Your code will need to operate in a context where a number of variables are not known at design time. The context object provides methods to retrieve information specific to an organization, a user, or parameters passed to a page.

The context object is available in forms by referencing **Xrm.Page.context**.

For web resources executed outside of a form, use the [GetGlobalContext function](https://msdn.microsoft.com/en-us/library/af74d417-1359-4eaa-9f87-5b33a8852e83#BKMK_GetGlobalContext) to retrieve a context object.

[**Context properties and methods**](javascript:void(0))

[**client**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_Client)

Provides access to the [getClient](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getclient), [getClientState](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getclientstate) and [getFormFactor](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getFormFactor) methods you can use to determine which client is being used, whether the client is connected to the server, and what kind of device is being used.

[**getClientUrl**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getclienturl)

Returns the base URL that was used to access the application.

[**getCurrentTheme**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getcurrenttheme)

Returns a string representing the current Microsoft Office Outlook theme chosen by the user.

[**getIsAutoSaveEnabled**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getIsAutoSaveEnabled)

Returns whether Autosave is enabled for the organization.

[**getOrgLcid**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getorglcid)

Returns the language code identifier (LCID) value that represents the base language for the organization.

[**getOrgUniqueName**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getorguniquename)

Returns the unique text value of the organization’s name.

[**getQueryStringParameters**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getquerystringparameters)

Returns a dictionary object of key value pairs that represent the query string arguments that were passed to the page.

[**getTimeZoneOffsetMinutes**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getTimeZoneOffsetMinutes)

Returns the difference between the local time and Coordinated Universal Time (UTC).

This method was introduced with Microsoft Dynamics [CRM[https://cdncache3-a.akamaihd.net/items/it/img/arrow-10x10.png](https://msdn.microsoft.com/en-us/library/gg334511.aspx#59963724)](https://msdn.microsoft.com/en-us/library/gg334511.aspx#59963724) Online 2015 Update 1.

[**getUserId**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getuserid)

Returns the GUID of the **SystemUser.Id** value for the current user.

[**getUserLcid**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getuserlcid)

Returns the LCID value that represents the provisioned language that the user selected as their preferred language.

[**getUserName**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getusername)

Returns the name of the current user.

[**getUserRoles**](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getuserroles)

Returns an array of strings that represent the GUID values of each of the security roles that the user is associated with or any teams that the user is associated with.

Returns the base URL that was used to access the application.

JScript

[Copy](javascript:if%20(window.epx.codeSnippet)window.epx.codeSnippet.copyCode('CodeSnippetContainerCode_bda75e0e-0e90-4e55-aa5e-d5cc304cf0e3');" \o "Copy to clipboard.)

context.getClientUrl()

Use this instead of the removed [getServerUrl](https://msdn.microsoft.com/library/gg334511(v=crm.5).aspx#BKMK_getServerUrl) method.

The values returned will resemble those listed in the following table.

### 

|  |  |
| --- | --- |
| **Client** | **Value** |
| Microsoft Dynamics CRM (on-premises) | http(s)://server/org |
| Microsoft Dynamics CRM Online | https://org.crm.dynamics.com |
| Microsoft Dynamics CRM for Outlook with Offline Access when offline | http://localhost:2525 |

**Return Value**

This method is new for Microsoft Dynamics CRM 2015 and Microsoft Dynamics CRM Online 2015 Update

Returns whether Autosave is enabled for the organization.

JScript

[Copy](javascript:if%20(window.epx.codeSnippet)window.epx.codeSnippet.copyCode('CodeSnippetContainerCode_eef2fe02-cc61-4742-be39-f98758f8c76f');)

context.getIsAutoSaveEnabled()

**Return Value**

Returns the LCID value that represents the base language for the organization.

JScript

[Copy](javascript:if%20(window.epx.codeSnippet)window.epx.codeSnippet.copyCode('CodeSnippetContainerCode_d5432e93-a2f4-44cd-a9c2-ddb613430a3d');)

context.getOrgLcid()

Returns the unique text value of the organization’s name.

JScript

[Copy](javascript:if%20(window.epx.codeSnippet)window.epx.codeSnippet.copyCode('CodeSnippetContainerCode_bcb35e40-0bb0-4b43-985c-66206c34547e');)

context.getOrgUniqueName()

Returns the LCID value that represents the Microsoft Dynamics CRM Language Pack that the user selected as their preferred language.

JScript

[Copy](javascript:if%20(window.epx.codeSnippet)window.epx.codeSnippet.copyCode('CodeSnippetContainerCode_d8779f9d-f84b-4d50-986e-00e587622086');)

context.getUserLcid()

[**isOutlookClient**](https://msdn.microsoft.com/library/gg334511(v=crm.7).aspx)

This method was replaced by [client](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_Client).[getClient](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getclient).

[**isOutlookOnline**](https://msdn.microsoft.com/library/gg334511(v=crm.7).aspx)

This method was replaced by [client](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_Client).[getClientState](https://msdn.microsoft.com/en-us/library/gg334511.aspx#BKMK_getclientstate).

**Business Rules:**

*Set field value* rules

* Choose the *Field* and *Type*. There are three *Types*:
  1. **Field** - Use this type to set the value of one form field with the value of another field.
  2. **Value** - Use this type to set the value of a form field with a value you enter.
  3. **Formula** - This option only appears for numerical or date data types. It does not appear for fields that contain text. Use this type to set the value to the result of a simple calculation that may use either a value in another form field or a value you enter.
* If you do not specify any condition, this is similar to setting a default value for the field.

**Why business rules?**

Business rules provide an easy declarative way to consistently evaluate the business logic on both client and server, without the need to write code. The client-side logic evaluation is more immediate because it is performed when you open and update the record form, while the server-side provides consistent logic evaluation on the server.

* The business rule is executed only on the client, if the rule’s scope is set at a form level (all forms or a specific form). The rules are executed when a record form is loaded and updated.
* The business rule is executed both on the server and client, if the rule’s scope is set at an entity level. The rules on the server-side are executed when a record is created or saved.
* Business rules can be set to apply to all Main or Quick Create entity forms or specific Main forms that you choose. You can also set the rule to apply to an entity.
* You can transport business rules from one organization to another by including them in a solution and you can install solutions that contain business rules.

### Set the scope

In the top right of the form, use the **Scope** field to set the scope for the rule.

### 

|  |  |  |
| --- | --- | --- |
| **Scope** | **Where it runs run** |  |
| Entity | All forms and server |  |
| All forms | All forms |  |
| Specific form | Just that form |  |

You cannot select multiple specific forms. If you choose **All Forms**, the rule will be applied to all the Main forms and the Quick Create form, as long as the form includes all the fields referenced by the rule. If you create a new business rule by using the form editor, the default scope is just that form.

### Server side business rules and support for IF-Else and AND/OR logic

Previously, you had an ability to evaluate the business rules on an individual client. To evaluate the business rule logic on the server and apply it to all clients, you had to provide the plug-ins, which are expensive to develop and maintain. Setting the scope of the business rule at an entity level, gives you an ability to evaluate the business rule once on the server and apply it to all clients without writing code. You can move the logic for commonly used scenarios out of plug-ins into the entity-level business rules.

|  |
| --- |
| **noteNote** |
| When the scope is set to an Entity and you create or edit a record using the forms, the rule runs on the client side, but later, it runs again on the server. Because of this, we prevent you from creating a circular reference to a field, if you set the scope to an Entity. For example, you can't set Credit Limit = Credit Limit + 1000, because it would increase the value once on the client side and then would try to run again on the server side. |

**Limitations for business rules**

Business rules are intended to address common actions. Compared to what a developer can do by using form scripts, business rules have limitations. However, business rules are not intended to replace form scripts.

Here are a few limitations to using business rules:

* Business rules run only when the form loads and when field values change. They do not run when a record is saved, unless the scope for the rule is set at an entity level.
* Business rules work only with fields. If you need to interact with other visible elements, such as tabs and sections, within the form you need use form scripts.
* When you set a field value by using a business rule, any OnChange event handlers for that field will not run. This is to reduce the potential for a circular reference, which could lead to an infinite loop.
* If a business rule references a field that is not present on a form, the rule will simply not run. There will be no error message.
* Whole Number fields that use the formats for TimeZone, Duration, or Language will not appear in the rule editor for the conditions or actions, so they cannot be used with business rules.
* For Microsoft Dynamics CRM for tablets, the definition of the business rules are downloaded and cached when CRM for tablets opens. Changes made to business rules are not applied until CRM for tablets is closed and re-opened.
* When you set the value of a lookup field, the text of the primary field value that is set in the form will always match the text that is visible in the rule definition. If the text representing the primary field value of the record you are setting in the lookup changes, the value set by your rule will continue to use the text portion of the primary field value defined by the rule. To fix this, update the rule definition to use the current primary name field value.  
    
    
    
  It is useful to understand that the value set for a lookup has three parts:
  + **Name**: The text of the primary field value you see in the form.
  + **Id**: The unique identifier for the record. This is the data that is saved. This is not visible in the form.
  + **LogicalName**: The name of the entity, such as **contact**, **account**, or **opportunity**.

The rule will set all three parts of this value. The **Id** value for a specific record never changes, but the **Name** value might change.

## Localize error messages used in business rules

If you have more than one language provisioned for your organization, you will want to localize any error messages that you have set. Each time you set a message, a label is generated by the system. If you export the translations in your organization, you can add localized versions of your messages and then import those labels back into Microsoft Dynamics CRM, so that people using languages other than your base language can view the translated messages.

Each individual form can have zero, one or multiple business rules

* Saving a record will not run the business rule again
* Business rules conditions are checked onload and when the field changes. The conditions are evaluated and if the conditions are met the business rule actions will be
* You cannot save a record whilst the business rule error icon is displayed

You cannot clear a field using business rules

You cannot delete a field used in a business rule, until you delete the business rule

* JavascriptOnChange event handlers are not triggered if a field value is changed by a business rule.
* You cannot call a Javascript method from a business rule

Business rules work on all entities, default and custom

* Business Rules work only with form fields. They do not work with tabs and sections.
* If a field value is set using the Business Rules, the field onchange Business Rules will not run since it could lead to an infinite loop.
* Invoking JavaScript web resources from the Business Rules is not possible.
* External data sources cannot be connected

https://crmprof.wordpress.com/2013/02/25/ms-crm-2011-what-is-the-isdirty-property/

https://crmprof.wordpress.com/2013/02/27/how-to-set-all-the-fields-on-a-form-required-using-java-script-in-microsoft-dynamis-crm-2011/

Check IsDirty in CRM field

var isDirty = Xrm.Page.getAttribute(“CRMFieldSchemaName”).getIsDirty();

http://stackoverflow.com/questions/9991080/check-the-form-has-saved-or-not-in-crm-2011-javascript alert(isDirty); // returns true if the field is dirtyhttps://crmprof.wordpress.com/2013/03/21/how-to-get-all-required-fields-using-java-script-in-microsfot-dynamics-crm-2011/

http://stackoverflow.com/questions/21597783/crm-2013-update-a-read-only-field-value-using-business-rule

* Xrm.Page.data.entity.getEntityName()   //Entity Name
* Xrm.Page.data.entity.getId()                     //Record GUID
* Xrm.Page.ui.getFormType()                      //CRM Form Type (Integer)  
  \*\*Create (1), Update (2), Read Only (3), Disabled (4), Bulk Edit (6)

**Check isDirty**

* Xrm.Page.data.entity.getIsDirty()  // Form is IsDirty
* Xrm.Page.data.entity.attributes.get(“new\_name”).getIsDirty()  //Field is IsDirty

Xrm.Page.getAttribute(“CRMFieldSchemaName”).setSubmitMode("always");

Xrm.Page.ui.close();

Save function

Xrm.Page.data.entity.save();

<https://crmprof.wordpress.com/2013/02/25/ms-crm-2011-what-is-the-isdirty-property/>