

# Synx CRM Connector v2

## Set up and user documentation

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# Introduction

Synx allows you to connect your Sitefinity CMS to a various CRM instances. At the time of writing these CRMs are:

- Microsoft Dynamics

Synx allows you to sync data directly from your CRM and use this information in your Sitefinity CMS through the use of widget and forms.

This documentation is intended to help you:

- Install and setup CRM Synx with your current Sitefinity instance.
- Configure a connection between CRM Synx and MS Dynamics.
- Sync data between Synx and MS Dynamics
- Understand and use the Synx form widgets.
- Understand and use the Synx page widgets.
- Use Synx libraries in your own code.

# Synx – Installation Guide

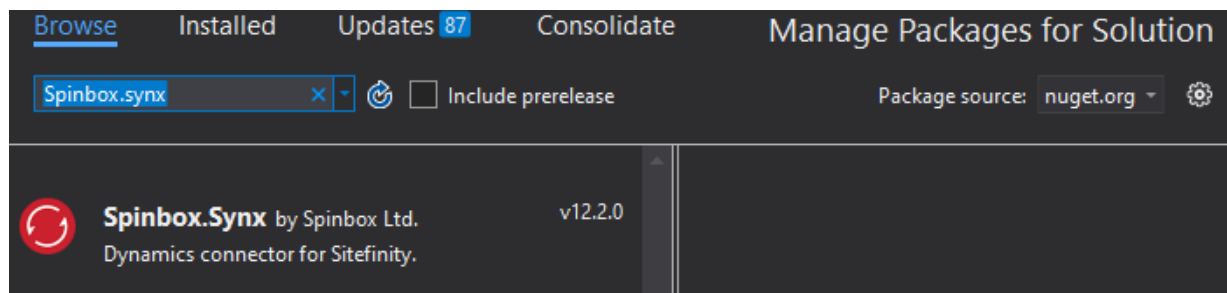
This document describes the steps required to install Synx into a Sitefinity project.

## Sitefinity configuration

- Navigate to: Backend > Administration > Settings > Advanced > Feather
- Untick: Use cached controller container assemblies
- Save Changes

## Install Synx NuGet package

- Add the “Spinbox.synx” nuget package to your Sitefinity project and select the version which matches the version of Sitefinity you are targeting.



- Rebuild and run your project.

## Activate synx module

- Navigate to: Backend > Administration > Modules & Services.
- Install the “Synx” module.

## Apply synx license

- Navigate to: Backend > Synx > Version & Licensing.
- Choose the synx license file downloaded from your [www.crmsynx.com](http://www.crmsynx.com) account.
- Click Activate

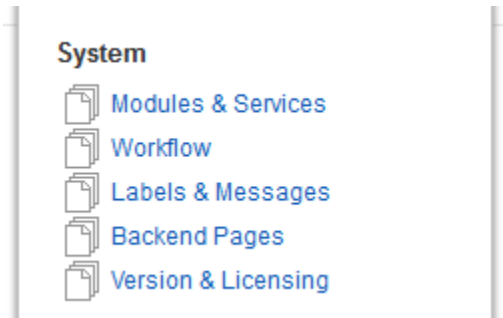
## Configure synx

- Navigate to: Backend > Synx > Providers.
- Select “Connection Settings” for the Dynamics provider.
- Follow the steps to configure your synx instance.

# Installing the Synx module in Sitefinity

After Synx has been installed using the installer, the Synx module will be available under “Modules and Services”. To install the Synx module to your Sitefinity CMS follow the steps below:

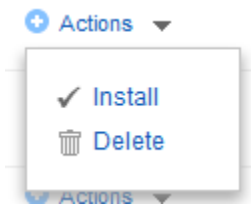
1. Login to the backend of your Sitefinity website.
2. Navigate to modules and services in the administration menu



3. Locate Synx in the list of modules



4. Click the action menu and select install.



5. The module should now be installed on your website. To validate if installation was successful there will be a new option in the administration menu labelled “Synx”

## Connectivity



Connector for Telerik BaaS



Digital Experience Cloud

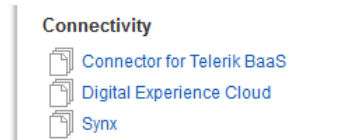


Synx

# Activating your Synx licence

**Note: If you have used the Synx installer your licence will be automatically added to Sitefinity.**

After Synx has been installed, you will need to activate your Synx licence. You will be prompted to activate your licence when accessing the Synx admin area for the first time.



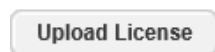
1. Navigate to “Administration > Synx ”
2. If your licence has not been activated you will be redirected to the licence activation

## Synx Beta Edition

<b>Product Edition</b>	Beta
<b>Product Version</b>	Beta
<b>Customer Name</b>	Mitch Nortje
<b>Customer Email</b>	mitchell.nortje@gmail.com
<b>License Generation Date</b>	5/5/2016
<b>License Type</b>	1 Month Demo
<b>Domains</b>	synxtest.dev synxtest.dev http://synxtest.dev/ synxtest.dev synxtest.dev
<b>Features</b>	Dynamics Connector

screen.

3. Download your purchased licence from your account on the Synx website.
4. Click the “**Upload Licence**” button and select your licence from the file explorer.

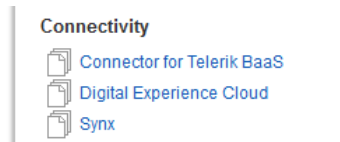


Upload license file downloaded from SynxStore

5. Once uploaded, the Synx admin area should now be accessible.

# Synx administration

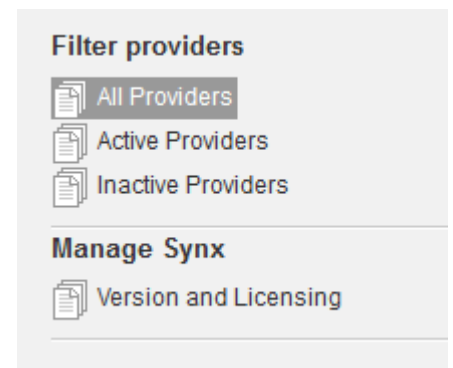
Managing Synx can be done via the Synx administration area. The Synx administration area can be accessed by navigating to the administration drop down and clicking on the link labelled Synx:



The landing page for the Synx administration area is the provider listing. This is a list of all available providers which Synx can use. By default Synx comes installed with the Microsoft Dynamics provider.

To the left of the listing are the filter and manage options. Here you can filter the listing by all, active or inactive providers beneath the "**Filter providers**" heading.

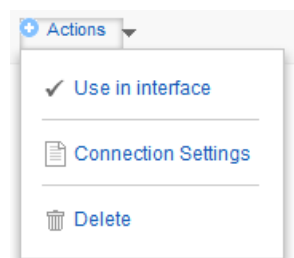
You can also access or update your licence info selecting "**Version and Licensing**" under the **Manage Synx** heading



## Synx provider action menu items.

When a provider is not configured the menu has the following options:

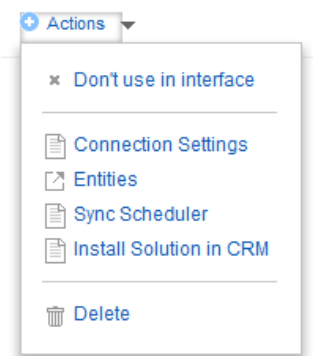
- **Use in interface:** This is used to activate the provider. Once activated you can use the provider in the Synx widgets.
- **Connection Settings:** This is where you input the settings setup the provider. You would need to configure the provider before it can be used.
- **Delete:** This will remove the provider from Synx.





When a provider is configured the action menu has the following options:

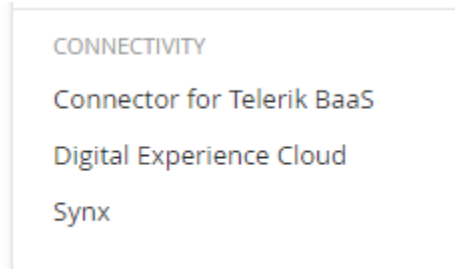
- **Don't use in interface:** This will remove the provider from being available in Synx widgets.
- **Connection Settings:** This is where the settings are entered to setup the provider. You would need to configure the provider before it can be used.
- **Entities:** This is where the entities to use with Sitefinity are managed.
- **Sync scheduler:** Here you can create, edit and check the status of scheduled sync's. See the Sync Scheduler section in this guide.
- **Delete:** This will remove the provider from Synx.



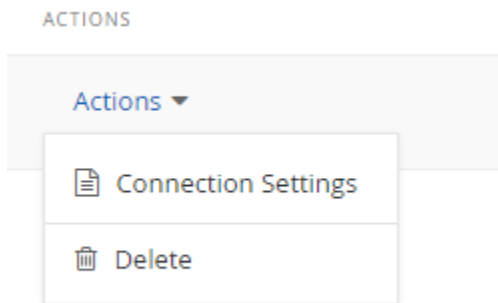
# Configuring Synx Dynamics Connector

After the Synx licence has been activated you will need to configure the Dynamics connector to sync with your Dynamics installation. To configure the connector:

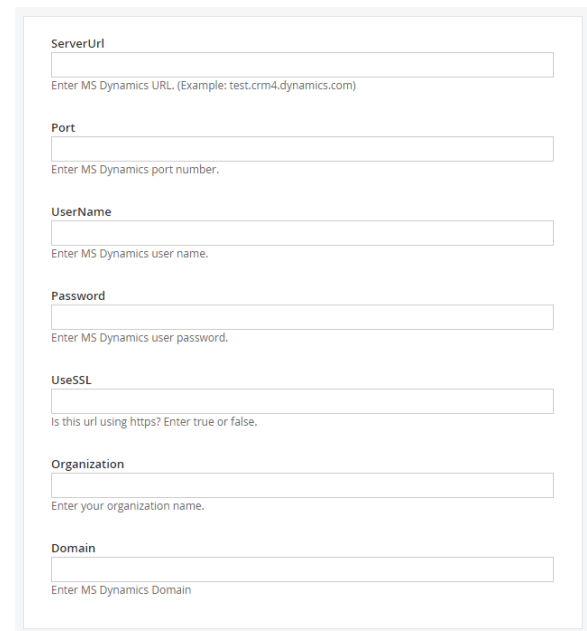
1. Navigate to “**Administration > Synx**”



2. A screen will be displayed listing available providers. Locate the Dynamics provider and select the “**Connection Settings**” option from the action menu



3. A configuration screen will now be displayed with the necessary fields to complete:
  - a. **UserName:** The username of an MS Dynamics account
  - b. **Password:** The password of the MS Dynamics account
  - c. **Organization:** The organization name from the dynamics instance
  - d. **Domain:** The domain of the MS Dynamics instance
  - e. **UseSSL:** Is the URL using http or https. If yes enter “true”, if no enter “false”
  - f. **ServerUrl:** The url of the MS Dynamics instance.
  - g. **Port:** The port number of the MS Dynamics instance

A screenshot of a configuration form for the Dynamics connector. The form contains several input fields with labels and placeholder text: 'ServerUrl' (placeholder: 'Enter MS Dynamics URL. (Example: test.crm4.dynamics.com)'), 'Port' (placeholder: 'Enter MS Dynamics port number.'), 'UserName' (placeholder: 'Enter MS Dynamics user name.'), 'Password' (placeholder: 'Enter MS Dynamics user password.'), 'UseSSL' (placeholder: 'Is this url using https? Enter true or false.'), 'Organization' (placeholder: 'Enter your organization name.'), and 'Domain' (placeholder: 'Enter MS Dynamics Domain').

4. Fill in the relevant details and click "**Save and Test Connection**". If the settings are correct a message will be displayed in green and sitefinity will schedule in the first sync.
5. The Synx Dynamics connector is now configured

# Sync Scheduler

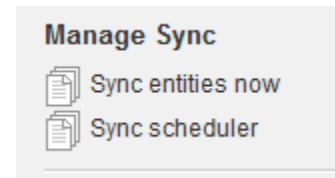
The Sync Scheduler is used to update the information about entities in Sitefinity. This allows Sitefinity to know what entities are available in Dynamics and what data is available.

If new entities or attributes have been added in Dynamics since a previous sync has been performed and they are needed in Sitefinity you would need to run a sync.

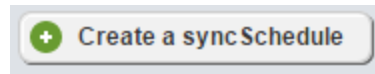
Sync's can be run once off or set to run periodically automatically.

To access the Synx Scheduler:

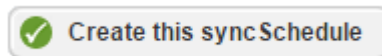
1. Navigate to “**Administration > Synx**”
2. Click the actions menu of the desired Synx provider and select “**Sync Scheduler**”
3. Alternatively, if you are on the Entity screen, in manage entities section on the right of the listing select “**Sync scheduler**”



Creating a new sync schedule:



1. select “**Create a sync Schedule**” from the toolbar.
2. Fill out the following details to create a sync:
  - a. **Title:** A name to identify the sync
  - b. **Date:** A date and time to run the sync. To run the sync immediately, select today's date and leave the time as 00:00
  - c. **Recurrence:** Set how often the sync should run.
3. Once the details have been filled in click “**Create this sync Schedule**”



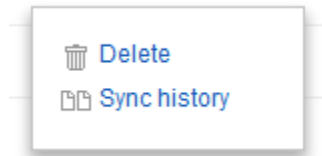
4. The sync will be created. You can monitor the sync from the status column on the grid

STATUS

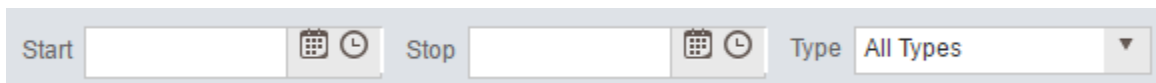
Reading metadata from Dynamics

## Viewing a sync's history

1. Click the actions menu of the sync schedule item you wish to view the history of.



2. Select "**Sync history**" from the drop down.
3. The sync history screen will now be displayed.
4. Here you can see what was synced, the status of each item, the date it was run.
5. You can use the date range and type filters in the toolbar to filter the results displayed in the listing



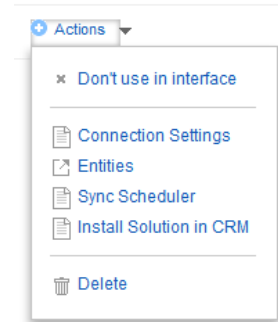
# Entities

In order to use information from MS Dynamics you need to select what information you want to use in Sitefinity. This can be done via the entities screen.

The entities screen displays a list of all available entities in MS Dynamics. These can be synced with Sitefinity. Once synced they will be available for use in Synx page and form widgets.

## Accessing the entities screen

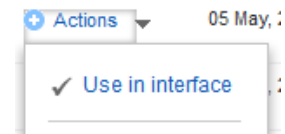
1. Navigate to “**Administration > Synx**”
2. Click the actions menu of the MS Dynamics connector and select “**Entities**”.
3. The entities screen will now be displayed.



## Selecting entities to use

For each entity needing to be used with Sitefinity

1. Click the actions menu of the entity and select “**Use in Interface**”.
2. Alternatively, you can select multiple entities by using the checkbox to the left of the entity name and select “**Use in Interface**” in the global actions menu in the toolbar.
3. After selecting “**Use in Interface**”, an immediate sync will be scheduled. The following message will be displayed. Click on the “**sync scheduler**” link to monitor the status of



Entity scheduled for sync. You can check status of your sync in sync scheduler

the sync.

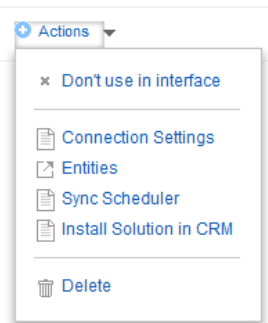
# Attributes

An attribute is a single piece of information about an Entity. For example, attributes of a Person entity would be first name, last name or gender.

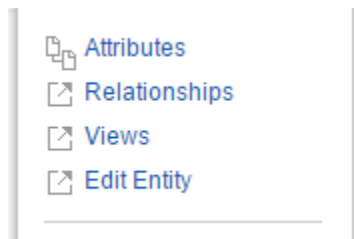
After an Entity has been synced with Sitefinity you will need to select which attributes you will be using with Sitefinity.

To select attributes to use with Sitefinity:

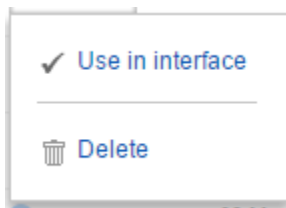
1. Navigate to “**Administration > Synx**”



2. Click on the actions menu of the MS Dynamics connector and select “**Entities**”.
3. Once the Entity listing has loaded, search and locate in the listing the entity you wish to view.



4. Click the actions menu of the entity and select “**Attributes**”
5. A list of available attributes will now be displayed.
6. For each attribute to be used in the system, click the actions menu and select “**Use in**



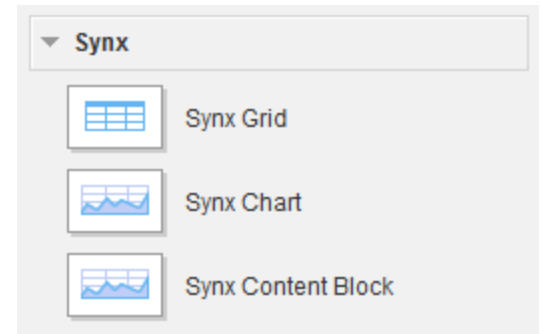
**interface”**

# Synx page widgets

There are three widgets provided by Synx that are available to use on Sitefinity pages. These can be used display information on a page from Dynamics as well allow the updating of data in MS Dynamics.

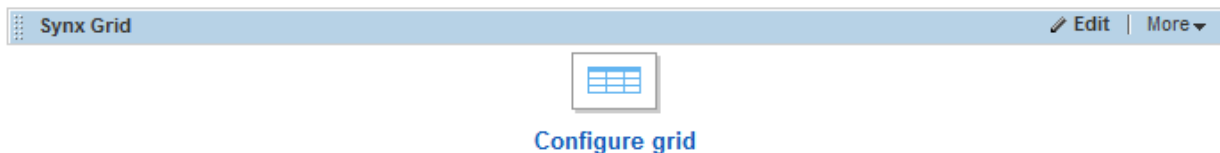
The widgets are located in the section labelled “**Synx**” in the toolbox when editing a page. These widgets are:

- Synx grid
  - The grid widget displays data from entities in a grid format.
- Synx chart
  - The chart widget displays data from entities in a chart format.
- Synx content block
  - The chart widget displays data from entities in a text based format.



Adding a widget to the page:

1. Drag and place them on the page.



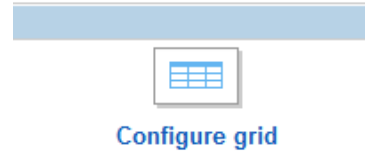
2. Once the widget has loaded click the icon to configure the widget
3. A dialog will load to configure the selected widget.



## Synx grid


The grid widget allows you to display information from an Entity or View in a grid format. Options can be enabled to allow users to edit data or delete data on the grid that will update MS Dynamics directly. The data displayed in the grid can also be filtered to limit what is displayed

### Configuring the grid widget



1. Drag the grid widget onto the page and select configure grid
2. A dialog will be display to configure the grid widget
3. There are four tabbed sections:
  - o **Data:** This tab will configure what entity will be used for the grid and what features the grid will have. Each records of an entity will be displayed as a row.
  - o **Display:** This tab will configure which attributes of the previously selected entity will be displayed on the grid. Attribute data will be displayed in columns.
  - o **Filters:** This tab is used to set filters which will apply to attributes and limit the data that is displayed on the grid.
  - o **Relations:**

On the “**Data**” tab:

A screenshot of a dropdown menu titled "Provider". The selected option is "Dynamics". Below the dropdown, the text "Provider Name" is visible.

1. Select the provider

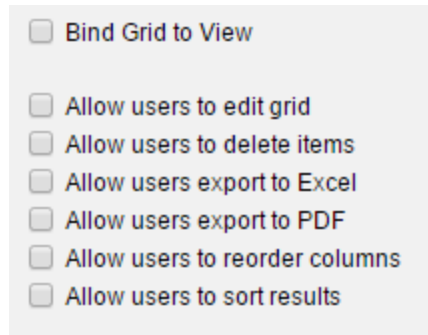
A screenshot of a dropdown menu titled "Entity". The selected option is "Contact". Below the dropdown, the text "Entity Name" is visible.

2. Select the entity to use with the grid

3. The following options can be enabled on the grid.

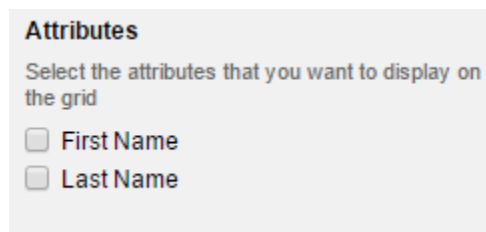
Options to note are:

- **Bind Grid to View:**
- **Allow users to edit grid:** Data changed on the grid will update Dynamics
- **Allow users to delete items:** Data deleted from the grid will be removed from



Dynamics

On the “**Display**” tab:



1. Tick the checkbox next to the attributes to display them on the grid as a column
2. Once ticked you can rename or change the order of the column using the options displayed.
  - **Order:** To change the order the column will be display on the grid click the up down options to change the order.
  - **Column Name:** By default this will be the name of the attribute. You can rename using the textbox provided
  - **Remove:** If the attribute is no longer needed on the grid click the remove option to remove it.

Attributes to display on Grid			
Order	Entity Name	Column Name	
up down	First Name	<input type="text" value="First Name"/>	<a href="#">Remove</a>

- The style of the grid can be changed or a new style can be created by using the options beneath “**Widget Template**”. This should be done by a designer or developer.

**Widget template**

On the “**Filters**” tab:

- Select an attribute from the list to create a filter for the grid.

**Attributes**

Select the attributes that you want to filter

First Name

Last Name

- Once ticked, the attribute will load in the grid to the left with options to create a filter.
  - Select a filter from “**Filter Type**” drop down:
    - Eq**: Does the attribute match the value exactly
    - Ne**: Does the attribute not match the value exactly
    - Like**: Does the attribute contain the value.
    - Not-Like**: Does the attribute not contain the value
    - Null**: Does the attribute not have a value.
    - Not-Null**: Does the attribute have a value.
  - Enter a value in the “**Value**” text box to compare the attribute to entered value using the filter type selected in the drop down

After configuring the grid widget click save.

Click the preview button on the toolbar to see the grid.

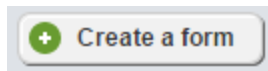
First Name	Last Name
John	Rambo
chuck6	norris6
chuck7	norris7
Dariusz	Grabowski

# Synx form widgets

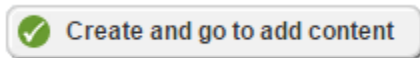
Synx allows you to create forms in Sitefinity which can be used to populate data in dynamics when the form is submitted.

To create a Sitefinity form that is connected to dynamics is the same method as creating a normal form.

1. Navigate to “Content > Forms”.



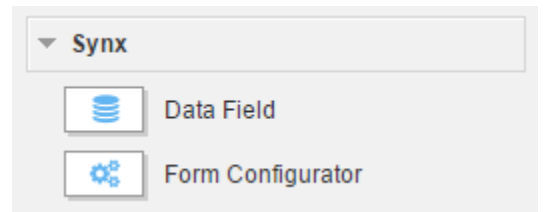
2. Click “Create a form” on the toolbar.



3. Fill out the Title field and click “Create and go to add content”

There are two widgets available in Synx that are used to connect Sitefinity forms to Dynamics. These widgets are:

- Form configurator
  - This widget sets the type of entity will be created in dynamics when the form is submitted.
- Data field
  - This widget binds to an attribute of an entity. When the form configurator is set, the field’s provider and entity settings will default to the entity set on the form configurator. When the form is submitted, values entered in the data fields will be populated against the entity created in dynamics



An example:

- Add the form configurator widget to the form and set the entity to a Person entity.
- Add multiple data field widgets to the form bound to attributes such as Firstname, Lastname and Email
- When the form is submitted, a Person entity will be created in Dynamics with the values entered in the Firstname, Lastname and Email fields.

## Form Configurator

The form configurator widget makes it easier when adding multiple data field widgets to form. Data fields added within the same layout template will inherit the settings set in the form configurator. Multiple form configurators can be added to a form however they must be placed in separate layout templates.

To add a form configurator widget to the form

1. Drag the form configurator widget onto the form
2. Click the “Edit” link
3. Setup the configurator, see below, as required
4. Click “**save**”

After the form configurator has been configured the widget should display the following:



Form configured to use **Dynamics** provider and **contact** entity.

## Form configurator properties

### Use relationships

When there is more than one form configurator added to a form this option will be available. It allows you to create a relationship between two entities when the form is submitted

### Fields on form

This option is only available when “**use relationships**” is checked. Select an entity from this dropdown set the context of the form configurator.

### Related fields

This option is only available when “**use relationships**” is checked. Select a relationship from the dropdown to set the relationship for the configurator.

### Provider

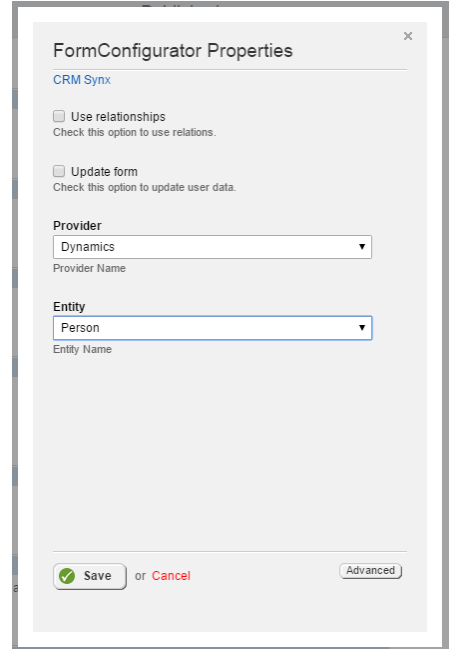
This option sets the provider context to use.

### Entity

This option will list out all entities which have been selected to be used in the interface. Select an entity to set the Entity context of the configurator. Any data fields added to the same layout template as this configurator will default their entity to the one set here.

### Use logged in user id

This option is only available if “**Use relationships**” or “**Update form**” has been checked. This option will related the entity to the current logged in user.



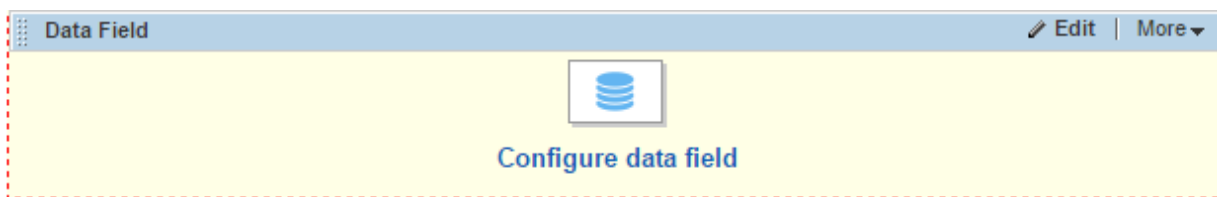
The screenshot shows a dialog box titled "FormConfigurator Properties" with a close button (X) in the top right corner. Below the title is the text "CRM Synx". There are two checkboxes: "Use relationships" (unchecked) with the instruction "Check this option to use relations." and "Update form" (unchecked) with the instruction "Check this option to update user data.". Below these are two dropdown menus: "Provider" with "Dynamics" selected and "Entity" with "Person" selected. At the bottom, there are three buttons: "Save" (with a green checkmark icon), "Cancel" (with a red X icon), and "Advanced" (disabled).

## Data Field

The data field widget is used to create an input field that will populate a single attribute on an entity. When the form is submitted, an entity will be created in dynamics and its attributes will be populated with the values entered into the data fields.

### Adding a data field to a form

1. Drag the data field widget from the toolbox onto the form.



2. Click the “**Configure data field**” icon or the edit link on the top left of the widget
3. A dialog will now display with various settings.

### On the “**Data**” tab:

1. Select a **provider** from the provider drop down.
  - If the data field is placed in the same section as a Form Configurator this will be prepopulated
2. Select an **entity** from the entity drop down
  - if the data field is placed in the same section as a Form Configurator this will be prepopulated
3. Select an **attribute** from the attribute drop down.
  - When the form is submitted, the value entered in the field will populate the attribute selected here.



On the “**Display**” tab

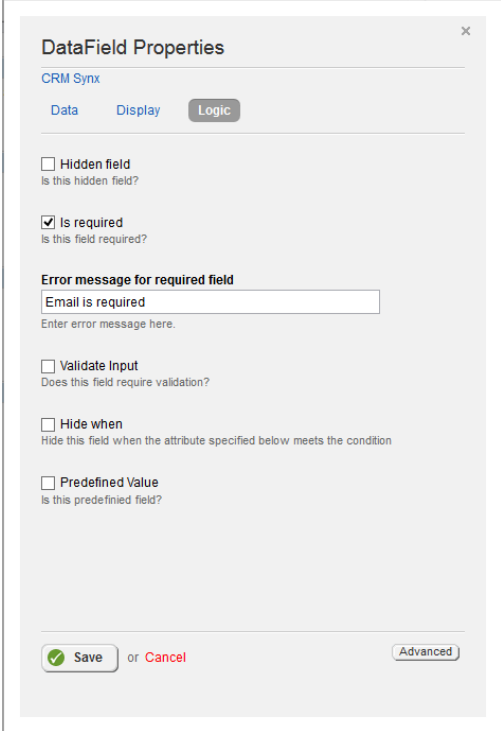
1. Select an **editor** from the drop down. The editor will be the type of input which will be displayed to the user to enter a value for the previously selected attribute. There are
  -
2. Style
3. CSS Class
4. Label
5. Placeholder

## On the “Logic” tab

1. **Hidden field:** This option will mark this as a hidden field. This will be no input displayed for this field.
2. **Is required:** This option marks the field as required. It must be completed in order to submit the form
3. **Error message for required field:** This option will only be available if “Is Required” is checked. The message entered here will display if the field is left empty and the form was submitted.
4. **Validate input:**
  - Validate as
  - Custom expression
    - A custom RegEx expression can be used here to validate the field
  - Validation error message
    - This is the error message that displays when the field is invalid based off the above fields
5. **Hide when (available in Synx 3.0):**

You can use this to hide the field based on a condition. The field will not display when the following evaluates to true:

- Attribute
  - This is the attribute to run the check against
- Condition
  - This is the type of condition to check the attribute against the below value. Eg Equals is an exact match
- Value
  - This is the value to compare the attribute against using the condition above.



The screenshot shows the "DataField Properties" dialog box with the "Logic" tab selected. The dialog has a title bar with a close button (X) and a subtitle "CRM Synx". Below the subtitle are three tabs: "Data", "Display", and "Logic" (which is active). The main content area contains several options with checkboxes:

- Hidden field  
Is this hidden field?
- Is required  
Is this field required?
- Error message for required field**  
Email is required  
Enter error message here.
- Validate Input  
Does this field require validation?
- Hide when  
Hide this field when the attribute specified below meets the condition
- Predefined Value  
Is this predefined field?

At the bottom of the dialog, there are three buttons: "Save" (with a green checkmark icon), "Cancel" (in red text), and "Advanced" (in a rounded rectangle).