

Microsoft Dynamics CRM 2013/2015/2016

Xrm.Location AddOn

User Manual



Table of Contents

Overview	3
Configuring Xrm.Location	4
GeoLocating Dynamics Crm Entities	7
Placing GeoCoded Entities on a Map	9
Directions based on entity records.....	14
Marker Actions.....	15
Twilio Configuration and Sending SMS	18

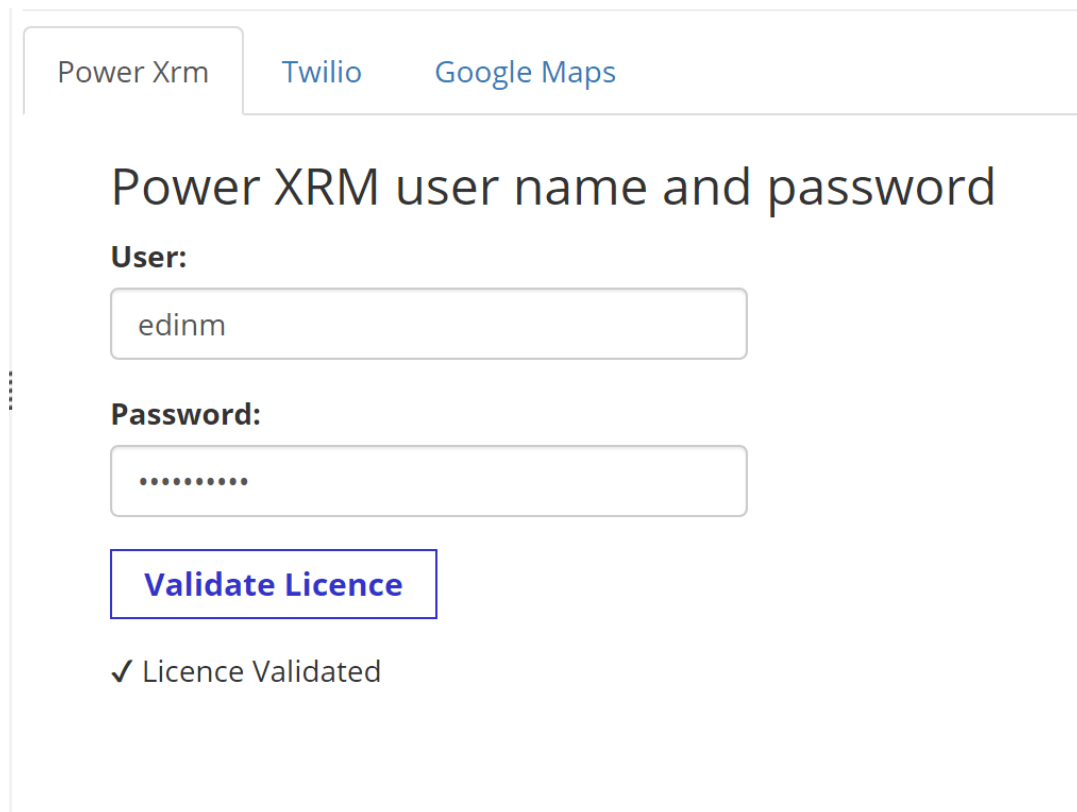


Overview

Xrm.Location addon provides a complete integration between Dynamics Crm and Google Maps. This solution helps Dynamics Crm users visualize their data by placing entity records on a map. After geolocating the entity that will be placed on a map Xrm.Location will provide a series of actions that can be performed on those markers/records. Most of the actions that are usually performed on a Dynamics Crm entity record are available from within the map. In addition to out of the box Dynamics Crm actions Xrm.Location will allow for SMS messaging by using a Twilio provider. Geolocate an entity, place the markers on a map and forget navigating from one record to another to perform simple actions by using Xrm.Location addon.

Configuring Xrm.Location

Before using Xrm.Location add-on one must configure the solution on the solution configuration page. When first importing the solution we can see a **Power Xrm tab** with a simple login form.



The screenshot displays a web interface for configuring the Power Xrm add-on. At the top, there are three tabs: "Power Xrm" (selected), "Twilio", and "Google Maps". Below the tabs, the heading "Power XRM user name and password" is centered. Under this heading, there are two input fields: "User:" with the text "edinm" and "Password:" with masked characters ".....". Below the password field is a blue button labeled "Validate Licence". At the bottom of the form, a green checkmark icon is followed by the text "Licence Validated".

These credentials come from an account previously created at powerxrm.com. The Validate License button checks if the entered credentials are valid and in case of a success prints the validation message showing the remaining two configuration tabs afterwards. If the validation failed the appropriate error message will be shown together with the link to the powerxrm portal where an account can be created.



Twilio tab prepares the solution to be used for sending the sms messages to Dynamics Crm records that will serve as recipients. After creating a Twilio project it will generate an Auth Token and Account Sid for authentication against its API.

The logo for powerxrm, with 'power' in grey and 'xrm' in blue.

[Power Xrm](#) [Twilio](#) [Google Maps](#)

Account Sid:

Auth token:

[Save Twilio Settings](#) [Start Twilio Update Workflow](#)

These settings are mandatory for an sms message to go through to the recipient. In case a message has been sent Twilio Update Workflow can then be started. This workflow takes all the message that are in the Queued state and checks to see if they have been delivered, updating them if yes.



Google maps tab serves as the final piece of configuration before we start GeoLocating Dynamics Crm entities.



Power Xrm

Twilio

Google Maps

Api Key:

.....

Map Latitude Center:

Map Longitude Center:

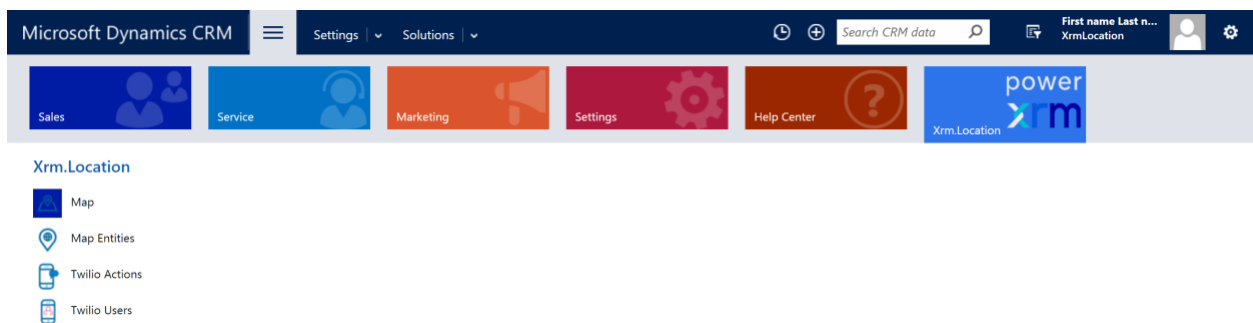
Default Zoom:

Save Maps Configuration

Since this is a Google Maps integration we will need an api key to talk to the API. That key can be received by following instructions on this [page](#). The rest of the form on this tab sets defaults for the intial map configuration. Latitude and longitude center will position the map and default zoom will modify the view on the map based on the zoom value. Zoom levels can be from 1 to 16 and latitude/longitude values are decimal. Don't forget to save the settings before leaving the configuration page.

GeoLocating Dynamics Crm Entities

Geolocation is the identification or estimation of the real-world geographic location of an object so the first step in placing the records on a map is getting to know their exact latitude and longitude values. Xrm.Location does this in an entity called GeoLocation and it is accessible from the sitemap: Xrm.Location -> Map Entities.



Only the GeoCoded entity records will be available for placing on the map (even if before importing Xrm.Location we have latitude and longitude values). We cannot have multiple GeoCode records with the same entity. There are three essential information when we want to save a GeoCode entity:

1. Entity
2. Address Information
3. Latitude/Longitude Fields

There is also a collapsible pane for Twilio default attribute. This will show/hide a Send SMS on a marker based on the attribute value for the placed record. If we specify an attribute that when placing the record does not contain a value, Send SMS action will be hidden.

+ NEW
DEACTIVATE
DELETE
GEOCODE
ASSIGN
SHARE
EMAIL A LINK
RUN WORKFLOW
START DIALOG

GEOLOCATION : INFORMATION
Contact

General

Select Entity*
Contact

Total Records
7

Geocoded Records
2

Address Fields

Street 1 Attribute
Address 1: Street 1

State/Province Attribute

Street 2 Attribute

Postal Code Attribute

City Attribute
Address 1: City

Country Attribute
Address 1: Country/Region

Geocoding

Latitude Attribute*
Address 1: Latitude

Longitude Attribute*
Address 1: Longitude

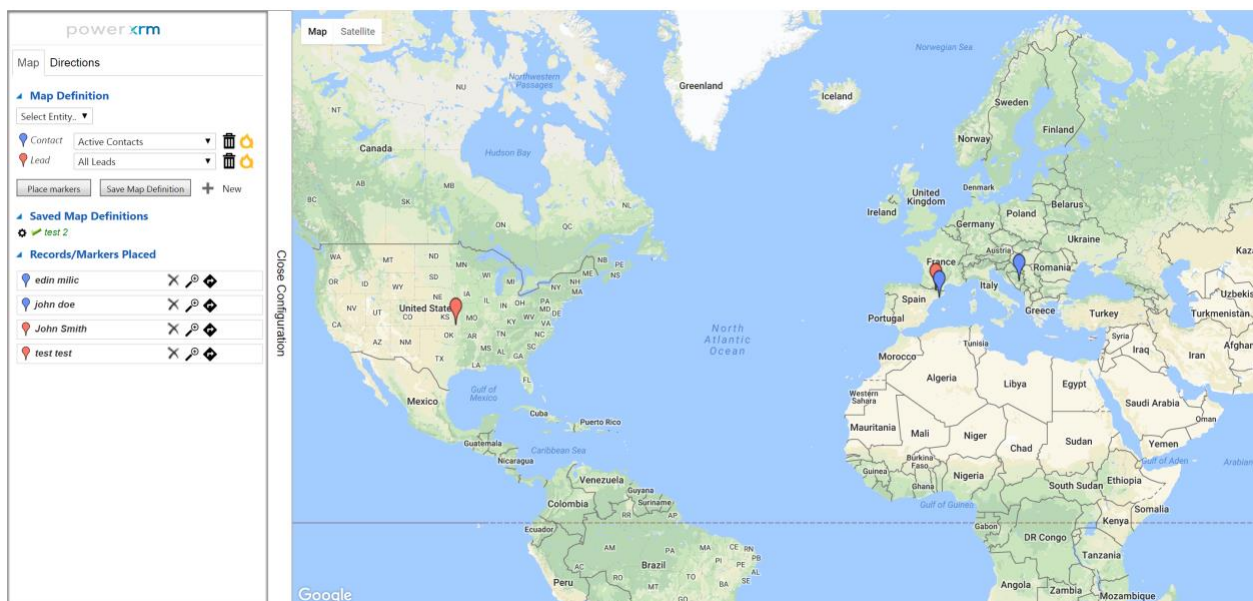
Twilio Details

Phone Attribute
Business Phone

If we have selected the Latitude and Longitude attributes and the entity Total and GeoCoded records count will be retrieved. GeoCoded count represents the number of records that have values for the selected Longitude and Latitude attributes. In case when GeoCoded Records count is smaller than the Total count a GEOCODE ribbon button will show up and allow for geolocation of the uncoded records. Note that the geolocation is done based on the Address Fields information, the more fields (with values in them) the more accurate the geolocation is.

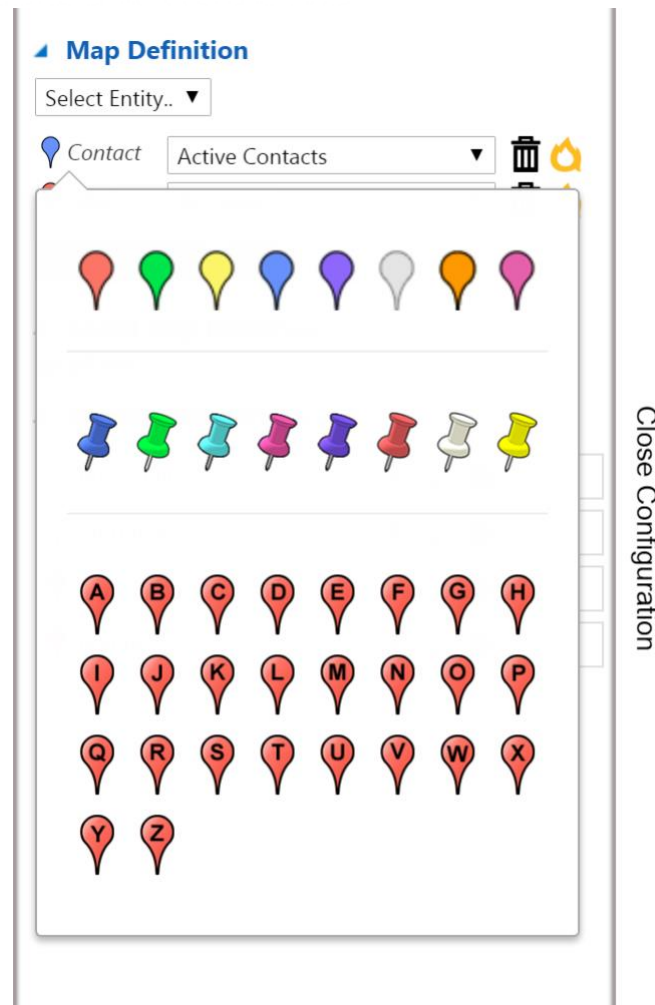
Placing GeoCoded Entities on a Map

The map is accessible also from the main sitemap item Xrm.Location -> Map. If all the configuration steps have been completed beforehand we can go ahead and start placing map markers.



In order to do so we need to select an entity and its view. Under the view selection we can select both the System and Custom views created by the user.

Map Definition consists of a list of Map Views and a Map View consists of an entity, a selected view for it and a marker. We differentiate different views visually by the means of markers.



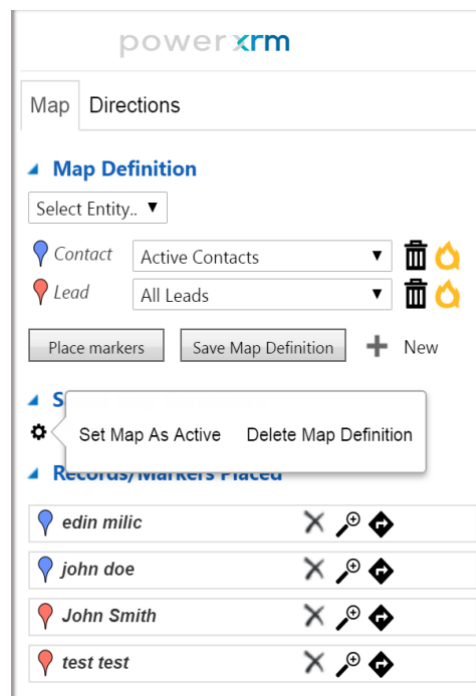
If we have a Map View defined we can then click the Place markers or the Save Map Definition button. Place markers action retrieves the Latitude and Longitude (based on attributes in the saved GeoLocation entity) values for the records that are defined by the selected View and then places a clickable marker on that geolocation. This action ignores a Map View

that does not have an Entity View selected and finally shows all the markers (records) placed under the Records/Markers Placed collapsible section together with actions that can be performed. These actions include the following:

- Remove Marker from The Map
- Zoom in On The Marker
- Set Marker for Directions tab either as a source or a destination

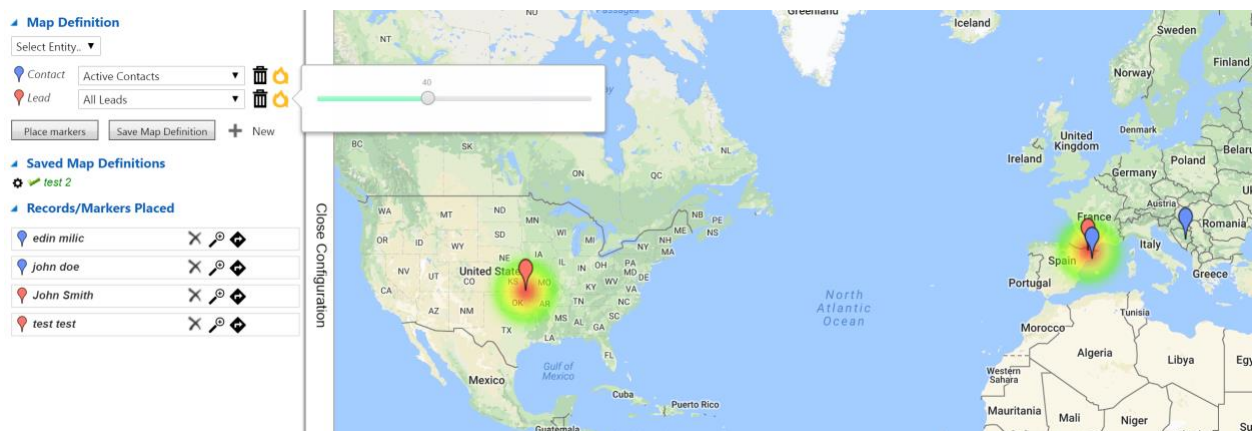
Saved Map Definitions section keeps a reference to all the saved definitions in case we want to reuse them later on. The initial load of the map will retrieve all the saved map definitions and place markers for the Active map definition.

We can always set a definition to be active by using the gear icon next to it.



Active Map Definition is shown in green color and the currently being used definition on a map (the one with placed markers) has a Correct icon next to it. We simply change the current definition by click on the map definition (this also places the markers immediately).

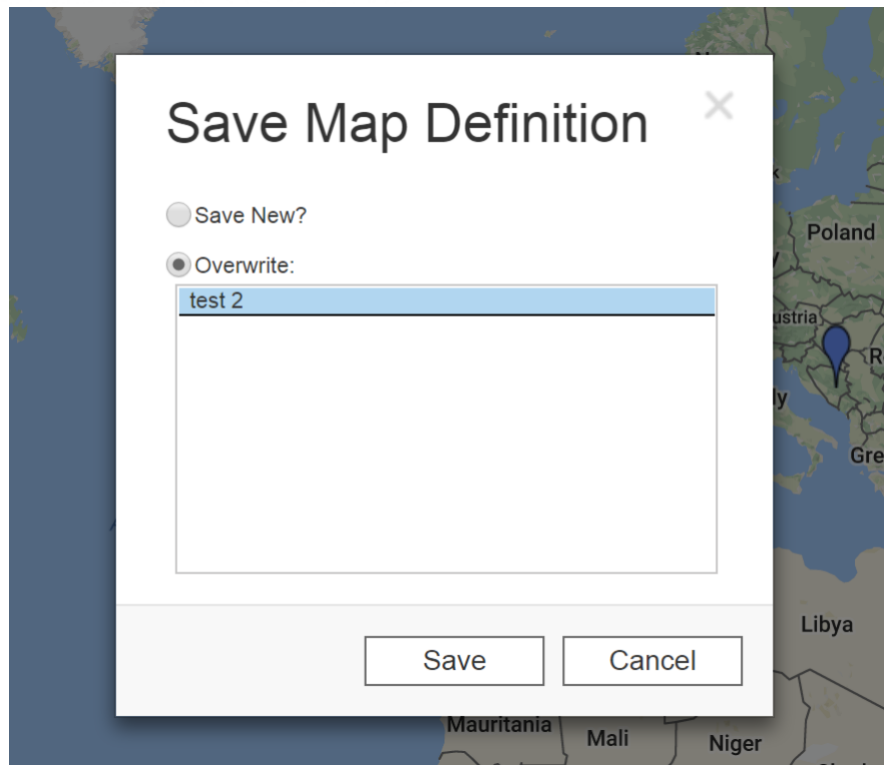
A Map View in a Map Definition can additionally be deleted by clicking on the garbage icon or changed for the heat by clicking on the fire icon. After setting the desired heat level we will click Place markers again and see the heat applied on the map.



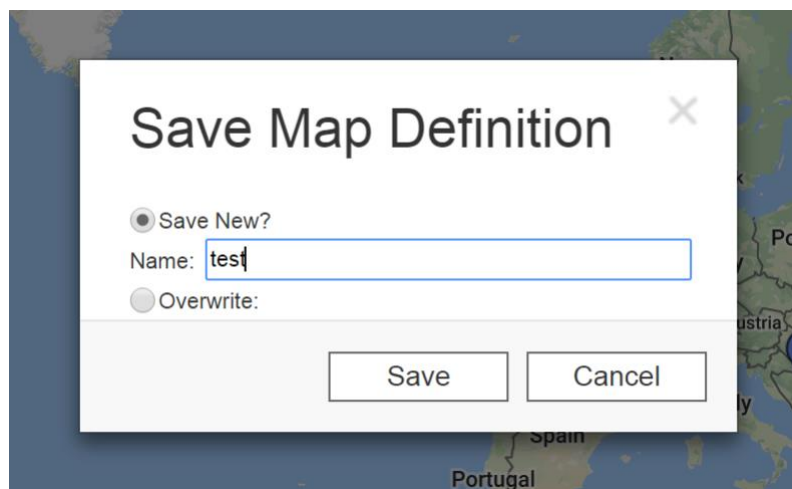
Any change in the Map Definition will not affect the saved definition unless we click on the Save Map Definition button.

For this action, we will be presented with a choice:

1. Overwrite existing map definition (by default one is selected if we are changing the currently used definition)

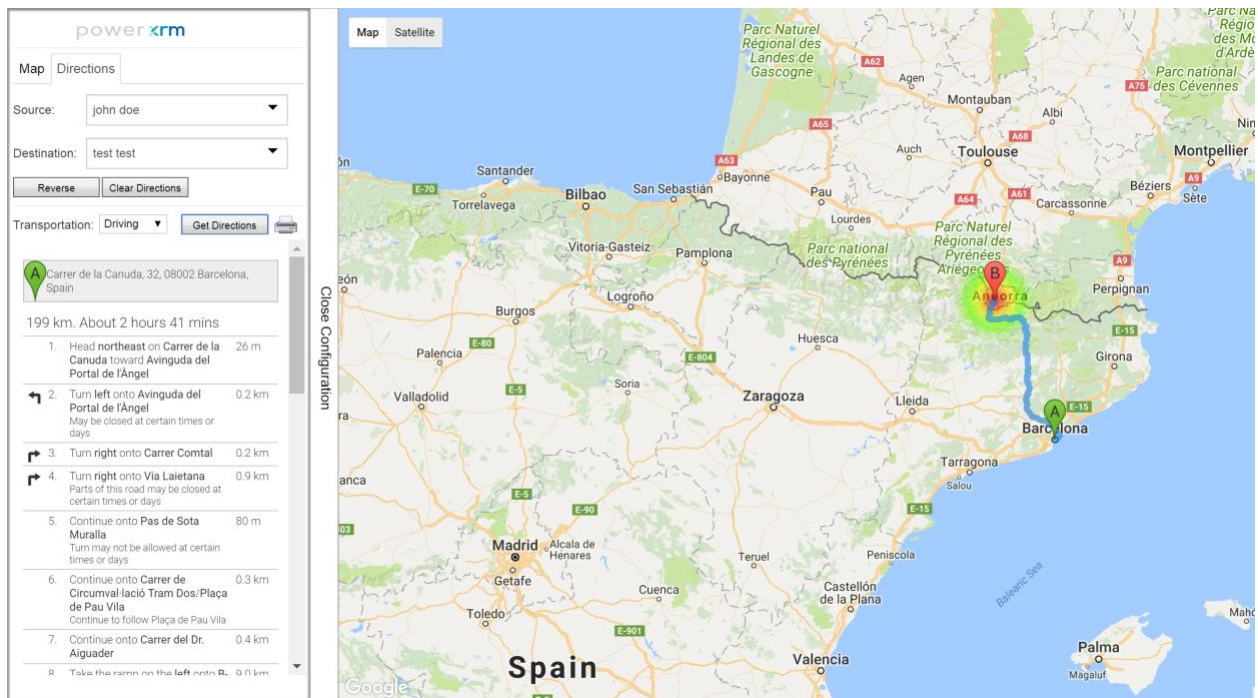


2. Save New – We have to type a name for the newly saved map definition



Directions based on entity records

Configuration task pane on the map has two tabs and one of them is Directions. When records are placed on a map the directions Source and Destination dropdowns are populated. We can set these on the Directions tab directly or from the Placed records collapsible pane.



After selecting the source and destination we have the Get Directions button available together with the means of transportation. After the action is performed we see the directions below (this content can be carried around). We can then reverse or clear the directions or print them by clicking the printer icon next to the Get Directions button. This directions content will also be available for sending via Email in Send an Email marker action.

Marker Actions

There are 7 available actions on a record in case where default Twilio Phone Attribute has been specified and that attribute for the record has a value. That together with a Twilio User must be makes Send SMS action visible.



Delete Record

This action will not only remove the marker from the map but also remove the entity record completely. That is why this action will be followed by a confirmation dialog.

Activate

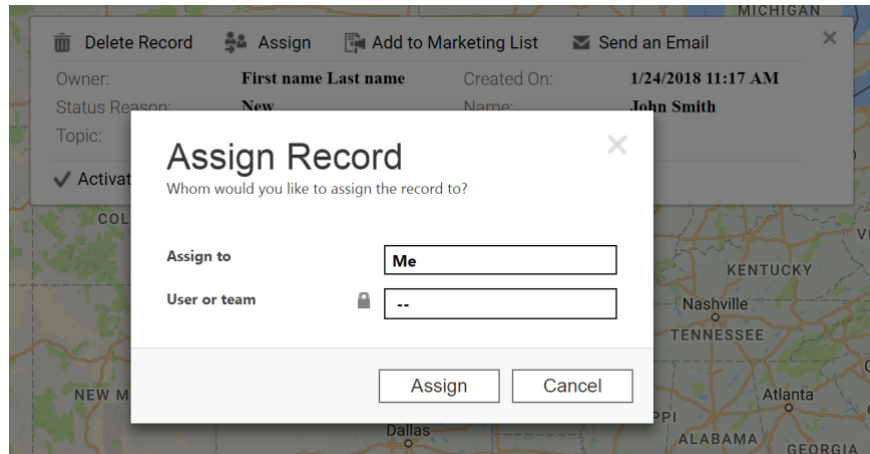
This action set the state of the entity record to Active.

Deactivate

This action set the state of the entity record to Inactive.

Assign

We can assign a record to either “Me” or “User or Team”.



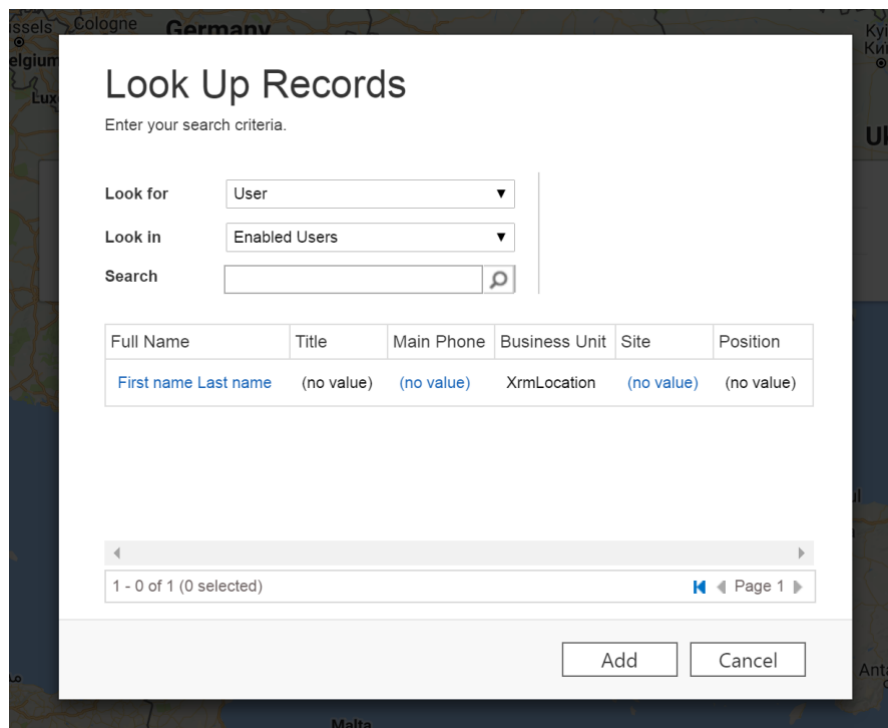
Assign Record

Whom would you like to assign the record to?

Assign to:

User or team:

Assign to Me will set the owner of the record to be the currently logged in user performing the action. Assign to User or Team will bring up a lookup view where user can select the new owner.



Look Up Records

Enter your search criteria.

Look for:

Look in:

Search:

Full Name	Title	Main Phone	Business Unit	Site	Position
First name Last name	(no value)	(no value)	XrmLocation	(no value)	(no value)

1 - 0 of 1 (0 selected) Page 1

Add to Marketing List

This action will bring a popup with a lookup to all the Marketing lists saved in the system with an additional condition to the fetch definition, marketing list type must be static. This condition is added due to the fact that we can only add records to a static marketing list. Note that we can add a record to multiple static lists at once by selecting more than one marketing list record on the lookup dialog.

Send an Email

By using this we create an email record with the targeting marker/record added as a recipient for this email. In case we have directions printed on the Directions tab we will get an additional option to append these directions to the email body.

Send SMS


As mentioned before this action will be shown if Twilio has been configured and the GeoLocated entity has a valid phone attribute value. If the marker action goes through successfully a Twilio Action record is created and the sms message is put in the state of “Queued”.

Twilio Configuration and Sending SMS


After saving the Twilio API credentials (Account Sid and Auth Token) on the solution configuration page we will need a Twilio User. It can be found under the sitemap item Xrm.Location -> Twilio User.



An important field for the user is Sender number as this must be a valid twilio number that can send SMS messages.


TWILIO USER : INFORMATION

First name Last name 

General

Name  First name Last name

Owner   First name Last name

Crm User  First name Last name

Default Sms Message Name test name

Twilio Sender Number +1415-941-4633

Default Sms Message Body test body

Besides the Sender Number we can also specify the default Message name and body.

Sending SMS Message

There are two ways to send an sms message. It can be done directly from the map by clicking the Send SMS message on a marker or by creating a Twilio Action record manually.

This, like any other item in Xrm.Location solution can be accessed from the sitemap directly.

TWILIO ACTION : INFORMATION

New Twilio Action

General

Sms Details

Title **test title** SMS Message **test message**

Recipient Details

Select Entity* **Contact** Select Phone Attribute* **Business Phone**

Name	Business Phone
edin milic	+38762475490
john doe	(no value)
dsadsa asdds	(no value)
dasda asdd	(no value)
adsxyeyveex vxevxe	(no value)
cx cvve	(no value)
dsasd dasdsadas	(no value)

Every Twilio action must have a title, message and a recipient. Recipient can be any Dynamics

Crm entity and the recipient details section will provide an interface for selecting one. After all

the conditions are met (message, title and recipient with a valid phone number are inputted)

SEND SMS button will appear on the main ribbon. Successful sending reloads the record and put

it in the status of “queued”.

TWILIO ACTION : INFORMATION

test title

General

Name **test title**
Status **Delivered**

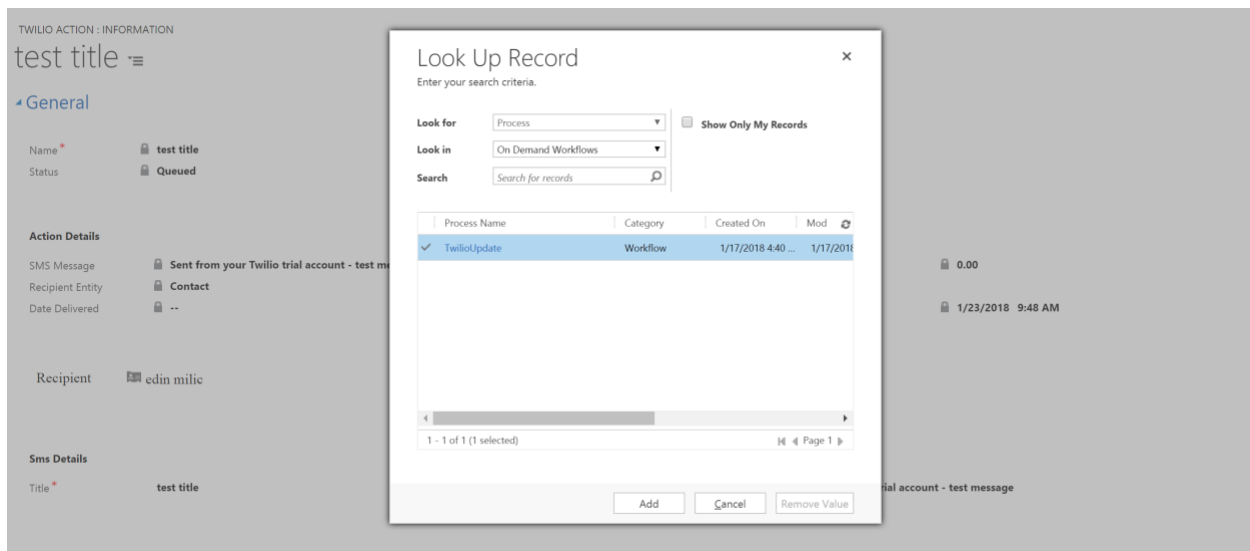
Action Details

SMS Message **Sent from your Twilio trial account - test message** Price **-0.08**
Recipient Entity **Contact**
Date Delivered **1/23/2018 10:48 AM** Date Created **1/23/2018 9:48 AM**

Recipient **edin milic**

We have to trigger an update workflow that will run every 20 minutes and try to update all the actions that are in the state of queued to a “delivered” state changing the Price and Date Delivered field.

Trigger can happen from the Twilio Action record or the solution configuration page.



The Google Maps integration and Twilio can work separately meaning that as long as we configure Google maps we can place records on the map (only SEND SMS message on the marker will not be available) and vice versa, configuring Twilio will enable for sending a sms message from the Twilio Action record.