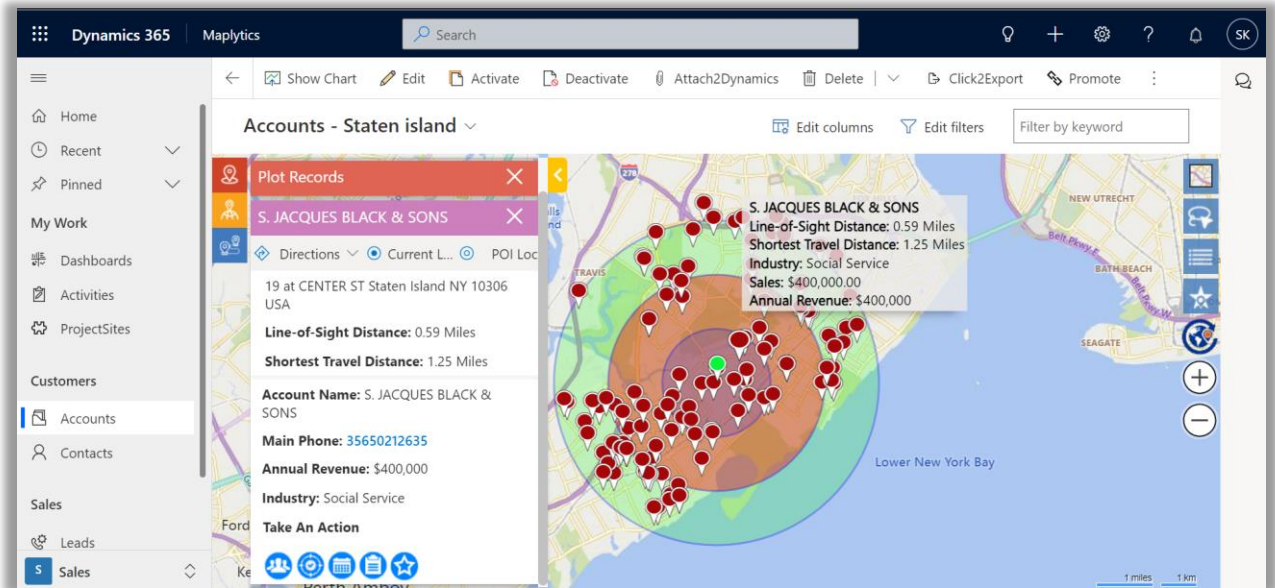


Users can also hover on pushpins plotted on the map to have a quick glance at its details as well as the image associated with the record.



- Proximity search – User can set any location as the current location from the tooltip card or contextual menu with a right-click on any location on map. Once the user sets the current location, they can perform Concentric Proximity Search and can look for the Line-of-Sight Distance on the hover or the tooltip card for any record plotted within the proximity. The user with a Truck Routing license can enable the 'Drive Time Zone' option and view the boundaries of regions that lie within specific travel time.

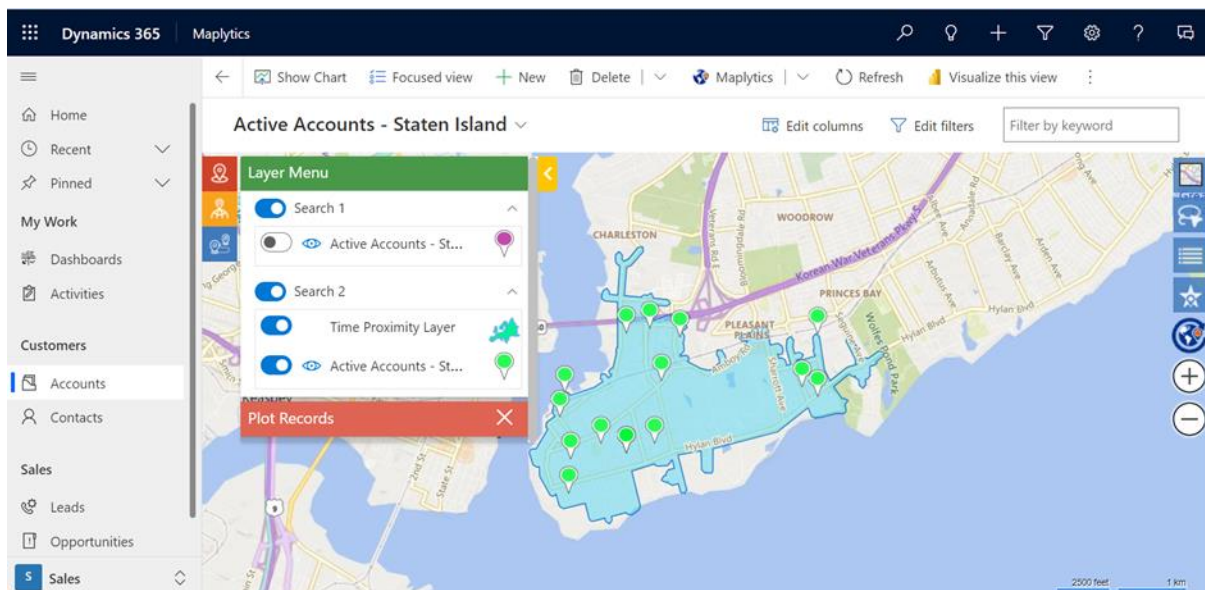
## Maplytics™ – User Manual



### Drive Time Zone

Suppose a user is willing to travel within specific regions that lie within a certain travel time, he can enable the option of Drive Time Zone and visualize the regions of the records within that travel time. The time could be in minutes or hours.

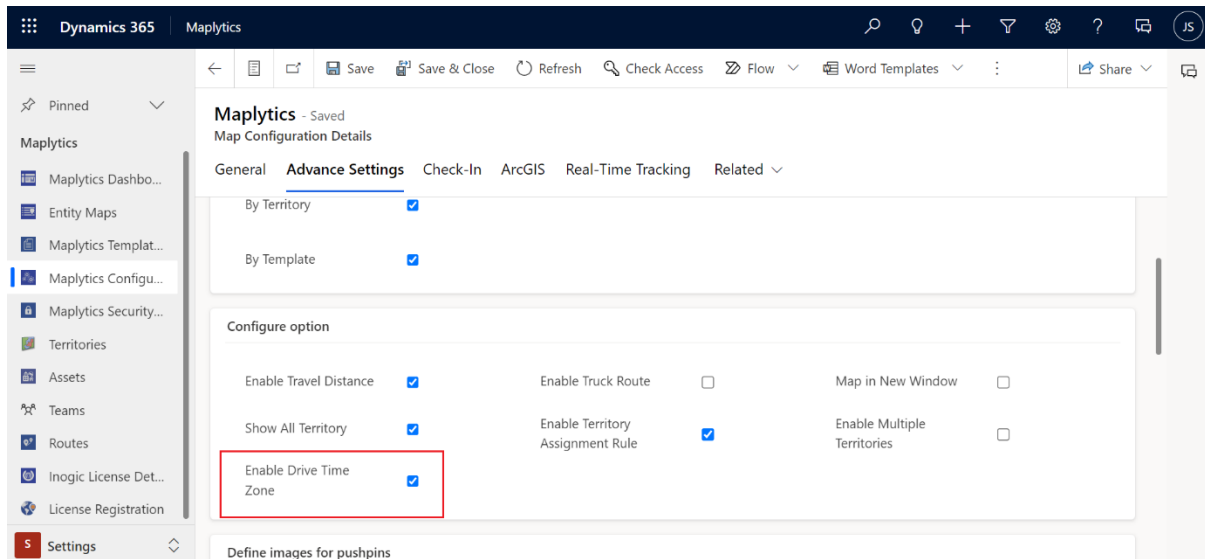
Suppose a user is willing to travel for an hour, the Drive Time Zone will be visible as follows.



The User can go to **Settings> Maplytics Configuration Details> Advance Settings> Enable Drive Time Zone** and select the check box to enable the option.



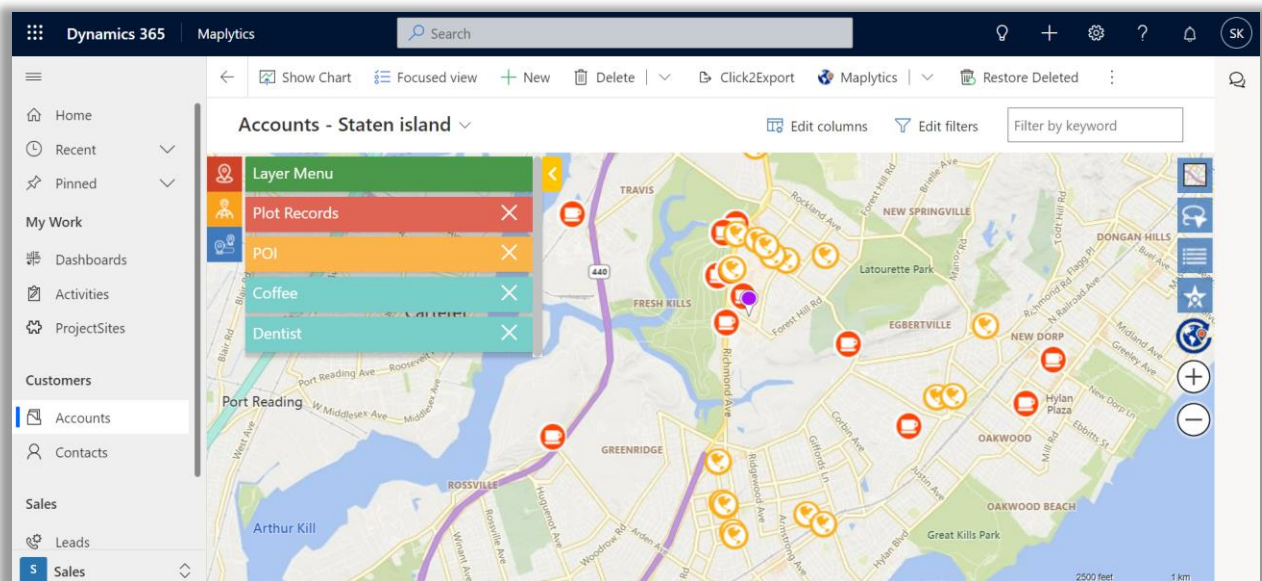
## Maplytics™ – User Manual



The user can click on Save & Close the changes once the check box is selected and plot and view the regions comfortably along with the records. The user can also create new records in this drive zone.

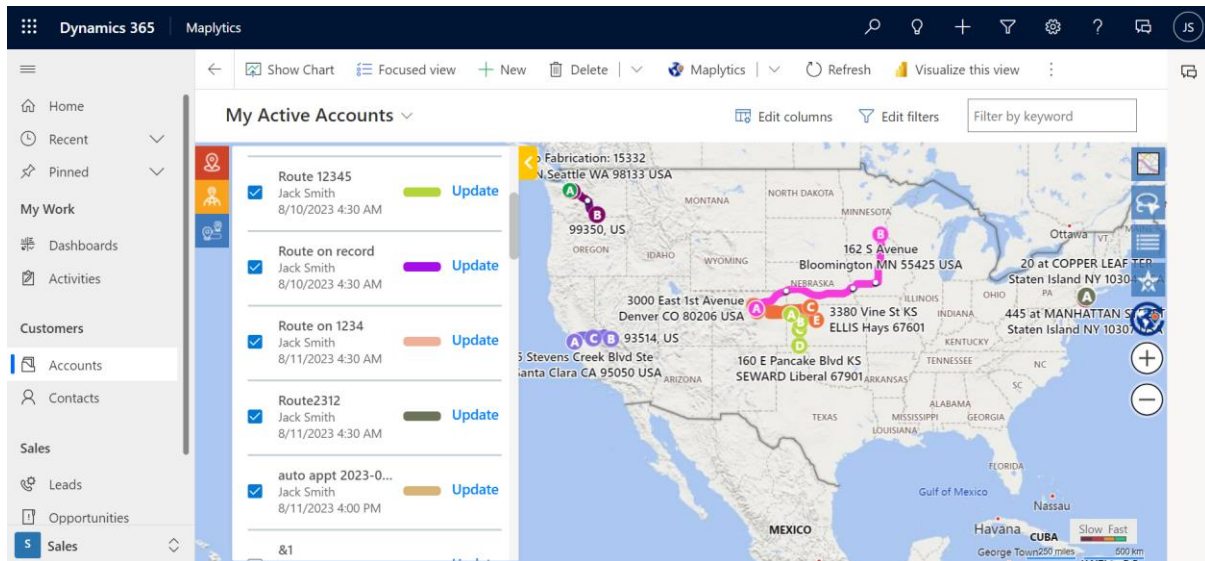
To be able to enable this option, the user needs to hold the license for Truck Routing which has been explained in-depth within the Truck Routing section.

- **POI locations** – User can set any location as the POI location from the tooltip card or contextual menu with a right-click on any location. Once the user sets the POI location, they can use the POI card and view any geo-tagged Bing mapped locations by clicking on the icons available on the POI card or entering the keyword for the required location. For example, the below screenshot shows the POI locations plotted for Coffee places and Dentist.



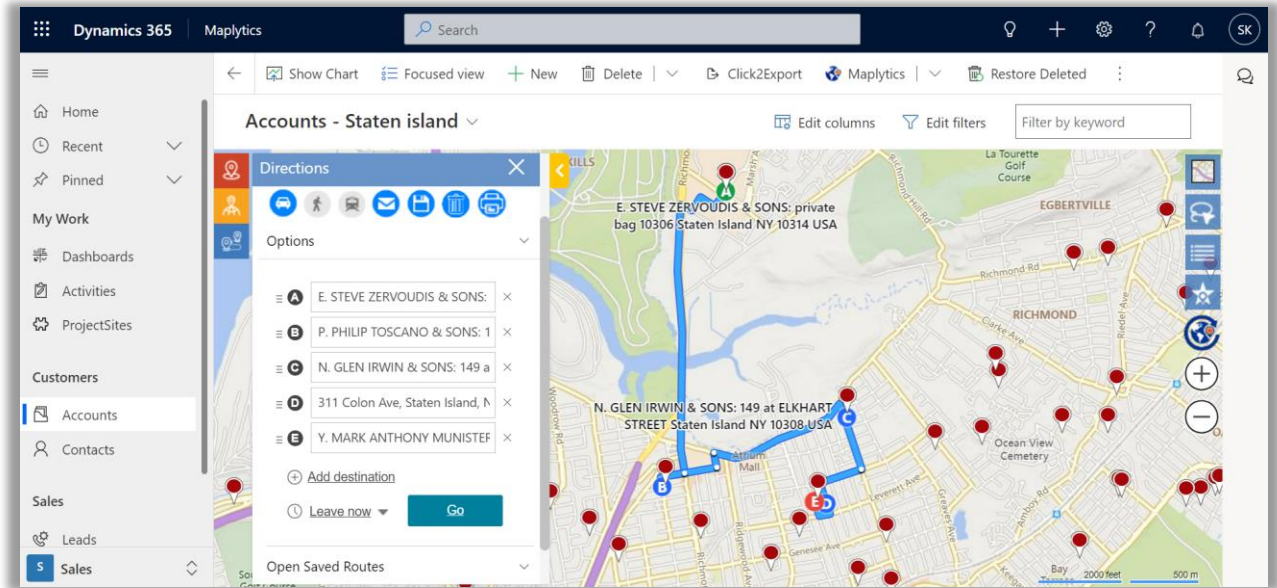
## Maplytics™ – User Manual

**Route Optimization**– User can set any location as the origin, destination or a waypoint from the tooltip card or contextual menu by right clicking on a record or anywhere on the map and get the route created for the waypoints selected. User will get further options like selecting the unit for the distance, Optimize Route based on Shortest Time or Shortest Distance, avoiding highways or toll roads and see Traffic etc. within the direction card. Once the route is created, user can use the ‘Save’ button on the Directions card to save the route. They can use this button to it to add changes to an existing route or save it as a new route with a date and owner assigned. The saved route can later be plotted using the ‘Open Saved Route’ option by entering a date or range of date. With the Multiple Routing feature, up to 10 saved routes can be visualized on the map at once. The waypoints can be added/deleted and the routes get updated accordingly. All the Routes are color-coded in color legends.

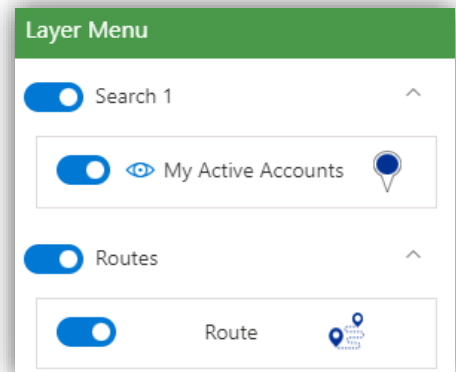


User can also use the ‘Open Navigation Links’ button on the Direction card to view the turn-by-turn directions to navigate themselves for the route on Google Map, Waze App, or Apple Map based on the App Set in User Configured Detail record. User can also send the route as an email to any other user or clear the route with the options on the Direction card. User can also click on ‘Print Route’ to print a Route as well as the adjoining Map.

## Maplytics™ – User Manual

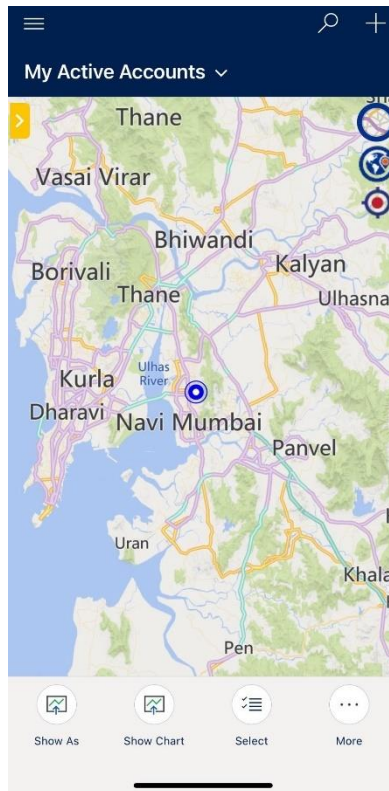


- Layer Menu- User can show/hide the layers of the plotted data on the map using the Layer menu to view only the data that is required.



## Maplytics™ – User Manual

- Current location- While using Maplytics Detail Map Control on Mobile/Tablet, users can easily plot their current GPS location with the help of the 'Locate me' button thereby making it easier to perform Proximity search and relate the data plotted on the map in terms of their location.

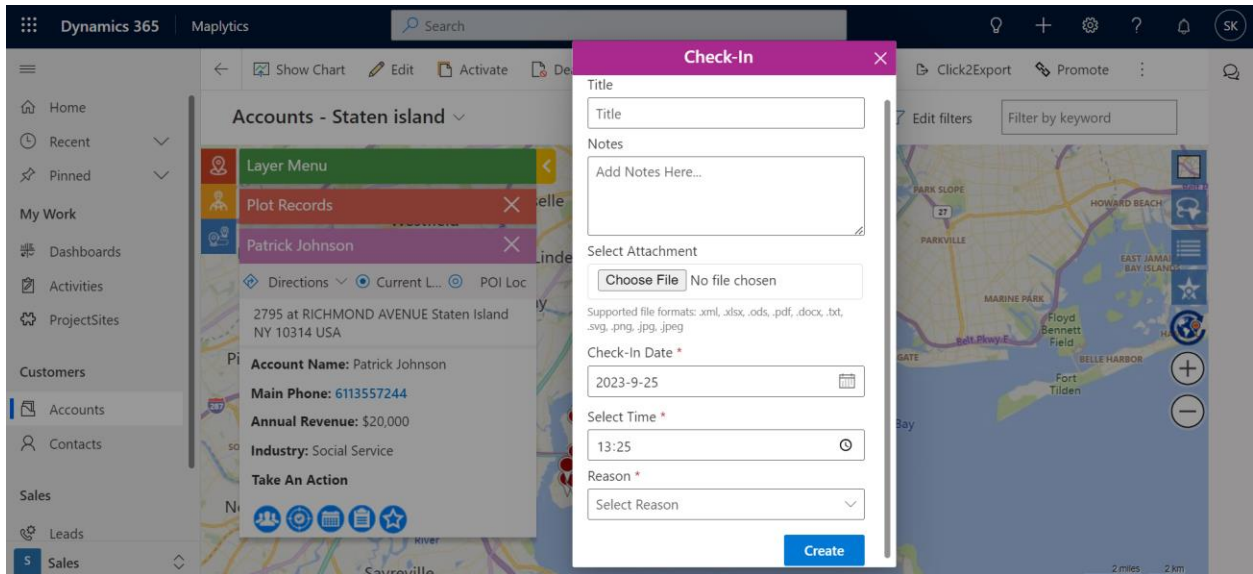


Deactivate- On deactivating a record by selecting the option, all the fields from CRM and on the Individual Map for that record get deactivated.

- Check in/out- Check-In feature enables users to register their arrival and departure time for the meetings while navigating on field with the help of Check-In and Check-Out buttons. User can click on any record's pushpin to open the Tooltip card and click on the Check-in button to register the arrival to the meeting location and click on the same button that gets converted to the Check-out button and register the meeting completion and departure from there. User can further add some notes for the respective records and also create pending check-in/out requests if they are outside the default radius.

Once field team has check-in/out for respective meetings, their managers can plot the Check-in entity to plot the respective check-in/out records on the map and analyze pushpins are valid and which are invalid to track the performance of the field team. They can also plot the pending check-in/out requests and approve/reject the same.

## Maplytics™ – User Manual

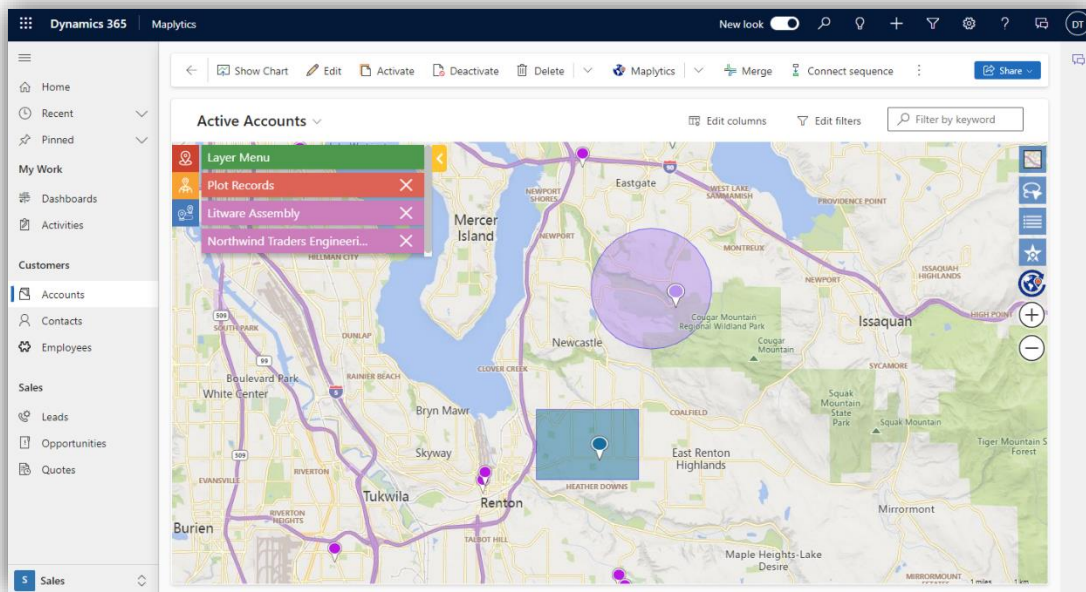


- **Land Area Mapping** – Organizations working with lands, real estates or farms etc. can visualize their lands/properties on map with this feature. Users will be able to assign land regions to the records and visualize them on the map to understand the coverage of area for each of the records using this feature.


Lands can be assigned to the required records as mentioned in the section 'Land Area Mapping' in this manual. Once the lands are assigned, users can select the entity in Datasource and the respective view in the 'Plot Records' card in the map to plot the record on the map as pushpins. While visualizing records on the map, users can right-click on any pushpin to open the Contextual menu and use the 'Show Land Area' button to plot the land(s) that is assigned to the respective record. The user can also see all the lands that have been assigned to all the records that are plotted on the map, using the 'Show Land Area' toggle button on the Layer Menu and show/hide the same.

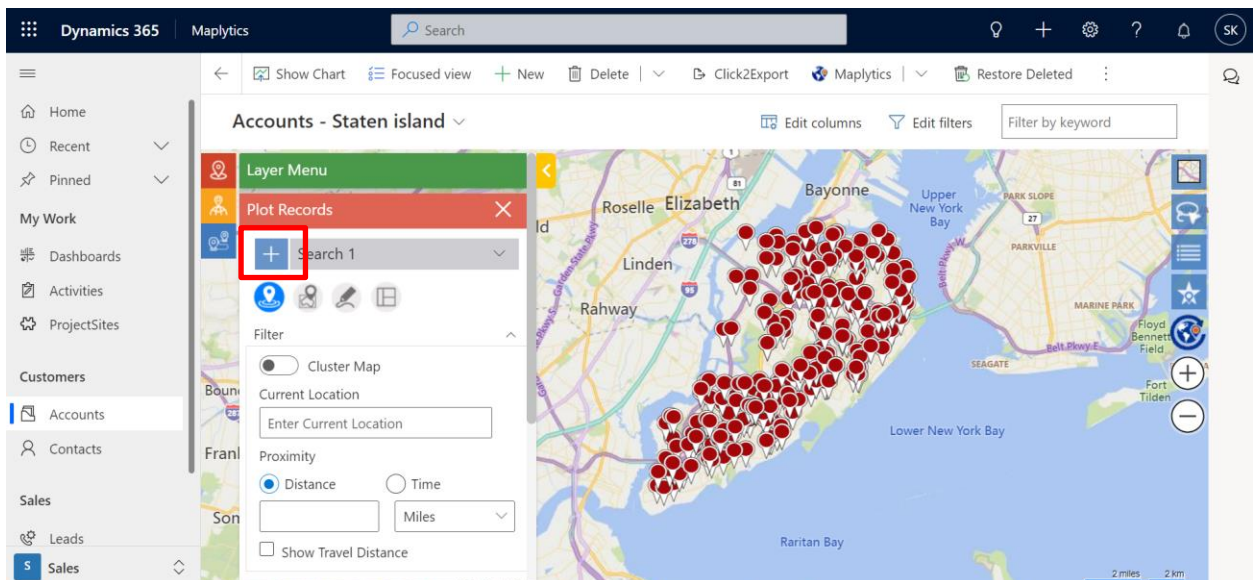


## Maplytics™ – User Manual



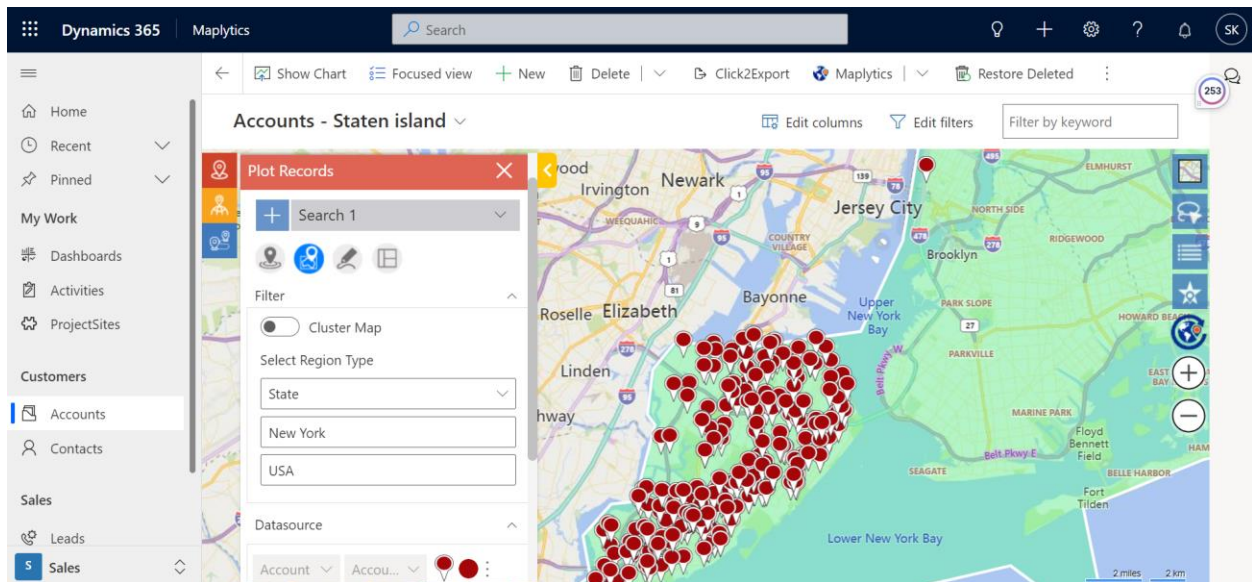
- **Multi search layer** - While users have so many search options and features to plot data on the map, they also have the capability to perform more than one search at a time to plot data on a map. For example, if the user needs to view the data with the search of By Region as well as By Drawing together on the same map, they will be able to do it with this ability of Multi search.

In the Detail map control, the records from the respective view will be plotted by default. In the below screenshot, the map shows the default view of the Accounts plotted with pushpins in green color. To add more searches to the map, user can click on 'Add New Search'  to select the required search option and Data sources for the same.

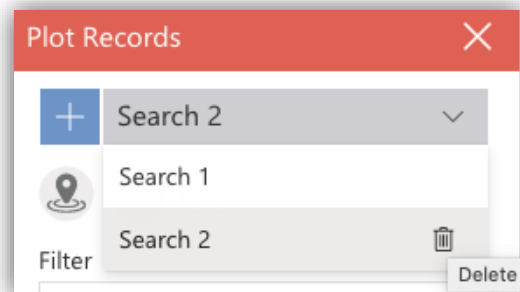
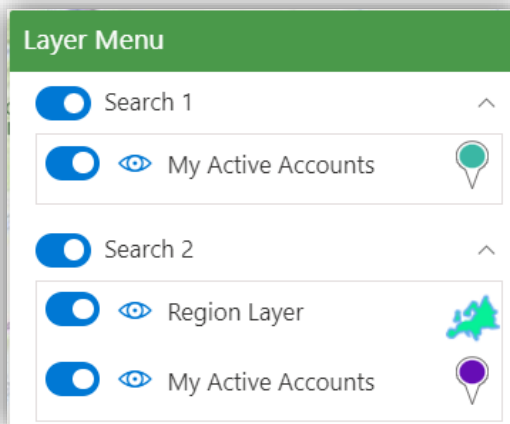


## Maplytics™ – User Manual

The below screenshot shows that the Search option 'By Region' is selected in the New search which becomes 'Search 2' after clicking on Search button. It is now showing all the records from Alabama, USA in purple color. However, as the default view was already plotted in green color pushpins, the records are still there as the part of Search 1. Since the views for both of the searches is the same i.e. the default view the purple pushpins of Search 2 are overlapping on the green pushpins of Search 1.



The number of multiple Searches is visible in Plot Records Card. User can also click on the 'Delete' icon to delete the respective search layer.

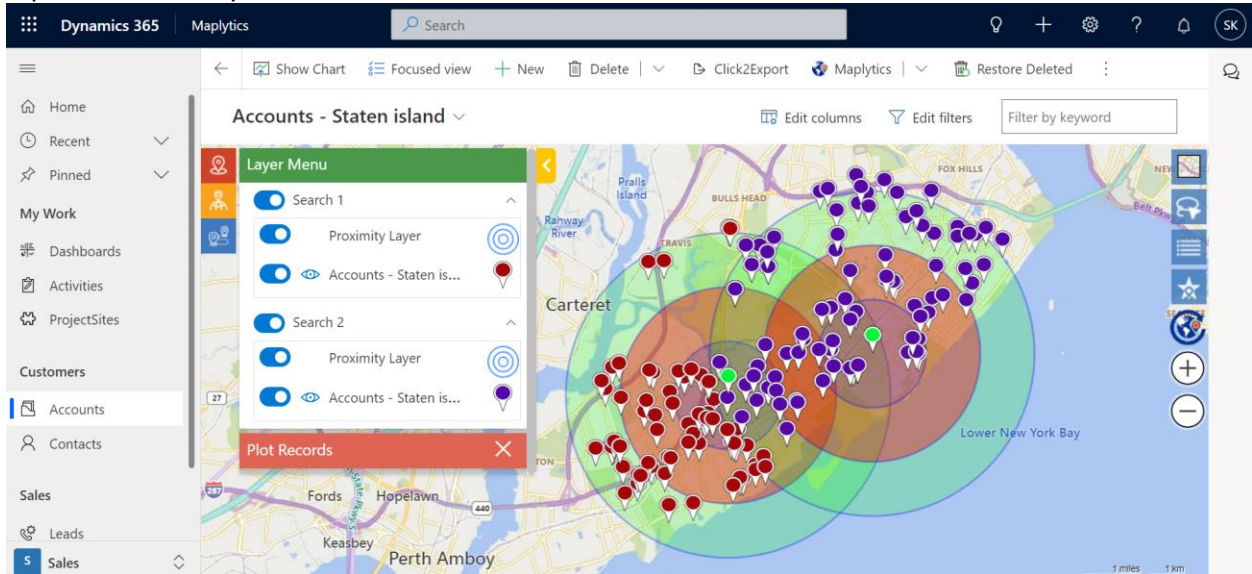


The 'Layer Menu' will show the layers based on the Searches performed. In this screenshot, it is showing the Search 1 that contains the default view plotted and the Search 2 with the records plotted from Alabama State using 'By region' option as mentioned above. User can use the toggle buttons to hide/show the Search layers or the layers within an individual Search. This will also help to view the pushpins that are overlapped by other pushpins in case the views selected in two searches are

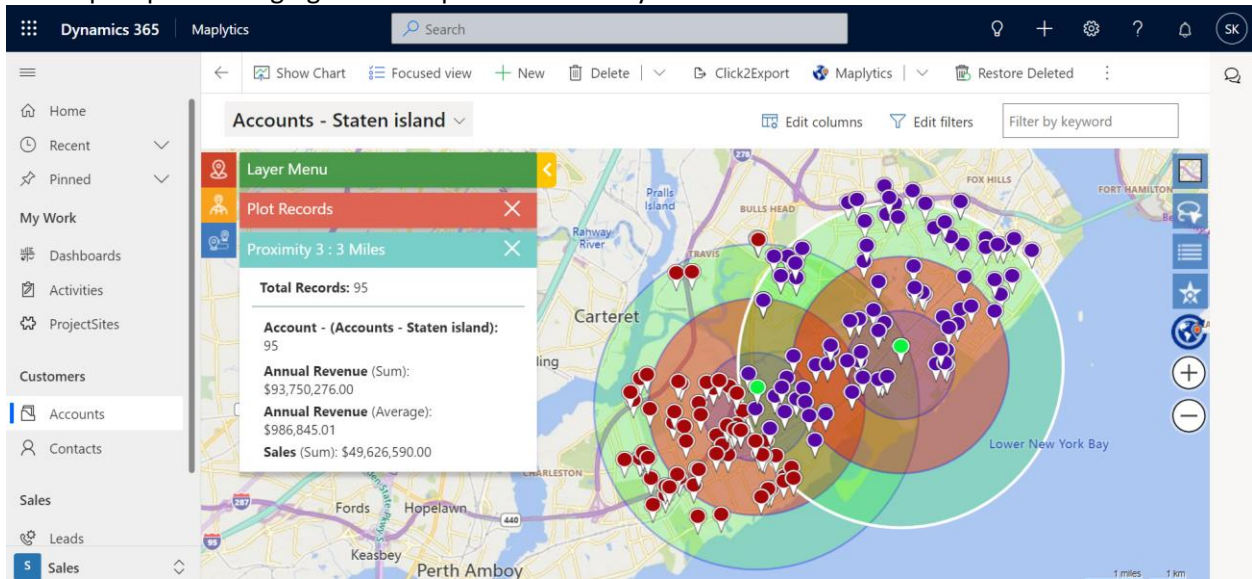
the same like in our example above.

## Maplytics™ – User Manual

Users can also use the ability of Multi Search layers to perform Proximity Search at different locations in the same map. The below screenshot shows Search 1 where the Proximity search is performed on My Active accounts that is the default view here & the All Contacts and Search 2 where the Proximity search is performed on My Active Accounts on a different location.



While clicking on the circles of the Proximity searches the Summary card information will be shown based on the pushpins belonging to the respective Proximity Searches.

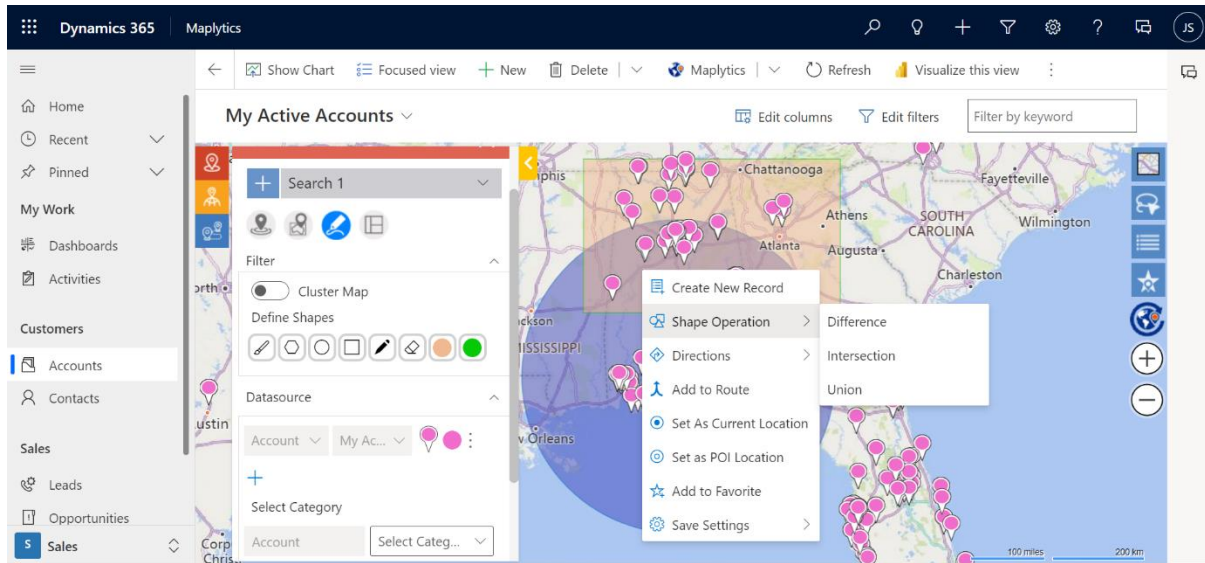


- Shape Operations

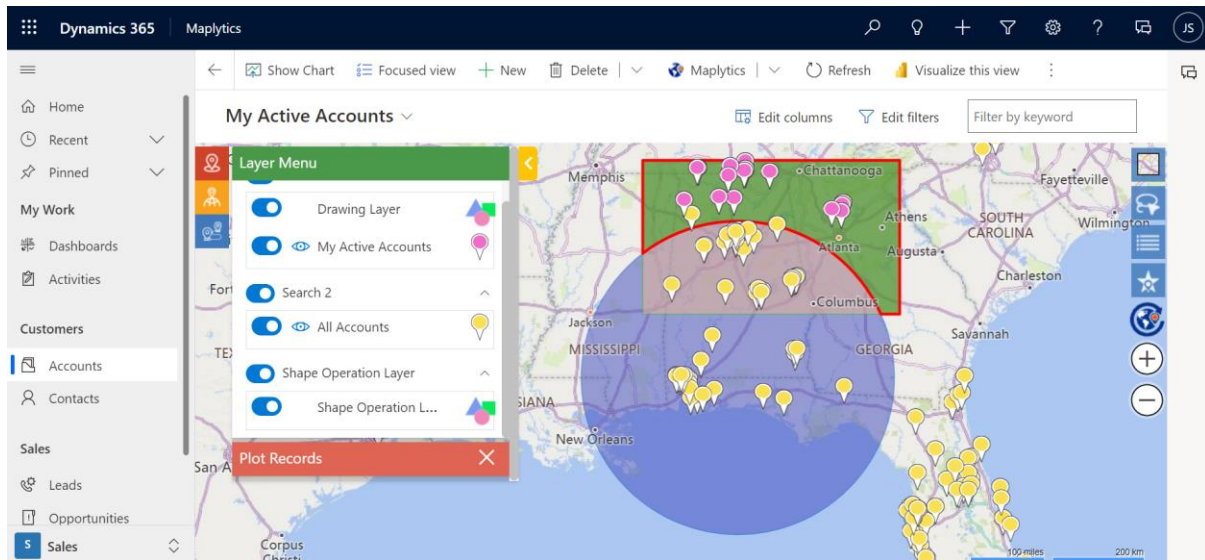
Using the plot by-drawing feature, two or more shapes can be drawn on the map. The user can then perform 3 types of shape operations i.e. **Difference, Intersection, and Union** on the overlapping shapes. The records then get filtered according to the shape operations used. The option can be availed by right-clicking on the overlapped shapes.



## Maplytics™ – User Manual

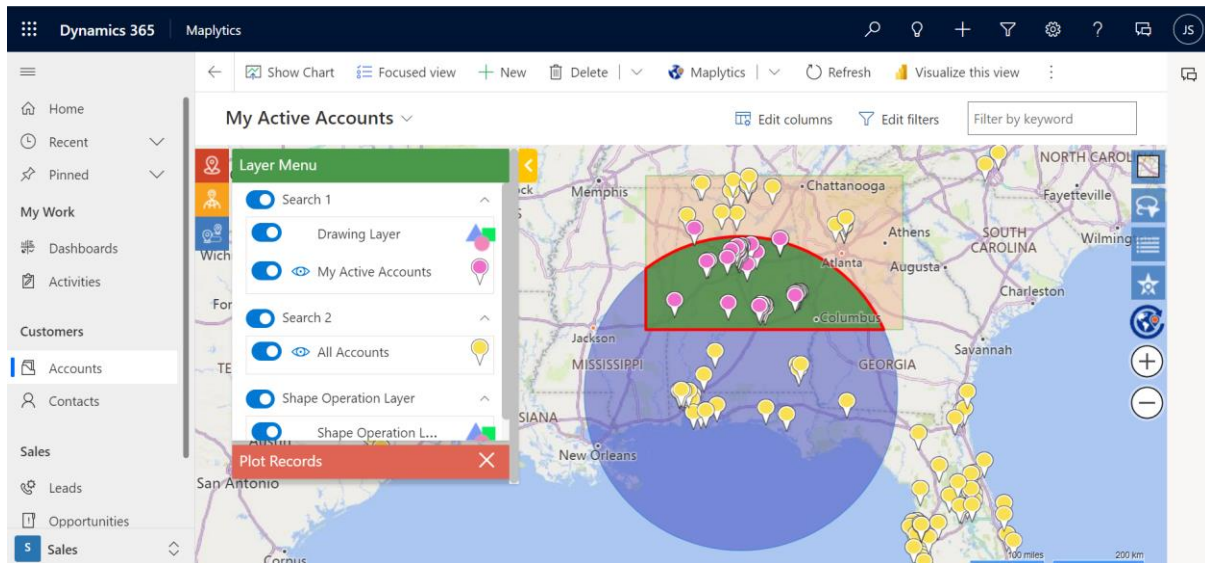


**Difference-** This highlights the shape(s) obtained by subtracting the overlapped ones from the selected shape.

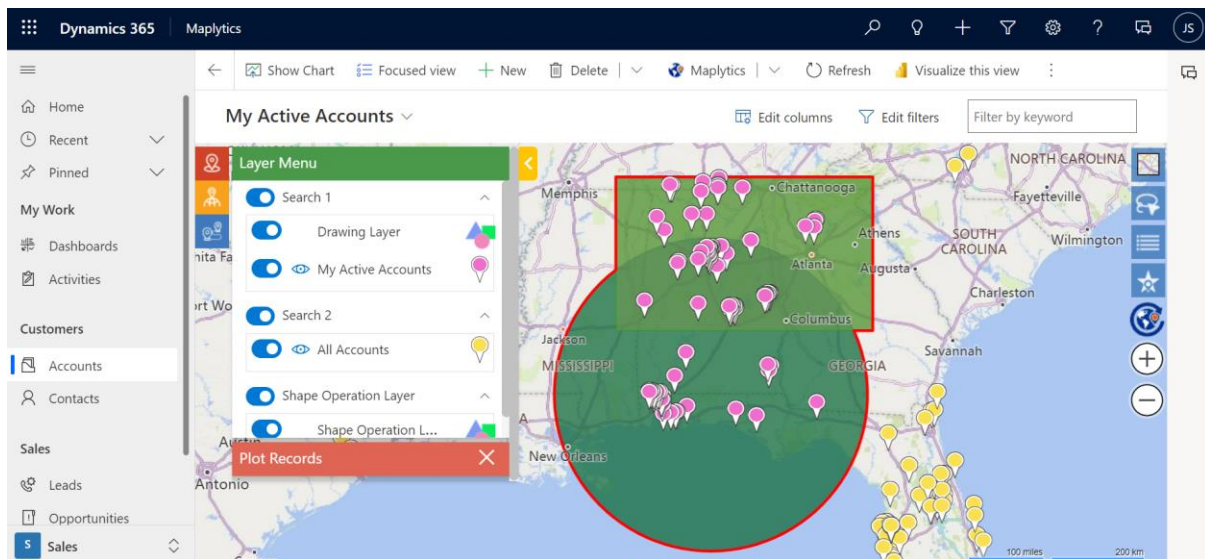


**Intersection-** This highlights the shape(s) where the selected shape and other shapes overlap.

## Maplytics™ – User Manual

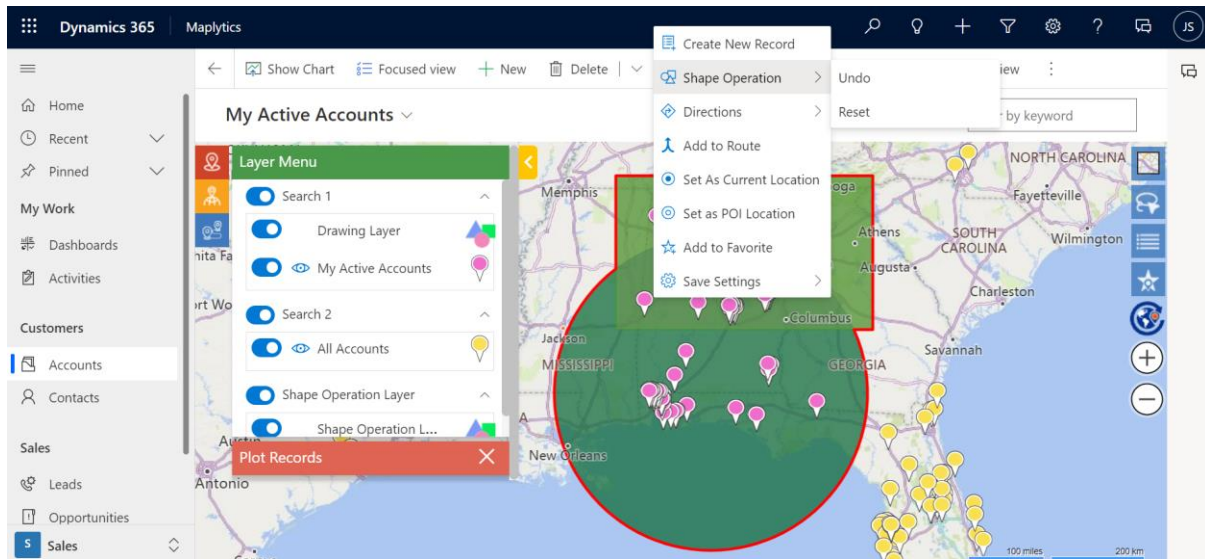


**Union-** This adds all the shapes overlapped on the selected shape



The records plotted within these shapes on performing the operations are visible on the data grid on the right.

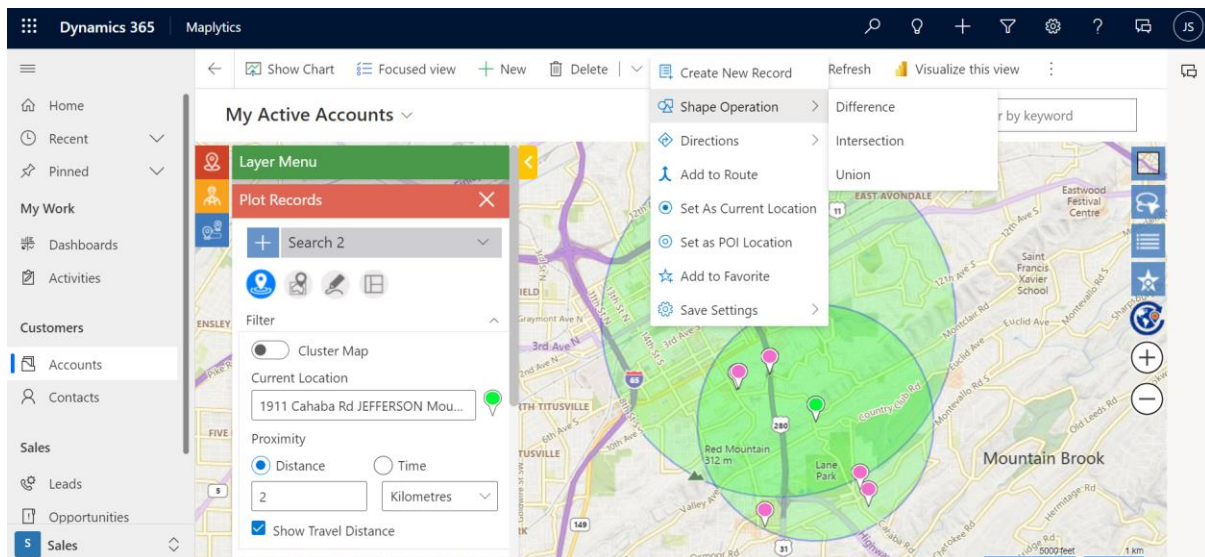




Using the 'Undo' option the operation is reverted and all the records from all the drawn shapes become visible. Using the option of 'Reset', the user can remove all the operations that are performed on the shapes drawn on the map

### Advanced Shape Operations

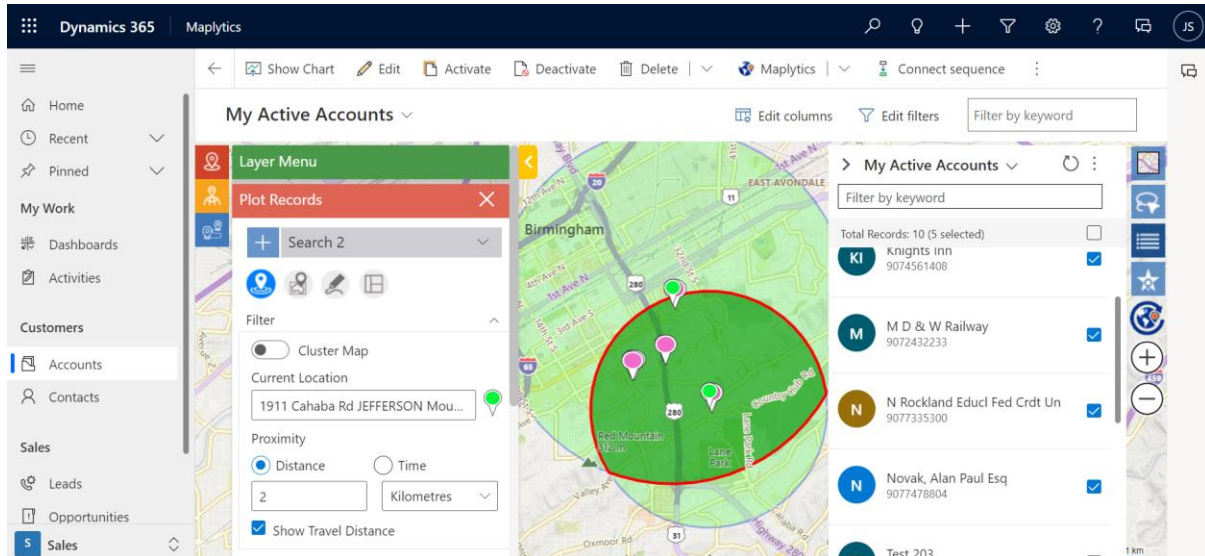
This enhancement in the shape operations utilizes the Multi-Search feature to perform multiple search operations simultaneously. Shape operations are performed on the overlapping shapes plotted in this manner.



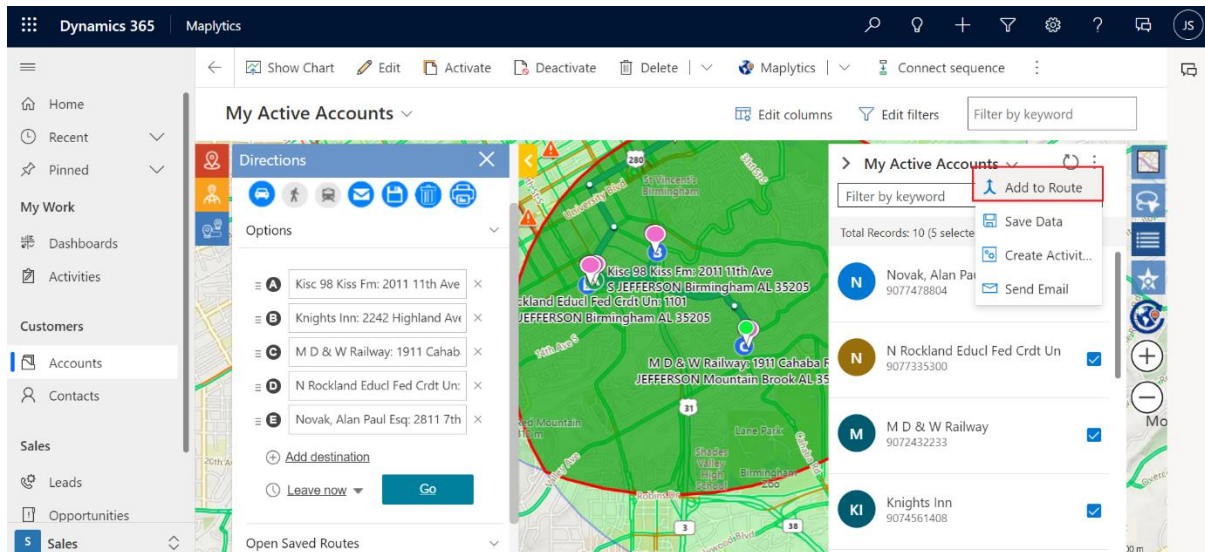
For instance, a user can perform a proximity search in two different search layers. Once the proximity circles and the records within them are plotted, Shape Operations can be performed on them as seen above.

## Maplytics™ – User Manual

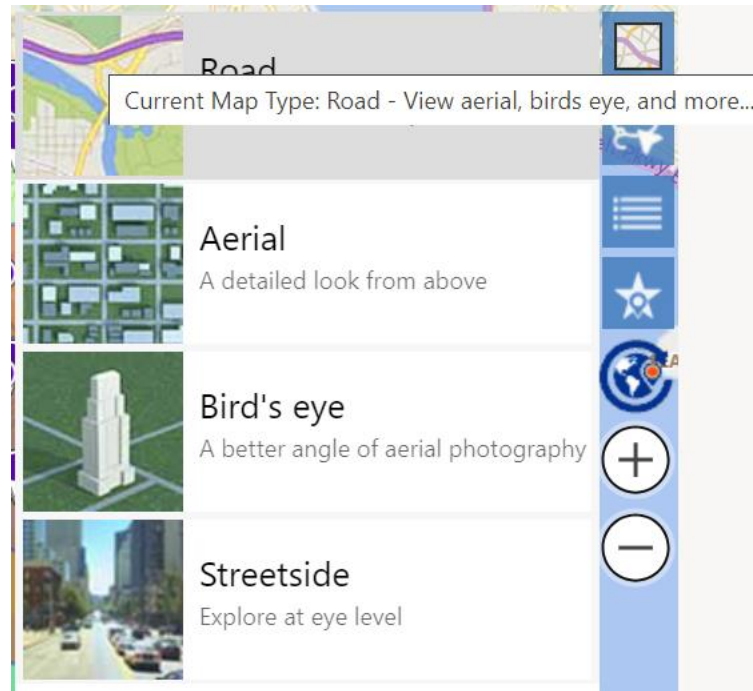
The filtered records derived using the Shape Operations are visible in the Data Grid. Mass Actions can be performed on all of these or a selected few records as required.



Records could be saved for future use, Emails could be sent to them, activities could be created for them, or they could be added to a route.



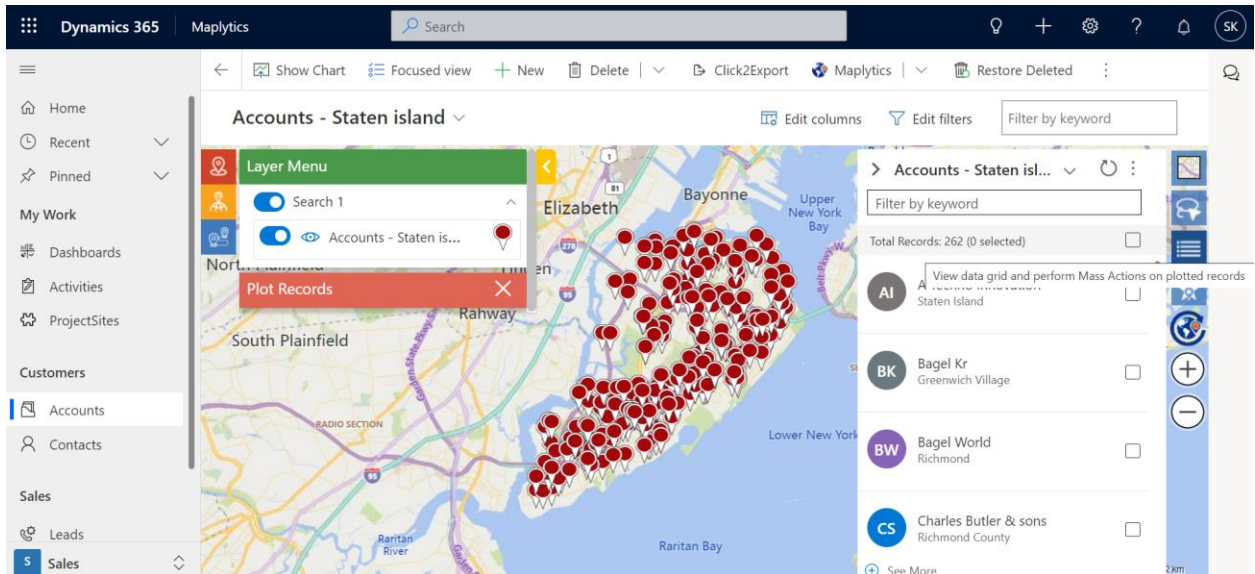
- Map mode and labels- Two map modes are available viz. Road and Aerial view. User can also select to view the labels of regions on the map.



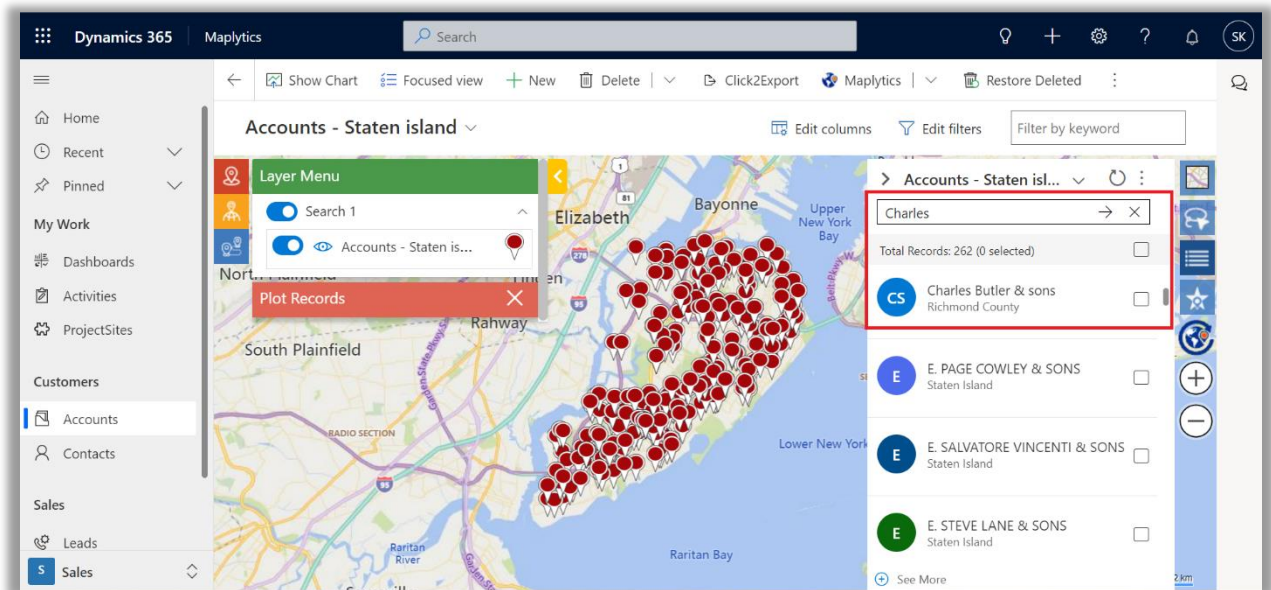
- Data Grid – All the records of the view are listed in the Data Grid. The check box against the records can be ticked to utilize the records for operations.



## Maplytics™ – User Manual

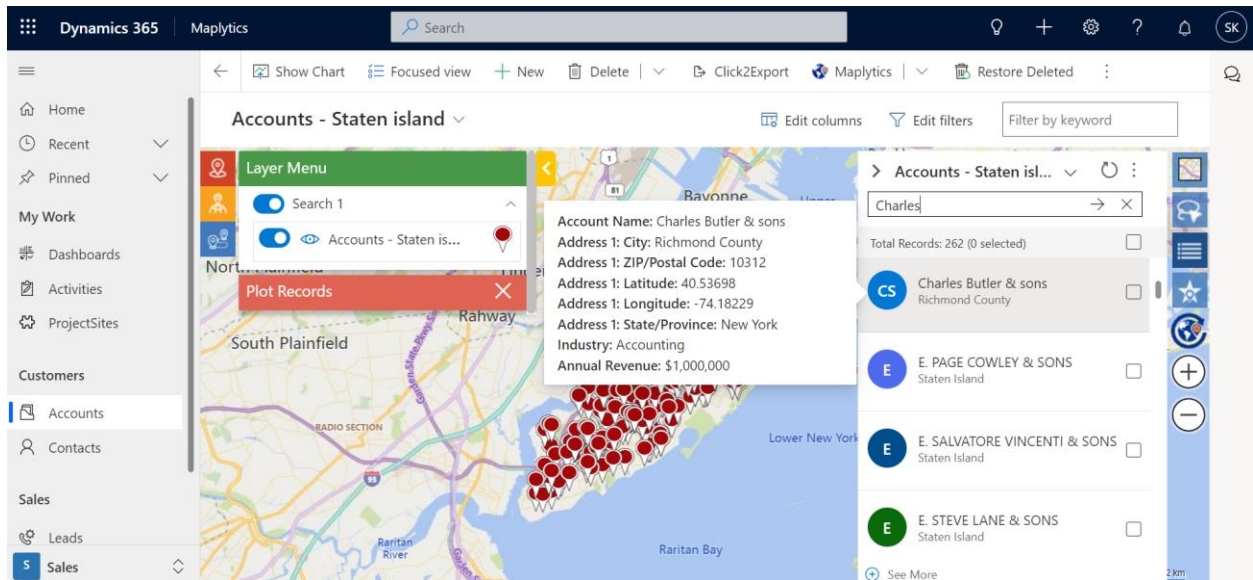


In case a particular record needs to be selected, it can be filtered out from all the records of the view by adding a suitable keyword

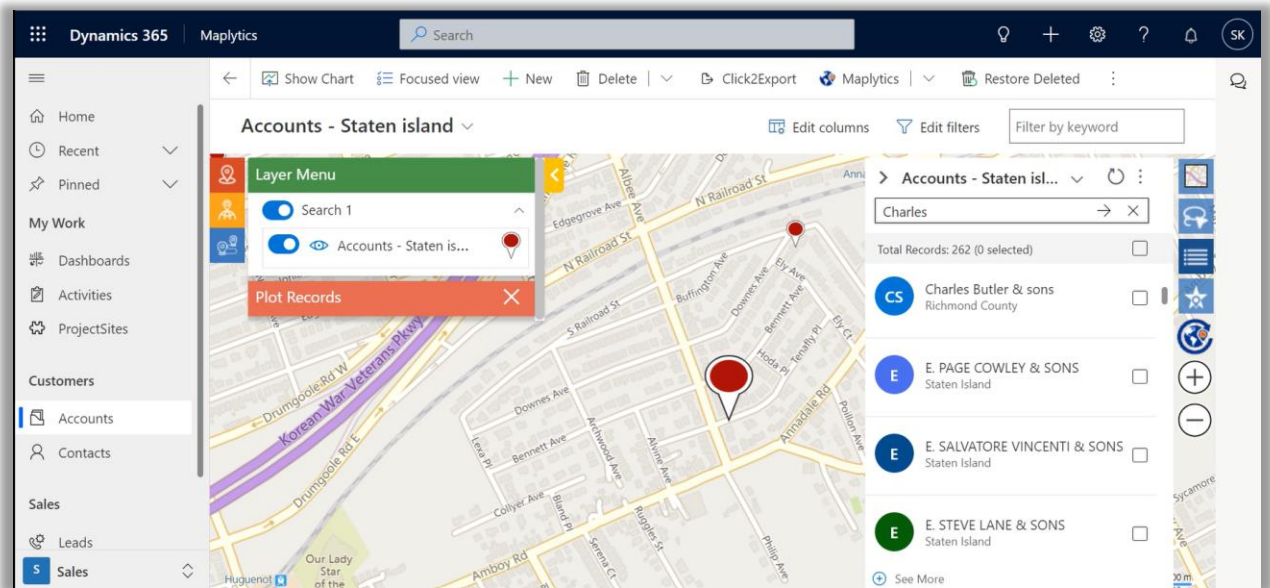


Hovering over the record image displays the details of the records. These details are configurable

## Maplytics™ – User Manual



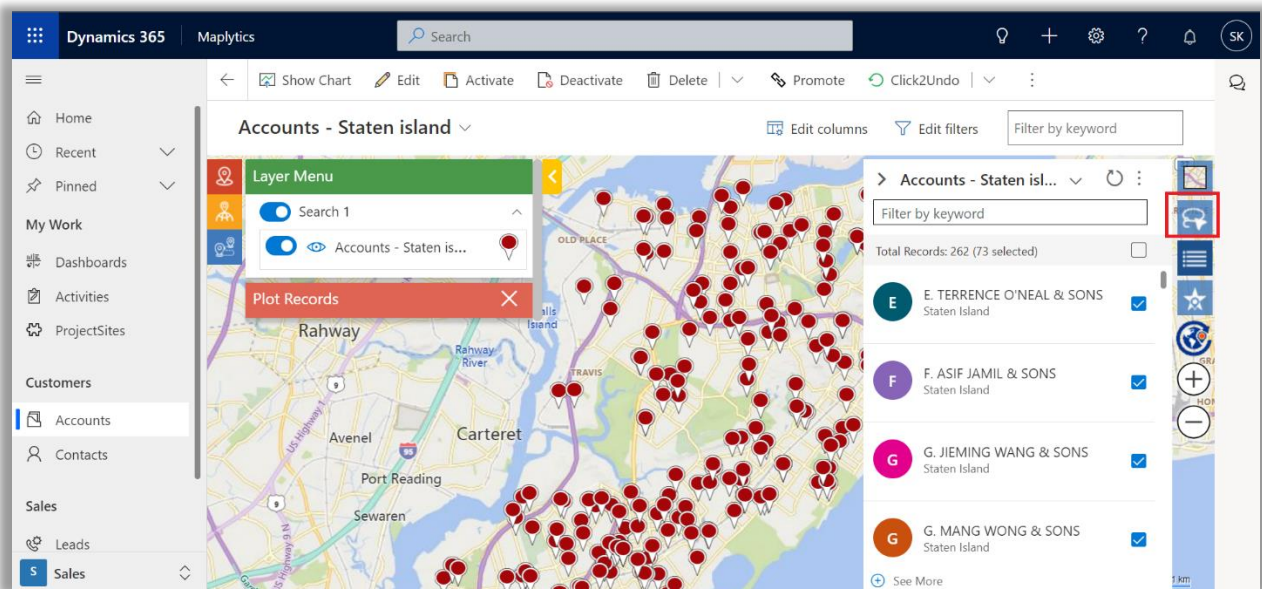
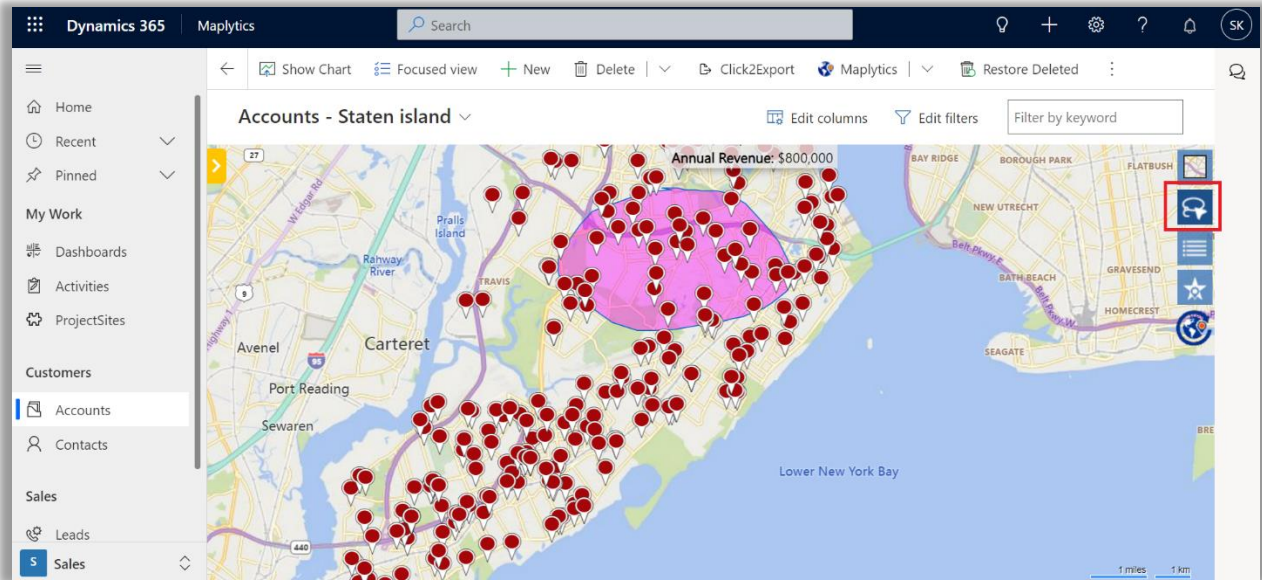
Clicking on the record row in the data grid zooms the map view to the area of the pushpin. The pushpin blinks a couple of times and rests



- **Lasso Tool**- The user can use this tool to select a bunch of records together at once. The records will get selected in the data grid and be available to perform multiple activities.

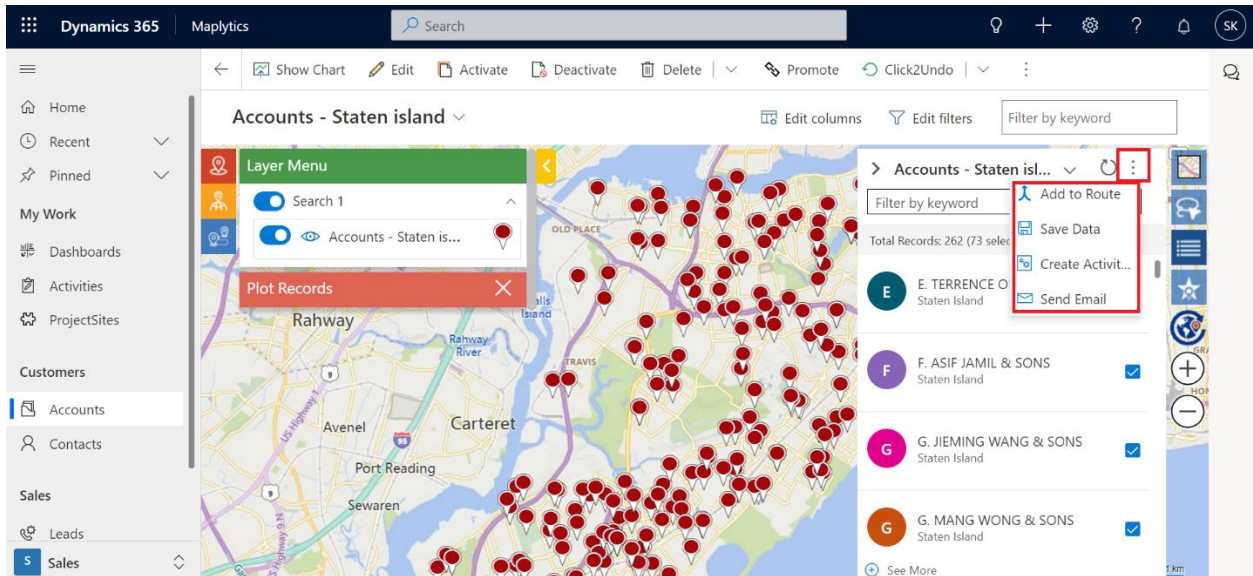


## Maplytics™ – User Manual



- Mass Actions – Mass Actions can be performed on the selected records. They could be added to a travel route, the selected data set could be saved, activities could be created for these records, mail could be mass sent to them.

## Maplytics™ – User Manual



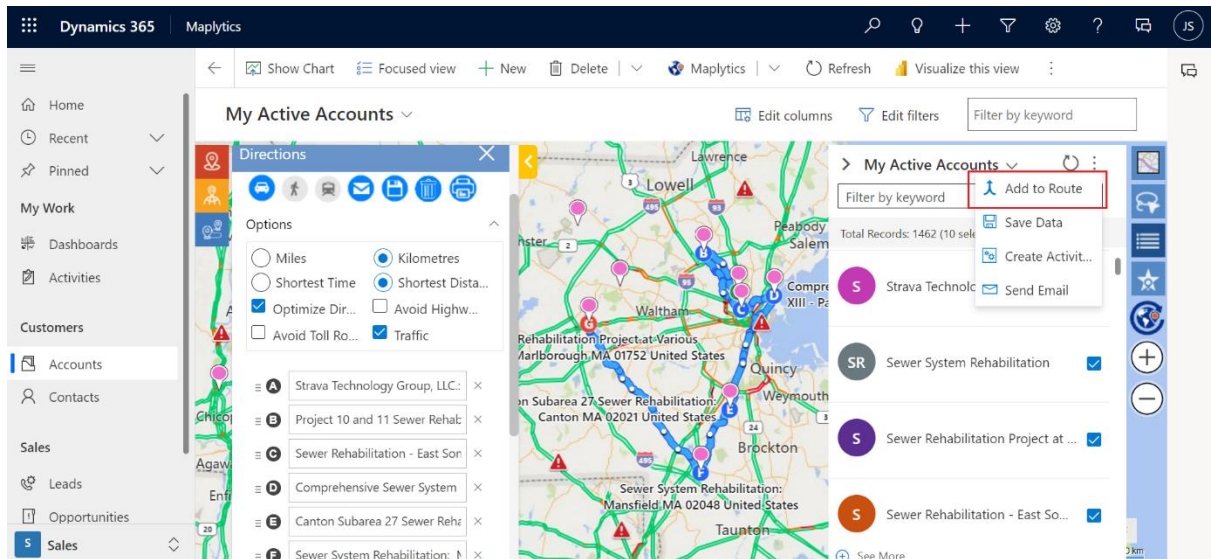
**Add To Route:** This option will add selected data points to the route. The user can add at max 25 data points to the route

**Save Data:** The selected records can be saved as static Marketing List or Personal View in Dynamics CRM

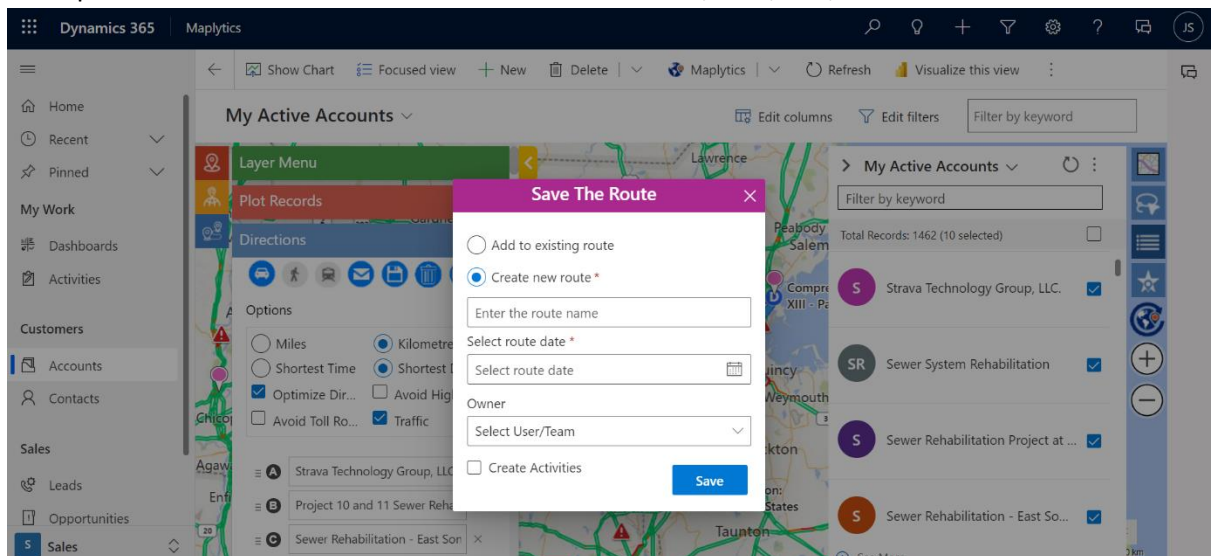
**Create Activities:** User can create activities for non-activity Entity records currently selected in “View Data grid.” The user can define the Activity, Subject, Schedule Start date and Schedule end Time, Duration, Owner(User/Team) and Priority. The activities selected in respective Entity maps can be seen in the list of activities available to create using the button of “Create activities”. By clicking this button below window will open and the activities will be created based on the inputs given in the window by the user.

- **Send Email:** The user can send a mass email to the selected records. User can select any one the available email templates or a new email to write their own content. User can also choose to keep the recipient as To/Cc/Bcc in the email.
- **Smart Route:** The route plotted using the Add To Route button above can be optimized in terms of the shortest travel time or distance. The order of the waypoints can be adjusted and the route re-routes itself.

## Maplytics™ – User Manual

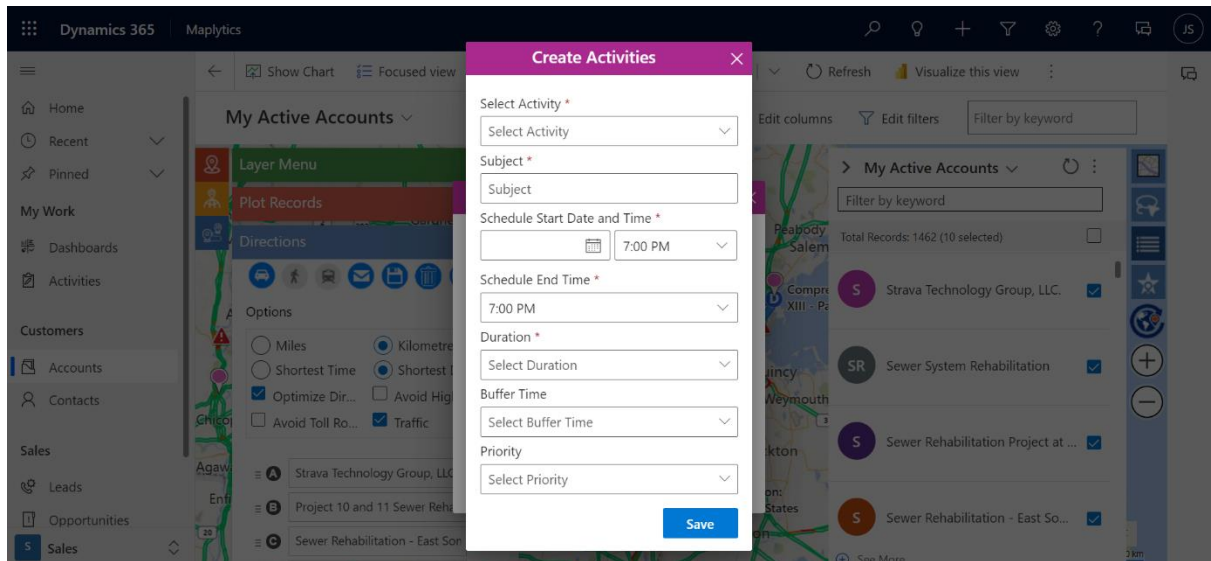


This optimized smart route can thus be saved with a name, date, and, an owner.

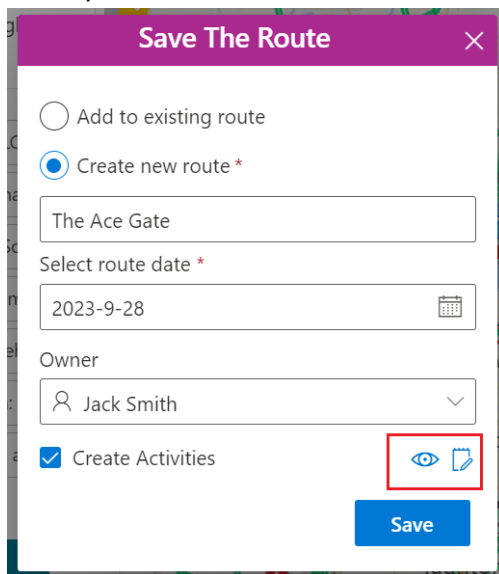


Activities such as appointments/tasks can be created for each of the waypoints on the smart route using the Create Activities option. In case of Appointments being created, the subject, start date and time, end time, duration of each appointment, buffer time in between appointments, priority, etc. can be saved, along with the Smart Route.

## Maplytics™ – User Manual

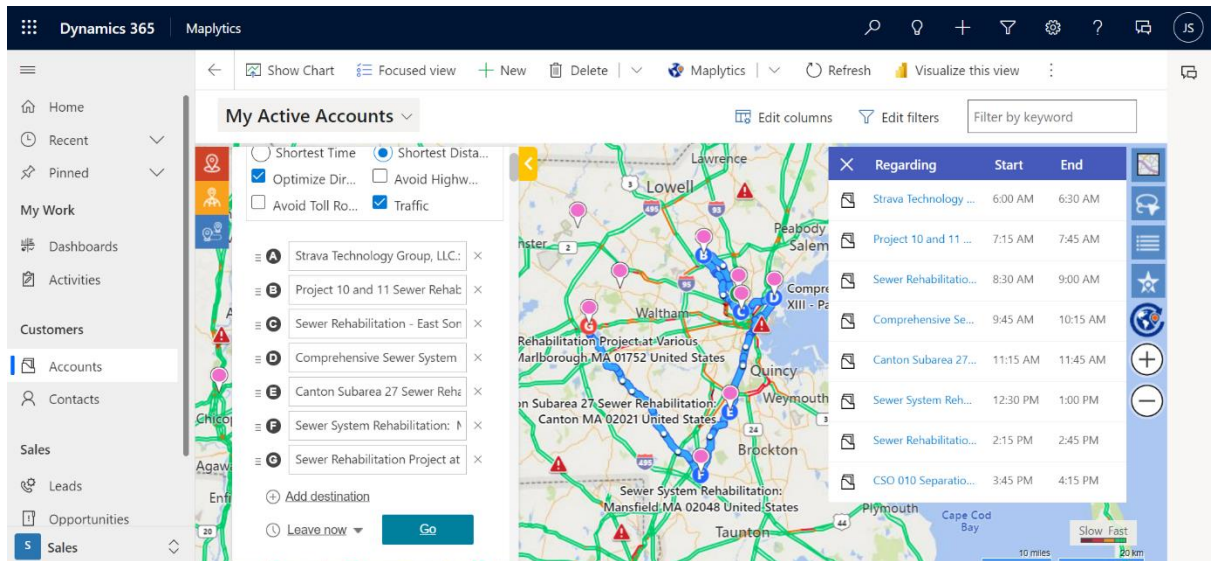


Once saved, the user can have a preview of these appointments with start and end times. Activity details can also be edited at this stage if required.





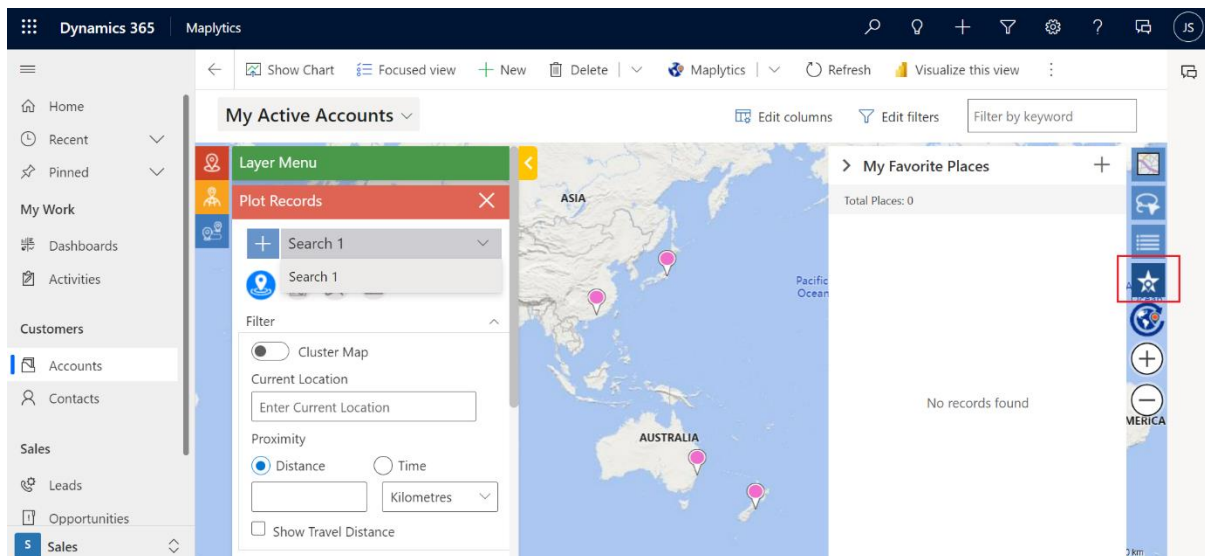
## Maplytics™ – User Manual



The appointments created in this manner are visible in the Activities list under the Activity Name provided in the Subject. The start, end date, and time, too, are visible for each. The Smart route is visible in the Activities section under the Route Category.

**Note: Activities will be created only for the selected date**

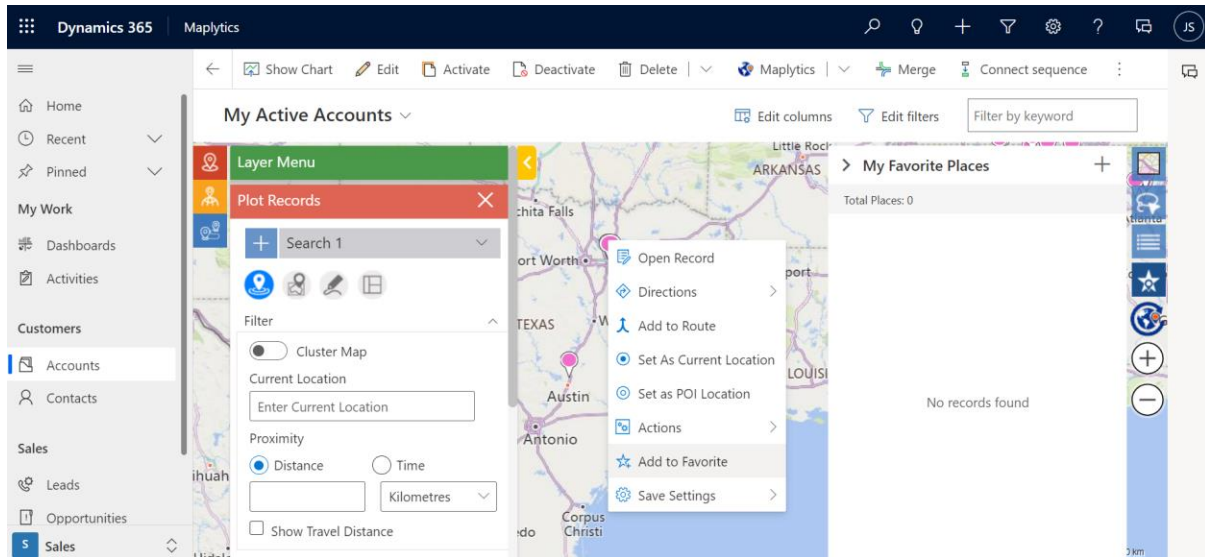
- **Favorite Places**- Users visit some places more often than the rest. Such places are set as current locations, locations of interest very frequently. It is a hassle to plot and search for them every time. Thus, 'Favorite Places' could be used to ease it.



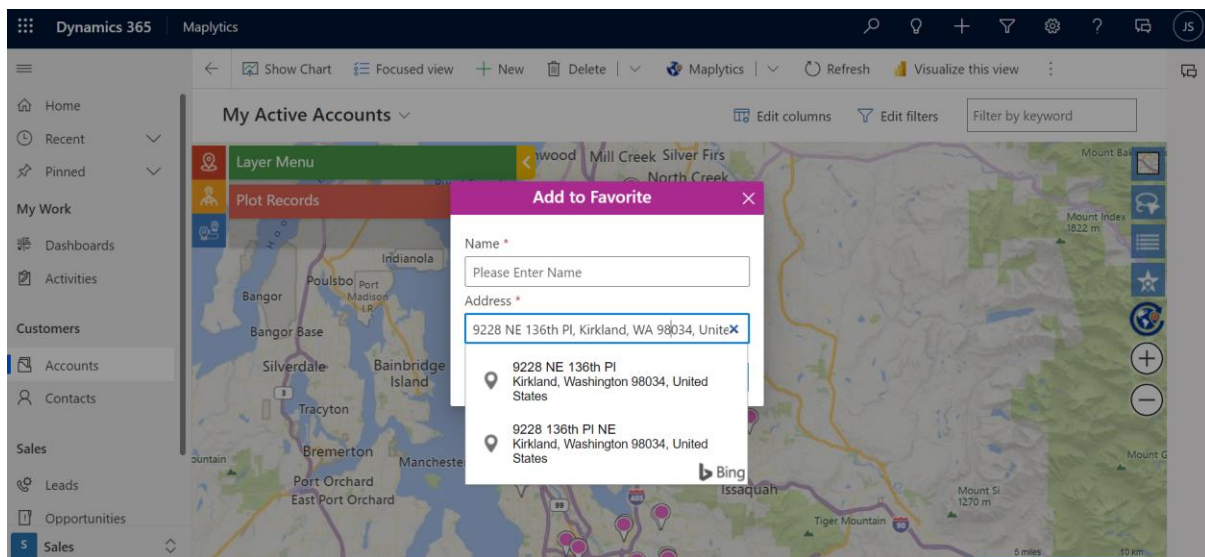
By default, the menu would be blank and the user will be able to add his favorite places to it.



## Maplytics™ – User Manual



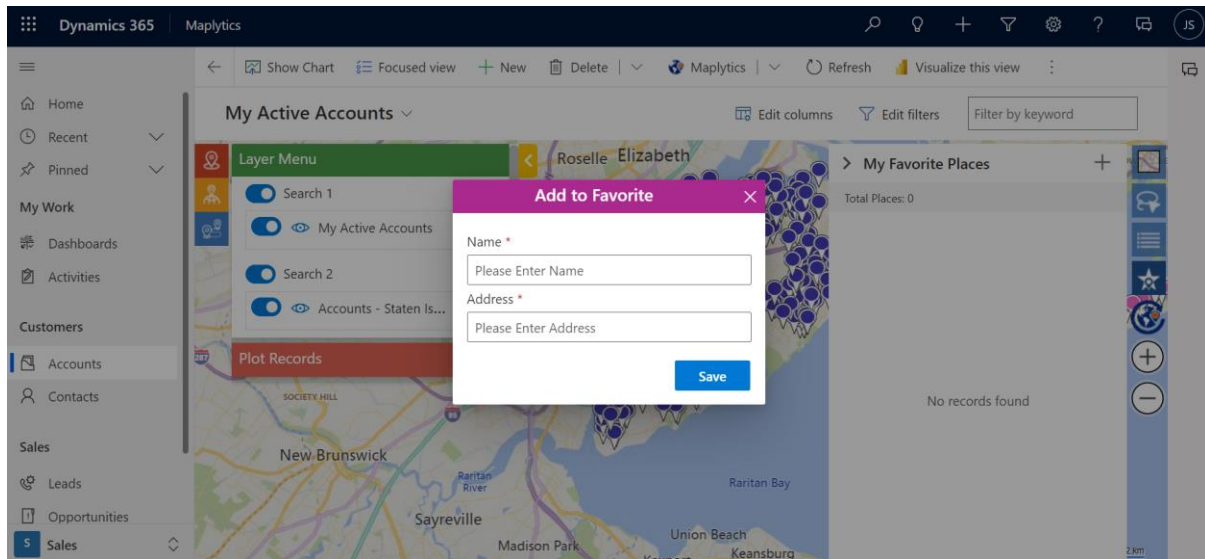
This can be done by right-clicking directly on the map or on any record pushpin. The address field is populated with the address of the pushpin and cannot be changed.



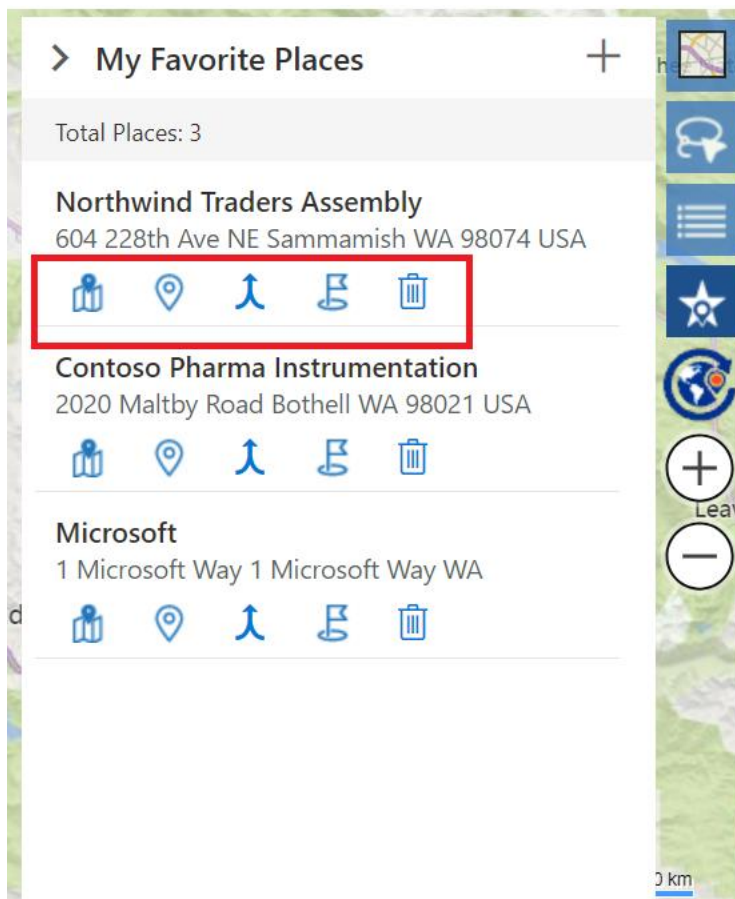
However, when the favorite place being added is directly from a map location, the address can be selected from the auto-suggest list. The place can then be saved in the My Favorite Places list after giving it a suitable name.

The third way to add to the Favorite List is by directly clicking on the '+' sign and filling in the details.

## Maplytics™ – User Manual



Operations on My Favorite Places- A few operations, as follows, can be performed on the records in the favorites list.

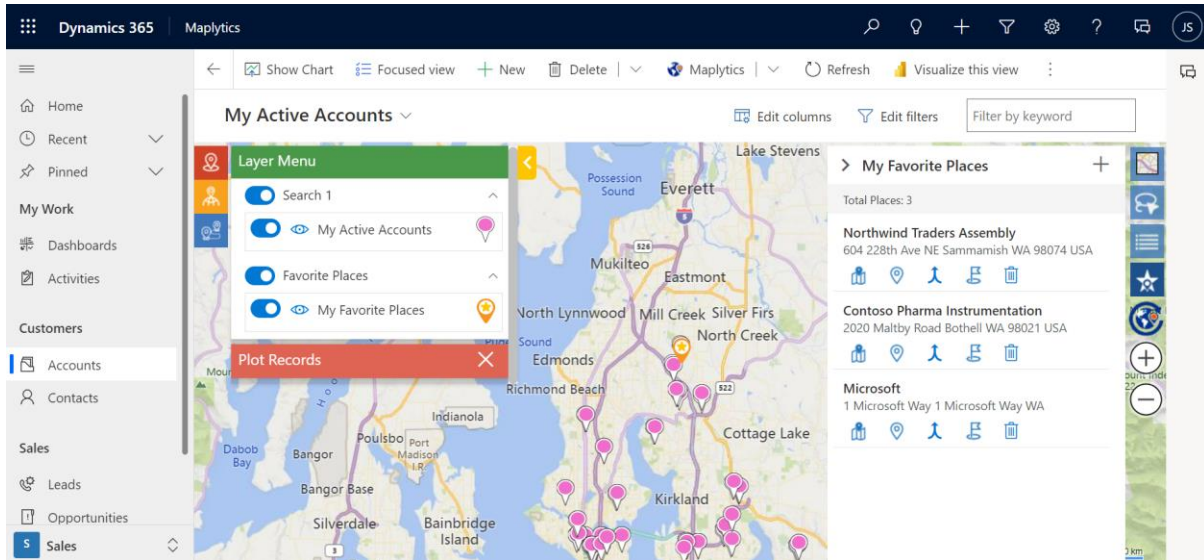


Plot on Map- Clicking on this option, the favorite place gets plotted on the map. On hovering over it, the name and address of the favorite place is visible. The respective layer of favorites also becomes visible.

## Maplytics™ – User Manual

The Plot on Map option changes to Remove from Map in order to remove the favorite record that has been plotted.

Once a favorite pushpin has been plotted on the map, the Layer Menu for Favorite Places will be enabled. Once all the favorites have been removed from the map, the Layer Menu for favorites will not be visible.



**Set As Origin-** Clicking on this option, the favorite place gets added as the Origin for a route

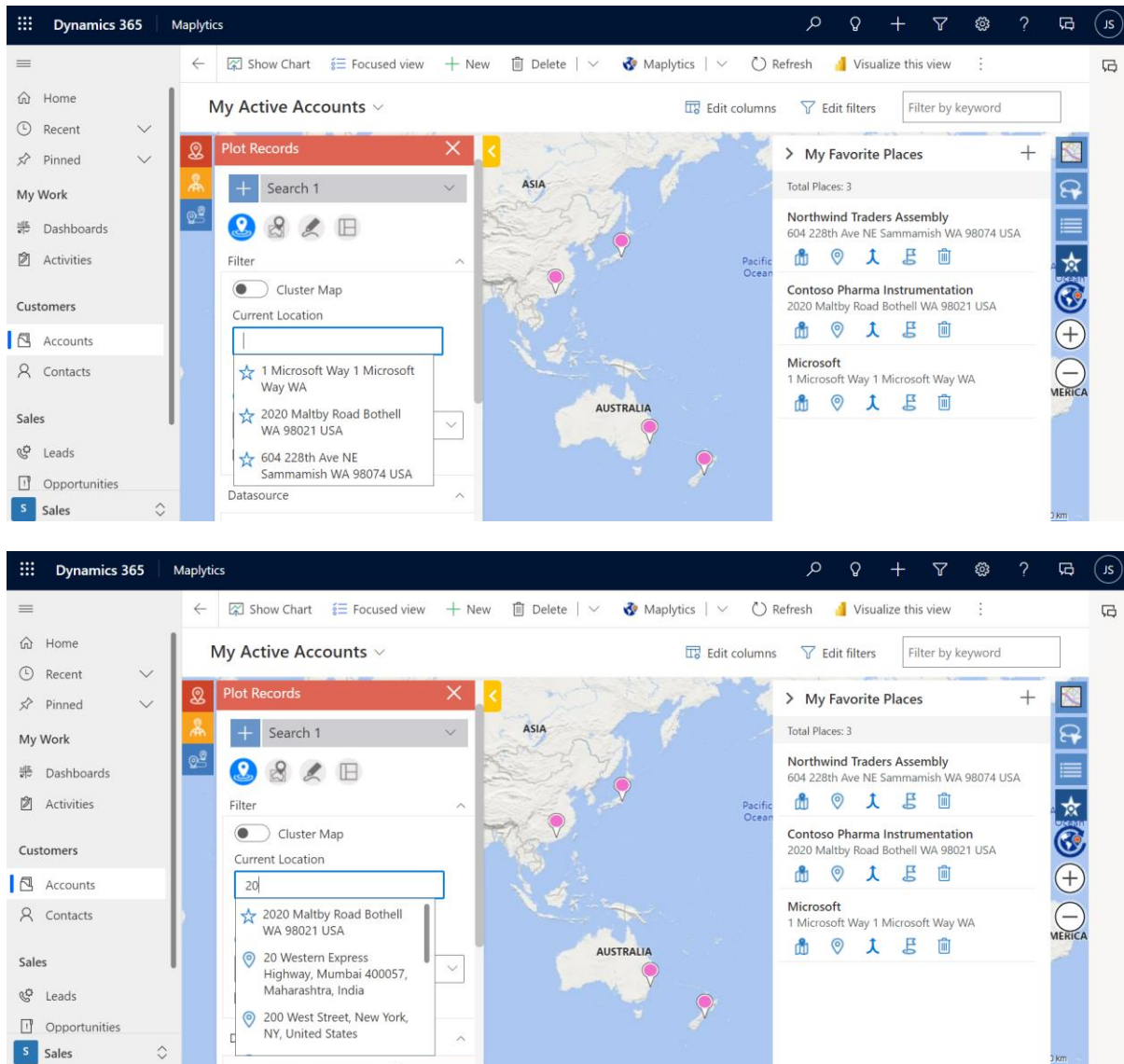
**Add To Route-** This option adds the favorite place to the route as a waypoint

**Set As Destination-** The favorite place shall be added as the destination for a route

**Delete from Favorites-** The Favorite Place shall be removed from the list

**Set As Current Location-** When a user wants to set a location as Current Location and there are a few records already added to the favorites list, these favorites will get auto-suggested for Current Location when the user clicks on the space bar. Thus, they can be quickly selected and plotted.

## Maplytics™ – User Manual

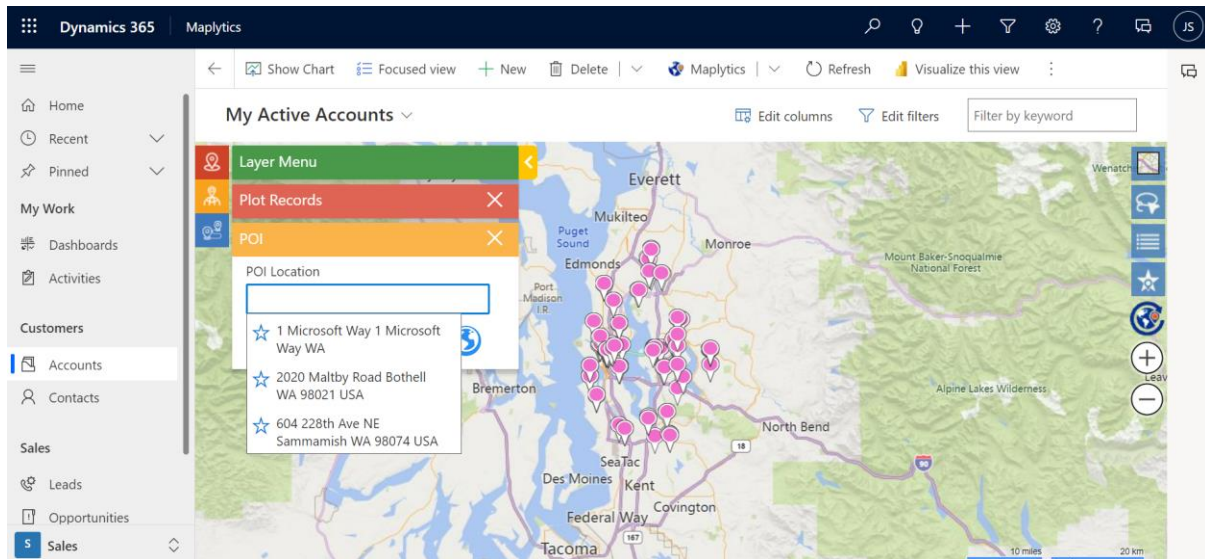


Similarly, if the user enters an address in the Current Location and the address is similar to any records in the favorites list, it will be prompted on top of the auto-suggest list.

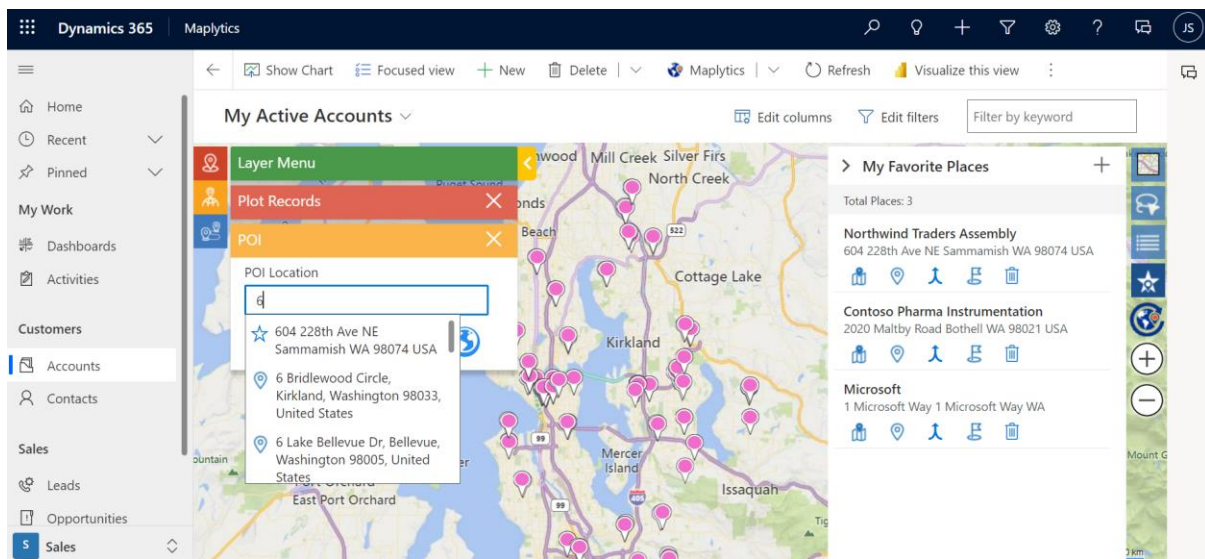
**Set As POI Location-** When a user wants to set a location as POI Location and there are a few records already added to the favorites list, these favorites will be auto-suggested for POI Location when clicked on the space bar. Thus, they can be quickly selected and plotted.



## Maplytics™ – User Manual



Similarly, if the user enters an address in the POI Location and the address is among the favorites list, it will be prompted on top.

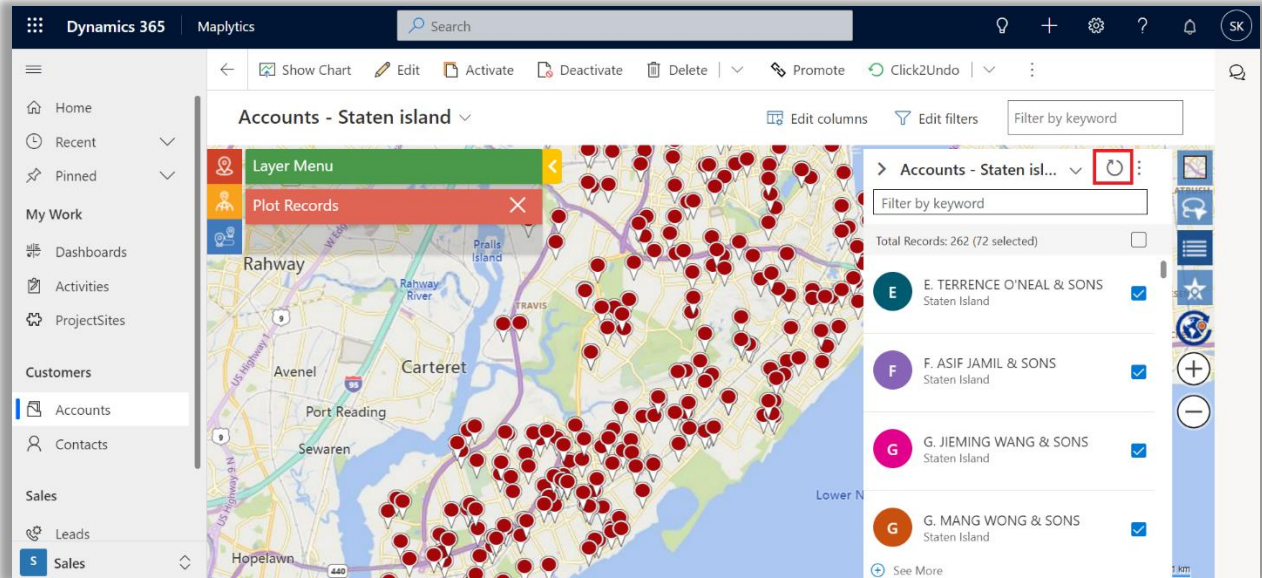


**Note: Only 20 places can be added as favorites in the Favorite Places List**

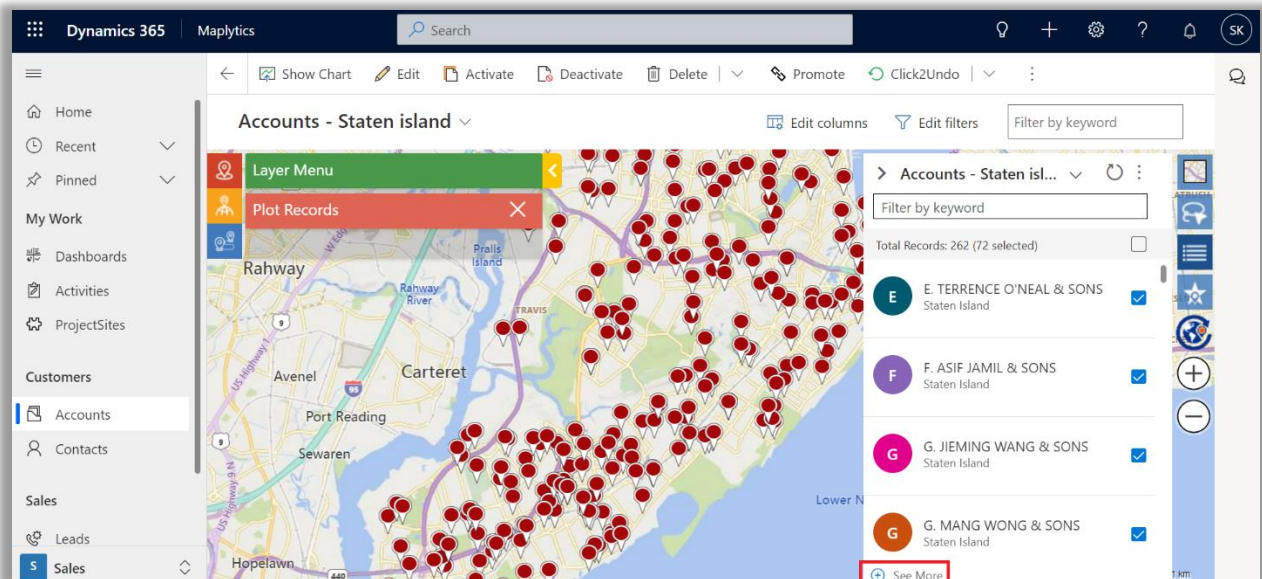
- **Reset Button-** This button resets records as per current search



## Maplytics™ – User Manual



- See More- The current view displays the CRM Records on the current page. To view more records, user can click on the See More option at the bottom.



- Print Route- User can print a Route as well as the adjoining Map. User can plot a route on map, and use the button 'Print Route' to print the route.

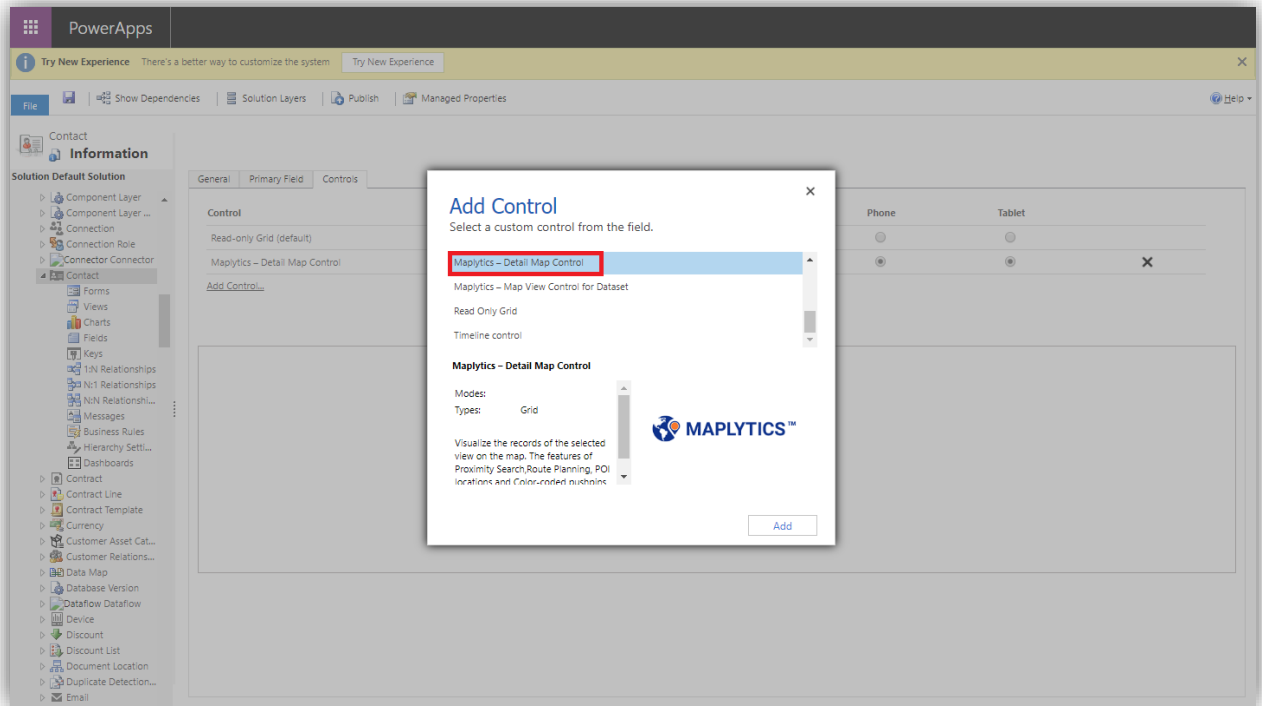


***Note: There are some limitations to some of the features mentioned above which will be available in our future releases.***

Steps to Add control: To add this control on an entity grid, user can follow the steps mentioned below:

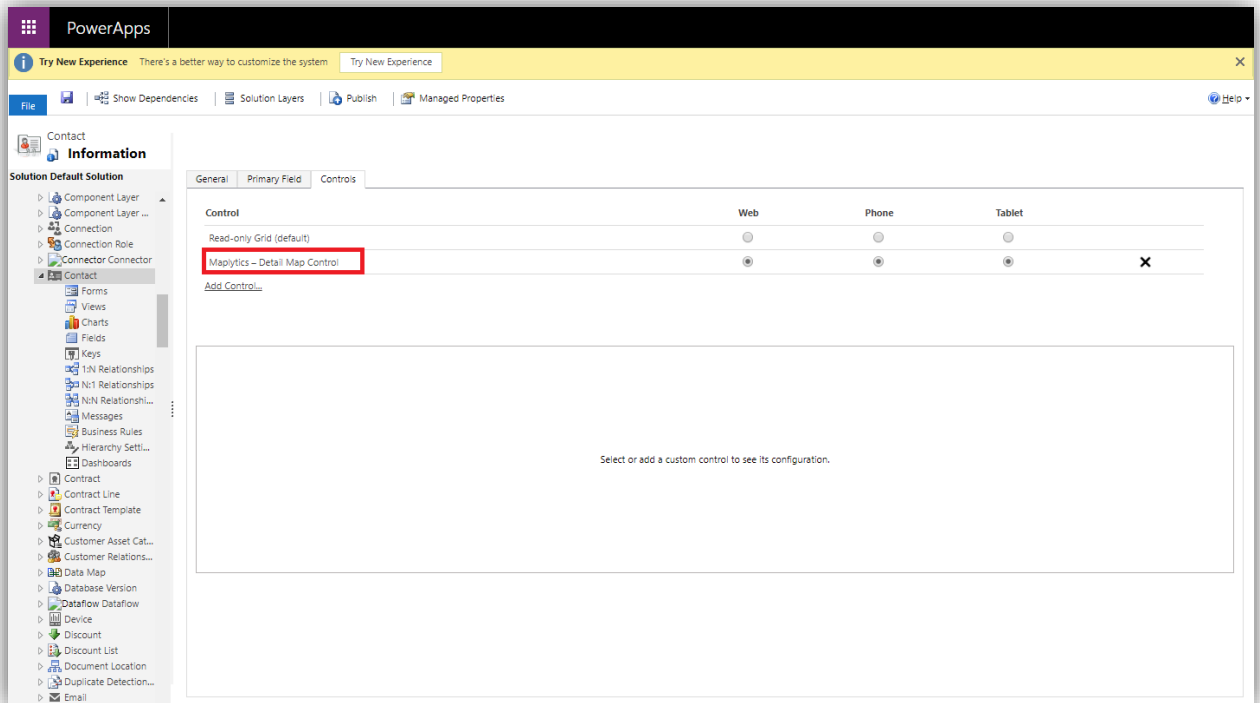
1. **Go to Settings > Advanced Settings > Customizations > Customize the System > Components > Entities > Required Entity**

Here, we have taken the Contact entity for an instance. **Within Contacts, go to Controls > Add Control > Select Detail Map Control for Dataset > Add**

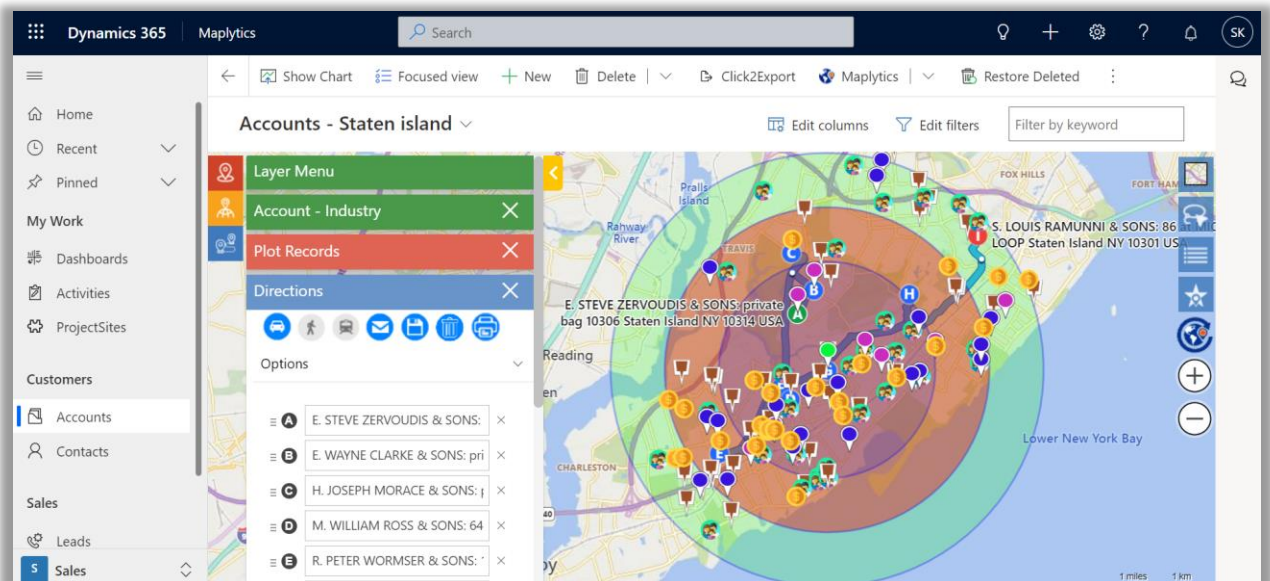


## Maplytics™ – User Manual

2. User can choose to allow the control on Web, Phone or Tablet. Click on Save > Publish.



3. User can open any view of the entity to view this control.



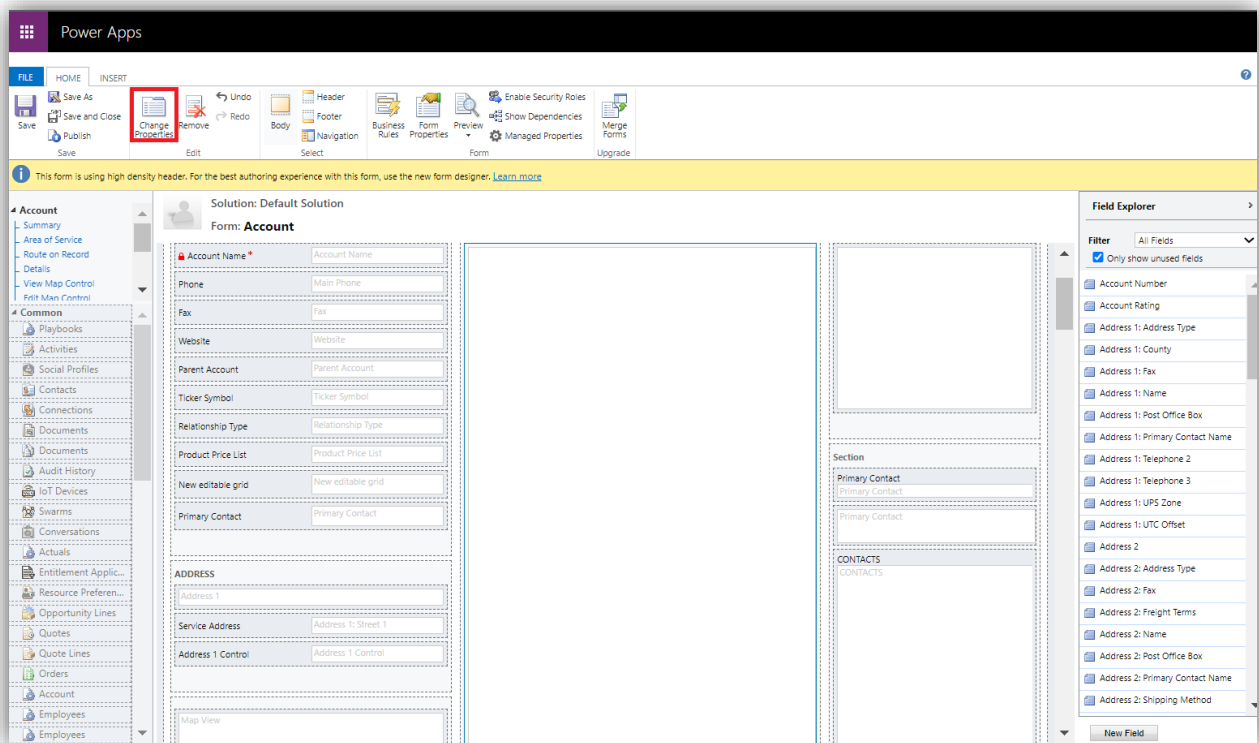
## Address Autosuggest Control

Users can add this control on any of the fields with the Data type 'Single Line of Text' of the record to get auto suggestions of addresses while typing the respective field. User can select the required address and get that address auto-filled within the fields.

**Steps to Add control:** To add the control to a field within a record form, the user can follow the steps mentioned below:

1. **Go to Settings > Advanced Settings > Customizations > Customize the System > Components > Entities > Required Entity**

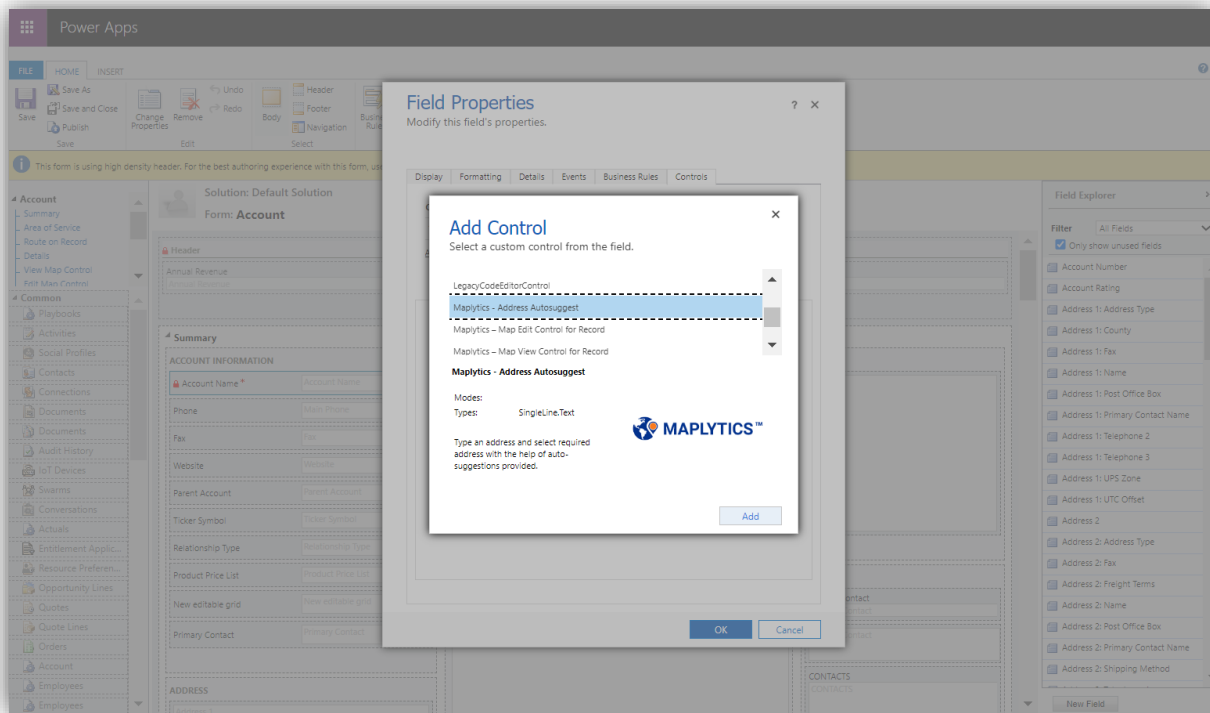
Here, we have taken the Accounts entity for an instance. **Within Accounts, go to Forms > Main Form > Select any field > Change Properties**



**Note:** The data type of the field on which user needs to add control should be 'Single Line of Text'.

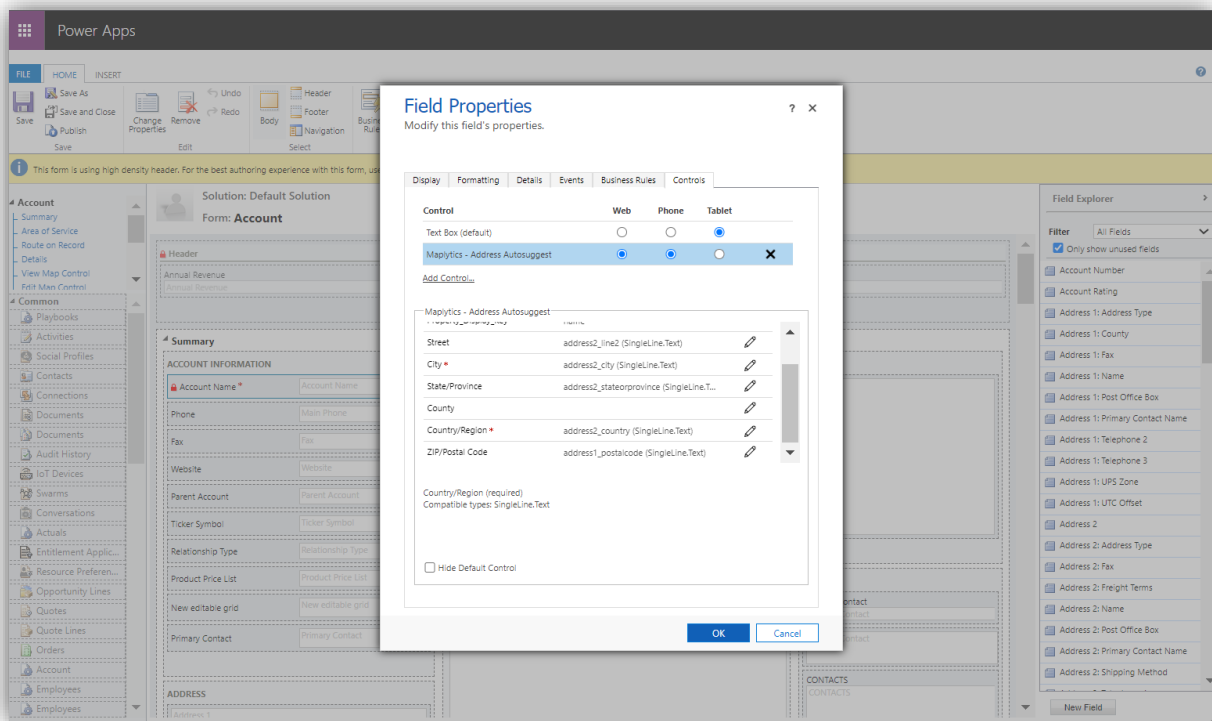


### 2. Go to Controls > Add Control > Select 'Maplytics - Address Autosuggest' > Add



### 3. While adding the control, user needs to choose the required address fields. While user uses Auto suggest control, the respective addresses that are selected here will be auto filled. User can choose to allow the control on the Web, Phone, Tablet. Click on 'OK' > **Save & Publish**.

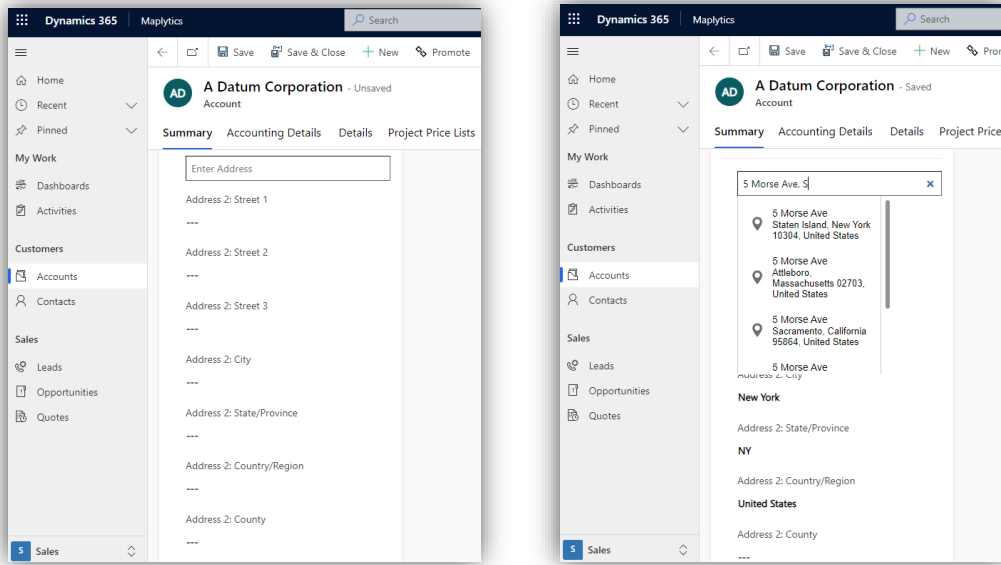
## Maplytics™ – User Manual



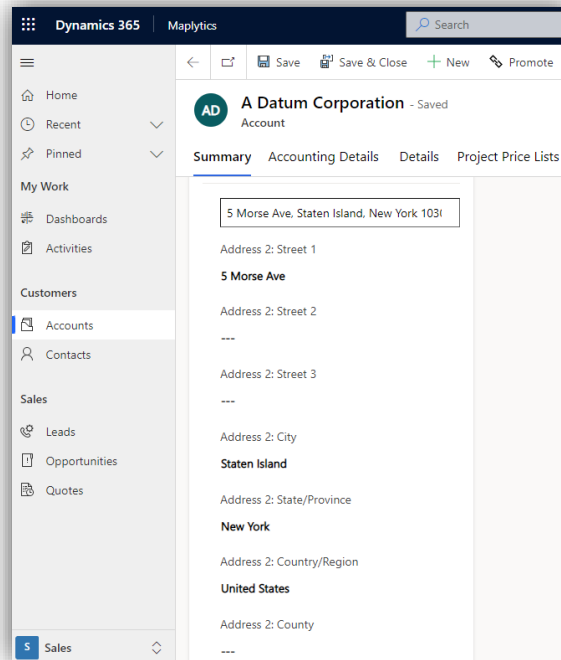
**Note: Please uncheck the option of 'Display label' within the field properties for better visualization.**

4. User can open any record of the entity to view this control added on the field. User needs to enter the address and based on the entered keywords, it will provide suggestions for addresses.

## Maplytics™ – User Manual

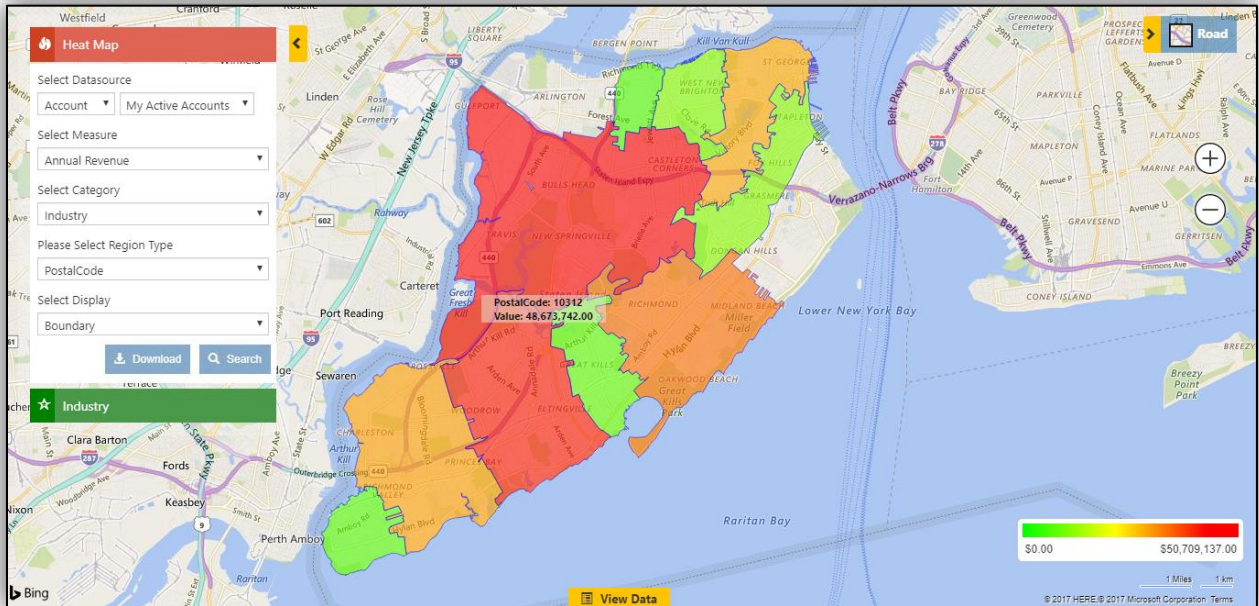


User can select the required address and it will get auto filled within the respective address fields.



## Heat Map

Clicking on the Heat Map command button will bring up the Heat Map Screen.



### Select Datasource:

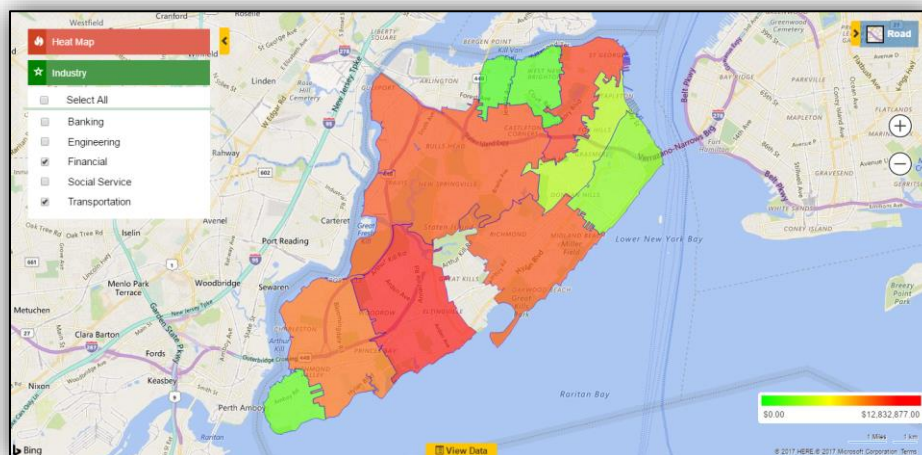
This option helps the user to choose the Entity and view combination to analyze the data.

### Select Measure:

This helps the user to define the aggregation method to be used to color code the region. By default, it is based on number of records (i.e. 'By Count'). The user can change this to any other field attribute from the drop-down. Dropdown contains the list of all numeric and currency fields.

### Select Category:

This option helps the user to filter data. The user can modify the search result using selection in the Category option.



### Select Region Type:

This option helps the user to define the geography level for aggregation. The user can choose any option from the drop-down:

- **City**
- **State**
- **County**
- **Country**
- **PostalCode:** The smallest postcode category, such as a zip code.
- **PostCode Sector:** The second '1' is called "Postcode Sector". Example: **CA1 1**
- **PostCode(Outward Code):** This is called Outward Code, the part of the postcode before the single space in the middle. Example: **CA1**
- **PostalCode Areas:** The next largest postcode category after Postcode1 that is created by aggregating Postcode1 areas.
- **Territory:** This option will use the Sales Territory defined in Dynamics CRM.

#### Note:

- *The regions that were plotted using the option Post code Areas before will now be plotted by using the option of Post code sector.*
- *The regions will be plotted as per the Bing maps.*

The default option is to summarize the addresses by City. You can find the default settings on the Maplytics Configuration record for the individual user as shown below:

The screenshot shows the Maplytics configuration interface with the following settings:

| General               |                                     | Advance Settings            | Check-In   | Auto Scheduling | Related |
|-----------------------|-------------------------------------|-----------------------------|--|-----------------|---------|
| Optimize Direction    | No                                  | Default Location            | Loipersdorf bei Fürstenfeld 271, 8282 Loipersdorf bei Fürstenfeld, Austria |                 |         |
| Live Traffic          | No                                  | Navigate Within             | Waze   |                 |         |
| Route Option          | Shortest Time                       | Records Per Page In Grid    | 50   |                 |         |
| Map Center            | ---                                 | Zoom Level                  | ---  |                 |         |
| Heat Map Type         | Boundary                            | User                        | ---  |                 |         |
| Summary Grouping      | City                                | Maplytics Security Template | ---  |                 |         |
| Default Template      | ---                                 | Set As Destination          | Other  |                 |         |
| Set As Origin         | Other                               | Other - Set As Destination  | Mont-devant-Sassey, Meuse, France  |                 |         |
| Other - Set As Origin | 10 Voie des Vaches, 08450 Angecourt |                             |  |                 |         |

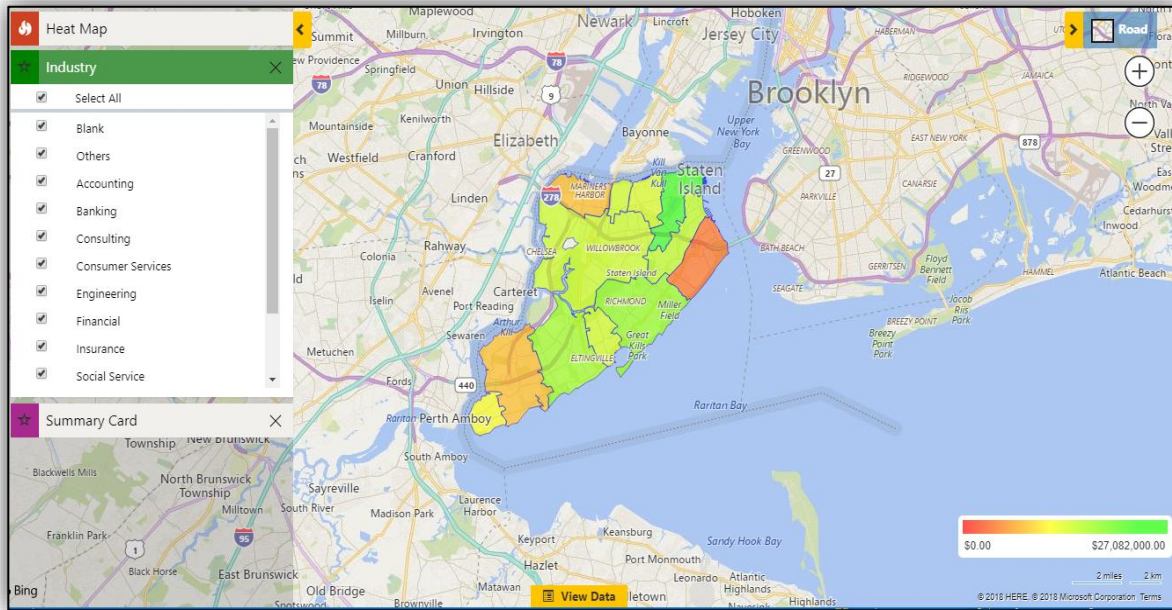


## Select Display

There are four options available to analyze data on Heat Map. Default Heat map display can be selected using Maplytics Configuration Settings.

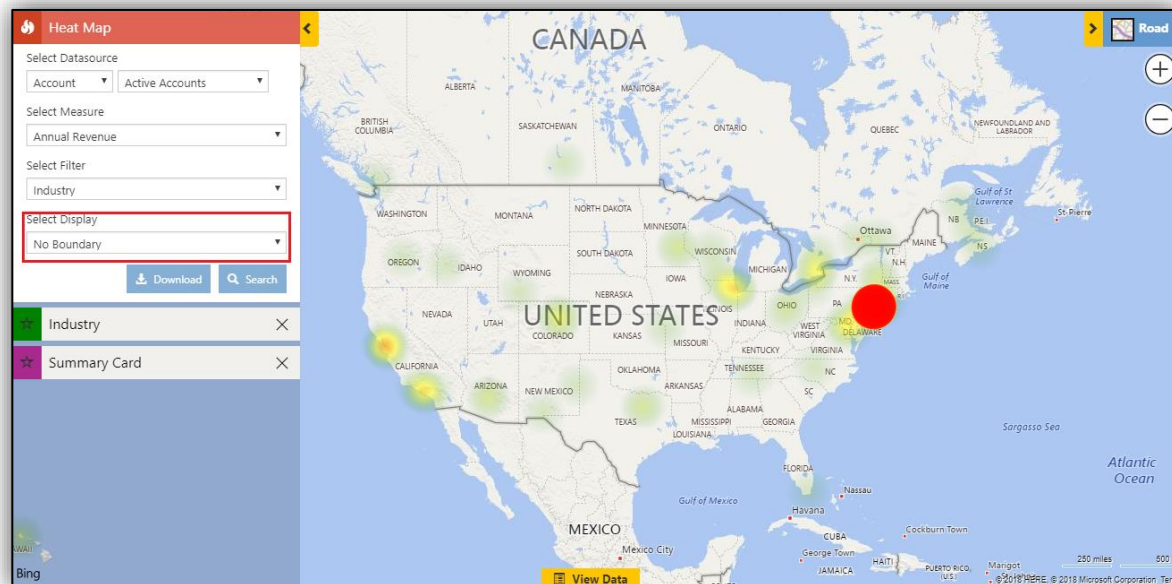
### Boundary

This will create Heat Map on basis of selected region type like City, Postal Code, Country, State, Territory, etc.



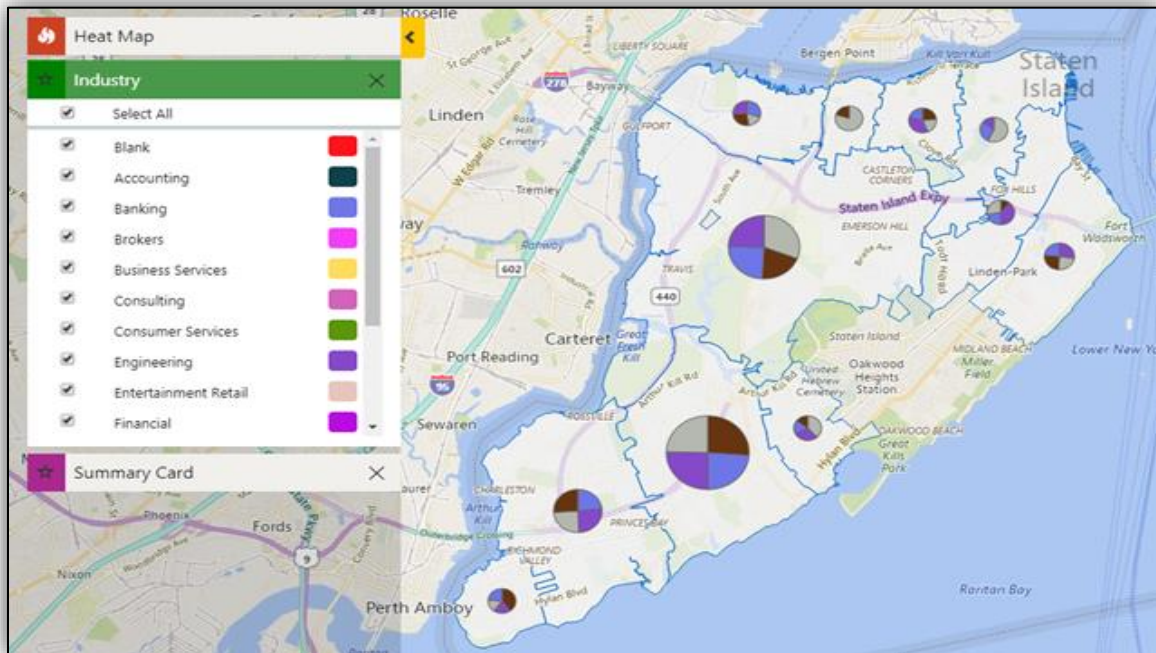
### No Boundary

This option does not consider the region type. It simply creates a Heat Map by the density of the measure selected without geographical boundaries.



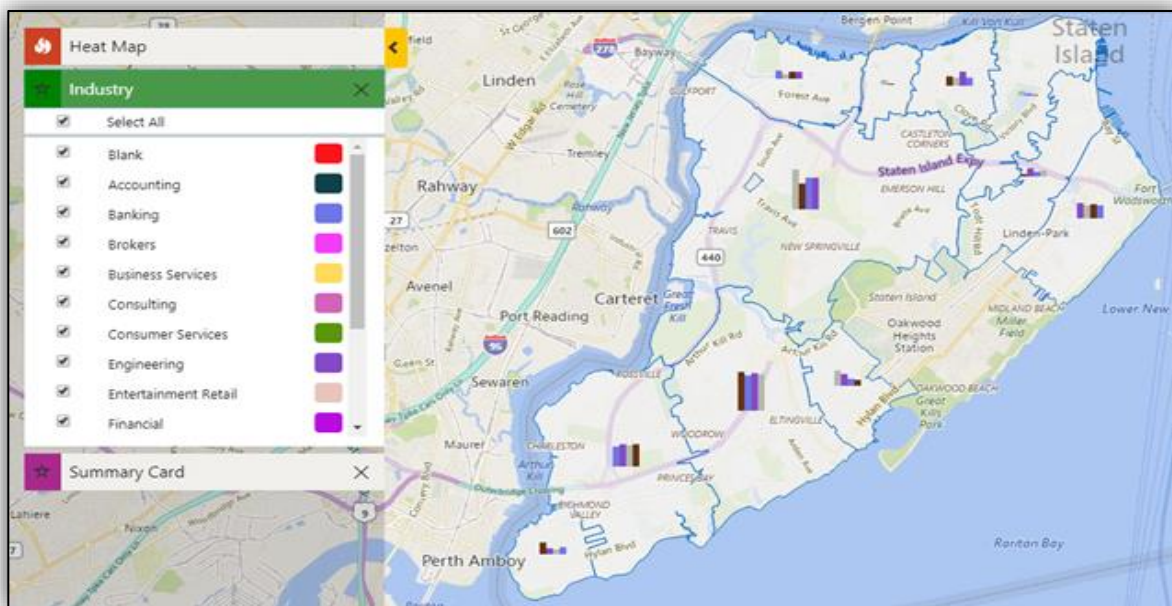
## Pie chart

Users can view the data in the form of Pie charts based on the heat of the attribute selected in the Measure and Filter. Pie charts help the users to analyze the data on the basis of comparative data shown by the Pie charts on the map.



## Column chart

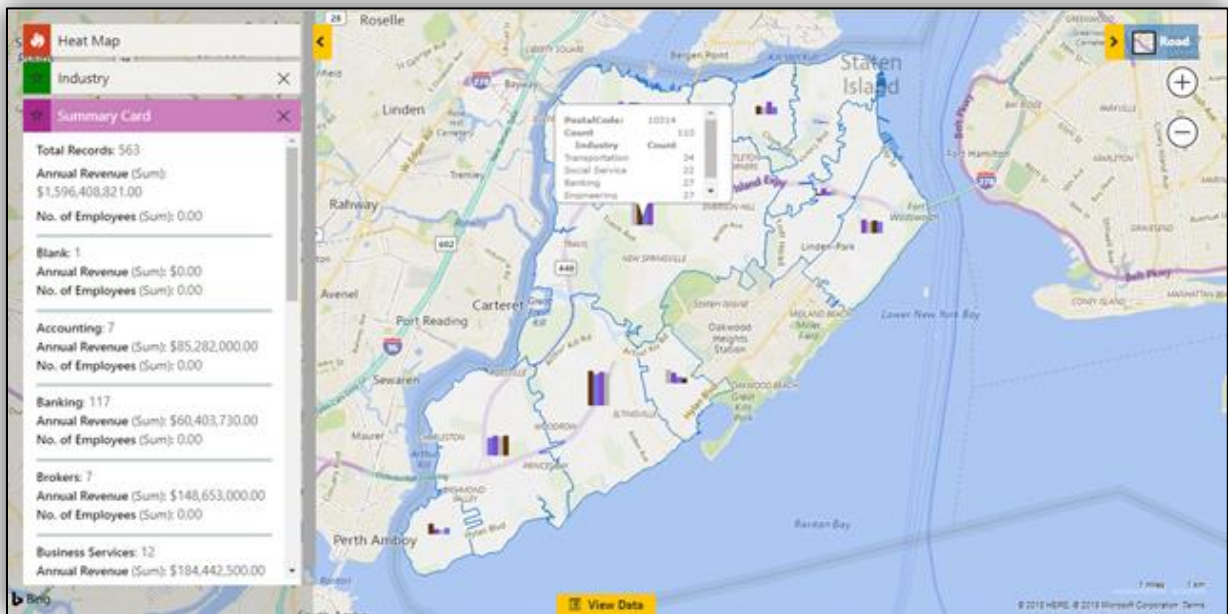
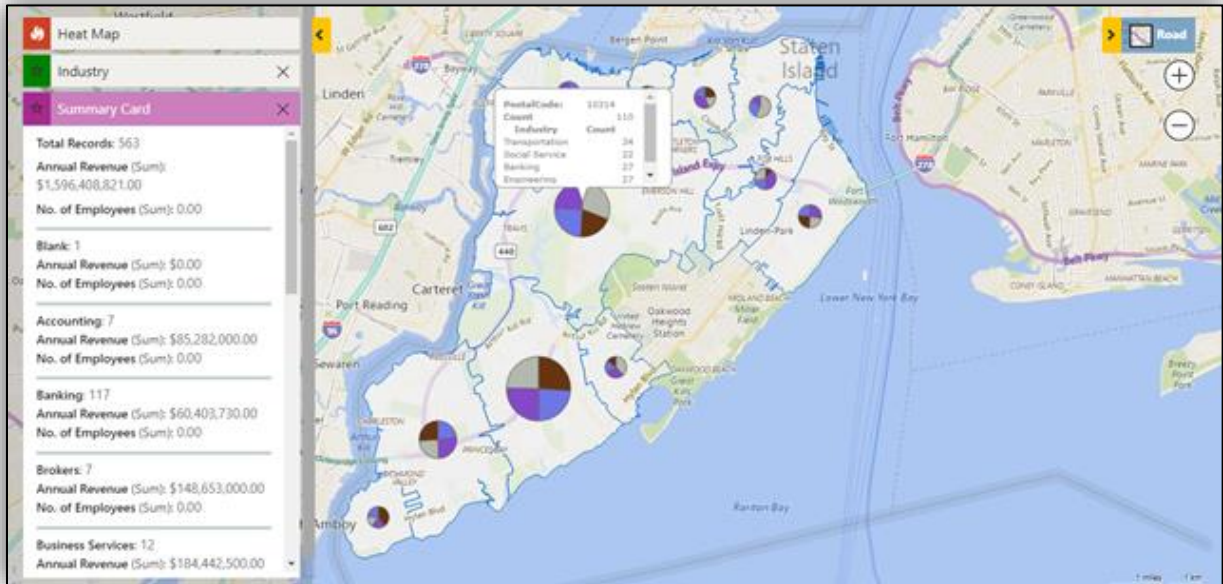
Users can view the data in the form of column charts plotted on the basis of the heat of the attribute selected in the Measure and Filter. User can easily analyze the plotted data on the basis of the proportions shown by the respective columns.





## Maplytics™ – User Manual

- Hover: On hover, it shows the details of that Boundary/Pie chart/Column chart
- Summary Card: The user can click on any Boundary/Pie chart/Column chart to get the summarized information of the same.



**Note:** If Pie chart/Column chart is selected as the Display type, the option of Territory under Region Type will not be available.

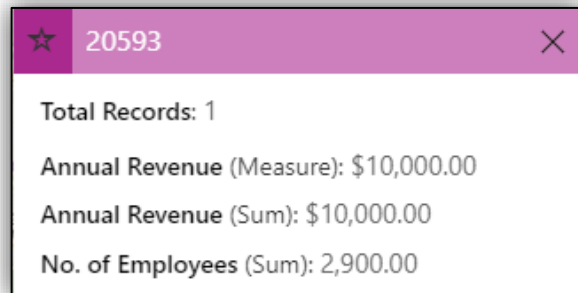
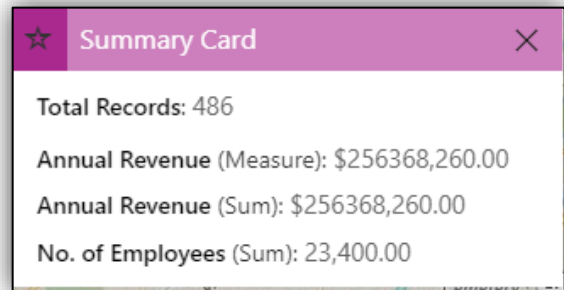
## Maplytics™ – User Manual

### Search:

Clicking on the 'Search' button will plot the addresses of all the records that were selected in the view and has already been geocoded. Records that do not have their latitude/longitude updated in the record will be ignored and will not be plotted on the map.

### Summary card:

Every time the users create a heat map visualization, a 'Summary Card' summarizing the aggregate information for the complete heat map will open up. This gives the users a brief summary of the heat map they created. The measure is also summarized by default.



The user can also click on any region plotted on the map to open the summary card for that region. This will also filter the data of the region in the data grid. To differentiate between the summary cards, the individual summary cards have the region name/number as the title.

If the user has selected a field attribute in the 'Filter' dropdown, the summary card will further summarize the information for the selected category filter as well.

**Export to Excel:** The search results are listed by the grouping selected at the bottom of the screen and user can further export these data points using this button as shown below;

My Active Accounts (654)

|   | Account Name          | Address 1: City | Main Phone  | Territory      | Industry       | Email                  | Created On         | Annual Revenue |
|---|-----------------------|-----------------|-------------|----------------|----------------|------------------------|--------------------|----------------|
| PostalCode: 10302, NY, Staten Island, USA (Count: 18) |                       |                 |             |                |                |                        |                    |                |
| PostalCode: 10303, NY, Staten Island, USA (Count: 21) |                       |                 |             |                |                |                        |                    |                |
|   | Y. ANTHONY MOREN...   | Staten Island   | 4092255691  | North - Staten | Transportation | robert10363@inogic...  | 11/4/2016 12:00 AM | \$420,185.00   |
|   | O. DAMIANO GERACI ... | Staten Island   | 40599969317 | North - Staten | Engineering    | douglas10430@inogic... | 11/6/2016 12:00 AM | \$993,938.00   |

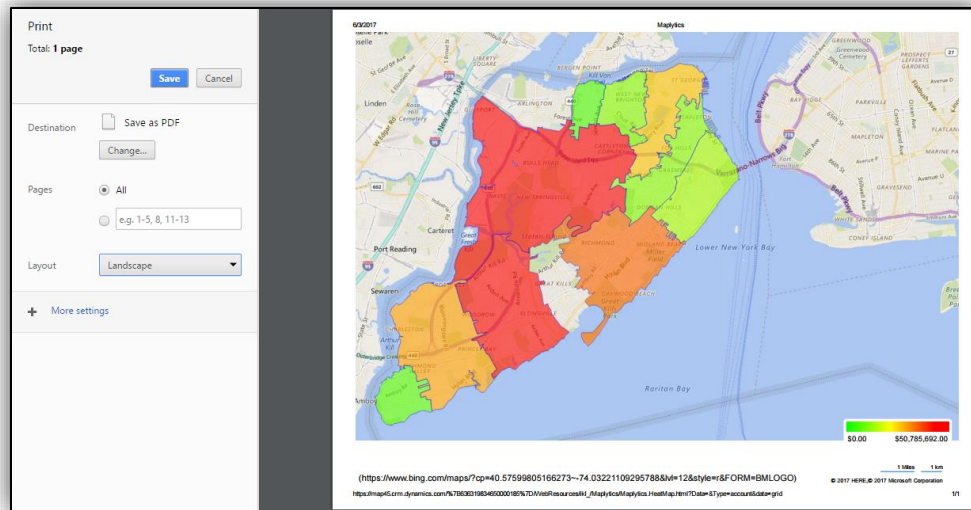
Export To Excel

This functionality adhere to CRM security roles, if the user does not have permission to 'Export Data to Excel' in CRM, then he/she will not be able to export data from Maplytics.

Zoom Level of Heat Map uses personalized 'Zoom Level' setting for the logged in user. Also, the color scale for the Measure will be fetched from the defined 'Heat Map Measure Color Scale' in the Entity Category configuration on the Entity Map for that particular entity.

**Print:** Clicking on the print button will print the heat map, as shown in the screenshot below:

## Maplytics™ – User Manual



**Note: A4 size paper with landscape mode is recommended while printing.**

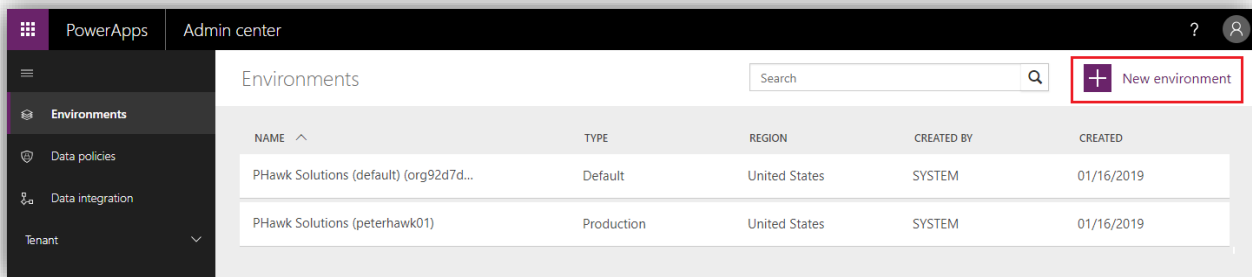


## Support for CDS

If user does not have Dynamics CRM, they can still use Maplytics by subscribing for the PowerApps platform. This platform comes packaged with some base entities that includes Accounts and Contacts along with other platform entities to provide support for it security and other infrastructure.

To use Maplytics within PowerApps, user can follow the steps mentioned below:

- A. Go to [admin.powerapps.com](https://admin.powerapps.com) > log in using PowerApps credentials.
- B. Click on 'New environment' > Enter the details > Create an environment



The 'New environment' form is shown. It includes fields for 'Environment name' (Maplytics), 'Region' (India (default)), and 'Environment type' (Trial). A red box highlights the 'Create environment' button at the bottom right.

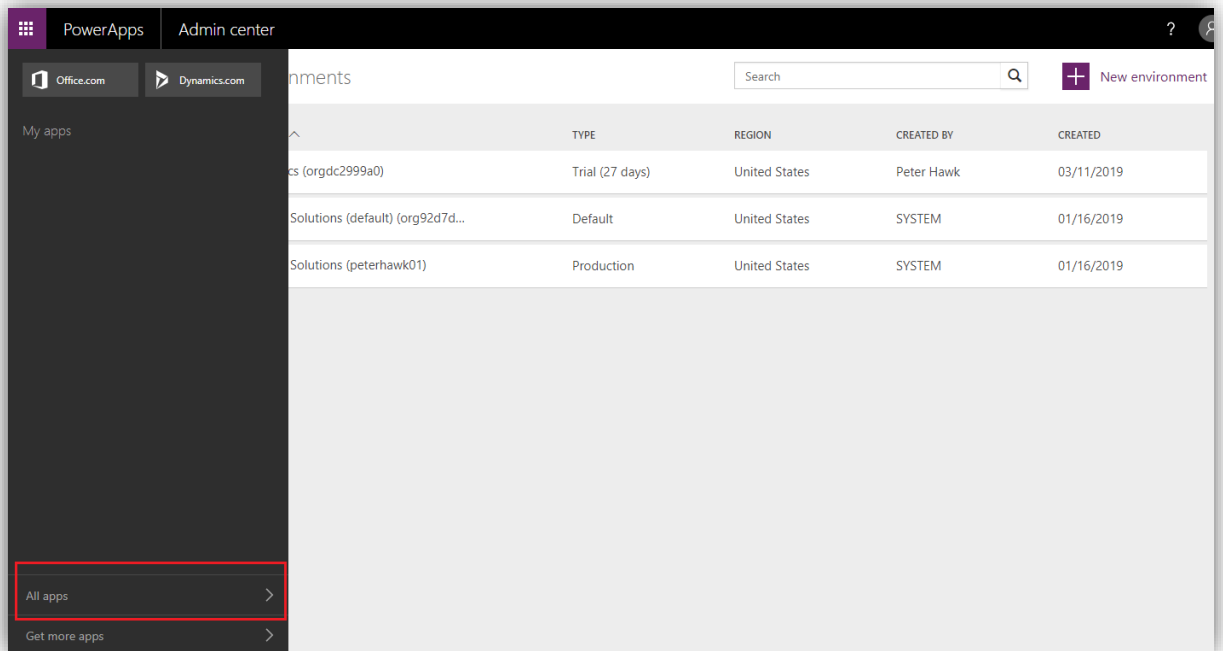
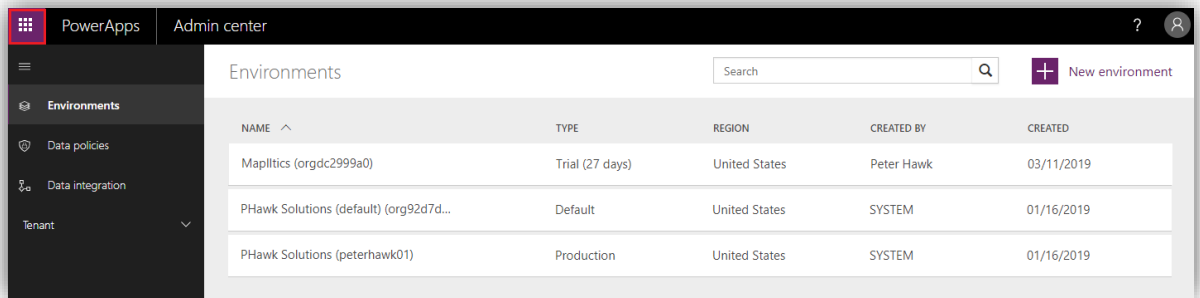
- Click on 'Create database' > Select the required details > Create database

The confirmation screen asks 'Do you want to create a database? (Recommended)'. It lists benefits of creating a database. A red box highlights the 'Create database' button at the bottom right.

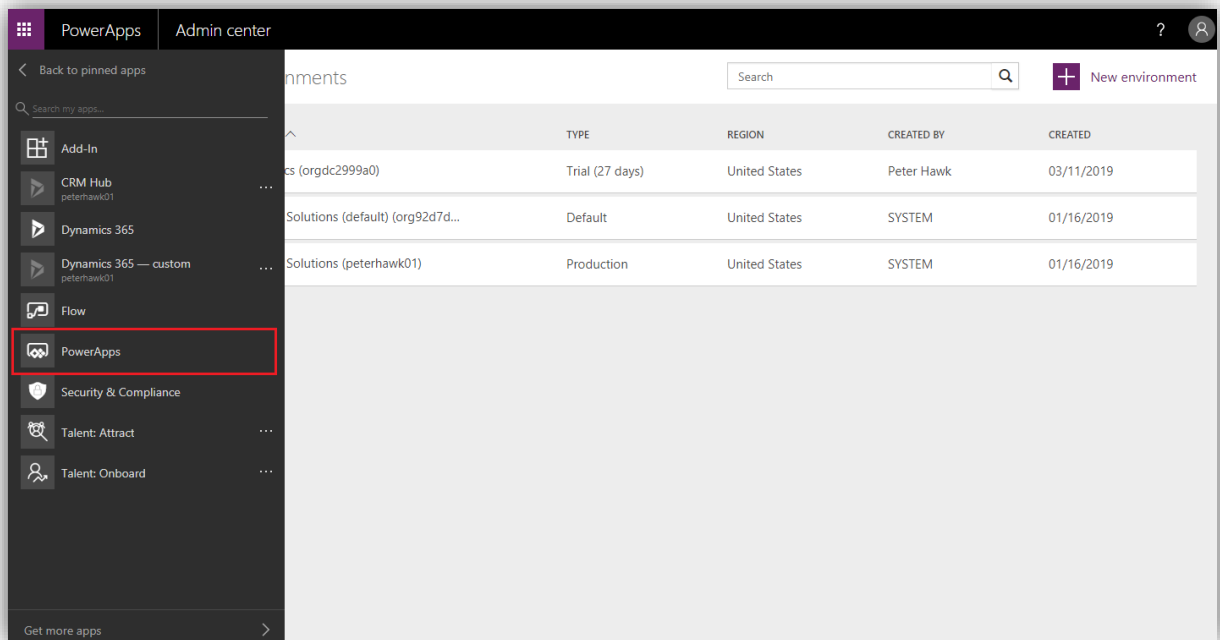
The 'Create a database for this environment' form is shown. It includes fields for 'Currency' (USD) and 'Language' (English). A red box highlights the 'Create database' button at the bottom right.

- Click on 'Navigate to other Applications' > All apps > Powerapps > Select required environment

## Maplytics™ – User Manual

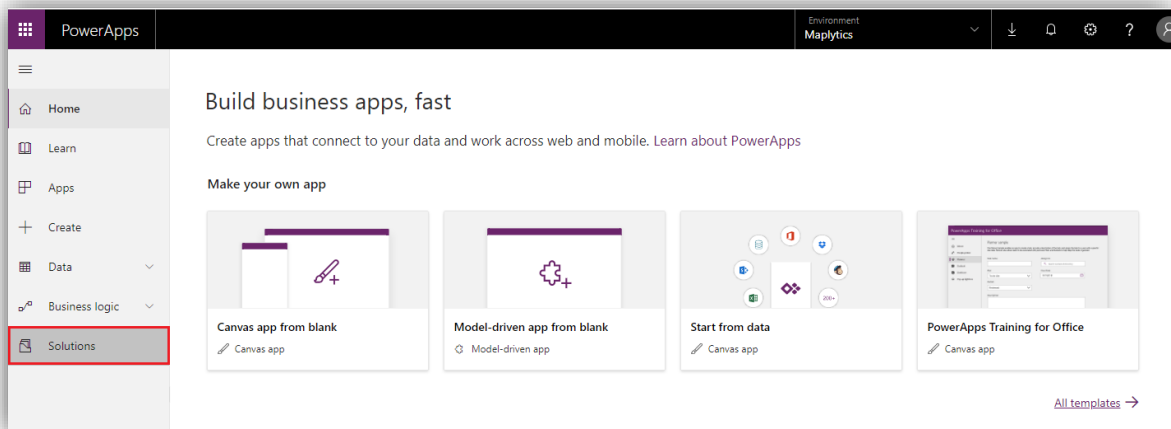


## Maplytics™ – User Manual

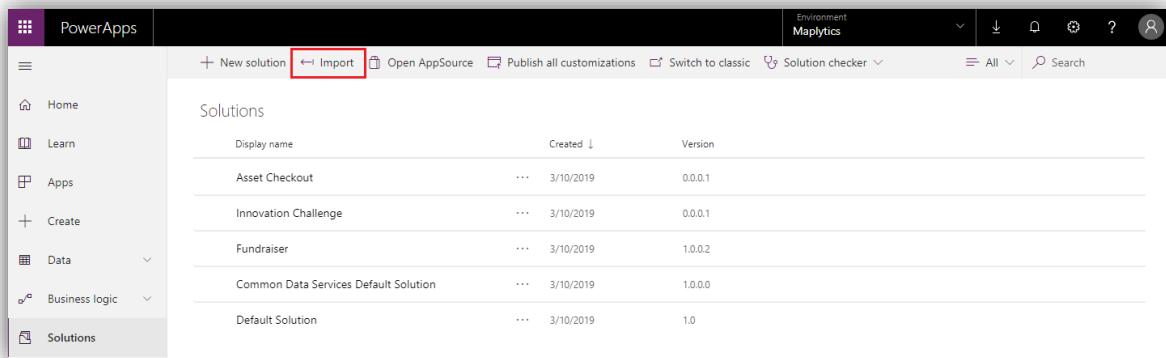


### Import Maplytics solution

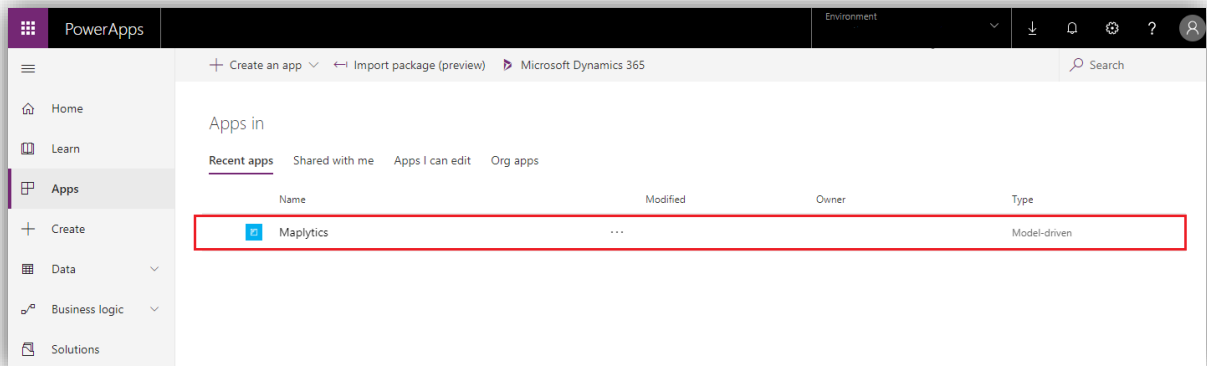
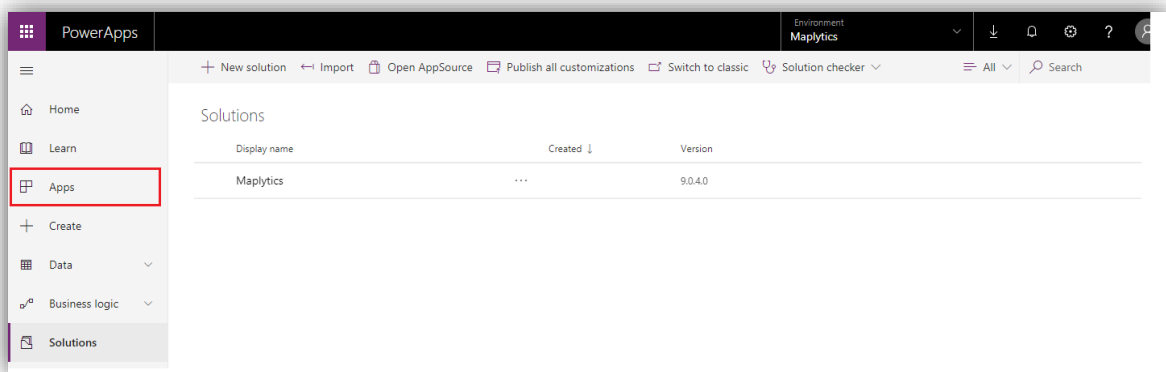
- Click on solutions at the left navigation pane > Import > Maplytics. This will create the Maplytics App.



## Maplytics™ – User Manual

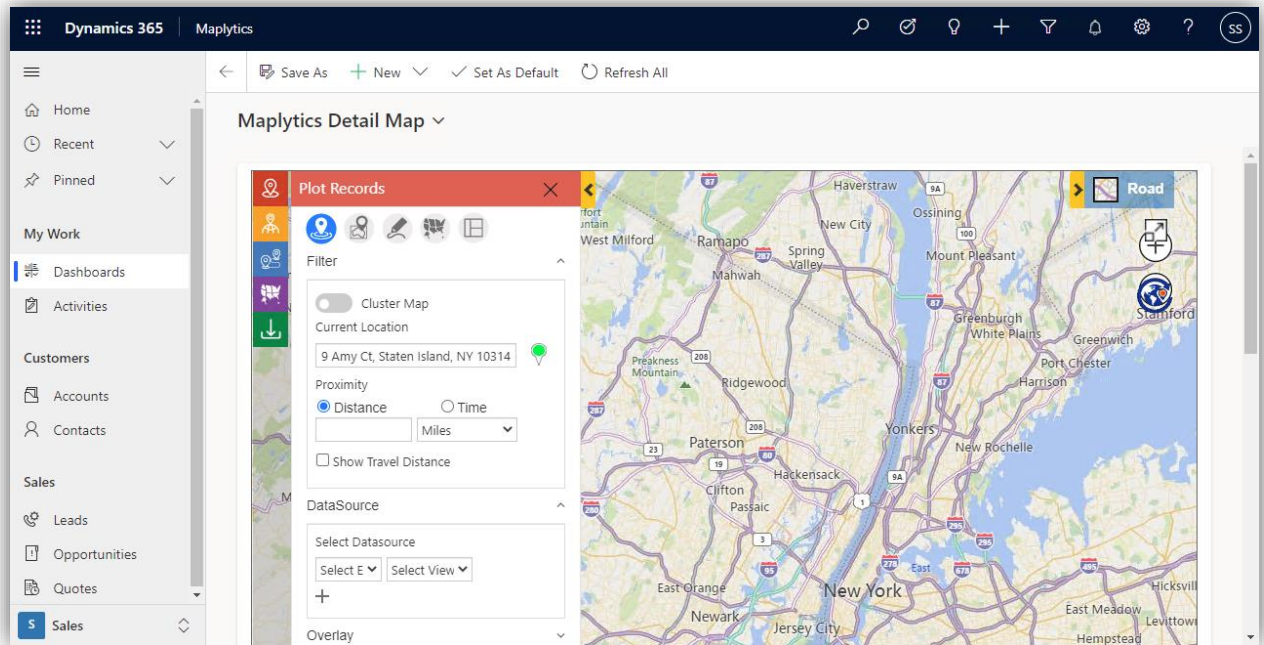


- To access the Maplytics App, click on Apps at the left navigation pane > Select Maplytics App.



## Maplytics™ – User Manual

Clicking on the Maplytics app, following Maplytics dashboard will open.



- Activate and configure Maplytics  
To access the Maplytics user needs to Activate and Configure Maplytics to start the license and configure the basic Entity maps, Dashboards and Census data.
  - Go to Settings > License registration > Click on Activate
  - Go to Settings > License registration > Click on Configure
- Add users to Maplytics team
  - Go to Settings > Teams > Maplytics team > Add users

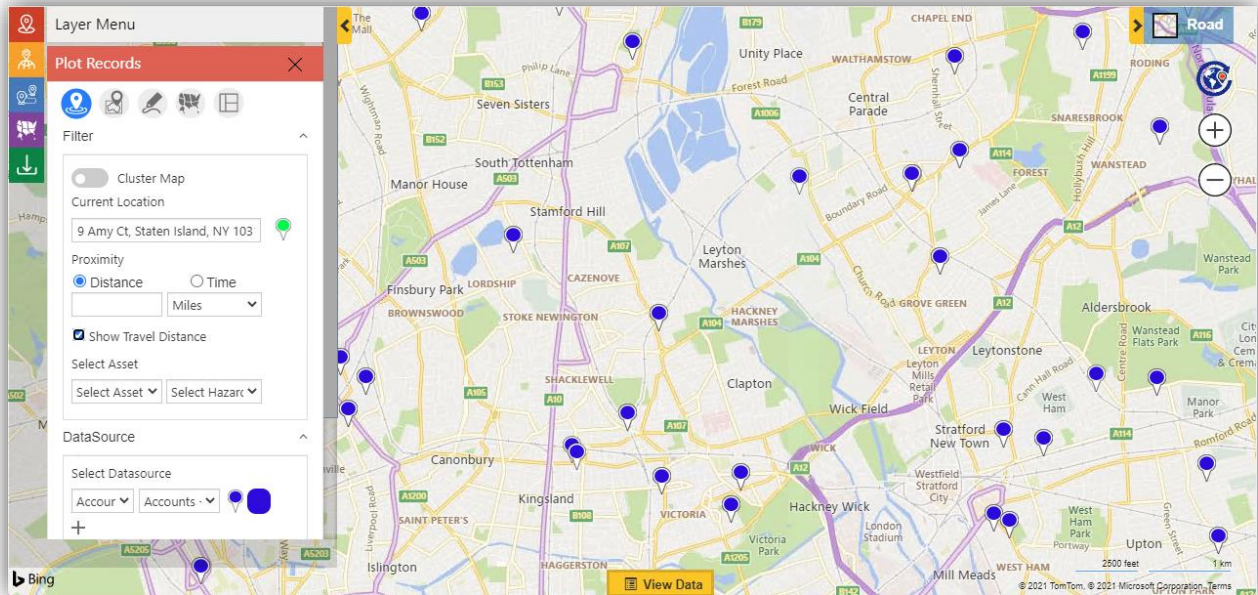
**Note:**

- 1. Entities of leads, Cases, Opportunity, Invoices are not available in PowerApps**
- 2. Marketing lists are not available**
- 3. While configuring, four Entity maps will get created for Accounts, Contacts, Appointments and Customer Address**
- 4. Only three dashboards will get shipped on configuration**



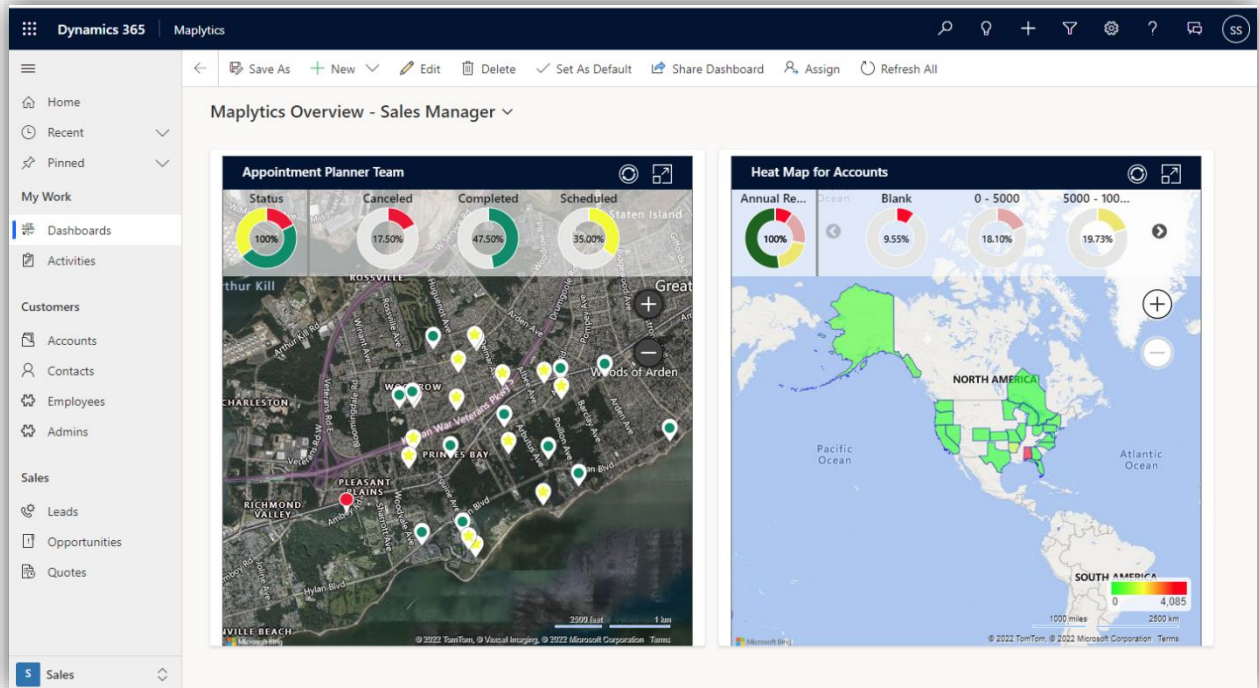
### Access Maplytics in PowerApps

User can use the credentials of the environment to log in to PowerApps and select the Maplytics app to perform Maplytics features. Use the buttons 'Details Map' or the 'Heat Map' to open the respective maps.



## Maplytics Dashboard

The users can define their Dashboard views for Maplytics and include them as web resources in standard Dynamics CRM Dashboards.



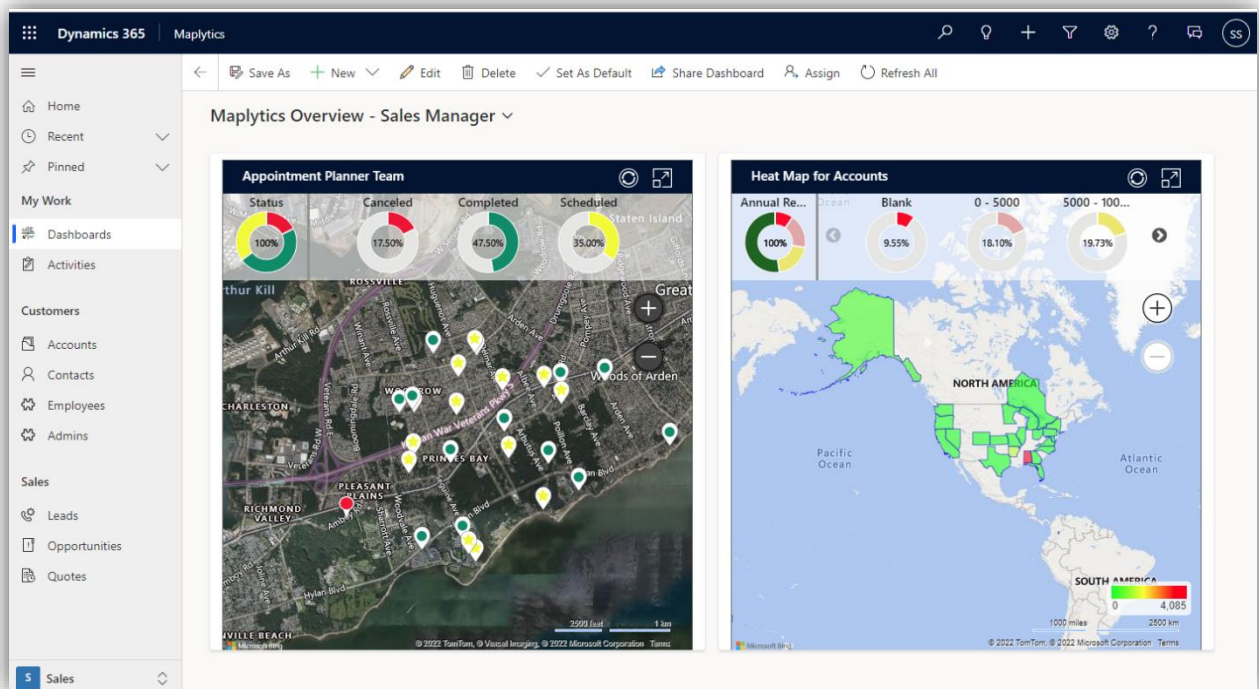
Maplytics ships with five pre-defined Dashboards for various Sales and Service Modules for different user roles. To set up more dashboards, please refer the 'Installation Manual'.

### View Category donuts in dashboard

Users can view the categorized data in the form of donuts on the respective dashboards.

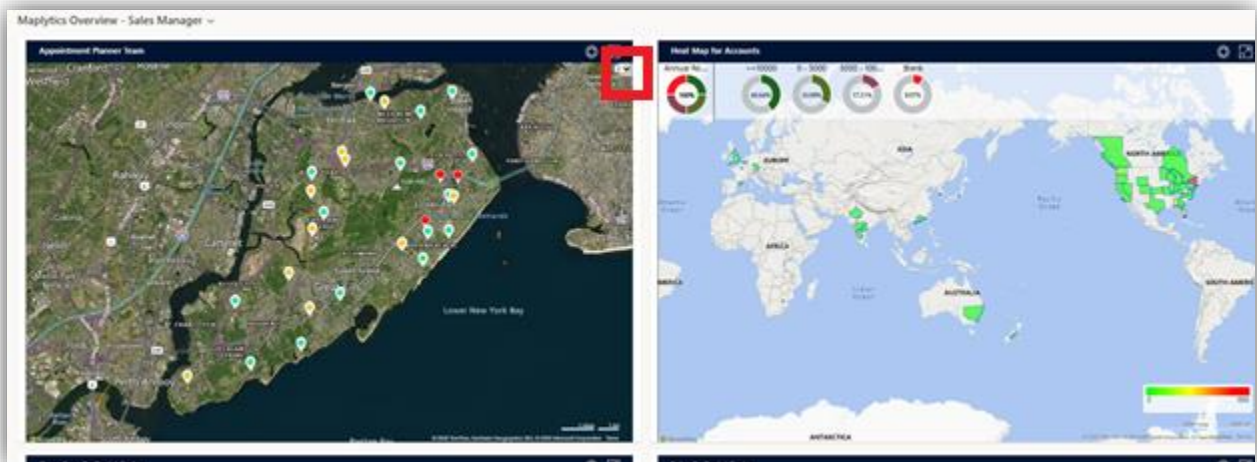
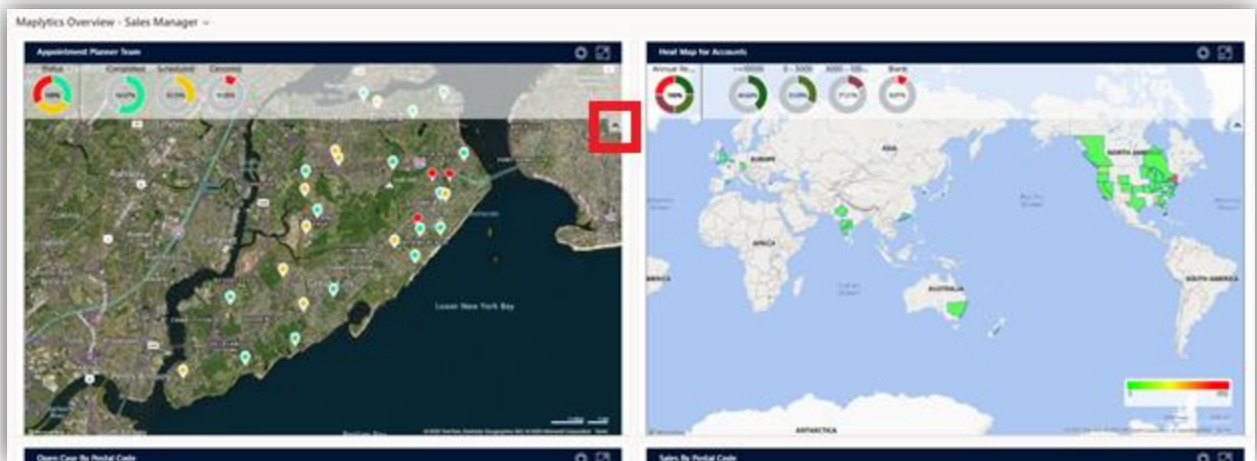
In the screenshot below, in the first dashboard, the appointments for the team are plotted which have been categorized based on the status of the appointments. The donuts are shown based on the percentage of the records falling into the each of the categories. For example, 17.50% of the total appointments were canceled, 47.50% of the total appointments are completed and 35% of the total appointments are scheduled. If the user hovers over the donut, they can see the exact count of records falling into each of the categories.

Similarly, the second dashboard shows the heat map for the Accounts based on the annual revenue. The donuts show that 18.10% of the total Accounts have Annual revenue ranging from 0 to 5000 and 19.73% of the total Accounts have Annual revenue ranging from 5000 to 10000.



### Hide Donut Panel

The Donut Panel can be hidden as per the User's requirement by clicking on the arrow at the extreme right of the Panel. The same can be clicked again to expand the hidden panel and put it on display.

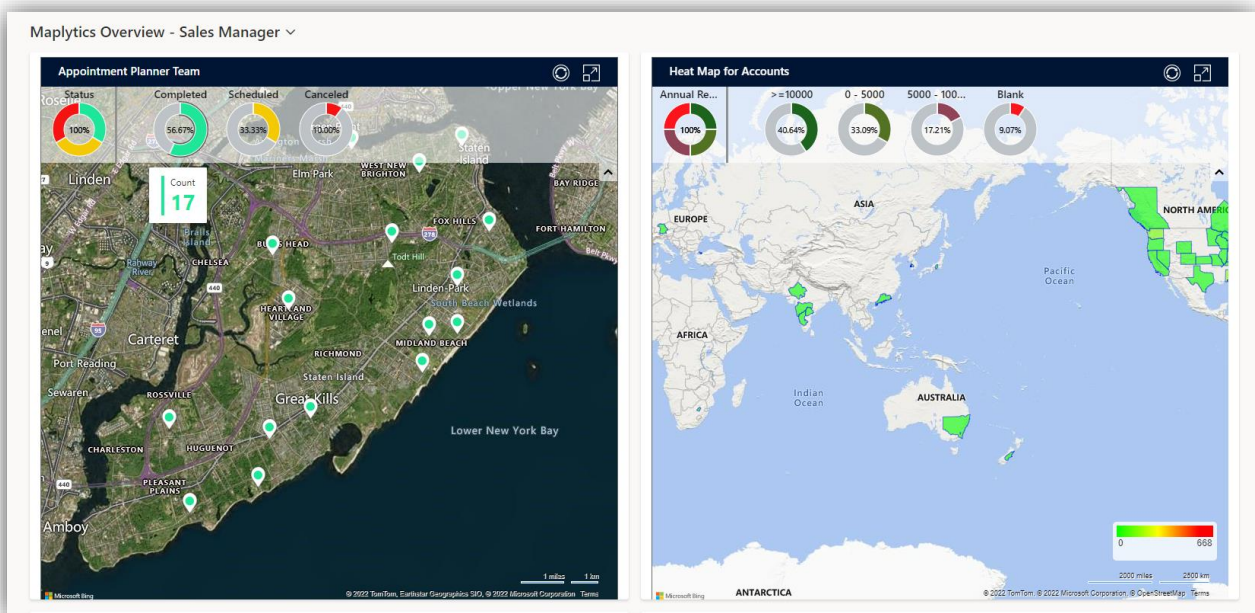


### Filter records on Map using Donuts

The record pushpins displayed over the Map can be filtered out using the donuts. In the Dashboard below, when clicked on the Donut displaying the percentage of 'Completed' appointments, the pushpins on the map are filtered out to show only those Appointment records that belong to the 'Completed' Category. The rest belonging to Scheduled and Canceled are hidden. Similarly, when clicked on the 'Status' donut, the filter will be reset and record pushpins belonging to all categories of Appointments i.e. all appointments are displayed.

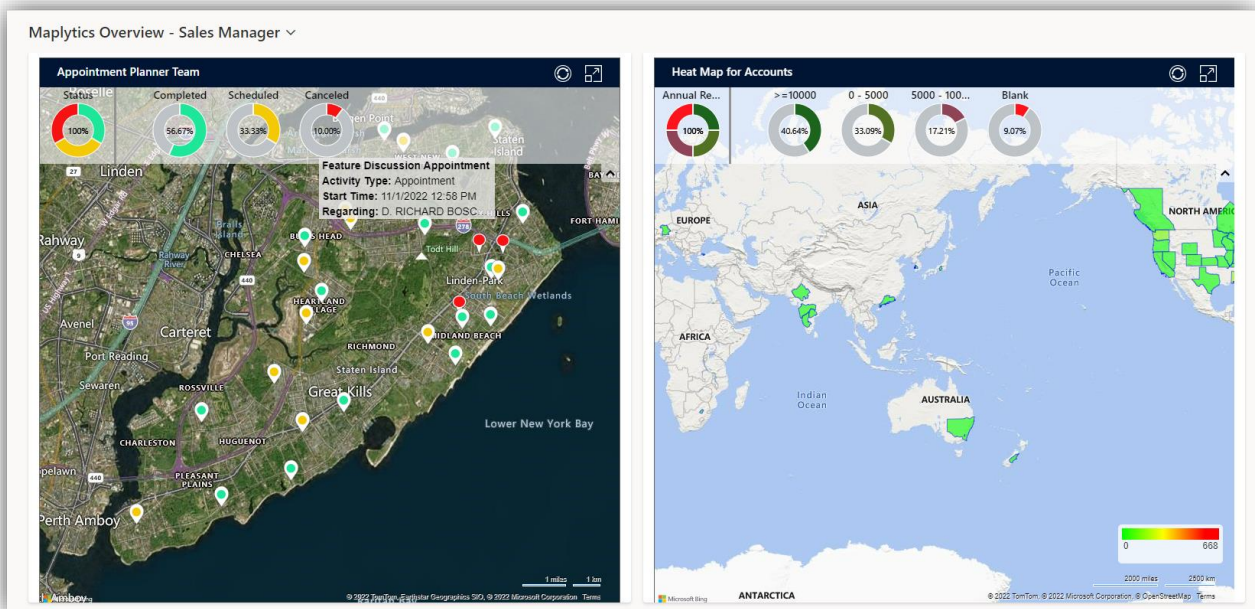


## Maplytics™ – User Manual



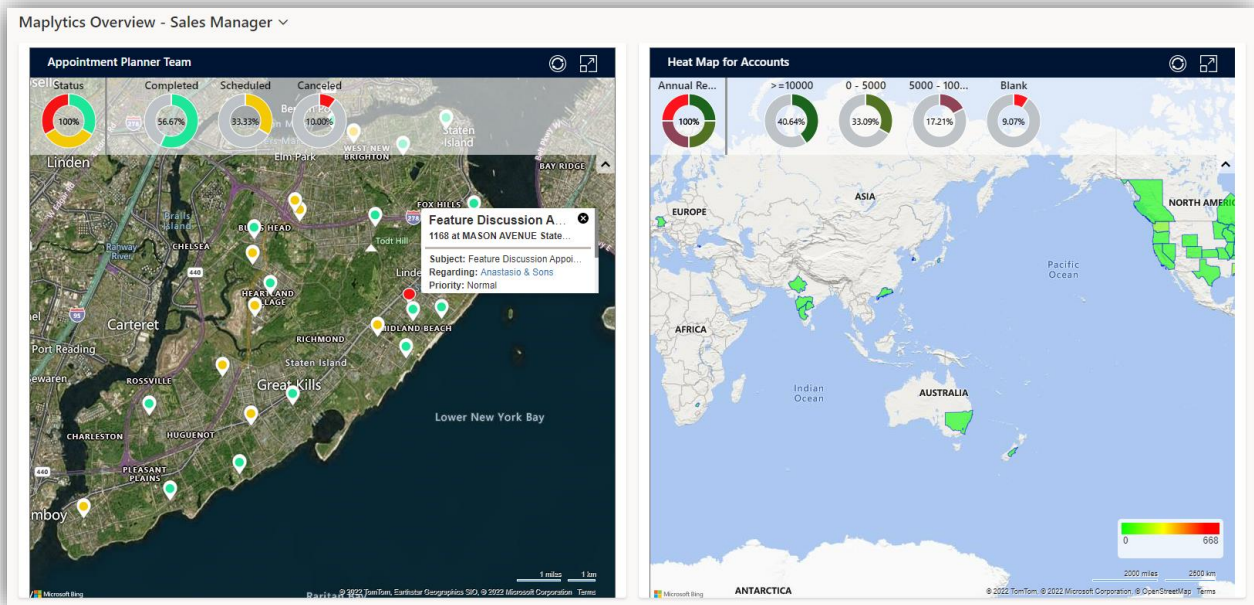
### Hovering and Tooltip Card

When hovered over the record pushpins, the information about the respective record is displayed. The information shown here can be configured within the Advanced Settings within the respective dashboard record in the Maplytics Settings.



If the pushpin is clicked upon, a tool tip card is opened with the details of the respective record. The information shown on the Tooltip Card can be configured within the 'Tooltip Mapping' section of the respective dashboard in the Maplytics settings.





## Steps to add Maplytics View to Dashboard

To include the Maplytics component in Dashboard, click on the new button and select to add Web Resource. Select **'ikl\_/Maplytics/Maplytics.Dashboard.html'** web resource and set the name of the Dashboard record in the custom data parameter to be passed to the HTML web resource. The recommended number of rows in formatting is minimum 10.

Web Resource Properties

Modify this Web resource's properties.

Web resource

Web resource \*

Field Name and Properties

Name \*

Label \*

☐ Display label on the Dashboard

Visibility

☒ Visible by default

Web Resource Properties

Custom Parameter(data)

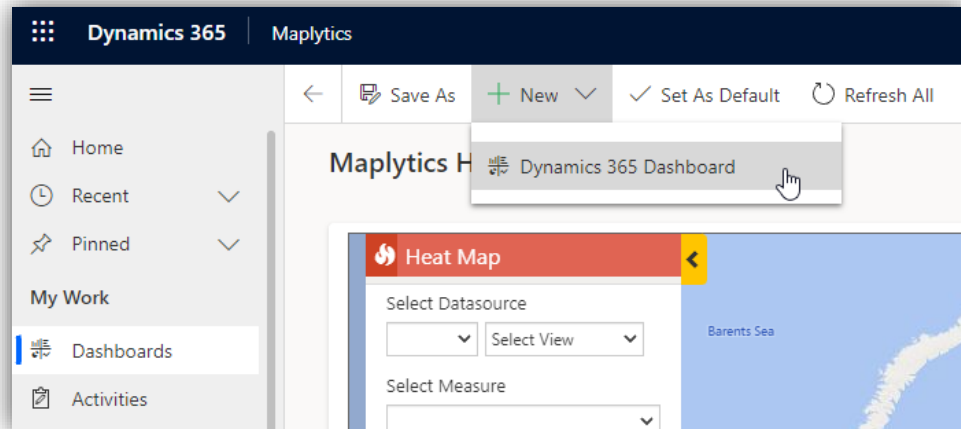
☐ Restrict cross-frame scripting, where supported.
 ☐ Pass record object-type code and unique identifier as parameters.

### Create a route dashboard

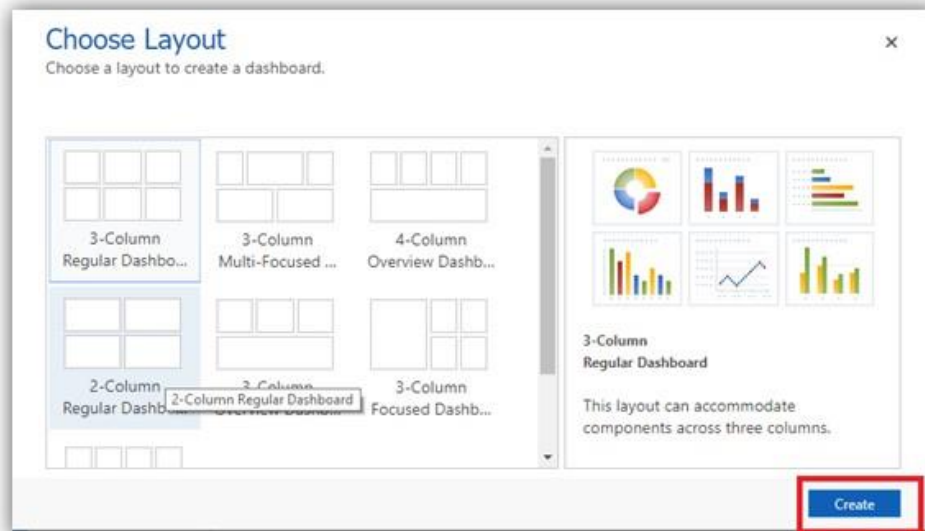
To plot route on a CRM dashboard follow the steps mentioned below:

1. User needs to include the Maplytics Detail Map component on the Dashboard. To do this click on the 'New' button in the section of dashboard and select 'Add Web Resource'. Select '[ikl\\_/Maplytics/Maplytics.DetailMap.html](#)' web resource.

**Go to Sales > Dashboards > Click on "New" button**

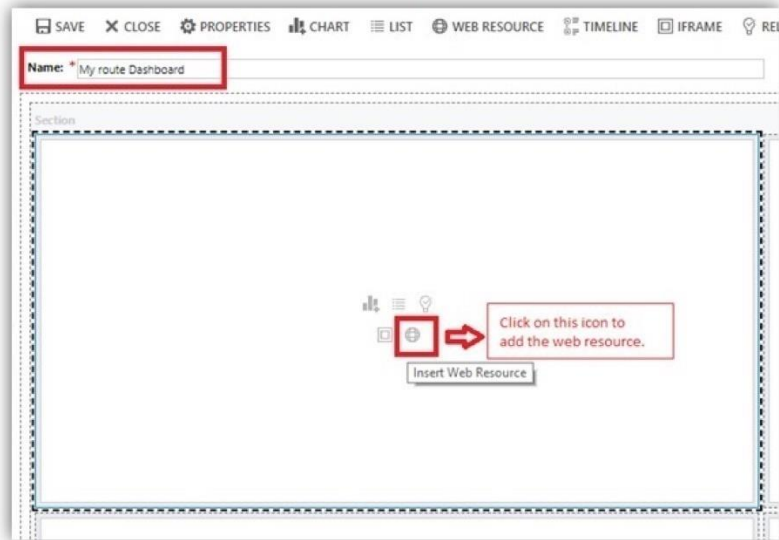


2. Choose any layout as shown below:



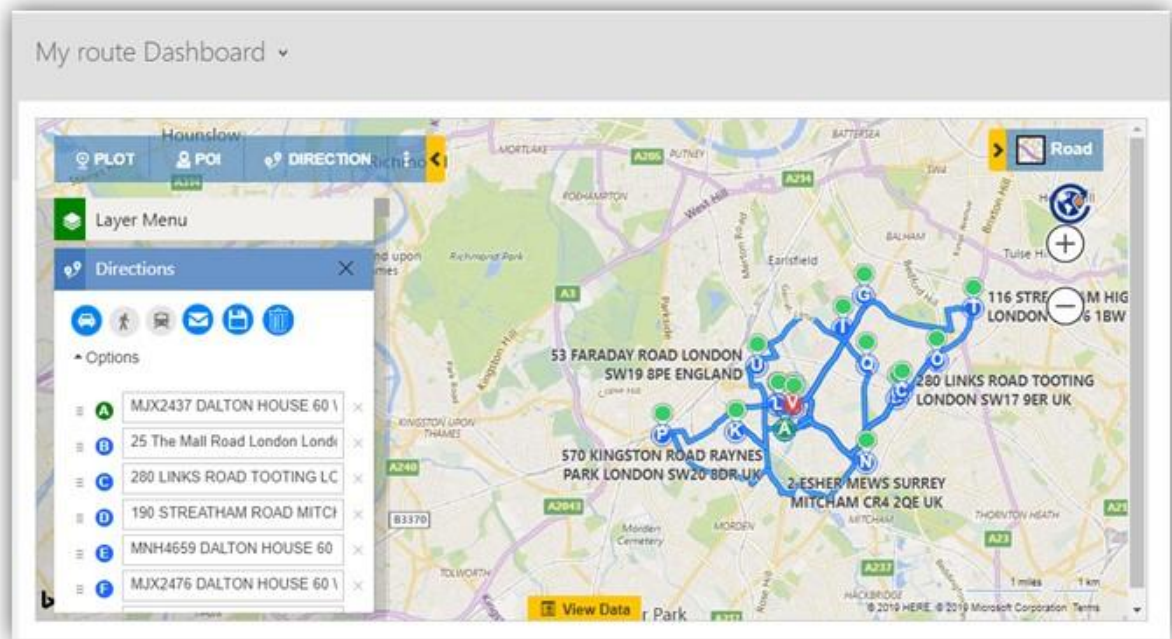
3. Provide the dashboard name and click on the web resource button to add the Detail map HTML web resource.

## Maplytics™ – User Manual



4. Add web resource :'*ikl\_/Maplytics/Maplytics.DetailMap.html*' web resource
5. Add a parameter in Custom Parameter (data) field as **<Dashboard Name>| |dashboard||true** and click on 'OK'

- After saving the dashboard and user can see the route plotted on the dashboard.



**Note:** Only 25 waypoints can be added into the route.

### Add a template in dashboard

Users can add a template to a Dashboard to visualize resultant data of pre-set search criteria on the dashboard in one glance.

To do this, user can select the required criteria on the map and save it as a template using 'Save Template' button. Please refer to the Template section in this manual to know more about saving templates. After saving the template, user can add the template to the dashboard.

### Steps to add template to dashboard

User can create a new Dashboard as explained in above topics and add the web resource '**ikl\_/Maplytics/Maplytics.DetailMap.html**'. They also need to provide the custom parameter (data) having template name. For example, the template with the name "Clients around supplier" should be entered as – **Clients around supplier|template**. Click **Ok** then **Save**

**Web Resource Properties**  
Modify this Web resource's properties.

Web resource

Web resource \*

Field Name and Properties

Name \*

Label \*

☐ Display label on the Dashboard

Visibility

☒ Visible by default

☒ Enable for mobile

Web Resource Properties

Custom Parameter(data)

☐ Restrict cross-frame scripting, where supported.

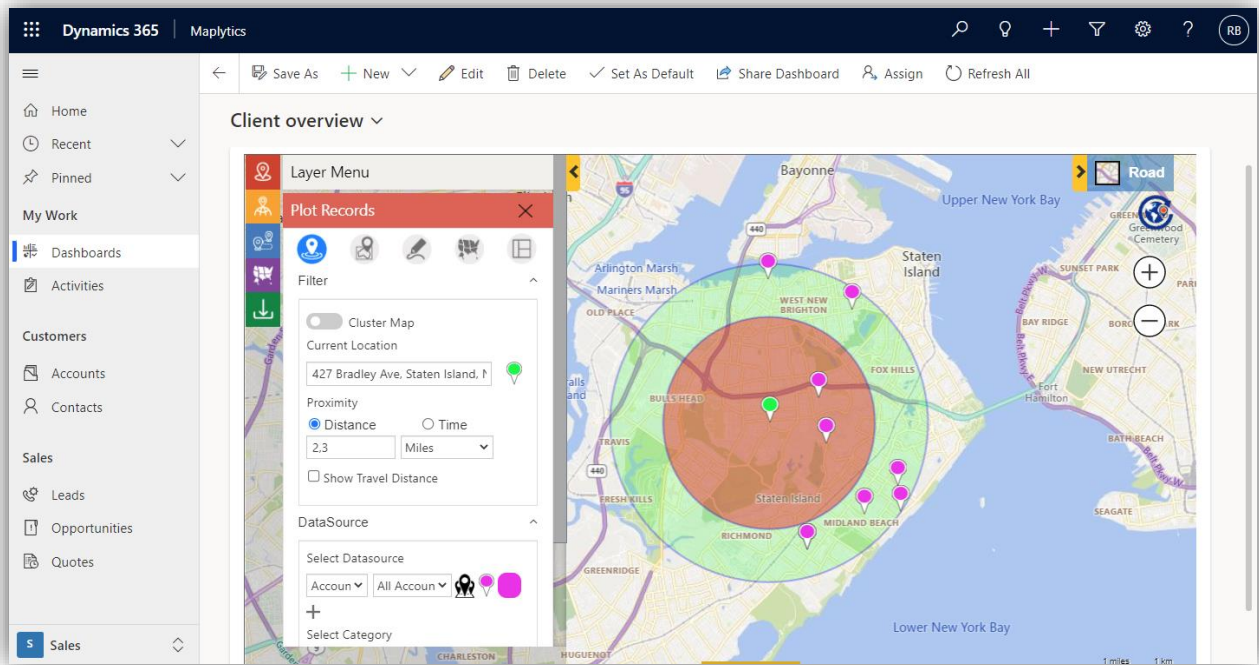
☐ Pass record object-type code and unique identifier as parameters.

OK Cancel

Once the web resource is added, user can refresh and open the dashboard to view the saved template. Moreover, if a user wants they can add multiple templates to a CRM dashboard to view multiple data in a single dashboard.



# Maplytics™ – User Manual

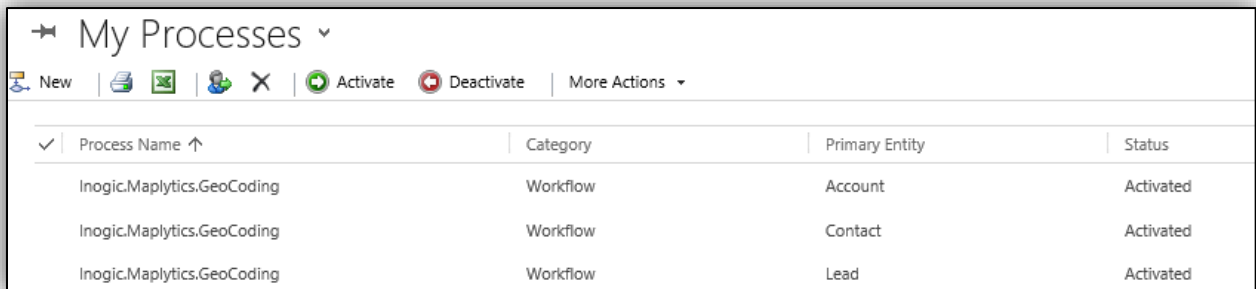


## Workflows

Maplytics ship the following workflows:

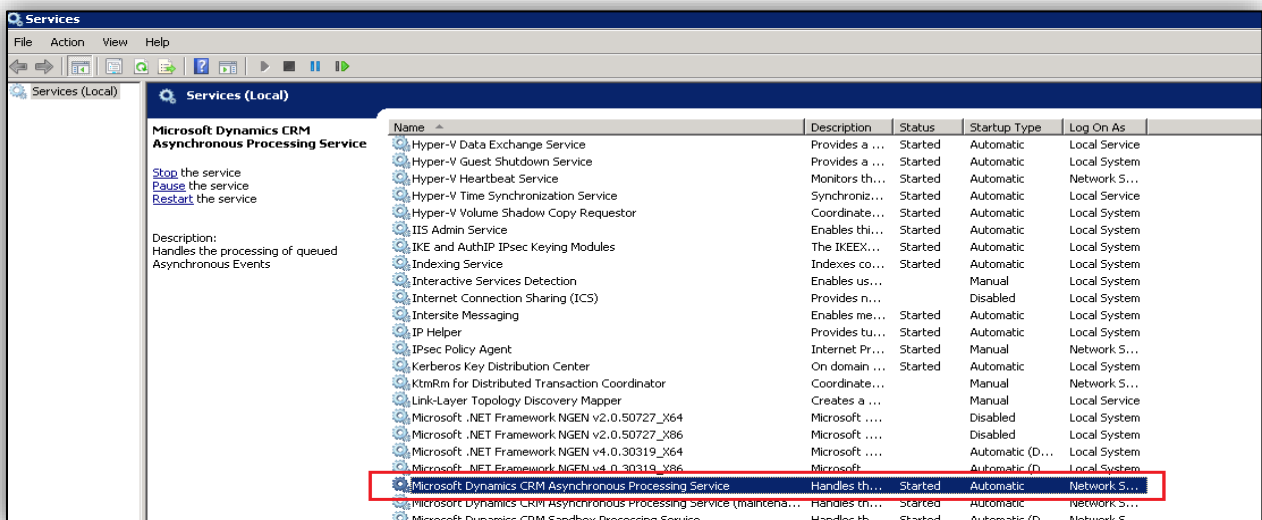
1. **Geocoding workflows** – This geocodes addresses of the records and provides the values for respective Latitude and Longitude.
2. **Territory Assignment workflow** – This assigns territories to CRM records on the basis of the addresses in the respective records.
3. **Driving Instructions workflow** – This automatically generates directions (in HTML and Plain text format) between two related entity records using their respective addresses.
4. **Get Time zone workflow** – This provides the time zone of the respective records in which they lie based on their addresses.

Geocoding workflow is configured for Account, Lead, and Contact entities and Territory workflow for Account by default. The user can set up these workflows for custom entities also.



| Process Name               | Category | Primary Entity | Status    |
|----------------------------|----------|----------------|-----------|
| Inogic.Maplytics.GeoCoding | Workflow | Account        | Activated |
| Inogic.Maplytics.GeoCoding | Workflow | Contact        | Activated |
| Inogic.Maplytics.GeoCoding | Workflow | Lead           | Activated |

**Note:** To run the workflow, please make sure the Microsoft Dynamics CRM Asynchronous Processing service is running as shown in below screenshot.



| Name  | Description  | Status          | Startup Type    | Log On As     |
|---|--|-----------------|-----------------|---------------|
| Microsoft Dynamics CRM Asynchronous Processing Service              | Handles the processing of queued Asynchronous Events | Started         | Automatic       | Local System  |
| Hyper-V Data Exchange Service                                       | Provides a ...                                       | Started         | Automatic       | Local System  |
| Hyper-V Guest Shutdown Service                                      | Provides a ...                                       | Started         | Automatic       | Local System  |
| Hyper-V Heartbeat Service   | Monitors th...                                       | Started         | Automatic       | Network S...  |
| Hyper-V Time Synchronization Service                                | Synchroniz...  | Started         | Automatic       | Local Service |
| Hyper-V Volume Shadow Copy Requestor                                | Coordinate...  | Started         | Automatic       | Local System  |
| IIS Admin Service   | Enables thi...                                       | Started         | Automatic       | Local System  |
| IKE and AuthIP IPsec Keying Modules                                 | The IKEEX...   | Started         | Automatic       | Local System  |
| Indexing Service  | Indexes co...  | Started         | Automatic       | Local System  |
| Interactive Services Detection                                      | Enables us...  | Started         | Manual          | Local System  |
| Internet Connection Sharing (ICS)                                   | Provides n...  | Disabled        | Automatic       | Local System  |
| InterSite Messaging   | Enables me...  | Started         | Automatic       | Local System  |
| IP Helper   | Provides tu...                                       | Started         | Automatic       | Local System  |
| IPsec Policy Agent  | Internet Pr...                                       | Started         | Manual          | Network S...  |
| Kerberos Key Distribution Center                                    | On domain ...  | Started         | Automatic       | Local System  |
| KtmRm for Distributed Transaction Coordinator                       | Coordinate...  | Manual          | Automatic       | Network S...  |
| Link-Layer Topology Discovery Mapper                                | Creates a ...  | Manual          | Automatic       | Local Service |
| Microsoft .NET Framework NGEN v2.0.50727_x64                        | Microsoft ...  | Disabled        | Automatic       | Local System  |
| Microsoft .NET Framework NGEN v2.0.50727_x86                        | Microsoft ...  | Disabled        | Automatic       | Local System  |
| Microsoft .NET Framework NGEN v4.0.30319_x64                        | Microsoft ...  | Automatic (D... | Automatic (D... | Local System  |
| Microsoft .NET Framework NGEN v4.0.30319_x86                        | Microsoft ...  | Automatic (D... | Automatic (D... | Local System  |
| Microsoft Dynamics CRM Asynchronous Processing Service              | Handles th...  | Started         | Automatic       | Network S...  |
| Microsoft Dynamics CRM Asynchronous Processing Service (maintena... | Handles th...  | Started         | Automatic       | Network S...  |
| Microsoft Dynamics CRM Sandbox Processing Service                   | Handles th...  | Started         | Automatic (D... | Network S...  |

## Configure Geocoding workflows for custom entities

1. Go to **Setting > Processes** > Click on **'New'** to design a new Workflow Process.
2. Write Process name, choose **'Workflow'** under category section and select desired entity as shown below;

**Create Process**  
Define a new process, or create one from an existing template. You can create four kinds of processes: business process flows, actions, dialogs, and workflows.

Process name: \*

Category: \*  Entity: \*

☐ Run this workflow in the background (recommended)

Type: ☒ New blank process ☐ New process from an existing template (select from list):

| Template Name ↑  | Primary Entity | Owner |
|--|----------------|-------|
| No process template records are available in this view |                |       |

0 - 0 of 0 (0 selected) Page 1

3. Select **'Organization'** under **'Scope'** dropdown. Select **'Record is created'** and **'Record fields change'** options as shown below:

Process: Inogic.Maplytics.GeoCoding Working on solution:

**Information**

General Administration Notes

▼ Hide Process Properties

Process Name \*

Activate As

**Available to Run**

☒ Run this workflow in the background (recommended)

☒ As an on-demand process

☐ As a child process

**Workflow Job Retention**

☒ Automatically delete completed workflow jobs (to save disk space)

Entity

Category

**Options for Automatic Processes**

Scope

Start when:

☒ Record is created

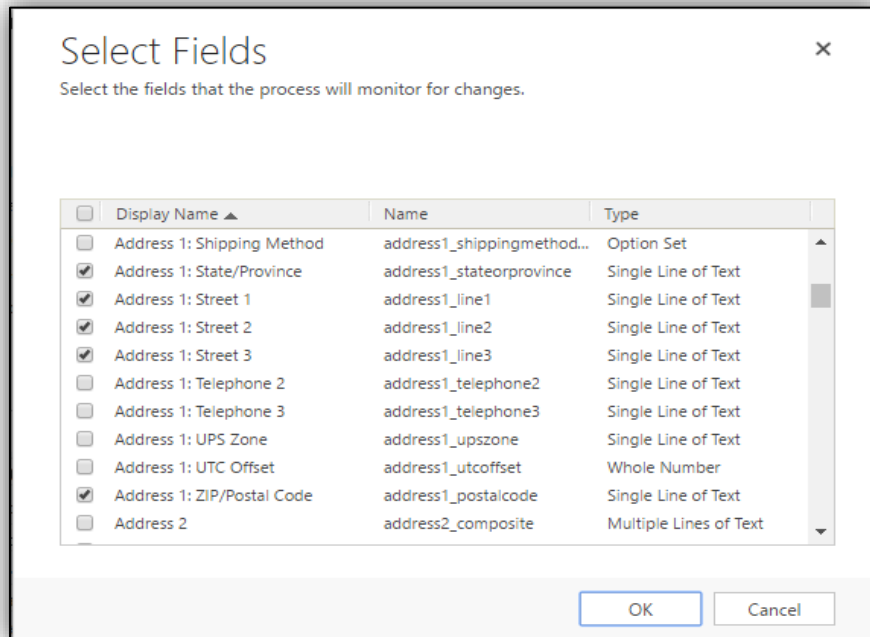
☐ Record status changes

☐ Record is assigned

☒ Record fields change [View](#)

☐ Record is deleted

- For the Record fields change option, select all of the address fields to ensure the address is geocoded when any of the address fields is changed as shown below;



Select Fields

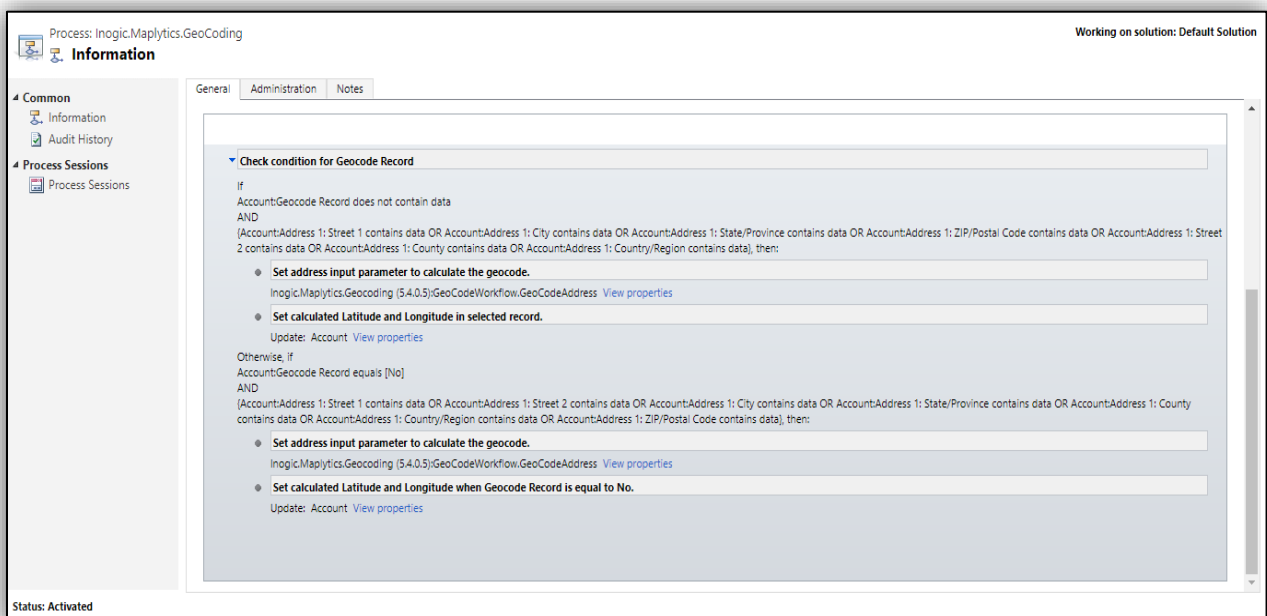
Select the fields that the process will monitor for changes.

| <input type="checkbox"/>            | Display Name ▲             | Name                       | Type                   |
|-------------------------------------|----------------------------|----------------------------|------------------------|
| <input type="checkbox"/>            | Address 1: Shipping Method | address1_shippingmethod... | Option Set             |
| <input checked="" type="checkbox"/> | Address 1: State/Province  | address1_stateorprovince   | Single Line of Text    |
| <input checked="" type="checkbox"/> | Address 1: Street 1        | address1_line1             | Single Line of Text    |
| <input checked="" type="checkbox"/> | Address 1: Street 2        | address1_line2             | Single Line of Text    |
| <input checked="" type="checkbox"/> | Address 1: Street 3        | address1_line3             | Single Line of Text    |
| <input type="checkbox"/>            | Address 1: Telephone 2     | address1_telephone2        | Single Line of Text    |
| <input type="checkbox"/>            | Address 1: Telephone 3     | address1_telephone3        | Single Line of Text    |
| <input type="checkbox"/>            | Address 1: UPS Zone        | address1_upszone           | Single Line of Text    |
| <input type="checkbox"/>            | Address 1: UTC Offset      | address1_utcoffset         | Whole Number           |
| <input checked="" type="checkbox"/> | Address 1: ZIP/Postal Code | address1_postalcode        | Single Line of Text    |
| <input type="checkbox"/>            | Address 2                  | address2_composite         | Multiple Lines of Text |

OK Cancel

- Select the **Inogic.Maplytics.Geocoding** workflow assembly from the Add step menu as shown below;

**Note: Please don't select Latitude & Longitude field attribute here.**



Process: Inogic.Maplytics.Geocoding

Working on solution: Default Solution

Information

Common

- Information
- Audit History

Process Sessions

- Process Sessions

General Administration Notes

Check condition for Geocode Record

If

Account/Geocode Record does not contain data

AND

(Account/Address 1: Street 1 contains data OR Account/Address 1: City contains data OR Account/Address 1: State/Province contains data OR Account/Address 1: ZIP/Postal Code contains data OR Account/Address 1: Street 2 contains data OR Account/Address 1: Country/Region contains data OR Account/Address 1: Country/Region contains data), then:

- Set address input parameter to calculate the geocode.  
Inogic.Maplytics.Geocoding (5.4.0.5):GeoCodeWorkflow.GeoCodeAddress [View properties](#)
- Set calculated Latitude and Longitude in selected record.  
Update: Account [View properties](#)

Otherwise, if

Account/Geocode Record equals [No]

AND

(Account/Address 1: Street 1 contains data OR Account/Address 1: Street 2 contains data OR Account/Address 1: City contains data OR Account/Address 1: State/Province contains data OR Account/Address 1: Country/Region contains data OR Account/Address 1: ZIP/Postal Code contains data), then:

- Set address input parameter to calculate the geocode.  
Inogic.Maplytics.Geocoding (5.4.0.5):GeoCodeWorkflow.GeoCodeAddress [View properties](#)
- Set calculated Latitude and Longitude when Geocode Record is equal to No.  
Update: Account [View properties](#)

Status: Activated

**Note:** For custom workflows, add an 'AND' condition, if the address fields are not blank as shown in the above screenshot. This will avoid the trigger of the workflow if the address fields do not have any value.

- Click on **'Set Properties'** and set the address parameter as shown in below screenshot for the workflow assembly;

| Property Name   | Data Type           | Value                             |
|-----------------|---------------------|-----------------------------------|
| Street1         | Single Line of Text | {Bill To Street 1(Invoice)}       |
| Street2         | Single Line of Text | {Bill To Street 2(Invoice)}       |
| Street3         | Single Line of Text | {Bill To Street 3(Invoice)}       |
| City            | Single Line of Text | {Bill To City(Invoice)}           |
| StateOrProvince | Single Line of Text | {Bill To State/Province(Invoice)} |
| County          | Single Line of Text |                                   |
| Country         | Single Line of Text | {Bill To Country/Region(Invoice)} |
| PostalCode      | Single Line of Text | {Bill To Street 3(Invoice)}       |

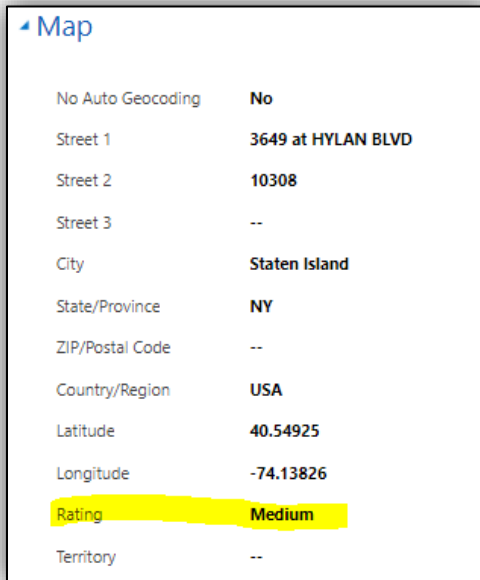
- Choose 'Update Record' from 'Add Step' menu after selecting 'Set Properties' record and select same entity for which workflow is being created.
- Click on 'Set Properties' of the new record and in the update window set the Latitude, Longitude and Rating to the output parameters returned by the workflow assembly as shown in the screenshot below;

| Property Name | Data Type           | Value                      |
|---------------|---------------------|----------------------------|
| Latitude      | Single Line of Text | {Latitude(Set address i)}  |
| Longitude     | Single Line of Text | {Longitude(Set address i)} |
| Rating        | Single Line of Text | {Rating(Set address i)}    |



### Geocoding Confidence Rating:

User can also check the geocoding confidence rating provided by Bing Maps. A 'Rating' field can be added that shows the confidence rating as High, Medium or Low. The 'Rating' field is set in the workflow as shown in the above screenshot.



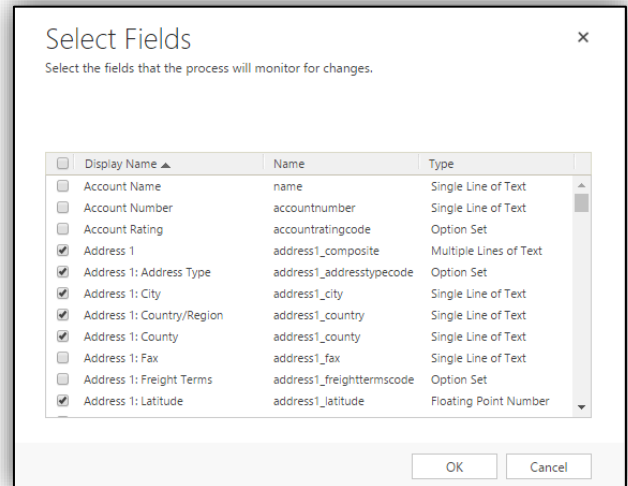
|                   |                    |
|-------------------|--------------------|
| No Auto Geocoding | No                 |
| Street 1          | 3649 at HYLAN BLVD |
| Street 2          | 10308              |
| Street 3          | --                 |
| City              | Staten Island      |
| State/Province    | NY                 |
| ZIP/Postal Code   | --                 |
| Country/Region    | USA                |
| Latitude          | 40.54925           |
| Longitude         | -74.13826          |
| Rating            | Medium             |
| Territory         | --                 |

#### **Note:**

- ***Latitude and Longitude fields should of data type: 'Floating Point Number' with precision set to 5. Add minimum to maximum range of fields respectively Latitude (-90 to +90), Longitude (-180 to +180).***
- ***Geocoding Confidence Rating cannot be checked for Geocoding plugin***

## Configure Territory Assignment workflow for custom entities

1. Follow the Steps 1 – 3 from configuring geocoding workflow for custom entities. This will help you create a new workflow.
2. For the Record fields change option, select all of the address fields to ensure the territory is changed when any of the address fields is changed as shown below;



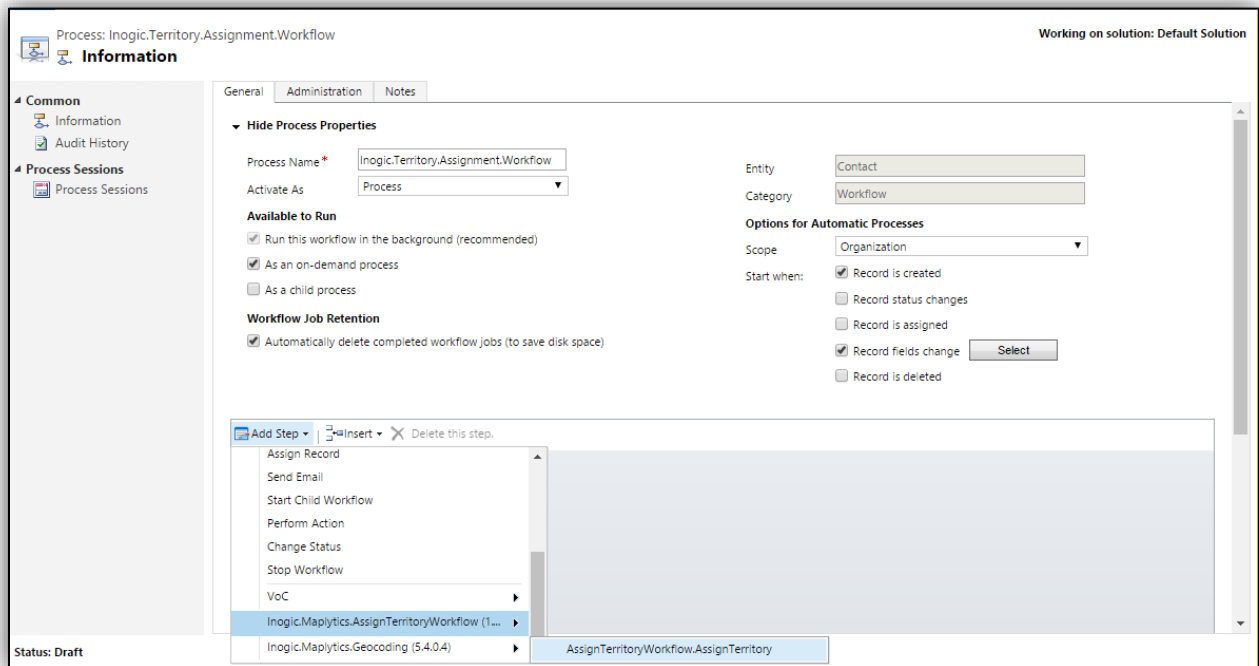
Select Fields

Select the fields that the process will monitor for changes.

| Display Name  | Name                      | Type                   |
|---|---------------------------|------------------------|
| <input type="checkbox"/> Account Name                         | name                      | Single Line of Text    |
| <input type="checkbox"/> Account Number                       | accountnumber             | Single Line of Text    |
| <input type="checkbox"/> Account Rating                       | accountratingcode         | Option Set             |
| <input checked="" type="checkbox"/> Address 1                 | address1_composite        | Multiple Lines of Text |
| <input checked="" type="checkbox"/> Address 1: Address Type   | address1_addresstypecode  | Option Set             |
| <input checked="" type="checkbox"/> Address 1: City           | address1_city             | Single Line of Text    |
| <input checked="" type="checkbox"/> Address 1: Country/Region | address1_country          | Single Line of Text    |
| <input checked="" type="checkbox"/> Address 1: County         | address1_county           | Single Line of Text    |
| <input type="checkbox"/> Address 1: Fax                       | address1_fax              | Single Line of Text    |
| <input type="checkbox"/> Address 1: Freight Terms             | address1_freighttermscode | Option Set             |
| <input checked="" type="checkbox"/> Address 1: Latitude       | address1_latitude         | Floating Point Number  |

OK Cancel

3. Click on **'Add Steps'** and add **'AssignTerritoryWorkflow.AssignTerritory'** assembly as shown below;



Process: Inogic.Territory.Assignment.Workflow

Working on solution: Default Solution

**Information**

Common

- Information
- Audit History

Process Sessions

- Process Sessions

General Administration Notes

**Hide Process Properties**

Process Name\* Inogic.Territory.Assignment.Workflow

Activate As Process

**Available to Run**

- ☒ Run this workflow in the background (recommended)
- ☒ As an on-demand process
- ☐ As a child process

**Workflow Job Retention**

- ☒ Automatically delete completed workflow jobs (to save disk space)

Entity Contact

Category Workflow

**Options for Automatic Processes**

Scope Organization

Start when:

- ☒ Record is created
- ☐ Record status changes
- ☐ Record is assigned
- ☒ Record fields change **Select**
- ☐ Record is deleted

**Add Step** **Insert** **Delete this step**

- Assign Record
- Send Email
- Start Child Workflow
- Perform Action
- Change Status
- Stop Workflow
- VoC
- Inogic.Maplytics.AssignTerritory/Workflow (1...
- Inogic.Maplytics.Geocoding (5.4.0.4)
- AssignTerritoryWorkflow.AssignTerritory

Status: Draft

4. Click on **'Set Properties'** and set the address parameter as shown below and Save this.  
NumberOfRecords – Set the number of records to be fetched from the CRM at once

## Configure Get Time Zone workflow

1. Go to Settings > Processes > Click on 'New' to design a new Workflow Process.
2. Write Process name, choose 'Workflow' under category section and select desired entity:

| Property Name   | Data Type           | Required | Value                        |
|-----------------|---------------------|----------|------------------------------|
| Latitude        | Floating Point N... | Optional | {Address 1: Latitude(Lead)}  |
| Longitude       | Floating Point N... | Optional | {Address 1: Longitude(Lead)} |
| NumbersOfRecord | Whole Number        | Optional | 4,000                        |

**Create Process**

Define a new process, or create one from an existing template. You can create four kinds of processes: business process flows, actions, dialogs, and workflows.

Process name: \*

Category: \*

Entity: \*

☒ Run this workflow in the background (recommended)

We recommend using [Microsoft Flow](#) instead of background workflows. [Click here](#) to start building Flows!

Type: ☒ New blank process ☐ New process from an existing template (select from list):

| Template Name ↑ | Primary Entity | Owner |
|-----------------|----------------|-------|
|                 |                |       |

3. Select 'Organization' under 'Scope' dropdown. Select 'Record is created' and 'Record fields change' options.

Process: Inogic.Maplytics.GeoCoding

Information

General Administration Notes

Hide Process Properties

Process Name: [Redacted]

Activate As: Process

Available to Run

☒ Run this workflow in the background (recommended)

☒ As an on-demand process

☐ As a child process

Workflow Job Retention

☒ Automatically delete completed workflow jobs (to save disk space)

Entity: Account

Category: Workflow

Options for Automatic Processes

Scope: Organization

Start when:

☒ Record is created

☐ Record status changes

☐ Record is assigned

☒ Record fields change [View](#)

☐ Record is deleted

4. For the 'Record fields Change' option, select all of the address fields to ensure the address is retrieved when any of the address fields is changed.

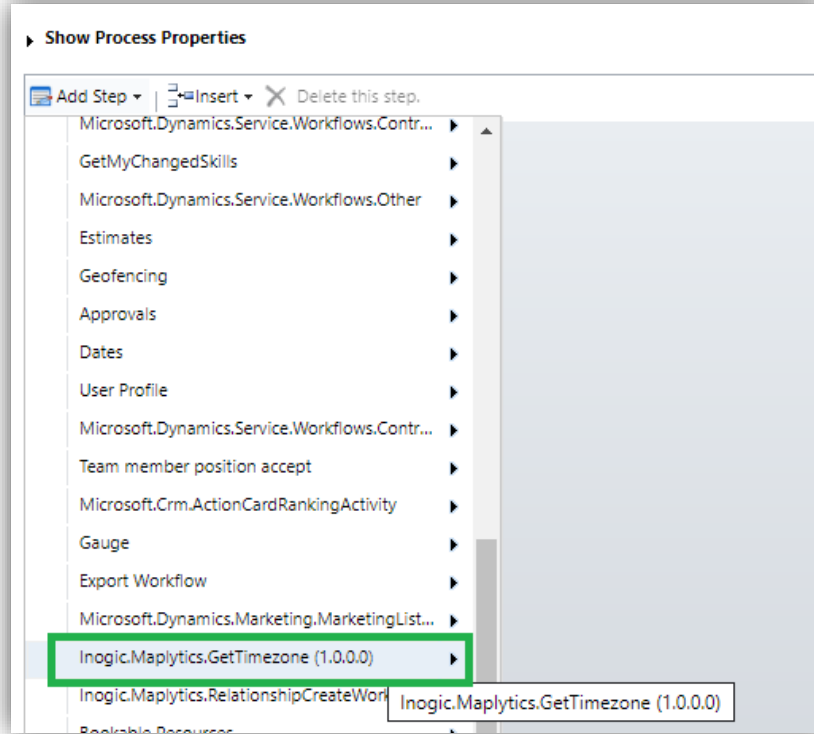
Select Fields

Select the fields that the process will monitor for changes.

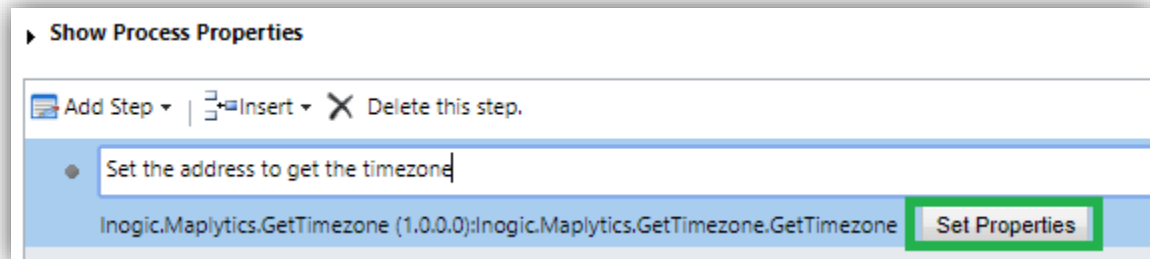
| Display Name   | Name                       | Type                   |
|--|----------------------------|------------------------|
| <input type="checkbox"/> Address 1: Shipping Method            | address1_shippingmethod... | Option Set             |
| <input checked="" type="checkbox"/> Address 1: State/Province  | address1_stateorprovince   | Single Line of Text    |
| <input checked="" type="checkbox"/> Address 1: Street 1        | address1_line1             | Single Line of Text    |
| <input checked="" type="checkbox"/> Address 1: Street 2        | address1_line2             | Single Line of Text    |
| <input checked="" type="checkbox"/> Address 1: Street 3        | address1_line3             | Single Line of Text    |
| <input type="checkbox"/> Address 1: Telephone 2                | address1_telephone2        | Single Line of Text    |
| <input type="checkbox"/> Address 1: Telephone 3                | address1_telephone3        | Single Line of Text    |
| <input type="checkbox"/> Address 1: UPS Zone                   | address1_upszone           | Single Line of Text    |
| <input type="checkbox"/> Address 1: UTC Offset                 | address1_utcoffset         | Whole Number           |
| <input checked="" type="checkbox"/> Address 1: ZIP/Postal Code | address1_postalcode        | Single Line of Text    |
| <input type="checkbox"/> Address 2                             | address2_composite         | Multiple Lines of Text |

OK Cancel

5. Select the ***Inogic.Maplytics.GetTimezone*** workflow assembly from the Add step menu.



6. Click on '***Set Properties***' and set the address parameter as shown in below screenshot for the workflow assembly.





Process: Get Timezone Working on solution: Default Solution

### Set Custom Step Input Properties

| Property Name   | Data Type           | Required | Value                                 |
|-----------------|---------------------|----------|---------------------------------------|
| Street1         | Single Line of Text | Optional | {Address 1: Street 1(Account)}        |
| Street2         | Single Line of Text | Optional | {Address 1: Street 2(Account)}        |
| Street3         | Single Line of Text | Optional |                                       |
| City            | Single Line of Text | Optional | {Address 1: City(Account)}            |
| StateOrProvince | Single Line of Text | Optional | {Address 1: State/Province(Account)}  |
| County          | Single Line of Text | Optional |                                       |
| Country         | Single Line of Text | Optional | {Address 1: Country/Region(Account)}  |
| Zip/PostalCode  | Single Line of Text | Optional | {Address 1: ZIP/Postal Code(Account)} |

**Form Assistant**

Dynamic Values

Dynamic Values

**Operator:**

Set to

Look for:

Account

(Deprecated) Traversed Path

Add

X | ↑ | ↓

Default value:

Here, user needs to specify the address fields on the basis of which user wants to get the time zone. After this user needs to set the time zone in field (string type). Please follow below steps for the same:

1. Choose 'Update Record' from 'Add Step' menu after selecting 'Set Properties' record and select same entity for which workflow is being created.
2. Click on 'Set Properties' of the new record and in the update window set the TimezoneName, TimezoneAbbreviation to the output parameters returned by the workflow assembly.

Website

Parent Account

Ticker Symbol

Relationship Type

Timezone Abbreviation {TimezoneAbbreviation}

Timezone {TimezoneName(Provide Input param)}

Product Price List

0 - 0 of 0 (0 selected)

TimezoneName

Add

X | ↑ | ↓

TimezoneName(Provide Input param)

Default value:

Once user finishes all the above steps and activates the workflow, user can run it on any record of the respective entity which has address data. This will provide set the time zone set for the record as shown below.

AD

ACCOUNT

A. DINA VEDMED & SONS

Summary

Map

Area of service

Territories

Relationship Type

Timezone Abbreviation

EST

Timezone

Eastern Standard Time

## Configure Driving Instructions workflow

- Go to Advanced Setting > Processes > Click on 'New' to design a new Workflow Process.
- Write Process name, choose 'Workflow' under the category section and select desired entity, and click on Okay as shown below;

**Create Process**

Define a new process, or create one from an existing template. You can create four kinds of processes: business process flows, actions, dialogs, and workflows.

Process name: \*

Category: \*

Entity: \*

☒ Run this workflow in the background (recommended)

Type: ☒ New blank process ☐ New process from an existing template (select from list):

Template Name ↑ Primary Entity

Entity dropdown options: Account, Project Price, List, Actual, Actual Data Export (Deprecated), Address, Agreement, Agreement Booking Date, Agreement Booking Incident, Agreement Booking Product.

- Select 'Organization' under 'Scope' dropdown. Select 'Record is created' and 'Record fields change' options Click on Okay and Proceed;

Process: Inogic.Maplytics.GeoCoding

Information

Common

- Information
- Audit History

Process Sessions

- Process Sessions

General Administration Notes

Hide Process Properties

Process Name \*

Activate As

Available to Run

- ☒ Run this workflow in the background (recommended)
- ☒ As an on-demand process
- ☐ As a child process

Workflow Job Retention

- ☒ Automatically delete completed workflow jobs (to save disk space)

Entity

Category

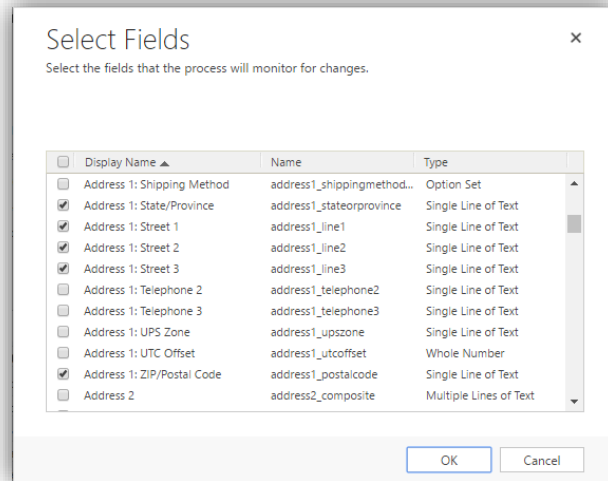
Options for Automatic Processes

Scope

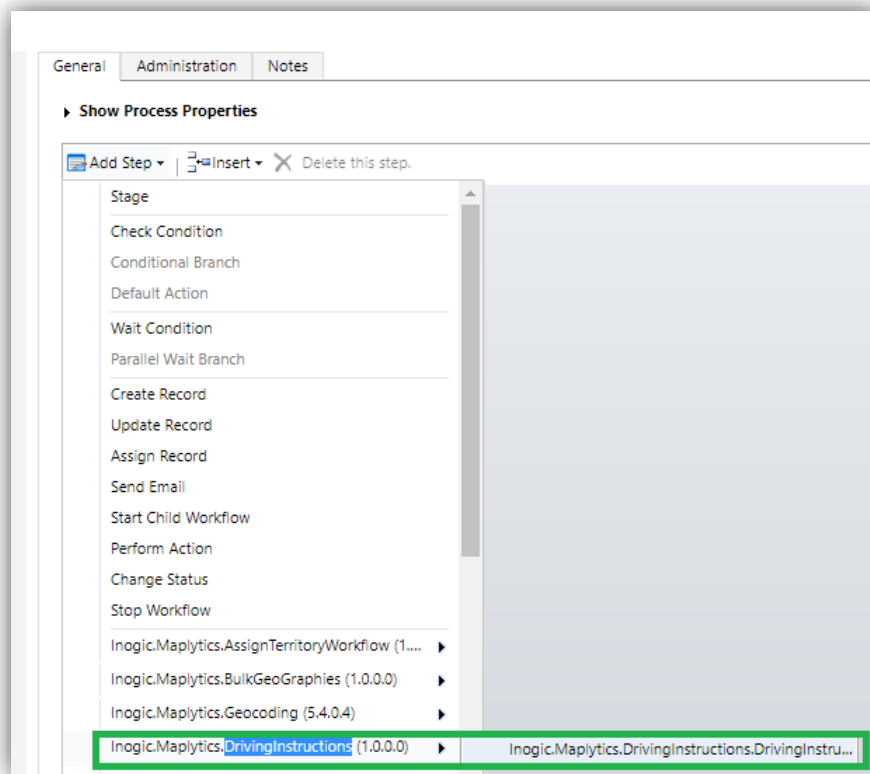
Start when:

- ☒ Record is created
- ☐ Record status changes
- ☐ Record is assigned
- ☒ Record fields change [View](#)
- ☐ Record is deleted

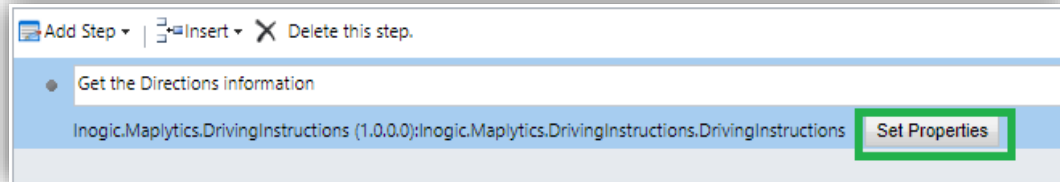
10. For the 'Record fields Change' option, select all of the address fields to ensure the address is retrieved when any of the address fields are changed as shown below;



11. Select the **Inogic.Maplytics.DrivingInstructions** workflow assembly from the Add step menu as shown below;



12. Click on '**Set Properties**' and set the address parameter as shown in below screenshot for the workflow assembly;



Process: GetDirection Working on solution: Default Solution

### Set Custom Step Input Properties

| Property Name | Data Type           | Required | Value                           |
|---------------|---------------------|----------|---------------------------------|
| FromAddress   | Single Line of Text | Required | {Address 1: Street 1(Account)}  |
| ToAddress     | Single Line of Text | Required | {Address 1: Street 1(Primary Co |
| TravelMode    | Single Line of Text | Optional | Driving                         |
| DistanceUnit  | Single Line of Text | Optional | Mile                            |

**Form Assistant**

Dynamic Values

Dynamic Values

**Operator:**

Set to

**Look for:**

Primary Contact (Contact)

Address 1

Add

In '**FromAddress**': Select the address fields of the entity that you want the direction '**From**'. Select the all address field i.e. Steet1, Street2, and City etc. and ensure sure you keep space between two fields.  
 {Address 1: Street 1(Account)} {Address 1: Street 2(Account)} {Address 1: City(Account)} {Address 1: State/Province(Account)}

In **ToAddress**: Select the address fields of the entity that you want the directions '**To**'. Select the all address field i.e. Steet1, Street2, and City etc. and ensure to keep space between two fields.

**Travel Mode**: Select the Travel mode. For example (Driving, Walking, Transit, and Truck). If you do not specify the Travel mode then it will take Driving mode by default.

**Distance Unit**: Select the Distance unit. For example (Mile or mi, Kilometer or km). If you do not specify the unit then it will take Kilometer as default unit.

13. For the "OptimizeBy" field, input any one of the values mentioned below:

**distance**: The route is calculated to minimize the distance. Traffic information is not used.

**time**: The route is calculated to minimize the time. Traffic information is not used.

**timeWithTraffic**: The route is calculated to minimize the time and uses current traffic information.

**timeAvoidClosure**: The route is calculated to minimize the time and avoid road closures. Traffic information is not used in the calculation.

## Maplytics™ – User Manual

Process: GetDirection

Set Custom Step

Property Name

FromAddress

ToAddress

TravelMode

DistanceUnit

OptimizeBy

Process: Driving Instruction

Set Custom Step Input Properties

| Property Name | Data Type           | Required | Value                        |
|---------------|---------------------|----------|------------------------------|
| FromAddress   | Single Line of Text | Required | {Address 1: County(Account)} |
| ToAddress     | Single Line of Text | Required | {Primary Contact (Contact)}  |
| TravelMode    | Single Line of Text | Optional | Driving                      |
| DistanceUnit  | Single Line of Text | Optional | Mile                         |
| OptimizeBy    | Single Line of Text | Optional | Distance                     |

Working on solution: Default Solution

Form Assistant

Dynamic Values

Operator:

Set to

Look for:

Primary Contact (Contact)

Address 1: Country/Region

Add

Default value:

OK

In 'FromAddress': Select the all address field two  
 {Address 1: Street 1 (Account)} {Address 1: State/Province(Account)}

In 'From': Select space between fields.  
 {Address 1: Street 1 (Account)} {Address 1: State/Province(Account)}

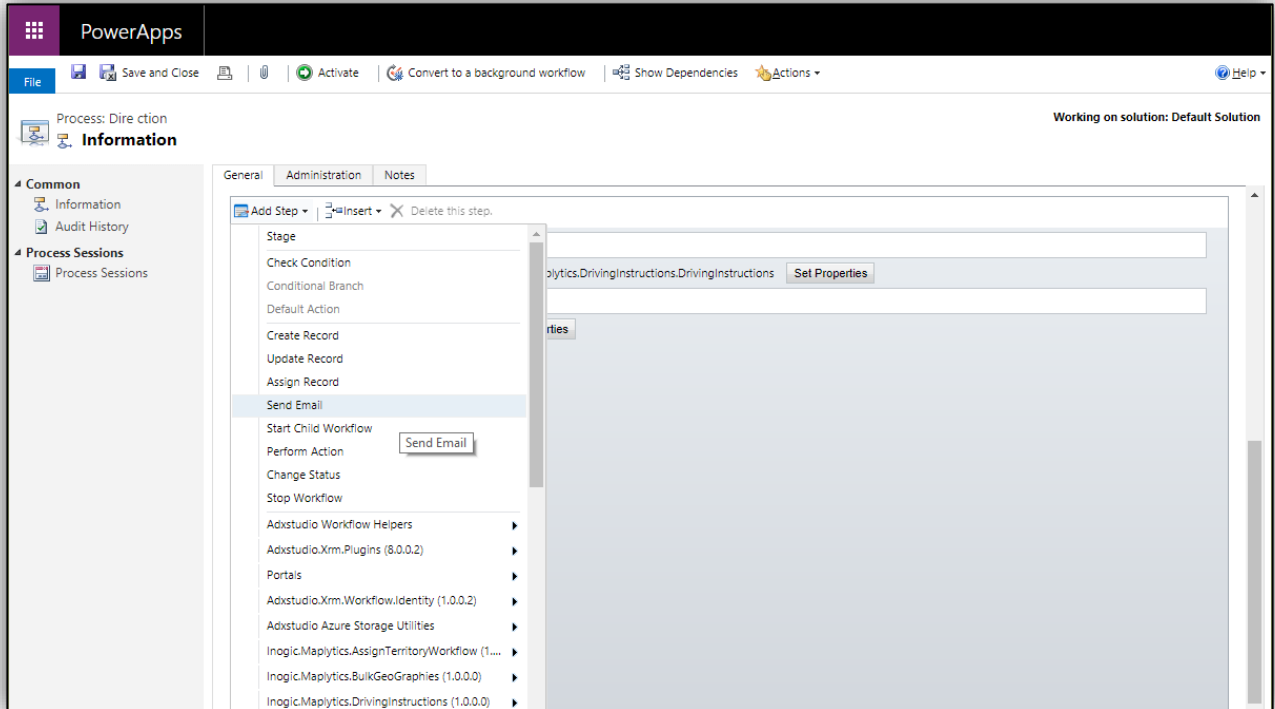
### Note:

- If you are not passing any values on "OptimizeBy", then you will get results on distance optimization.

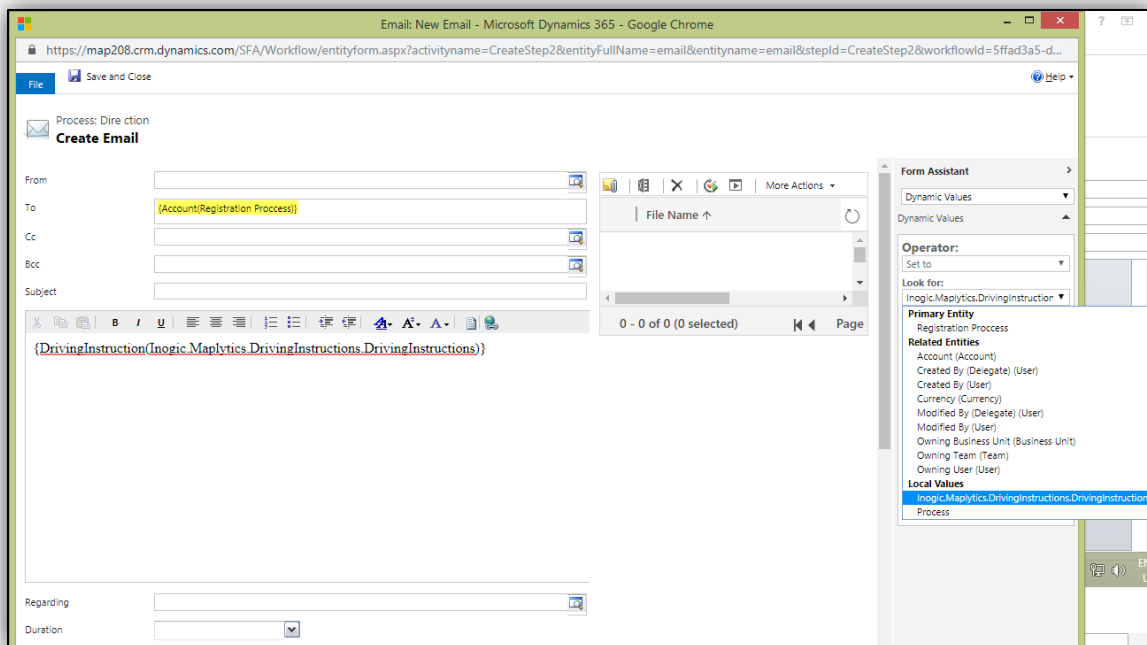


## Maplytics™ – User Manual

14. Click on add step -> Send Email -> Click on set property



Click on Email body -> Select Look for -> local value “Inogic.Maplytics.DrivingInstructions.DrivingInstruction”



Select DrivingInstruction for plan text or DrivingInstructionHTML for html page. Click on save and close.

## Maplytics™ – User Manual

15. The driving instructions will be returned both in HTML and Plain Text format as an output parameter to this workflow. User can use either of them. For example we have used HTML formatted direction instruction in Email here.

| <b>From Address:</b> 1 NW 50th Ln Ocala FL 34482 USA                               |          |
|--|----------|
| <b>To Address:</b> 4350 US-98 Frostproof FL 33843 USA                              |          |
| <b>Total Travel Distance:</b> 208.46 miles   |          |
| <b>Total Travel Duration:</b> 3 hrs 25 min   |          |
| Instruction  | Distance |
| Depart NW 50th Ln toward NW 115th Ave  | 0.707    |
| Turn right onto NW 115th Ave   | 0.613    |
| Turn right onto NW Highway 464B / CR-464B  | 1.692    |
| Keep straight onto NW 110th Ave  | 0.127    |
| Turn right onto US-27 S / SR-500 S   | 11.539   |
| Take ramp right for I-75 South toward Tampa  | 40.409   |
| At exit 328, take ramp left for Florida's Turnpike South toward Orlando / Turnpike | 30.912   |
| At exit 289, take ramp right for US-27 toward Cleremont / Taveres                  | 70.493   |
| Turn left onto W Main St / CR-17   | 2.715    |
| Turn right onto 10th St N  | 0.163    |
| Road name changes to US-27 ALT / SR-17 / 10th St S                                 | 9.455    |
| Turn left to stay on US-27 ALT / SR-17 / E Main St                                 | 18.945   |
| At roundabout, take 2nd exit   | 16.91    |
| Bear right onto McLeod Rd  | 0.353    |
| Keep straight onto N Palm Ave  | 1.992    |
| Turn left onto W 1st St  | 0.202    |
| Arrive at Frostproof, FL   | 0        |

16. Also, we have included four outputs to get the **Travel Time & Travel Distance** with/without unit values.

For example, create four columns in the Account entity as mentioned below,

Column 1: Travel Time (datatype should be decimal or floating point)

Column 2: Travel Distance (datatype should be decimal or floating point)

Column 3: Travel Time with Text (datatype should be a single line of text)

Column 4: Travel Distance with Text (datatype should be a single line of text)

Click on **Add step -> Update Record -> Select Entity (that you want to set Time & distance value for) -> Click on Set Property ->**

Click on the field that you have created -> **Select Look for -> local value**  
**"inogic.Maplytics.DrivingInstructions. DrivingInstruction"**

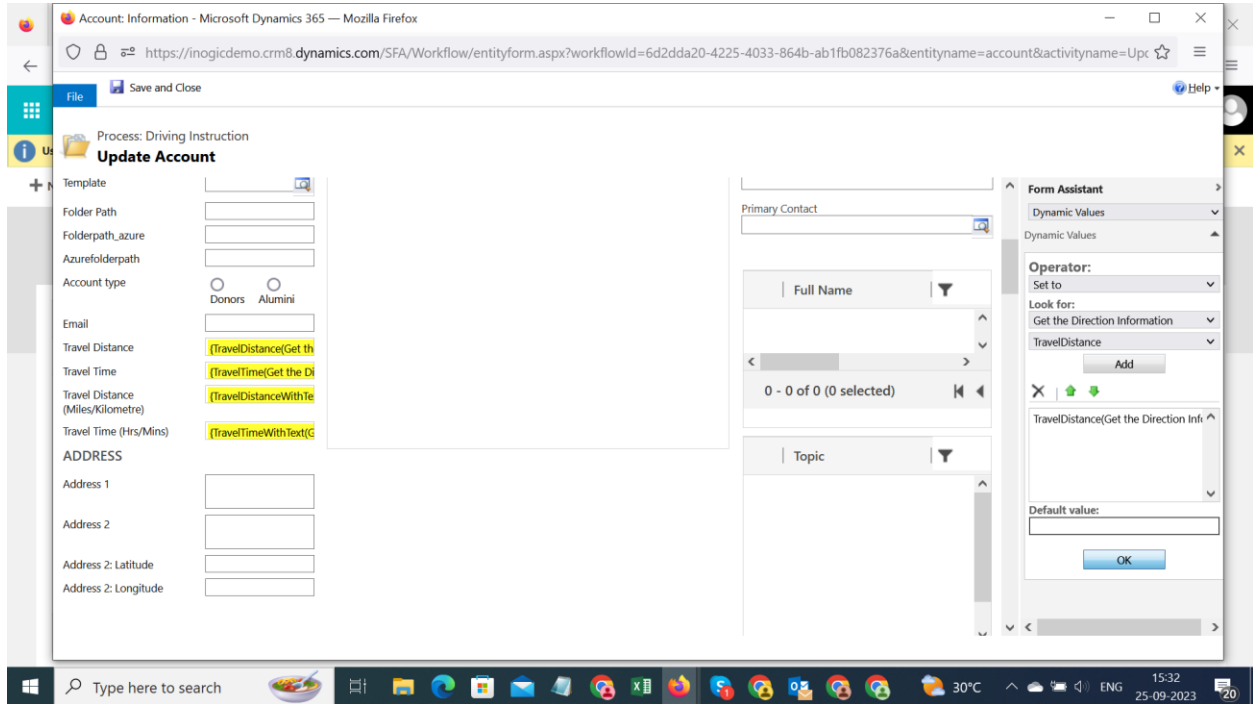
Select the **TravelTime & TravelDistance** output

## Maplytics™ – User Manual

- It will give you the result in decimal or floating point without unit values (only numbers)

Select the ***TravelTimeWithText & TravelDistanceWithText*** output

- It will give you the result in text with unit values(miles/hours)








## Maplytics Batch Processing Tool

The workflows for Geocoding and Territory Assignment designed can be used on a day-to-day basis for addresses that are changed or added occasionally. However, for bulk geocoding/territory assignment on data, we recommend using the Batch Processing tool. This tool ensures that the bulk geocoding on records is handled in single batch. While in the territory assignment, this tool helps to assign the respective territories to all the selected records based on their Latitude and Longitude values.

**Note: To run this tool, the user needs to make sure that machine has Microsoft .net framework 4.0 and Maplytics installed in Dynamics CRM.**

To run the tool, Extract the Batch Processing tool .zip file and run the **BatchProcessingTool** application.

| Name  | Type                   | Compressed size |
|---|------------------------|-----------------|
|  BatchProcessingTool         | Application            | 104 KB          |
|  BatchProcessingTool.exe     | XML Configuration File | 1 KB            |
|  Microsoft.Crm.Sdk.Proxy.dll | Application extension  | 58 KB           |
|  Microsoft.IdentityModel.dll | Application extension  | 360 KB          |
|  Microsoft.Xrm.Sdk.dll       | Application extension  | 146 KB          |

### Executing Batch Processing Tool

#### Connection Details:

Please enter the CRM details on this screen. The users have to enter the following details:

**Deployment Type:** The user can select either of the options given in below screenshot depending on their deployment.

#### Office365

**Show Advanced:** The user can select the Online Region and proceed to enter the 'Username' and the 'Password'

**Organization:** The organization list will be auto-populated with the organizations available in CRM on selecting the checkbox. Select the organization for which Maplytics is to be or already has been installed.

**Username:** Username of a valid CRM user. For example: [mollyc@mollyc.onmicrosoft.com](mailto:mollyc@mollyc.onmicrosoft.com)

**Password:** Password of CRM user

#### On-premises





**Server:** Please enter the server url of CRM. For example, <http://<servername>:<port>> or <https://<orgname>.crm.dynamics.com>

#### **Organization:**

When the user enters the server URL in case of **On-Premises** deployment model, the organization list will be auto-populated with the organizations available in CRM on selecting the checkbox. Select the organization for which Maplytics is to be or already has been installed.

**Username:** Username of a valid CRM user. For example: [mollyc@mollyc.onmicrosoft.com](mailto:mollyc@mollyc.onmicrosoft.com)

**Password:** Password of CRM user

 Maplytics - Batch Processing Tool - 3.0.0.1  

## Login

Deployment Type: ☐ On-premises ☒ Office 365

☐ Sign in as current user

☐ Display list of available organizations

☒ Show Advanced

Advanced

Online Region

User Name

Password



**Login**

Deployment Type: ☒ On-premises ☐ Office 365

Server:

Port:  ☐ Use SSL

Authentication Source:  ☐ Sign in as current user

User Name:

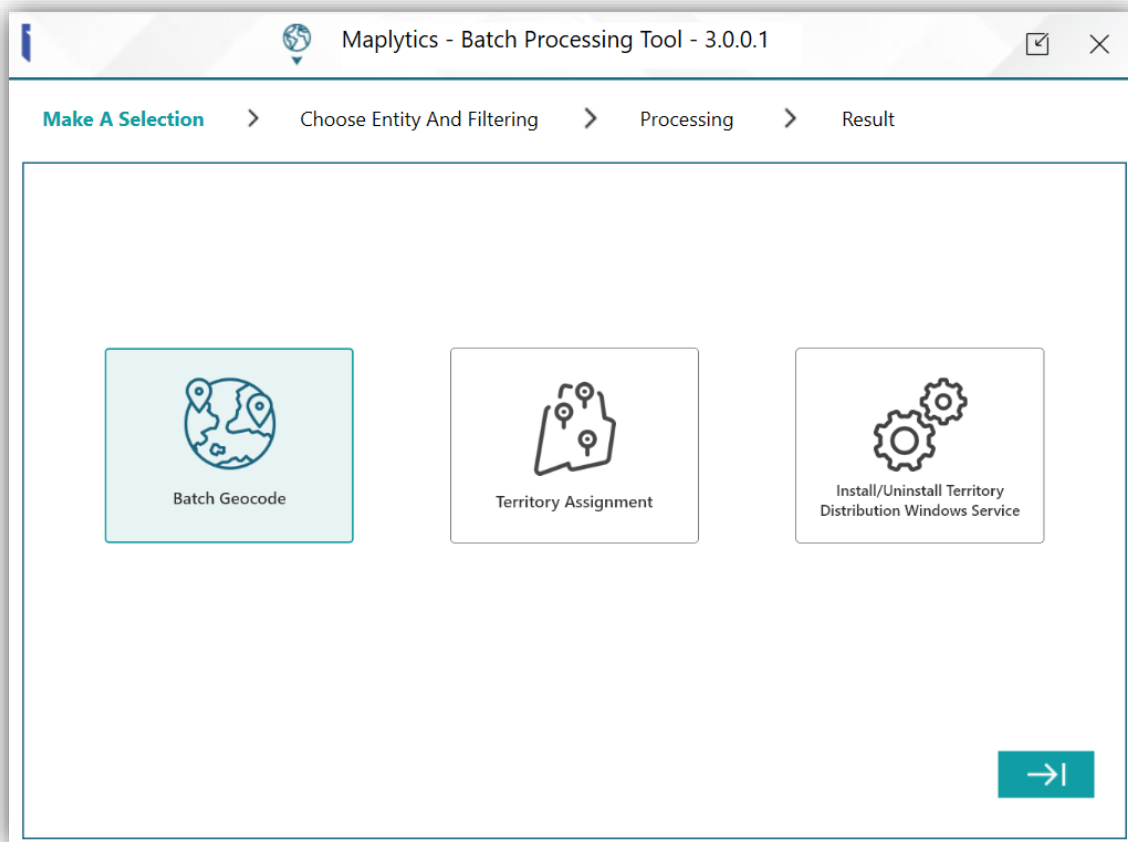
Password:

Domain:

☐ Display list of available organizations

Login Cancel

**Make A Selection:** Here, the user can make selection whether they would like to run this tool for Geocoding (Batch Geocode) or Territory Assignment. The third option is available for installing/uninstalling Territory Distribution Windows Service. In this example, we have chosen Batch Geocode as shown below:




### Choose Entity and Filtering:



Please find the details of the same below:

- **Entity:** Select the entities on which the user would like to run this tool.
- **Views:** Once the user selects the entity, all the views defined for this entity are populated in the list of views. Select the required view.

The plus sign can be clicked upon to add more entities and views. The check box at the bottom allows the records to be shared with the user, if required.

Non-Geo coded Records have a separate view 'Non Geocode' for Batch Geocoding for all the Entities. All the non-geo coded records of multiple entities can be processed together.


Maplytics - Batch Processing Tool - 3.0.0.1

Make A Selection >

Choose Entity And Filtering >

Processing >


Result



Entity

Contact ▾


Views

-- Select View -- ▾



| Entity Name | View Name    |   |
|-------------|--------------|---|
| Account     | All Accounts |  |
| Contact     | All Contacts |  |

☐ Let someone know



Users can enter the email address, if the they would like the job results to be mailed to them.

Maplytics - Batch Processing Tool - 3.0.0.1

Make A Selection > **Choose Entity And Filtering** > Processing > Result

Entity: Contact Views: -- Select View --

| Entity Name | View Name    |
|-------------|--------------|
| Account     | All Accounts |
| Contact     | All Contacts |

☒ Let someone know

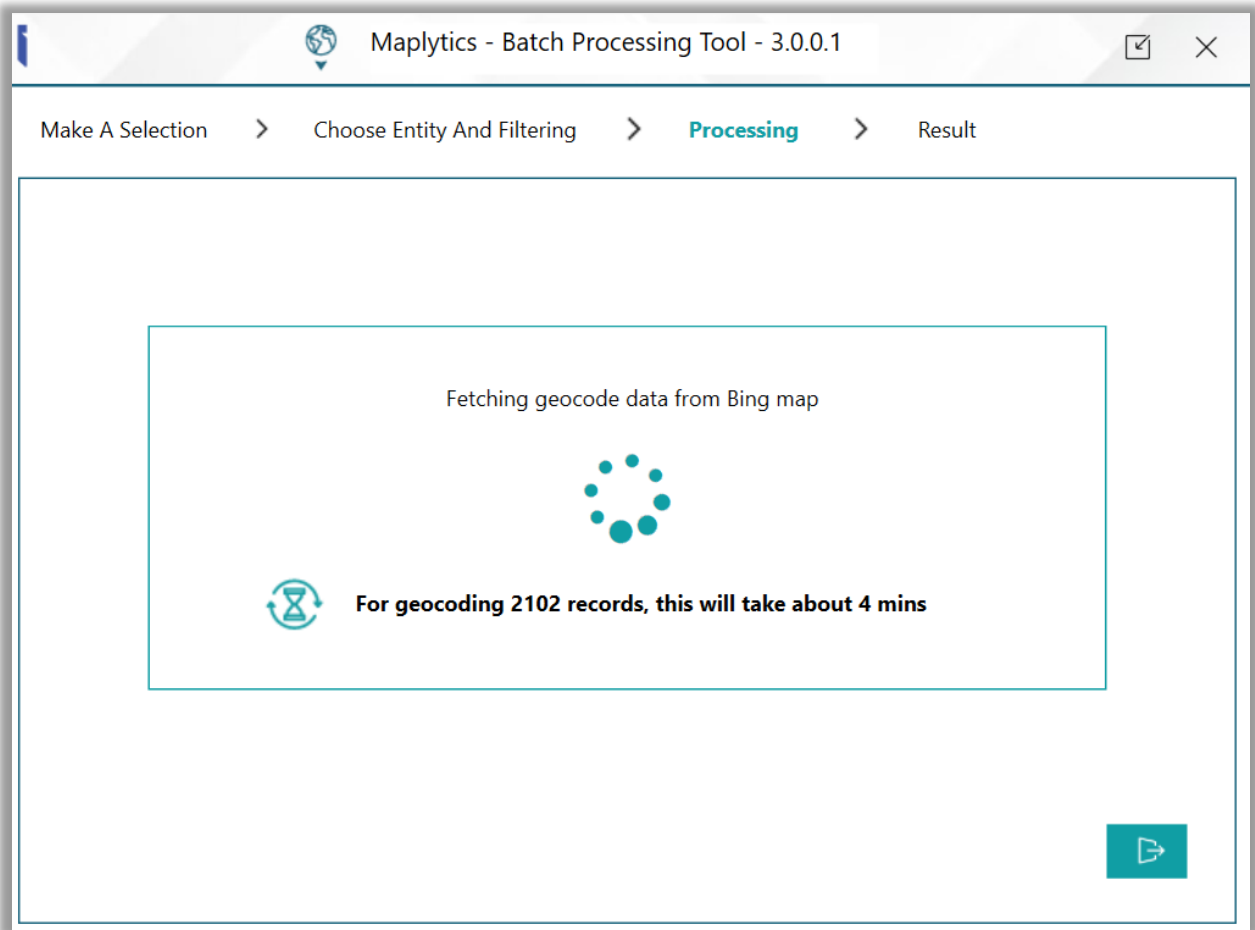
crm@inogic.com

→|

The user can go back to the previous stage while in the 'Make A Selection' and 'Choose Entity And Filtering' stages of the process. Returning from Processing and Result stage is not possible.

## Processing :

In this section, the user can see the progress of the geocoding process. User can quit the process anytime by clicking on the option at the bottom.



***Note: The Batch Processing Tool takes time to process based on the number of records selected. Please do not close the window until this process is completed.***



### Record Summary:

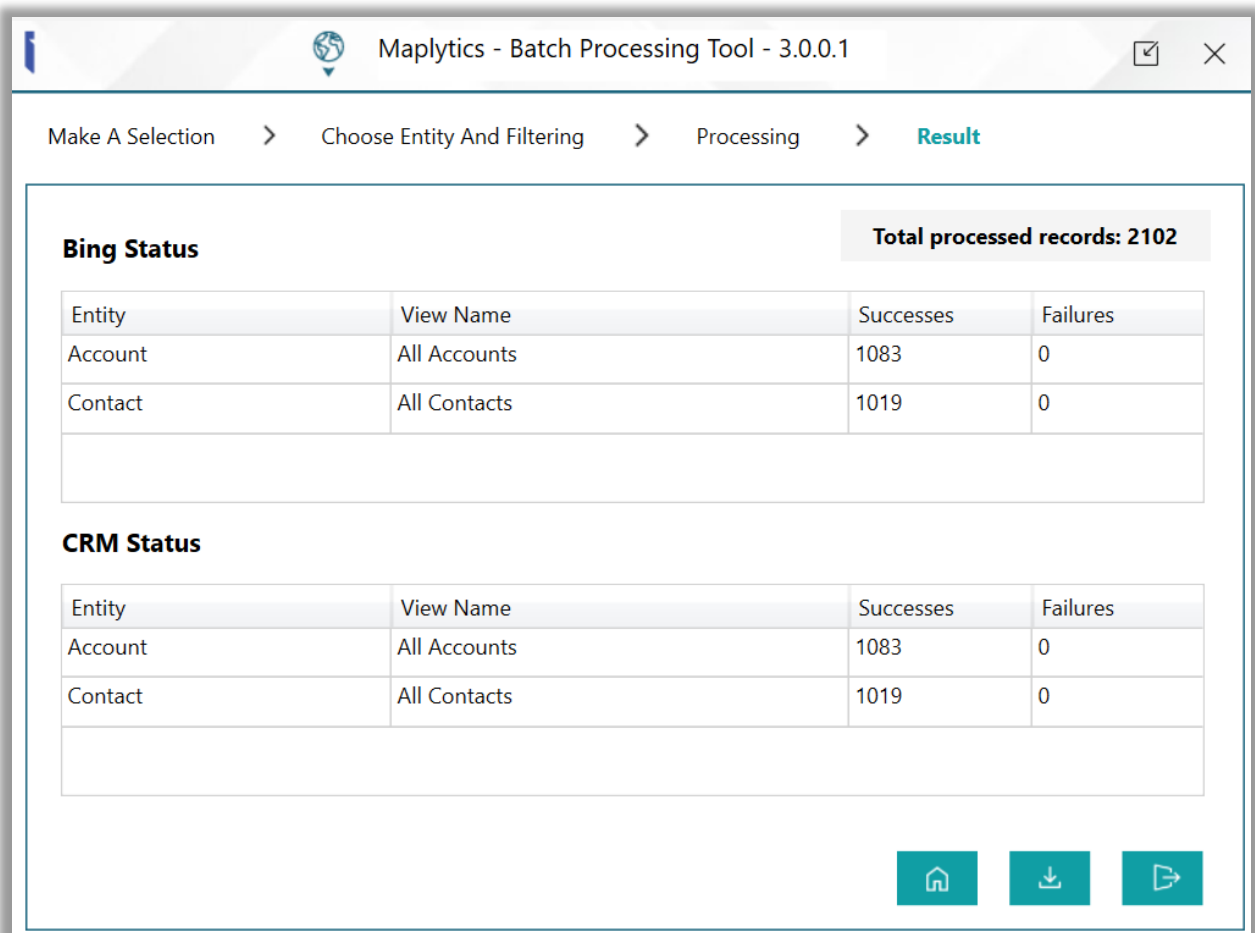
#### Geocoding:

**Bing Status:** This shows the number of the records for which the geocoding from Bing maps was a success or a failure.

**CRM Status:** This shows the number of the records for which the updation of geocoordinates (Latitude & Longitude) to the respective CRM records was a success or a failure.

After completing the geocoding process, the user can download the results. The results will be downloaded in Excel format. User can check the columns of CRMDescription and BingDescription in the result to check the reason for failure of processes on the records.

With the options at the bottom, the user can return home, download the result in an Excel format, or exit the process.



Maplytics - Batch Processing Tool - 3.0.0.1

Make A Selection > Choose Entity And Filtering > Processing > **Result**

**Bing Status** Total processed records: 2102

| Entity  | View Name    | Successes | Failures |
|---------|--------------|-----------|----------|
| Account | All Accounts | 1083      | 0        |
| Contact | All Contacts | 1019      | 0        |

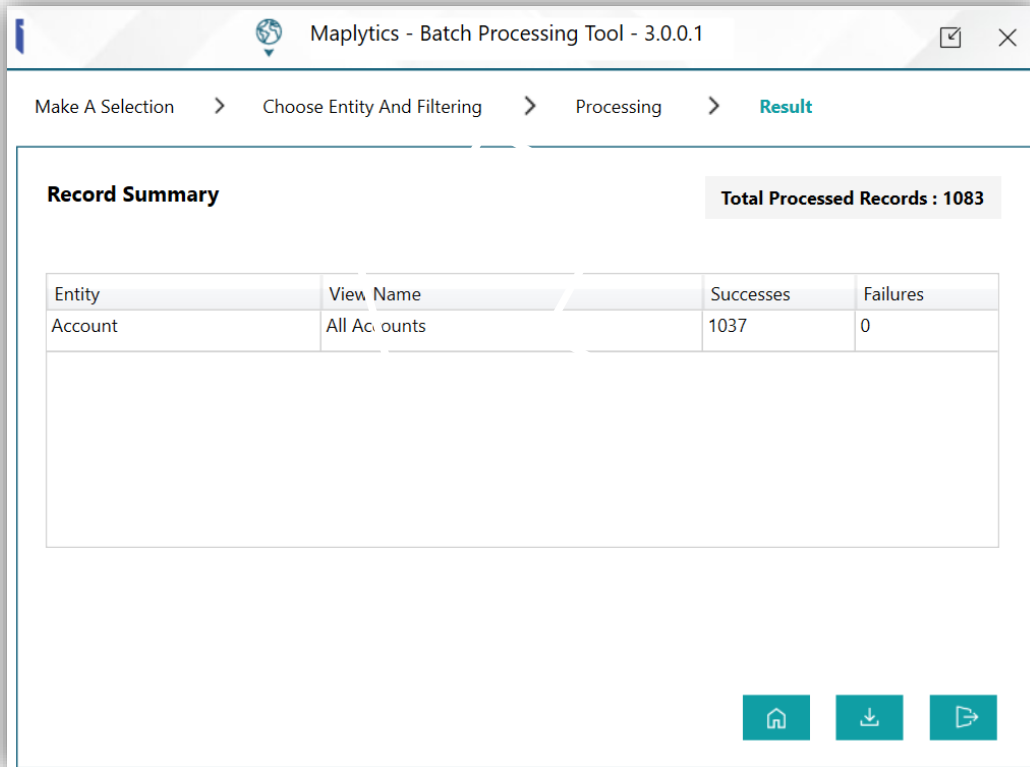
**CRM Status**

| Entity  | View Name    | Successes | Failures |
|---------|--------------|-----------|----------|
| Account | All Accounts | 1083      | 0        |
| Contact | All Contacts | 1019      | 0        |

Home Download Exit

### ***Territory assignment:***

**CRM Status:** This shows the number of the records for which the updation of Territories for the respective CRM records was a success or failure.



The screenshot shows the 'Maplytics - Batch Processing Tool - 3.0.0.1' window. The top navigation bar includes 'Make A Selection', 'Choose Entity And Filtering', 'Processing', and 'Result' (highlighted in blue). Below the navigation bar, the 'Record Summary' section displays a table with the following data:

| Entity  | View Name    | Successes | Failures |
|---------|--------------|-----------|----------|
| Account | All Accounts | 1037      | 0        |

To the right of the table, a box indicates 'Total Processed Records : 1083'. At the bottom right of the window, there are three icons: a home icon, a download icon, and a share icon.

### ***Note:***

1. The Non Geocode records can be processed in a separate view for all the Entities
2. Non Geocode View is not applicable for Territory Assignment while running the Batch processing tool

## Territory Assignment Rule

Users can use this feature to create rules for assigning territories or owner to the CRM records as per the requirement. With creating a rule user can set some conditions based on which the territories or the owners will be assigned to only those records which satisfy the conditions provided.

### Enable Territory Assignment Rule

To enable the Territory Assignment Rule, **go to Maplytics App > Settings> Map Configuration Details > Default Configuration Detail record (the one with no user)> Advance Settings > Enable Territory Assignment Rule** and select the checkbox to enable using the feature. The feature will be disabled by default.

**Maplytics**  
Map Configuration Details

General Advance Settings Check-In Auto Scheduling Real-Time Tracking Related

| Configure option                 |                                     |  |
|----------------------------------|-------------------------------------|--|
| Enable Travel Distance           | <input checked="" type="checkbox"/> | Enable Truck Route <input type="checkbox"/>          |
| Show All Territories             | <input checked="" type="checkbox"/> | Map in New Window <input type="checkbox"/>           |
| Enable Territory Assignment Rule | <input checked="" type="checkbox"/> | Enable Multiple Territories <input type="checkbox"/> |

Once this feature is enabled, they will be able to see a new tab of Territory Assignment Rule in the Entity Maps. For an instance, the screenshot below shows the Entity map of Accounts.

**account**  
Entity Map

General Entity View Configuration Attribute Mappings Tooltip Mapping Territory Assignment Rules ...

+ New Maplytics Assign...

| ✓ Name ↑ ↓          | Created On ↓      | Priority ↓ |
|---------------------|-------------------|------------|
| Accounts by Revenue | 4/29/2021 7:22 PM | 1          |

## Creating Territory Assignment Rule

To create a new rule, click on **New**. The user will be able to see the window for a New Rule.

### General

In the 'General' tab, user can enter the name for the rule and select the entity for which the rule is being created.

### Accounts by Revenue


Maplytics Assignment Rule

**General**
Assignment Rule
Related

Name \*

Accounts by Revenue

Entity Map \*

 account

### Assignment query


Here, the user can find the various options as explained below to set the conditions required within the rule:

### Accounts by Revenue


Maplytics Assignment Rule

General
**Assignment Rule**
Related

Assign Owner

 Robert K

Assign Territory

 AU - NSW

Location agnostic

☐

Query Mode \*

Simple

View

Active Accounts

Order

1

**Assign Owner:** Select the user who should be assigned as the owner to the records.

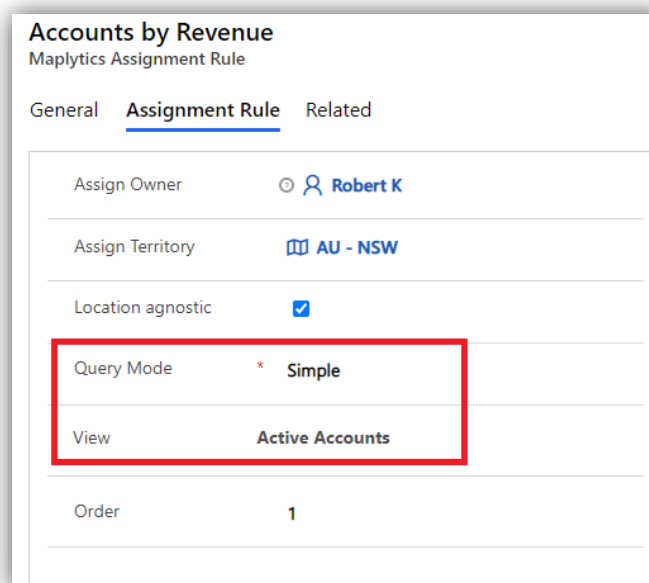
**Assign Territory:** Select territory which should be assigned to the records. If users want to assign only the owner to the records, they can leave this blank.

**Location Agnostic:** This option will be visible only when a territory is selected in the Assign Territory field. It will be deselected by default and will have an effect on the assignment of the territories and owners as explained below.

- **Not selected** - If the option of Location agnostic is not selected, the selected territory and the owner will be assigned to only those records which satisfy the query and also lie within that selected territory based on the respective latitude or longitude values of the records. For example, a territory for Staten Island has been selected and the condition in the query says, Accounts with Annual revenue greater than 100K USD, then Staten Island territory and the selected owner will be assigned to only those records which have annual revenue greater than 100K as well as they lie within Staten Island based on the latitude and longitude values of the records.
- **Selected:** If the option of Location agnostic is selected, then the selected territory and the owner will be assigned to all the records from the selected view that satisfy the query irrespective of the latitude and longitude values of the records. For example, a territory for Staten Island has been selected and the condition in the query says, Accounts with Annual revenue greater than 100K USD, then Staten Island territory and the selected owner will be assigned to all the Accounts from the selected view which have annual revenue greater than 100K, even if they lie outside the Staten island based on the latitude and longitude values of the records.

**Query Mode:** There are two Query Modes:

- **Simple:** If query mode is selected as Simple then it will show all the system views. User can select a System view to consider the respective records.



**Accounts by Revenue**  
Maplytics Assignment Rule

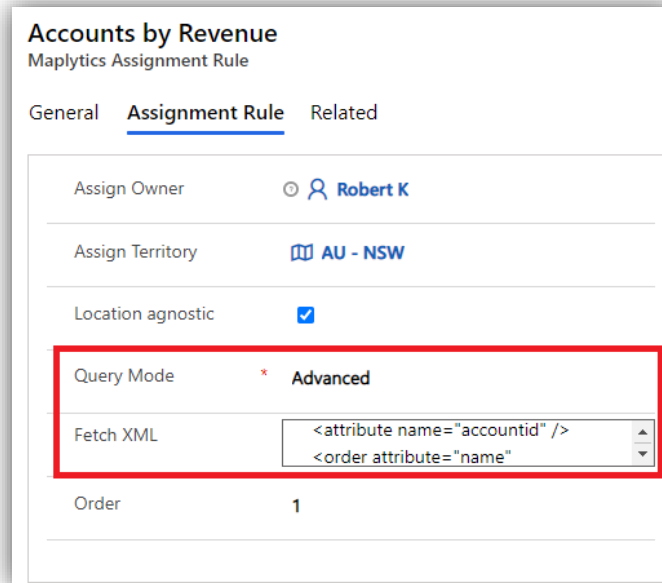
General **Assignment Rule** Related

|                   |                                     |
|-------------------|-------------------------------------|
| Assign Owner      | Robert K                            |
| Assign Territory  | AU - NSW                            |
| Location agnostic | <input checked="" type="checkbox"/> |
| Query Mode        | * Simple                            |
| View              | Active Accounts                     |
| Order             | 1                                   |




## Maplytics™ – User Manual


- Advanced: If query mode is selected as **Advanced**, the user can put the required Fetch xml in the field as shown in the below screenshot.



**Accounts by Revenue**  
Maplytics Assignment Rule

General Assignment Rule Related

Assign Owner  Robert K

Assign Territory  AU - NSW

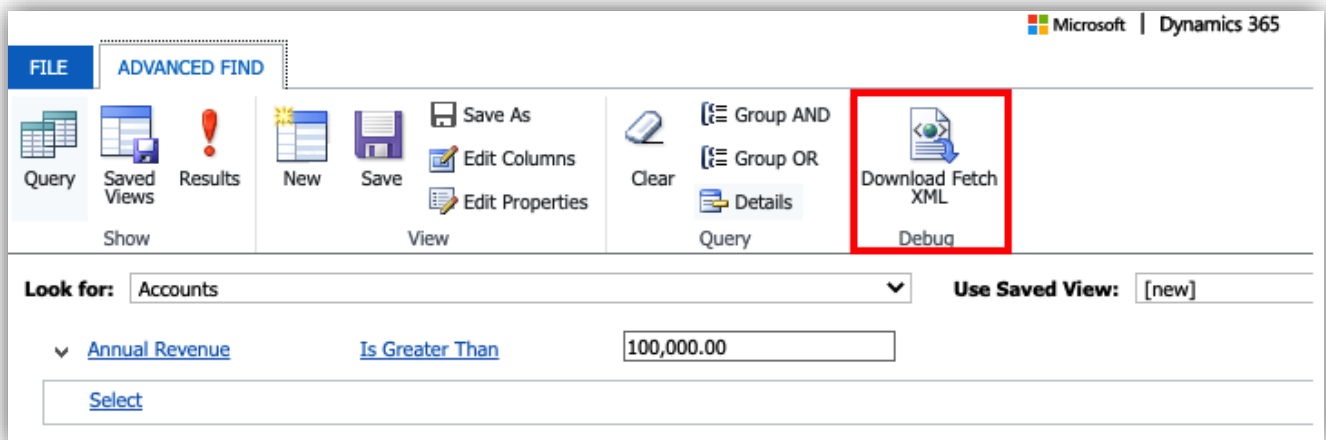
Location agnostic ☒

Query Mode \* **Advanced**

Fetch XML

Order 1

To create a Fetch XML query, go to Advanced find > Select the entity and the required filters > Download Fetch XML



Microsoft | Dynamics 365

**FILE** **ADVANCED FIND**

Query Saved Views Results New Save Save As Edit Columns Edit Properties Clear Group AND Group OR Details Query

**Look for:** Accounts **Use Saved View:** [new]

Annual Revenue Is Greater Than 100,000.00

Select

**Priority:** If multiple Territory Assignment Rules are created and while assigning territories a record satisfies more than one rules then this field will decide the priority of the rules to be run and assigned among the list of rules. Where 1 is the highest priority and the priority keeps decreasing as we go to a higher number. Let's say three Territory Assignment rules are created with the priorities given as 1, 2 and 3. While assigning territories, if a record satisfies all the three rules, then first, it will check the priority of those three rules and 1 being the highest priority, the respective territory and the owner will be assigned to the record as per the Territory assignment rule with Priority 1.

account

Entity Map

General

Entity View Configuration

Attribute Mappings

Tooltip Mapping

Territory Assignment Rules

...

+

New Maplytics Assign...

:

| ✓ Name ↑ ↓          | Created On ↓      | Priority ↓ |
|---------------------|-------------------|------------|
| Accounts by Revenue | 4/29/2021 7:22 PM | 1          |
| Alabama - USA       | 4/29/2021 7:39 PM | 3          |
| Industry            | 4/29/2021 7:37 PM | 2          |

## Override Existing Territory

The Maplytics admin or the System admin can use this feature for the respective entities to decide whether the existing territory(ies) will be overwritten or not while assigning territories to the records.

To use this, first create a field with data type 'Boolean' on required entity form for Override territory. Here users can set it to be 'Yes' or 'No'. By default, this field has already been created for Accounts, which can be added to the form. This option will be set as null by default.

Once the field is added to the required entity, Maplytics admin or System admin can **go to Maplytics App > Settings > Entity map > Open entity map for required entity > Attribute Mappings > Override Territory > Select the field that was added on the entity form.**

| account<br>Entity Map  |                 |                           |                           |
|--|-----------------|---------------------------|---------------------------|
| General <u>Attribute Mappings</u> Tooltip Mapping   Category Configuration   Configuration   Advanced Settings   Related |                 |                           |                           |
| City   | Address 1: City | Latitude                  | Address 1: Latitude       |
| County   | ---             | Longitude                 | Address 1: Longitude      |
| Phone  | ---             | Website                   | ---                       |
| Email  | ---             | Land Area Mapping         | ---                       |
| Territory Relationship <b>Account - Territory</b>  |                 | <b>Override Territory</b> | <b>Override Territory</b> |

Based on the value of the 'Override territory' field in the record, it will be decided whether the existing territory(ies) will be overwritten or not while assigning territories to the respective records.

- If the Override territory field is set as 'Yes' then while assigning territories, if there are any territory(ies) already assigned to the respective records, then those will be overwritten and replaced by the new territory(ies) that are being assigned.
- If the Override territory field is set as 'No', then while assigning territories, if there are any territory(ies) already assigned to the respective records, then those will remain as it is and no new territories will be assigned.
- If Override territory field is set as 'No', then while assigning territories, if there is no territory is assigned to the respective records, then it will assign the new territory(ies).

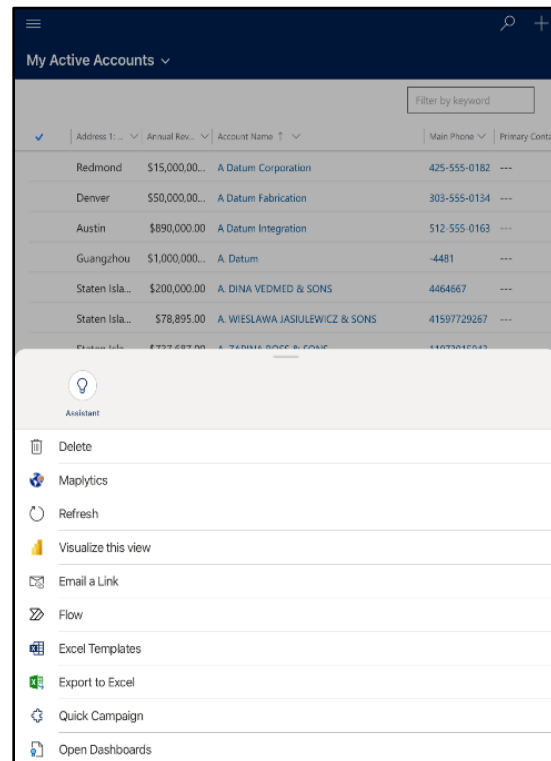
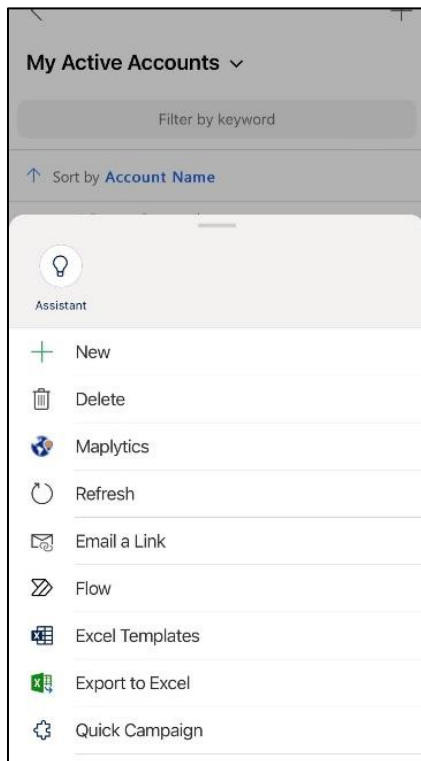
## Maplytics – Tablet / Mobile

For Dynamics 365 v9.x, Maplytics can be accessed from mobile and tablets as well. Users can use the Dynamics 365 App for Phones and Tablets, Dynamics 365 Sales App or Dynamics 365 field service app to Access Maplytics into Mobiles and Tablets. Users can use the ‘Detail Map’ , ‘Heat Map’ and ‘Map’ buttons and the dashboards to access Maplytics into their devices.

Mobile

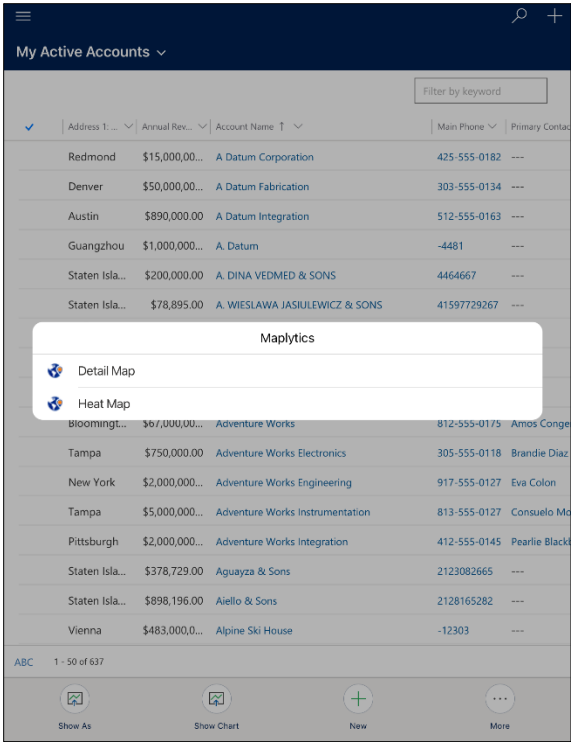
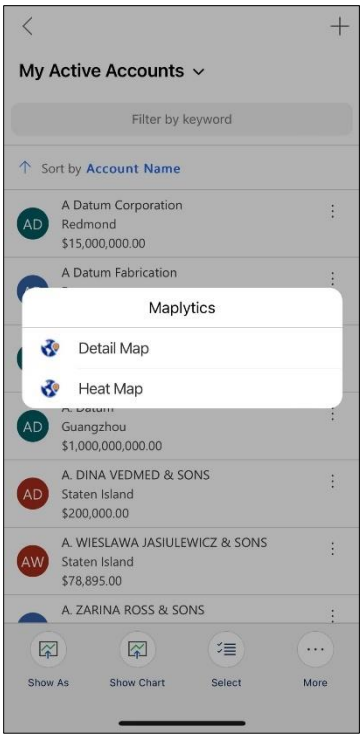
Tablet

Clicking on the ‘More’ option within the Entity Menu slides up the following options.



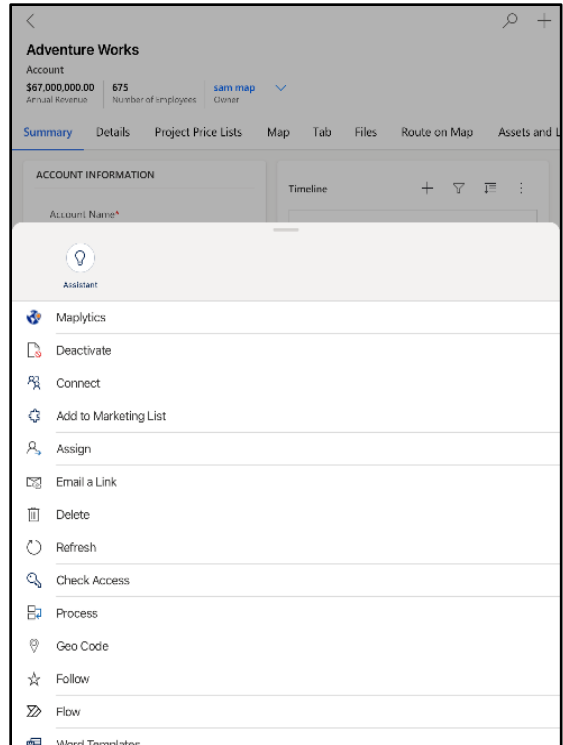
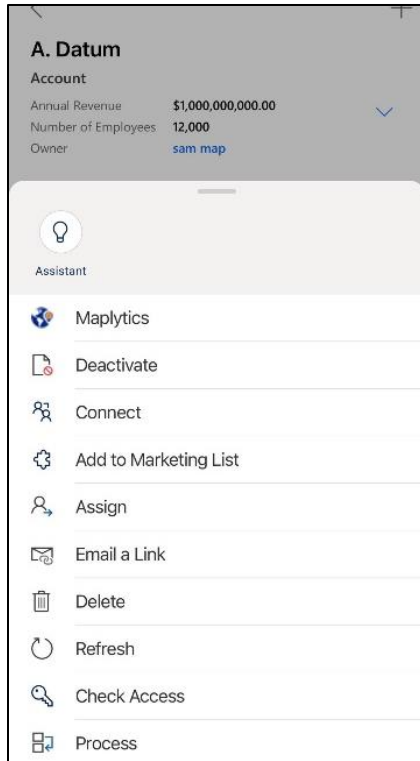
A click on the Maplytics menu above opens a modal window with an option for Detail Map and Heat Map

Maplytics™ – User Manual



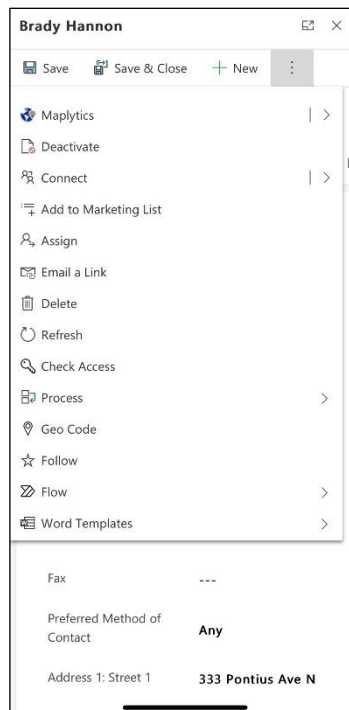
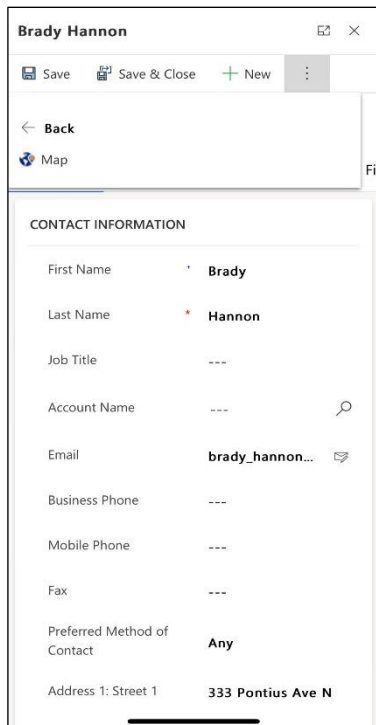
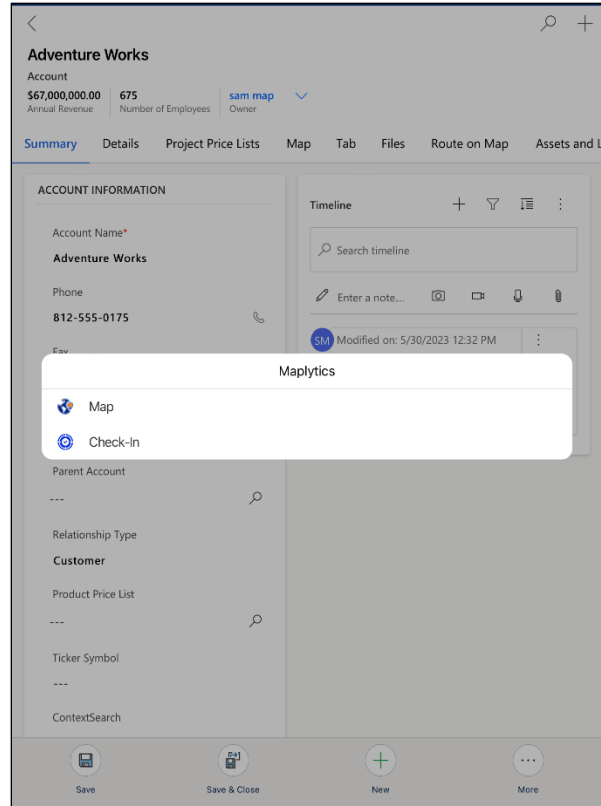
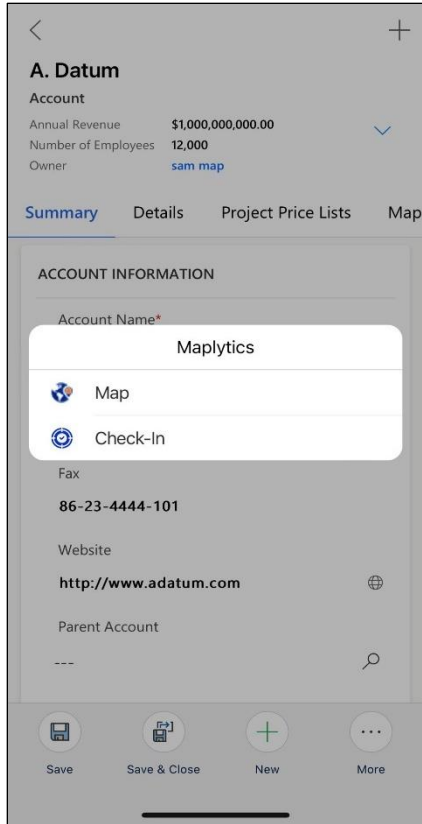


## Maplytics™ – User Manual



Within an individual account entity, a click on the Maplytics menu opens a modal window with an option for Map and Check-in

## Maplytics™ – User Manual



### Detail Map

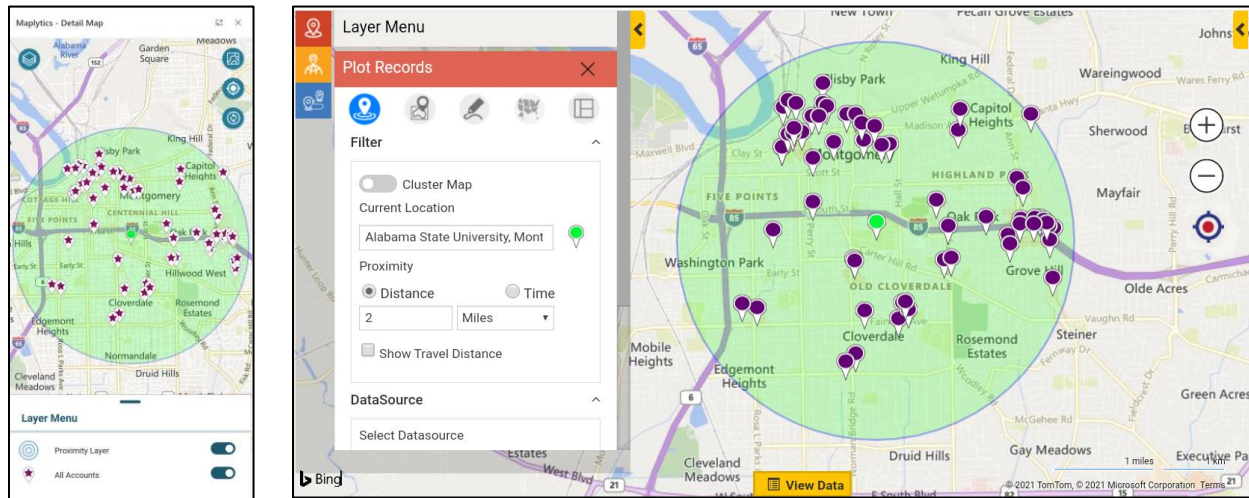
The Detail map consists of the following components. There are five ways to plot the data on Map, similar to the Detail Map on desktop:

- By Location
- By Region
- By Drawing
- By Territory
- By Template

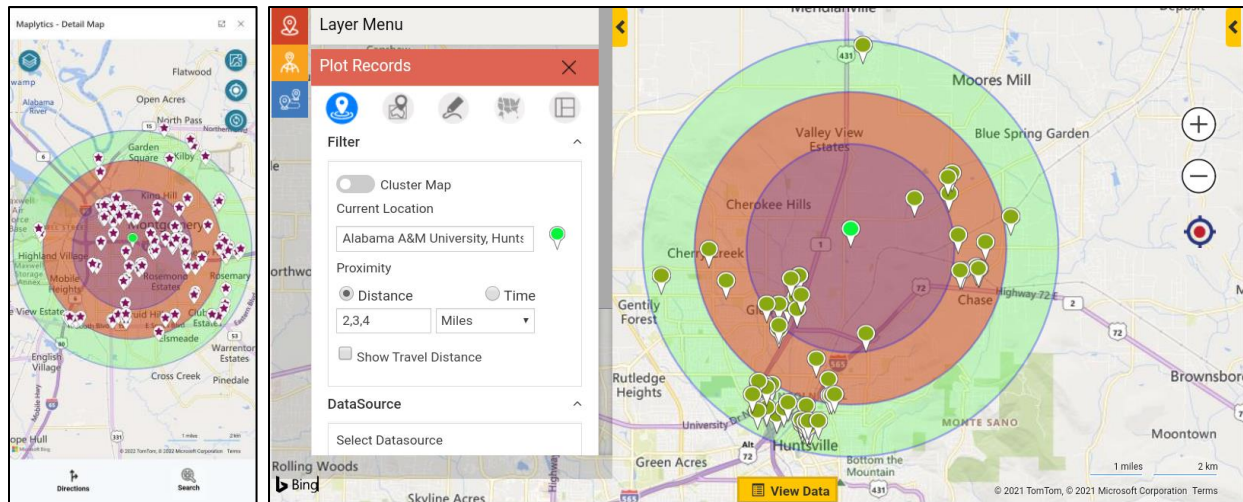
## Maplytics™ – User Manual

### Proximity

Enter the radius for the proximity search. The Proximity can be provided in either Miles or Kilometers.

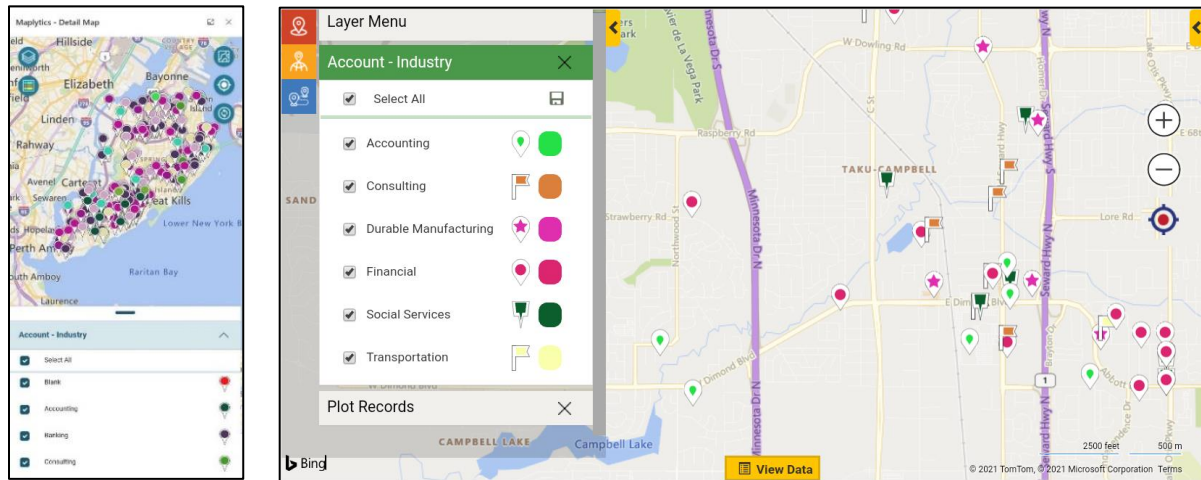


### Concentric Proximity Search



### Category Filter

User can categorize the data on the basis of an attribute of the Entity






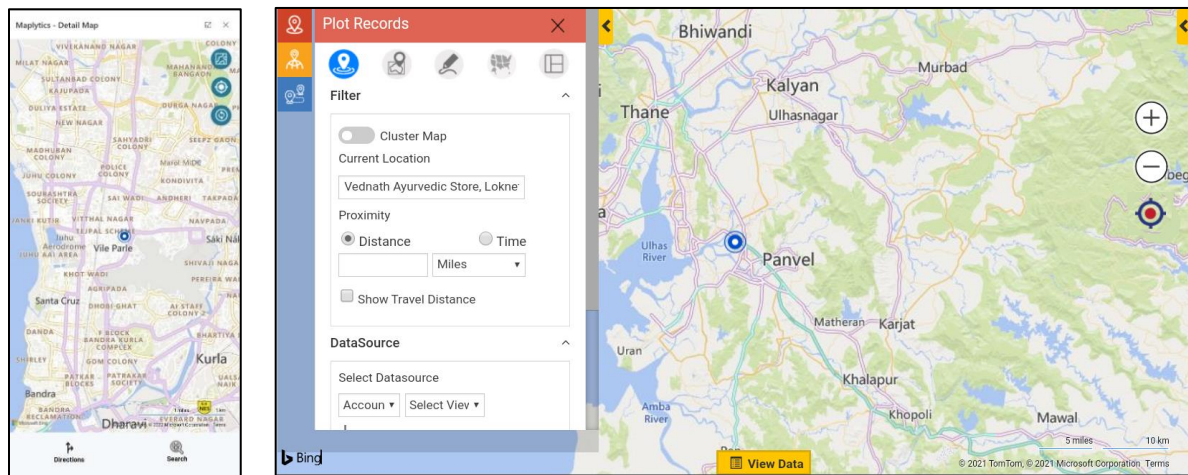
## Maplytics™ – User Manual

### Current Location

This is used in combination with Proximity to specify the center point for the proximity search. By default, this field displays the address stored in the Maplytics Personalized record of the logged in user.

### Set GPS Location as the current location

The user can also locate the GPS location of phone/tablet devices using  button.



GPS location is represented by 'Blue' circle on the map. It will automatically update the user's current location, making it easier to perform proximity (Near-Me) searches.

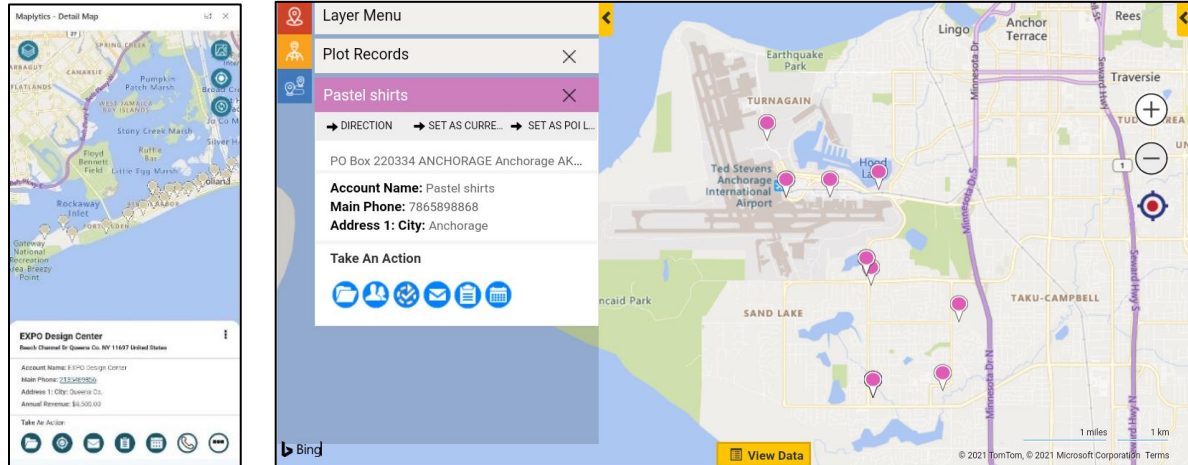
**Note: Please ensure the following points for the GPS functionality to work:**

- Provide 'Location' permission to Dynamics 365 App in phone / tablet device
- GPS location is turned ON of respective devices
- 'User Content and Location' is tuned ON in Dynamics 365 App

## Maplytics™ – User Manual

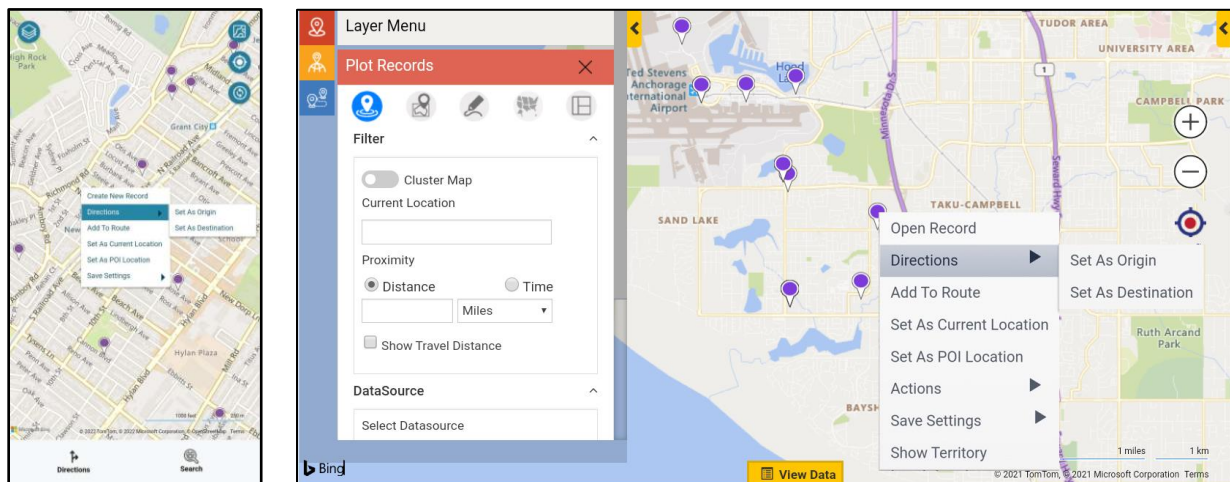
### Tooltip Card

Every Pushpin will display the record name, address, as well as the contextual data defined in the tooltip section of the Maplytics Configuration when double clicked on the record. The user can open the record, check-in/out and perform other actions using the available quick actions button.



### Contextual Menu

To get a contextual menu on the map, long press anywhere on the map. Pushpin Contextual menu provides the following additional options. These option provides commonly used features in Maplytics like Set as Current Location, Origin, and Adding to Route, etc.



## Maplytics™ – User Manual

### Set As Origin:

Selecting this option will set the address of the pushpin as the start location of the route.

### Set As Destination:

Selecting this option will set the address of the pushpin as the end location of the route.

### Add to Route:

This option will set the address of the pushpin as a middle waypoint of the selected route. For example, if the users already have Point A and Point B selected as their route, and click on the **Add To Route** option, then the Point B will become Point C, and the address of the selected pushpin will become the Point B of their route.

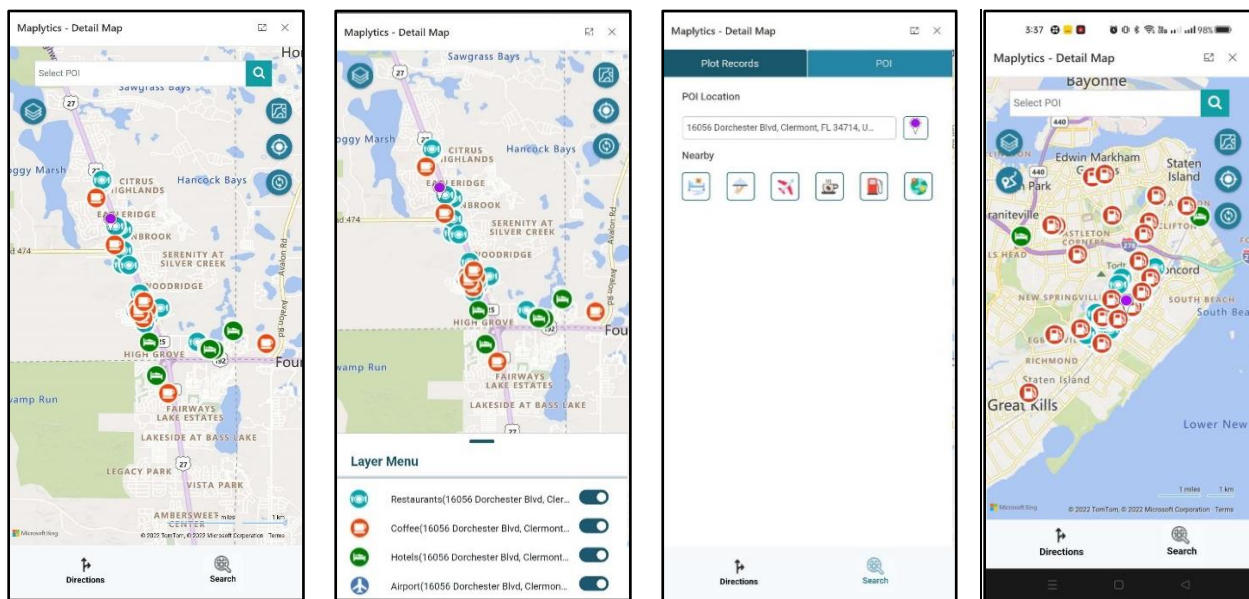
### Set As Current Location:

This option is used to set the address of the pushpin as the current location, which can be used for proximity search. For example, if the user wants to plot all the leads that are within a radius of 100 miles from a particular record then the user can click on the **Set As Current Location** option to set the address as the current location and then the user can plot the records around this location.

***This option also removes the additional step to type the current location manually for the proximity search.***

### Set As POI Location:

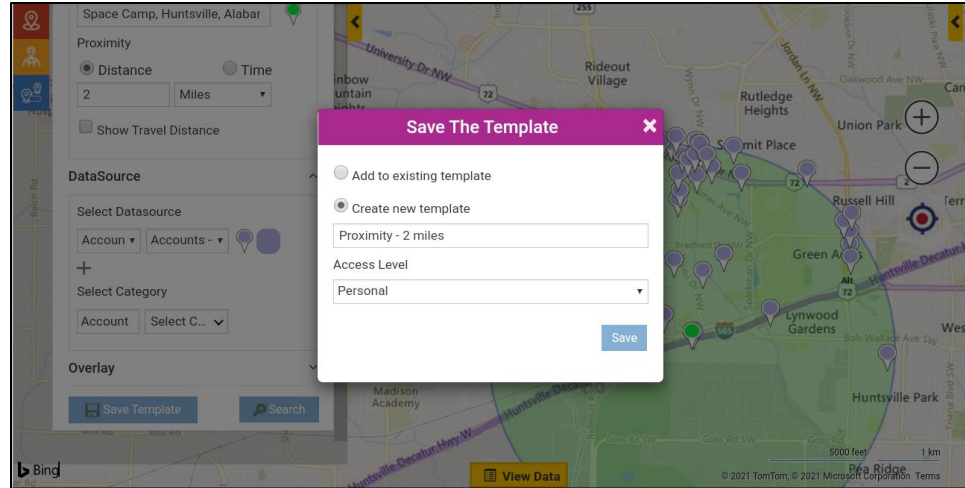
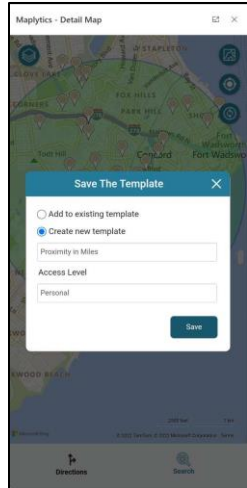
This option helps the user to set the center point for the Point of Interest (POI) searches like ATMs, restaurants, Airports, etc. Once this location is set as the POI location, the user can search for different POI around this location. User can choose the icons or the locations from the list of 'others' or enter a keyword to search for the respective POI locations on the map.



### Save Template:

User can save the plotted search criteria as a template, so as to open the template directly instead of searching on the map again.

## Maplytics™ – User Manual

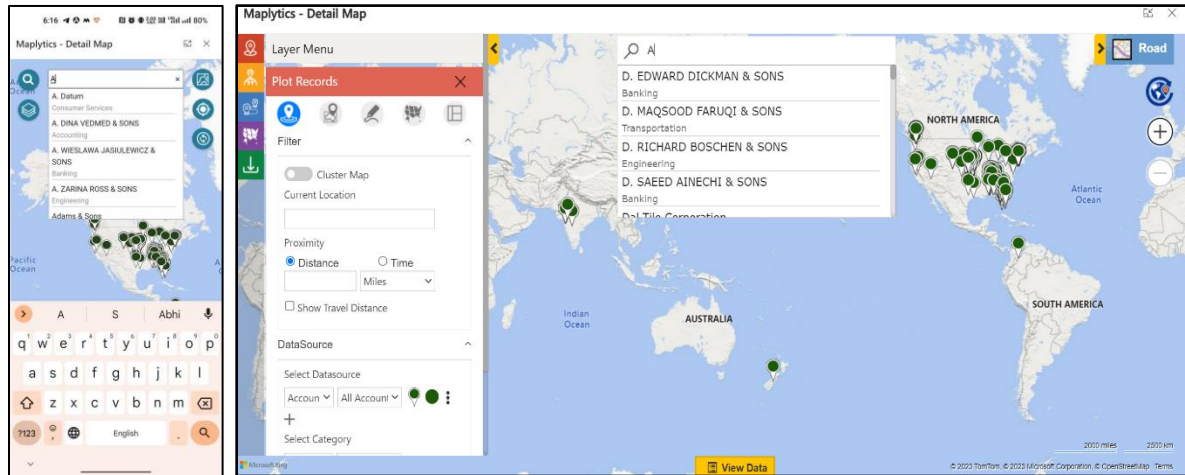




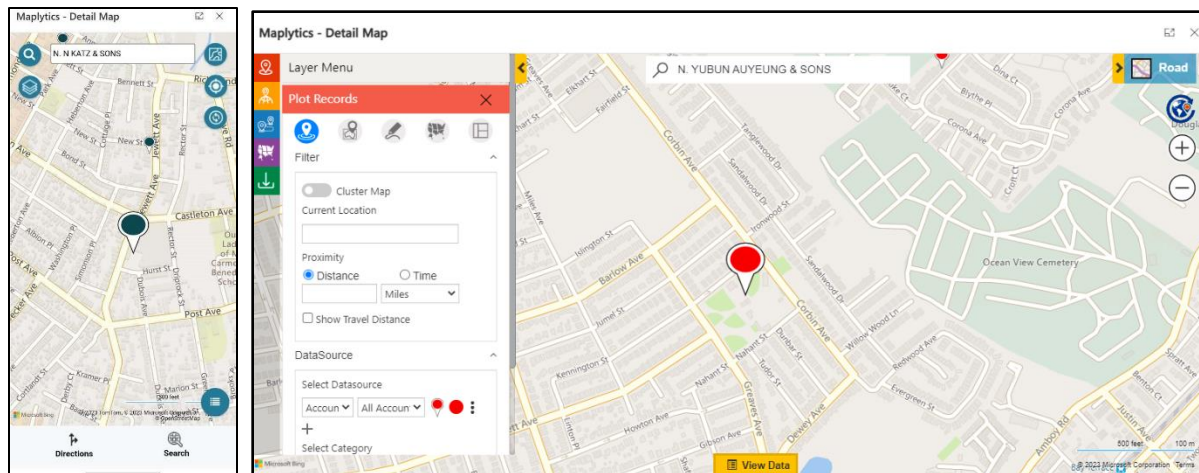
## Maplytics™ – User Manual

### Search Record

After plotting of records, particular record can be searched by typing the primary attribute and getting prompts for records.



The selected record gets highlighted and zoomed. The zoom level gets set accordingly.





## Maplytics™ – User Manual

### Data Grid

The plotted records are visible in the Data Grid at the bottom of the screen. They could be filtered out by adding appropriate keywords in the 'Filter by keyword' bar. Mass Actions can be performed on the selected records in the grid.

The top row shows two screenshots of the Maplytics interface. The left screenshot shows a map view with a search bar at the top and a 'Layer Menu' on the left. The right screenshot shows a map view with a search bar at the top and a 'Layer Menu' on the left. The bottom row shows two screenshots of the Maplytics interface. The left screenshot shows a map view with a search bar at the top and a 'Layer Menu' on the left. The right screenshot shows a map view with a search bar at the top and a 'Layer Menu' on the left.

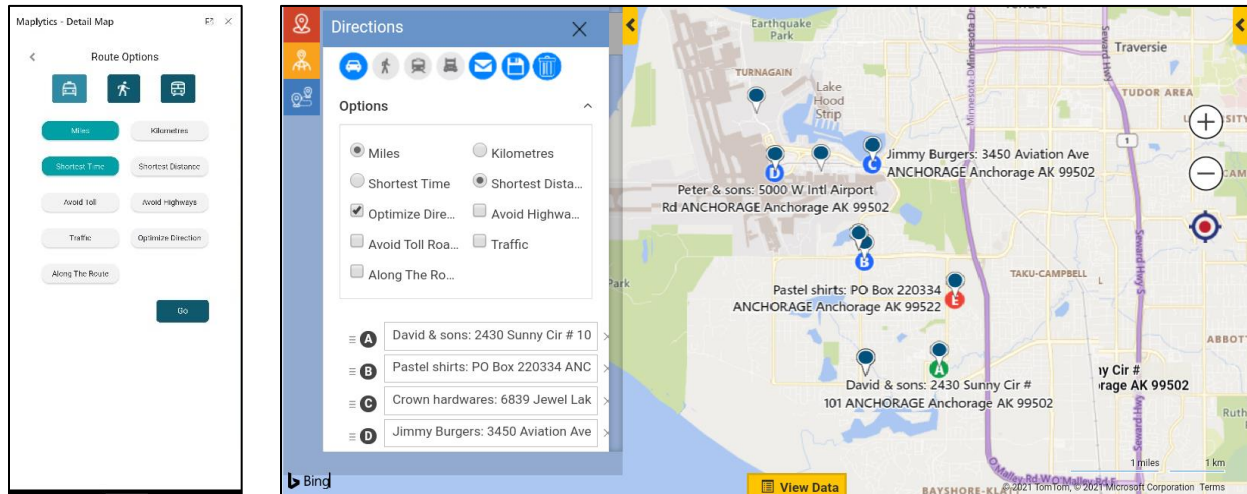
The bottom-right screenshot displays a data grid with the following columns: Account Name, Main Phone, Address 1: City, Primary Contact, Email, and Status. The grid contains 634 records, with the first few rows showing account details for D. EDWARD DICKMAN & SONS, D. MAQSOOD FARUQI & SONS, D. RICHARD BOSCHEN & SONS, D. SAEED AINECHI & SONS, Dal Tile Corporation, and Dejohn & Sons.

| Account Name              | Main Phone  | Address 1: City | Primary Contact | Email | Status |
|---------------------------|-------------|-----------------|-----------------|-------|--------|
| D. EDWARD DICKMAN & SONS  | 43082778489 | Staten Island   |                 |       | Active |
| D. MAQSOOD FARUQI & SONS  | 23191108924 | Staten Island   |                 |       | Active |
| D. RICHARD BOSCHEN & SONS | 36988992022 | Staten Island   |                 |       | Active |
| D. SAEED AINECHI & SONS   | 39511507589 | Staten Island   |                 |       | Active |
| Dal Tile Corporation      | 5013270444  | Wellington      |                 |       | Active |
| Dejohn & Sons             | 2128409565  | Staten Island   |                 |       | Active |

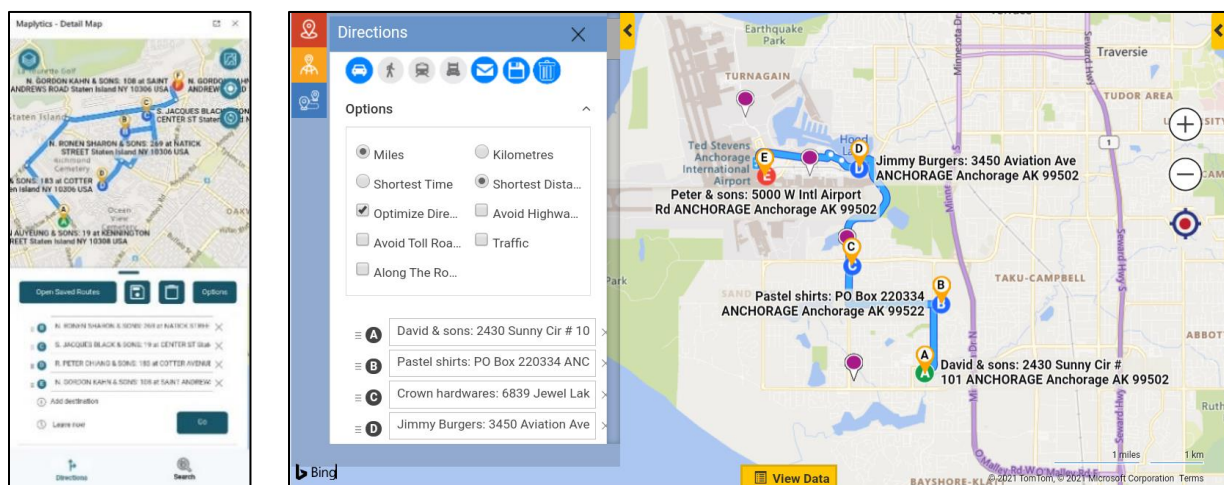
## Maplytics™ – User Manual

### Routing – Tablet / Mobile

Another essential feature of Maplytics is Routing across multiple waypoints. Using the Contextual Menu options explained above, the users can add multiple waypoints to their journey. At given point in time, the users can add **maximum 25 waypoints in direction**.

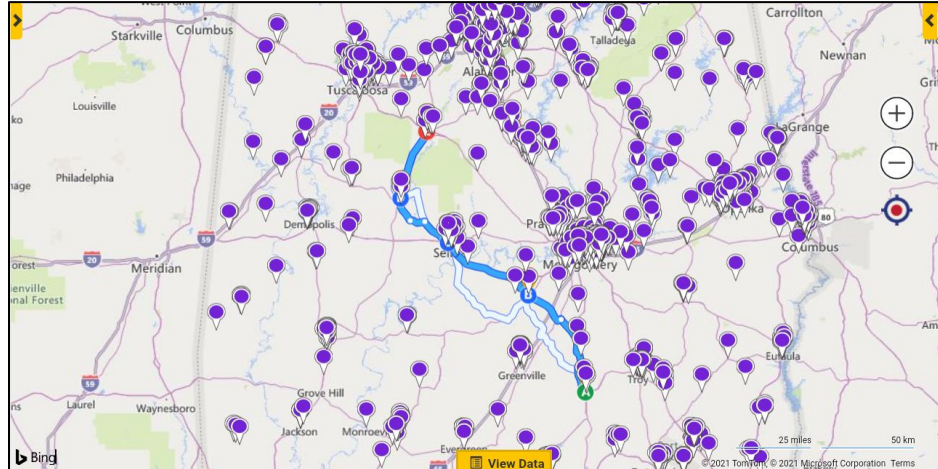
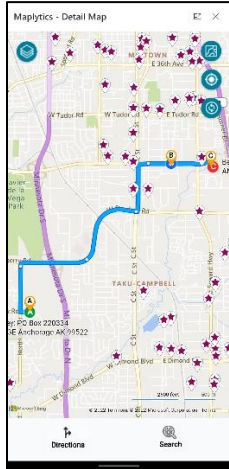


Once multiple waypoints have been added, click on **Go** button to bring up the Routing Screen shown below.



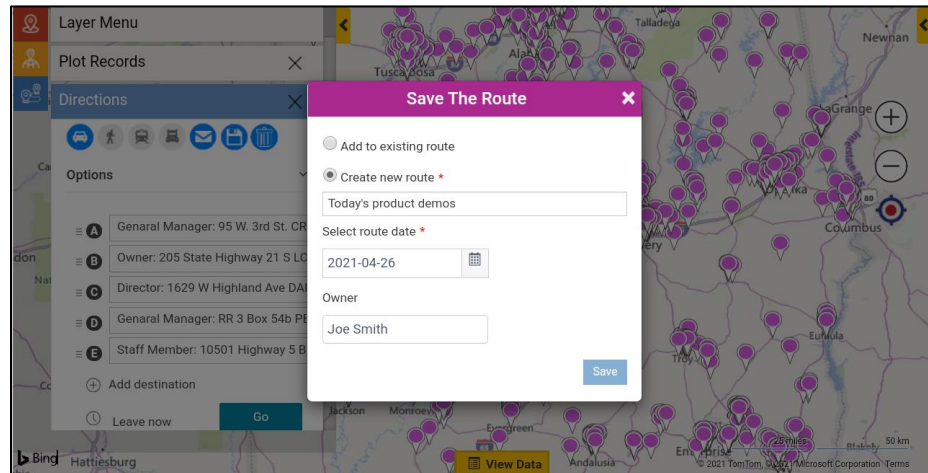
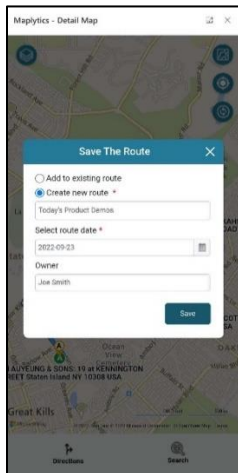
### Unified View for Route and Records

When the user plots the data and then creates a route, both the plotted data and the route will stay on the map. This makes it easy for the user to add more waypoints to the route without switching between Plot and Directions card. The route can be cleared using the 'Clear Route' button.



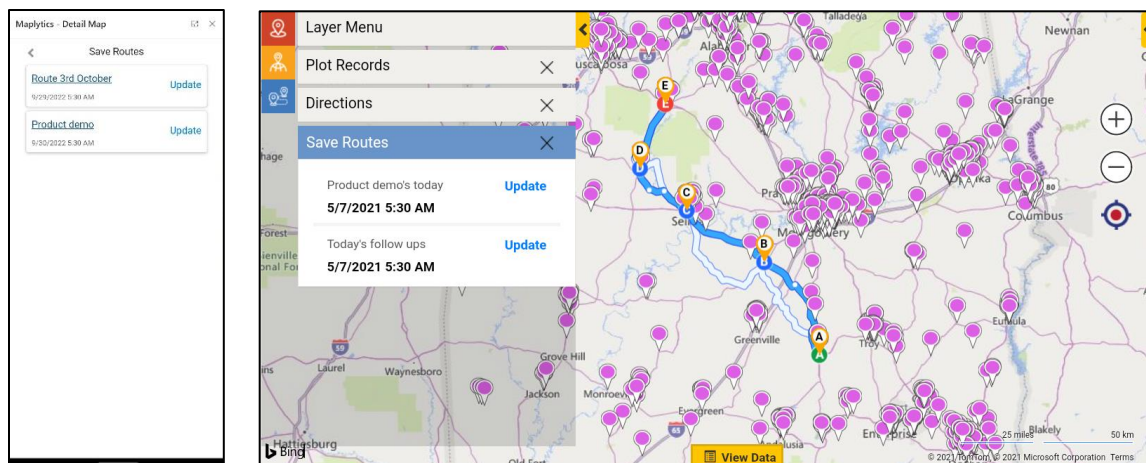
### Save Route and Plot Saved Routes

Users can now save the route from the Dynamics 365 App for Phones and Tablets and later use the 'Open Saved Route' feature to plot the saved routes.



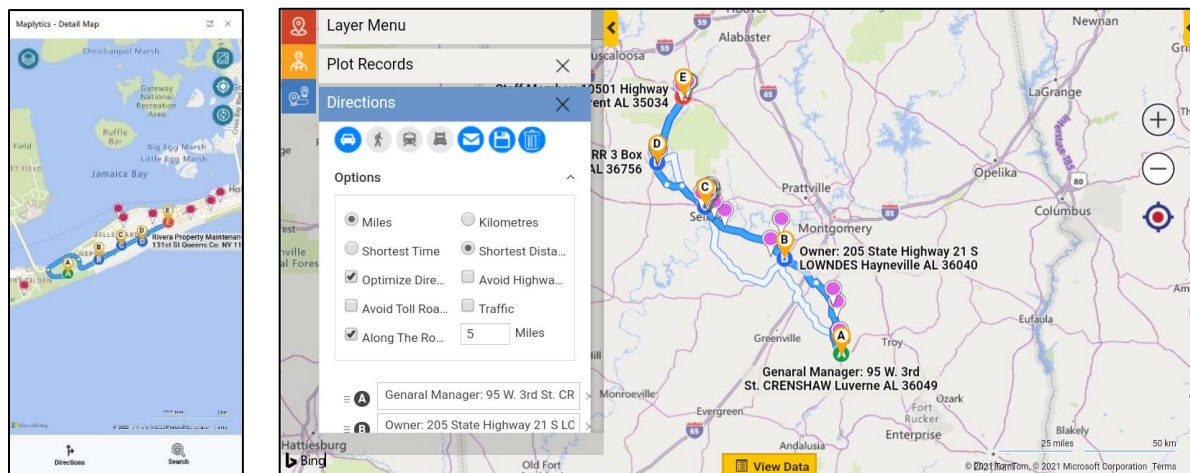


# Maplytics™ – User Manual



## Along the Route Search

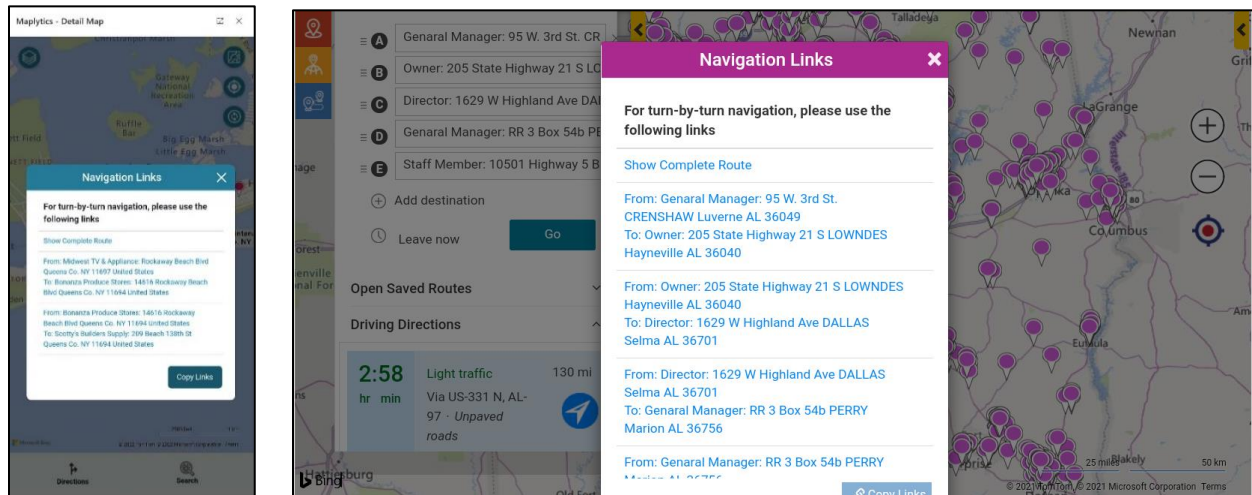
The user can also search the along the route records the same way as on the Browser.



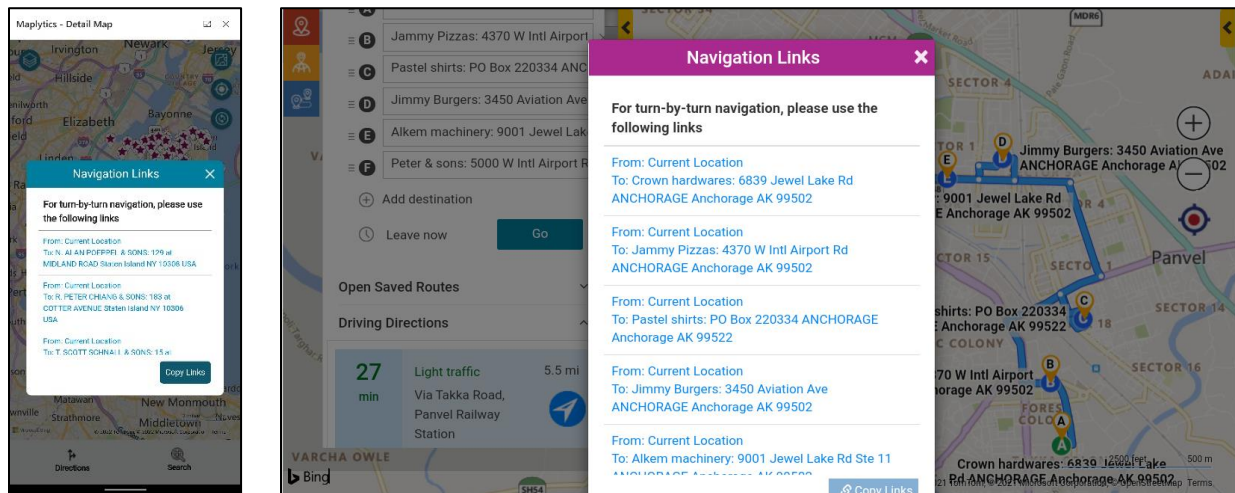
## Maplytics™ – User Manual

### Route Redirect and Copy Navigation Links

#### Redirect with Google Maps



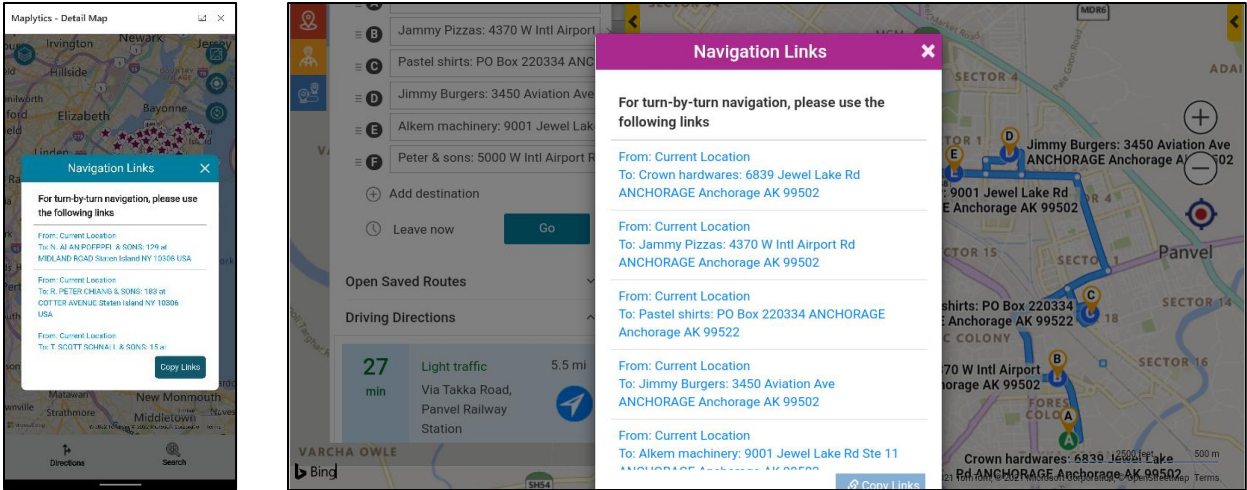
#### Redirect with Waze



#### Redirect with Apple Maps

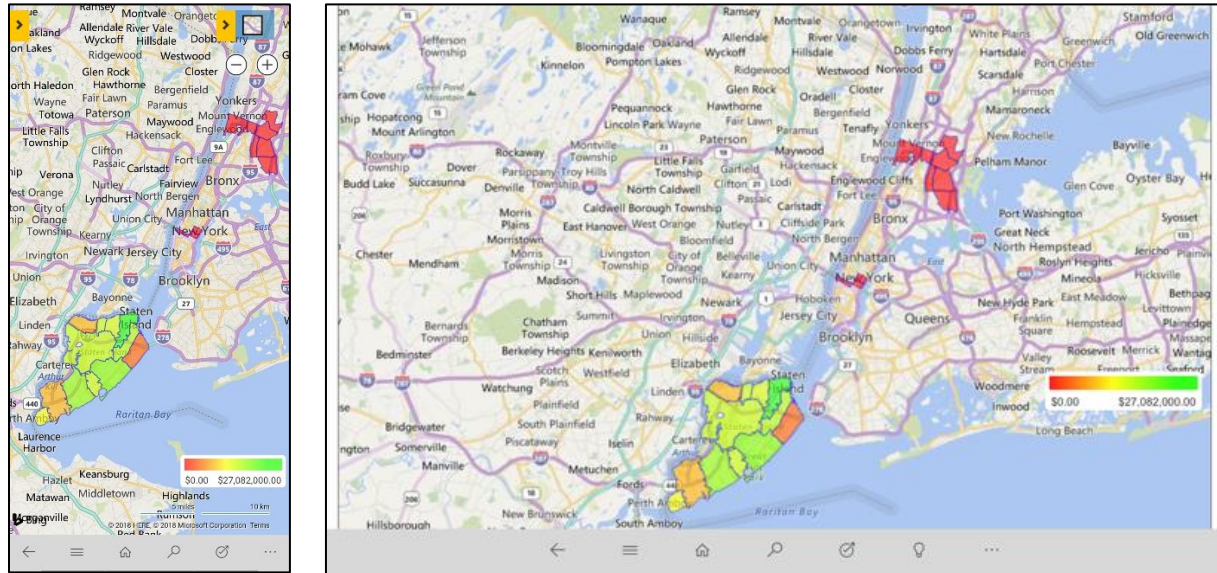


Maplytics™ – User Manual



## Heat Map – Tablet / Mobile

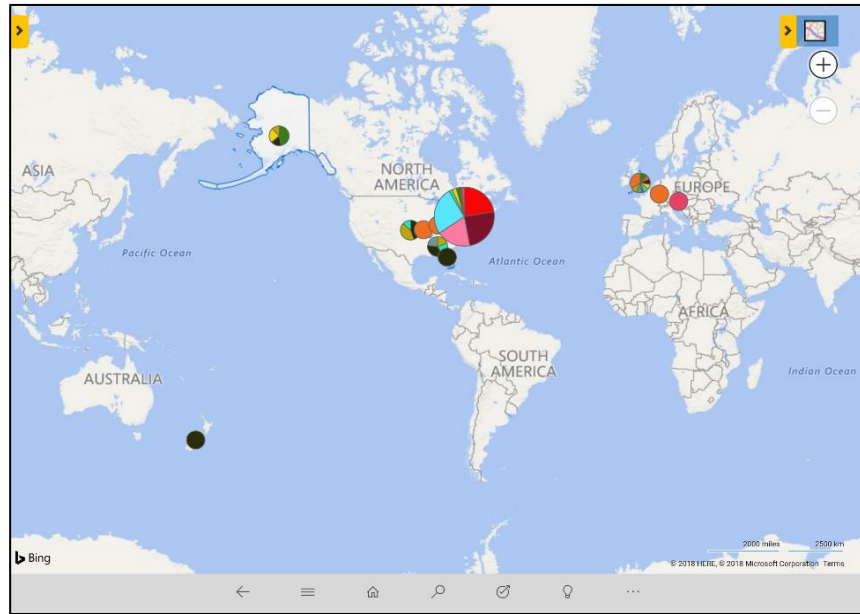
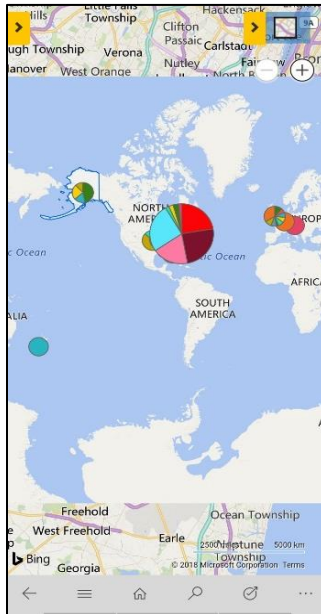
For Dynamics 365 v9.x, Maplytics can also from the Entity homepage and entity form using 'Heat Map'. When clicked on Heat Map button, it opens the heat map.



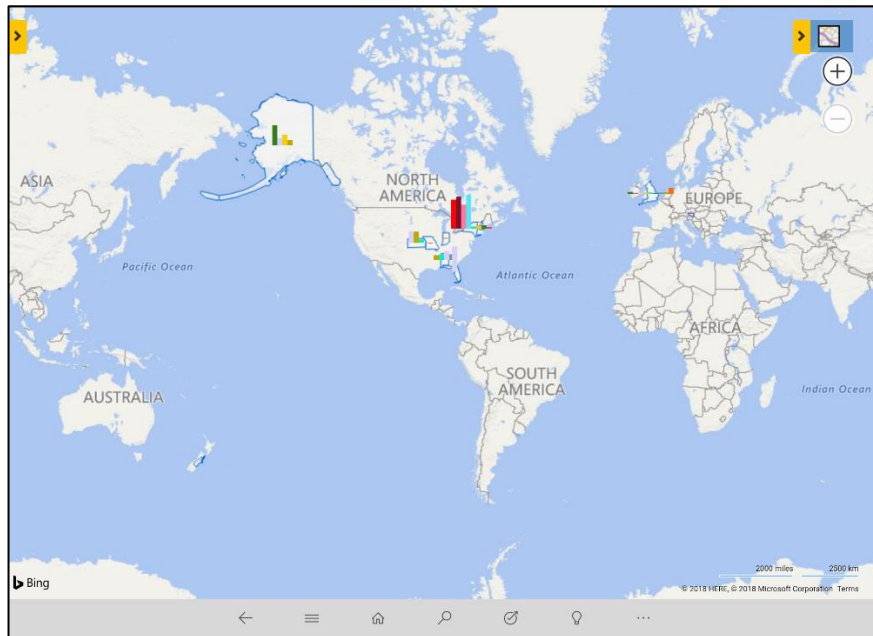
## Summary card



## Pie chart in Heat Map



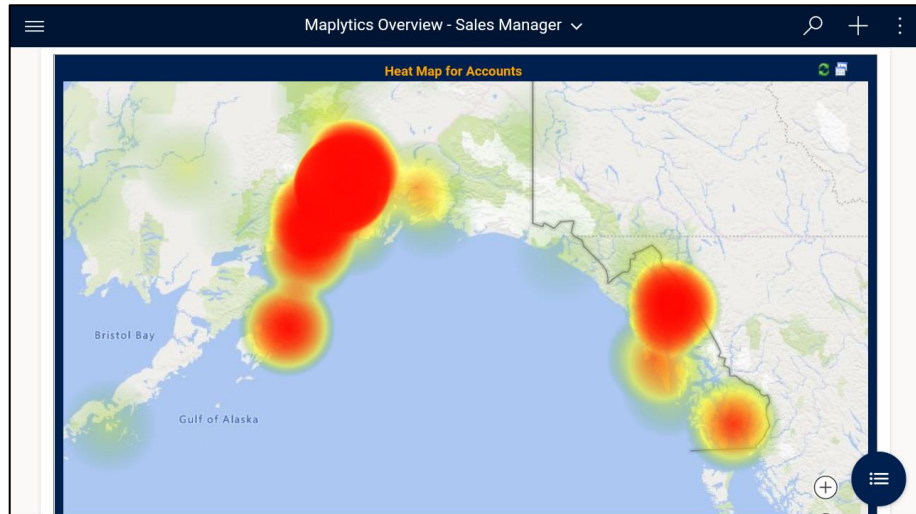
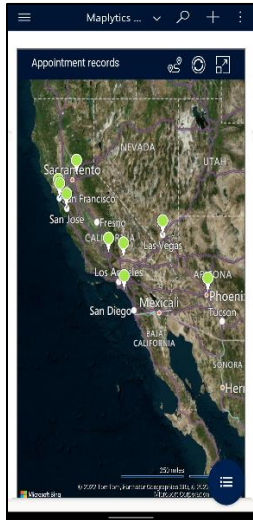
## Column chart in Heat Map





### Dashboards – Tablet / Mobile

The users can define their Dashboard views for Maplytics and include them as web resources in standard Dynamics CRM Dashboards. Maplytics ships with 6 pre-defined Dashboards for various Sales and Service Modules for different user roles.



---

## Contact Us

---

M/S. INOGIC TECH (INDIA) PVT. LTD.  
A-301 Everest Nivara InfoTech Park,  
MIDC, Turbhe, Navi Mumbai - 400 705 - INDIA.

**E-mail:** [crm@inogic.com](mailto:crm@inogic.com)

**Twitter:** [@Maplytics](#); [@Inogic](#)

**Facebook:** [@Maplytics](#); [@Inogic](#)

**Website:** <http://www.maplytics.com/> ; <http://www.inogic.com/>

**Online Help File:** [www.docs.maplytics.com](http://www.docs.maplytics.com)