**Microsoft Dynamics CRM 2013 SDK**

**CRMtoGo App Readme**

# **Description**

This is a full featured Windows Phone 8.1 sample app that demonstrates how to access the Dynamics CRM web services using the [Microsoft.Crm.Sdk.Mobile](https://code.msdn.microsoft.com/windowsapps/Mobile-Development-Helper-3213e2e6) helper code. The sample is coded as a Windows 8.1 phone app and makes use of the Multilingual App Toolkit for multi-language support. At run-time, the sample loads CRM metadata from the target organization in order to support both built-in and custom entities. The sample includes custom CRM controls.

If you are looking for a simpler app to review, take a look at the [ActivityTracker](https://code.msdn.microsoft.com/Activity-Tracker-Sample-c8da7a1e) sample.

# **Prerequisites**

To use this sample, you need to have:

* Windows 8.1 (x86) or a later revision
* For the Windows Phone emulators, Windows 8.1 (x64) Professional or Enterprise edition, and a processor that supports Client Hyper-V and Second Level Address Translation (SLAT).
* Visual Studio 2013 Update 2 or later
* [Multilingual App Toolkit](http://dev.windows.com/en-us/develop/multilingual-app-toolkit)
* Network access to a Dynamics CRM Online or IFD organization

# **Build and run the sample**

Your development computer must have an internet connection to build the sample app as one or more Nuget packages will be automatically downloaded during the app build.

To build and run the sample app, follow these steps on a Windows 8 development computer running Visual Studio 2012 or 2013.

1. Download and build the [Mobile Development Helper Code for Dynamics CRM](https://code.msdn.microsoft.com/windowsapps/Mobile-Development-Helper-3213e2e6).
2. Follow the instructions in the topic [Walkthrough: Register a CRM app with Active Directory](http://msdn.microsoft.com/en-us/library/dn531010.aspx) to register the app with Active Directory. You must register the app with a claims enabled CRM deployment, which typically means CRM Online or IFD.

**Tip:** You can obtain the required redirect URL for the app in a debugging session of the app by setting a breakpoint in CrmtoGo.Shared\Helper\CRMHelper.cs at line 98. Copy (Ctrl+C) the redirect URL value that is obtained after that line of code executes. You can then terminate the debugging session.

1. Verify that your CRM server is configured for OAuth authentication. The CRM Online servers are pre-configured. For more information on configuring an IFD server running ADFS 2.0 (or later) see [Post-installation and configuration guidelines for Microsoft Dynamics CRM](http://technet.microsoft.com/en-us/library/hh699726.aspx#BKMK_configure_IFD).
2. Modify the ClientId value on line 101 in the file CrmtoGo.Shared\Helper\CRMHelper.cs to match the value used during app registration.
3. In Visual Studio 2013 with update 2 (or later) installed, open the CrmtoGo.sln file.
4. Add a reference to the CRMtoGo.WindowsPhone project for the Microsoft.Crm.Sdk.Mobile.dll library that you built in step 1.
5. Press F6 to build the solution, or F5 to build and run.
6. When prompted by the app, enter your CRM server organization URL on the Settings page and choose Submit. An example URL for CRM Online (North America) would be https://<myOrg>.crm.dynamics.com.
7. Enter your login credentials if prompted.

There are two NuGet packages that Visual Studio should download during the first build. If this does not happen and build errors result, you can remove those packages using the NuGet package manager in Visual Studio. The packages are named [Microsoft.IdentityModel.Clients.ActiveDirectory](http://www.nuget.org/packages/Microsoft.IdentityModel.Clients.ActiveDirectory/3.0.110281957-alpha) and [Newtonsoft.Json](http://www.nuget.org/packages/Newtonsoft.Json/).

# **Solution Contents**

This solution contains the following key components:

**CRMtoGo.Shared Project**

This project contains components which can be shared with a Windows Store application.

* **Helper/CRMHelper.cs**
* This helper class provides core functions which call methods in Microsoft.Crm.Sdk.Mobile. This class stores entity metadata, user information, labels, and privileges. The class is marked as static so you can access to it from any pages in the application.

**Helper/Util.cs**

* This class provides functions to serialize/de-serialize objects and display messages. This class works with platform specific features, rather than Microsoft.Crm.Sdk.Mobile.
* **CustomControls**
* This folder provides 2 types of custom controls: UI with XAML, and code only. Code only custom controls are placed in CustomFieldControls (as the name explains, all of them represents CRM type fields).
* **DataModel**

CRMExtendedDataModel.cs contains custom models for Windows Phone 8.1 sample application, and XrmData.cs contains CRM entity types, which was generated using the [CrmSvcMobileUtil](https://code.msdn.microsoft.com/CRM-Service-Utility-for-4ca0c93b) tool.

**Windows Phone project**

* This is a main project which contains Pages and some assets. Most page depends on Shared components.

**MultilingualResources**

This folder is auto generated by the Multilingual App Toolkit. Please refer to following article how to use it: <http://msdn.microsoft.com/en-us/library/windows/apps/jj569303.aspx>

**Assets**

Technically, Assets can be shared between Windows Phone 8.1 and a Windows Store application. However, due to device resolution requirements being different, all the application unique images are placed under here.

**CRMtoGoBackgroundTasks project**

This projects demonstrates how to use a background task for a Windows Phone 8.1 application. The Util.cs file in the Shared project has a method to “register” this background task.

**Important notes**

* The sample files are not intended to be used in a production environment. You should deploy this sample to a test environment and examine it for interaction or interference with other parts of the system.
* Before you deploy this sample to a production environment, make sure that you consider the existing customizations you may have implemented in Microsoft Dynamics CRM 2013.
* This app was written by Kenichiro Nakamura at Microsoft.
* Source code for the [CrmSvcMobileUtil](https://code.msdn.microsoft.com/CRM-Service-Utility-for-4ca0c93b) program is provided in a separate download. Use that program to generate any custom or customized entity types in your organization for inclusion in your application.

**Known issues**

There are no known issues at this time.

**Change history**

Version 1.0

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