



SDK for CRM Word interface

SDK for

CRM Wordinterface – for Microsoft Dynamics CRM

Versions 5.2.0 – 9.2.0

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1. Preface

Thank you für choosing our [CRM Word Interface](#).

Now you have the option to use the functions of the Word interface for individual programmatic customizations.

The CRM Word Interface is an [Add-On for Microsoft Dynamics CRM](#).

In the following pages you will find the detailed Software Developers/Development Kit for the versions 5.2.0 - 9.2.0 for the Word Interface for Microsoft Dynamics CRM.

2. Requirements

An installed and functioning version of the Word Interface for Microsoft Dynamics version 5.2.0 or higher is necessary in order to use all functions of the CRM Word Interface.

3. Functional description

This SDK helps to use the functions of the Word Interface for individual programmatic customizations.

These functions can be used for editing or controlling of the CRM Data that were sent to the document or for automatizing the finishing process of the final document.

In order to use these functions, an existing Word template is necessary.

A query with the parameters "Templateid", "Entityname" and "recordId" is sent to the CRM, resulting in an filled document.

4. Technical description

Initially, it is necessary to enter the following information in a XML file: These informations are resquesttype, and can only be either "Document" or "DocumentFile".

Additionally, enter the Entityname and the Guid of the record in question, the used Word Template Guid and the Server URL containing the organization names into the XML file.

A Query Expression will be generated and sent to the CRM via Retrieve Multiple. The Plug-In of the Word Interface receives and processes this query expression.

Conditions for the Query Expressions are:

Mandatory data for the Query Expression (for examples, see the attachment):

- As entity name only „donau_wordtemplate“
- as ColumnSet, only „donau_automation“ is valid
- 2 Conditions need to be set
 - o Attribute „donau_automation“ with the operator „eq“ and as value the parameter XML
 - o Attribute „donau_wordtemplateid“ with the operator „eq“ and as value the respective TemplateID
 - o If onyl one of the two conditions is entered, a Plug-In error message will be displayed.

The result is an Entity Collection, containing only one attribute named "donau_automation". The attributes value contains either a Guid of the attachment to which the document was attached or a base 64 encoded string.

4.1 Query Expression

<http://msdn.microsoft.com/en-us/library/gg328300.aspx>

Query Expression are used in methods that result in more than one record. As in the method Retrieve Multiple, the result is specified by the Query Expression

4.2 Retrieve Multiple

<http://msdn.microsoft.com/en-us/library/microsoft.xrm.sdk.iorganizationservice.retrievemultiple.aspx>

Displays a list of entities specified by the query.

4.3 Calling Parameters

Parameter:

Requesttype

Possible values:

Type: String, value: Document

Type: String, value: DocumentFile

entityname

Type: String, value: Schema name of the entity, from which the data should be retrieved

entityid

Type: String, value: GUID of the record, from which the data should be retrieved

serverurl

Type: String, value, URL of the Organization Service

example: <http://ServerUrl/Organisationsnamen/XRMServices/2011/Organization.svc>

templatetype

Type: String, value: donau_wordtemplate

responsetype

Type: String, value: document format as Docx or Pdf

instantupload

Type: String, value: direct upload after creation as true or false

Example:

```
<cwirequest>
  <requesttype>Document</requesttype>
  <entityname>" + entityName + "</entityname>
  <entityid>" + entityId + "</entityid>
  <serverurl>" + serverUrl + "</serverurl>
  <templatetype>donau_wordtemplate</templatetype>
  <responsetype>" + responseType + "</responsetype>
  <instantupload>" + instantUpload + "</instantupload>
</cwirequest>
```

4.4 Return values

The query "Retrieve Multiple" results in 2 different outcomes, depending on the entered request type.

The result of the "Retrieve Multiple" query is an "entity" type, the attribute "donau_automation" has the result XML as value.

Depending on the selected request type, a GUID or the document as a Base64 string will be output.

The result is an entity with an attribute named "donau_automation", the value lists the result

1. When entering the Request type "document", the value will be the GUI of the note attached to the document.
2. When entering the Request type "document file", the result will be a base64 coded string.

5. Examples

5.1 Retrieve Multiple with Query Expression in C#

```
//Definition of the parameters: EntityName and EntityId
String entityName = "quote";
String entityId = "BACEA15E-D06E-E211-807B-00155D001B13";
Guid templateId = new Guid("A9350428-DA3A-E211-90AB-00155D00F32B");
String orgUrl = "https://Organisationsnamen.crm4.dynamics.com";

String connectionString = $"Url={orgUrl}; Username={USER}; Password='{PASSWORD}';
AuthType=OAuth; AppId=51f81489-12ee-4a9e-aaae-a2591f45987d; RedirectUri=app://58145B91-0C36-4500-8554-080854F2AC97; LoginPrompt=Auto";

// Definition of the parameters
//RequestType Document
const string requestType = "Document";
//RequestType Documentfile
//const string requestType = "DocumentFile";

// Definition of the parameters
//ResponseType Docx
const string responseType = "Docx";
//ResponseType Pdf
//const string responseType = "Pdf";

// Definition of the parameters
// direct upload after creation
const string instantUpload = "true";
// only display the document (without upload)
// const string instantUpload = "false";

String parameters = @"<cwirequest> " +
    "<instantupload> " + instantUpload + "</instantupload > " +
    "<responsetype> " + responseType + "</responsetype> " +
    "<requesttype> " + requestType + "</requesttype> " +
    "<entityname> " + entityName + "</entityname> " +
    "<entityid> " + entityId + "</entityid> " +
    "<serverurl> " + orgUrl + "</serverurl> " +
    "</cwirequest>";

//Definition of the conditions
var condition = new ConditionExpression("donau_automation",
    ConditionOperator.Equal,
    parameters);

//Definition of the filter
var filter = new FilterExpression(LogicalOperator.And);
filter.Conditions.Add(condition);

//TemplateId
var idCondition = new ConditionExpression("donau_wordtemplateid",
    ConditionOperator.Equal,
    templateId);

filter.Conditions.Add(idCondition);

//Creating the query with the function "QueryExpression"
QueryExpression query = new QueryExpression("donau_wordtemplate");
```

```
query.ColumnSet = new ColumnSet("donau_automation");
query.Criteria = filter;

using (CrmServiceClient crmService = new CrmServiceClient(connectionString))
{
    //Message RetrieveMultiple send by transferring the created query
    EntityCollection responseEntityCol = crmService.RetrieveMultiple(query);

    //Result GUID (RequestType Document)
    //or a Base 64 String (RequestType DocumentFile)
    String result =
        responseEntityCol.Entities[0].Attributes["donau_automation"].ToString();
}
```

5.2 Retrieve Multiple with Query Expression in JavaScript

```
/// <reference path="Donaubauer.Library.js" />

//Initialization
var $crm = Donaubauer.Crm;
var $js = Donaubauer.JavaScript;
var $jq = Donaubauer.$;
var $cs = new Donaubauer.Crm.OrganizationService();

var entityName = "quote";
var entityId = "B30A4B90-B1AC-E211-B889-00155D001B13";
var templateId = "A9350428-DA3A-E211-90AB-00155D00F32B";
var serverUrl = "http://Servername/Organisationsnamen/XRMServices/2011/Organization.svc";

//RequestType Document
var requestType = "Document";

//RequestType DocumentFile
var requestType = "DocumentFile";

// ResponseType Docx
var responseType = "Docx";

//ResponseType PDF
var responseType = "Pdf";

// Instant Upload
var instantUpload = "true";

// no Instant Upload
var instantUpload = "false";

var parameters = @"<cwirequest>"+
    "<instantupload>" + instantUpload + "</instantupload>" +
    "<responsetype>" + responseType + "</responsetype>" +
    "<requesttype>" + requestType + "</requesttype>" +
    "<entityname>" + entityName + "</entityname>" +
    "<entityid>" + entityId + "</entityid>" +
    "<serverurl>" + serverUrl + "</serverurl>" +
    "</cwirequest>";

//Definition of the condition
var condition = new $crm.ConditionExpression("donau_automation",
    $crm.ConditionOperator.Equal, parameters);

//Definition of the filter
var filter = new $crm.FilterExpression($crm.LogicalOperator.And);
filter.Conditions.push(condition);

//TemplateId
var idCondition = new $crm.ConditionExpression("donau_wordtemplateid",
    $crm.ConditionOperator.Equal,
    new $crm.GuidAttribute(templateId));
filter.Conditions.push(idCondition);

//Creating the query with the function "QueryExpression"
var query = new $crm.QueryExpression("donau_wordtemplate");
```

```
query.ColumnSet = new $crm.ColumnSet(["donau_automation"]);
query.Criteria = filter;

var responseEntityCol = $cs.RetrieveMultiple(query);

//contains either a GUID or a base64 string
var result = responseEntityCol.Entities[0].Attributes.donau_automation.Value;
```

If you have any questions concerning our CRM Word Interface or need additional support, do not hesitate to contact us via support@donaubauer.com

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