

Microsoft Dynamics®

Connector for Microsoft Dynamics Configuration Guide for Microsoft Dynamics® GP

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

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Table of Contents

Introduction.....	5
Common terminology	6
System requirements.....	7
Upgrading Connector for Microsoft Dynamics	8
Upgrade from initial release	8
Upgrade from Feature Pack 1	8
Upgrade from Feature Pack 2	8
Upgrade from Feature Pack 3	9
Upgrade from Feature Pack 4 or later	9
Upgrade to Connector V3 from previous versions	9
Upgrade from Microsoft Dynamics CRM 4.0 to Microsoft Dynamics CRM 2011	9
Upgrade to the Microsoft Dynamics CRM 2011 adapter	10
Upgrade to Rollup 1 Pricing integration	11
Upgrade Microsoft Dynamics GP	11
Integrate existing Microsoft Dynamics data	11
Installation	12
Create the ERP Integration account.....	12
Install Connector for Microsoft Dynamics	13
Configuration	14
Configure adapter settings and organizations for Microsoft Dynamics CRM	14
Specify Microsoft Dynamics GP deleted entities to integrate	14
Configure adapter settings for Microsoft Dynamics GP	15
Create an integration	16
Data preparation.....	18
Verify customizations for Microsoft Dynamics CRM 4.0.....	18
Verify map modifications.....	19

Data synchronization	20
Recommended map run order	20
Map enumerated values.....	21
Map salespeople and ERP system users	22
Associate Microsoft Dynamics CRM users with ERP system users.....	23
Map UofM schedules and unit groups.....	24
Map currency information	25
Map pricing headers	26
Map pricing headers for Microsoft Dynamics CRM 4.0	26
Map pricing headers for Microsoft Dynamics CRM 2011.....	27
Map items and products.....	28
Map pricing and price lists.....	29
Map price levels and price lists for Microsoft Dynamics CRM 4.0	29
Map pricing and price lists for Microsoft Dynamics CRM 2011	30
Map customers and accounts or contacts	31
Mapping customers to accounts or contacts	32
Map orders and invoices	33
Mapping orders and invoices	34
Customization	35
Customize map settings.....	35
Maintenance and additional information.....	35
Appendix	36
Integration exceptions.....	37
Map dependencies	38
Microsoft Dynamics GP to Microsoft Dynamics CRM	38
Microsoft Dynamics CRM to Microsoft Dynamics GP	39
Microsoft Dynamics CRM to Microsoft Dynamics GP maps.....	40
Account to Customer.....	40
Contact to Customer	41
Order to Sales Order	43
Address2 in Microsoft Dynamics CRM	43
Microsoft Dynamics GP to Microsoft Dynamics CRM maps.....	44
Salesperson to ERP system user	44
UofM Schedule to Unit Group.....	44
Flat Fee to Product.....	44
Kit to Product	44
Miscellaneous Charges to Product	45
Sales Item to Product.....	45
Service to Product.....	45
Price Level to Price List.....	45
Customer to Account.....	46
Customer to Contact	46
Ship-to Address in Microsoft Dynamics GP	47
Sales Order to Order	48
Picklist synchronization processing	49
Picklist synchronization log information	49
Picklist synchronized data	50
Picklist Synchronization utility	51

Introduction

Use Connector for Microsoft Dynamics to integrate Microsoft Dynamics CRM and Microsoft Dynamics GP data. For example, you can integrate Microsoft Dynamics GP customers with Microsoft Dynamics CRM contacts or accounts, and have access to up-to-date customer/contact information in both systems.

Connector for Microsoft Dynamics 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 Connector for Microsoft Dynamics, 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.

After installation, you can integrate the following entities in Microsoft Dynamics GP and Microsoft Dynamics CRM. Additional integration functions can be added later.

Microsoft Dynamics GP entity	Integration direction	Microsoft Dynamics CRM entity
Customer (including addresses)	↔	Account
Customer (including addresses)	↔	Contact
Enumerated values	→	Picklist
Flat fee	→	Product
Kit	→	Product
Miscellaneous charges	→	Product
Sales item	→	Product
Service	→	Product
Currency	→	Currency
Price list	→	Price level
Pricing	→	Price list item
Sales invoice	→	Invoice
Sales order	↔	Order
Salesperson	→	ERP system user
UofM schedule (including units)	→	Unit group

Common terminology

The following terms are used in this document.

Term	Definition
Adapter	A software component that enables data exchange through a specific transport. Connector for Microsoft Dynamics uses adapters to read data from and write data to Microsoft Dynamics systems.
Entity	A type of record in a Microsoft Dynamics system. Orders, invoices, accounts, customers, products, or items are all examples of an entity.
Entity record	A specific occurrence of an entity. A Microsoft Dynamics GP customer record, a product, or a Microsoft Dynamics CRM order are all examples of an entity record.
Exception	An abnormal condition or error that occurs during the integration between a source entity and a destination entity.
Integration	The process of synchronizing data that was entered in one Microsoft Dynamics application with another Microsoft Dynamics application. Within Connector for Microsoft Dynamics, 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.
Integrated record	A record 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.
Map	A collection of associations between fields in one Microsoft Dynamics CRM entity with fields in another Microsoft Dynamics GP entity. Maps also determine in which direction data flows from a given entity, and defines which adapter is the source and which adapter is the destination.
Microsoft Dynamics Integration (MSDI) database	The database created for Connector for Microsoft Dynamics during the installation process.
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.
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.

System requirements

Before installing Connector for Microsoft Dynamics, your system must meet the following requirements.

- Microsoft Windows Server 2008 SP2, or Windows Server 2008 R2 SP1, or Windows Server 2012
- Microsoft .NET Framework 3.5 and Windows .NET Framework 4.5.1
- A valid connection to a computer with Microsoft SQL Server 2005 SP4, SQL Server 2008 SP2, SQL server 2008 R2, SQL Server 2012, or SQL Server 2014 installed
- One of the following connections to Microsoft Dynamics CRM:
 - Microsoft Dynamics CRM version 4.0 with the most recent Update Rollup applied
 - Microsoft Dynamics CRM 2011 on-premises with the most recent rollup applied
 - A valid subscription to Microsoft Dynamics CRM online
 - A valid subscription to a hosted deployment of Microsoft Dynamics CRM 2011
- For Microsoft Dynamics CRM online only – At least two different Windows Live IDs and passwords
- Microsoft Dynamics GP and Microsoft Dynamics CRM must use the same basic install language
- Microsoft Dynamics GP and Microsoft Dynamics CRM must use the same base or functional currency

If you are using Microsoft Dynamics GP 2010:

- Microsoft Dynamics GP 2010 Service Pack 3
- Microsoft Dynamics GP web services 2010 Service Pack 3

If you are using Microsoft Dynamics GP 2013:

- Microsoft Dynamics GP 2013
- Microsoft Dynamics GP web services 2013

Note: If you have multi-tenant web services deployed for Microsoft Dynamics GP 2013, the ERP Integration User that is specified in the Microsoft Dynamics GP adapter settings must be unique for each tenant.

Upgrading Connector for Microsoft Dynamics

In Feature Pack 4, the Microsoft Dynamics Adapter was renamed to Connector for Microsoft Dynamics. You are not required to manually uninstall a previous version of Connector for Microsoft Dynamics if you are upgrading to the current version. That process will be completed automatically.

There are alternate steps you must complete, depending on the existing release that you are updating from. To find the version, open Connector for Microsoft Dynamics, click **Home**, then right-click and select **Version Information**.

Note: If you are upgrading from previous deployments, you must upgrade the ERP Integration account to include the **Superuser** role in Microsoft Dynamics GP. For more information, see [Create the ERP Integration account](#).

Upgrade from initial release

When you upgrade to Connector for Microsoft Dynamics from the Microsoft Dynamics Adapter initial release version (version 1.0.1603.1), the Microsoft Dynamics CRM Adapter Configuration utility opens when the existing version of the Microsoft Dynamics Adapter is uninstalled.

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

This release includes an update to a Microsoft Dynamics CRM plug-in that provides improvements and bug fixes. After you've completed your installation, you must install this plug-in update by running the Microsoft Dynamics CRM Adapter Configuration utility again. When you run the Microsoft Dynamics CRM Configuration utility, click **Configure**.

Note: Do not click the **Import and Overwrite customizations** check box in the **Configure Status for Organization** window.

This configuration process will install the updated plug-in to your Microsoft Dynamics CRM application.

Upgrade from Feature Pack 1

When you upgrade to Connector for Microsoft Dynamics from the Microsoft Dynamics Adapter Feature Pack 1 (version 1.1.412.1), the Microsoft Dynamics CRM Adapter Configuration utility opens when the existing version of the Microsoft Dynamics Adapter is uninstalled.

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

This release includes an update to a Microsoft Dynamics CRM plug-in that provides many improvements and bug fixes. After you've completed your installation, you must load this plug-in update by running the Microsoft Dynamics CRM Adapter Configuration utility again. When you run the Microsoft Dynamics CRM Configuration utility, click **Configure**.

Note: Do not click the **Import and Overwrite customizations** check box in the **Configure Status for Organization** window.

This configuration process will install the updated plug-in to your Microsoft Dynamics CRM application.

Upgrade from Feature Pack 2

The Microsoft Dynamics CRM Adapter Configuration utility is not opened when upgrading to Connector for Microsoft Dynamics from Microsoft Dynamics Adapter Feature Pack 2 (version 1.2.324.1). You must manually run the Microsoft Dynamics CRM Adapter Configuration utility after the installation is complete.

Upgrade from Feature Pack 3

The Microsoft Dynamics CRM Adapter Configuration utility is not opened when upgrading to Connector for Microsoft Dynamics from Microsoft Dynamics Adapter Feature Pack 3 (version 1.3.206.1). Running the Microsoft Dynamics CRM Adapter Configuration utility again is optional.

If you are using Microsoft Dynamics CRM 4.0 and you decide to run the Configuration utility again, then you also need to import customizations for Microsoft Dynamics CRM 4.0 again. You need to merge customizations if you have customizations in Microsoft Dynamics CRM 4.0 that are not related to Connector for Microsoft Dynamics.

If you are using Microsoft Dynamics CRM 2011 and you decide to run the Configuration utility again, then the customizations are automatically installed when you configure the **Microsoft Dynamics CRM 2011** adapter. For more information, see the [Connector for Microsoft Dynamics installation guide](#).

For Microsoft Dynamics CRM online, the Microsoft Dynamics CRM Adapter Configuration utility is required, but you do not need to merge customizations. Pricelists also need to be loaded again.

Upgrade from Feature Pack 4 or later

The Microsoft Dynamics CRM Adapter Configuration utility does not open when you upgrade Connector for Microsoft Dynamics from Feature Pack 4 (version 1.4.717.1) or later. If you are using or upgrading to Microsoft Dynamics CRM 2011, you must manually run the Microsoft Dynamics CRM Adapter Configuration utility after installation.

Upgrade to Connector V3 from previous versions

Note: Before you begin the upgrade process, create backups of your Microsoft Dynamics ERP database, your Microsoft Dynamics CRM database, and your MSDI database.

When you upgrade to the V3 release of Connector for Microsoft Dynamics, obsolete tables are removed from the MSDI database and user settings are cleared.

The first time that you start the client application after upgrade, the **Adapter Settings** window is displayed so that you can enter settings for the adapters that were installed. You must enter passwords and user information for both the ERP adapter and the Microsoft Dynamics CRM adapter in Connector for Microsoft Dynamics.

Note: After the upgrade process is completed, run the Configuration Utility for Microsoft Dynamics CRM and the Microsoft Dynamics ERP to update the adapter settings. Adapters cannot create new integrations until the adapter settings are updated.

Upgrade from Microsoft Dynamics CRM 4.0 to Microsoft Dynamics CRM 2011

If you have upgraded from Microsoft Dynamics CRM 4.0 to Microsoft Dynamics CRM 2011 and are currently integrated with Connector for Microsoft Dynamics Feature Pack 6 (version 1.6.731.4) or earlier, you must upgrade Connector for Microsoft Dynamics and manually reconfigure Connector for your ERP system. Alternatively, you could use the Microsoft Dynamics CRM 2011 adapter, as explained in [Upgrading to the Microsoft Dynamics CRM 2011 adapter](#).

1. Open Connector for Microsoft Dynamics. Inactivate all maps for the integrations.
2. Upgrade Microsoft Dynamics CRM 4.0 to Microsoft Dynamics CRM 2011.
3. Upgrade Connector for Microsoft Dynamics.
4. To continue using the Microsoft Dynamics CRM adapter settings, you must manually import ERP solutions. For more information, see the [Connector for Microsoft Dynamics installation guide](#).

5. Open Connector for Microsoft Dynamics. Click **Adapter Settings**, select your Microsoft Dynamics CRM adapter, and then run the Microsoft Dynamics CRM Configuration utility. For more information, see the [Connector for Microsoft Dynamics installation guide](#).
6. When the Configuration utility has finished running, activate maps for the integrations again and continue integrating data.

Upgrade to the Microsoft Dynamics CRM 2011 adapter

The current release of Connector for Microsoft Dynamics contains an updated adapter to connect to Microsoft Dynamics CRM 2011. This new adapter supports all deployments of Microsoft Dynamics CRM 2011, including Microsoft Dynamics CRM online. If you are connecting to a new instance of Microsoft Dynamics CRM 2011, or you are connecting to a new organization in an existing instance of Microsoft Dynamics CRM 2011, we recommend that you use the Microsoft Dynamics CRM 2011 adapter.

Note: If you have an existing integration between Microsoft Dynamics CRM 4.0 or Microsoft Dynamics CRM 2011 that is using a previous version of Connector for Microsoft Dynamics, you do not have to upgrade the integration.

To upgrade to the Microsoft Dynamics CRM 2011 adapter, complete the following steps.

1. Open Connector for Microsoft Dynamics. Record the following information for all existing maps:
 - The **Check for data modified after** date
 - The map run schedule
 - Any customizations that were made to existing maps.
2. If you have any custom integration maps, use the **Exported** tab to save the mapped fields to a spreadsheet in Microsoft Excel.
3. Inactivate all of the maps in Connector for Microsoft Dynamics.
4. Close Connector for Microsoft Dynamics.
5. Upgrade to the latest version of Connector for Microsoft Dynamics.
6. Configure the Microsoft Dynamics CRM 2011 adapter and Microsoft Dynamics CRM organizations. For procedures, see the [Connector for Microsoft Dynamics installation guide](#).
7. If you are upgrading to the Rollup 1 Pricing integration, you must delete the integration that currently exists on the Connector for Microsoft Dynamics client.

Note: If you are upgrading to Microsoft Dynamics CRM 2011 from Microsoft Dynamics CRM 4.0, you can skip this step.
8. Close the Connector for Microsoft Dynamics client, and then open the client again.
9. Create a new integration. For procedures, see [Create an integration](#).
10. For each map in the new integration, use the same **Check for data modified after** date as the corresponding map in the previous integration. If there was no corresponding map, use the current date.
11. For each map in the new integration, use the same map run schedule as the corresponding map in the previous integration. If there was no corresponding map, use the default setting.

Note: If you are upgrading from a version of Connector for Microsoft Dynamics prior to V2 Rollup 1, do not complete this step. For more information, see [Upgrade to Rollup 1 Pricing integration](#).
12. Re-create any map customizations or customized maps that you noted in steps 1 and 2.
13. Start the Connector for Microsoft Dynamics service, and then activate the maps.

Upgrade to Rollup 1 Pricing integration

The V2 Rollup 1 release of Connector for Microsoft Dynamics (version 2.1.371.1) included an updated method to integrate price lists from Microsoft Dynamics GP into Microsoft Dynamics CRM. This upgrade enables multi-currency pricing in Microsoft Dynamics CRM and separates the pricing integration into two maps. This upgrade does not deactivate all pricing information before integration, and does not integrate Microsoft Dynamics GP 2010 quantity breaks into Microsoft Dynamics CRM 2011.

This upgrade is supported only for integrations between Microsoft Dynamics CRM 2011 and Microsoft Dynamics GP 2010 or Microsoft Dynamics GP 2013.

Note: If you are upgrading from Connector for Microsoft Dynamics V2 Rollup 1 or later, this upgrade is included in the installation. If you have an older version of Connector for Microsoft Dynamics, and if you are not currently using price lists, or if you do not want to change the current pricing integration, you do not have to perform this upgrade.

To complete this upgrade, follow the procedures in [Upgrade to the Microsoft Dynamics CRM 2011 adapter](#), but **do not** perform step 11. This upgrade applies to most of the integration maps, so we recommend that you complete the whole initial synchronizations process for all maps.

When the initial synchronization process is complete, you can delete any price levels, price level entries, discount types, and discounts that were inactivated.

Note: If you have products that use a percentage-based pricing method, Microsoft Dynamics CRM requires that these products use the same currency that is associated with them on the price list where the percentage-based entity is created in Microsoft Dynamics GP.

Note: This upgrade requires that you have Item Currencies listed in Microsoft Dynamics GP for every Item in at least the functional currency for the integrated Microsoft Dynamics GP company.

Upgrade Microsoft Dynamics GP

When you perform maintenance on Microsoft Dynamics GP, we recommend that you deactivate all maps in Connector for Microsoft Dynamics. After maintenance is complete, start the Connector for Microsoft Dynamics service again and activate your maps. This ensures that Connector for Microsoft Dynamics is not running queries on the ERP system during maintenance.

Integrate existing Microsoft Dynamics data

Connector for Microsoft Dynamics is designed to integrate data between Microsoft Dynamics GP and Microsoft Dynamics CRM 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

Data can exist in one or both applications. If you are using Connector for Microsoft Dynamics with existing installations of the applications, this affects some of the maps that you will use during the initial data synchronization process.

Note: If you have existing installations of the applications, we recommend that you set up duplicate detection in Microsoft Dynamics CRM before you synchronize the data. For more information about duplicate detection, see [Connector for Microsoft Dynamics installation guide](#).

Installation

Before installing Connector for Microsoft Dynamics, your system must meet the requirements as listed in [System requirements](#).

Note: If you are upgrading from previous versions of Connector for Microsoft Dynamics, you need to create backups of your Microsoft Dynamics GP database, your Microsoft Dynamics CRM database, and your MSDI database.

Create the ERP Integration account

Connector for Microsoft Dynamics uses several different accounts during installations, including the ERP integration account. This account is used to connect to the Microsoft Dynamics GP database. You must create this account and assign it to specific roles in the Dynamics Security Console before you set up Connector for Microsoft Dynamics.

For more information about user accounts and Connector for Microsoft Dynamics, see the [Connector for Microsoft Dynamics installation guide](#).

1. Create a new domain user account. For detailed instructions, see "Create a new user account" on TechNet ([http://technet.microsoft.com/en-us/library/cc784390\(WS.10\).aspx](http://technet.microsoft.com/en-us/library/cc784390(WS.10).aspx)).
2. On the server where the Microsoft Dynamics GP web service management tools are installed, start the Microsoft Dynamics Security Console. (Click **Start**, select **Control Panel**, select **Administrative Tools**, and then select **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 **Actions** pane, click **Role Assignments**, and then click **Add**. In the **Add Role Assignments** window, select **Microsoft Dynamics Integration – All Companies** from the **Role** list.
8. Click **Add Windows Users** and add the GP Integration 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 GP Integration account that you created in step 1.
14. Add the ERP Integration account to the super-user role. Repeat steps 7 through 10, but select the **Superuser** role.
15. Select the **Select Individual Companies** option.
16. Select each company that you plan to integrate.
17. Click **OK** to create the role assignment and close the window.
18. If you are using Microsoft Dynamics GP 2010 or Microsoft Dynamics GP 2013, and you use the new vendor or purchase order entities, repeat step 12 and select **Account Payable Coordinator** from the **Role** list. Continue through step 16.

If you are using Microsoft Dynamics GP 2010 or Microsoft Dynamics GP 20103, and you use the new applicant entity, repeat step 12 and select **HR Manager** from the **Role** list. Continue through step 16.

Install Connector for Microsoft Dynamics

Connector for Microsoft Dynamics does not need to be installed on the same computer as Microsoft Dynamics CRM or Microsoft Dynamics GP. However, it does require a network connection that allows it to communicate with the web services exposed by these systems and to the SQL Server instance where the MSDI database is located.

1. Install Connector for Microsoft Dynamics.
2. Double-click **Connector for Microsoft Dynamics.msi**. Click **Next**.
3. Read and accept the Microsoft Software License Terms. Click **Next**.
4. 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 physical server as Connector for Microsoft Dynamics.
5. Click **Next**.
6. Enter the domain, user name, and password for the service account to use when you are running integrations. For more information about this account, see the [Connector for Microsoft Dynamics installation guide](#).
7. Click **Next**. If the account that you entered in step 8 is valid, the **Ready to install** page is displayed.
8. Click **Install**.
9. Click **Finish** to complete the installation.

Tips:

- Connector for Microsoft Dynamics does not need to be installed on the same computer as Microsoft Dynamics CRM or Microsoft Dynamics GP. However, it does require a network connection that allows it to communicate with the web services exposed by these systems and to the SQL Server instance where the MSDI database is located.
- Connector for Microsoft Dynamics should be installed on a computer that is located in the same time zone as the Microsoft Dynamics GP database.

Configuration

Before you can integrate data between Microsoft Dynamics CRM and Microsoft Dynamics GP, you must configure adapter settings and create integrations. The following sections explain how to configure Connector for Microsoft Dynamics for use with Microsoft Dynamics GP.

Note: These procedures must be completed in order, or Connector for Microsoft Dynamics will not operate correctly and data will not be synchronized between Microsoft Dynamics CRM and Microsoft Dynamics GP.

To configure Connector for Microsoft Dynamics, complete the following procedures:

1. Configure adapter settings and organizations for Microsoft Dynamics CRM.
2. Specify entities to integrate from Microsoft Dynamics GP.
3. Configure adapter settings for Microsoft Dynamics GP.
4. Create an integration.
5. Set up duplicate detection (optional).
6. Prepare the data for synchronization.
7. Run initial data synchronization

Configure adapter settings and organizations for Microsoft Dynamics CRM

Before you can integrate data between Microsoft Dynamics CRM and Microsoft Dynamics GP, you must provide settings for the adapters and organizations that the integration process will use. For configuration procedures, see the [Connector for Microsoft Dynamics installation guide](#).

Specify 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.

Note: This operation needs to be run after you install any service pack updates to Microsoft Dynamics GP.

1. Start eConnect Requester Setup.
 - For Microsoft Dynamics GP 2010: (Click **Start**, select **All Programs**, select **Microsoft Dynamics**, select **eConnect for Microsoft Dynamics GP 2010**, select **Requester Setup**, and then select **Requester Setup**)
 - For Microsoft Dynamics GP 2013: (Click **Start**, select **All Programs**, select **Microsoft Dynamics**, select **eConnect for Microsoft Dynamics GP 2013**, select **Requester Setup**, and then select **Requester Setup**)
2. If you have not specified the connection settings for this utility, click **Connection Settings**, and select **Setup Connection** to define your connection settings. If you have already specified connection settings for this utility, skip to step 6.

3. In the **Connection Setup** window, 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 select **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 type 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 Microsoft 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.
12. Continue to [Configure adapter settings for Microsoft Dynamics GP](#).

Configure adapter settings for Microsoft Dynamics GP

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

1. Open Connector for Microsoft Dynamics. (Click **Start**, select **All Programs**, select **Microsoft Dynamics**, select **Microsoft Dynamics Adapter**, and then select **Connector for Microsoft Dynamics**.)
2. If the **Adapter Settings** window did not open automatically, click **Adapter Settings**.
3. In the left pane of the **Adapter Settings** window, select the version of Microsoft Dynamics GP that you are connecting to.

Note: To integrate with Microsoft Dynamics GP 2010 or Microsoft Dynamics GP 2013, select the Microsoft Dynamics GP adapter.
4. Enter the name of the domain that the Microsoft Dynamics GP server belongs to.
5. Enter the user name and password for the ERP integration account. For more information about this account, see [Create the ERP Integration account](#).

6. Enter the URL for the Microsoft Dynamics GP web service.
Note: If you are using Microsoft Dynamics GP 2010 or Microsoft Dynamics GP 2013, the default port number is 48620.
7. Click **Test Settings** to connect to the Microsoft Dynamics GP web service using the information that you entered.
8. Click **Apply**. Continue to [Create an integration](#).

Create 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 about activating maps, see [Customize map settings](#).

1. Open Connector for Microsoft Dynamics.
(Click **Start**, select **All Programs**, select **Microsoft Dynamics**, select **Microsoft Dynamics Adapter**, and then select **Connector for Microsoft Dynamics**.)
2. If the **New Integration** window is not open, click **New Integration**.
3. Select one of the following options.
 - **Blank** – Create a blank integration where you must create maps manually. Skip to step 5.
 - **From template** – Create a new integration from an integration template.
4. Select an integration template for Microsoft Dynamics GP.

Note: Microsoft Dynamics CRM can distinguish between customer account and customer contact information, but Microsoft Dynamics GP supports only customer information. When you integrate data between Microsoft Dynamics GP and Microsoft Dynamics CRM, you need to choose whether to integrate your customers in Microsoft Dynamics GP to Microsoft Dynamics CRM accounts or to Microsoft Dynamics CRM contacts. This choice will affect which customer maps you can use during data synchronization. For more information, see [Map customers and accounts or contacts](#).

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, see to [Configure adapter settings for Microsoft Dynamics GP](#).
6. Select the Microsoft Dynamics CRM company to integrate. If the company list is empty, verify that you entered your Connector for Microsoft Dynamics settings correctly and you have completed the Microsoft Dynamics CRM Adapter Configuration utility for each organization that you want to integrate. Click **Refresh** to attempt to retrieve the list of companies again. For more information, see to [Configure adapter settings](#).
7. Click **Create**.

Note: When you create a new integration from a template, the date in the **Check for data modified after** field 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 help to ensure that older sales orders and Invoices are not re-integrated and duplicates are not created. To integrate orders or invoices that are older than the current date, change the **Check for data modified after** date for these maps. For more information, see the [Connector for Microsoft Dynamics installation guide](#).

The default **Check for data modified after** date is set to 12/31/1899 12:00 AM UTC (displayed as the local time zone) for all other maps.

8. Continue to [Data preparation](#).

Data preparation

To help ensure a smooth integration, some system settings and data values must be reviewed before data can be synchronized between Microsoft Dynamics GP and Microsoft Dynamics CRM. Follow the procedures below to prepare your system for initial data synchronization.

Note: The procedures explained in this document assume that installation is complete and that you have set up an integration for a Microsoft Dynamics GP company and Microsoft Dynamics CRM organization. If you have not yet completed the installation process, see the [Connector for Microsoft Dynamics installation guide](#).

Verify customizations for Microsoft Dynamics CRM 4.0

If you are integrating with Microsoft Dynamics CRM 4.0, or if you are using the Microsoft Dynamics CRM 4.0 adapter, certain customizations were applied during the installation process. You must make sure that the customizations for Microsoft Dynamics CRM 4.0 have been deployed as explained in [Upgrading Connector for Microsoft Dynamics](#). If you did not install these customizations during installation or have not manually applied the customizations, you must do so before initial data synchronization, or certain features in Connector for Microsoft Dynamics will not operate correctly.

If you have existing Microsoft Dynamics CRM 4.0 customizations, you must apply the customizations manually. To do so, download the **Microsoft.Dynamics.Tools.MergeCustomizations.zip** file from the Connector for Microsoft Dynamics download page on PartnerSource or from your Partner. See the Readme.doc in the .zip file for more information.

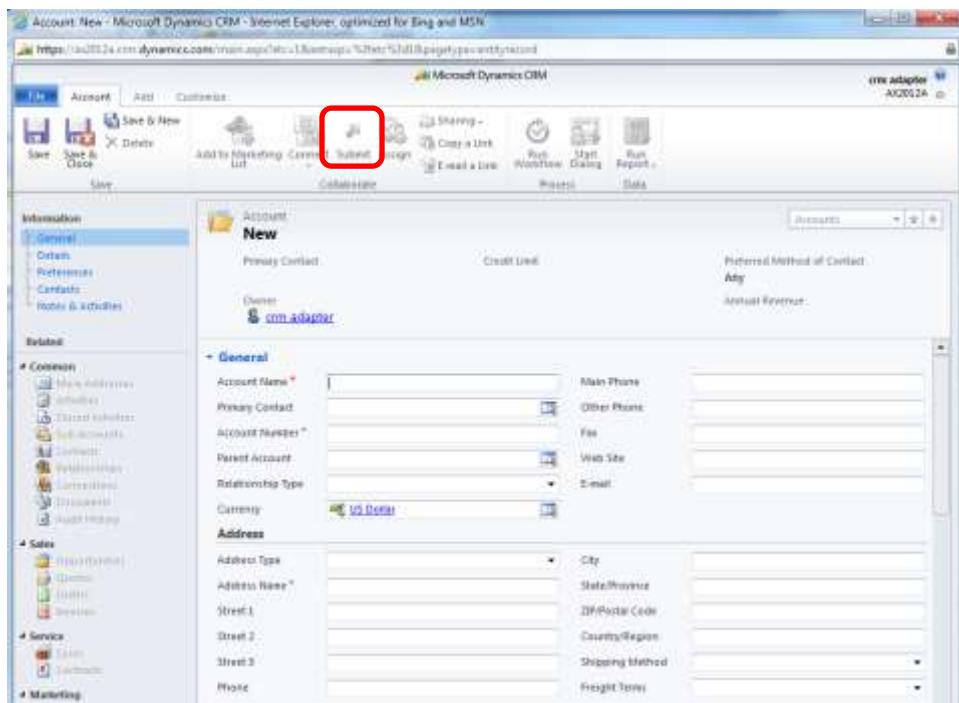
If you do not have existing Microsoft Dynamics CRM 4.0 customizations, you can import the necessary customizations by running the Microsoft Dynamics CRM Configuration utility. For more information about this Configuration utility, see the [Connector for Microsoft Dynamics installation guide](#).

Note: If you are integrating with Microsoft Dynamics CRM 2011, these customizations were imported and merged during the Microsoft Dynamics CRM 2011 Configuration utility, and you can skip this procedure.

Verify that the Connector for Microsoft Dynamics customizations for Microsoft Dynamics CRM have been properly installed.

1. Open Microsoft Dynamics CRM for the organization that you are integrating with.
2. In the navigation pane, under the **Sales** node, select **Accounts**. Click **New**.
3. Make sure that the **Submit** option is visible in the top command bar. If you do not see this option, then the Connector for Microsoft Dynamics customizations are not properly installed.

Note: The **Submit** button is not active until after the record has been saved.



Verify map modifications

Before initial data synchronization, you must make sure that the integration maps are set up for your business needs. The map templates are set up to work without customizations 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 to integrate, or if there is data that is not mapped that you do want to integrate, we recommend that you make these modifications now, or these modifications are not included in the initial data synchronization process.

Data synchronization

After you have configured Connector for Microsoft Dynamics for your system, and after you have prepared your data for synchronization, you must synchronize the data in Microsoft Dynamics CRM and Microsoft Dynamics GP. After initial data synchronization, you can run integrations on a regular schedule.

The recommended map run order is listed below, and the synchronization procedures provide additional details about each map.

Recommended map run order

The initial data synchronization process follows several steps to set up integrated data between Microsoft Dynamics GP and Microsoft Dynamics CRM. We recommend that you run integrations in the following order to minimize data dependencies.

1. Map enumerated values.
2. Map salespeople and ERP system users.
3. Map UofM schedules and unit groups.
4. Map currency information
5. Map pricing header information.
6. Map product information.
7. Map pricing and price list information.
8. Map customer accounts or contact information.
9. Map sales orders.
10. Map sales invoices.

Note: After this map runs successfully, you must associate Microsoft Dynamics CRM system users with ERP system users before you run the next maps.

If exception messages for missing data are displayed during initial data synchronization, complete the procedures for the recommended map run order. The system will automatically retry exceptions that are due to missing data.

Map enumerated values

With Connector for Microsoft Dynamics, data found in Microsoft Dynamics GP is compared to data found in Microsoft Dynamics CRM, but 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 **Enumerated Values to Picklist** map synchronizes these necessary data points before other, more detailed, maps are run.

Note: This should be the first map that you run after you have created a new integration and configured your Microsoft Dynamics CRM organizations in Connector for Microsoft Dynamics, and before you begin activating other maps.

1. Verify that you have entered all your enumerated values in Microsoft Dynamics GP. For a list of the enumerated values to be synchronized, see [Picklist synchronized data](#).
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left pane.
4. Select the **Enumerated Values to Picklist** map.

If you do not want to change any of the default map settings, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).

5. In the **Status** area, click **Activate**.
6. Click the **Edit** link next to the **Check for changes** area to open the **Map Run Schedule** window. Make sure that the **Start Date** is before the date that you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.

Note: The **Enumerated Values to Picklist** map only needs to be run once, or as needed. For example, when a new shipping method is added in Microsoft Dynamics GP, this map should be run in order to integrate that new data.

7. Click **Save** on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status is displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 enumerated values over to Microsoft Dynamics CRM, and the Microsoft Dynamics CRM picklist values to Microsoft Dynamics GP.

8. Verify that all the picklist and enumerated values have been fully integrated.
9. Click the **View log for this map** link at the top of the **Status** area. Review any events that are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
10. After this map has run successfully, we recommend that you deactivate it. In the **Status** area, click the **Deactivate** button.
11. Click **Save** to save changes.

Map salespeople and ERP system users

In Microsoft Dynamics CRM, salespeople are Microsoft Dynamics CRM users. To properly integrate these users, an association must 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.

Note: If you will not be using salespeople in Microsoft Dynamics GP, you can skip these procedures.

1. Make sure that you have entered information for all your salespeople in Microsoft Dynamics GP.
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left pane.
4. Select the **Salesperson to ERP System User** map.

If you do not want to change any of the default settings for the map, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).

5. Click the **Edit** link next to the **Check for changes** area to open the **Map Run Schedule** window. Change the schedule to run every 45 seconds. Make sure that the **Start Date** field value is before the date that you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.

If your business needs require a longer run time, you can set the map run schedule to any duration.

6. Verify that the date listed in the **Check for data modified after** area is before the date that you entered your Microsoft Dynamics GP salespeople records. To change this date, 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**. Start the Connector for Microsoft Dynamics service again.
7. In the **Status** area, click **Activate**.
8. Click **Save** on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status will be displayed as **Currently running** and displays the numbers of changes found, changes written, the deletions found, the records deleted, and the 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 records to Microsoft Dynamics CRM.

9. Open Microsoft Dynamics CRM and go to **Settings**, select **Administration**, and then select **Users**. Either click **New** and select **User**, or double-click any existing Microsoft Dynamics CRM user to open the **User** window. The **ERP SystemUser ID** property is displayed 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 the **Lookup** icon in the upper right corner. The Microsoft Dynamics GP salespeople should be displayed. Verify that all of your Microsoft Dynamics GP salespeople records have been integrated to Microsoft Dynamics CRM ERP system users.
10. Click the **View log for this map** link at the top of the **Status** section. Review any events that are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
11. If you are running this map for the first time or you are adding new users, see [Associate Microsoft Dynamics CRM users with ERP system users](#).
12. To change the map run schedule for ongoing integration, repeat step 6 and change the map run schedule to the appropriate settings for this map.

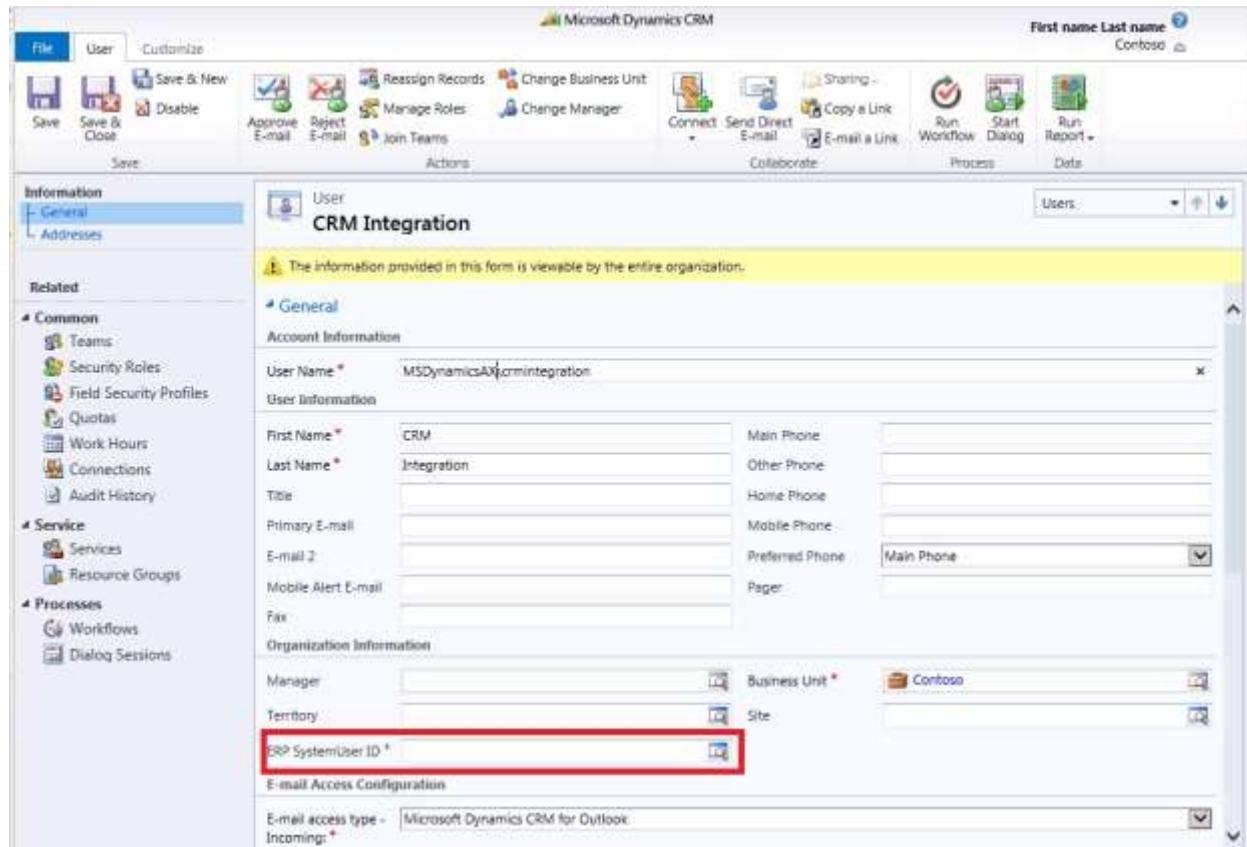
Associate Microsoft Dynamics CRM users with ERP system users

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 can associate Microsoft Dynamics CRM users with the integrated ERP system user entity within Microsoft Dynamics CRM.

If you do not associate ERP system users with Microsoft Dynamics CRM users before you integrate customer accounts, sales orders, and sales invoices, the owner on all entities that are integrated from Microsoft Dynamics GP are set up as the CRM Integration account user that was specified in the Microsoft Dynamics CRM adapter settings. For more information about the CRM Integration account, see the [Connector for Microsoft Dynamics installation guide](#).

Note: Repeat the procedure below for each Microsoft Dynamics CRM user who is mapped to an ERP system user.

1. Start your web browser and go to your Microsoft Dynamics CRM Workplace.
2. Open the **Users** page. (Go to **Settings**, select **Administration**, and then select **Users**)
3. Double-click a user record to open the **User** window.



4. On the **General** tab, locate the **ERP System User ID** field under **Organization Information**. Click the **Lookup** button to search for and select an ERP system user to associate to the user record.

Note: Verify that each ERP SystemUser ID is associated with only one Microsoft Dynamics CRM user.

5. Click **Save** or **Save and Close**.
6. Repeat steps 1 through 5 for each Microsoft Dynamics CRM user.

Map UofM schedules and unit groups

There are some differences between the Microsoft Dynamics GP unit of measure (UofM) schedule and the Microsoft Dynamics CRM unit group. In Microsoft Dynamics GP, you can set up UofM schedules that contain duplicate units with different base equivalents. For example, you can set up a UofM schedule called "Pints" that has a base UofM 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. The Microsoft Dynamics GP UofM schedule cannot be integrated into Microsoft Dynamics CRM. Only one of the gallon schedule lines will be integrated. If there are additional schedule lines after the first duplicate encountered, none of them will be integrated because Connector for Microsoft Dynamics stops processing the UofM schedule when it encounters the first duplicate.

Because of this difference, we recommend that you plan your UofM schedules before you enter 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 UofM schedule, then the Microsoft Dynamics GP UofM schedule will not fully integrate to Microsoft Dynamics CRM.

1. Make sure you have entered all of your UofM schedules in Microsoft Dynamics GP.
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left pane.
4. Select the **UofM Schedule to Unit Group** map.

If you do not want to change any of the default settings for the map, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).

5. In the **Status** area, click **Activate**.
6. Click the **Edit** link next to the **Check for changes area** to open the **Map Run Schedule** window. Change the map run schedule to run every 45 seconds. Make sure that the **Start Date** field value is before the date that you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.

If your business needs require a longer run time, you can set the **Map Run Schedule** to any duration.

7. Verify that the date listed in the **Check for data modified after** area is before the date that you entered your Microsoft Dynamics GP UofM schedules. To change this date, 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**. Start the Connector for Microsoft Dynamics service again.
8. Click **Save** on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status will be displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 UofM schedules to Microsoft Dynamics CRM.

9. Open Microsoft Dynamics CRM and go to **Settings**, select **Product Catalog**, and then select **Unit Groups**. All of the unit groups that integrated from Microsoft Dynamics GP are displayed. Double-click any existing unit group to open the **Unit Group** window. Click **Units** in the left pane to see all the unit names that integrated for this unit group.
10. Verify that all the UofM schedules and unit groups have been fully integrated.
11. Click the **View log for this map** link at the top of the **Status** section. Review any events that are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
12. To change the map run schedule for ongoing integration, repeat step 6 and change the map run schedule to the appropriate settings for this map.

Map currency information

Currency information is used differently in Microsoft Dynamics CRM and Microsoft Dynamics GP. Because of these differences, currency information must be slightly converted during the integration process.

Currencies in Microsoft Dynamics CRM use the Microsoft .NET regional settings foundation classes to specify the default values for ISO code, name, and symbol properties. In Microsoft Dynamics CRM, you can change the name and symbol for currencies to your own values after they have been activated. This causes additional map changes to support the nonstandard values for the attributes. In this map, the **GetCurrencyName()** and **GetCurrencySymbol()** functions are used to retrieve the Microsoft .NET regional settings for the ISO code for a currency that is provided by Microsoft Dynamics GP. These functions look up the appropriate values to integrate into Microsoft Dynamics CRM. If you have customized these values for any currencies in Microsoft Dynamics CRM, you must add the **Translate()** function to the attributes for the mapped entities to convert the .NET regional setting value in Microsoft Dynamics CRM to your customized value.

Note: In this map, exchange rates are set to a constant value of 1 by design. Exchange rate information is not retrieved from Microsoft Dynamics GP at this time. However, the correct prices for items in Microsoft Dynamics GP in various currencies are retrieved, and then these prices are integrated into Microsoft Dynamics CRM in the **Pricing to Pricing List Item** map.

1. Make sure that you have entered all of your currency information in Microsoft Dynamics GP.
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left pane.
4. Select the **GP Currency to Transaction Currency** map.
If you do not want to change any of the default settings for the map, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).
5. In the **Status** area, click **Activate**.
6. Click the **Edit** link next to the **Check for changes area** to open the **Map Run Schedule** window. Change the map run schedule to run every 45 seconds. Make sure that the **Start Date** field value is before the date that you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.

If your business needs require a longer run time, you can set the **Map Run Schedule** to any duration.

7. Verify that the date listed in the **Check for data modified after** area is before the date that you entered your Microsoft Dynamics GP UofM schedules. To change this date, 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 then click **OK**. Start the Connector for Microsoft Dynamics service again.

8. Click **Save** on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status will be displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 UofM schedules to Microsoft Dynamics CRM.

9. Open Microsoft Dynamics CRM and go to **Settings**, select **Business Management**, and then select **Currencies**. All of the currencies that integrated from Microsoft Dynamics GP are displayed. Double-click any existing currency to open the **Currency** window.
10. Verify that all the currencies have been fully integrated.
11. Click the **View log for this map** link at the top of the **Status** section. Review any events that are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
12. To change the map run schedule for ongoing integration, repeat step 6 and change the map run schedule to the appropriate settings for this map.

Map pricing headers

Because of differences in the way that pricing information is stored and the dependencies that this causes, initial pricing information must be integrated in two phases: integrating the price lists, and then integrating items on the price lists.

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.

Note: This map 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.

Map pricing headers for Microsoft Dynamics CRM 4.0

1. Make sure that you have entered all of your pricing information in Microsoft Dynamics GP.
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with and right-click the **Company/Organization** node in the left pane. Select **Create New Map from File**.
4. In the **Load map definition from file** window, go 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).
5. Select the **PricingHeaderToPricingHeader.map** file and click **Open**.
6. In the left pane of Connector for Microsoft Dynamics, select the **Pricing Header to Pricing Header** map.
If you do not want to change any of the default settings for the map, go to step 7. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).
7. In the **Status** area, 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 that the **Start Date** is before the date that you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.

If your business needs require a longer run time, you can set the map run schedule to any duration.

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. To change this date, 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**. Start the Connector for Microsoft Dynamics service again.
10. Click **Save** on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status is displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 pricing header information to Microsoft Dynamics CRM.

11. Open Microsoft Dynamics CRM and go to **Settings**, select **Product Catalog**, select **Price Lists**. All the price list headers that have been integrated are displayed. There will not be any associated price list items yet.
12. Verify that all the price list headers have been fully integrated.
13. Click the **View log for this map** link at the top of the **Status** section. Review any events that are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
14. After this map has run successfully, you can delete this map from the maps list. This map is not needed for regularly scheduled integrations.

To delete this map, right-click the **Pricing Header to Pricing Header** map and select **Delete**. The selected map is deleted from the maps list and a message is displayed to indicate where the deleted map is located. Click **OK**. Start the Connector for Microsoft Dynamics service again.

Map pricing headers for Microsoft Dynamics CRM 2011

This map creates the price lists in Microsoft Dynamics CRM 2011, which are referred to as pricing headers for the purposes of initial data synchronization.

1. Make sure that you have entered all of your pricing information in Microsoft Dynamics GP.
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left pane.
4. Select the **Pricing Header to Pricing Header** map.

If you do not want to change any of the default settings for the map, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).

5. In the **Status** area, 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 that the **Start Date** is before the date that you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.

If your business needs require a longer run time, you can set the map run schedule to any duration.

7. Verify that the date listed in the **Check for data modified after** area is before the date you entered your Microsoft Dynamics GP pricing. To change this date, 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**. Start the Connector for Microsoft Dynamics service again.

8. Click **Save** on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status is displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 pricing header information to Microsoft Dynamics CRM.

9. Open Microsoft Dynamics CRM and go to **Settings**, select **Product Catalog**, and then select **Price Lists**. All the price list headers that have been integrated are displayed. There will not be any associated price list items yet.
10. Verify that all the price list headers have been fully integrated.
11. Click the **View log for this map** link at the top of the **Status** section. Review any events that are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
12. After this map has run successfully, you can delete this map from the maps list. This map is not needed for regularly scheduled integrations.

To delete this map, right-click the **Pricing Header to Pricing Header** map and select **Delete**. The selected map is deleted from the maps list and a message is displayed to indicate where the deleted map is located. Click **OK**. Start the Connector for Microsoft Dynamics service again.

Map items and products

When Connector for Microsoft Dynamics is installed, Microsoft Dynamics GP takes precedence over all product information. Therefore, you must verify that all your inventory items are recorded in Microsoft Dynamics GP before you integrate them with Microsoft Dynamics CRM products.

Note: Pricelist operations are handled differently between Microsoft Dynamics GP and Microsoft Dynamics CRM, so this map may require a longer run time than other maps. This map also integrates the pricing method that is assigned to a Microsoft Dynamics GP item as a custom attribute on the corresponding Microsoft Dynamics CRM 2011 product.

1. Verify that you have entered all your items in Microsoft Dynamics GP.
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left 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 default settings for the maps, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).

5. In the **Status** area, 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 that the **Start Date** is before the date that you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.

If your business needs require a longer run time, you can set the map run schedule to any duration.

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. To change this date, 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**. Start the Connector for Microsoft Dynamics service again.

8. Click **Save** on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status is displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 to Microsoft Dynamics CRM products.

Note: The amount of time required to integrate your Microsoft Dynamics GP items with your Microsoft Dynamics CRM products depends on the number of items in your Microsoft Dynamics GP data set.

9. Open Microsoft Dynamics CRM and go to **Settings**, select **Product Catalog**, and then select **Products**. All of the products that integrated from Microsoft Dynamics GP are displayed.
10. Verify that all the Microsoft Dynamics GP items, kits, miscellaneous charges, and services have been fully integrated with Microsoft Dynamics CRM products.
11. Click the **View log for this map** link at the top of the **Status** section. Review any events that are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
12. To change the map run schedule for ongoing integration, repeat step 6 and change the map run schedule to the appropriate settings for this map.

Map pricing and price lists

This begins the second phase of pricing integration: price list items integration. The Microsoft Dynamics CRM price list items are created during this phase.

If you will be updating price lists often, for example, multiple times a day or week, we recommend that you use more price lists with fewer items per pricelist, or with multiple price lists. This helps shorten the map run time and allows for smoother integration of data. Price list updates include changing price costs on items and assigning new price levels to items.

Price list operations are handled differently between Microsoft Dynamics GP and Microsoft Dynamics CRM, so this map may require a longer run time than other maps in order to integrate the data.

Note: If you have products that use a percentage-based pricing method, Microsoft Dynamics CRM requires that these products use the same currency that is associated with them on the price list where the percentage-based entity is created in Microsoft Dynamics GP.

Map price levels and price lists for Microsoft Dynamics CRM 4.0

1. Make sure that you have entered all of your pricing information in Microsoft Dynamics GP.
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left pane.
4. Select the **Price Level to Price List** map.

If you do not want to change any of the default settings for the maps, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).

5. In the **Status** area, 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 that the **Start Date** is before the date that you first entered data into Microsoft Dynamics GP. Click the **OK** button to close the **Map Run Schedule** window.

If your business needs require a longer run time, you can set the map run schedule to any duration.

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. To change this date, 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**. Start the Connector for Microsoft Dynamics service again.
8. Click the **Save** button on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status is displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 to Microsoft Dynamics CRM.

9. Open Microsoft Dynamics CRM and go to **Settings**, select **Product Catalog**, and then select **Price Lists**. All of the price list headers (price lists) that were integrated in the previous map are displayed.
10. Double-click any price list, and then click price list items in the left pane. All the price list items for this price list are displayed.
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 are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
13. To change the map run schedule for ongoing integration, repeat step 6 and change the map run schedule to the appropriate settings for this map.

Map pricing and price lists for Microsoft Dynamics CRM 2011

Note: Extended pricing information is not currently available from the web services for Microsoft Dynamics GP 2010 and Microsoft Dynamics GP 2013, so it cannot be integrated into Microsoft Dynamics CRM. However, if you are using extended pricing in Microsoft Dynamics GP, the order price is specified by the extended pricing rules.

1. Make sure that you have entered all of your pricing information in Microsoft Dynamics GP.
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left pane.
4. Select the **Pricing to Price List Item** map.
If you do not want to change any of the default settings for the maps, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).
5. In the **Status** area, 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 that the **Start Date** is before the date that you first entered data into Microsoft Dynamics GP. Click the **OK** button to close the **Map Run Schedule** window.

If your business needs require a longer run time, you can set the map run schedule to any duration.

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. To change this date, 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**. Start the Connector for Microsoft Dynamics service again.
8. Click the **Save** button on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status is displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 to Microsoft Dynamics CRM.
9. Open Microsoft Dynamics CRM and go to **Settings**, select **Product Catalog**, and then select **Price Lists**. All of the price list headers (price lists) that were integrated in the previous map are displayed.
10. Double-click any price list, and then click price list items in the left pane. All the prices list items for this price list are displayed.
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 are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
13. To change the map run schedule for ongoing integration, repeat step 6 and change the map run schedule to the appropriate settings for this map.

Map customers and accounts or contacts

Microsoft Dynamics CRM supports both customer account information and customer contact information, but Microsoft Dynamics GP manages only customer information. You can integrate Microsoft Dynamics GP customers to either Microsoft Dynamics CRM accounts or to Microsoft Dynamics CRM contacts, but not both.

To integrate Microsoft Dynamics GP customers with either Microsoft Dynamics CRM accounts or Microsoft Dynamics CRM contacts, you must decide which application you will use to enter your initial customer data. Connector for Microsoft Dynamics will create the customer data in the other application after the appropriate map is activated. After you have completed the initial data synchronization, you can enter customer data in both Microsoft Dynamics GP and Microsoft Dynamics CRM and Connector for Microsoft Dynamics will keep the data synchronized.

Note: We recommend that you map Microsoft Dynamics GP customers into Microsoft Dynamics CRM accounts or contacts. If you have data that currently exists in both systems, you can use the duplicate detection rules in Microsoft Dynamics CRM. For more information about duplicate detection, see the [Connector for Microsoft Dynamics installation guide](#).

If you enter your initial customer data in Microsoft Dynamics CRM, you must click the **Submit** button for each Microsoft Dynamics CRM account or contact that you will integrate to Microsoft Dynamics GP. Alternatively, you can run the **Bulk Submit Account** workflow or the **Bulk Submit Contact** workflow on these entities. The submission process allows you to keep Microsoft Dynamics CRM account or contact records in Microsoft Dynamics CRM and not integrate them to Microsoft Dynamics GP until they are needed.

Mapping customers to accounts or contacts

If you have existing installations of both Microsoft Dynamics GP and Microsoft Dynamics CRM, the Microsoft Dynamics GP customer records take priority and must be integrated before the Microsoft Dynamics CRM records. If you have data that currently exists in both systems, use the duplicate detection rules in Microsoft Dynamics CRM to prevent duplicate records from being created during integration. For more information about duplicate detection, see the [Connector for Microsoft Dynamics installation guide](#).

1. Verify that that you have entered all your customers in either Microsoft Dynamics GP or have entered accounts or contacts in Microsoft Dynamics CRM.

If there are accounts or contacts in Microsoft Dynamics CRM to Microsoft Dynamics GP, open the Microsoft Dynamics CRM account or contact form for each account or contact to integrate, and then click **Submit** at the top of the form. Alternatively, you can run the **Bulk Submit Account** workflow or the **Bulk Submit Contact** workflow on these entities. Only accounts or contacts that have been submitted will be integrated to Microsoft Dynamics GP.

Note: You must choose to integrate either Microsoft Dynamics CRM contacts or Microsoft Dynamics CRM accounts. You cannot integrate both.

2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left pane.
4. Select the correct map depending on where you entered your initial customer data:
 - If you entered your initial customer data in Microsoft Dynamics GP, select **Customer to Account** or **Customer to Contact**. This is the recommended option.
 - If you entered your initial customer data in Microsoft Dynamics CRM, select **Account to Customer** or **Contact to Customer**.

If you do not want to change any of the default settings for the maps, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guide](#).

5. In the **Status** area, 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 that the **Start Date** is before the date that you first entered data into Microsoft Dynamics GP or Microsoft Dynamics CRM. Click **OK** to close the **Map Run Schedule** window.

If your business needs require a longer run time, you can set the map run schedule to any duration.

7. 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. To change this date, 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**. Start the Connector for Microsoft Dynamics service again.
8. Click **Save** on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status is displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 to Microsoft Dynamics CRM accounts or contacts.

Note: The amount of time required to integrate your Microsoft Dynamics GP customers with your Microsoft Dynamics CRM accounts or contacts depends on the number of customers in your Microsoft Dynamics GP and/or Microsoft Dynamic CRM data set.

9. Verify that all the customers and accounts or contacts have been fully integrated.
10. Click the **View log for this map** link at the top of the **Status** section. Review any events that are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
11. To change the map run schedule for ongoing integration, repeat step 6 and change the map run schedule to the appropriate settings for this map.

Map orders and invoices

When Connector for Microsoft Dynamics is installed, Microsoft Dynamics GP data takes precedence over 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.

Because Microsoft Dynamics ERP products support more complicated pricing operations than Microsoft Dynamics CRM does, orders that are initially created in Microsoft Dynamics CRM might not be priced as accurately as they will be after they have been integrated into the Microsoft Dynamics ERP. Sales order maps must run in both directions so that the Microsoft Dynamics ERP can calculate the correct prices and integrate the information back into Microsoft Dynamics CRM.

After installation, the following functionality is affected:

- Invoices can be viewed only in Microsoft Dynamics CRM.
- You cannot create invoices in Microsoft Dynamics CRM.
- You can create and modify orders in Microsoft Dynamics CRM, but only until the order is submitted.

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

Note: A Microsoft Dynamics CRM order will not be integrated to Microsoft Dynamics GP until it is submitted. Do not submit Microsoft Dynamics CRM orders that have already been re-created in Microsoft Dynamics GP.

You can indicate how many historical Microsoft Dynamics GP orders and invoices to move to Microsoft Dynamics CRM. Microsoft Dynamics GP orders and invoices are integrated based on the dates when they were last modified. You can indicate the oldest date for orders and invoices to include in the integration.

- **Microsoft Dynamics GP sales orders to Microsoft Dynamics CRM orders**

Microsoft Dynamics CRM orders must have an entry in the **Owner** field. If a sales order is created in Microsoft Dynamics GP with no salesperson, or a salesperson who is not associated with a Microsoft Dynamics CRM user, the Microsoft Dynamics GP sales order is integrated to Microsoft Dynamics CRM with an **Integration** owner. This applies to Microsoft Dynamics CRM on-premise deployments and to the user that is specified in the Microsoft Dynamics CRM adapter registration settings window for online deployments.

- **Microsoft Dynamics CRM orders to Microsoft Dynamics GP sales orders**

Microsoft Dynamics CRM orders must have an entry in the **Owner** field. If an order is created in Microsoft Dynamics CRM with an owner who is not a user associated with a Microsoft Dynamics CRM user, the Microsoft Dynamics CRM sales order is integrated to Microsoft Dynamics GP with a blank value for salesperson.

Mapping orders and invoices

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. To integrate orders and invoices, you must activate the appropriate maps for integration before you begin to enter order and invoice transactions in Microsoft Dynamics GP or Microsoft Dynamics CRM.

1. Make sure you have entered all your orders in Microsoft Dynamics GP or Microsoft Dynamics CRM.
2. Open Connector for Microsoft Dynamics.
3. Go to the integration to work with, and then click the **Maps** node in the left pane.
4. If there are Microsoft Dynamics CRM orders to integrate, select the **Order to Sales Order** map.

If you do not want to change any of the default settings for the maps, go to step 5. To customize map settings, see the [Connector for Microsoft Dynamics installation guides](#).

Note: For line discount value property, the default decimal precision in the template is two characters. If your currency decimal precision in Microsoft Dynamics GP is different, change this value in the function for mapping.

5. In the **Status** area, 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 that the **Start Date** is before the date that you first entered data into Microsoft Dynamics GP. Click **OK** to close the **Map Run Schedule** window.
If your business needs require a longer run time, you can set the map run schedule to any duration.
7. Verify that the date listed in the **Check for data modified after** area is before the date that you entered your Microsoft Dynamics GP sales orders or Microsoft Dynamics CRM orders. To change this date, 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**. Start the Connector for Microsoft Dynamics service again.
8. If there are Microsoft Dynamics GP orders to integrate, select the **Sales Order to Order** map and click the **Activate** button.
9. Repeat steps 6 and 7 for the **Sales Order to Order** map.
10. Click **Save** on the top command bar.

In the **Status** section of the **Map** page, the **Last run** status is displayed. While the integration is running, the **Last run** status is displayed as **Currently running** and displays the numbers of changes found, changes written, deletions found, records deleted, and 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 to Microsoft Dynamics CRM and the Microsoft Dynamics CRM orders to Microsoft Dynamics GP.

11. Verify that all the orders have been fully integrated.
12. Repeat steps 1 through 7 for the **Sales Invoice to Invoice** map.

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

13. Click the **View log for this map** link at the top of the **Status** section. Review any events that are displayed and fix any issues before proceeding. For more information about reviewing the log file, see the [Connector for Microsoft Dynamics installation guide](#).
14. To change the map run schedule for ongoing integration, repeat step 6 and change the map run schedule to the appropriate settings for this map.

Customization

The following sections contain information about how to configure Connector for Microsoft Dynamics. For more information, see the [Connector for Microsoft Dynamics installation guide](#).

Customize map settings

After you have created an integration, you must add maps, which are collections of associations between the fields for an entity in one Microsoft Dynamics system with the fields for an entity in another Microsoft Dynamics system. For example, 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, maps have already been created for you. For more information about customization, see the [Connector for Microsoft Dynamics installation guide](#).

Maintenance and additional information

Connector for Microsoft Dynamics has several options for maintaining your integrations. For more information, see the [Connector for Microsoft Dynamics installation guide](#).

For more information about using Connector for Microsoft Dynamics ERP, and for troubleshooting tips and customization techniques, see the “Connector – Integrating Dynamics ERP with Dynamics CRM” blog on MSDN (<http://blogs.msdn.com/b/dynamicsconnector/>).

Appendix

The following sections are provided for your reference.

- [Integration exceptions](#)
- [Map dependencies](#)
- [Microsoft Dynamics CRM to Microsoft Dynamics GP maps](#)
- [Microsoft Dynamics GP to Microsoft Dynamics CRM maps](#)
- [Picklist synchronization processing](#)

Integration exceptions

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.

Retry occurrences are based on a progressively time-delayed algorithm that allows up to seven retries per instance. The default retry wait setting is five tries.

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

Retry Wait Setting	Retry Attempt																
	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

Map dependencies

Some maps in Connector for Microsoft Dynamics are dependent on values in other maps. Maps with a high number of dependencies will not successfully run until dependent values in other maps are integrated first. Map dependencies are listed below.

Microsoft Dynamics GP to Microsoft Dynamics CRM

The following dependencies exist when mapping entities from Microsoft Dynamics GP to Microsoft Dynamics CRM.

Map	Dependency
Salesperson to ERP System User	<ul style="list-style-type: none">No dependency
UofM Schedule to Unit Group	<ul style="list-style-type: none">No dependency
Sales Item to Product	<ul style="list-style-type: none">UofM Schedule to Unit GroupPricing Header to Pricing Header
Flat Fee to Product	<ul style="list-style-type: none">UofM Schedule to Unit GroupPricing Header to Pricing Header
Miscellaneous Charges to Product	<ul style="list-style-type: none">UofM Schedule to Unit GroupPricing Header to Pricing Header
Service to Product	<ul style="list-style-type: none">UofM Schedule to Unit GroupPricing Header to Pricing Header
Kit to Product	<ul style="list-style-type: none">UofM Schedule to Unit GroupPricing Header to Pricing HeaderSales Item to ProductFlat Fee to ProductMiscellaneous Charges to ProductService to Product
Customer to Account	<ul style="list-style-type: none">Pricing Header to Pricing HeaderPrice Level to Price ListSalesperson to ERP System UserFor a customer that has a parent customer dependency, Customer to Account might be dependent on the parent customer integrating first
Customer to Contact	<ul style="list-style-type: none">Salesperson to ERP System UserPricing Header to Pricing HeaderPrice Level to Price ListFor a customer that has a parent customer dependency, Customer to Account might be dependent on the parent customer integrating first
Sales Order to Order	<ul style="list-style-type: none">Salesperson to ERP System UserUofM Schedule to Unit GroupSales Item to ProductFlat Fee to ProductMiscellaneous Charges to ProductService to ProductKit to ProductPrice Level to Price ListCustomer to Account or Customer to Contact

Map	Dependency
Sales Invoice to Invoice	<ul style="list-style-type: none"> • Salesperson to ERP System User • UofM Schedule to Unit Group • Sales Item to Product • Flat Fee to Product • Miscellaneous Charges to Product • Service to Product • Kit to Product • Price Level to Price List • Customer to Account or Customer to Contact • Sales Order to Order

Microsoft Dynamics CRM to Microsoft Dynamics GP

The following dependencies exist when mapping entities from Microsoft Dynamics CRM to Microsoft Dynamics GP.

- **Account to Customer or Contact to Customer**

In accounts, 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 accounts to customers 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 ERP System User** integration, and map all Microsoft Dynamics CRM users to ERP system users. 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.

Microsoft Dynamics CRM to Microsoft Dynamics GP maps

The following sections provide additional information about how data is mapped from Microsoft Dynamics CRM to Microsoft Dynamics GP. Detailed information about each map is listed.

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.

- This map should not be scheduled to run at the same time that the **Customer to Account** map runs during initial data synchronization. For more information about the order in which maps should be run, see [Recommended map run order](#).
- New accounts will not be integrated until you click **Submit** on the **Account** form in Microsoft Dynamics CRM. Primary contacts for new accounts must be submitted before the corresponding account is submitted, or integration errors will occur and updates will fail.
- 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, and a log entry similar to "contact with id <Guid> does not have a valid value for its dynamics_integrationkey" will be created.

To integrate Microsoft Dynamics CRM accounts that have an associated primary contact, perform the following steps:

1. In Microsoft Dynamics CRM, open the **Contact** form for each contact that is associated to an account and click **Submit**. 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. Close the Connector for Microsoft Dynamics client.
 - b. Open the **AccountObjectProvider.config** file in the **Adapters\Microsoft.Dynamics.Integration.Adapters.Crm40\ObjectConfig\<organization unique name>** subdirectory of the location where Connector for Microsoft Dynamics is installed. Locate the **primarycontactid** field name. Remove this entire line from the **AccountObjectProvider.config** file. Save the updated **AccountObjectProvider.config** file.
 - c. Open the Connector for Microsoft Dynamics client.
- 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 customer accounts, you must 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 must 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** 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. To integrate the credit limit, you must update a class ID policy in Microsoft Dynamics GP web services and define a default credit limit. For more information, see your Microsoft Dynamics GP web services documentation.
- Deleted values in an account record in Microsoft Dynamics CRM are not automatically deleted from the corresponding customer record in Microsoft Dynamics GP. For more information, see Knowledge Base article 2562687 (<http://support.microsoft.com/kb/2562687>).
- 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 salespersons that correspond to the Microsoft Dynamics CRM users and activate the **Salesperson to ERP System User** map so that all Microsoft Dynamics CRM users are mapped to the ERP system users. 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.

- 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, see [Recommended map run order](#).
- New contacts will not be integrated until you click **Submit** on the **Contact** form in Microsoft Dynamics CRM. Primary contacts for accounts must be submitted before the corresponding account information is submitted.
- 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 must 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 Microsoft Dynamics CRM contact with a **First Name** field value and click **Submit** before saving, the ERP key is created by combining the first four characters of the contact's **First Name** field value and the first five characters of the contact's **Last Name** field value, plus a random number.

If you create a Microsoft Dynamics CRM contact without a **First Name** field value and save before clicking **Submit**, the ERP key is created by combining the first five characters of the contact's **Last Name** field value, plus a random number. The first four characters of the contact's **First Name** field value are not used.

- Deleted values in a contact record in Microsoft Dynamics CRM are not automatically deleted from the corresponding customer record in Microsoft Dynamics GP. For more information, see Knowledge Base article 2562687 (<http://support.microsoft.com/kb/2562687>).
- 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 salespersons that correspond to the Microsoft Dynamics CRM users and activate the **Salesperson to ERP System User** map so that all Microsoft Dynamics CRM users are mapped to the ERP system users. 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.

- Microsoft Dynamics CRM orders can be integrated into Microsoft Dynamics GP only by clicking the **Submit Order** button on the Microsoft Dynamics CRM **Order** form.
- After 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 canceled in Microsoft Dynamics CRM.
- When a submitted Microsoft Dynamics CRM order is deleted in Microsoft Dynamics GP, the corresponding Microsoft Dynamics CRM order will be canceled.
- 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 must 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.

- Discounts on sales orders in Microsoft Dynamics CRM must use either discount amount OR discount percentage. If an order in Microsoft Dynamics CRM contains both an amount and a percentage, only the percentage will be integrated into Microsoft Dynamics GP.

Note: The administrator for Microsoft Dynamics CRM may remove one of these fields in the sales order form in Microsoft Dynamics CRM to reduce errors in calculating discounts. The map will then need to be updated to ignore the inactivated field in Microsoft Dynamics CRM.

- Price discounts for sales orders that are integrated into Microsoft Dynamics GP may be incorrect if the prices are out of sync or if prices for the order are updated in Microsoft Dynamics CRM but not updated in Microsoft Dynamics GP.

Address2 in Microsoft Dynamics CRM

Accounts in Microsoft Dynamics CRM require both a primary and a secondary address (address1 and address2). Address2 is generated automatically when the account is submitted for integration with Microsoft Dynamics GP. When an account is integrated with Microsoft Dynamics GP, removing the secondary address from the ship-to addresses collection in Microsoft Dynamics GP will not remove address2 from the corresponding account in Microsoft Dynamics CRM. The deleted address is re-created in Microsoft Dynamics GP when the account is updated in Microsoft Dynamics CRM.

Microsoft Dynamics GP to Microsoft Dynamics CRM maps

The following sections provide additional information about how data is mapped from Microsoft Dynamics GP to Microsoft Dynamics CRM. Detailed information about each map is listed.

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 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 system user ID to each Microsoft Dynamics CRM user. See [Associate Microsoft Dynamics CRM users with ERP system users](#).

UofM Schedule to Unit Group

In the **UofM Schedule to Unit Group** map, the Microsoft Dynamics GP UofM schedule 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 UofM record and write that data to the correct fields in the unit group record.

- 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. We recommend that you create a new unit of measure schedule in Microsoft Dynamics GP instead of modifying an existing schedule.

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 **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 UofM** 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 **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 UofM** value 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 **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 UofM** value 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.

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 **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 UofM** 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.

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 **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 UofM** 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.

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.

- 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.
- If you will be updating price lists often (multiple times a day or week, for example), we recommend that you use more price lists with fewer items per pricelist, or with multiple price lists. This will help shorten the map run time and allow for smoother integration of data. Price list updates include changing price costs on items and assigning new price levels to items.

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 during initial synchronization. For more information about the order in which maps should be run, see [Recommended map run order](#).
- 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, the **Customer to Account** map might be dependent on whether the parent customer record 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 60 characters or less, 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 the Microsoft Dynamics GP ship-to address to the 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, and set the **length** value to 50. This will truncate any characters beyond 50 characters.

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 during initial data synchronization. For more information about the order in which maps should be run, see [Recommended map run order](#).
- 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, the **Customer to Contact** map might be dependent on whether the parent customer record 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 60 characters or less, 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 the Microsoft Dynamics GP ship-to address to the 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, and set the **length** value to 50. This will truncate any characters beyond 50 characters.

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** entities, 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.

- Changes to ship-to addresses in Microsoft Dynamics GP are not supported for integrations to Microsoft Dynamics CRM 2011. If you are using Microsoft Dynamics CRM 2011 and you update an integrated ship-to address in Microsoft Dynamics GP, the ship-to address will be duplicated in the corresponding record in Microsoft Dynamics CRM 2011. To update a ship-to address from Microsoft Dynamics GP, use the second address field for the ship-to 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.

Sales Order to Order

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.

- When 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 **GetByKey** method call for sales orders in Microsoft Dynamics GP may display an error message when using web services. For more information, see Knowledge Base article 2451651 (<http://support.microsoft.com/kb/2451651>).
- 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 must 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.

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:
 - Existing Microsoft Dynamics 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 (it 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. 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, go to your "%ProgramData%\Microsoft Dynamics\Connector for Microsoft Dynamics\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.

Microsoft Dynamics CRM entity	From (in Microsoft Dynamics GP)	To (in Microsoft Dynamics CRM)
Account	Address Type Names	Address1 Address Type Code Address1 Shipping Method Address2 Address Types Code Address2 Shipping Method
	Payment Terms Code Names	Payment Terms
	Shipping Method Code Names	Shipping Method
Contact	Address Type Names	Address1 Address Type Codes Address1 Shipping Method Address2 Address Type Codes Address2 Shipping Method
	Payment Terms Code Names	Payment Terms
	Shipping Method Code Names	Shipping Method
Customer	Customer Address	Address Types Shipping Method
Invoice	Payment Terms Code Names	Payment Terms
	Shipping Method Code Names	Shipping Method
Order	Payment Terms Code Names	Payment Terms
	Shipping Method Code Names	Shipping Method
Price Level	Payment Terms Code Names	Payment Method
	Shipping Method Code Names	Shipping Method
Product	Product Types	Product Types

Notes:

- In Microsoft Dynamics CRM, the **Shipping method** entity exists on the **Other Address** form, 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 Microsoft Dynamics CRM picklists and they may or may not be identical.
- The **Default Value** value in the address2_shippingmethodcode picklist on the account entity is renamed to **CRM Default**.

Picklist Synchronization utility

Previous versions of Connector for Microsoft Dynamics used a Picklist Synchronization utility instead of the current **Enumerated Values to Picklist** map to prepare Microsoft Dynamics GP and Microsoft Dynamics CRM applications for integration.

With Connector for Microsoft Dynamics, data found in Microsoft Dynamics GP is compared to data found in Microsoft Dynamics CRM, but 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 synchronize this data between the two applications.

Note: Run this utility after you have created a new integration and configured your Microsoft Dynamics CRM organizations in the Connector for Microsoft Dynamics client and before you begin activating the maps. If you decide to configure more Microsoft Dynamics CRM organizations after you start to run the Picklist Synchronization utility, you must close the Picklist Synchronization utility and run it again to allow the Picklist Synchronization utility to retrieve the added Microsoft Dynamics CRM organization.

The utility can also be used later if data need to be synchronized again. 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. For more information and for the list of values that are synchronized, see [Picklist synchronized data](#).

Install the utility

If you are using an older version of Connector for Microsoft Dynamics, the Picklist Synchronization utility is included in the installation package. 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 Connector is installed:

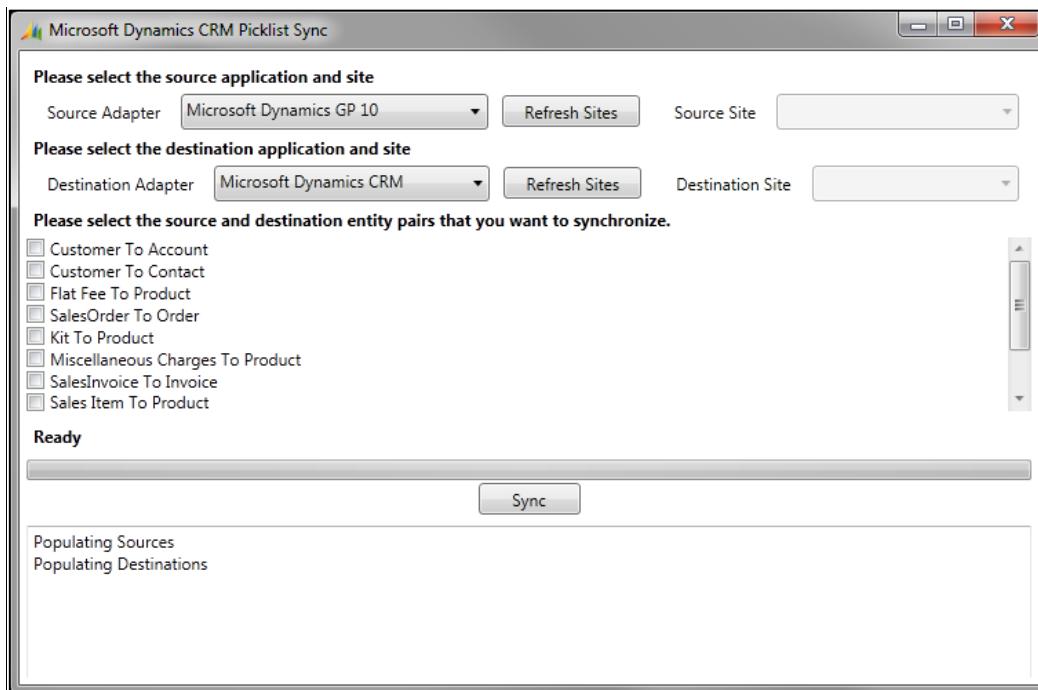
- Microsoft.Dynamics.Integration.GpToCrmPicklistSync.exe
- Microsoft.Dynamics.Integration.GpToCrmPicklistSync.exe.config

Note: If you designate certain fields to not be read-only on the account or contact object provider, and then you map those fields, you must un-map the corresponding fields on the child addresses in order for the Picklist Synchronization utility to run properly after the mappings have been changed. This also allows only the fields on the parent account or contact to be integrated. The fields on the child addresses will no longer be integrated. The following fields are affected:

- address1_shippingmethodcode
- address1_addressstypecode
- address1_freighttermscode
- address2_shippingmethodcode
- address2_addressstypecode
- address2_freighttermscode attributes

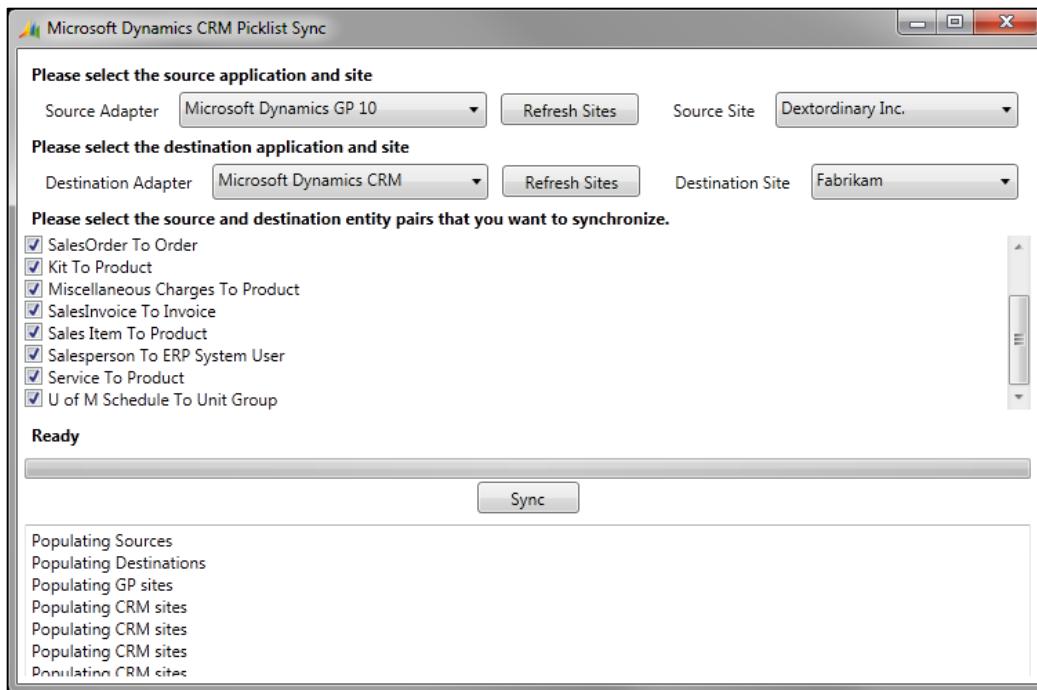
Run the Picklist Synchronization utility

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



3. Select the source application and click **Refresh Sites**. Then select the source site for the companies to run the utility for.
4. Select the destination application and click **Refresh Sites**. Then select the destination site for the companies to run the utility for.

5. Select the entity pairs to synchronize your picklist type data for. All of the supported entity pairs are able to be synchronized. 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.



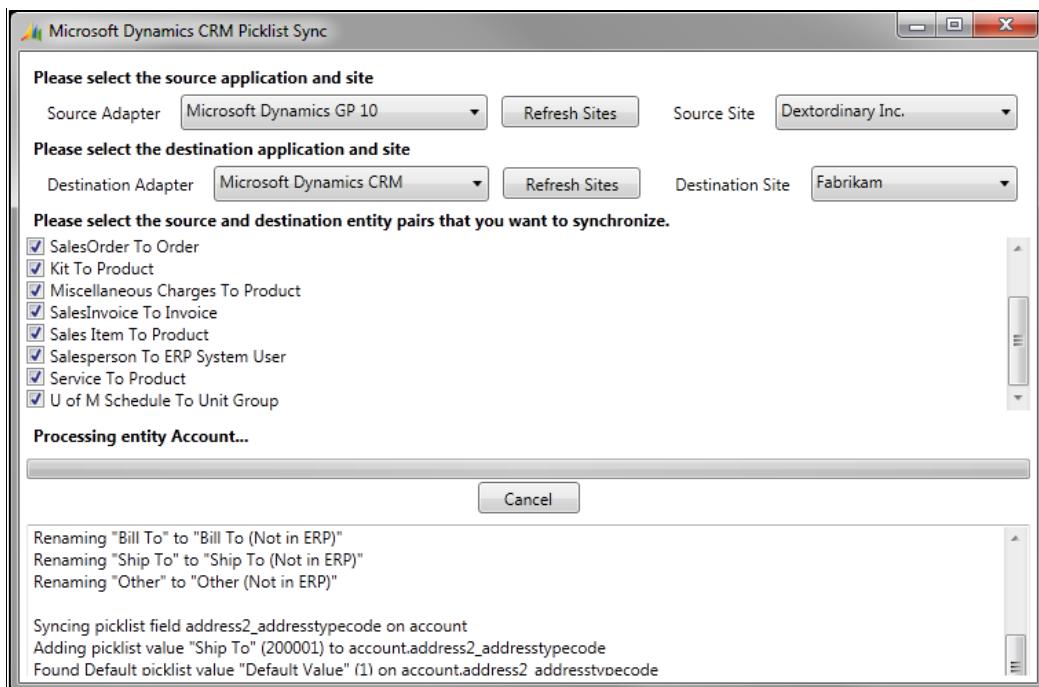
Note: The utility uses the map templates that are stored in your "%ProgramFiles%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" (or in your "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter\Templates\Maps" directory if you are running on a 64-bit machine). It does not use the maps that you have saved in your integration. 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" directory (or to your "%ProgramFilesx86%\Microsoft Dynamics\Microsoft Dynamics Adapter" directory if you are running on a 64-bit machine). To save a modified map, see "Save a map to file" in the [Connector for Microsoft Dynamics installation guide](#).

6. Click **Sync**. A warning message is displayed to indicate that any picklist values in Microsoft Dynamics CRM will be renamed if matching values are not found in Microsoft Dynamics GP. These Microsoft Dynamics CRM picklist values will be renamed by appending the text "(Not in ERP)" to the existing text.
7. Click **OK** to proceed, or click **Cancel** if you do not want to proceed.
8. In the **Credentials** dialog box, enter the domain, user name, and password for Microsoft Dynamics GP web services and one of the following Microsoft Dynamics CRM accounts:
 - If you are using Microsoft Dynamics CRM on-premise, enter logon information for the CRM Deployment Administrator account.
 - If you are using Microsoft Dynamics CRM online, enter the logon information for a system administrator.

9. After you have entered the required credentials, click **OK** to begin the synchronization process.

During the synchronization process, the entity that is currently being processed is displayed above the progress bar. As each entity synchronization is completed, in the bottom of the **Picklist Sync** window indicates which data synchronized or did not synchronize. You can see which values were added to Microsoft Dynamics CRM and which, if any, were not.

Note: The changes made to Microsoft Dynamics are published and visible to all users.



10. When the picklist synchronization process is finished, the "Completed" status is displayed above the progress bar. Close the **Picklist Sync** window.