# Microsoft Dynamics CRM SDK

Entity Metadata Browser Readme

The Entity Metadata Browser provides the capability to examine the metadata for all the entities in the system.

# Summary

The following provides a brief overview of the tool’s functionality and implementation.

## Purpose

Developers often need to access information about entities that do not appear in the default solution. This information is available programmatically. The Entity Metadata Browser provides easier access to this information.

## Technology

The Entity Metadata Browser is a Microsoft Dynamics CRM solution that uses HTML Web resources to display the entity metadata. The data is retrieved using the SOAP endpoint for Web resources.

This solution uses jQuery and is compatible with Google Chrome, Mozilla Firefox, and Internet Explorer version 9 or higher.

The Entity Metadata Browser uses a modified version of the [Sdk.Soap.js library](https://code.msdn.microsoft.com/SdkSoapjs-9b51b99a).

All CSS and JavaScript files used by the Metadata Browser pages are minimized and included within the HTML pages so that the entire solution only consists of three HTML web resources.

The Metadata browser does not include a reference to the ClientGlobalContext.js.aspx in order to get the context object to call the getClientURL method. This is because including this page adds additional code that cancels the selectstart event which prevents selecting and copying text. The ability to select and copy text is important so the root organization URL is extracted from the window location object.

# Installation

Install the solution as you would any Microsoft Dynamics CRM solution. In the **Settings** area, within the **Customization** group select **Solutions**. Select **Import** from the toolbar and select the **MetadataBrowser\_3\_0\_0\_1\_managed.zip** file located in the same folder as this document in the downloadable files for the Microsoft CRM SDK at SDK\Tools\MetadataBrowser.

# Using the Utility

After installing the solution, in the **Solutions group**, within the **Customization** area open the **Metadata Browser** solution and view the Configuration page.

The configuration page includes information about the solution and two buttons to launch the two pages included with the solution.

## Metadata Browser

This page displays a master/detail view of all the entities in the system.

With this page you can:

* Select an entity to view using the Entity Metadata Browser
* Open the selected entity form in the default organization if the entity supports this
* Perform a text search to filter displayed entities using the following entity properties: SchemaName, LogicalName, DisplayName, ObjectTypeCode, or MetadataId
* Filter entities by any entity property values
* Filter the properties displayed for the selected entity

## Entity Metadata Browser

This page displays details about a selected entity.

With this page you can:

* View all the properties for the entity and filter the properties displayed
* Open the selected entity edit form in the default organization if the entity supports this
* Change the entity that you want to view
* View the entity attributes in a master/detail view. With this view you can:
  + Open the selected attribute form in the default organization if the attribute supports this
  + Perform a text search to filter displayed attributes using the following attribute properties:SchemaName, LogicalName, DisplayName, or MetadataId
  + Filter attributes by any attribute property values
  + Filter the properties displayed for the selected attribute
* View any keys defined for the entity.
* View entity relationships. With these views you can:
  + Open the selected relationship form in the default organization if the relationship supports this
  + Perform a text search to filter displayed relationships using values relevant to the type of relationship
  + Filter the relationship by any relationship value
* •View entity privileges. With this view you can:
  + Filter the displayed privilege using the PrivilegeId

## Viewing Complex Properties

When viewing properties, you will see that some complex properties are expandable. The most useful value is displayed with a link that allows toggling to a more detailed view. The detailed view reflects the structure of the data if you were to retrieve it programmatically and reveals other relevant data that can be retrieved in the same area. For example if any localized labels are present for **Display Name** properties. OptionSet attribute options can be expanded to view the details for each option.

Columns displaying complex properties cannot be sorted.

## Editing Metadata

If metadata item is displayed in the default solution, an edit button is enabled to launch the form to edit the item.

## Filtering Items

For entity and attribute properties you can filter the properties shown. The number of properties for these items is quite long and you can select which properties you want to view.

For entities, attributes, and relationships you can filter the items shown by setting property values. For many text values, such as SchemaName, Logical Name, MetadataId or ObjectTypeCode you can use the Text Search to further filter items shown.

# Known Issues

1. When using Internet Explorer 10, the first item in a master list may not respond to a manual click event. Double clicking the row will allow the row to be selected.

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