Microsoft Dynamics®

Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP

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Find updates to this documentation at the following location.

http://go.microsoft.com/fwlink/?LinkId=162558&clcid=0x409

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U.S. and Canada Toll Free 1-888-477-7989

Worldwide +1-701-281-6500

www.microsoft.com/dynamics

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Introduction

Use the Microsoft Dynamics® CRM Adapter for Microsoft Dynamics GP to integrate Microsoft Dynamics CRM and Microsoft Dynamics GP data. For example, you can integrate Microsoft Dynamics GP customers with Microsoft Dynamics CRM contacts giving you access to up-to-date customer/contact information in both systems.

The Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP is intended to be used in an implementation where Microsoft Dynamics CRM is used to manage business contacts, track leads, enter sales orders, and perform other sales and marketing activities. And where Microsoft Dynamics GP is used to perform accounting functions, manage your company's chart of accounts, and maintain customer, vendor, item, employee, and other records.

Within the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP, separate adapters are used to identify a source system (where data is read from) and a destination system (where data is written to). The source adapter reads data from the source system. The destination adapter writes the data to the destination system.

Record types that are integrated are referred to as "entities." Some entity information can be integrated only one way between the two systems. For example, a Product that is entered into Microsoft Dynamics CRM cannot be integrated with Microsoft Dynamics GP as a Sales Item, but a Sales Item that is entered into Microsoft Dynamics GP can be integrated with Microsoft Dynamics CRM as a Product.

You can use this product to integrate the following entities in Microsoft Dynamics GP and Microsoft Dynamics CRM.

Microsoft Dynamics GP entity	Integration direction	Microsoft Dynamics CRM entity
Customer	↔	Account
Customer	↔	Contact
Flat fee	→	Product
Kit	→	Product
Miscellaneous Charges	→	Product
Sales Item	→	Product
Service	→	Product
Price Level	→	Price List
Sales Invoice	→	Invoice
Sales Order	↔	Order
Salesperson	→	ERP System User
U of M Schedule	→	Unit Group

Note: Only Functional Currency and base currency are supported for integration.

Common terminology

The following terms are used in this document.

Term	Definition
Microsoft Dynamics Integration (MSDI) database	The database created by the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP during the installation process.
Map	A collection of associations between fields in one Microsoft Dynamics CRM entity with fields in another Microsoft Dynamics GP entity.
Integration	The process of synchronizing data that was entered in one Microsoft Dynamics application with another Microsoft Dynamics application. Within the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP product, an integration consists of a set of maps that can be run to integrate some Microsoft Dynamics CRM entities with some Microsoft Dynamics GP entities.
Entity	A type of record in a Microsoft Dynamics system. Orders, invoices, accounts, customers, products, or items are all examples of an entity.
Source/Destination entity	The source entity provides the data that will be used to create new entities in the destination system. The destination entity is created or modified after you run an integration. If the Microsoft Dynamics GP Customer record is the destination entity and the Microsoft Dynamics CRM Contact record is the source entity then Microsoft Dynamics CRM Contacts will be created as Customers within Microsoft Dynamics GP when the integration is run.
Adapter	A software component that enables data exchange through a specific transport. Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP uses adapters to read data from and write data to Microsoft Dynamics systems.
Integrated record	An integrated record is one that has been linked between the two systems and then synchronized. For example, if a customer record in Microsoft Dynamics GP has a corresponding account record in Microsoft Dynamics CRM and these records have been linked, it is an integrated record.
Entity record	A specific occurrence of an entity. A Microsoft Dynamics GP customer record, a product, or a Microsoft Dynamics CRM order are each an example of an entity record.
Exception	An abnormal condition or error that occurs during the integration between a source entity and a destination entity.
Runtime	The process of reading entity information from the source system, transforming that information into data that the destination system can recognize, and then writing the transformed data to the destination system.

Registration window

Registering software helps Microsoft provide customers with better service. Software registration also eliminates unauthorized use of the software without imposing restrictive copy protection procedures.

A Microsoft Partner will provide the customer with a registration key for the Microsoft Dynamics Adapter for Microsoft Dynamics GP. During the installation process, a Registration window appears immediately after the terms and conditions page. To view the registration key from within the Adapter client, right-click **Home** and click **Version History**.

Architecture

Components of the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP are described below.

Microsoft Dynamics Adapter Service

The adapter service is the core engine that drives the runtime process. This adapter service is a Windows service and is responsible for controlling, monitoring, and reporting on all activated integrations.

The client

The client provides the user interface that you use to create integrations, customize and activate maps, enter adapter settings, set up exception notifications, and view logging information.

MSDI database

The Microsoft Dynamics Integration (MSDI) database stores all configured integrations and their status and also acts as a security boundary between the Microsoft Dynamics Adapter Service and the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP client.

Adapters

Adapters are used to connect the runtime to the Microsoft Dynamics CRM and Microsoft Dynamics GP Web Services. This connection is used for reading and writing data from one application to another application.

The following adapters are provided.

- Microsoft Dynamics CRM 4.0 adapter
- Microsoft Dynamics GP 10 adapter
- Microsoft Dynamics GP 2010 adapter

Transformation engine

At its core, the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP moves data from one system in one format to another system, in a different format. The adapters provide or supply the data from the source and destination systems, and the transformation engine changes the data from one format to another. The change that is made by the transformation engine is determined by the map that is associated with the type of data that is being moved. For example, to move a Microsoft Dynamics GP customer record to a Microsoft Dynamics CRM account record, the transformation engine creates a Microsoft Dynamics CRM Account object based on the transformation that is defined in the CustomerToAccount.map file for the Microsoft Dynamics GP customer entity and sends it to the Microsoft Dynamics CRM system using the Microsoft Dynamics CRM Adapter.

Map templates

The Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP includes a series of map templates that provide default field mapping between source and destination entities. You can create and edit new maps from the templates. You may need to do this to meet specific business needs or to ensure that any customizations that you may have made to your source or destination systems are considered. Map template files are stored at the installation location in the Templates folder and have a .map file extension. Any maps that you create in the client are stored in the MSDI database by default and can also be saved as a .map file on the local file system.

Information flow

After installation and setup, some entities that you create in Microsoft Dynamics GP will automatically be written into Microsoft Dynamics CRM and some entities that you create in Microsoft Dynamics CRM will automatically be written into Microsoft Dynamics GP. The maps that you have activated determine which entities are integrated between the two applications.

The following scenario describes the information flow of integration between the Customer entity in Microsoft Dynamics GP and the Account entity in Microsoft Dynamics CRM.

1. A new integration is created, which means that both a source and a destination system have been identified, source and destination adapters have been activated, companies have been selected to integrate and a map for the Customer entity is created and activated (this is the mapping process), and the map is scheduled to run at a specific time interval.
2. The Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP client sends the integration service a control message that instructs the adapter service to load the integration settings and maps from the MSDI database.
3. When the next run time for the map is reached, the adapter service queries the source system with a timestamp from the MSDI database that indicates when the integration was last started.
4. The source adapter returns a collection of Customer entities that have been added or changed since the date on the timestamp. It also returns another collection of Customer Numbers that have been removed since the date on the timestamp.
5. The field values are passed through the transformation engine using a transformation component that is created based on the map that is saved to the database.
6. The resulting transformed Account field values are sent to the destination adapter, which, in this example, is the Microsoft Dynamics CRM adapter.
7. The Microsoft Dynamics CRM adapter writes the changes to the Microsoft Dynamics CRM system (destination system).
8. The Microsoft Dynamics Adapter Service updates the timestamp in the MSDI database to reflect the time that the integration started.

Microsoft Dynamics CRM Configuration utility

The Microsoft Dynamics CRM Configuration utility tool is used to prepare your Microsoft Dynamics CRM organizations for integration. For more information, see Configuring the Microsoft Dynamics CRM organizations.

Installation

The following sections contain information and steps to help you with the installation.

System requirements

Before installation, be sure that your system meets the following requirements.

- Microsoft® Windows Server® 2003 SP2, Windows Server 2003 R2 SP2, or Windows Server 2008® R2 SP2
- Microsoft .NET Framework 3.5 SP1
- A valid connection to a computer with Microsoft SQL Server® 2005 or Microsoft SQL Server 2008 installed
- Microsoft Dynamics CRM Web Services version 4.0 with at least Update Rollup 5 applied or a valid subscription to Microsoft Dynamics CRM Online
- For Microsoft Dynamics CRM Online ONLY – Windows Live ID and password

If you are using Microsoft Dynamics GP 10.0:

- Microsoft Dynamics GP 10.0 SP4
- Microsoft Dynamics GP Web Services 10.0 SP4
- Microsoft Visual C++ 2005 SP1 Redistributable Package ATL Security Update: http://www.microsoft.com/downloads/details.aspx?displaylang=en&FamilyID=766a6af7-ec73-40ff-b072-9112bab119c2#filelist. **Note**: The following error message occurs in the Dynamics Security Console if you do not install this update: "Unable to load DLL 'ObjectPickerInterop.dll' The application has failed to start because its side-by-side configuration is incorrect**"**

If you are using Microsoft Dynamics GP 2010:

- Microsoft Dynamics GP 2010
- Microsoft Dynamics GP Web Services 2010

System prerequisites

If you're using Microsoft Dynamics GP 10, be sure that you are aware of, and have read the following Microsoft Dynamics GP 10.0 Knowledge Base articles before you begin.

- Knowledge Base article KB941467

  Apply the hotfix referenced in this article to the Microsoft Windows Server where Microsoft Dynamics GP Web Services is installed. http://support.microsoft.com/kb/941467

- Knowledge Base article KB973027

  If you receive error messages when you install Web Services for Microsoft Dynamics GP 10.0, read this article. https://mbs.microsoft.com/knowledgebase/KBDisplay.aspx?scid=kb;en-us;973027

- Knowledge Base article KB950844

  Read this article to learn how to verify that the Microsoft Dynamics GP Web Services run correctly after you install the Microsoft Dynamics GP Web Services. https://mbs.microsoft.com/partnersourceapp/search.aspx?qu=KB950844+

User account requirements

Several user accounts are used for an installation. These user accounts are summarized below, and then each is explained in detail.

- **Installation account** – The account that installs the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP.
- **Integration account** – The account that the Microsoft Dynamics CRM Adapter Service runs as.
- **Configuration account** – The account that runs the Microsoft Dynamics CRM Configuration Utility.
- **Integration GP account** – The account that is used to connect to Microsoft Dynamics GP Web Services.
- **Integration CRM account** – The account that is used to connect to Microsoft Dynamics CRM on-premises or the Windows Live ID used to connect to Microsoft Dynamics CRM Online.
- **CRM Deployment Administrator account** – The account that the Microsoft Dynamics CRM Configuration Utility uses to retrieve a list of Microsoft Dynamics CRM organizations and apply customizations to the Microsoft Dynamics CRM organizations (used for on-premises deployment only). For Microsoft Dynamics CRM Online, this user needs to be a system administrator.

To help simplify the installation process, you can create one user account that has the necessary combined permissions of all the other user accounts listed above.

Installation account

This is the account under which the installer is run. This account must:

- be at least a domain user and a member of the Local Administrators group on the server where Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP is to be installed,
- be assigned at least the dbcreator and securityadmin server roles on the SQL server where the MSDI database is to be stored.

For instructions on how to assign database roles to users, refer to your SQL Server documentation.

Integration account

This account is to run integrations. You must create this account before installation. For detailed instructions on how to create a new domain user account, refer to the "Create a new user account: Active Directory®" topic on http://technet.microsoft.com.

During installation, the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP:

- assigns the integration account to the public SQL Server role,
- creates a SQL Server logon for the account if a logon does not exist,
- assigns the integration account to the db_datareader and db_datawriter database roles on the MSDI database.

The integration account is also the account used to send notification e-mails. If the SMTP Server that you use to send notifications requires authentication for e-mail submission, you must give the Integration account permission to authenticate and submit e-mails. For more information on setting up notifications, see Setting up notifications.

Configuration account

Use this account to run the Microsoft Dynamics CRM Configuration Utility when using on-premises deployment. The following permissions are required for this account.

- This account must be able to modify the membership of the CRM PrivUserGroup Security Group in the domain that the Microsoft Dynamics CRM Servers are joined to.

  Note: Failure to meet these requirements will result in the following error message when you run the Microsoft Dynamics CRM Configuration Utility. *"The Integration CRM account could not be added to the PrivUsersGroup on the Domain."*

- If this account is not in the db_datareader and db_datawriter roles for the Microsoft Dynamics CRM organization databases, you must use a SQL Server user name and password to update the Microsoft Dynamics CRM organization databases.

Integration GP account

This account is used to connect to Microsoft Dynamics GP. You must create this account and assign it to specific roles in the Dynamics Security Console before you set up the any Microsoft Dynamics GP adapter. For detailed instructions, follow the procedure below.

Create the Integration GP account

1. Create a new domain user account. For detailed instructions, refer to the "Create a new user account: Active Directory" topic on http://technet.microsoft.com.
2. On the server where the Microsoft Dynamics GP Web Service management tools are installed, start the Dynamics Security Console. (**Start** > **Control Panel** > **Administrative Tools** > **Dynamics Security Console**)
3. On the **Actions** pane, click **Select Applications**.
4. Select **Dynamics GP Web Services**.
5. Click **OK**. It may take some time for the Microsoft Dynamics Security node to expand.
6. Select the **Role Assignments** node.
7. In the Add Role Assignments window, select **Microsoft Dynamics Integration – All Companies** from the **Role** list.
8. Click **Add Windows Users** and add the integration GP account that you created in step 1.
9. Select the **All Companies** option.
10. Click **OK** to create the role assignment and close the window.
11. Select the **Role Assignments** node.
12. In the Add Role Assignments window, select **Microsoft Dynamics Integration – Integrated Company** from the **Role** list.
13. Click **Add Windows Users** and add the integration GP account that you created in step 1.
14. Select the **Select Individual Companies** option.
15. Mark each company that you plan to integrate.

16. Click **OK** to create the role assignment and close the window.

    Note: if you are using Microsoft Dynamics GP 2010 and:

    - Using the new Vendor or Purchase Order entities, repeat step 12 and select **Account Payable Coordinator** from the **Role** list, and continue through step 16.
    - Using the new Applicant entity, repeat step 12 and select **HR Manager** from the **Role** list and continue through step 16.

Integration CRM account

This is the domain user account that is used to connect to Microsoft Dynamics CRM or the Windows Live ID used to connect to Microsoft Dynamics CRM Online.

- This account must belong to a Microsoft Dynamics CRM User that has organizational-level read privileges for SystemUser on the CRM Organization that you plan to integrate.
- This account must be a member of the following security roles:
    - System Customizer
    - Proxy (only if using Microsoft Dynamics CRM Online)
    - Dynamics Integration (only if using Microsoft Dynamics CRM Online)

  Note: When you run the CRM Configuration Utility, the Dynamics Integration role is created and the specified CRM Integration User is automatically added to these three roles.

CRM Deployment Administrator account

This is the domain user account that the Microsoft Dynamics CRM Configuration Utility uses to retrieve a list of organizations and their respective databases from Microsoft Dynamics CRM for on-premises deployment.

This account is typically the account that is used to install Microsoft Dynamics CRM for on-premises deployment.

For Microsoft Dynamics CRM Online, this is a Windows Live ID that is in the System Administrator role in the organization to be integrated.

Installing Feature Pack 3 over an existing version

You are not required to manually uninstall a previous version if you are installing Feature Pack 3. That process will be completed automatically.

There are alternate steps you need to take depending on which existing release you're updating from. To find the version, click **Home** then right-click and select **Version Information**.

Installing Feature Pack 3 over initial release (1.0.1603.1)

While installing Microsoft Dynamics Adapter Feature Pack 3 over Microsoft Dynamics Adapter initial release version (version 1.0.1603.1) the CRM Configuration Utility is launched while the existing version of the Microsoft Dynamics Adapter is uninstalled.

Click **Cancel** and do not run the CRM Configuration Utility at this time. You will complete the installation before running the utility.

This release includes an update to a CRM Plug-in that provides many improvements and bug fixes. Once you've completed your installation, you must load this Plug-in update by rerunning the Microsoft Dynamics CRM Configuration Utility. When you run the Microsoft Dynamics CRM Configuration Utility, on the **Configure Status for Organization** window do not click the Import and overwrite customizations checkbox; just click **Configure**. This configuration process will install the updated Plug-in to your Microsoft Dynamics CRM application.

Installing Feature Pack 3 over Feature Pack 1

While installing Microsoft Dynamics Adapter Feature Pack 3 over Microsoft Dynamics Adapter Feature Pack 1 (version 1.1.412.1), the CRM Configuration Utility is launched while the existing version of the Microsoft Dynamics Adapter is uninstalled.

Click **Cancel** and not run the CRM Configuration Utility at this time. You will complete the installation before running the utility.

This release includes an update to a CRM Plug-in that provides many improvements and bug fixes. Once you've completed your installation, you must load this Plug-in update by rerunning the Microsoft Dynamics CRM Configuration Utility. When you run the Microsoft Dynamics CRM Configuration Utility, on the **Configure Status for Organization** window do not click the Import and overwrite customizations checkbox; just click **Configure**. This configuration process will install the updated Plug-in to your Microsoft Dynamics CRM application.

Installing Feature Pack 3 over Feature Pack 2

The CRM Configuration Utility is not launched while installing Microsoft Dynamics Adapter Feature Pack 3 over Microsoft Dynamics Adapter Feature Pack 2 (version 1.2.324.1). You will be required to manually run the Microsoft Dynamics CRM Configuration Utility after the installation is complete.

Tips for installing over any previous version

Append privilege is disabled

After installing Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP, you will be unable to add Products to a Marketing Campaign, Competitors to a Product, or Sales Literature to a Product after you run the Microsoft Dynamics CRM Configuration Utility. After a Dynamics CRM 4.0 organization is configured in the Microsoft Dynamics CRM 4.0 Adapter it will disable the *Append* privilege on the Product entity. This prevents updates to the substitute products or kit products in Microsoft Dynamics CRM.

In order to be able to add products to a Marketing Campaign or add Competitors and Sales Literature to a Product you can enable to privilege using the following steps:

1. Open Microsoft SQL Server Management Studio on the SQL server with the CRM database.
2. Click **New Query**.
3. Select the **CRM organization database** in the dropdown.
4. Run the following query to update the *Append to Product* privilege:

   ```
   update PrivilegeBase set IsDisabledWhenIntegrated=0 where name ='prvAppendProduct'
   ```
5. Reset IIS on the Microsoft Dynamics CRM server.

Once you have executed the above query, users should not make edits to substitute products or kit products within Microsoft Dynamics CRM. These changes should only be made within Microsoft Dynamics GP 10.0.

Note: If you are installing Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP FP3 alone (not over an existing version) the *Append* privilege on the Product entity is not disabled and the above steps do not apply.

Exceptions for existing maps

If you install Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP over a previous version, any existing maps that you have set up are not overwritten. The following exceptions only occur in an upgrade scenario.

Price Level on Microsoft Dynamics GP 10.0 Line Items are not updated

Microsoft Dynamics CRM sales orders that are integrated to Microsoft Dynamics GP do not have a price level applied on the line items in Microsoft Dynamics GP. This is caused by an incorrect mapping in the Order to Sales Order map.

Update the Order to Sales Order map with the following steps:

1. Open the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP 10.0.
2. Expand **Maps**, and then click **Order to Sales Order**.
3. In the **Order to Sales Order** map expand **Sales Order**, expand **Sales Order Lines**, expand **Item**, and then expand **Price Level ID**.
4. Edit the map in the **Price Level ID** field with the following:

   ```
   =Trim(If(Contains(Price List\Dynamics Integration Key, "("), Mid(Price List\Dynamics
   Integration Key, 1, FindString(Price List\Dynamics Integration Key, 1, "(")), Price
   List\Dynamics Integration Key))
   ```

Remove the map to the incorrect field with the following steps:

1. Open the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP 10.0.
2. Expand **Maps**, and then click **Order to Sales Order**.
3. In the **Order to Sales Order** map expand **Sales Order**, and then expand **Price Level ID**.
4. Delete the map in the **Price Level ID**.
5. Click **Activate** if the map is not active, and then click **Save**.

You can find additional information about this procedure in Knowledge Base article KB941467 https://mbs.microsoft.com/customersourceapp/search.aspx?qu=KB2018911

Previous Integrations

Note: The Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP does not have the capability to maintain data previously integrated using a tool other than the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP. Therefore, you should consider removing Microsoft Dynamics CRM data that may be duplicated once the Microsoft Dynamics Adapter maps are activated. Data integrated using a previous version of the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP will be maintained.

Microsoft Dynamics CRM Duplicate Detection rules allow previously integrated Accounts and Contacts to be reset using the DynamicsIntegrationKey.

Existing data in the following entities will be deactivated and renamed when the Configuration Utility runs:

- Discount Types
- Price Levels/Price Lists
- Products

If you have integrated data in Microsoft Dynamics GP for these entities, the Microsoft Dynamics GP data will be recreated in Microsoft Dynamics CRM once these maps are activated.

Any existing Microsoft Dynamics CRM Orders that point to these entities will fail to integrate to Microsoft Dynamics GP because the Products do not exist in Microsoft Dynamics GP. If you want to integrate these orders you must recreate the line items using the integrated Products.

Installation instructions

Be sure to review the System requirements before you complete the following steps.

Note: Only one instance can be installed on a system at any time.

1. Install the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP
2. Double-click **Microsoft Dynamics Adapter.msi**.
3. Click **Next**.
4. Read and accept the license terms.
5. Click **Next**.
6. Type the product registration key
7. Click **Next**
8. Enter the name of the Microsoft SQL Server where the MSDI database is to be stored.

   Note: The MSDI database does not need to be on the same server as the installation.
9. Click **Next**.
10. Type the Integration account **Service account ID** and **Password** to use when you are running integrations. For more information about the Integration account, see Integration account.
11. Click **Next**. If the account that you entered in step 5 is valid, the **Ready to install** window is displayed.
12. Click **Install**.
13. Click **Finish** to complete the installation.

System preparation

The following sections contain information on how to set up integrations, integration maps, and initial data synchronization.

Setting up adapters

Before you can run an integration, you must provide settings for the adapters that the integration process will use. The first time you start the client application, the Adapter Settings window is displayed so that you can enter settings for the adapters that were installed.

Provide the Microsoft Dynamics CRM 4.0 adapter settings

Note: If you are using Microsoft Dynamics CRM Online deployments only, see the related tip in step 10 before you begin.

1. Open the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP. (**Start** > **All Programs** > **Microsoft Dynamics** > **Microsoft Dynamics Adapter** > **Microsoft Dynamics Adapter**)
2. If the Adapter Settings window did not open automatically, click **Adapter Settings**.
3. In the Adapter Settings window, select **Microsoft Dynamics CRM 4.0** from the left pane.
4. Enter name of the domain that the Microsoft Dynamics CRM 4.0 server belongs to, for Microsoft Dynamics CRM Online this value is "*crm.dynamics.com*".
5. Type the user name and password for the Integration CRM account. For more information about the Integration CRM account, see Integration CRM account.
6. Enter the port number that the Microsoft Dynamics CRM Discovery Web Service uses, for Microsoft Dynamics CRM Online this value should be left blank.
7. Enter the name of the server that hosts Microsoft Dynamics CRM 4.0, for Microsoft Dynamics CRM Online this value should be "*dev.crm.dynamics.com*".
8. Click **Apply**.
9. Before you test your adapter settings, you must configure Microsoft Dynamics CRM 4.0. Click the **Configure Microsoft Dynamics CRM** link to open the Microsoft Dynamics CRM Adapter Configuration Utility. For instructions on how to use this utility, refer to Configuring the Microsoft Dynamics CRM organizations.

   Note: If you click **Test Settings** before you run the Microsoft Dynamics CRM Adapter Configuration Utility, the specified CRM Integration User must, at minimum, be a member of the following security roles or the test will fail:

   - CRM on-premises: Sales Manager
   - CRM Online: System Customizer and Proxy
10. Click **Test Settings** to connect to the Microsoft Dynamics CRM Discovery Web Service using the information that you entered. If the information that you entered in the steps above is incorrect, this test will fail and you must enter the correct information before you can activate the Microsoft Dynamics CRM 4.0 adapter.

Tips:

- If the CRM Integration User specified for the Microsoft Dynamics CRM 4.0 Adapter settings is a valid Microsoft Dynamics CRM User in multiple Microsoft Dynamics CRM organizations, and not all of the Microsoft Dynamics CRM organizations have been properly configured, you will see this dialog when you click on **Test Settings**, "Test settings succeeded with warnings". This means that the **Test Settings** operation was successful in validating some of the Microsoft Dynamics CRM organizations but failed with others.

  If you do not see the Microsoft Dynamics CRM organization that you want to integrate listed in the warning message, then **Test Settings** operation was successful for that Microsoft Dynamics CRM organization.

  If you see a warning for the Microsoft Dynamics CRM organization that you want to integrate, then you need to configure Microsoft Dynamics CRM for the organization that you want to integrate and try the **Test Settings** link again.

- For Microsoft Dynamics CRM Online, the CRM Integration User specified for the Microsoft Dynamics CRM 4.0 Adapter settings must a member of the following security roles:

  - Proxy
  - System Customizer
  - Dynamics Integration

  When you run the CRM Configuration Utility, the Dynamics Integration role is created and the specified CRM Integration User is automatically added to these three roles.

  If you click **Test Settings** before the Integration CRM User has been added to the Proxy and System Customizer roles for each Microsoft Dynamics CRM organization that the user is a member of, the **Test Settings** operation will fail and a message will be displayed.

  Messages will continue to be displayed until the Integration CRM User is added to the Proxy and System Customizer Roles or the CRM Configuration Utility is run and the integration will not work.

Provide the Microsoft Dynamics GP 10 adapter settings

1. Open the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP.
   (**Start** > **All Programs** > **Microsoft Dynamics** > **Microsoft Dynamics Adapter** > **Microsoft Dynamics Adapter**)
2. If the Adapter Settings window did not open automatically, click **Adapter Settings**.
3. In the Adapter Settings window, select **Microsoft Dynamics GP 10** from the left pane.
4. Enter the name of the domain that the Microsoft Dynamics GP 10.0 server belongs to.
5. Type the user name and password for the Integration GP account. For more information about the Integration GP account, see Integration GP account.
6. Enter the URL for the Microsoft Dynamics GP Web Service.
7. Click **Test Settings** to connect to the Microsoft Dynamics GP Web Service using the information that you entered.
8. Click **Apply**.

Provide the Microsoft Dynamics GP 2010 adapter settings

Follow the steps below to enter settings for the Microsoft Dynamics GP 2010 adapter.

1. Open the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP.
   (**Start** > **All Programs** > **Microsoft Dynamics** > **Microsoft Dynamics Adapter** > **Microsoft Dynamics Adapter**)
2. If the Adapter Settings window did not open automatically, click **Adapter Settings**.
3. In the Adapter Settings window, select **Microsoft Dynamics GP 2010** from the left pane.
4. Enter the domain name for the Microsoft Dynamics GP 2010 server.
5. Type the user name and password for the Integration GP account. For more information, see Integration GP account.
6. Enter the URL for the Microsoft Dynamics GP Web Service.
7. Click **Test Settings** to connect to the Microsoft Dynamics GP Web Service.
8. Click **Apply**.

Configuring the Microsoft Dynamics CRM organizations

The Microsoft Dynamics Configuration Utility modifies settings in the Microsoft Dynamics CRM organizations to prepare them for integration. You can run the Microsoft Dynamics CRM Configuration Utility after you have completed the installation process. For information about the changes that are made to your selected Microsoft Dynamics CRM organizations after you run this utility, see Changes made by the Dynamics CRM configuration utility.

Note: Some fields in this configuration utility already may contain values. These values were entered based on the information that you entered when you set up the Microsoft Dynamics CRM Adapter.

Configure Microsoft Dynamics CRM

1. Open the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP. (**Start** > **All Programs** > **Microsoft Dynamics** > **Microsoft Dynamics Adapter** > **Microsoft Dynamics Adapter**).
2. Click **Adapter Settings**.
3. In the left pane of the **Adapter Settings** window, click **Microsoft Dynamics CRM 4.0**.
4. Click the **Configure Microsoft Dynamics CRM** link.
5. Read through the information on the **Welcome** window and click **Next**.
6. Enter the name of the server where the Microsoft Dynamics CRM Discovery Web Service Role is installed.
7. Type the port number that the Microsoft Dynamics CRM Discovery Web Service uses. If your Microsoft Dynamics CRM (on-premises) is configured with discovery service and deployment service on different servers or ports, select the **Distributed Discovery and Deployment servers** check box and then, type the Microsoft Dynamics CRM Deployment Server and Port.
8. Type the **Domain**, **User Name**, and **Password** for the CRM Deployment Administrator account user or the Administrator account for Microsoft Dynamics CRM Online.
9. For more information about the requirements of the CRM Deployment Administrator account, see CRM Deployment Administrator account.
10. Click **Get Organizations**. A list of organizations is displayed.
11. In the Configuration Options area, verify that **Install** is selected.

    Note: Select the **Remove** option only if you want to remove customizations to the selected organizations that were made by the configuration utility when it was run last.
12. Select the organizations to configure. The organizations that you select should be the organizations that you want to integrate. You can hold the control key (Ctrl) down to select multiple organizations.
13. Click **Next**.
14. Select the Microsoft Dynamics CRM entities to configure for integration. The pre-selected entities are those that are required for the standard out-of-the-box integration to run. If you have custom Microsoft Dynamics CRM entities to configure for integration, they will be included in the entity list that is displayed. To view the available entities, click the plus sign (+) next to the organization name. Click the box next to each entity that you want to configure to select it. To add more entities later, run the utility again.

Note: If this is the first time that you are running the Microsoft Dynamics CRM Adapter Configuration, you should not select the **Skip complete configuration and only generate entity configurations** check box. If you are running the Microsoft Dynamics CRM Adapter Configuration Utility to add a new entity or make any other changes, you should select this check box. When the **Skip complete configuration and only generate entity configurations** check box is selected, the window in step 18 will be skipped.

15. Click **Next**.
16. If you did not select the **Skip complete configuration and only generate entity configurations check box**, select one of the following options. This step is necessary only for Microsoft Dynamics CRM on-premises.
    - **SQL Authentication** – Type the **User Name** and **Password** for an account that has db_datareader and db_datawriter permissions for the organization databases listed.
    - **Windows Authentication** – Connect to organization databases as the user currently running the configuration tool.
17. Click **Next**.
18. If this is the first time you are running the Microsoft Dynamics CRM Adapter Configuration you must select the **Import and overwrite customizations** check box. Click **Configure**. If you select the **Import and overwrite customizations** check box, a message is displayed warning that these customizations may overwrite customizations that have already been imported. Read the message and click **OK** or **Cancel**. To preserve any existing customizations, use the process outlined in the CRM Configuration Tips section of this document.

    If you do not select the **Import and overwrite customizations** check box, a message is also displayed warning that you will not be able to integrate until these customizations have been imported. Read the message and click **OK** or **Cancel**.

    The Microsoft Dynamics CRM Configuration Utility begins to configure the organizations that you selected in step 12 and the entities you selected in step 14.

    Note: If you previously selected the **Skip complete configuration and only generate entity configurations** check box, you will not be able to click the **Import and overwrite customizations** check box.

    If this is not the first time you are running the Microsoft Dynamics CRM Adapter Configuration you should not select the **Import and overwrite customizations** check box.
19. Click **Finish**.

CRM configuration tips

- If you have a distributed Microsoft Dynamics CRM on-premises deployment you must restart IIS on all CRM servers, including application and SDK servers, after completing the utility.
- If you delete an object provider file for a static customizable CRM entity from the company folder in the ObjectConfig folder, re-running the CRM Configuration Utility will not re-create the object provider correctly. This will cause the CRM Adapter to fail to load.

  A copy of each static CRM object provider file is copied to the ObjectProvider folder. You will need to copy the object provider file for the affected entity from the ObjectConfig folder back into the company folder.

  Static customizable CRM entities are: AccountObjectProvider, ContactObjectProvider, ErpSystemUserObjectProvider, InvoiceObjectProvider, OrderObjectProvider, and ProductObjectProvider.

- If you select to install the customization provided with the adapter, you will overwrite any existing form customizations which have been created for Account, Contact, Product and any of the other CRM entities which are updated to enable the integration.

  For new installations with no existing customizations this should not be an issue and the option to import the customization should be selected.

  For existing Dynamics CRM installations where customizations have been applied the Dynamics CRM Adapter registration can continue without importing the CRM customizations. However, the existing customizations and required new customizations will need to be merged before they are imported into CRM. This merge process can be accomplished by using the tool and related readme which are available from the Microsoft Dynamics CRM Adapter download site.

  Upon completion of the merge process, the merged customization should then be imported as follows: **Settings > Customization** and choose to **Import Customizations**.

  Data cannot be successfully integrated until these customizations are available in CRM.

- Microsoft Dynamics CRM may cache information that causes the Test Settings option to return incorrect results.

  If you click **Test Settings** before the Integration CRM User has been added to the PrivUserGroup for the CRM organization that you want to integrate on the domain that the Microsoft Dynamics CRM server is joined to, the **Test Settings** operation will fail until the client is closed and re-opened.

  If the user running the configuration utility is not a Domain Administrator for the domain that the Integration CRM User and CRM server are members of, a warning will be displayed. Until this Integration CRM user is added to the PrivUserGroup, the **Test Settings** operation will always fail and the integration will not work. Adding the Integration CRM user to the PrivUserGroup may be completed by a domain administrator prior to running the configuration utility or after it has been run. If you add the Integration CRM user to the PrivUserGroup after you run the utility, you must close and restart the client before the **Test Settings** operation will return valid results.

  This issue occurs because Microsoft Dynamics CRM uses the WindowsPrincipal.IsInRole method to check if the user attempting to access Microsoft Dynamics CRM is in the PrivUserGroup in the current Domain. The WindowsPrincipal.IsInRole method caches the last result for a given user until the user and caller both log off and log back on to the domain. See MSDN article .NET Framework Class Library-WindowsPrincipal.IsInRole Method (String): http://msdn.microsoft.com/en-us/library/fs485fwh.aspx.

Creating an integration

An integration is a collection of active or inactive maps for one source/destination system combination. You must create an integration and activate maps before you can synchronize data between two Microsoft Dynamics applications. For more information on activating maps, see Activating maps.

Create an integration

1. Open the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP.
   (**Start** > **All Programs** > **Microsoft Dynamics** > **Microsoft Dynamics Adapter** > **Microsoft Dynamics Adapter**).
2. Click **New Integration.**
3. Select one of the following options.
   - **Blank** – Select this option to create a blank integration where you must create maps manually. Skip to step 5.
   - **From Template** – Select this option to create a new integration from an integration template.
4. Select one of the following options.
   - **Microsoft Dynamics GP 2010/Microsoft Dynamics CRM 4.0 (using Accounts)** – Select this option to create an integration that integrates Microsoft Dynamics GP 2010 and Microsoft Dynamics CRM entities, with the Microsoft Dynamics CRM Account entities integrated with the Microsoft Dynamics GP Customer entities.
   - **Microsoft Dynamics GP 2010/Microsoft Dynamics CRM 4.0 (using Contacts)** – Select this option to create an integration that integrates Microsoft Dynamics GP 2010 and Microsoft Dynamics CRM entities, with the Microsoft Dynamics CRM Contact entities integrated with the Microsoft Dynamics GP Customer entities.
   - **Microsoft Dynamics GP 10.0/Microsoft Dynamics CRM 4.0 (using Accounts)** – Select this option to create an integration that integrates Microsoft Dynamics GP 10.0 and Microsoft Dynamics CRM entities, with the Microsoft Dynamics CRM Account entities integrated with the Microsoft Dynamics GP Customer entities.
   - **Microsoft Dynamics GP 10.0/Microsoft Dynamics CRM 4.0 (using Contacts)** – Select this option to create an integration that integrates Microsoft Dynamics GP 10.0 and Microsoft Dynamics CRM entities, with the Microsoft Dynamics CRM Contact entities integrated with the Microsoft Dynamics GP Customer entities.
5. Select the Microsoft Dynamics GP company to integrate. If the company list is empty, verify that you entered your Microsoft Dynamics GP adapter settings correctly and click **Refresh** to attempt to retrieve the list of companies again. For more information, refer to Setting up adapters.
6. Select the Microsoft Dynamics CRM company to integrate. If the company list is empty, verify that you entered your Microsoft Dynamics CRM adapter settings correctly and you have completed the Microsoft Dynamics CRM Configuration Utility for each organization that you want to integrate and click **Refresh** to attempt to retrieve the list of companies again. For more information, refer to Setting up adapters.
7. Click **Create**.

Note: When you create a new integration from a template, the date set to **Check for data modified after** is set to the current date for the following maps:

- **Sales Order to Order**
- **Sales Invoice to Invoice**
- **Order to Sales Order**

If you have previously integrated Sales Orders or Invoices using another integration solution, setting the **Check for data modified after** date to the current date will ensure that older Sales Orders and Invoices are not re-integrated and duplicates are not created. If you want to integrate orders or invoices that are older than the current date you must change the **Check for data modified after** date for these maps. (See Changing the Check for data modified after date.)

The **Check for data modified after** date is set to the default of 12/31/1899 for all other maps.

Specifying Microsoft Dynamics GP deleted entities to integrate

Before you create and activate maps to use during integration, you can use the Requester Setup Tool to specify which Microsoft Dynamics GP delete operations to make available for integration.

For example, assume that you are integrating Microsoft Dynamics GP customers with Microsoft Dynamics CRM accounts and a customer has just been deleted in Microsoft Dynamics GP. If you want the corresponding integrated account record in Microsoft Dynamics CRM to be deleted during the integration process, you must use the Requester Setup Tool to specify the customer object and the SQL delete operation.

Use the Requester Setup tool

1. Start eConnect Requester Setup.
   Using Microsoft Dynamics GP 10: (**Start** > **All Programs** > **Microsoft Dynamics** > **eConnect 10** > **Requester Setup** > **Requester Setup**)

   Using Microsoft Dynamics GP 2010: (**Start** > **All Programs** > **Microsoft Dynamics** > **eConnect for Microsoft Dynamics GP 2010** > **Requester Setup** > **Requester Setup**)
2. If you have not specified the connection settings for this utility, choose **Setup Connection** in the **Connection Settings** menu to define your connection settings.
3. Specify the SQL Server instance and database of the Microsoft Dynamics GP company for which you are enabling delete operation tracking.
4. Type a SQL Server user name and password, or mark **Integrated Security** to use the credentials of the current user.
5. Click **Save** to save the connection settings.
6. Click **Connect** to load the current Requester settings. The **Insert**, **Update**, **Delete**, and **Message Queues** tabs display the list of available document types.
7. On the **Delete** tab, select the check box for each document types that you want to track deletions for.
   - ModifiedCustomer
   - ModifiedCustomerAddress
   - ModifiedInternetAddress
   - ModifiedItem
   - ModifiedPriceLevel
   - ModifiedPricing
   - ModifiedSales
   - ModifiedSalesperson
   - ModifiedUOFM
8. Click **Update** to save your changes. Entity deletion tracking will begin for the document types that you marked.
9. Repeat step 3; this time, select the Dynamics database instead of the company database. Continue with steps 4, 5 and 6.
10. Repeat step 7; this time, select the ModifiedCurrency check box to track deletions.
11. Click **Update** to save your changes.

Setting up duplicate detection

When you set out to integrate Microsoft Dynamics GP and Microsoft Dynamics CRM, you may have duplicate records between the two applications. For example, if you have entered Daniel Brunner as a contact in Microsoft Dynamics CRM and also as a customer in Microsoft Dynamics GP, you have duplicate records for Daniel Brunner.

Microsoft Dynamics CRM allows users to enter duplicate records, with duplicate keys, for Microsoft Dynamics CRM Accounts and Contacts. This can cause problems when the Integration service tries to integrate the records

If duplicated records are not identified before you integrate Microsoft Dynamics CRM Contacts or Accounts with your Microsoft Dynamics GP Customers, you will end with four records for the same person between the two applications.

Set up duplicate detection jobs and rules in Microsoft Dynamics CRM for the Account and Customer entities to prevent these duplicate record issues.

It is suggested that you use one of the options listed below that are available in Microsoft Dynamics CRM to keep duplicates from entering the system in the first place. See your Microsoft Dynamics CRM documentation for additional details.

- **Set up Microsoft Dynamics CRM Duplicate Detection Rules**
  In Microsoft Dynamics CRM, set up or modify duplicate detection rules for the entities that you want to integrate. Go to **Settings > Data Management > Duplicate Detection Rules**. The default duplicate detection rules are listed. Use the duplicate detection rules for Accounts or Contacts using attributes and criteria that make sense for your business rules. The default Microsoft Dynamics CRM duplicate detection Rule for Account is **e-mail address** which is not mapped in the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP Customer to Account or Account to Customer map template.
- **Set up Microsoft Dynamics CRM Duplicate Detection Jobs**
  In Microsoft Dynamics CRM, set up duplicate detection jobs for the entities you wish to integrate. Go to **Settings > Data Management > Duplicate Detection Jobs.** Add a job to catch duplicates and notify someone in your organization for each entity you want to integrate.

Adding maps to an integration

After you have created an integration, you must add maps. A map is a collection of associations between one entity's fields in one Microsoft Dynamics system with another entity's fields in another Microsoft Dynamics system. For example, if you want to integrate the Microsoft Dynamics CRM Account entity with the Microsoft Dynamics GP Customer entity, you must add and activate the Account to Customer map and the Customer to Account map.

If you created an integration from a template (for more information, see Creating an integration) maps have already been created for you. For more information, see Edit field associations.

Create a new map

1. In the left pane, select the integration to add a map to.
2. Click **New Map**.
3. Select a source entity.
4. Select a destination entity.
5. Click **Create**. The map is now listed in your tree view under the **Maps** node.

Create a new map from file

1. In the left pane, select the integration to add a map to.
2. Right-click and select **Create New Map from File**.
3. Navigate to the Maps subdirectory where the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP was installed.
4. Double-click or select a map from the list and click **Open**.
5. The map is now listed in your tree view under the **Maps** node.

Note: When you create a new map from file, the date set to Check for data modified after is set to the current date for the following maps:

- **Sales Order to Order**
- **Sales Invoice to Invoice**
- **Order to Sales Order**

If you want to integrate orders or invoices that are older than the current date you must change the **Check for data modified after** date for these maps. (See Changing the Check for data modified after date.)

The **Check for data modified after** date is set to the default of 12/31/1899 for all other maps.

Changing the Check for data modified after date

Each of the integrated entities maintains a last modified date on each record in that entity. The **Check for data modified after** date for each entity map is used to determine if there have been any updates to entity data since the value in the **Check for data modified after date**. You can change this date for any individual map.

Change the Check for data modified after date

1. Stop the Microsoft Dynamics Adapter service.
2. In the left pane, select the map that you want to change the **Check for data modified after** date for.
3. In the **Status** area, click the **Edit** link that is next to the Check for data modified after date and time. The **Check for data modified after date and time** window will open.
4. Use the calendar control to select the desired date or type in the desired date. Use the lists to change the time.
5. Click **OK** to exit the window and save your changes or click **Cancel** to exit the window without saving your changes.
6. Start the Microsoft Dynamics Adapter service.

Editing field associations in maps

If you create a map from scratch, or if you create a map from a template but want to modify the map, you can use the client to edit field associations within the map. When a map is selected, the map page is displayed in the right pane.

The Map page contains a **Status** area where you can view status information for the map and a **Mapping** area where you can edit the field associations created for the destination entity.

Edit field associations

1. In the left pane, select the map that you want to edit field associations for.
2. In the Mapping area, place your cursor in the **Mapping** column on the row for the destination field that you want to edit.
3. Fields that are required to have a field associated are displayed in bold type in the **Mapping** area.
4. Delete any existing associations for the field and click the **Map** button.
5. Follow the directions in the **Destination Field Mapping** window to edit the field association.
6. Click **Add** to exit the window and add the association to the destination field.

Additional tips

- The map templates shipped with the product provide mappings for United States telephone number format. If you use a different telephone number format you must modify your maps where telephone numbers are integrated to support your telephone number format.
- If you change your regional settings using Windows Regional and Language Options, make sure to apply the change to the user your Microsoft Dynamics Adapter Service is running as.

System preparation and initial data synchronization

System preparation

There are certain steps that you should perform after installation to ensure a smooth implementation. This section will outline the two system preparation steps.

Step 1: Microsoft Dynamics Adapter customizations for Microsoft Dynamics CRM.

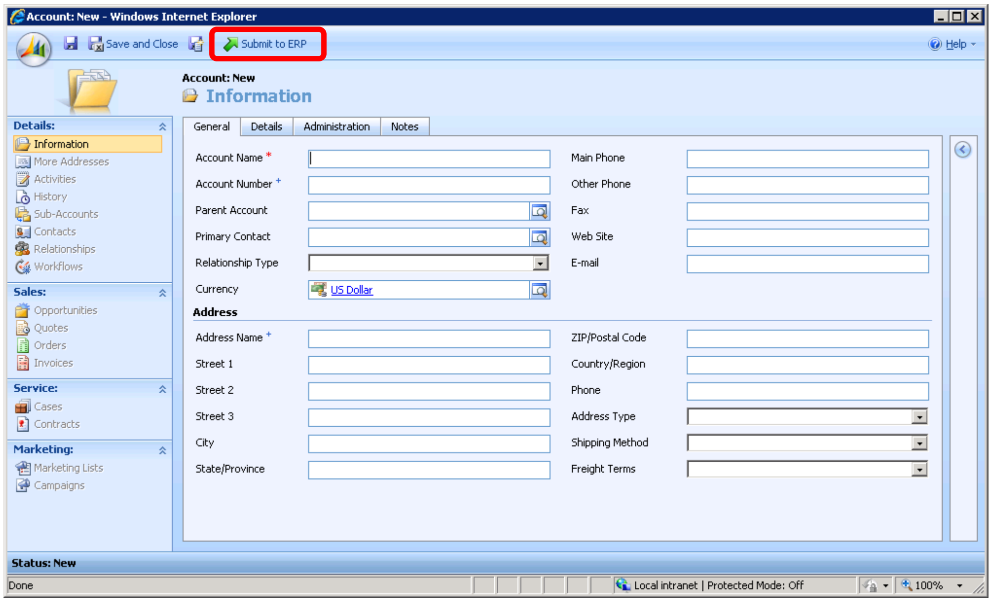
Verify that the customizations have been deployed. If you did not install these customizations during installation or have not manually applied the customizations, you should do so now. Operation will be impaired if these special customizations are not deployed in your Microsoft Dynamics CRM installation.

If you have existing Microsoft Dynamics CRM customizations you should apply the customizations manually. To do so, download the Microsoft.Dynamics.Tools.MergeCustomizations.zip file and refer to the Readme.doc in the zip file for more information.

If you do not have existing Microsoft Dynamics CRM customizations you can import the necessary customizations by running the CRM Configuration utility. Follow the steps outlined in the Configuring the Microsoft Dynamics CRM organizations section of this document.

To verify that the Microsoft Dynamics Adapter customizations for Microsoft Dynamics CRM have been properly installed:

1. Open Microsoft Dynamics CRM for the organization previously selected.
2. From the **Sales** node select **Accounts**. Click **New**.
3. You should see a **Submit to ERP** option in the top command bar. If you do not see this option, the Microsoft Dynamics Adapter customizations are not properly installed.



Step 2: Map Modifications

Verify that the integration maps are set up for your specific needs. The map templates are set up to work out of the box and will integrate all data that is common in both applications (Microsoft Dynamics CRM and Microsoft Dynamics GP). If there is any data mapped that you do not want integrated or any data that is not mapped that you do want to integrate, you should make these changes now.

Initial data synchronization

The Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP integrates certain data between Microsoft Dynamics CRM 4.0 and Microsoft Dynamics GP.

The Microsoft Dynamics Adapter may be installed in the following scenarios:

- New Microsoft Dynamics GP and Microsoft Dynamics CRM application installations
- Existing Microsoft Dynamics GP installation and new Microsoft Dynamics CRM installation or Existing Microsoft Dynamics CRM installation and new Microsoft Dynamics GP installation
- Both Microsoft Dynamics GP and Microsoft Dynamics CRM existing installations

As such, data could exist in one or both applications. You will need to synchronize this data prior to running the integration on a regular schedule.

This section outlines the options available and steps to initially synchronize existing Microsoft Dynamics CRM and/or Microsoft Dynamics GP data.

Note: The steps outlined in this document assume that installation is complete and that you have an integration set up for the desired Microsoft Dynamics GP Company and Microsoft Dynamics CRM Organization.

Note: Initial data synchronization exceptions are common due to data that has not been integrated yet. The system is set up to automatically retry exceptions due to missing data.

The best way to get your data initially synchronized is to run the Picklist Synchronization tool and then activate and run the integration maps individually but in a certain order. We recommend that you run the maps in a specific order to alleviate flooding the log files. Refer to the Synchronizing Data section of this document for the recommended map run order.

If the maps are run in a different order than suggested or if they are run simultaneously, the log file may end up with an excess of exceptions due to multiple retries because of certain data dependencies. Running the maps in the suggested order will integrate the data in an order that will provide the least amount of exceptions due to dependent data. Also, keeping the log file as clean as possible makes it easier to troubleshoot any actual errors and saves time tracking down errors that will work themselves out and would not have occurred if the maps were run in the suggested sequence.

Picklist Synchronization Utility

The Picklist Synchronization Utility is a tool that will help you prepare your Microsoft Dynamics GP and Microsoft Dynamics CRM applications for integration. The Microsoft Dynamics Adapters use web services for both the Microsoft Dynamics CRM and Microsoft Dynamics GP end points to read and write data. The web services utilize policies to enforce certain business rules to ensure the data coming into the respective applications is valid. There is a subset of data that must be synchronized between the two applications before the balance of the data can be successfully integrated. These data values must be identical in both end point applications. The Picklist Synchronization Utility provides an automated process to get this data in sync between the two applications.

Note: Run this utility AFTER you have created a new integration and configured your Microsoft Dynamics CRM organizations in the Microsoft Dynamics Adapter client and BEFORE you begin activating the maps. If you decide to configure more Microsoft Dynamics CRM organizations once you start to run the Picklist Synchronization Utility you should close and re-open the Picklist Synchronization Utility in order to allow the Picklist Synchronization Utility to pick up the added Microsoft Dynamics CRM organization.

The utility can also be used later should data need to be re-synchronized. The values that are updated in Microsoft Dynamics CRM are all of type Picklist and some of these values cannot be updated manually in Microsoft Dynamics CRM. See the Synchronized Data section in this document for a list of the data values that are included in the Picklist Synchronization Utility.

Installing and using the utility

The Picklist Synchronization Utility is included with installation. The following files are added to your "%ProgramFiles%\Microsoft Dynamics\Microsoft Dynamics Adapter" directory (or to the "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter" directory if you are running on a 64 bit machine) where the adapter is installed:

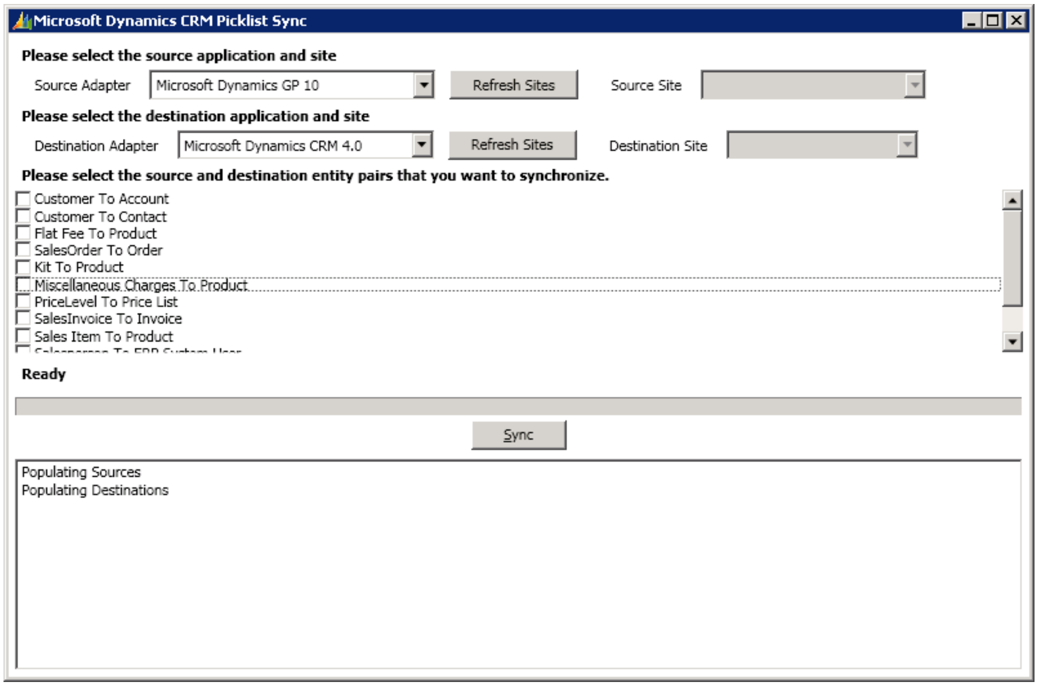
- Microsoft.Dynamics.Integration.GpToCrmPicklistSync.exe
- Microsoft.Dynamics.Integration.GpToCrmPicklistSync.exe.config

Note: If you set any one of the following:

- address1_shippingmethodcode,
- address1_addresstypecode,
- address1_freighttermscode,
- address2_shippingmethodcode,
- address2_addresstypecode,
- address2_freighttermscode attributes

to NOT be read-only on the account or contact object provider, and then you map them, you MUST un-map the corresponding fields on the child addresses if you want the Picklist Synchronization utility to run properly after the mappings have been changed. This will also allow ONLY the fields on the parent account or contact to be integrated. The fields on the child addresses will no longer be integrated as expected.

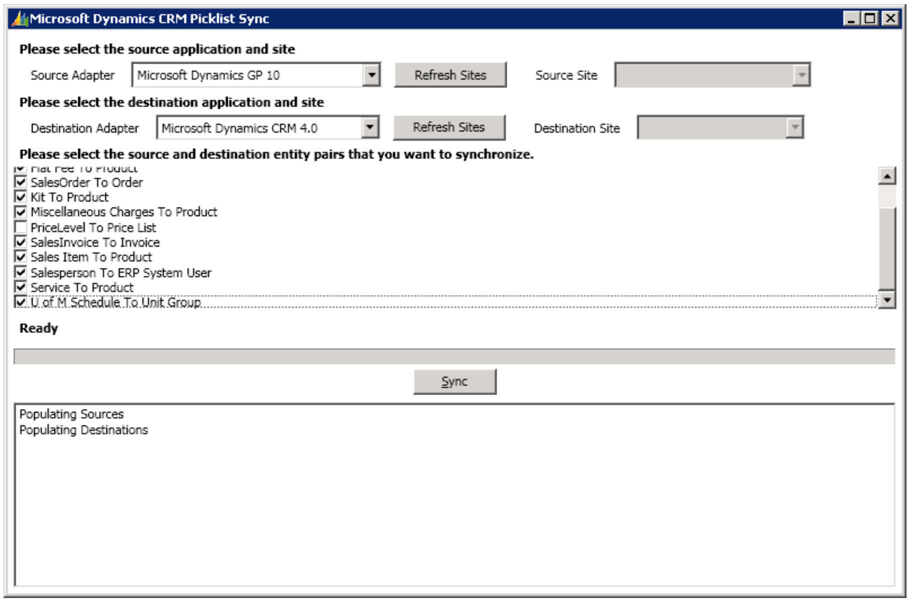
1. To run the utility, navigate to the directory where the adapter is installed: “%ProgramFiles%\Microsoft Dynamics\Microsoft Dynamics Adapter” (or to the “%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter” directory if you are running on a 64 bit machine). Right-click the application file **Microsoft.Dynamics.Integration.GpToCrmPicklistSync.exe** and click **Open**. The Microsoft Dynamics CRM Picklist Sync window will open.



2. Select the source application and click **Refresh Sites**. Then select the source site for the companies for which you want to run the utility.

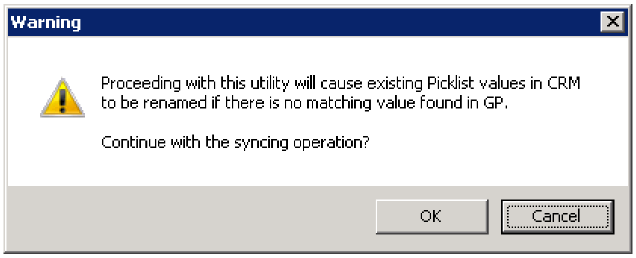
3. Select the destination application and click **Refresh Sites**. Then select the destination site for the companies for which you want to run the utility.

4. Select the entity pairs for which you want to synchronize your picklist type data. All of the supported entity pairs are able to be synchronized. You should synchronize only the Microsoft Dynamics CRM picklist values for the entities that you will be integrating. You can synchronize all of these at the same time or synchronize them one at a time in any order.



Note: The utility uses the map templates that are stored in your "%ProgramFiles%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" (or in your "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory if you are running on a 64 bit machine directory). It does not use the maps that you have saved in your integration. Therefore, if you have modified any of the maps in your integration and you want the utility to use the modified map you must save the modified map to your "%ProgramFiles%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory (or to your "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory if you are running on a 64 bit machine directory). To save a modified map to your "%ProgramFiles%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" (or to your "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory if you are running on a 64 bit machine directory) see the Save Map to File section in this document.

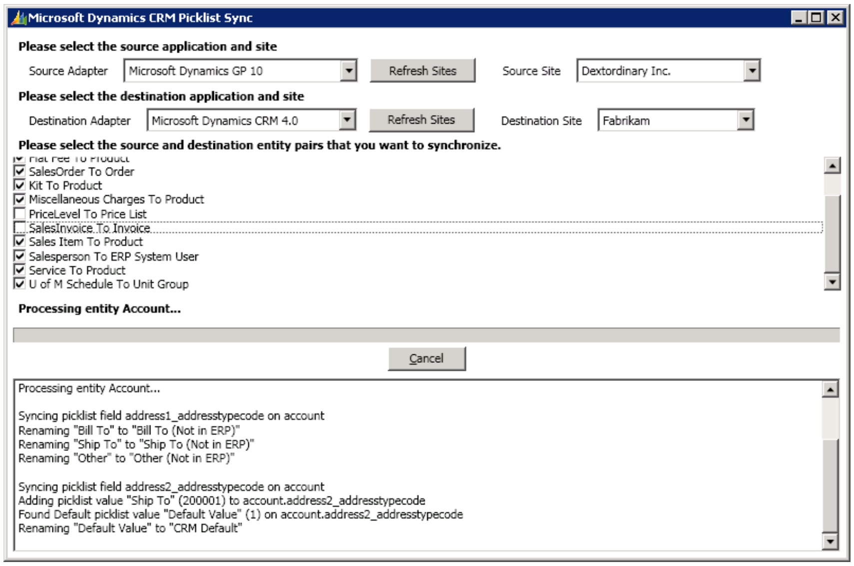
5. Click the **Sync** button. A warning dialog will display.



This dialog warns that any Picklist values that are found in Microsoft Dynamics CRM but not in Microsoft Dynamics GP will be re-named. These Microsoft Dynamics CRM Picklist values will be re-named by appending the text "(Not in ERP)" to the existing text.

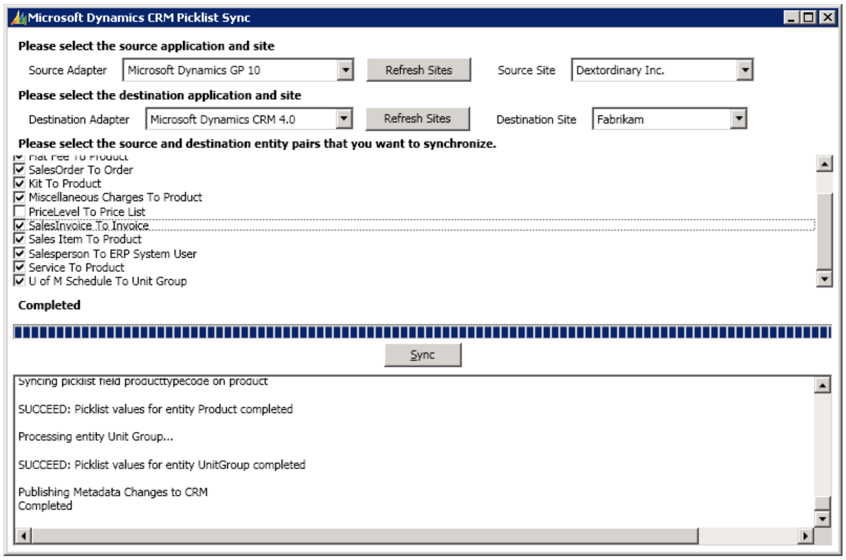
6. Click **OK** to proceed or **Cancel** if you do not want to proceed.

7. The credentials window will open. You must provide the **Domain**, **User name**, and **Password** for both Microsoft Dynamics GP Web Services and Microsoft Dynamics CRM Deployment Administrator for Microsoft Dynamics CRM on-premises, or for a system administrator for Microsoft Dynamics CRM Online. After you have entered the required credentials click **OK** to close the credentials window and begin the synchronization process.
8. During the synchronization process, the entity that is currently being processed is displayed above the progress bar. As each entity synchronization is completed a log indicating what data synchronized or did not synchronize is displayed in the bottom half of the Picklist Sync window. Here, you will be able to see what values were added to Microsoft Dynamics CRM and which, if any, were not.



Finally, the changes made to Microsoft Dynamics CRM are published so they will be visible to all users.

When the Picklist Synchronization process is finished, the status "Completed" will display above the progress bar, as shown. Close the **Picklist Sync** window when you're finished.



Picklist synchronization processing

Microsoft Dynamics GP data takes precedence over any data that is synchronized. The data found in Microsoft Dynamics GP is compared to the data found in Microsoft Dynamics CRM and is synchronized as follows:

1. The data found in Microsoft Dynamics GP is added to Microsoft Dynamics CRM if it does not already exist in Microsoft Dynamics CRM.
2. If a value is found in Microsoft Dynamics CRM that does not exist in Microsoft Dynamics GP the following processing occurs:
   a. The text "(Not in ERP)" is appended to the Microsoft Dynamics CRM value. The text is added because:
      - Pre-existing CRM records may contain the picklist value and data integrity must be maintained.
      - As users add new records in Microsoft Dynamics CRM, they will see that these values are not valid in the ERP system and the text is intended to prevent these values from being selected.

        Note: If a Microsoft Dynamics CRM picklist value that contains the text "(Not in ERP)" is associated with a record that is intended to integrate to the ERP, the record will NOT integrate because there is no corresponding value in the ERP.

   b. If appending "(Not in ERP)" causes the value to exceed the allowed length, an exception is raised.
   c. If the Picklist Synchronization Utility is re-run, the text "(Not in ERP)" is not appended again.
   d. If the Picklist Synchronization Utility is re-run and a Microsoft Dynamics CRM value that already contains "(Not in ERP)" is now found to exist in Microsoft Dynamics GP (was added to Microsoft Dynamics GP after the initial run of the Picklist Synchronization Utility), the text "(Not in ERP)" is removed from the Microsoft Dynamics CRM value.
3. Any values of "Default Value" found in Microsoft Dynamics CRM are renamed to "CRM Default".
4. If a matching value is found in Microsoft Dynamics CRM, that value will be re-named to match the Microsoft Dynamics GP value. For example, Microsoft Dynamics CRM has a shipping method value of "Ex" and Microsoft Dynamics GP has a shipping method value of "EX". The existing Microsoft Dynamics CRM shipping method value will be renamed to "EX".

Picklist synchronization log information

To see everything that occurred while running the utility, you can view the log that is created. If you are using Windows Server 2008, navigate to your "%ProgramData%\Microsoft Dynamics\Microsoft Dynamics Adapter\Logs" directory. If you are using Windows Server 2003, navigate to your "%ProgramData%\Application Data\Microsoft Dynamics\Microsoft Dynamics Adapter\Logs" directory.

Open the **Microsoft.Dynamics.Integration.GpToCrmPicklistSync** file. This file contains information about values added to Microsoft Dynamics CRM, values renamed in Microsoft Dynamics CRM, and any errors that may have occurred.

Picklist synchronized data

The following is a list of the data values that are updated in Microsoft Dynamics CRM from the values found in Microsoft Dynamics GP.

CRM Entity	Details
Account	• Microsoft Dynamics GP Address Type Names to Microsoft Dynamics CRM Address1 Address Types and Microsoft Dynamics CRM Address2 Address Types • Microsoft Dynamics GP Shipping Method Code Names to Microsoft Dynamics CRM Shipping Method Codes • Microsoft Dynamics GP Payment Terms Code Names to Microsoft Dynamics CRM Payment Terms Codes
Contact	• Microsoft Dynamics GP Address Type Names to Microsoft Dynamics CRM Address1 Address Types and Microsoft Dynamics CRM Address2 Address Types • Microsoft Dynamics GP Shipping Method Code Names to Microsoft Dynamics CRM Shipping Method Codes • Microsoft Dynamics GP Payment Terms Code Names to Microsoft Dynamics CRM Payment Terms Codes
Invoice	• Microsoft Dynamics GP Shipping Method Code Names to Microsoft Dynamics CRM Shipping Method Codes • Microsoft Dynamics GP Payment Terms Code Names to Microsoft Dynamics CRM Payment Terms Codes
Order	• Microsoft Dynamics GP Shipping Method Code Names to Microsoft Dynamics CRM Shipping Method Codes • Microsoft Dynamics GP Payment Terms Code Names to Microsoft Dynamics CRM Payment Terms Codes
Price List	• Microsoft Dynamics GP Pricing Methods to Microsoft Dynamics CRM Pricing Methods • Microsoft Dynamics GP Rounding Policy Names to Microsoft Dynamics CRM Rounding Policy Names • Microsoft Dynamics GP Rounding Option Names to Microsoft Dynamics CRM Rounding Option Names
Product	• Microsoft Dynamics GP Product Types to Microsoft Dynamics CRM Product Types

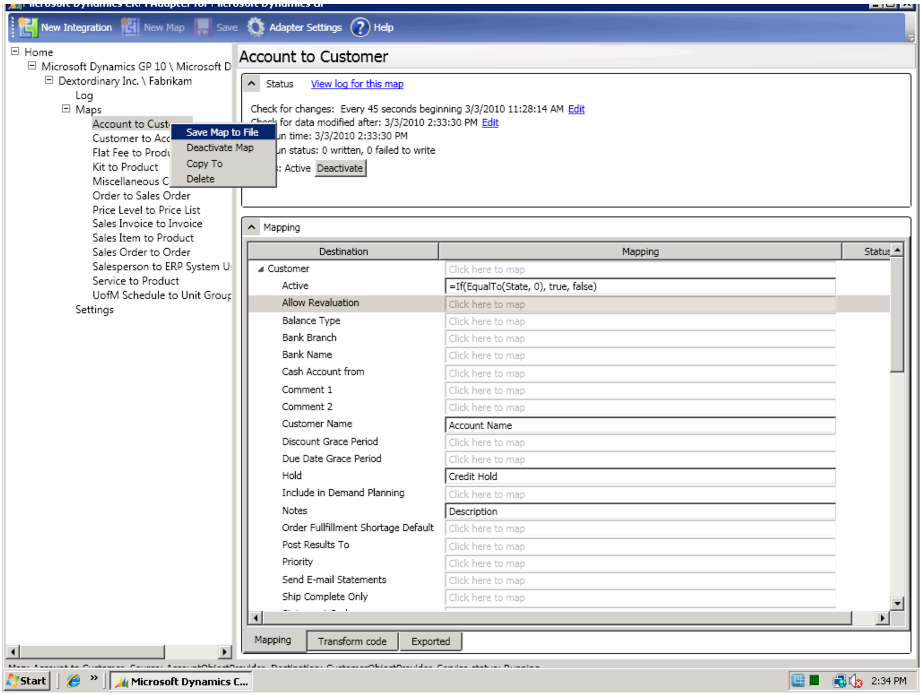
Notes:

In Microsoft Dynamics CRM, shipping method exists on Other Address as well as on Address1 and Address2.

In Microsoft Dynamics CRM, the Address Type field exists on both the Account/Contact information forms as well as on the More Addresses forms. These two Address Type fields represent two entirely different CRM picklists and they may or may not be identical.

Save Map to File

1. Open the **Microsoft Dynamics Adapter** client.
2. Navigate to the integration that you want to work with.
3. Navigate to the modified map that you want to save to the "%ProgramFiles%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory (or to your "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory if you are running on a 64 bit machine).
4. Right-click on the map and select **Save Map to File**.



5. Navigate or browse to the "%ProgramFiles%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory (or to your "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory if you are running on a 64 bit machine), provide unique file name for your map, and click **Save**. Make sure you use the .map file extension.
6. The Microsoft Dynamics Adapter will now include your modified map.

Synchronizing data

Salespeople and ERP System Users

In Microsoft Dynamics CRM, salespeople are Microsoft Dynamics CRM Users. In order to properly integrate these, an association needs to be set up in Microsoft Dynamics CRM that indicates which Microsoft Dynamics GP Salesperson maps to which Microsoft Dynamics CRM User. Microsoft Dynamics GP salespeople must first be integrated to Microsoft Dynamics CRM ERP System Users.

U of M schedule and Unit Group

The Microsoft Dynamics GP U of M Schedule and the Microsoft Dynamics CRM Unit Group have some differences. In Microsoft Dynamics GP you can set up U of M Schedules that contain duplicate units with different base equivalents. For example, you can set up a U of M Schedule called “Pints” that has a base U of M of Pint and has the following schedule components:

Unit Name	Quantity	Equivalent
Pint	1	Pint
Quart	2	Pint
Gallon	8	Pint
Gallon	4	Quart

In Microsoft Dynamics CRM you CANNOT set up a Unit Group that contains the Unit Name more than once. Using this example, you can only have the Gallon equivalent entered once in Microsoft Dynamics CRM. Attempting to integrate this Microsoft Dynamics GP U of M Schedule into Microsoft Dynamics CRM will not succeed. Only one of the Gallon schedule lines will integrate. If there are additional schedule lines after the first duplicate encountered, none of them will be integrated because the Adapter stops processing the U of M Schedule when it encounters the first error.

Because of this difference you should spend some time planning your U of M Schedules before entering them into Microsoft Dynamics GP to ensure they can be fully integrated to Microsoft Dynamics CRM. If you have any duplicate Unit Names on a single Microsoft Dynamics GP U of M schedule, then Microsoft Dynamics GP U of M Schedule will not fully integrate to Microsoft Dynamics CRM.

Pricing header

Because of differences in the way pricing information is stored and the dependencies that this causes, initial pricing information must be integrated in two phases, that of the integrating of Price Lists and then that of integrating Price List Items. Details are as follows:

To integrate Price Lists, which are referred to as Pricing Header information for the purposes of initial data integration, the Microsoft Dynamics CRM Pricing Header information must be in place before Microsoft Dynamics Products can be integrated and Microsoft Dynamics CRM Products must be in place before the Microsoft Dynamics CRM Price List Items can be integrated.

Items and products

When the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP is installed, Microsoft Dynamics GP is considered the master for all product information. Therefore, you should verify your inventory Items in Microsoft Dynamics GP before you integrate them with Microsoft Dynamics CRM Products.

Price levels and price lists

This begins the second phase of integration: that of Price List Items integration. The Microsoft Dynamics CRM Price List Items will be created during this phase.

Customers and accounts or contacts

If you plan to integrate Microsoft Dynamics GP Customers with either Microsoft Dynamics CRM Accounts or Microsoft Dynamics CRM Contacts you should decide which application you will use to enter your initial customer data. You should enter initial customer data in one application or the other, but not both. The Microsoft Dynamics Adapter will create the customer data in the other application once the appropriate map is activated. After you have completed the initial data synchronization you will be able to enter customer data in both Microsoft Dynamics GP and Microsoft Dynamics CRM and the Microsoft Dynamics Adapter will keep the data synchronized.

You must decide to integrate EITHER Microsoft Dynamics CRM Accounts OR Microsoft Dynamics CRM Contacts, but not both. Keep in mind that if you decide to utilize Microsoft Dynamics CRM to enter your initial customer data you will also have to click on the **Submit to ERP** button for each Microsoft Dynamics CRM Account or Contact that you wish to integrate to Microsoft Dynamics GP. This feature allows you to keep Microsoft Dynamics CRM Account or Contact records in Microsoft Dynamics CRM and not in Microsoft Dynamics GP.

Orders and invoices

When the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP is installed, Microsoft Dynamics GP data takes precedence for all order and invoice information. You can integrate existing Microsoft Dynamics CRM orders but not existing Microsoft Dynamics CRM invoices. However, you can integrate existing and new or modified Microsoft Dynamics GP sales orders and invoices to Microsoft Dynamics CRM.

After installation,

- Invoices can only be viewed in Microsoft Dynamics CRM.
- You can no longer create invoices in Microsoft Dynamics CRM.
- You can create and modify orders in Microsoft Dynamics CRM only until the order is submitted.

Note: Microsoft Dynamics CRM Orders will not be integrated to Microsoft Dynamics GP until it is submitted.

You should decide how many historical Microsoft Dynamics GP orders and invoices you want to move to Microsoft Dynamics CRM. Microsoft Dynamics GP orders and invoices are integrated based on the date they were last modified. You will be able to indicate the oldest date you want for orders and invoices to be included in the integration.

Microsoft Dynamics GP sales orders to Microsoft Dynamics CRM orders

Microsoft Dynamics CRM orders include a required field **Owner**. If a sales order is created in Microsoft Dynamics GP with no Salesperson or a Salesperson that is not associated with a Microsoft Dynamics CRM User, the Microsoft Dynamics GP Sales Order will integrate to Microsoft Dynamics CRM with an owner of “**INTEGRATION**”.

Microsoft Dynamics CRM orders to Microsoft Dynamics GP sales orders

Microsoft Dynamics CRM orders include a required field **Owner**. If an order is created in Microsoft Dynamics CRM with an Owner that is not a user associated with a Microsoft Dynamics CRM User, the Microsoft Dynamics CRM Sales Order will integrate to Microsoft Dynamics GP with a blank value for Salesperson.

Initial data synchronization steps

Step 1: Microsoft Dynamics GP salespeople and Microsoft Dynamics CRM ERP salespeople *(ERP SystemUser Id)*

1. If you will not be using Salespeople in Microsoft Dynamics GP you can skip this step.
2. Make sure you have entered all your salespeople in Microsoft Dynamics GP.
3. Open the **Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP Client**.
4. Navigate to the integration you want to work with and click the **Maps** node in the left-hand pane.
5. Select the **Salesperson to ERP System User** map.

   If you do not want to change any of the map defaults, continue to step 6. To change the map settings, see the Editing map settings information in this section.
6. Click **Activate**.
7. Click the **Edit** link next to the Check for changes area to open the **Map Run Schedule** window and change it to run every 45 seconds. Make sure the **Start Date** is before the date you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.
8. Verify that the date listed in the **Check for data modified after** area is before the date you entered your Microsoft Dynamics GP Salespeople. If you need to change this date you must stop the Microsoft Dynamics Adapter Service. Click the **Edit** link next to the Check for data modified after area to open the **Check for data modified after** window. Enter the new value and click **OK**.
9. Restart the Microsoft Dynamics Adapter Service.
10. Click **Save** on the top command bar.
11. In the **Status** section of the **Map** page you will see the **Last run** status. While the integration is running, the "Last run" status will be displayed as "Currently running" and display the number of changes found, the number of changes written, the number of deletions found, the number of records deleted, and the number of failures. Wait until the "Currently running" status is no longer displayed and the "Last run" status is displayed to allow the integration to run and move the Microsoft Dynamics GP Salespeople over to Microsoft Dynamics CRM.
12. Open Microsoft Dynamics CRM and navigate to **Settings > Users**. Either click on **New > User** or double-click on any existing Microsoft Dynamics CRM User to open the **User** window. You will see an ERP SystemUser ID property in the Organization Information section of the User window. Click the **Lookup** icon to open the **Look Up Records** window. If no records are displayed, click on the **Lookup** icon in the upper right-hand corner. The **Microsoft Dynamics GP Salespeople** should be displayed. Verify that all of your Microsoft Dynamics GP Salespeople have been integrated to Microsoft Dynamics CRM ERP System Users.
13. Click the **View log** for this map link at the top of the Status section. Review any events that are displayed. You should fix any issues before proceeding. Refer to the Reviewing the log file section for more information.
14. Follow the instructions in the Associating CRM Users with ERP System Users section of this document.
15. If you want to change the map run schedule for ongoing integration, repeat step 5 and change the **Map Run Schedule** to your desired settings for this map.

Step 2: Microsoft Dynamics GP U of M Schedule to Microsoft Dynamics CRM Unit Group

1. Make sure you have entered all of your U of M Schedules in Microsoft Dynamics GP.
2. Open the **Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP Client**.
3. Navigate to the integration you want to work with and click the **Maps** node in the left-hand pane.
4. Select the **U of M Schedule to Unit Group** map.

   If you do not want to change any of the map defaults, continue to step 5. To change the map settings, see the Editing map settings information in this section.
5. Click **Activate**.
6. Click the **Edit link** next to the **Check for changes area** to open the **Map Run Schedule** window and change it to run every 45 seconds. Make sure the **Start Date** is before the date you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.
7. Verify that the date listed in the **Check for data modified after** area is before the date you entered your Microsoft Dynamics GP U of M Schedules. If you need to change this date you must stop the Microsoft Dynamics Adapter Service. Click the **Edit** link next to the **Check for data modified after** area to open the **Check for data modified after** window. Enter the new value and click **OK**. Restart the Microsoft Dynamics Adapter Service.
8. Click **Save** on the top command bar.
9. In the **Status** section of the **Map** page you will see the **Last run** status. While the integration is running, the "Last run" status will be displayed as "Currently running" and display the number of changes found, the number of changes written, the number of deletions found, the number of records deleted, and the number of failures. Wait until the "Currently running" is no longer displayed and the "Last run" status is displayed to allow the integration to run and move the Microsoft Dynamics GP U of M Schedules over to Microsoft Dynamics CRM.
10. Open Microsoft Dynamics CRM and navigate to **Settings > Product Catalog > Unit Groups**. You should see all the **Unit Groups** that integrated from Microsoft Dynamics GP. Double click on any existing **Unit Group** to open the **Unit Group** window. Click on **Units** in the left-hand pane to see all the Unit Names that integrated for this Unit Group.
11. Verify that all the **U of M Schedules and Units** have been fully integrated.
12. Click the **View log for this map** link at the top of the Status section. Review any events that displayed. You should fix any issues before proceeding. For more information see, Reviewing the log file section.
13. If you want to change the map run schedule for ongoing integration, repeat step 5 and change the **Map Run Schedule** to your desired settings for this map.

Step 3: Microsoft Dynamics GP Pricing Header to Microsoft Dynamics CRM Pricing Header

1. Make sure you have entered all of your pricing in Microsoft Dynamics GP.
2. There is a special map that is used only for initial integration of pricing information. This map will create the Price Lists in Microsoft Dynamics CRM which are referred to as Pricing Headers for the purposes of the initial data integration. You must add this map to your integration before you can integrate Pricing Header information.
3. Open the **Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP Client**.
4. Navigate to the integration that you want to work with and right-click the **Company/Organization** node in the left-hand pane. Select **Create New Map from File**.
5. The **Load map definition from file** window will open. Navigate to the "%ProgramFiles%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory (or to the "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory if you are running on a 64 bit machine). Find and select the **PricingHeaderToPricingHeader.map** file and click **Open**.
6. Select the **Pricing Header to Pricing Header** map.

   If you do not want to change any of the map defaults, continue to step 7. To change the map settings, see the Editing map settings information in this section.
7. Click **Activate**.
8. Click the **Edit** link next to the **Check for changes area** to open the **Map Run Schedule** window and change it to run every 45 seconds. Make sure the **Start Date** is before the date you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.
9. Verify that the date listed in the **Check for data modified after** area is before the date you entered your Microsoft Dynamics GP pricing. If you need to change this date you must stop the Microsoft Dynamics Adapter Service. Click the **Edit** link next to the **Check for data modified after** area to open the **Check for data modified after** window. Enter the new value and click **OK**. Restart the Microsoft Dynamics Adapter Service.
10. Click **Save** on the top command bar.
11. In the **Status** section of the **Map** page you will see the **Last run** status. While the integration is running, the "Last run" status will be displayed as "Currently running" and display the number of changes found, the number of changes written, the number of deletions found, the number of records deleted, and the number of failures. Wait until "Currently running" is no longer displayed and the "Last run" status is displayed to allow the integration to run and move the Microsoft Dynamics GP Pricing Header information over to Microsoft Dynamics CRM.
12. Open Microsoft Dynamics CRM and navigate to **Settings > Product Catalog > Price Lists**. You will see all the Price List Headers that have been integrated. There will not be any associated Price List Items yet.
13. Verify that all the Price List Headers have been fully integrated.
14. Click the **View log for this map** link at the top of the **Status** section. Review any events that displayed. You should fix any issues before proceeding. Refer to the Reviewing the log file section for more information.

15. You can delete this map from the maps list after it has run successfully. It is not needed for regularly scheduled integrations. To delete this map, you must first stop the Microsoft Dynamics Adapter Service. Right click on the **Pricing Header to Pricing Header** map and choose **Delete**. When a message is displayed asking if you are sure you want to delete the selected map, click **Yes**. The selected map will be deleted from the maps list and a dialog will be displayed indicating where the deleted map will be located. Click **OK**.
16. Restart the Microsoft Dynamics Adapter Service.

Step 4: Microsoft Dynamics GP Items to Microsoft Dynamics CRM Products

1. Make sure you have entered all your Items (Products) in Microsoft Dynamics GP.
2. Open the **Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP Client**.
3. Navigate to the integration you want to work with and click on the **Maps** node in the left-hand pane.
4. Complete steps 5 through 7 for the following maps:
    - Flat Fee to Product
    - Kit to Product
    - Miscellaneous Charges to Product
    - Sales Item to Product
    - Service to Product

    If you do not want to change any of the map defaults, continue to step 5. To change the map settings, see the Editing map settings information in this section.
5. Click **Activate**.
6. Click the **Edit** link next to the Check for changes area to open the **Map Run Schedule** window and change it to run every 45 seconds. Make sure the **Start Date** is before the date you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.
7. Verify that the date listed in the **Check for data modified after area** is before the date you entered your Microsoft Dynamics GP Items. If you need to change this date you must stop the Microsoft Dynamics Adapter Service. Click the **Edit link** next to the **Check for data modified after** area to open the **Check for data modified after** window. Enter the new value and click **OK**. Restart the Microsoft Dynamics Adapter Service.
8. Click **Save** on the top command bar.
9. The amount of time it will take to integrate your Microsoft Dynamics GP items with your Microsoft Dynamics CRM products will depend on the number of items in your Microsoft Dynamics GP data set. In the **Status** section of the Map page you will see the **Last run** status. While the integration is running the "Last run" status will be displayed as "Currently running" and display the number of changes found, the number of changes written, the number of deletions found, the number of records deleted, and the number of failures. Wait until the "Currently running" status is no longer displayed and the "Last run" status is displayed to allow the integration to run and move the Microsoft Dynamics GP Items over to Microsoft Dynamics CRM Products.
10. Open Microsoft Dynamics CRM and navigate to **Settings > Product Catalog > Products**. You should see all the **Products** that integrated from Microsoft Dynamics GP.
11. Verify that all the Microsoft Dynamics GP **Items, Kits, Miscellaneous Charges, and Services** have been fully integrated with Microsoft Dynamics CRM Products.

12. Click the **View log for this map** link at the top of the **Status** section. Review any events that displayed. You should fix any issues before proceeding. Refer to the Reviewing the log file section for more information.
13. If you want to change the map run schedule for ongoing integration, repeat step 6 and change the Map Run Schedule to your desired settings for this map.

Step 5: Microsoft Dynamics GP Price Levels to Microsoft Dynamics CRM Price Lists

1. Make sure you have entered all of your pricing in Microsoft Dynamics GP.
2. Open the **Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP Client.**
3. Navigate to the integration you want to work with and click the **Maps** node in the left-hand pane.
4. Select the **Price Level to Price List** map.

   If you do not want to change any of the map defaults, continue to step 5. To change the map settings, see the Editing map settings information in this section.
5. Click **Activate**.
6. Click the **Edit** link next to the **Check for changes** area to open the **Map Run Schedule** window and change it to run every 45 seconds. Make sure the **Start Date** is before the date you first entered data into Microsoft Dynamics GP. Click the **OK** button to close the **Map Run Schedule** window.
7. Verify that the date listed in the **Check for data modified after** area is before the date you entered your Microsoft Dynamics GP prices. If you need to change this date you must stop the **Microsoft Dynamics Adapter Service**. Click the **Edit** link next to the **Check for data modified after** area to open the Check for data modified after window. Enter the new value and click **OK**. Restart the **Microsoft Dynamics Adapter Service**.
8. Click the **Save** button on the top command bar.
9. In the **Status** section of the Map page you will see the **Last run status**. While the integration is running the "Last run" status will be displayed as "Currently running" and display the number of changes found, the number of changes written, the number of deletions found, the number of records deleted, and the number of failures. Wait until the "Currently running" status is no longer displayed and the "Last run" status is displayed to allow the integration to run and move the Microsoft Dynamics GP Price List information over to Microsoft Dynamics CRM.
10. Open Microsoft Dynamics CRM and navigate to **Settings > Product Catalog > Price Lists**. You will see all the **Price List Headers** (Price Lists) that were integrated in Step 2. Double-click on any Price List and then click on Price List Items in the left-hand pane. You should see all the Prices List Items for this Price List.
11. Verify that all the **Price List Items** have been fully integrated.
12. Click the **View log for this map** link at the top of the **Status** section. Review any events that displayed. You should fix any issues before proceeding. Refer to the Reviewing the log file section for more information.
13. If you want to change the map run schedule for ongoing integration, repeat step 5 and change the **Map Run Schedule** to your desired settings for this map.

Step 6: Microsoft Dynamics GP Customers and Microsoft Dynamics CRM Accounts or Contacts

1. Make sure you have entered all your Customers in either Microsoft Dynamics GP or Microsoft Dynamics CRM (Accounts or Contacts).

   Note: You must choose to integrate either Microsoft Dynamics CRM Contact or Microsoft Dynamics CRM Accounts. You cannot integrate both.

   Note: If there are Accounts or Contacts in Microsoft Dynamics CRM that you want to move to Microsoft Dynamics GP, open the Microsoft Dynamics CRM Account or Contact form for each Account or Contact you want to integrate and click **Submit to ERP** at the top of the form. Only Accounts or Contacts that have been submitted to ERP will be integrated to Microsoft Dynamics GP.

2. Open the **Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP Client**.
3. Navigate to the integration you wish to work with and click the **Maps** node in the left-hand pane.
4. Select the correct map depending on where you entered your initial Customer data:
5. Choose **Account to Customer** or **Contact to Customer** if you entered your initial Customer data in Microsoft Dynamics CRM.
6. Choose **Customer to Account** or **Customer to Contact** if you entered your initial Customer data in Microsoft Dynamics GP.

   If you do not want to change any of the map defaults, continue to step 7. To change the map settings, see the Editing map settings information in this section.

7. Click **Activate**.
8. Click the **Edit** link next to the **Check for changes** area to open the **Map Run Schedule** window and change it to run every 45 seconds. Make sure the **Start Date** is before the date you first entered data into Microsoft Dynamics GP or Microsoft Dynamics CRM. Click **OK** to close the **Map Run Schedule** window.
9. Verify that the date listed in the **Check for data modified after** area is before the date you entered your Microsoft Dynamics GP Customers or Microsoft Dynamics CRM Accounts or Contacts. If you need to change this date you must stop the **Microsoft Dynamics Adapter Service**. Click the **Edit** link next to the **Check for data modified after** area to open the Check for data modified after window. Enter the new value and click **OK**. Restart the **Microsoft Dynamics Adapter Service**.
10. Click **Save** on the top command bar.
11. The amount of time it will take to integrate your Microsoft Dynamics GP Customers with your Microsoft Dynamics CRM Accounts or Contacts will depend on the number of Customers in your Microsoft Dynamics GP and/or Microsoft Dynamic CRM data set. In the **Status** section of the Map page you will see the **Last run status**. While the integration is running the Last run status will be displayed as "Currently running" and display the number of changes found, the number of changes written, the number of deletions found, the number of records deleted, and the number of failures. Wait until the "Currently running" status is no longer displayed and the "Last run" status is displayed to allow the integration to run and move the Microsoft Dynamics GP **Customers** over to Microsoft Dynamics CRM **Accounts** or **Contacts**.
12. Verify that all the **Customers** and **Accounts** or **Contacts** have been fully integrated.
13. Click the **View log for this map** link at the top of the **Status** section. Review any events that displayed. You should fix any issues before proceeding. Refer to the Reviewing the log file section for more information.
14. If you want to change the map run schedule for ongoing integration, repeat step 6 and change the **Map Run Schedule** to your desired settings for this map.

Step 7: Microsoft Dynamics GP Orders and Invoices and Microsoft Dynamics CRM Orders

Note: When both Microsoft Dynamics GP and Microsoft Dynamics CRM are new installations, there is no Order or Invoice data in either application. You do not need to do any initial data synchronization for these entities. If you want to integrate Orders and/or Invoices, you should activate the appropriate maps for integration before you begin entering Order and/or Invoice transactions in Microsoft Dynamics GP or Microsoft Dynamics CRM.

Note: If there are Orders in Microsoft Dynamics CRM that you want to move to Microsoft Dynamics GP, open the Microsoft Dynamics CRM Orders list. For each order you want to integrate, open the order form and click **Submit Order** at the top of the form. Only Orders that have been submitted will be integrated to Microsoft Dynamics GP.

Note: You should not submit Microsoft Dynamics CRM orders that have already been recreated in Microsoft Dynamics GP.

1. Make sure you have entered all your Orders in Microsoft Dynamics GP or Microsoft Dynamics CRM.
2. Open the **Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP Client**.
3. Navigate to the integration you want to work with and click the **Maps** node in the left-hand pane.
4. If there are Microsoft Dynamics GP orders that you want to integrate, select the **Sales Order to Order** map.

   If you do not want to change any of the map defaults, continue to step 5. To change the map settings, see the Editing map settings information in this section.

   Note: For line discount value property, the default decimal precision is two in the template. If you're currency decimal precision is different, change this value in the function for mapping.
5. Click **Activate**.
6. Click the **Edit** link next to the **Check for changes** area to open the **Map Run Schedule** window and change it to run every 45 seconds. Make sure the **Start Date** is before the date you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.
7. Verify that the date listed in the **Check for data modified after** area is before the date you entered your Microsoft Dynamics GP Sales Orders or Microsoft Dynamics CRM Orders. If you need to change this date you must stop the **Microsoft Dynamics Adapter Service**. Click the **Edit** link next to the **Check for data modified after** area to open the Check for data modified after window. Enter the new value and click **OK**. Restart the **Microsoft Dynamics Adapter Service**.
8. If there are Microsoft Dynamics CRM orders that you want to integrate, select the **Order to Sales Order** map and click the **Activate** button.
9. Repeat steps 5 and 6 for this map.
10. Click **Save** on the top command bar.
11. In the **Status** section of the Map page you will see the **Last run status**. While the integration is running the "Last run" status will be displayed as "Currently running" and display the number of changes found, the number of changes written, the number of deletions found, the number of records deleted, and the number of failures. Wait until the "Currently running" status is no longer displayed and the" Last run" status is displayed to allow the integration to run and move the Microsoft Dynamics GP Sales Orders over to Microsoft Dynamics CRM and the Microsoft Dynamics CRM Orders over to Microsoft Dynamics GP.
12. Verify that all the **Orders/Sales Orders** have been fully integrated.

13. Repeat steps 1 through 10 for the **Sales Invoice to Invoice** map.

    Note: Invoices can only be integrated from Microsoft Dynamics GP to Microsoft Dynamics CRM.

14. Click the **View log for this map** link at the top of the **Status** section. Review any events that displayed. You should fix any issues before proceeding. Refer to the Reviewing the log file section for more information.

15. If you want to change the map run schedules for ongoing integration, repeat step 5 and change the **Map Run Schedule** to your desired settings for this map.

Editing map settings

You may find that you need to update map settings. These settings can be changed at any time.

1. Click the Destination you want to map in the Mapping pane.
2. In the Mapping column, you can modify an existing map, or add a new map.
   - To modify an existing map, click and type the map in the text box, or click the **Map** button, which appears when you click in the text box.
   - To add a new map, click in a Mapping text box where "Click here to map" is displayed. Then, click the **Map** button, which appears when you click in the text box.
3. The **Destination Field Mapping window** is displayed.
4. Select how you want to map the field. You can map to a source field, use a constant or use a function. If you're changing the destination field, use the **Back** button to select another mapping option.

To map using	Do this:
Map to a Source Field	1. The Source Fields available for the destination you're mapping are listed. Select the field you want to map to. 2. Click Add.
Use a Constant	1. Enter a constant. The window displays examples of the syntax to use. 2. Click Add.
Use a Function	1. Select a Function category. Limit the functions displayed by selecting a category other than <Any>. **Note**: <Any> lists functions that are available in Dynamics GP 10 AND Dynamics GP 2010, and those available for Dynamics GP 2010. <Any> does not list options that are specific to only Dynamics GP 10. If you're using Dynamics GP 10, we recommend using the lists specific to that version to limit your options. If you select a function that is not compatible with your Dynamics GP version, you will receive an error message. 2. Select the function you want to map, click Next. 3. Supply the function argument for the function. Click the lookup to select an existing function. 4. Click Add.

5. Continue with the above procedures.

Map dependencies

Microsoft Dynamics GP to Microsoft Dynamics CRM

SalesPerson To ErpSystemUser

No dependency

UofMSchedule To uomschedule

No dependency

SalesItem to Product, FlatFee to Product, MiscellaneousCharges to Product, Service to Product

UofMSchedule to uomschedule

PricingHeader to PricingHeader

Kit To Product

UofMSchedule to uomschedule

PricingHeader to PricingHeader

SalesItem to Product, FlatFee to Product, MiscellaneousCharges to Product, Service to Product

Customer to Account

PricingHeader to PricingHeader

PriceLevel to PriceList

SalesPerson to ErpSystemUser

For a customer that has a parent customer dependency Customer to Account might be dependent on the parent customer integrating first

Customer to Contact

SalesPerson to ErpSystemUser

PricingHeader to PricingHeader

PriceLevel to Pricelist

For a customer that has a parent customer dependency Customer to Account might be dependent on the parent customer integrating first

GPSalesOrder to CRMsalesorder

SalesPerson to ErpSystemUser

UofMSchedule to uomschedule

SalesItem to Product, FlatFee to Product, MiscellaneousCharges to Product, Service to Product

Kit to Product

PriceLevel to Pricelist

Customer to Account or Customer to Contact

SalesInvoice To Invoice

SalesPerson to ErpSystemUser

UofMSchedule to uomschedule

SalesItem to Product, FlatFee to Product, MiscellaneousCharges to Product, Service to Product

Kit to Product

PriceLevel to Pricelist

Customer to Account or Customer to Contact

GPSalesOrder to CRMsalesorder

Microsoft Dynamics CRM to Microsoft Dynamics GP

Account to Customer or Contact to Customer

In account the default mapping includes defaultpricelevelid\dynamics_integrationkey (in Microsoft Dynamics CRM) to PriceLevelKey\Id (in Microsoft Dynamics GP) and addresses\item\owninguser\dynamics_integrationkey (in Microsoft Dynamics CRM) to Addresses\item\SalespersonKey\Id (in Microsoft Dynamics GP).

Existing Microsoft Dynamics CRM accounts or contacts will not be integrated to Microsoft Dynamics GP unless they are submitted.

Therefore, when you are running your initial data synchronization, integrating Account to Customer can be dependent on the existing Microsoft Dynamics CRM price list and salesperson created in Microsoft Dynamics GP. Here are the options to mitigate the dependencies:

For price level dependencies:

Remove the mapping defaultpricelevelid PriceLevelKey\Id.

For salesperson dependencies there are two options:

Remove the mapping for Addresses\item\SalespersonKey\Id

OR, Create the Microsoft Dynamics GP user that is corresponding to Microsoft Dynamics CRM sales person. Run the SalesPerson to ErpSystemUser integration, and map all Microsoft Dynamics CRM user to ERPSystemUser. Then you can run the Account to Customer or Contact to Customer integration.

Order to Sales Order

Existing Microsoft Dynamics CRM Orders will not be integrated to Microsoft Dynamics GP unless they are submitted.

Exception retries

If the integration encounters an exception that is considered a possible retry, such as attempting to create an order in Microsoft Dynamics GP that would cause the customer balance to exceed the credit limit, that particular integration instance is placed in a retry queue.

Retries occur based on a progressively time delayed algorithm that allows up to seven retries per instance. The default retry wait setting is 5.

The following table indicates the actual time between each retry attempt based on the configurable retry wait setting.

	Retry Attempt																
Retry Wait Setting	**1**	**2**	**3**		**4**		**5**			**6**				**7**			
	Secs	Secs	Mins	Secs	Mins	Secs	Hrs	Mins	Secs	Days	Hrs	Mins	Secs	Days	Hrs	Mins	Secs
7	7	49	5	43	40	1	4	40	7	1	8	40	49	9	12	45	43
6	6	36	3	36	21	36	2	9	36	0	12	57	36	3	5	45	36
5	5	25	2	5	10	25	0	52	5	0	4	20	25	0	21	42	5
4	4	16	1	4	4	16	0	17	4	0	1	8	16	0	4	33	4
3	3	9	0	27	1	21	0	4	3	0	0	12	9	0	0	36	27
2	2	4	0	8	0	16	0	0	32	0	0	1	4	0	0	2	8
1	1	1	0	1	0	1	0	0	1	0	0	0	1	0	0	0	1

Activating maps

Before you can run an integration, you must activate the maps created for the integration. As soon as a map is activated and you save your changes, the integration process begins. To activate a map:

1. Select a map from the tree view in the left pane.
2. In the Status area, click the **Edit** link in the “Check for changes” section. The default value for the Run Frequency in all maps is 45 seconds.
3. Enter or select the date and time to start using this map in integrations.
4. Set the Recurrence Pattern to be one of the following options.
   - **Once** – Only run this map once.
   - **Recurring** – Run this map at a time interval that you specify.
   - **Weekly** – Run this map once every week.
   - **Continuously** – Run this map continuously.
5. In the Status area, click the **Edit** link in the Check for data modified after section. Enter or select the date and time after which you want the system to check for modified data.
6. In the Status area, click **Activate**.
7. Click **Save** on the top command bar.

Associating CRM users with ERP system users

After you activate the Salesperson to ERP System User map and the map successfully integrates the Microsoft Dynamics GP Salesperson entity with the ERP System User entity in Microsoft Dynamics CRM, you must associate Microsoft Dynamics CRM users with the integrated ERP System User entity within Microsoft Dynamics CRM. You must do this before you can integrate Customers, Sales Orders, and Sales Invoices.

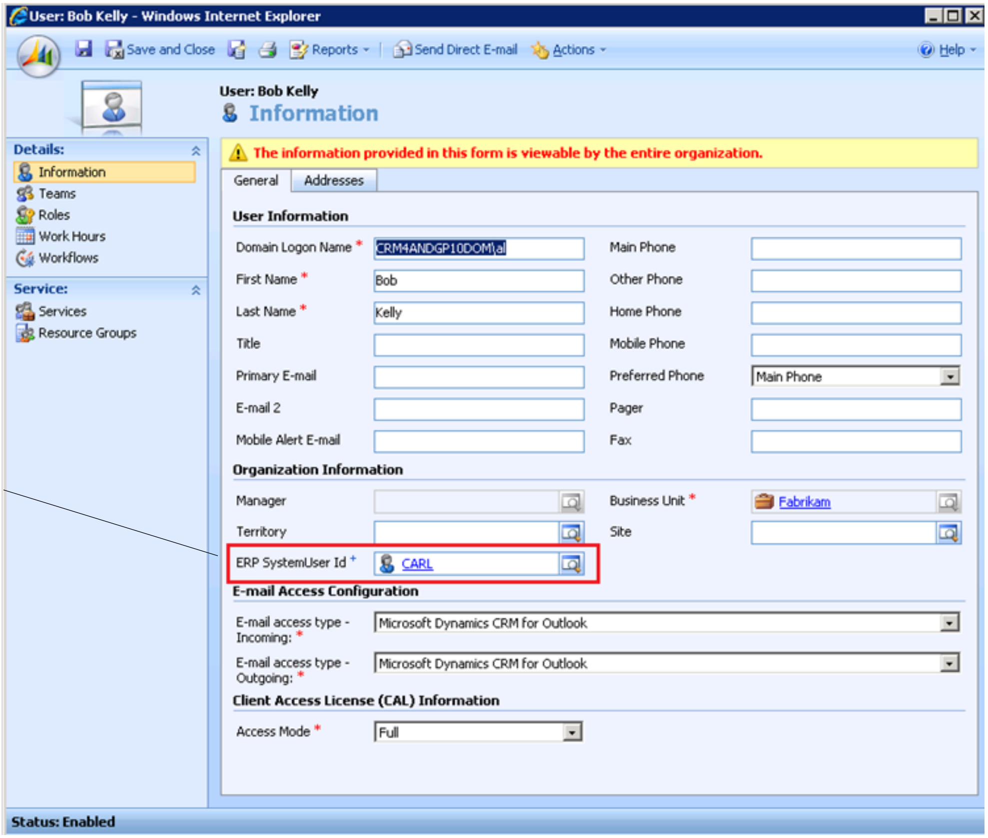
Note: Repeat the procedure below for each Microsoft Dynamics CRM user.

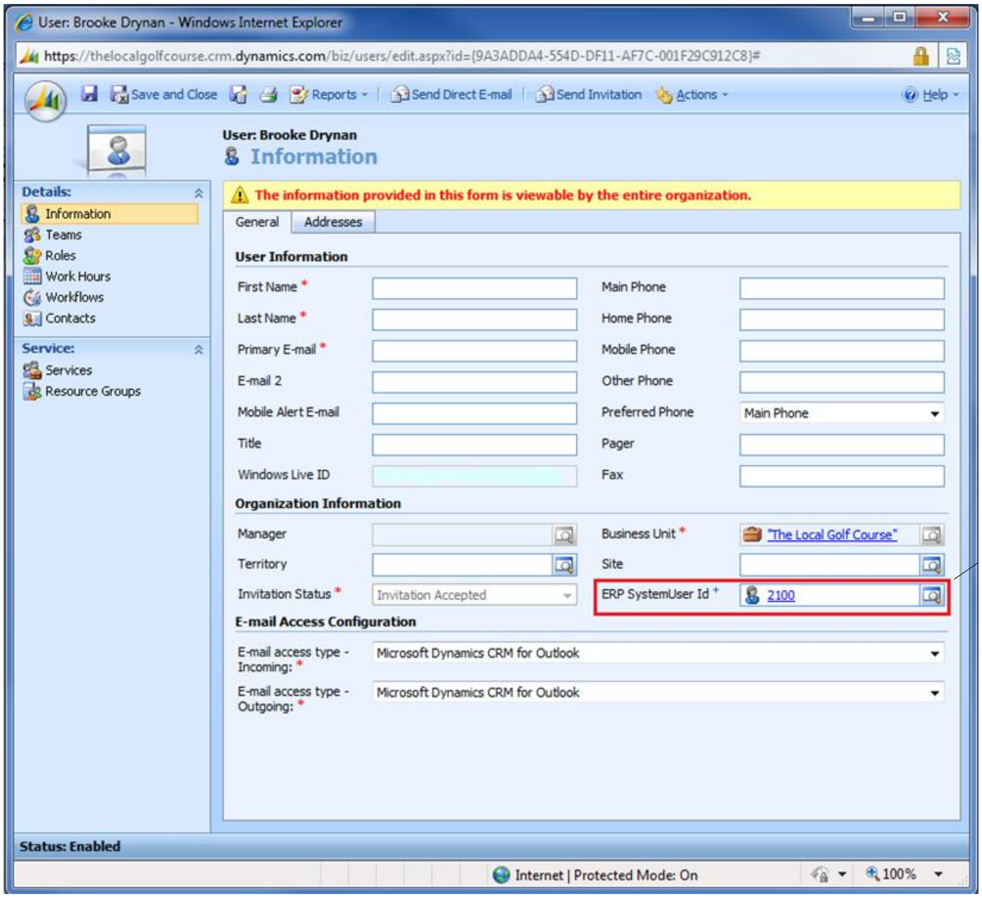
Associate a Microsoft Dynamics CRM user with an integrated ERP system user

1. Start your web browser and navigate to your Microsoft Dynamics CRM Workplace.
2. Open the **Users** page. (**Settings** > **Administration** > **Users**)
3. Double-click on a User record to open the **User** window.
4. On the **General** tab, locate the **ERP SystemUser ID** field and click the **Lookup** button to search for and select an ERP System User to associate to the User record.

   Note: Be sure that each ERP SystemUser ID is associated with only one CRM user.

Using Microsoft Dynamics CRM





Using Microsoft Dynamics CRM Online

5. Click **Save** or **Save and Close**.

Setting up notifications

You can set up notifications so that, when an exception occurs, a notification e-mail is sent to you or a user you specify. You also can specify how often exception notices are sent. You can set up notifications for the types of exceptions listed below.

- **System-level exception** – An exception that might occur when you have insufficient rights to complete a task that you attempt. Example: "User is not authorized to perform the request operations in GP Web Services."
- **Business logic exception** – An exception that might occur when the business logic within a Microsoft Dynamics application prevents the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP from completing a task. Example: "The Customer cannot be set to Inactive, because Customer Aaron Fitz has posted or unposted transactions."
- **Unrecognized exception** – An exception that the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP doesn't recognize.

Complete the following procedure for each type of exception.

Set up notifications

1. In the left pane of the main window, click **Settings**.
2. Expand the **Exception Notifications** area on the **Settings** page.
3. Select one of the following options.

   Don't send – Select this option if you do not want to send notifications for this exception type. If you select this option, the other options in this procedure are not available.

   Send immediately – Select this option to send a notification when each exception occurs.

   Send a daily summary – Select this option to send one e-mail a day listing each exception that occurred during the day.

   Send a weekly summary – Select this option to send one e-mail a week listing each exception that occurred during the week.
4. In the **SMTP Server** field, enter the Simple Mail Transfer Protocol (SMTP) Server name or IP address of the host that is used to send the notification E-mails.
5. In the **Port** field, enter the port number on the SMTP Server that is used for SMTP transactions.
6. In the **From** field, enter the e-mail address to send notifications from.
7. In the **To** field, enter the e-mail addresses to send notifications to. Separate multiple e-mail addresses with a comma.

Tip: The e-mail addresses that exception notifications are sent to must be Simple Mail Transfer Protocol (SMTP) compliant. Validation is not performed on the entered e-mail addresses. Be sure to enter e-mail addresses that are SMTP compliant, otherwise e-mail notifications will not be sent.

Note: If your location recognizes Daylight Savings Time (DST), when you set up a report to run at a designated time, the report may actually be sent one hour later.

Maintenance

The following contains information on how to maintain your integrations.

Reviewing the log file

The log lists events that occur during the integration process. Sometimes these events are exceptions that you may need to resolve. By default the events are sorted in the order that they are received but can be sorted further by selecting one or more of the headings at the top of the Log page and dragging the heading into the space above the headings. You can also change the sort order by clicking on any of the column headings. To filter what is displayed click on the right-hand side of any column heading and select a value by clicking its checkbox. Double-click on any message to view message properties and any mediation steps available.

Tip: If you group the log by dragging a column header and then view any other page in the Microsoft Dynamics Adapter client, you will not be able to ungroup the log. You will have to close the client and reopen the client in order to clear the log group by column.

The three types of event **Severity** are:

- **Error** – An event that describes significant problem, such as the failure of a critical task. Error events may involve data loss or loss of functionality. An Error event is always either a Retrying or Not Retrying event.
- **Warn** – An event that is not necessarily significant, however, may indicate the possible occurrence of a future problem. A Warning is always either a Retrying or Not Retrying event.
- **Info** – An event that that provides information.

The three types of log message **Status** are:

- **Attempting to integrate** - This record is in a retry state and will continue to retry integration until it either integrates successfully or the maximum number of retries is reached. If the maximum number of retries is reached and the record does not successfully integrate, the Status will change to Failed to integrate. You can double-click on the message to view the message details where you can change the number of retries, Stop Retrying, or Reset Retries.
- **Integrated after initial error** – This record was originally in a retry state and was able to successfully integrate on one of the successive retry attempts.
- **Failed to integrate** - This record was unable to successfully integrate.

Navigating to the log page

- From any page – In the left pane, click **Log**. The Log page that displays all events for all maps in the integration is displayed.
- From a Map page – Click the **View log for this map** link. The Log page is displayed and only the events for the map that you were viewing are displayed.

Tip: If SSL is not properly set up, the following Web Services exception occurs. This will be caught by the Service and logged: "The underlying connection was closed: Could not establish trust relationship for the SSL/TLS secure channel."

Turning on the Logging Diagnostic Tool

You can turn on additional logging in Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP by setting the Trace option in one or more of the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP configuration files. The configuration Trace option can be used as a diagnostic tool to obtain more integration activity details. To enable Trace, open the individual configuration files and set the desired trace value.

All configuration files are stored under "%ProgramFiles%\Microsoft Dynamics\ Microsoft Dynamics Adapter" (or under "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter" directory if you are running on a 64 bit machine). Here is a list of the configuration files where tracing can be enabled:

- Microsoft.Dynamics.Integration.Client.exe.config
- Microsoft.Dynamics.Integration.Client.ServiceController.exe.config
- Microsoft.Dynamics.Integration.Service.exe.config

To enable logging, you modify the value of the Microsoft.Dynamics.Integration.TraceLog switch. Here is a code sample from one of the config files with the pertinent information.

```
<system.diagnostics>
<switches>
<!-- 0-off, 1-error, 2-warn, 3-info, 4-verbose -->
<add name="Microsoft.Dynamics.Integration.TraceLog" value="0"/>
</switches>
</system.diagnostics>
```

Once tracing or logging is turned on, *.Log files will be generated which contain diagnostic and debugging information. These log files are stored under:

Windows Server 2003

%ALLUSERSPROFILE%\Application Data\Microsoft Dynamics\Microsoft Dynamics Adapter\Logs

Example: C:\Documents and Settings\All Users\Application Data\Microsoft Dynamics\Microsoft Dynamics Adapter\Logs

Windows Server 2008

%ALLUSERSPROFILE%\Microsoft Dynamics\Microsoft Dynamics Adapter\Logs

Example: C:\ProgramData\Microsoft Dynamics\Microsoft Dynamics Adapter\Logs

The name of the log file is based upon which process has tracing or logging enabled.

- If logging is enabled for the *Client*, then you will find a Microsoft.Dynamics.Integration.Client.log file under one of the above directories.
- If logging is enabled for the *Service*, then you will find a Microsoft.Dynamics.Integration.Service.log file under one of the above directories.

Logging is turned off (a value of zero) when Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP is installed.

Make sure you turn Trace back off after you are done using it, as the log file can get very large if you don't.

Note: Any user who has access to the computer running the integration process will also have access to the log files. Therefore, if you want to protect the log files, you will need to make sure that only users whom you trust have access to the computer that runs the integration process.

Deleting integrations and maps

Files related to deleted integrations and maps are stored in the following folder:
%TEMP%\1\DeletedIntegrations

Deleted integrations and maps are saved with a randomly generated unique name followed by a .intx extension for deleted integrations and a .mapx for deleted maps. This is done to ensure that older deleted versions are not overwritten. The file is stamped with the current time so you sort by date modified to locate a specific deleted integration or map.

The location of the TEMP file is specified in the Environment Variables window on your system. (**Start** > **Control Panel** > **System** > **Advanced system settings** > **Advanced** tab > click the **Environment Variables** button)

If the Microsoft Dynamics Adapter Service is running, you must stop the service before you can delete any integrations or maps.

Delete all integrations

1. In the left pane of the application window, right-click on the **Microsoft Dynamics GP 10** [or **GP 2010]/Microsoft Dynamics CRM 4.0** node and select **Delete**.
2. Click **Yes** to delete the integrations.

Delete one integration

1. In the left pane of the application window, right-click on the integration node and select **Delete**.
2. Click **Yes** to delete the integration and all of the maps within the integration.

Delete a map

1. In the left pane of the application window, right-click on the map that you want to delete and select **Delete**.
2. Click **Yes** to delete the map.

Appendix

The following sections are provided for your reference.

- Microsoft Dynamics CRM to Microsoft Dynamics GP maps
- Microsoft Dynamics GP to Microsoft Dynamics CRM maps
- Changes made by the Dynamics CRM configuration utility

Microsoft Dynamics CRM to Microsoft Dynamics GP maps

Account to Customer

In the Account to Customer map, the Microsoft Dynamics CRM Account entity is the source entity and the Microsoft Dynamics GP Customer entity is the destination entity. This map provides the field associations that are necessary to read data from an Account record and write that data to the correct fields in the Customer record.

The following are known limitations to how the Microsoft Dynamics CRM account entity can be integrated with the Microsoft Dynamics GP Customer entity.

- This map should not be scheduled to run at the same time that the Customer to Account map runs. For more information about the order in which maps should be run, refer to Adding maps to an integration.
- New Accounts will not be integrated until you click **Submit to ERP** on the Account form in Microsoft Dynamics CRM.
- If you associate a Microsoft Dynamics CRM Contact to a Microsoft Dynamics CRM Account using the **Primary Contact** field on the Account form and you have chosen to integrate Accounts to Customers, the Account will fail to integrate with a log entry similar to "**contact with id <Guid> does not have a valid value for its dynamics_integrationkey**".

  You must do one of the following to enable the integration of Microsoft Dynamics CRM Accounts that have an associated **Primary Contact**:

  1. In Microsoft Dynamics CRM, open the Contact form for each Contact that is associated to an Account and click **Submit to ERP**. The Contact will not be integrated but this will allow the associated Account to integrate.
  2. Use the following steps to update the **AccountObjectProvider.config** file:

     a. Stop the Microsoft Dynamics Adapter Service.

     b. Close the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP client.

     c. Open the **AccountObjectProvider.config** file in the **Adapters\Microsoft.Dynamics.Integration.Adapters.Crm40\ObjectConfig\<organization unique name>** subdirectory of the location where the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP is installed. Locate the field name **"primarycontactid"**. Remove this entire line from the **AccountObjectProvider.config** file. Save the updated **AccountObjectProvider.config** file.

     d. Open the Microsoft Dynamics CRM Adapter for Microsoft Dynamics GP client.

     e. Start the Microsoft Dynamics Adapter Service.

- The requirement level of the **Account Number** field on the Account form is noted as **Business Recommended.** When integrating Microsoft Dynamics CRM Accounts to Microsoft Dynamics GP Customers you should enter an Account Number in order to avoid inconsistent generation of the **ERP Key** used for integration.
- Before you merge accounts in Microsoft Dynamics CRM, you must remove any current and historical sales transactions for the associated Microsoft Dynamics GP Customer record. If you do not do this, the Microsoft Dynamics GP Customer record will remain active and during the next integration, the Microsoft Dynamics CRM Account or Contact will be reactivated.
- Parent Accounts in Microsoft Dynamics CRM will not be created as Microsoft Dynamics GP National Accounts when this map is run. If an account in Microsoft Dynamics CRM has a parent assigned to it and then it is integrated into Microsoft Dynamics GP using the Account to Customer map, it will not be created as a national account in Microsoft Dynamics GP. If you want National Accounts to exist as integrated records in both applications, you must set up national accounts in Microsoft Dynamics GP and then run the Customer to Account map so that the National accounts from Microsoft Dynamics GP will be created as parent accounts in Microsoft Dynamics CRM. Future edits to National Account records should be made in Microsoft Dynamics GP so that the changes are integrated with the Microsoft Dynamics CRM Parent Account records.
- Updates to Microsoft Dynamics CRM customer address fields except Address 1 and Address 2 fields will not integrate with Microsoft Dynamics GP unless the account record associated with these addresses is updated.
- When you create a Microsoft Dynamics CRM Account that has a Credit Limit value and integrate the Account with Microsoft Dynamics GP using the Account to Customer map, the Credit Limit is not integrated. If you want to integrate the Credit Limit, you must update a Class ID policy in Microsoft Dynamics GP Web Services and define a default credit limit. (Refer to your Microsoft Dynamics GP Web Services documentation for more information.)

If you have activated duplicate detection, the Account to Customer map may be dependent on existing Microsoft Dynamics CRM price list and salespersons that are created in Microsoft Dynamics GP. Your options are listed below.

For price level dependencies:

- Remove the mapping defaultpricelevelid PriceLevelKey\ID

For salesperson dependencies:

- Remove the mapping for Addresses\item\SalespersonKey\ID
- Alternatively, create the Microsoft Dynamics GP users that correspond to the Microsoft Dynamics CRM Salespersons and enable the Salesperson To ErpSystemUser map so that all Microsoft Dynamics CRM users are mapped to the ERPSystemUsers. Then you can run the Account to Customer or Contact to Customer map.

Contact to Customer

In the Contact to Customer map, the Microsoft Dynamics CRM Contact entity is the source entity and the Microsoft Dynamics GP Customer entity is the destination entity. This map provides the field associations that are necessary to read data from a Contact record and write that data to the correct fields in the Customer record.

The following are known limitations to how the Microsoft Dynamics CRM contact entity can be integrated with the Microsoft Dynamics customer entity.

- This map should not be scheduled to run at the same time that the Customer to Contact map runs. For more information about the order in which maps should be run, refer to Add maps to an integration.
- New Contacts will not be integrated until you click **Submit to ERP** on the Contact form in Microsoft Dynamics CRM.
- Before you merge Contacts in Microsoft Dynamics CRM, you must remove any current and historical sales transactions for the associated Microsoft Dynamics GP Customer record. If you do not do this, the Microsoft Dynamics GP Customer record will remain active and during the next integration, the Microsoft Dynamics CRM Contact will be reactivated.
- Parent Contacts in Microsoft Dynamics CRM will not be created as Microsoft Dynamics GP National Accounts when this map is run. If a Contact in Microsoft Dynamics CRM has a parent assigned to it and then it is integrated into Microsoft Dynamics GP using the Contact to Customer map, it will not be created as a national account in Microsoft Dynamics GP. If you want National Accounts to exist as integrated records in both applications, you must set up national accounts in Microsoft Dynamics GP and then run the Customer to Contact map so that the National accounts from Microsoft Dynamics GP will be created as parent contacts in Microsoft Dynamics CRM. Future edits to National Account records should be made in Microsoft Dynamics GP so that the changes are integrated with the Microsoft Dynamics CRM Parent Contact records.
- Updates to Microsoft Dynamics CRM customer address fields except Address 1 and Address 2 fields will not integrate with Microsoft Dynamics GP unless the contact record associated with these addresses is updated.
- If you create a CRM Contact with a **First Name** and click **Submit to ERP** before saving, the **ERP Key** is created by combining the first four characters of the Contact **First Name** and the first five characters of the Contact **Last Name** plus a random number.

  If you create a CRM Contact without a **First Name** and save before clicking **Submit to ERP**, the **ERP Key** is created by combining the first five characters of the Contact **Last Name** plus a random number. The first four characters of the Contact **First Name** are not used.

If you have activated duplicate detection, the Contact to Customer map may be dependent on existing Microsoft Dynamics CRM price list and Salespersons that are created in Microsoft Dynamics GP. Your options to mitigate these dependencies are listed below.

For price level dependencies:

- Remove the mapping defaultpricelevelid PriceLevelKey\ID

For Salesperson dependencies:

- Remove the mapping for Addresses\item\SalespersonKey\ID
- Alternatively, create the Microsoft Dynamics GP users that correspond to the Microsoft Dynamics CRM Salespersons and enable the Salesperson To ErpSystemUser map so that all Microsoft Dynamics CRM users are mapped to the ERPSystemUsers. Then you can run the Contact to Customer map.

Order to Sales Order

In the Order to Sales Order map, the Microsoft Dynamics CRM Order entity is the source entity and the Microsoft Dynamics GP Sales Order entity is the destination entity. This map provides the field associations that are necessary to read data from an Order record and write that data to the correct fields in the Sales Order record.

The following are known limitations to how the Microsoft Dynamics CRM Order entity can be integrated with the Microsoft Dynamics GP Sales Order entity.

- Microsoft Dynamics CRM orders only can be integrated into Microsoft Dynamics GP by clicking on the **Submit Order** button on the Microsoft Dynamics CRM Order form.
- Once a new Microsoft Dynamics CRM Order is submitted to Microsoft Dynamics GP, it cannot be modified or deleted in Microsoft Dynamics CRM. However, it can be cancelled in Microsoft Dynamics CRM.
- When a submitted Microsoft Dynamics CRM Order is deleted in GP, the corresponding CRM order will be cancelled.
- If you cancel a submitted order in Microsoft Dynamics CRM, the associated order in Microsoft Dynamics GP will NOT be voided or deleted. If you want the associated Microsoft Dynamics GP order to be voided or deleted you must manually void or delete the order from the Microsoft Dynamics GP application.
- Line discounts are calculated differently in Microsoft Dynamics CRM and Microsoft Dynamics GP. Microsoft Dynamics CRM applies the discount after the extended price is calculated, e.g. extended price = (unit price * line quantity) – line discount. Microsoft Dynamics GP applies the discount to the unit price, e.g. extended price = (unit price – markdown amount) * line quantity. The Order to Sales Order template map includes a formula to handle this integration appropriately, but you should be aware of this difference in calculations if you choose to make any map changes in this area. **Note**: If you make map changes in this area, make sure to set the rounding to match your Microsoft Dynamics GP functional currency decimal precision.

Microsoft Dynamics GP to Microsoft Dynamics CRM maps

Customer to Account

In the Customer to Account map, the Microsoft Dynamics GP Customer entity is the source entity and the Microsoft Dynamics CRM Account entity is the destination entity. This map provides the field associations that are necessary to read data from a Customer record and write that data to the correct fields in the Account record.

- This map should not run at the same time that the Account to Customer map runs. For more information about the order in which maps should be run, refer to Adding maps to an integration.
- You must activate the Salesperson To ErpSystemUser map and associate Microsoft Dynamics CRM users to the integrated ERP System User records if you want to maintain ownership in Microsoft Dynamics CRM.
- For customer records that have parent customer dependencies, the Customer to Account map might be dependent on whether the parent customer has been integrated.
- When integrating addresses from Microsoft Dynamics GP to Microsoft Dynamics CRM, the system will fail with an exception if the text coming into Microsoft Dynamics CRM from Microsoft Dynamics GP is longer than the maximum number of characters allowed in Microsoft Dynamics CRM. In order to prevent this exception from occurring you can adjust the maximum number of characters for the Microsoft Dynamics CRM address lines to be, at most, 60 or you can limit the length of the address string that is sent to Microsoft Dynamics CRM by modifying the map and using the Mid function. The Mid function allows the transform to find a string in a certain location for a specified number of characters. For example you could modify the mapping of Microsoft Dynamics GP Ship-to Address to Microsoft Dynamics Ship-to Address by utilizing the **Use a function** option in the **Destination Field Mapping** window. Select the **Mid** function from the function list. Map the **text** to the Microsoft Dynamics GP Ship-to Address source field, set the **start** value to 1, set the **length** value to 50. This will truncate any characters beyond 50.

Ship To Address in Microsoft Dynamics GP

In Microsoft Dynamics CRM, when an address is added to the Account or Contact form using the Address 1 Name or Address 2 Name, the same Address Name cannot also be added to the More Addresses form for that Account or Contact.

In Microsoft Dynamics GP, the Address ID, Ship To, Bill To and Statement To address IDs must exist in the Customer Address Maintenance table.

The following issues could occur when attempting to update or delete an integrated address.

- If you update an integrated Ship To address in Microsoft Dynamics GP by changing it to a different address that is already integrated, the following exception will occur:

  Map: Customer to Account (or Customer to Contact)

  Severity: Warn

  Text: [Map Name] has encountered an error while processing key [Key Value]. Multiple customeraddress entities were found with the attribute: dynamics_integrationkey set to value: [Value Name, e.g. SHIP TO].

  Error Code: Microsoft.Dynamics.Integration.Adapters.Crm40: 0x80131501

  Item Key: [Item Key]

  Retries: [number of remaining retries]

To correct this exception, manually delete the Address Name that is now the Ship To name from the More Addresses form in Microsoft Dynamics CRM.

- If you remove an integrated Ship To address in Microsoft Dynamics GP by leaving the Ship To field blank, the following exception will occur:

  Map: Customer to Account (or Customer to Contact)
  Severity: Warn

  Text: [Map Name] has encountered an error while processing key [Key Value].

  0x8004431a

  A validation error occurred. The value of 'addresstypecode' on record of type 'customeraddress' is outside the valid range.

  Platform

  Error Code: Microsoft.Dynamics.Integration.Adapters.Crm40:0x80131501

  Item Key: [Key Value]

  Retries: [number of remaining retries]

  To correct this exception you can do one of the following:

  - In Microsoft Dynamics GP, create a new address and assign the new address to the appropriate Address on the Customer.
  - In Microsoft Dynamics CRM, manually delete the address.

Customer to Contact

In the Customer to Contact map, the Microsoft Dynamics GP Customer entity is the source entity and the Microsoft Dynamics CRM Contact entity is the destination entity. This map provides the field associations that are necessary to read data from a Customer record and write that data to the correct fields in the Contact record.

- This map should not be scheduled to run at the same time that the Contact to Customer map runs. For more information about the order in which maps should be run, refer to Adding maps to an integration.
- You must activate the Salesperson to ERP System User map and associate Microsoft Dynamics CRM users to the integrated ERP System User records if you want to maintain ownership in Microsoft Dynamics CRM.
- For customer records that have parent customer dependencies, Customer to Contact might be dependent on whether the parent customer has been integrated.
- When integrating addresses from Microsoft Dynamics GP to Microsoft Dynamics CRM, the system will fail with an exception if the text coming into Microsoft Dynamics CRM from Microsoft Dynamics GP is longer than the maximum number of characters allowed in Microsoft Dynamics CRM. In order to prevent this, adjust the maximum number of characters for the Microsoft Dynamics CRM address lines to be, at most, 60 or you can limit the length of the address string that is sent to Microsoft Dynamics CRM by modifying the map and using the Mid function. The Mid function allows the transform to find a string in a certain location for a specified number of characters. For example, you could modify the mapping of Microsoft Dynamics GP Ship-to Address to Microsoft Dynamics Ship-to Address by utilizing the **Use a function** option in the **Destination Field Mapping** window. Select the **Mid** function from the function list. Map the **text** to the Microsoft Dynamics GP Ship-to Address source field, set the **start** value to 1, set the **length** value to 50. This will truncate any characters beyond 50.

Flat Fee to Product

In the Flat Fee to Product map, the Microsoft Dynamics GP Flat Fee entity is the source entity and the Microsoft Dynamics CRM Product entity is the destination entity. This map provides the field associations that are necessary to read data from a Flat Fee record and write that data to the correct fields in the Product record.

The following are known limitations to how the Microsoft Dynamics GP Flat Fee entity can be integrated with the Microsoft Dynamics CRM Product entity.

- The Flat Fee to Product map may need to be run multiple times before it is successful because Flat Fee substitutes must be integrated first before the parent item can be integrated.
- If the Default Selling U of M is removed from the Item Price List for a flat fee type item in Microsoft Dynamics GP, the corresponding Default Unit in Microsoft Dynamics CRM will not be removed because it is a required field.

Kit to Product

In the Kit to Product map, the Microsoft Dynamics GP Kit entity is the source entity and the Microsoft Dynamics CRM Product entity is the destination entity. This map provides the field associations that are necessary to read data from a Kit record and write that data to the correct fields in the Product record.

The following are known limitations to how the Microsoft Dynamics GP Kit entity can be integrated with the Microsoft Dynamics CRM product entity.

- The Kit to Product map may need to be run multiple times before it is successful because kit components must be integrated first before the kit can be integrated.
- Microsoft Dynamics GP has a sales setup option to allow the current and standard cost of a kit to be calculated based on the current and standard costs of the component items that make up that kit. If this option is selected, Microsoft Dynamics GP will calculate the line item price based on the costs of the component items. If this option is not selected, Microsoft Dynamics GP will calculate the line item price based on the cost associated to the kit item.
- If the Default Selling U of M is removed from the Item Price List for a kit type item in Microsoft Dynamics GP, the corresponding Default Unit in Microsoft Dynamics CRM will not be removed because it is a required field.

Miscellaneous Charges to Product

In the Miscellaneous Charges to Product map, the Microsoft Dynamics GP Miscellaneous Charges entity is the source entity and the Microsoft Dynamics CRM Product entity is the destination entity. This map provides the field associations that are necessary to read data from a Miscellaneous Charges record and write that data to the correct fields in the Product record.

The following are known limitations to how the Microsoft Dynamics GP Miscellaneous Charges entity can be integrated with the Microsoft Dynamics CRM product entity.

- The Miscellaneous Charges to Product map may need to be run multiple times before it is successful because Miscellaneous Charges substitutes must be integrated first before the parent item can be integrated.
- If the Default Selling U of M is removed from the Item Price List for a miscellaneous charge type item in Microsoft Dynamics GP, the corresponding Default Unit in Microsoft Dynamics CRM will not be removed because it is a required field.

Price Level to Price List

In the Price Level to Price List map, the Microsoft Dynamics GP Price List and Price Level entities are the source entities and the Microsoft Dynamics CRM Price List entity is the destination entity. This map provides the field associations that are necessary to read data from Microsoft Dynamics GP Price Level and Price List records and write that data to the correct fields in the Microsoft Dynamics CRM Price List record.

The following are known limitations to how the Microsoft Dynamics GP Price List and Price Level entities can be integrated with the Microsoft Dynamics CRM Price List entity.

- If an item is created in Microsoft Dynamics GP with no default price level assigned in the price list item record, a default price list will still be created for the product in Microsoft Dynamics CRM.

Sales Item to Product

In the Sales Item to Product map, the Microsoft Dynamics GP Sales Item entity is the source entity and the Microsoft Dynamics CRM Product entity is the destination entity. This map provides the field associations that are necessary to read data from a Sales Item record and write that data to the correct fields in the Product record.

The following are known limitations to how the Microsoft Dynamics GP Sales Item entity can be integrated with the Microsoft Dynamics CRM Product entity.

- The Sales Item to Product map may need to be run multiple times before it is successful because Sales Item substitutes must be integrated first before the parent Sales Item can be integrated.
- If the Default Selling U of M is removed from the Item Price List for a sale item in Microsoft Dynamics GP, the corresponding Default Unit in Microsoft Dynamics CRM will not be removed because it is a required field.

Sales Order to Order (GP to CRM)

In the Sales Order to Order map, the Microsoft Dynamics GP Sales Order entity is the source entity and the Microsoft Dynamics CRM Order entity is the destination entity. This map provides the field associations that are necessary to read data from a Sales Order record and write that data to the correct fields in the Order record.

The following are known limitations to how the Microsoft Dynamics GP Sales Order entity can be integrated with the Microsoft Dynamics CRM Order entity.

- In the case where a Microsoft Dynamics CRM Sales Order fails to integrate with Microsoft Dynamics GP, you can cancel the Sales Order in Microsoft Dynamics CRM even after it has been submitted to Microsoft Dynamics GP for integration.
- Microsoft Dynamics GP allows new sales orders to have an ID that already exists in the history. However, duplicated sales order IDs, historic or new, are not supported for integration. You will receive an error if a duplicate is encountered.
- Microsoft Dynamics GP supports negative numbers and amounts on the sales order detail quantity, tax amount, discount amount etc. Microsoft Dynamics CRM does not support negative numbers on the related fields, which means that the integration will fail.

- A Microsoft Dynamics CRM exception "error 0x8004022d – Customer not specified" may occur in a situation where the user creates a new sales order in Microsoft Dynamics GP, but before the user saves the sales order, Microsoft Dynamics GP creates a partial record on the SOP10100 table.

  Note: This record does not have customer information, but it does have the Sales Order ID. If the Sales Order to Order map attempts to run before the user saves the new completed sales order in Microsoft Dynamics GP, the Microsoft Dynamics GP web service will return the partial record, and the above error will occur.

  This error occurs because the new record cannot be written to Microsoft Dynamics CRM because the customer information is missing.

  If this scenario occurs, the integration will automatically attempt to integrate the sales order again after the user saves the completed sales order in Microsoft Dynamics GP and no further action is required.

- Line discounts are calculated differently in Microsoft Dynamics CRM and Microsoft Dynamics GP. Microsoft Dynamics CRM applies the discount after the extended price is calculated, e.g. extended price = (unit price * line quantity) – line discount. Microsoft Dynamics GP applies the discount to the unit price, e.g. extended price = (unit price – markdown amount) * line quantity. The Sales Order to Order template map includes a formula to handle this integration appropriately, but you should be aware of this difference in calculations if you choose to make any map changes in this area.

  Note: If you make map changes in this area, make sure to set the rounding to match your Microsoft Dynamics GP functional currency decimal precision.

Salesperson to ERP System User

In the Salesperson to ERP System User map, the Microsoft Dynamics GP Salesperson entity is the source entity and the Microsoft Dynamics CRM ERP System User entity is the destination entity. This map provides the field associations that are necessary to read data from a Salesperson record and write that data to the correct fields in the ERP System User record.

After running this map, you must add the ERP SystemUser ID to each Microsoft Dynamics CRM user.

Add an ERP SystemUser ID to a user

1. Open the **Users** page (**Settings->Administration->Users**).
2. Select a user name to open the User window.
3. Click the lookup button next to ERP SystemUser ID.
4. Select the **Salesperson** to map the user to.
5. Click **Save**.

Service to Product

In the Service to Product map, the Microsoft Dynamics GP Service entity is the source entity and the Microsoft Dynamics CRM Product entity is the destination entity. This map provides the field associations that are necessary to read data from a Service record and write that data to the correct fields in the Product record.

The following are known limitations to how the Microsoft Dynamics GP Service entity can be integrated with the Microsoft Dynamics CRM product entity.

- The Services to Product map may need to be run multiple times before it is successful because Services substitutes must be integrated first before the parent item can be integrated.
- If the Default Selling U of M is removed from the Item Price List for a service type item in Microsoft Dynamics GP, the corresponding Default Unit in Microsoft Dynamics CRM will not be removed because it is a required field.

U of M Schedule to Unit Group

In the U of M Schedule to U of M Schedule map, the Microsoft Dynamics GP Unit Group entity is the source entity and the Microsoft Dynamics CRM Unit Group entity is the destination entity. This map provides the field associations that are necessary to read data from a U of M record and write that data to the correct fields in the Unit Group record.

The following are known limitations to how the Microsoft Dynamics GP U of M Schedule entity can be integrated with the Microsoft Dynamics CRM Unit Group entity.

- In Microsoft Dynamics CRM, Units cannot have the same name when they belong to the same Unit Group. If this occurs, the following message will be displayed when this map is run. “[UofM Schedule to Unit Group] has encountered an error while processing key [WIRE]. A Unit named [Unit Name] already exists in the specified Unit Group which may or may not have the same Base Unit.”
- If you delete an individual Unit of Measure in Microsoft Dynamics GP, the associated Unit of Measure will not be deleted in Microsoft Dynamics CRM. You should create a new Unit of Measure Schedule in Microsoft Dynamics GP instead of modifying an existing Schedule.

Changes made by the Microsoft Dynamics CRM Configuration Utility tool

If you run the Microsoft Dynamics CRM Configuration Utility, the following changes are made to each Microsoft Dynamics CRM organization that you selected for configuration.

> **Note:** Before the configuration utility makes any changes to Microsoft Dynamics CRM, it saves your existing customizations to C:\ProgramData\Microsoft Dynamics\Microsoft Dynamics Adapter. You can choose to remove these customizations and revert to your previous customizations if you uninstall the product. If you choose to remove the customizations, any of the custom entities that contain data will not be removed.

- A **Submit Order** button is added to the **Order** form. This button appears only for users who are in roles that have the ISVExtenstions privilege enabled for the organization.
- All prices and price lists are set to read-only.
- The Product Catalog is set to read-only.
- All unit groups are set to read-only.
- Any existing Products, Discount Types, Price Levels in the Product Catalog are deactivated and renamed. Deactivation will only occur the first time the Microsoft Dynamics CRM Configuration Utility runs.
- The invoice functionality is limited to read-only within Microsoft Dynamics CRM.
- The default decimal precision is set to 4 decimal places. You can change this setting if you want your Microsoft Dynamics CRM Pricing Decimal Precision to be less than 4. The Microsoft Dynamics CRM Pricing Decimal Precision should match your Microsoft Dynamics GP functional currency decimal precision to prevent rounding issues. Microsoft Dynamics GP functional currency decimal precision can be set up to 5 while Microsoft Dynamics CRM can be set up to 4.
- Integration key attributes are added to the entities selected on the Select the entities to configure for integration window. The following entities are pre-selected by default.
  - Account
  - Contact
  - Invoice
  - Order
  - Product
  - ERP System User
- The following custom entities are added.
  - **ERP System User** – For tracking salespersons in the ERP system
  - **Deleted Account** – For tracking accounts that have been integrated and then deleted from Microsoft Dynamics CRM
  - **Deleted Contact** – For tracking Contacts that have been integrated and then deleted from Microsoft Dynamics CRM
- The **isSOPIntegrated** attribute is set to true for each organization to be integrated.
- A **Ready for Integration** check box is added to the **Administration** tab on the **Account** form.
- An Integration Key attribute is added to the **Administration** tab on the **Account** form.
- A **Submit to ERP** button is added to the **Account** form.

- A **Ready for Integration** check box is added to the **Administration** tab on the **Contact** form.
- A read-only **Integration Key** field is added to the **Administration** tab on the **Contact** form.
- A **Submit to ERP** button is added to the **Contact** form.
- A control is added to the **User** form that allows users to map an integrated ERP System User to an existing Microsoft Dynamics CRM user.
- The **Order** form is validated to ensure that a Customer is ready for integration or that the customer is able to be integrated if it is not already integrated.
- A plug-in is registered in Microsoft Dynamics CRM.