

# Working with Microsoft Dynamics™ CRM 4.0, Second Edition

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## Chapter 2

# Setup and Common Tasks

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Now that you understand some of the background, benefits, and architecture of Microsoft Dynamics CRM, we can delve into the details of setup and common tasks in the system. Because companies of varying sizes and industries use Microsoft Dynamics CRM, we concentrate on the information that typically applies to most businesses. At this point, we assume that you have already installed the software and that you can access it from the Web client and through the Microsoft Dynamics CRM client for Microsoft Office Outlook. In addition, we also assume that you are at least a little familiar with using the Microsoft Dynamics CRM user interface and you understand how to work with records to add activities, notes, and so on.



**Tip** Installing the Microsoft Dynamics CRM software is a topic beyond the scope of this book. The Microsoft Dynamics CRM 4.0 Implementation Guide provides excellent information on this topic. You can download the guide at <http://go.microsoft.com/fwlink/?LinkID=104413>.

We want to provide you with more information about the most commonly used day-to-day end user activities so that you can help guide users to make the most of your organization's investment in Microsoft Dynamics CRM. In addition, we explain the options available when you load your customer data into Microsoft Dynamics CRM.

## Microsoft Dynamics CRM for Outlook

Without a doubt, the integration that Microsoft Dynamics CRM offers with Microsoft Office Outlook generates the most excitement and interest among our customers and prospects. People love that they can work directly with their customer relationship management (CRM) data in Outlook without needing to open a second software application. Unfortunately, the integration between Microsoft Dynamics CRM and Outlook also generates quite a few

questions about how the two systems work together. We expect that you'll get a lot of questions about how the systems work together, too; therefore, we want to give you a detailed look at the integration. We cover the following topics in this section:

- Standard versus offline client
- Integration points
- Data synchronization
- Remote workers

In the next section, we also cover how to work with e-mail in Microsoft Dynamics CRM, which includes some overlap with Microsoft Dynamics CRM for Outlook.

## Standard vs. Offline Client

As you learned in Chapter 1, "Microsoft Dynamics CRM 4.0 Overview," Microsoft Dynamics CRM offers two versions of the Outlook client:

- Microsoft Dynamics CRM for Outlook
- Microsoft Dynamics CRM for Outlook with Offline Access

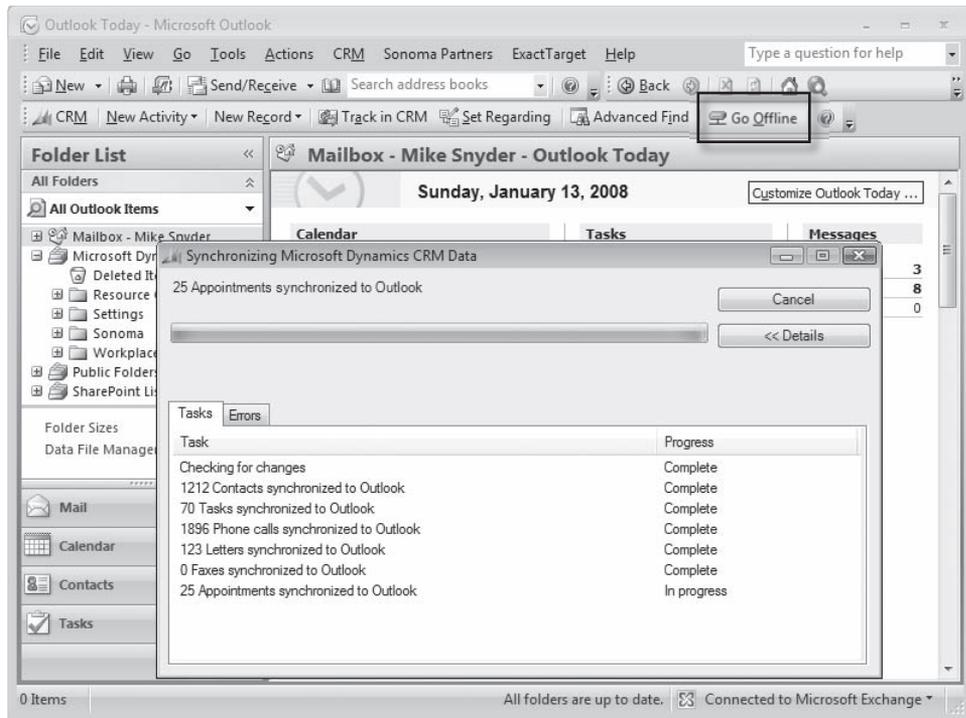
The add-ins offer almost identical functionality, but one version allows users to work offline disconnected from the Microsoft Dynamics CRM server. Microsoft Dynamics CRM for Outlook with Offline Access uses significantly more system resources than the standard version of Microsoft Dynamics CRM for Outlook does. Therefore, we encourage you to install Microsoft Dynamics CRM for Outlook with Offline Access only if you know that the computer and user will definitely need to work offline.

With Microsoft Dynamics CRM for Outlook with Offline Access installed, users can click a button to *go offline*. When going offline, Microsoft Dynamics CRM for Outlook with Offline Access copies data from the server to a local Microsoft SQL Server 2005 Express Edition database located on the computer. The offline client will automatically install this database as part of its installation routine. Users see a progress window indicating the status of the synchronization process (Figure 2-1).

Once offline, users can continue working with Outlook and Microsoft Dynamics CRM data as usual, but when they view Microsoft Dynamics CRM pages, only data from the local database is displayed.



**More Info** When offline, Microsoft Dynamics CRM uses a local Web server named Cassini to display the Web pages. Cassini is a lightweight Web server built on the Microsoft .NET Framework.



**FIGURE 2-1** Users click Go Offline and Microsoft Dynamics CRM for Outlook with Offline Access displays a synchronization progress window

Microsoft Dynamics CRM for Outlook with Offline Access performs the offline synchronization process when users click the Go Offline button. If users forget to click the Go Offline button, they can still work with Microsoft Dynamics CRM data offline, but the data may be out-of-date depending on the last time it was synchronized with the offline database. To avoid this scenario, users can select a setting in the Local Data tab of the Personal Options of Microsoft Dynamics CRM for Outlook so that the system automatically updates local data in the background at regular intervals (such as every 15 minutes).

When users wish to connect to the Microsoft Dynamics CRM server, they click the Go Online button. Microsoft Dynamics CRM for Outlook with Offline Access will then perform another synchronization process. This process uploads data to the server that the user created or modified while offline. If Microsoft Dynamics CRM encounters a conflict scenario in which a user modified a record on the server while an offline user modified that same record, Microsoft Dynamics CRM uses the record with the latest modified date stamp to determine which record to keep. It automatically keeps one record or the other without prompting the user; it does not merge field-level changes of the two records. Microsoft Dynamics CRM will also fire any asynchronous plug-ins and workflow rules that apply to records created or modified while offline.

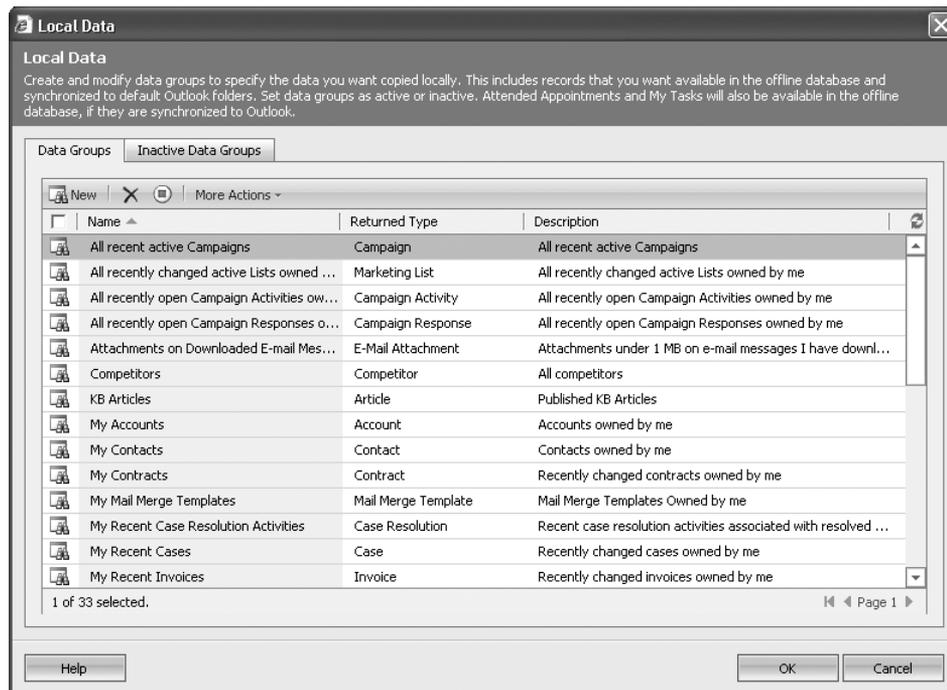
Two additional topics we want to highlight regarding Microsoft Dynamics CRM for Outlook with Offline Access include the following:

- Local data groups
- Offline constraints

## Local Data Groups

If you work for a company with a very large Microsoft Dynamics CRM database (millions of records), you may wonder what happens when you go offline with Microsoft Dynamics CRM for Outlook with Offline Access. Does the software copy those millions of records to your laptop? How long does it take? Do you need a bigger hard drive?

Fortunately, users can configure exactly which data they want to download to their computer using the Local Data Groups setting. Microsoft Dynamics CRM for Outlook with Offline Access includes predefined local data filters for the various default system entities (Figure 2-2).



**FIGURE 2-2** Default local data groups installed with Microsoft Dynamics CRM for Outlook with Offline Access

As you can see in Figure 2-2, Microsoft designed the default local data groups to restrict the amount of data the system takes offline. For example, on the Account and Contact records, the default settings download only active records that you own. Obviously, if you own millions

of Accounts and Contacts, you should be careful about the amount of data you download when you go offline. As you would expect, very large offline data sets negatively affect system performance. To avoid downloading very large offline data sets, modify the local data group filters to only include the records you need while offline.



**Tip** The default local data group settings will only download reports that you own for offline use, so you may want to modify that setting to include any key reports that you need offline.

In addition, the default local data settings do not include *any* custom entity records that you create. Therefore, if your users want to work with custom entities offline, you must instruct them on how to include the specified records in their local data groups. Click Modify Local Data Groups to access the local data groups under the CRM item on the Outlook menu. To add new groups, simply click the New button on the grid toolbar. The Data Group dialog box opens, and then you can design a filter using the familiar Advanced Find user interface.



**Important** You must manually include custom entities in your local data groups if you want to work with those records while offline. Unfortunately, Microsoft Dynamics CRM does not include a tool or mechanism for administrators to modify local data groups for multiple users at one time. Therefore, you need to adjust the local data group on each computer that has Microsoft Dynamics CRM for Outlook with Offline Access installed.

For users with the standard (non-offline enabled) version of Microsoft Dynamics CRM for Outlook, local data groups apply only to the Contact record. Contacts in the local data group of the non-offline version can be synchronized into the user's Outlook contacts. Local data groups for other types of records don't apply because Microsoft Dynamics CRM for Outlook only synchronizes the contact records into users' Outlook file.

## Offline Constraints

For the most part, both the standard and offline versions of Microsoft Dynamics CRM for Outlook provide nearly identical user experiences. However, Microsoft Dynamics CRM for Outlook with Offline Access does include a few constraints when running in the offline mode. These constraints include the following:

- Workflow rules do not run offline.
- Asynchronous plug-ins do not run offline.
- Duplicate detection does not work offline.
- You cannot import data when offline.
- You cannot access the system settings or customize entities while offline.
- You cannot access the Resource Center when offline.

- You cannot access the Service Calendar when offline.
- You cannot modify the Knowledge Base while offline, but you can access Knowledge Base articles.

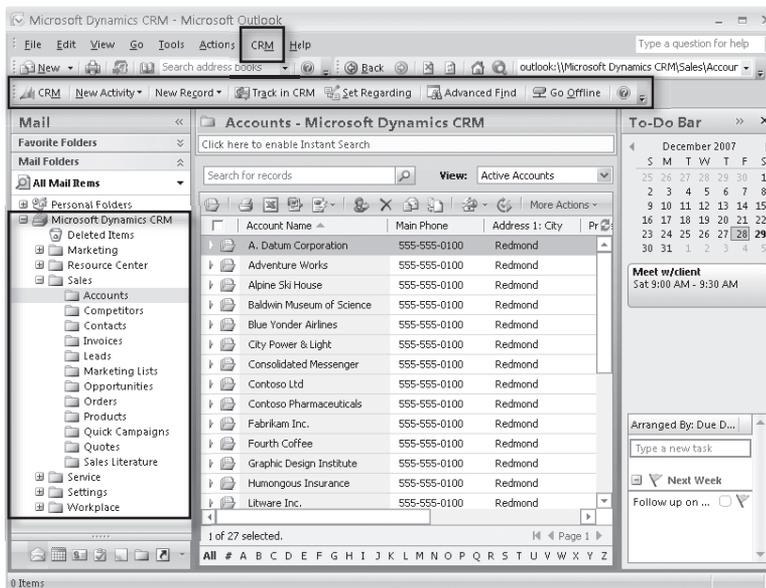
When users go back online and connect to the Microsoft Dynamics CRM server, the system applies the appropriate workflow rules for the new or modified records. Therefore, be mindful of creating workflow rules that implement business-critical processes if some of your users work with data offline. Similarly, asynchronous plug-ins do not run offline. Microsoft Dynamics CRM runs asynchronous plug-ins against the appropriate records when users synchronize with the server after working offline. However, you can create synchronous plug-ins that will run offline in Microsoft Dynamics CRM for Outlook with Offline Access if you need that functionality.

## Integration Points

Now we will review the details about how Microsoft Dynamics CRM for Outlook integrates with Outlook. After you install and configure the software, Microsoft Dynamics CRM for Outlook makes the following modifications to the Outlook interface:

- Adds the CRM toolbar
- Adds Microsoft Dynamics CRM folders
- Adds a CRM menu item

Figure 2-3 shows these modifications in the user interface.

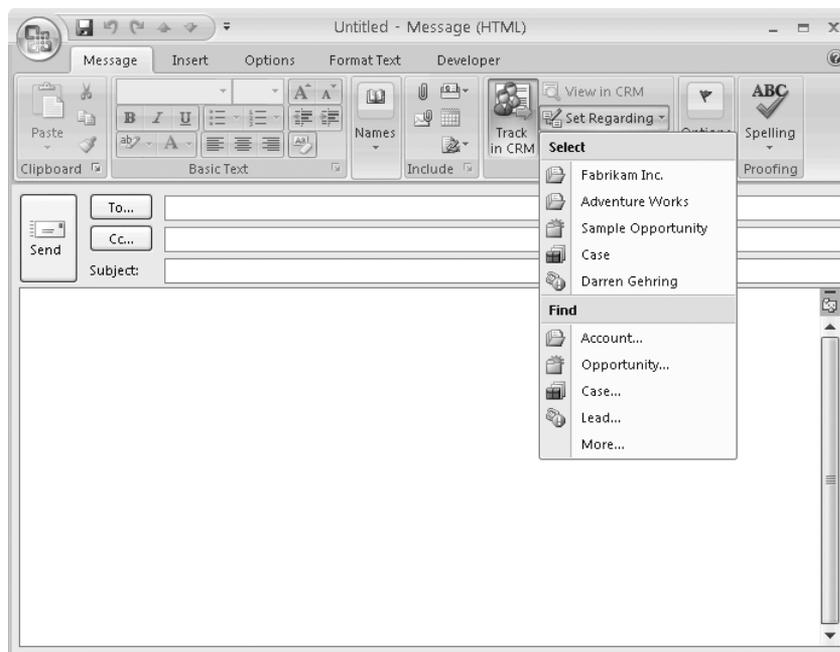


**FIGURE 2-3** Microsoft Dynamics CRM for Outlook modifications to Outlook user interface

As you can see in Figure 2-3, by clicking one of the Microsoft Dynamics CRM folders, you can display a CRM grid directly in Outlook. From here you can access CRM data just as you can through the Web client.

On the CRM menu, you can perform various tasks such as changing options, modifying local data groups, and importing data. With the CRM toolbar, you can quickly access functionality to create new records or activities, track records, or start Advanced Find.

In addition, Microsoft Dynamics CRM for Outlook adds a Track in CRM section to the following types of records: Tasks, Contacts, Appointments, and E-mail messages. When users click the Track in CRM button, they can relate the activity to the correct record in Microsoft Dynamics CRM by clicking Set Regarding and specifying a record. The regarding record can be any type of entity in Microsoft Dynamics CRM that supports a relationship to activities such as Leads, Cases, Accounts, Opportunities, and so forth (Figure 2-4). In addition, you can set the regarding value to custom entities that you create (assuming you configure the custom entity with a relationship to activities).

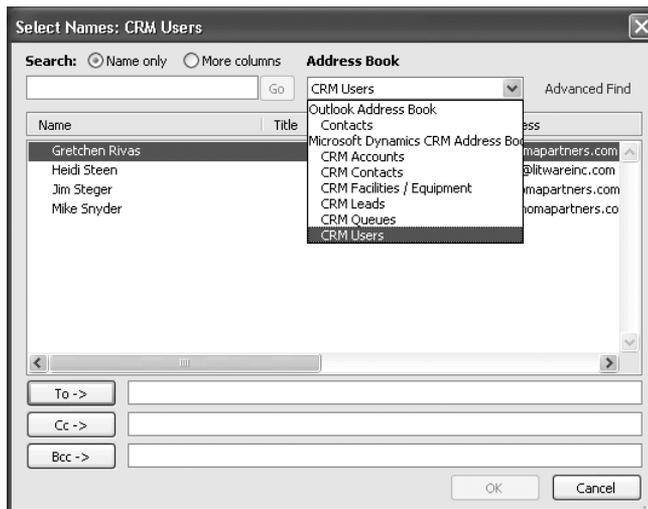


**FIGURE 2-4** Setting the regarding record to different types of Microsoft Dynamics CRM records

By linking e-mail messages, appointments, and tasks to records in Microsoft Dynamics CRM, users can view those Outlook records in the list of activities related to that CRM record. Users can create records in Outlook and track them in Microsoft Dynamics CRM, or the activities can be created on the Microsoft Dynamics CRM server and then synchronized with a user's Outlook file. A typical example of this scenario is creating and assigning a task to a user using

workflow (on the server), and then Microsoft Dynamics CRM for Outlook synchronizes that new task into a user's Outlook task list automatically.

Last, Microsoft Dynamics CRM for Outlook creates a new address book that users can access when writing e-mail messages (Figure 2-5). With this Microsoft Dynamics CRM address book, users can quickly access the e-mail addresses of the contacts in the database without requiring users to open another application to look up that information. To access the address book, simply click the To or Cc button when creating an e-mail message in Outlook and select the Microsoft Dynamics CRM Address Book in the drop-down list. You can modify which records Microsoft Dynamics CRM for Outlook will synchronize into your address book by changing the settings in the Address Book tab on the Options menu.



**FIGURE 2-5** The address book of Microsoft Dynamics CRM records and e-mail addresses



**More Info** The figures in this book show images of Microsoft Office Outlook 2007, but Microsoft Dynamics CRM for Outlook works with Outlook 2003 in a similar manner. However, the user interface for Outlook 2003 with Microsoft Dynamics CRM for Outlook will appear different.

## CRM vs. Outlook Forms

As you can see, working with the customer records in Microsoft Dynamics CRM for Outlook is really no different from working with standard Outlook records. As we indicated, these are just Outlook forms with the additional Track in CRM button added. Therefore, users can learn the system quickly and become comfortable tracking data in Microsoft Dynamics CRM right away.

However, some Microsoft Dynamics CRM customers ask about customizing the Outlook forms to include additional types of data that they want to capture. For example, there might

be some custom attributes on the Microsoft Dynamics CRM Contact record that they want to display in Outlook. If the record is already linked to a Microsoft Dynamics CRM record, the user can click the View in CRM button in the Outlook form and Microsoft Dynamics CRM for Outlook will open a new window displaying the full Microsoft Dynamics CRM form (complete with custom attributes and so forth).



**Important** Users should click the View in CRM button to view the Microsoft Dynamics CRM form with all of the customized fields. Microsoft Dynamics CRM does not include any tools to customize the Outlook forms using custom attributes, and attempting this type of Outlook customization would require specific Outlook programming expertise.

If you desire, you can configure Microsoft Dynamics CRM for Outlook to display the Microsoft Dynamics CRM form when you create a new appointment, task, contact, or e-mail record from the CRM toolbar. You can enable this setting by clicking Options on the CRM menu, and then selecting which record types you want to use the Microsoft Dynamics CRM form instead of the Outlook form when you create a new record.

## Activity Reminders

Outlook includes a reminder feature for tasks and appointments that automatically opens a message window on the date and at the time specified by the user. This reminder window is intended to ensure that the user notices the event and doesn't accidentally overlook it or forget to complete it. Microsoft Dynamics CRM for Outlook takes advantage of this Outlook feature by automatically creating reminder times for tasks and appointments created in Microsoft Dynamics CRM that synchronize with Outlook. The integration works in one of two ways depending on how the user creates the task or appointment:

- **Activity created in Microsoft Dynamics CRM** Microsoft Dynamics CRM for Outlook automatically specifies the Outlook reminder time. For activities such as tasks and phone calls, the Outlook reminder time matches the activity due date and time. For appointments, Microsoft Dynamics CRM for Outlook will create the reminder time based on the default reminder settings configured for that user in Outlook (none, 15 minutes, 30 minutes, and so forth).
- **Activity created in Outlook and tracked in CRM** For appointments and tasks, users can configure the reminder to suit preference. For tasks, they can configure the reminder time so that the reminder time does not need to match the task due date. For example, you might want a reminder 1 day before the task is due.

Microsoft Dynamics CRM does not store the Outlook reminder date and time as attributes of the activities. Therefore, users cannot access the Outlook reminder time on the Microsoft Dynamics CRM activity form. Additionally, users cannot turn off the automatic reminder creation for tasks, phone calls, letters, and faxes. Creating any of these activities with a due date creates a reminder in Outlook. The user can modify the Outlook reminder date and time

after the activity synchronizes in Outlook, but updating the activity due date and time in the Microsoft Dynamics CRM Web client resets the reminder time to match the activity due date and time.



**Caution** Reminder windows only appear when you're using Outlook; they will not appear in the Web client.

## Outlook Web Access

Microsoft Dynamics CRM for Outlook works only with Outlook 2003 and Outlook 2007; it does not support integration with Outlook Web Access. Therefore, if your users use only Outlook Web Access, they cannot access the Microsoft Dynamics CRM integration functionality we have described.

However, if Microsoft Dynamics CRM for Outlook is installed, users can log on to Outlook Web Access and view the Microsoft Dynamics CRM data synchronized with their Outlook file such as CRM contacts, appointments, and tasks. However, the user will not see the Microsoft Dynamics CRM for Outlook user interface modifications such as the CRM toolbar, the Track in CRM buttons, and the Microsoft Dynamics CRM folders.



**Caution** Microsoft Dynamics CRM for Outlook does not support integration with Outlook Web Access. To track Outlook data in Microsoft Dynamics CRM and synchronize data between Microsoft Dynamics CRM and Outlook, each user must install Microsoft Dynamics CRM for Outlook on a computer running Outlook 2003 or Outlook 2007.

## Data Synchronization

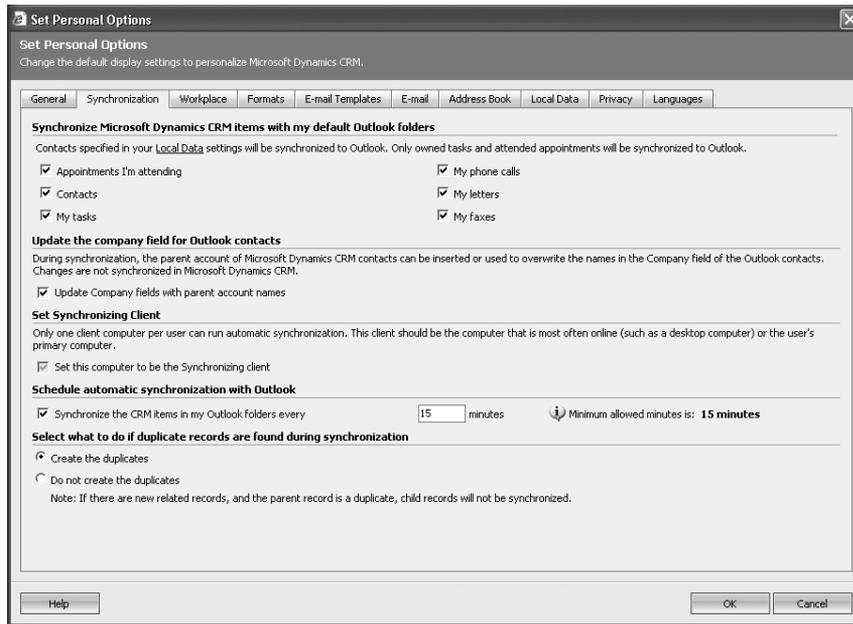
The Microsoft Dynamics CRM for Outlook software synchronizes Microsoft Dynamics CRM data and Outlook data. Quite impressively, Microsoft Dynamics CRM for Outlook updates data bidirectionally so that users can modify records in either the Microsoft Dynamics CRM Web client or Microsoft Dynamics CRM for Outlook. Changes made in either system update the other the next time Microsoft Dynamics CRM for Outlook performs a synchronization.

Data synchronization generates a lot of questions, so we want to explain the following topics:

- Configuring data synchronization
- Deleting records

## Configuring Data Synchronization

Figure 2-6 shows the Synchronization tab of Microsoft Dynamics CRM for Outlook.



**FIGURE 2-6** Microsoft Dynamics CRM for Outlook synchronization settings

Configuring synchronization is simple when you break down the options:

- **Appointments** Only applies to appointments you're attending
- **Contacts** Microsoft Dynamics CRM for Outlook synchronizes only contacts included in your local data group filters
- **Tasks** Only applies to tasks you own
- **My Phone calls** Only applies to phone calls you own
- **My Letters** Only applies to letters you own
- **My Faxes** Only applies to faxes you own

Because Outlook does not contain records for phone calls, letters, or faxes, Microsoft Dynamics CRM for Outlook synchronizes those records into Outlook tasks. Any record that you create in Outlook and for which you click the Track in CRM button is also included in the synchronization process because you will own that record in Microsoft Dynamics CRM.



**Important** Configuring local data groups in Microsoft Dynamics CRM for Outlook with Offline Access determines which records the system brings offline. In addition, Microsoft Dynamics CRM for Outlook and Microsoft Dynamics CRM for Outlook with Offline Access can synchronize the contact records in your local data groups with your Outlook contacts.

If you select the Update Company fields with parent account names, Microsoft Dynamics CRM for Outlook populates the contact's company name in Outlook. Unfortunately, the contact company name behaves differently from the other fields because Microsoft Dynamics CRM for Outlook does not perform a bidirectional synchronization of changes to the contact's company name. If you change a contact's company name in Outlook, Microsoft Dynamics CRM for Outlook will overwrite that change in the future with the contact's parent account name.

Figure 2-6 also shows that you can configure Microsoft Dynamics CRM for Outlook to synchronize automatically (the default interval is 15 minutes). This scheduled synchronization only applies changes from the server to your Outlook. Conversely, if you change a record in Microsoft Dynamics CRM for Outlook while online, that change will update the Microsoft Dynamics CRM server *immediately*. It does not wait for the next scheduled interval to make the update.



**Important** Scheduling synchronization applies only to downloading changes from the server to your Outlook file. Changes made to records in Microsoft Dynamics CRM for Outlook when online update the data on the server immediately.

One other important factor you should consider regarding data synchronization is that the Microsoft Dynamics CRM for Outlook software updates your Outlook records only if a record was modified since the last synchronization. For example, assume that a fictional account named Fabrikam has 10 Contact records associated with it. As a result of a merger, Fabrikam changes its name to Contoso, Inc. If you update the account name in Microsoft Dynamics CRM, Microsoft Dynamics CRM records a modification to the Account record, but it won't alter the Contact records related to that account. Therefore, your contacts in Outlook will still use the old Fabrikam name in the company name field. However, each time someone updates one of the Contoso Contact records, Microsoft Dynamics CRM for Outlook will update the company name in Outlook to Contoso on the next data synchronization.

## Deleting Records

After Microsoft Dynamics CRM for Outlook synchronizes data in the Outlook file, special rules apply to how the synchronization processes deleted records. For example, deleting a contact record in Outlook will *not* delete that contact record in Microsoft Dynamics CRM. Conversely, deleting a contact in Microsoft Dynamics CRM removes the synchronized contact from Outlook for all users except for the Outlook user who owns the record in Microsoft Dynamics CRM.



**Important** Microsoft Dynamics CRM for Outlook uses various rules and conditions on deleted records to determine how the synchronization process should update Outlook and Microsoft Dynamics CRM.

Microsoft Dynamics CRM for Outlook processes deleted records as outlined in Table 2-1.

**TABLE 2-1 Microsoft Dynamics CRM for Outlook Deletion Processing**

Record	Action	Record state	Result
Contact	Delete in Microsoft Dynamics CRM	Any	Deleted from Outlook for all users except contact owner. Remains in Outlook of contact owner.
Contact	Delete in Outlook	Any	No change in Microsoft Dynamics CRM.
Task	Delete in Microsoft Dynamics CRM	Pending (not completed in Outlook)	Deleted from Outlook.
Task	Delete in Microsoft Dynamics CRM	Past (completed in Outlook)	Remains in Outlook.
Task	Delete in Outlook	Pending (open in Microsoft Dynamics CRM)	Deleted from Microsoft Dynamics CRM.
Task	Delete in Outlook	Past (completed or canceled in Microsoft Dynamics CRM)	No change to Microsoft Dynamics CRM.
Appointment	Delete in Microsoft Dynamics CRM	Pending (open in Microsoft Dynamics CRM)	Deleted from Outlook if Appointment start time is in the future.
Appointment	Delete in Microsoft Dynamics CRM	Past (completed or canceled in Microsoft Dynamics CRM)	Remains in Outlook.
Appointment	Delete in Outlook	Pending (open in Microsoft Dynamics CRM)	Deleted from Microsoft Dynamics CRM if deleted by appointment owner or organizer. Not deleted from Microsoft Dynamics CRM if deleted in Outlook by nonowners or nonorganizers.
Appointment	Delete in Outlook	Past (completed or canceled in Microsoft Dynamics CRM)	No change to Microsoft Dynamics CRM.

When a user deletes a contact in Outlook (which will not be deleted from Microsoft Dynamics CRM), and then someone subsequently modifies that contact record in Microsoft Dynamics CRM, Microsoft Dynamics CRM for Outlook will regenerate that contact in the user's Outlook file even though the user previously deleted it.

On a related note, deactivating Contact records in Microsoft Dynamics CRM does not remove the contacts from Outlook. Users must manually delete the deactivated contacts if they don't want them to appear in Outlook any longer.

## E-Mail in Microsoft Dynamics CRM

As you would expect, Microsoft Dynamics CRM includes numerous features to help you track and manage e-mail communications with customers. From a high level, Microsoft Dynamics CRM can send and receive e-mail using one of two methods:

- The Web client
- Microsoft Dynamics CRM for Outlook

The options available to you depend on your e-mail infrastructure and how the network administrator installed the software. Microsoft Dynamics CRM supports a wide number of e-mail platforms, including Microsoft Exchange Server and any Post Office Protocol 3 (POP3)/Simple Mail Transfer Protocol (SMTP)-compliant e-mail server.

Microsoft Dynamics CRM includes a software application named Microsoft Dynamics CRM E-mail Router that acts as an interface between your e-mail system and Microsoft Dynamics CRM. The Microsoft Dynamics CRM E-mail Router also includes the E-mail Router Configuration Wizard to help you set up and configure e-mail for users. The Microsoft Dynamics CRM E-mail Router is *not* required for you to install Microsoft Dynamics CRM, but it does offer advanced e-mail routing and tracking features. If for some reason your organization cannot use the Microsoft Dynamics CRM E-mail Router, Microsoft Dynamics CRM for Outlook will perform similar routing and tracking functionality on each client computer. However, because it is a client application, users must keep Microsoft Dynamics CRM for Outlook open for the software to process the e-mail.



**More Info** Because configuring e-mail and installing the Microsoft Dynamics CRM E-mail Router offers so many different deployment options, explaining these topics is beyond the scope of this book. Please refer to the Microsoft Dynamics CRM Implementation Guide for detailed instructions on how to install and configure the E-mail Router software.

After you configure Microsoft Dynamics CRM to work with your e-mail systems, you should understand these important areas:

- E-mail tracking
- E-mail templates
- Creating and sending mass e-mail messages

## E-Mail Tracking

After you've successfully configured the various e-mail options in Microsoft Dynamics CRM, you can configure automatic e-mail tracking for both the organization and the individual users.



**Important** All of the e-mail tracking settings we describe apply to the *automatic* tracking of e-mail. Regardless of the settings you choose, users with Microsoft Dynamics CRM for Outlook installed can manually track e-mail using the Track in CRM feature. Some customers prefer to rely on manual e-mail tracking so that the database contains only the key e-mail messages as determined by your users. With automatic tracking, Microsoft Dynamics CRM captures all of the messages, even if they are just short e-mail replies, personal notes, out-of-office replies, and so forth.

## Organization Settings

You can access the organization e-mail settings in the E-mail tab of System Settings in the Administration area (Figure 2-7).

The screenshot shows the 'System Settings' dialog box with the 'E-mail' tab selected. The 'Configure e-mail correlation' section is active, showing options for using a tracking token and setting its parameters. Below this, the 'Set tracking options for e-mails between CRM users' section is also active, showing the option to track e-mails sent between CRM users as two activities. The 'Set E-mail form options' section includes radio buttons for 'Use secure frames to restrict e-mail message content' and 'Allow messages with unresolved e-mail recipients to be sent'. The 'Set file size limit for attachments' section has a text box for 'Maximum file size (in kilobytes)' set to 5,120. The dialog box has 'Help', 'OK', and 'Cancel' buttons at the bottom.

**System Settings -- Webpage Dialog**

**System Settings**  
Set system-level settings for Microsoft Dynamics CRM.

General | **Formats** | **E-mail** | Marketing | Customization | Outlook | Reporting

**Configure e-mail correlation**  
Microsoft Dynamics CRM uses an e-mail message's sender, recipients and subject to create relationships between the e-mail activity and other records. For greater accuracy in identification and linking, a tracking token can be added to the subject of outgoing e-mail.

Use tracking token

Prefix: CRM:

Deployment base tracking number: 0

Number of digits for user numbers: 3

Number of digits for incremental message counter: 3

Tracking token preview: CRM:0001001

**Set tracking options for e-mails between CRM users**  
CRM e-mail messages sent between CRM users can be tracked as two activities: an outgoing e-mail activity and an incoming e-mail activity. This will not occur if all CRM recipients are configured for sender-based matching only.

Track e-mails sent between CRM users as two activities

**Set E-mail form options**

Use secure frames to restrict e-mail message content:  Yes  No

Allow messages with unresolved e-mail recipients to be sent:  Yes  No

**Set file size limit for attachments**

Maximum file size (in kilobytes): 5,120

Help OK Cancel

http://rc3local/RC3Local/tools/systemsettings/dialogs/systemsettings.aspx Local intranet | Protected Mode: On

**FIGURE 2-7** Configuring organization e-mail settings

From here, you can configure the various e-mail organization settings, and most of them are self-explanatory. For the e-mail correlation portion of these settings, you have one of two options:

- Smart matching only
- Smart matching with tracking tokens

If you leave the Use tracking token check box clear, Microsoft Dynamics CRM uses the smart matching feature to correlate e-mail messages automatically with the appropriate records. Smart matching uses an algorithm based on the e-mail sender, recipients, and message subject line to try to determine which record to use as the e-mail regarding record (Lead, Opportunity, Quote, and so forth). When matching on the e-mail message subject, the smart matching feature ignores prefixes (such as RE: and FW:) in addition to letter capitalization.

In you find that the accuracy of the smart matching feature does not meet your needs, you can choose to use the tracking token feature, which increases the accuracy of automatic e-mail matching. With the tracking token feature enabled, Microsoft Dynamics CRM adds a code in the subject line of e-mail messages sent from Microsoft Dynamics CRM.

In Figure 2-8, you can see that Microsoft Dynamics CRM automatically appended the tracking code "CRM:0002001" to the end of the e-mail subject line. This tracking code uniquely identifies the e-mail activity in the database. If a customer were to reply to this message, Microsoft Dynamics CRM would use the tracking token in the message subject as part of its matching algorithm to set the regarding field of the e-mail activity to the correct record. If you don't care for the default tracking token format, you can specify your own unique tracking token configuration by modifying the prefix and adjusting the number of digits for the components of the tracking token (as shown earlier in Figure 2-7).

## Individual Settings

In addition to the organization-wide e-mail settings, you can configure e-mail tracking settings on a user-by-user basis. You edit individual e-mail settings in one of two places:

- Personal Options E-mail tab
- Microsoft Dynamics CRM User form

In the E-mail tab of each user's personal options, users can specify which e-mail messages they want to track in Microsoft Dynamics CRM (Figure 2-9).

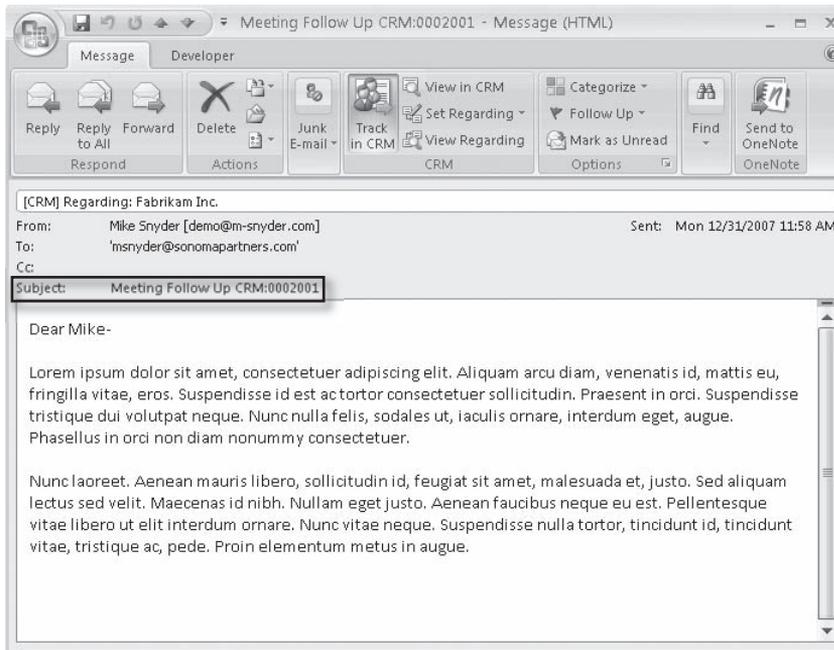


FIGURE 2-8 Tracking token in the subject line of an e-mail message

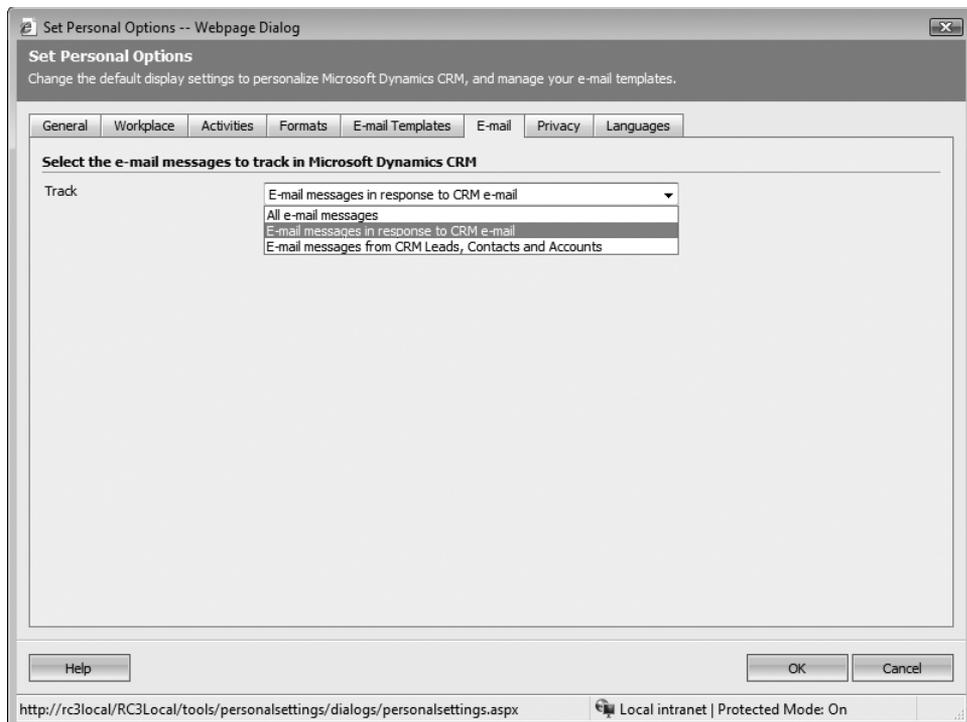


FIGURE 2-9 Users can configure which e-mail messages to track

The three options include the following:

- All e-mail messages
- E-mail messages in response to CRM e-mail
- E-mail messages from CRM Leads, Contacts, and Accounts

To turn off automatic e-mail tracking for a particular user, an administrator with the appropriate security credentials can modify the user's profile to set the incoming and outgoing e-mail access type to None (Figure 2-10). The default Microsoft Dynamics CRM security roles do not allow users to modify their own records, so typically a system administrator is required to configure these e-mail settings.



**Tip** Administrators can also use the Microsoft Dynamics CRM E-Mail Router Configuration Manager to update the user profile settings regarding incoming and outgoing e-mail access types. With this tool, administrators can update the settings for multiple users at one time.

The screenshot shows the user profile configuration page for Mike Snyder. The 'E-mail Access Configuration' section is highlighted with a red box. The settings are as follows:

Field	Value
E-mail access type - Incoming *	None
E-mail access type - Outgoing *	None
Client Access License	Microsoft Dynamics CRM for Outlook E-mail Router
Access Mode *	Full

Other visible settings include:

- General:** Title, Mobile Phone, Primary E-mail (msnyder@sonomapartners.com), Preferred Phone (Main Phone), E-mail 2, Pager, Mobile Alert E-mail, Fax, Primary Team.
- Organization Information:** Manager, Business Unit (RC3Local), Territory, Site.

The status at the bottom is 'Enabled'.

**FIGURE 2-10** Turning off e-mail tracking for a user by setting the e-mail access type to None

## E-Mail Templates

As their name implies, with e-mail templates you can create preformatted e-mail messages that you can reference in several areas throughout Microsoft Dynamics CRM. You can use e-mail templates in the following ways:

- **Insert templates into e-mail messages** When users create e-mail messages in the Microsoft Dynamics CRM Web client, they can insert an e-mail template into the body of the message. Users can also insert multiple e-mail templates into a single e-mail message if necessary. Users cannot access e-mail templates when creating an e-mail message in Microsoft Dynamics CRM for Outlook.
- **Send direct e-mail by using templates** Users can use e-mail templates to send the same e-mail message to multiple records. For example, you could use the Direct E-mail feature (which uses e-mail templates) to send the same message to 500 Contacts.
- **Reference e-mail templates in workflow rules** Users can reference e-mail templates in Microsoft Dynamics CRM workflow to accomplish many types of business process automation techniques.
- **System Job notifications** When Microsoft Dynamics CRM completes certain system jobs such as importing data or duplicate detection, it sends an e-mail confirmation message to administrators. You can use an e-mail template to modify the e-mail confirmation message.

In addition to being accessible from different areas of the Microsoft Dynamics CRM application, e-mail templates have the following unique features:

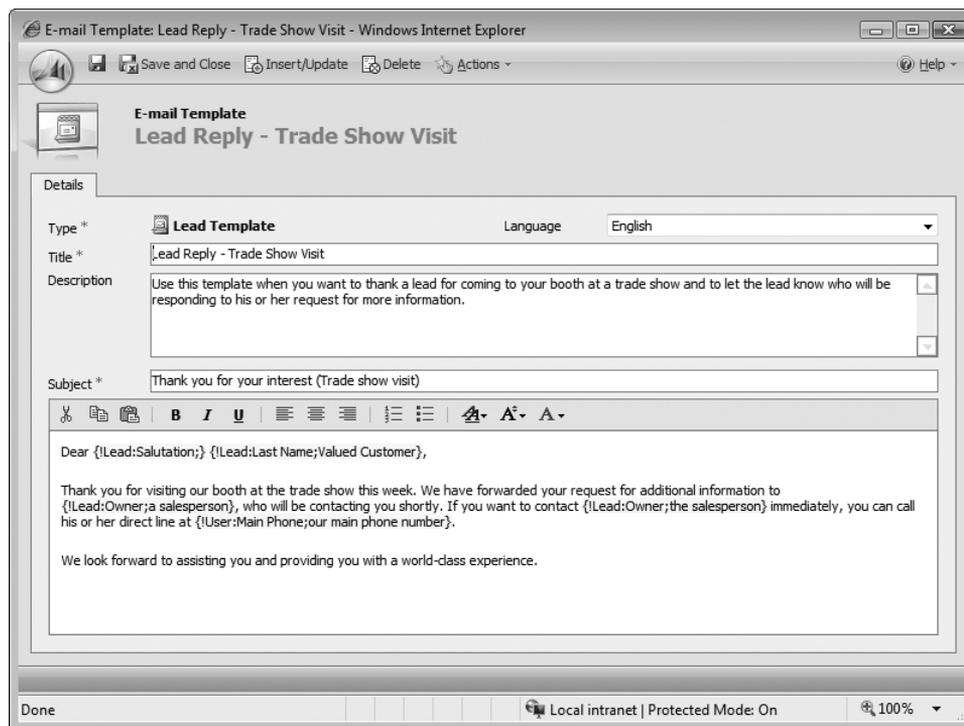
- **Data fields** You can insert data fields into e-mail templates that Microsoft Dynamics CRM will dynamically populate on usage. For example, if you want to send an e-mail message to 20 people and address each recipient by his or her first name, you can insert a first name data field into the e-mail template. When Microsoft Dynamics CRM sends the message, it will automatically populate the data field with the first name value for each of the 20 recipients.
- **Personal and organization ownership** E-mail templates can have individual or organization ownership, so security on each template can be set to just specific users or all users.
- **Template types** For each e-mail template that you create, you must specify the single entity (such as leads or opportunities) to which the template applies. You can also create a global template for use with multiple entities.

You can create and use e-mail templates for many different entity types such as Leads, Opportunities, Accounts, Quotes, Orders, and service activities. You can also create e-mail templates for any custom entities that you create. Next, we explain the details of working with e-mail templates.

## Creating or Modifying E-Mail Templates

Now that you understand some of the ways in which you can use e-mail templates in Microsoft Dynamics CRM, we will discuss how you create and set up new e-mail templates. Microsoft Dynamics CRM includes more than 20 e-mail templates in the default installation, including Lead Reply – Web Site Visit and Closed Case Acknowledgment.

You can modify these default templates or create entirely new e-mail templates that meet your needs. To view the e-mail templates that are currently in your system, browse to the Settings area of Microsoft Dynamics CRM and click Templates. A grid displays all of the e-mail templates and their types. Simply double-click any record to view a template, such as the Lead Reply – Trade Show Visit template shown in Figure 2-11.



**FIGURE 2-11** Lead Reply – Trade Show Visit e-mail template

You can see that a template contains several attributes, such as follows:

- **Type** Whether the template is global or applies to only one entity.
- **Title** Short title of the e-mail template that appears when users select a template.
- **Description** Additional descriptive text that explains the function of the e-mail template. Users can access the description when they select a template.

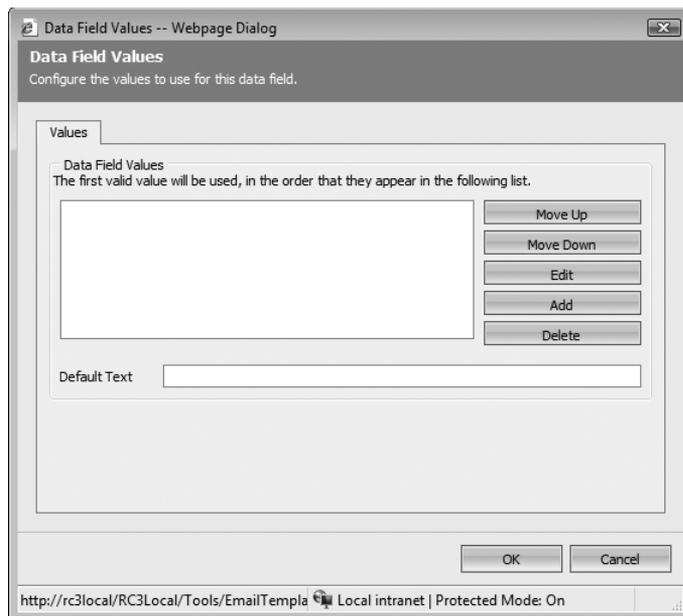
- **Subject** The Subject line of the e-mail message.
- **Body** The body of the e-mail message. It isn't labeled on the form, but this is the large text box below the Subject line.

You can also see in Figure 2-11 that the e-mail template includes a highlighted data field like the following:

```
{!Lead: Last Name; Valued Customer}
```

Microsoft Dynamics CRM automatically converts this data field to the last name of the Lead for this record. The text before the colon refers to the entity, and the text after the colon specifies the attribute name. If a Lead record does not have a last name value, you can include a default value for the data field by entering text after the semicolon. In this example, Microsoft Dynamics CRM would insert the text *Valued Customer* in the e-mail message if there were no data in the last name field.

To add a new data field to an e-mail template, click the Insert/Update button on the form toolbar. The Data Field Values dialog box shown in Figure 2-12 appears.



**FIGURE 2-12** Data Field Values dialog box

When you click the Add button, another dialog box prompts you to select the Record Type and Field for the data field. Depending on the entity you selected for the e-mail template type, you can add fields from different related entities. For example, on Lead e-mail templates, you can add only fields from the Lead and User entities. However, for Opportunity e-mail templates, you can add fields from the Account, Contact, Opportunity, and User

entities. After you select the field that you want to add and click OK, the field appears in the Data Field Values list. Then, you can specify the default value text (optional) by entering it in the Default Text box. When you click OK, Microsoft Dynamics CRM automatically creates the data field and adds it to the e-mail template.



**Tip** You can add data fields to both the subject and body of an e-mail template.

If you want to add multiple data fields to an e-mail template, you must add them one at a time, as in this example:

```
{!Contact : Salutation;} {!Contact : Last Name;}
```

These data fields will insert the following text into an e-mail message for a sample Contact, Mr. Brian Valentine:

Mr. VaLentine

However, if you add both data fields at the same time by using the Data Field Values dialog box, Microsoft Dynamics CRM will create one data field in the template, like this:

```
{!Contact : Salutation;Contact : Last Name;}
```

This data field inserts the following text for the same Contact:

Mr.

As you can see, Microsoft Dynamics CRM allows you to enter a dynamic data field for the default value of a different data field. In this example, *Contact: Last Name* is the default value for the *Contact: Salutation* data field. However, because the Contact record includes a value for the salutation, it does not need to output the default value of *Contact: Last Name*.

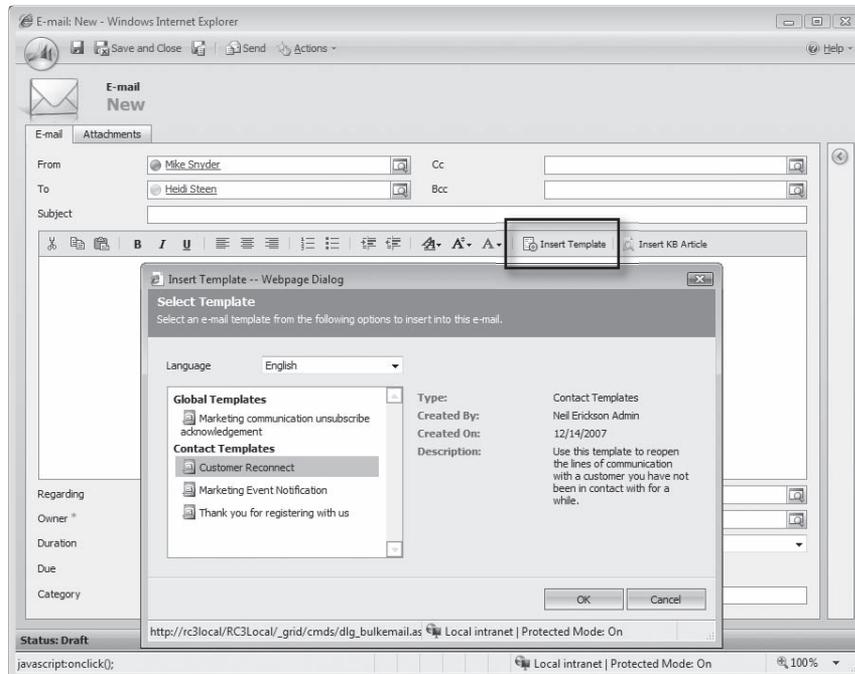
Creating a new e-mail template is straightforward. Click the New button on the grid toolbar, select the entity type for the e-mail template, and then enter the appropriate information in the template fields. After you set up your new template with attributes and data fields, click Save on the e-mail template toolbar. Microsoft Dynamics CRM immediately applies your changes to the e-mail template and users can access it.



**Tip** When you enter and edit text in the e-mail template body, pressing Enter on your keyboard adds an extra line. If you want a single carriage return (instead of a new paragraph), press Shift+Enter instead.

## Inserting Templates into E-Mail Messages

When you're writing an e-mail message in the Web client, you can click the Insert Template button to open the Insert Template dialog box, as shown in Figure 2-13. You must select at least one e-mail recipient before you can insert a template because Microsoft Dynamics CRM must know which template types apply to the message (based on the entity type of the recipients).



**FIGURE 2-13** Inserting an e-mail template into an e-mail message

After you select an e-mail template, Microsoft Dynamics CRM automatically populates the template content in the body of the message and dynamically fills out any data fields that the e-mail template contains. This is a convenient feature if you want to edit or add additional content to an e-mail message before you send it (something you can't do with the Direct E-mail feature). If your e-mail message includes multiple recipients, Microsoft Dynamics CRM will prompt you with a dialog box to select one recipient as the e-mail template target when you insert a template into the message.



**Caution** Each time you insert an e-mail template into the body of an e-mail message, Microsoft Dynamics CRM updates the Subject line of the e-mail message to match the subject of the e-mail template. So, if you insert multiple templates, the subject is determined by the last template inserted. This is very convenient for writing new e-mail messages, but you should be aware of this behavior if you insert e-mail templates when you reply to messages.

Unfortunately, you cannot insert an e-mail template into an Outlook e-mail message even if you have the Microsoft Dynamics CRM for Outlook software installed.

## Creating and Sharing Personal E-Mail Templates

The process we just explained creates an e-mail template that the entire organization can view and use. Users can also create personal templates for their own use.

### Creating a personal e-mail template

1. On the application menu toolbar, click Tools, and then click Options.
2. In the E-mail Templates tab, click New on the grid toolbar.

If a user decides that he or she wants to share an e-mail template with the entire organization, the user can convert a personal template into an organization template at any time.

## Inserting Images and Hyperlinks into E-Mail Templates

After you create a few e-mail templates, you'll probably notice that the editing tools for the e-mail message body are somewhat limited. For example, none of the buttons allow you to add a hyperlink or an image to the message. If you want to develop a more sophisticated e-mail template with multiple images, links, and so on, you can create HTML code with a development tool such as Microsoft Visual Studio 2008. However, if you try to copy and paste your HTML code into the e-mail template, it is displayed as plain text; your recipient will receive a bunch of HTML code instead of the formatted version of your message! Fortunately, by using a little trick you can easily copy and paste your custom HTML code into the e-mail template and still maintain the correct formatting.

For example, assume that you want to send a simple company newsletter to contacts in your database by using an e-mail template with the following requirements:

- Display the company logo in the message
- Display a hyperlink that readers can click to get more information

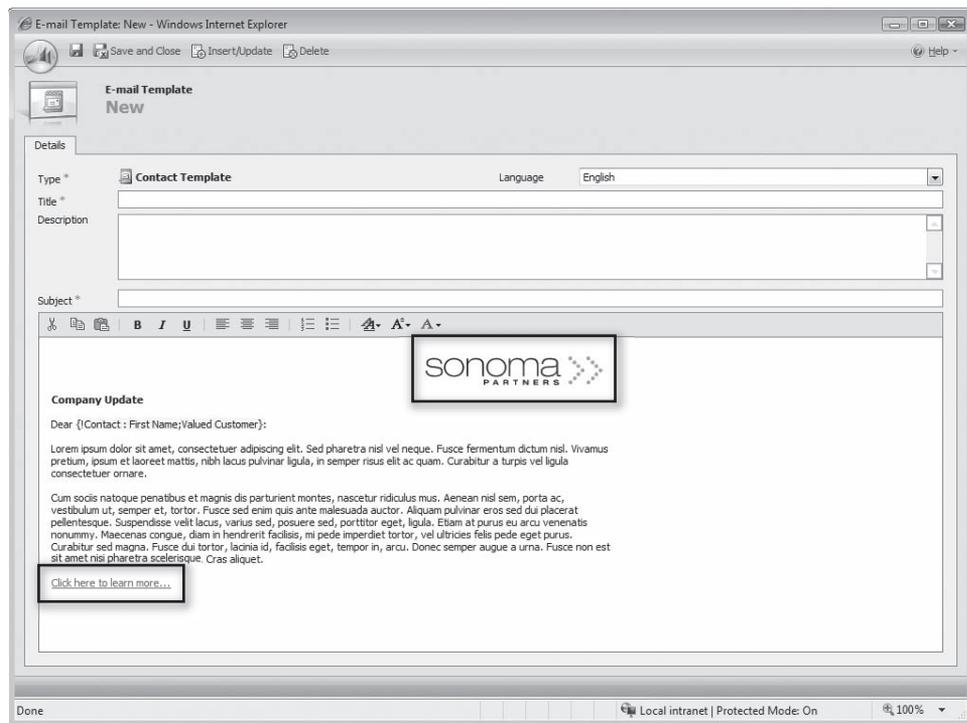
The following sample shows a company newsletter created in HTML using Visual Studio 2008. Next, you can copy (Ctrl+C) the sample newsletter and paste (Ctrl+V) it into the e-mail message body. The trick is to copy and paste the rendered HTML output, not the HTML code. You can accomplish this in a few ways:

- Copy and paste the formatted message from Visual Studio 2008 Design view
- Copy and paste the HTML Web page from a Microsoft Internet Explorer window

After you copy and paste the contents of the message into the e-mail template body, you will see the properly formatted e-mail message, complete with an image and a hyperlink. After you paste the code into the message, you can also add a data field to dynamically display the contact's first name in the newsletter. Figure 2-14 shows the finished e-mail message. Please note that if you use images, you need to make sure that the image references a URL that the e-mail recipient can access. This technique does not copy the image file into the file, it simply references the image URL from the HTML file.



**Caution** You cannot copy and paste HTML code from a text editor program such as Notepad into the e-mail template.



**FIGURE 2-14** Adding images and hyperlinks to e-mail templates by copying and pasting

If you try this copy and paste technique but it does not work, confirm that you have the following element at the top of your HTML code.

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN">
```

You can also try using the copy and paste technique with other HTML editor applications. We found that the success of this technique varies depending on the format that applications use to copy data to the Clipboard.

## Creating and Sending Mass E-Mail Messages

Many Microsoft Dynamics CRM users would like to send an e-mail message to a large group of their prospects or customers, and of course Microsoft Dynamics CRM includes several tools for mass e-mailings. One key criterion for mass e-mail messages is that each message must be individually addressed to a recipient. For example, if you want to send an e-mail message to 500 contacts, you want the system to create 500 copies of the message each addressed to an individual recipient instead of generating one e-mail with 500 people in the To, CC, or BCC field. The three main methods for sending mass e-mail messages in Microsoft Dynamics CRM are the following:

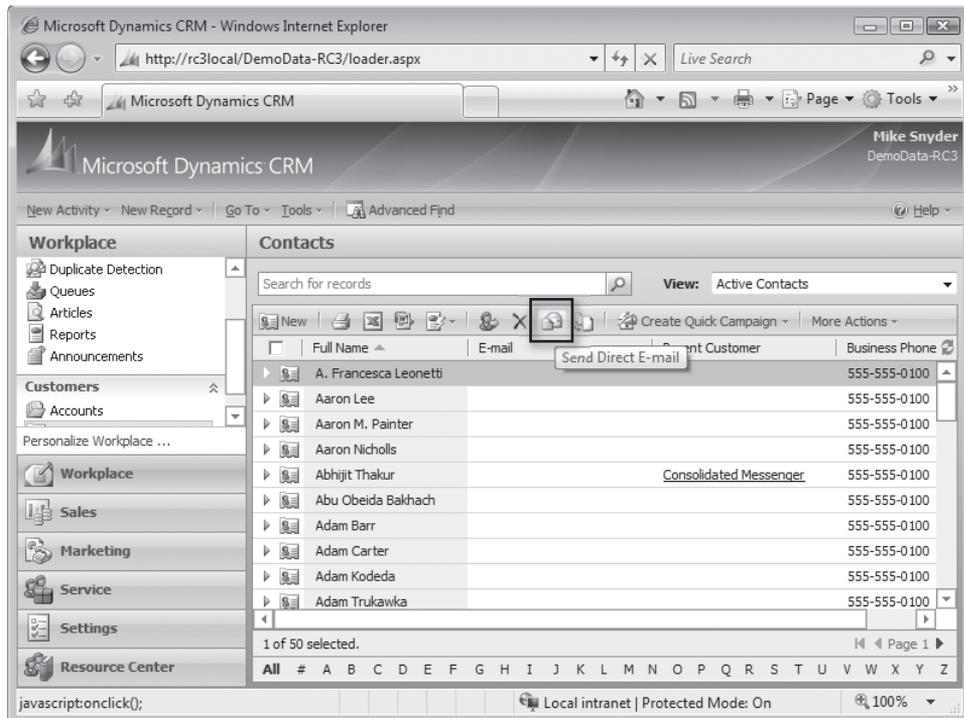
- Direct E-mail
- Quick campaign
- Workflow rule

Each mass e-mailing method is explored in more detail in the following subsections.

Regardless of which option you select, Microsoft Dynamics CRM sends the e-mail messages through the outgoing e-mail server configured during the software installation. Therefore, use some discretion when sending a very large number of messages at one time because it can negatively affect the performance of your servers. Some factors that come into play include the hardware specifications on your servers, network performance, Internet bandwidth, and the amount of load on the server. Although no published specifications exist and the numbers can range wildly depending on your infrastructure, if you need to send more than 10,000 or 20,000 e-mail messages in one hour, we recommend that you explore the option of using third-party e-mail engines instead of Microsoft Dynamics CRM. You should also be mindful of the latest laws and legislation regarding bulk e-mail marketing including the federal CAN-SPAM law. You can learn more about these laws at <http://www.ftc.gov/spam/>. Sending large numbers of unsolicited e-mail messages from your e-mail servers can get your system blocked or blacklisted.

### Direct E-Mail

By using the Direct E-mail feature, you can select recipients in a grid, and then choose an e-mail template that you want to send. As discussed, e-mail templates can include data fields that Microsoft Dynamics CRM dynamically populates with information specific to each recipient. You access the Direct E-mail feature from the grid toolbar for entities that support e-mail templates. Figure 2-15 shows the Direct E-mail button for the Contact entity.



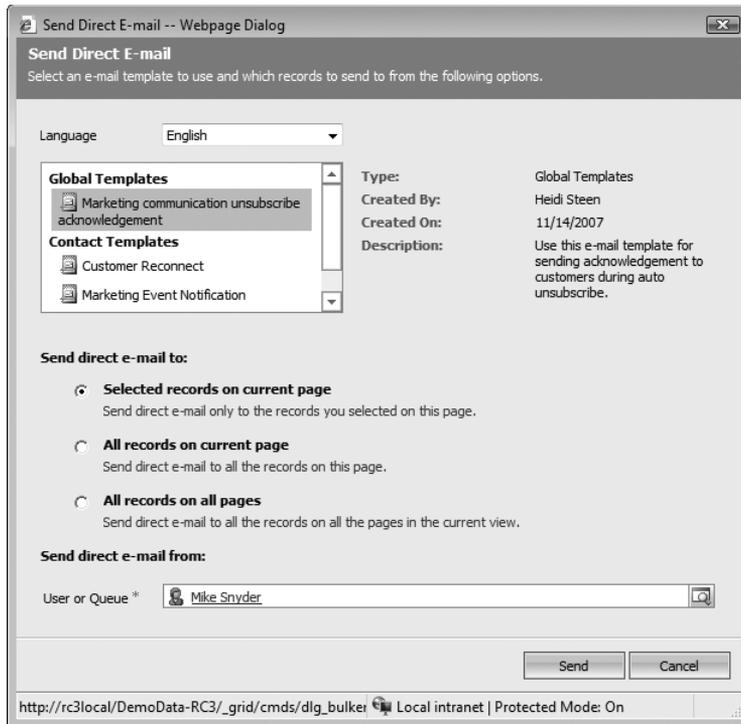
**FIGURE 2-15** The Direct E-mail button on the grid toolbar

When you click the Direct E-mail button, Microsoft Dynamics CRM opens the Send Direct E-mail dialog box, shown with sample data in Figure 2-16.

In this dialog box, you choose the e-mail template you want to send. Because e-mail templates are defined with an entity type, you can select only templates specific to the entity that you're working with or one of the global templates. So, in this example, you cannot send an Account or Lead template from this page because the Direct E-mail button was clicked on the Contact grid toolbar. To select a different e-mail template, simply click its name in the selection box.

After you select the e-mail template that you want to send, you can specify to which records to send the message. You can send the message to just the selected records, to all of the records on the current page, or to all of the records in the selected view.

Regardless of the value that you select, Microsoft Dynamics CRM will not send Direct E-mail messages to any Lead, Account, or Contact record if the Do Not Allow Bulk E-mails or Do Not E-mail attribute for the record is set to Do Not Allow. You can access these two settings in the Administration tab if you want to modify their values.



**FIGURE 2-16** Send Direct E-mail dialog box

By default, Microsoft Dynamics CRM sets the sender of the e-mail message as the currently logged on user. You can change this value by clicking the lookup button and selecting a different user or queue.



**Warning** Be very careful when using the Direct E-mail feature! When you click the Send button, Microsoft Dynamics CRM sends the message immediately. There is no preview or cancel option, so make sure that your message is ready to send when you click Send.

In summary, Direct E-mail offers the following benefits and constraints:

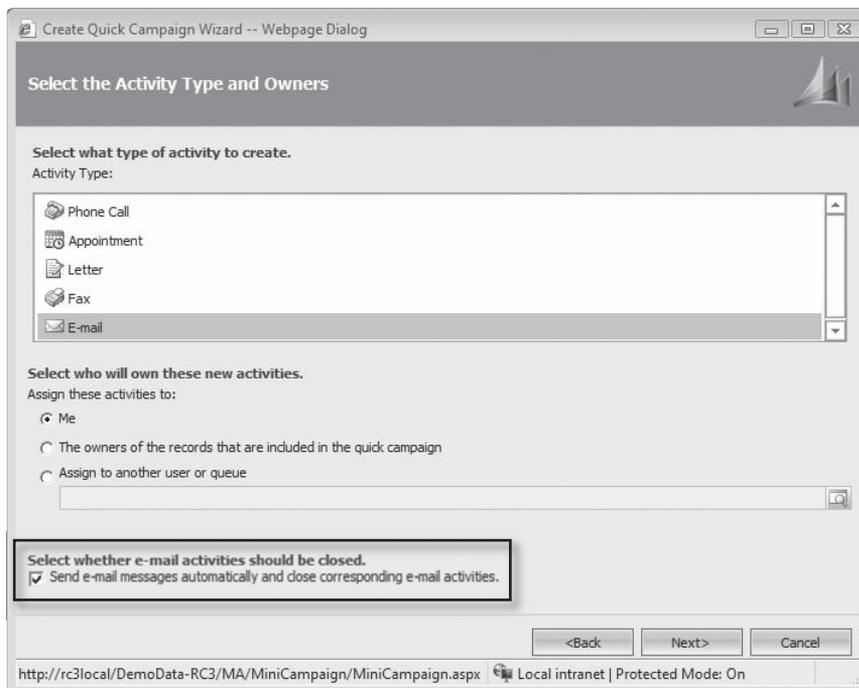
- You can send Direct E-mail messages to many different entities such as Leads, Accounts, Contacts, Opportunities, Quotes, and Orders.
- Direct E-mail uses previously created e-mail templates.
- You cannot include an e-mail attachment with Direct E-mail messages.
- You can send Direct E-mail messages to selected records in a view or all the records in a view regardless of the number of pages in that view.
- You cannot preview your message before you send.

## Quick Campaign

By using the Microsoft Dynamics CRM Quick Campaign feature, you can send a large number of e-mail messages to a group of recipients. To send a Quick Campaign e-mail message, simply select a group of records in a grid and click the Create Quick Campaign button on the grid toolbar. Then, select which records in the grid to include in the quick campaign. The selection options include the following:

- For selected records
- For all records on the current page
- For all records on all pages

After you select the records to include, Microsoft Dynamics CRM starts the Create Quick Campaign Wizard that walks you through creating a mass e-mailing. On the Select the Activity Type and Owners page, you can select the Send e-mail messages automatically and close corresponding e-mail activities option to send the e-mail messages automatically upon completion of the wizard (as shown in Figure 2-17). If you clear this option, Microsoft Dynamics CRM will create the e-mail messages as open activities but won't send them to recipients until someone sends each message individually.



**FIGURE 2-17** Specifying whether to send the quick campaign e-mail messages upon wizard completion

Quick campaigns also give you the option to record customer interest as *campaign responses*. A campaign response lets you record how a particular customer responded to one of your campaign efforts. You can create the campaign response record manually for each recipient, or you can use a data import process to load a larger number of records. In quick campaigns, Microsoft Dynamics CRM does not automatically create campaign responses for you.

In summary, quick campaigns offer the following benefits and constraints:

- They only apply to Leads, Accounts, Contacts, and Marketing List records.
- A wizard walks you through the creation of quick campaign e-mail messages.
- You cannot use e-mail templates when you send a quick campaign.
- You cannot include an attachment to an e-mail message created in a quick campaign.
- Quick campaigns save the group of records to which you sent the message in case you need to go back and reference that information later.
- You can create quick campaigns for non-e-mail activities such as tasks and phone calls.
- You can capture response data using the Campaign Response entity.
- You can send quick campaign e-mail messages to selected records in a view or all of the records in a view regardless of the number of pages in that view.

## Workflow Rules

If neither the Direct E-mail nor the Quick Campaign feature meets your needs, you can use the Microsoft Dynamics CRM workflow engine for sending mass e-mail. Chapter 8, “Workflow,” explains the details of setting up, configuring, and running a workflow rule to send e-mail, so we won’t cover that here. However, we do want to highlight workflow as a viable option for mass e-mail because it offers a few benefits over Direct E-mail and quick campaigns:

- Workflow e-mail messages can use e-mail templates, or you can manually create the e-mail message.
- You can include file attachments (one or more) to a workflow e-mail message that you manually create.
- You can automatically send your workflow e-mail messages based on different trigger events that you configure in the workflow rule such as updating a field or changing a record status.

Unfortunately, using workflow for mass e-mail does include one significant constraint: You can only manually apply a workflow rule to a single page of records in a grid. Therefore, if you want to send a thousand e-mail messages, you must select all the records on a page, and then apply the workflow rule. Then, you must move to the next page of records and

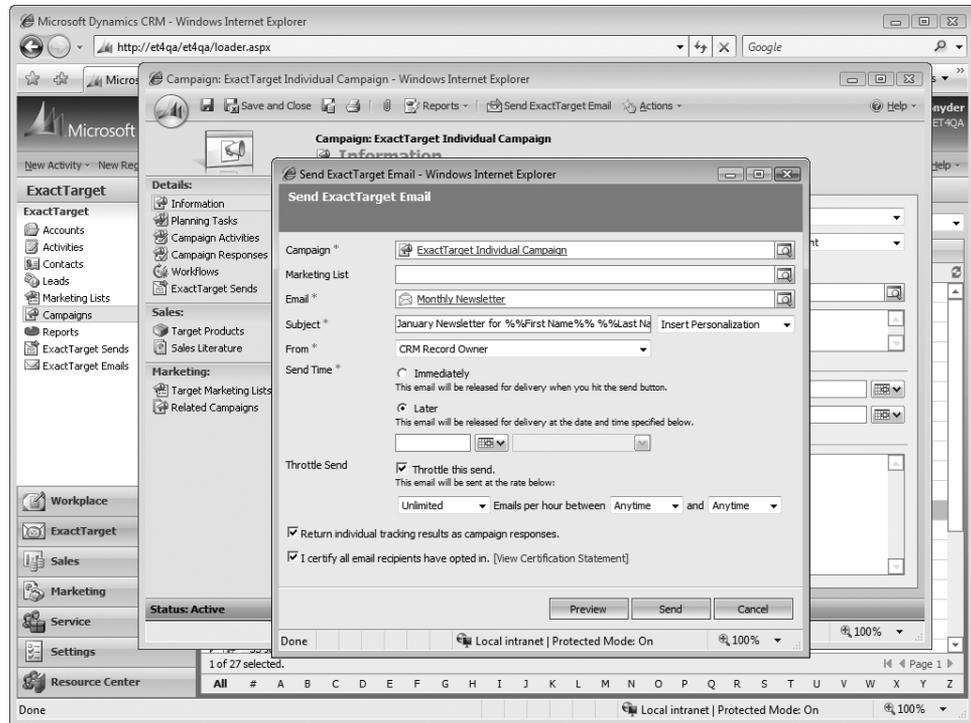
repeat the process. If you configured Microsoft Dynamics CRM to display 100 records per page, you need to repeat this process 10 times to send all thousand e-mail messages by manually applied workflow. However, you could configure the workflow rule to trigger automatically based on some other criterion in the record to avoid this constraint.



**Tip** You can display up to 250 records per page by changing the default configuration of 50 records per page. To access this setting, click Tools, and then click Options on the application toolbar.

### Third-party add-on ExactTarget for Microsoft Dynamics CRM

Although the out-of-the-box options for mass e-mailing in Microsoft Dynamics CRM can meet most organizations' needs, a company named ExactTarget (<http://www.exacttarget.com>) offers an add-on product for Microsoft Dynamics CRM that includes many additional e-mail marketing features and benefits. ExactTarget offers its e-mail marketing services on a hosted basis, and it created an integration with Microsoft Dynamics CRM so that users can send e-mail through the ExactTarget service directly from the Microsoft Dynamics CRM interface (see Figure 2-18).



**FIGURE 2-18** ExactTarget for Microsoft Dynamics CRM

By using the ExactTarget service for sending mass e-mail, Microsoft Dynamics CRM users can enjoy the following additional benefits:

- ExactTarget sends the e-mail messages through its servers, not through the outgoing e-mail server configured for Microsoft Dynamics CRM. This allows users to send a large volume of e-mail without affecting their internal network. Outsourcing the message delivery to ExactTarget also helps improve message deliverability because ExactTarget works with the various e-mail companies to ensure consistent delivery.
- ExactTarget automatically captures response data such as e-mail opens, clicks in messages, bounces, and unsubscribes. Almost all of the response data downloads into the Microsoft Dynamics CRM user interface so that you can report on it, access it using Advanced Find, and so on. The default ExactTarget for Microsoft Dynamics CRM installation includes data such as unique opens, total opens, unique clicks, deliverability rate, and bounce rate.

The screenshot shows a web browser window displaying the Microsoft Dynamics CRM interface. The browser address bar shows a URL starting with 'http://grapevine.local.dev.sonomapartners.local/'. The page title is 'ExactTarget Send: June 26th Webinar Invite'. The main content area is titled 'Information' and contains two sections: 'Intended Recipient Statistics' and 'Delivery Statistics'. The 'Intended Recipient Statistics' section includes fields for Requested Send (716), Sent (712), Existing Unsubscribes (0), Existing Undeliverables (0), Missing Addresses (0), Invalid Addresses (0), and Duplicates (4). The 'Delivery Statistics' section includes fields for Delivered (651), Unique Opens (81), Unique Clicks (8), Unsubscribed (5), Bounced (61), Hard Bounces (0), Soft Bounces (45), Other Bounces (16), Deliverability Rate (%) (91), Open Rate (%) (12), Click Through Rate (%) (1), Unsubscribe Rate (%) (1), and Bounce Rate (%) (9). The status bar at the bottom indicates 'Status: Active' and 'Done'.

Intended Recipient Statistics			
Requested Send	716	Missing Addresses	0
Sent	712	Invalid Addresses	0
Existing Unsubscribes	0	Duplicates	4
Existing Undeliverables	0		

Delivery Statistics			
Delivered	651	Deliverability Rate (%)	91
Unique Opens	81	Open Rate (%)	12
Unique Clicks	8	Click Through Rate (%)	1
Unsubscribed	5	Unsubscribe Rate (%)	1
Bounced	61	Bounce Rate (%)	9
Hard Bounces	0		
Soft Bounces	45		
Other Bounces	16		

- Users have more control over the delivery of their mass e-mail messages because they can schedule a specific date and time to start the message send. In addition, users can throttle the e-mail to send only a certain number of messages per hour.

- ExactTarget offers a proprietary user interface in which users can create and design their e-mail messages to include images and hyperlinks.

Companies looking for more advanced e-mail marketing in Microsoft Dynamics CRM should definitely consider the ExactTarget for Microsoft Dynamics CRM option.

## Mass E-Mail Summary

Table 2-2 outlines some key differences of the mass e-mail options for Microsoft Dynamics CRM.

**TABLE 2-2 Mass E-Mail Options Summary**

	Direct E-mail	Quick campaigns	Workflow
Uses e-mail templates	Yes	No	Yes
Can include images and hyperlinks in the e-mail message	Yes	Yes	Yes
Available entities	Leads, Contacts, Opportunities, Accounts, Quotes, Orders, and so forth	Only Leads, Accounts, Contacts, and marketing lists	Any entity, including custom entities
E-mail recipient selection	All or some of the records in a view	All or some of the records in a view	Can only apply manual workflow to all records on a page (250 records max.)
Can include a file attachment	No	No	Yes
Works with campaign responses	No	Yes	No
Tracks e-mail opens	No	No	No
Tracks hyperlinks clicked in the e-mail message	No	No	No

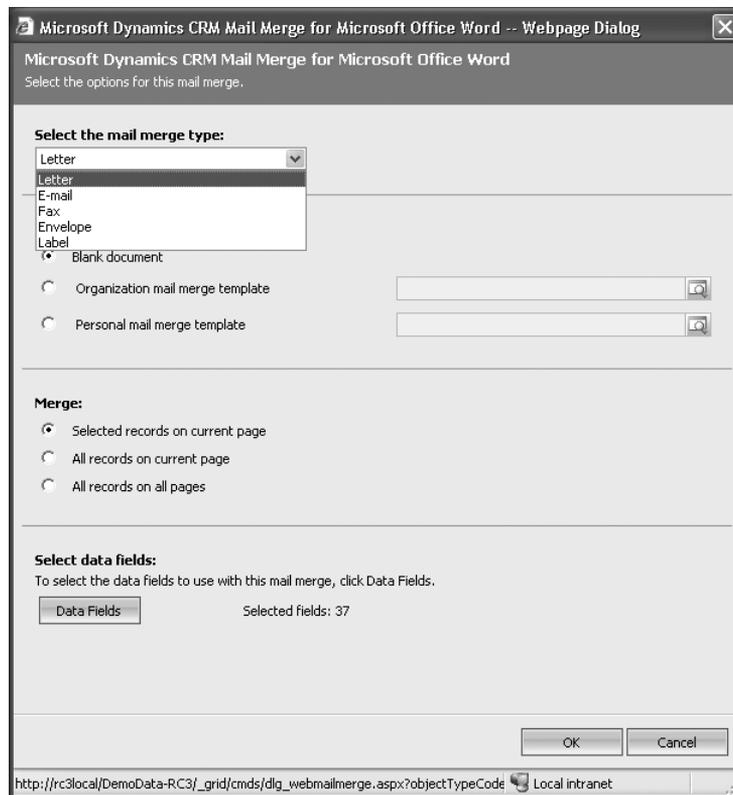
## Mail Merge

Microsoft Dynamics CRM offers a few options so that you can create a large number of letters, envelopes, or labels quickly and easily. These options include the following:

- Use the Microsoft Dynamics CRM Mail Merge feature.
- Use the Mail Merge feature in Microsoft Office Word, using Microsoft Dynamics CRM filtered views as the data source.
- Use the Mail Merge feature in Word, using Microsoft Dynamics CRM data exported to Microsoft Office Excel as the data source.
- Write a Microsoft SQL Server Reporting Services report.
- Create a custom letter generation application using the Microsoft Dynamics CRM software development kit.

Although you will probably use the Microsoft Dynamics CRM Mail Merge feature most of the time, the other options for document generation can meet specific needs that the Mail Merge feature does not. In this book, we focus on how to use the Microsoft Dynamics CRM Mail Merge feature.

In the Web client or Microsoft Dynamics CRM for Outlook, users can access the Mail Merge feature to generate Word documents for records in their databases. Users access the Mail Merge feature by clicking the Word button on the grid toolbar. By default, Microsoft Dynamics CRM includes templates for the Lead, Account, Contact, Quote, and Opportunity entities, but you can also create mail merge templates for custom entities. Users can also start the mail merge feature from a single record by clicking Mail Merge on the Actions menu of the entity record. When you start a mail merge, Microsoft Dynamics CRM automatically opens the Microsoft Dynamics CRM Mail Merge for Microsoft Office Word dialog box (Figure 2-19).



**FIGURE 2-19** Microsoft Dynamics CRM Mail Merge for Microsoft Office Word dialog box

In this dialog box, you can choose to create a document from scratch or you can select an existing mail merge template. Microsoft Dynamics CRM includes approximately 10 mail merge templates.

You also select which records you want to include in the mail merge process. Similar to Direct E-mail, you can choose selected records only, all records on the current page, or all records on all pages.

Last, you select which data fields you want to include in the mail merge. If you select a mail merge template that already includes data fields, you don't need to respecify the data fields. However, if you create a new template from a blank document, you need to pick which fields you want to include. Please note the following when you select data fields:

- You can select fields from the entity, you're running the Mail Merge against including any custom attributes that you added.
- You can select fields from related entities, including custom entities and entities linked through custom relationships.
- You cannot select fields on a custom entity if that entity has an N:1 relationship with the Mail Merge entity.
- You can include a maximum of 62 data fields.

After you click OK, what you see next varies depending on whether you're running the mail merge on a computer that has the Microsoft Dynamics CRM for Outlook software running. If you're on a computer with Microsoft Dynamics CRM for Outlook open and running, Word starts and you'll see a list of the mail merge recipients to select from (Figure 2-20).

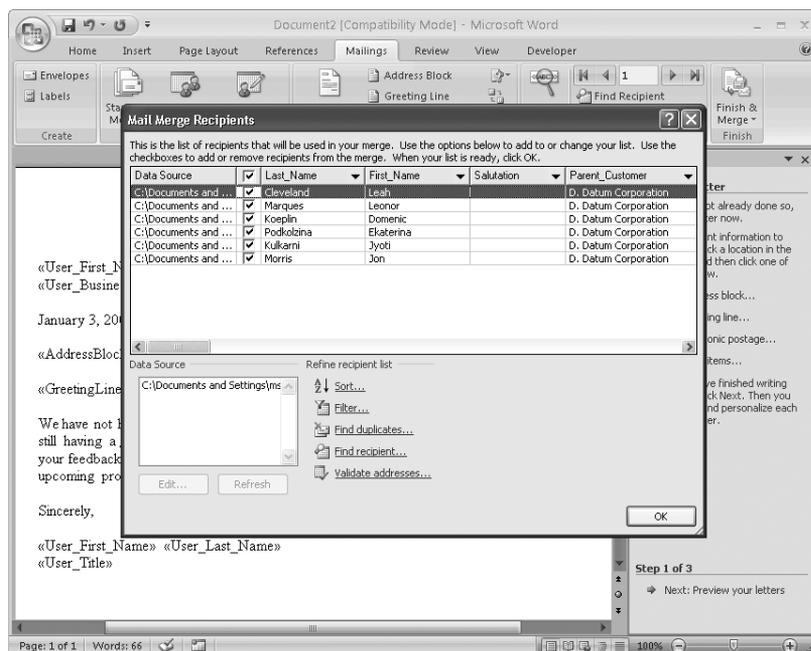
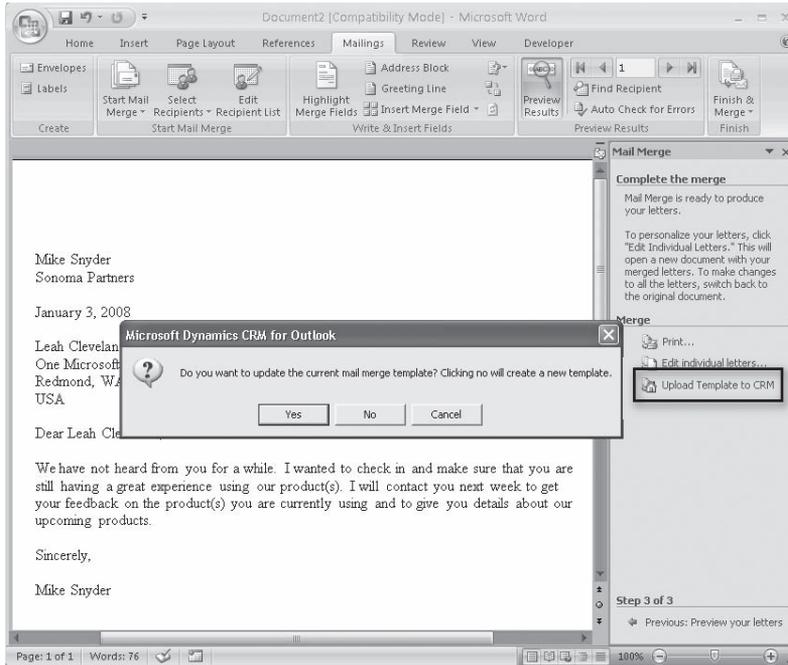


FIGURE 2-20 Selecting mail merge recipients

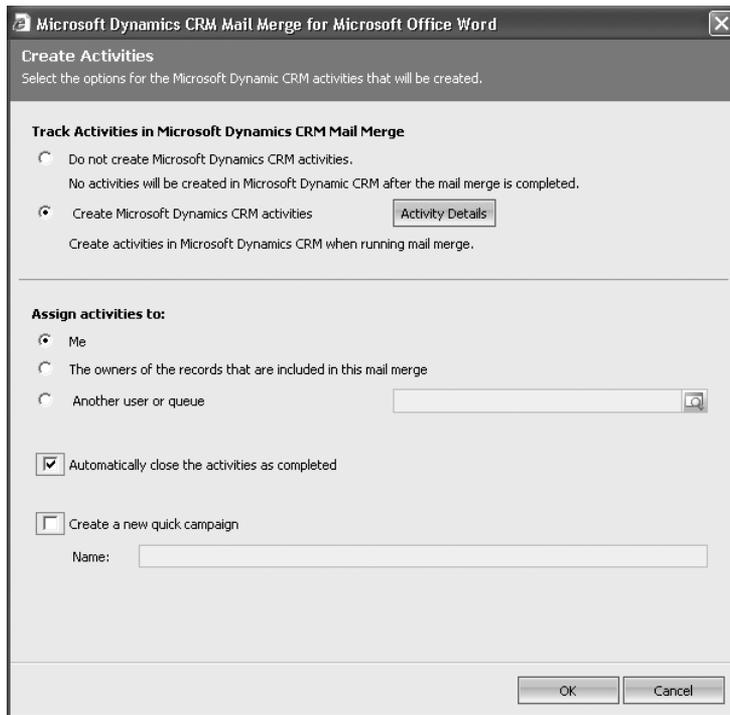


When the mail merge is complete, users with Microsoft Dynamics CRM for Outlook running have a few additional options. First, users can choose to upload the final version of the template to Microsoft Dynamics CRM. This upload can either create an entirely new template or it can modify the template you selected when you started the mail merge (Figure 2-22).



**FIGURE 2-22** Uploading a mail merge template to Microsoft Dynamics CRM

Second, mail merge users with Microsoft Dynamics CRM for Outlook running can create Letter activities in Microsoft Dynamics CRM to record the completed mail merge. When users click the Print or Edit individual letters link, the Create Activities dialog box opens (Figure 2-23).



**FIGURE 2-23** Create Activities dialog box in mail merge

You can click the Activity Details button to modify the subject of the completed Letter activity to better describe the purpose of the mail merge. In addition, Microsoft Dynamics CRM will automatically include the final version of the Word document (with merged data) as an attachment to the Letter activity.



**Important** Using mail merge on a computer with Microsoft Dynamics CRM for Outlook running allows users to upload the template to Microsoft Dynamics CRM and create Letter activities that automatically record the mail merge on the record's history. As long as Microsoft Dynamics CRM for Outlook is open and running, users can access these additional features from Outlook or through the Web client. However, if Outlook is closed, users cannot access these features in the Web client even though Microsoft Dynamics CRM for Outlook is installed on the computer.

In addition to creating a new mail merge template at the end of the mail merge process, you can also create and upload new templates by navigating to Settings, Templates, and then

clicking Mail Merge Templates. From here, you can specify the name, associated entity, ownership, template language, data fields, and so on. When you upload the mail merge template, Microsoft Dynamics CRM reminds you that you must save the Word file as a Word XML file (.xml) before you can upload it.

Microsoft Dynamics CRM automatically creates a completed Letter activity for each of the records in your mail merge. When working with mail merge in Microsoft Dynamics CRM, you should consider the following:

- You can create mail merges only for Leads, Accounts, Contacts, Opportunities, Quotes, and custom entities.
- You can create your own custom mail merge templates.
- Mail merge templates can be owned by the organization or by an individual.
- If you're using Microsoft Dynamics CRM for Outlook, you can automatically create a completed Letter activity with the attached mail merge file for each recipient.
- If you're using Microsoft Dynamics CRM for Outlook, you can upload the modified template to Microsoft Dynamics CRM or you can upload the modified file as a new template.

### **Enabling mail merge for upgraded custom entities**

If you upgraded from Microsoft Dynamics CRM 3.0 to Microsoft Dynamics CRM 4.0, you may notice that you cannot select your custom entity as the target for a mail merge template. However, if you create a new custom entity in Microsoft Dynamics CRM 4.0, you *can* select that custom entity as the mail merge template target. Microsoft decided not to enable mail merge by default for upgraded custom entities, and unfortunately you cannot reenable mail merge in the user interface. However, you can reenable mail merge by exporting the customizations.xml file for a custom entity and adding a new element named *IsMailMergeEnabled* to the .xml file (as shown here in XML Notepad 2007).

The screenshot shows the XML Notepad interface with the following XSL Output:

Property	Value
Name	Sonoma_Project
HasRelatedNotes	True
HasRelatedActivities	True
ObjectTypeCode	10003
CollectionName	Sonoma_Projects
LogicalCollectionName	sonoma_projects
BaseTableName	Sonoma_ProjectBase
WorkflowEventMask	-1
IsCustomizable	1
IsMappable	1
IsImportable	1
OwnershipTypeMask	UserOwned
IsAudited	1
EntityMask	ActivityPointer
IsCustomEntity	1
IsValidForAdvancedFind	1
ExtensionTableName	Sonoma_ProjectExtensionBase
ReportViewName	FilteredSonoma_Project
IsRenameable	1
CanTriggerWorkflow	1
CanBeChildInCustomRelationship	1
CanBeInCustomEntityAssociation	1
CanBeInCustomReflexiveRelation	1
EntityClassName	Microsoft.Crm.Entities.CustomBusinessE...
EntityAssembly	Microsoft.Crm.Entities
ServiceClassName	Microsoft.Crm.ObjectModel.CustomBusine...
ServiceAssembly	Microsoft.Crm.ObjectModel
WorkflowSupport	15
<b>IsMailMergeEnabled</b>	<b>1</b>
LocalizedNames	
LocalizedCollectionNames	
Descriptions	

Below the XSL Output, the 'Error List' and 'Dynamic Help' tabs are visible, with a table structure:

Description	File	Line	Column

Simply set this new element value to 1, and then reimport the entity customizations and publish the entity. Then, you can select that custom entity as the target of a mail merge template.

## Data Management

Very rarely does a company deploy Microsoft Dynamics CRM without any existing customer data. Even if you don't already have a software system with customer names, addresses, and so forth, you probably have a bunch of customer data in various Excel and Outlook files. Consequently, there's always a data import process to go along with each Microsoft Dynamics CRM deployment. Once you get all your data into Microsoft Dynamics CRM, guess what you find out? You discover that you have lots of duplicate records in your database that

you want to remove! Don't worry. Microsoft Dynamics CRM includes several tools for data management including the following:

- Import Data Wizard
- Data Migration Manager
- Duplicate detection

The first two tools are for importing data into Microsoft Dynamics CRM. Deciding which tool you should use depends on what you're trying to accomplish. Table 2-3 outlines some of the key differences between the Import Data Wizard and the Data Migration Manager.

**TABLE 2-3 Differences Between the Import Data Wizard and the Data Migration Manager**

Category	Import Data Wizard	Data Migration Manager
Which users can access the tool	Configurable with security roles	Only Microsoft Dynamics CRM system administrators
Import data into custom entities and custom attributes?	Yes	Yes
Number of source data files	One per import	Multiple files per import
Imported record assignment	Must assign all records to one user	Can assign records to multiple users
Detect duplicates during import?	Yes	No
Set value of <i>CreatedOn</i> attribute from the source data?	No, the <i>CreatedOn</i> date will match the time of the record import	Yes
Select all data from a single import for deletion?	No	Yes
Automatically map source data to Microsoft Dynamics CRM fields?	Yes, will map based on column headings in source data	No
Picklist mapping	Includes a user interface tool to match source data to picklists	Must create a data map of picklist values
Customize Microsoft Dynamics CRM with new entities and attributes on the fly based on imported data?	No	Yes
Transform data during import?	No	Yes, includes string and date functions such as split, substring, replace, and concatenate
E-mail message notification upon import completion?	Yes	No

Next, we look at these various data management tools in more detail.

## Import Data Wizard

As you probably noticed in Table 2-3, Microsoft designed the Import Data Wizard primarily for the end user to import data; it lacks some of the more powerful features included in the Data Migration Manager. However, the Import Data Wizard can meet most basic data import needs with its nice, simple user interface. Importing data with the Import Data Wizard always follows the same basic process:

1. Prepare the import file.
2. Create a data map.
3. Import the records.
4. View the results and correct failures.

### Prepare the Import File

Obviously, before you can import anything, you need to gather the data into an electronic file. The import file should meet the following criteria:

- The data file must be in a delimited format, using either a comma, colon, semicolon, or tab as the delimiter. If any of your records use the delimiter in its record set, you need to add quotation marks or a single quotation mark as the data delimiter.
- You need one import file for each type of entity that you want to import. For example, if you want to import Leads, Accounts, and Contacts, you need three files.
- Because all records imported through the Import Data Wizard are assigned to a single owner, you should split up your import files accordingly. Alternatively, you can import all of the records to a single owner, and then reassign them after the import is complete.
- The first row of the data file should include column headings. If you set the column headings to match the attribute display names, the Import Data Wizard will automatically map the columns to the appropriate fields in Microsoft Dynamics CRM.
- The first column heading cannot be an entity name. For example, if you import Contacts, the first column header cannot be *Account* because that is an existing entity name.
- Be sure to include a column for each business-required field on the entity.
- Each import file must be 4 megabytes (MB) or smaller in file size.

- If you want to import data that relates to two or more entities together, the column that links the two records must match the primary attribute of the related record. For example, when you import Contacts, if you want to match them to Accounts, you must include the account name because the *name* attribute is the primary attribute of the Account entity.



**Tip** In addition to including the primary attribute of the related entity (typically the name), you can also link imported records with existing related Microsoft Dynamics CRM records by including the globally unique identifier (GUID) in the appropriate column. You can find the GUID for a record by using a filtered view or database query, in addition to looking it up manually in the user interface for a single record. The GUID is a 32-digit hexadecimal number in the query string.

## Create a Data Map

With your source data files ready, next you need to create a data map to correlate the data you're importing to the correct Microsoft Dynamics CRM data fields. You can create data maps in one of two ways:

- **Automatic** During the Import Data Wizard process, Microsoft Dynamics CRM can automatically generate a data map for you if all of the columns in your source file match the attribute display names in Microsoft Dynamics CRM.
- **Manual** You can navigate to the Settings and Data Management section of Microsoft Dynamics CRM to create a data map manually. In addition, you can create a manual data map on the fly in the middle of the Import Data Wizard.

Using the automatic map creation option can save you time, but it does have some limitations. For example, if you use the automatic data map, you must import *every* column from the source file into Microsoft Dynamics CRM—you cannot pick and choose which columns to import. In addition, you cannot selectively modify the automatic data map. You must accept all or none of the mappings that it provides for you.

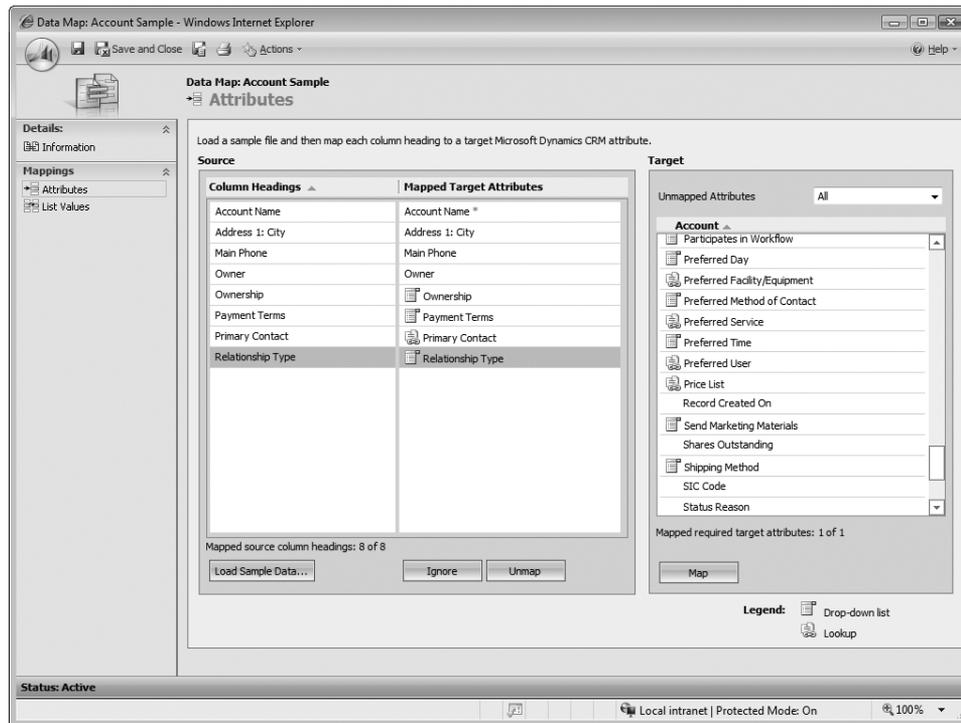
To create a manual data map, navigate to the Settings and Data Management section of Microsoft Dynamics CRM, select Data Maps, and then click New on the grid toolbar. After you assign the name and select the entity record type, click Save and you can start mapping the attributes after you load your sample data. To access the data attribute mappings, simply click the Attributes link in the navigation pane.



**More Info** The sample data file cannot be larger than 50 kilobytes in size.

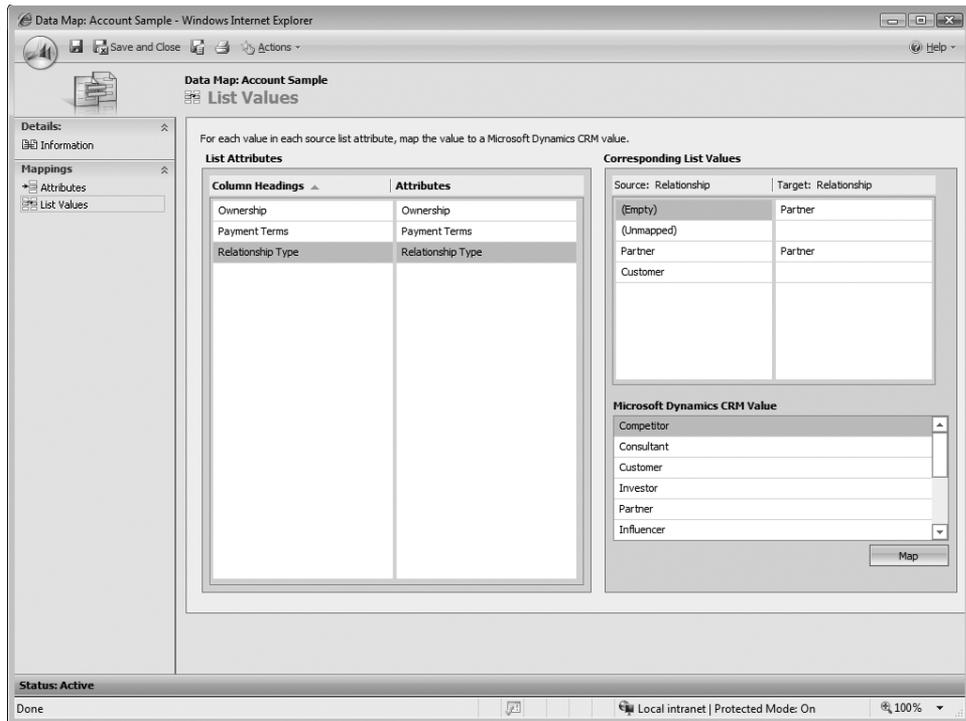
Figure 2-24 shows a sample data map for an Account data source. As the figure illustrates, you can see all of the column headings from the sample data and the attributes of the

Account entity that we mapped them to. The right side of the window shows all of the attributes from the target entity. To create the map between the source data and the target entity, click the row in the Source area of where you want the data to map, click the corresponding attribute in the Target area, and then click the Map button. Alternatively, you can double-click the target attribute instead of clicking the Map button.



**FIGURE 2-24** Data map example

You can also see that the Legend in the lower-right corner indicates whether a target attribute is a picklist (drop-down list) or a lookup field. In this example, we included three picklist fields, Ownership, Payment Terms, and Relationship Type, and one lookup field, Primary Contact. As we discussed earlier, be sure that the data in your source lookup fields matches the primary attribute (or the GUID) of the related entity, and then the records will map automatically. If your data map includes picklist attributes, you must click the List Values link to complete one additional step for each of the picklist fields to ensure that your data map works correctly. Figure 2-25 shows the List Values mapping screen.



**FIGURE 2-25** List Values mapping

For each row that you select in the List Attributes area, the values on the right side of the screen will update. The Corresponding List Values area shows which values appear in the sample file and includes (Empty) and (Unmapped) options. The Microsoft Dynamics CRM Value area lists all of the picklist values for the selected attribute. To get the data to map correctly, you need to match a Microsoft Dynamics CRM value for each Corresponding List Value.



**Important** If you're mapping data that contains picklists, be sure to include one record with every possible picklist value so that you can correctly map it in the user interface. If your sample file does not include a picklist value for you to map, it will receive the value you assign to the (Unmapped) option.

We recommend that you include mappings for all of the required fields on your target entity. After you've configured the data map, save the record and you're ready to import the data.



**Tip** You can activate or deactivate a data map on the More Actions menu on the data map grid toolbar, but this menu option is not available in a Data Map record. In addition, you can export and import data maps so that you can move them from one system to another (such as moving a data map from a test environment to a production environment).

## Import the Records

With your source data file and data map complete, you're ready to import the data into Microsoft Dynamics CRM. To access the Import Data Wizard, click Tools on the application menu toolbar, and select Import Data. The Import Data Wizard opens and you can select your source file and specify the data and field delimiters used in your file. On the next page of the wizard, you select the entity into which you want to import. After you select the entity, the Import Data Wizard will try to perform an automatic data map for you (Figure 2-26).



**FIGURE 2-26** Selecting the entity and data map in the Import Data Wizard

If desired, you can also select the custom data map that you created. At this time, the Import Data Wizard displays possible warnings or errors related to your mapping. On the next page, you can select which user will own the imported records and whether you want to enable duplicate detection during import.

**Caution** If you choose not to import duplicates, the Import Data Wizard will not prompt you to resolve duplicates during the import. Instead, it will not import the duplicate record and will create a log of unimported records for you to resolve later. The option to exclude or import duplicates only appears for entities with duplicate detection enabled.

On the last page of the Import Data Wizard, you can create a name for the import and decide whether you want Microsoft Dynamics CRM to send you an e-mail notification upon

completion of the import process. After you set the values per your preference, click the Import button and let the Import Data Wizard do its magic.

## View the Results and Correct Failures

To view the progress of a data import, users with proper security privileges can navigate to the Imports section of the Workplace, or go to the Systems Jobs area of Settings. As you would expect, you can view a list of all the import processes in these views. By double-clicking an import record, you can open a new window that provides more details about the import such as the data map used, the number of successful imports, number of failures, and so on.

Click the Failures link in the navigation pane to view a list of the records that failed to import correctly (Figure 2-27).

Seq...	Description	Column Heading	Colum...	Orig...	Source Row	Error Code
93	The lookup reference could not be resolved.	Parent Customer	Dye, ...	163	Monika Busch	0x80040353
49	The lookup reference could not be resolved.	Parent Customer	Kosta ...	81	Ingrid Burkh	0x80040353
45	The lookup reference could not be resolved.	Parent Customer	The C...	74	Hanying Fen	0x80040353
8	The lookup reference could not be resolved.	Parent Customer	Global...	12	Anna Bedecs	0x80040353
161	A record was not created or updated because a duplicate ...			34	Bryan Washir	0x80040333
179	A record was not created or updated because a duplicate ...			113	Ken Kwok,34	0x80040333
91	The lookup reference could not be resolved.	Parent Customer	Minde...	160	Mike Ray,97	0x80040353
32	The lookup reference could not be resolved.	Parent Customer	Trinity...	56	David Liu,85	0x80040353
139	The lookup reference could not be resolved.	Parent Customer	MLG C...	233	Thomas Jens	0x80040353
34	The lookup reference could not be resolved.	Parent Customer	Elite Fi...	60	Diego Arteag	0x80040353
148	The lookup reference could not be resolved.	Parent Customer	Yerko...	243	Vidar Luthra,	0x80040353
199	A record was not created or updated because a duplicate ...			209	Scott MacDor	0x80040333
158	A record was not created or updated because a duplicate ...			26	Brian Johnson	0x80040333
102	The lookup reference could not be resolved.	Parent Customer	Lily Ro...	180	Paul Alcorn,4	0x80040353
89	The lookup reference could not be resolved.	Parent Customer	Schiff...	157	Mike Hines,1	0x80040353
140	The lookup reference could not be resolved.	Parent Customer	South...	234	Tom Youtsey	0x80040353
51	The lookup reference could not be resolved.	Parent Customer	The H...	83	Jan Stokasa,	0x80040353
20	The lookup reference could not be resolved.	Parent Customer	Smith ...	41	Cesar Garcia	0x80040353
162	A record was not created or updated because a duplicate ...			35	Bryan Washir	0x80040333
94	The lookup reference could not be resolved.	Parent Customer	Arnold...	165	Nicky Chesn	0x80040353
185	A record was not created or updated because a duplicate ...			141	Marvin Allen,	0x80040333
106	The lookup reference could not be resolved.	Parent Customer	Regan...	184	R. Morgan M	0x80040353
181	A record was not created or updated because a duplicate ...			118	Kimberly Harr	0x80040333
12	The lookup reference could not be resolved.	Parent Customer	Breck ...	21	Bob Gage,54	0x80040353
71	The lookup reference could not be resolved.	Parent Customer	Kenm...	122	Lawrence Hu	0x80040353

**FIGURE 2-27** Records that failed during a data import

From here, you can learn more about the reason why the record failed during the import process. In addition, you can click the Export Error Rows button on the grid toolbar to download a comma-separated value file of these failed records (including all of their original source data) so that you can correct the errors and import the records.

## Data Migration Manager

If you find that the Import Data Wizard won't meet your needs, Data Migration Manager offers more robust data import functionality. Data Migration Manager offers three main areas of functionality:

- Migrate data
- Delete migrated data
- Manage data maps

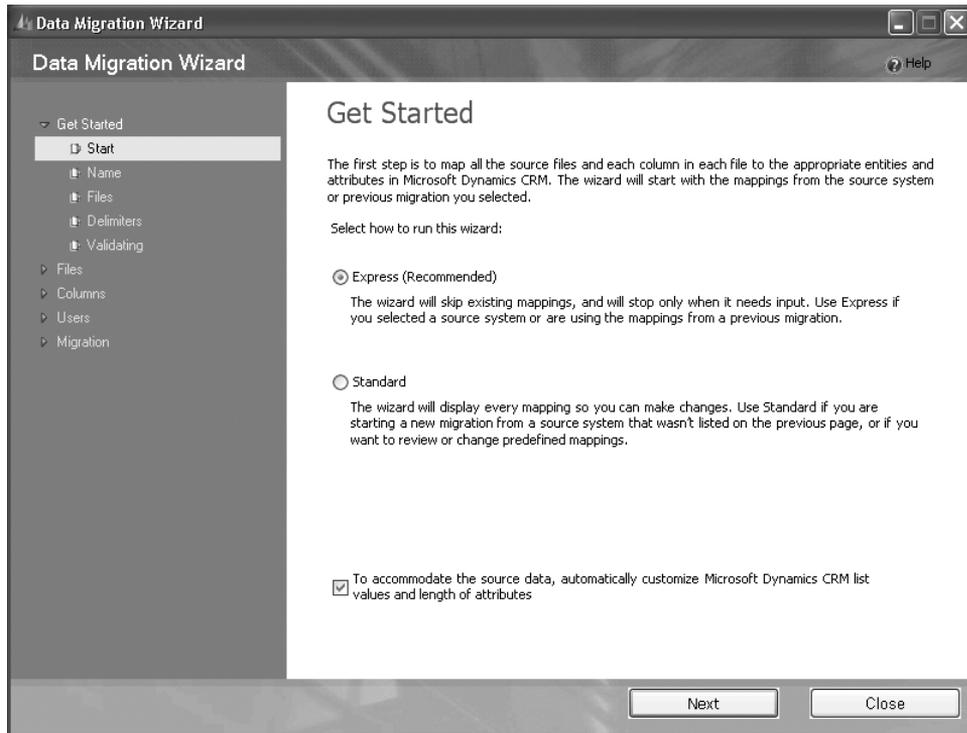
As explained previously, one of the main benefits Data Migration Manager offers is that you can import multiple source files at one time instead of importing one entity at a time. In addition, Data Migration Manager can customize Microsoft Dynamics CRM on the fly during the import process to add new entities, attributes, and so on.



**Important** Data Migration Manager includes built-in data maps for Salesforce.com, Microsoft Office Outlook 2007 with Business Contact Manager, Microsoft Office Outlook 2003 with Business Contact Manager Update, and ACT! 6. Using these existing data maps will save you lots of time and headaches if you import data from one of these systems into Microsoft Dynamics CRM.

Data Migration Manager includes a simple wizard interface that walks you through the data import process (Figure 2-28). Although you must be a Microsoft Dynamics CRM system administrator to use this tool, you do not need any programming experience to perform complex data imports.

Explaining the Data Migration Manager in detail is beyond the scope of this book, but we recommend that you review the Help file included with the Data Migration Manager for additional information about some of the advanced functionality that this tool offers.



**FIGURE 2-28** The Data Migration Manager includes a wizard interface for importing data

### **The Data Migration Manager encountered an error while setting up the temporary migration database**

When we first started working with Data Migration Manager, we occasionally received an error stating, "The Data Migration Manager encountered an error while setting up the temporary migration database. Restart the Data Migration Manager, and then try migrating the data again."

This error was listed as a known Data Migration Manager issue, and we were able to correct it by deleting the *UserReplicationID* registry key and restarting Data Migration Manager. You can find this registry key in HKLM\SOFTWARE\Microsoft\Data Migration Wizard on 32-bit systems.

As a reminder, please exercise extreme caution when you edit your system registry because you can cause permanent damage to your system.

## Duplicate Detection

After loading data into your system, of course you want to make sure that the database remains clean without lots of duplicate records. Fortunately, Microsoft Dynamics CRM includes duplicate detection functionality to help you maintain the integrity of your data. Duplicate detection consists of three main areas:

- Duplication detection settings
- Duplicate detection rules
- Duplicate detection jobs

You access almost all of the duplicate detection configuration in the Data Management section located in Microsoft Dynamics CRM Settings.

### Duplication Detection Settings

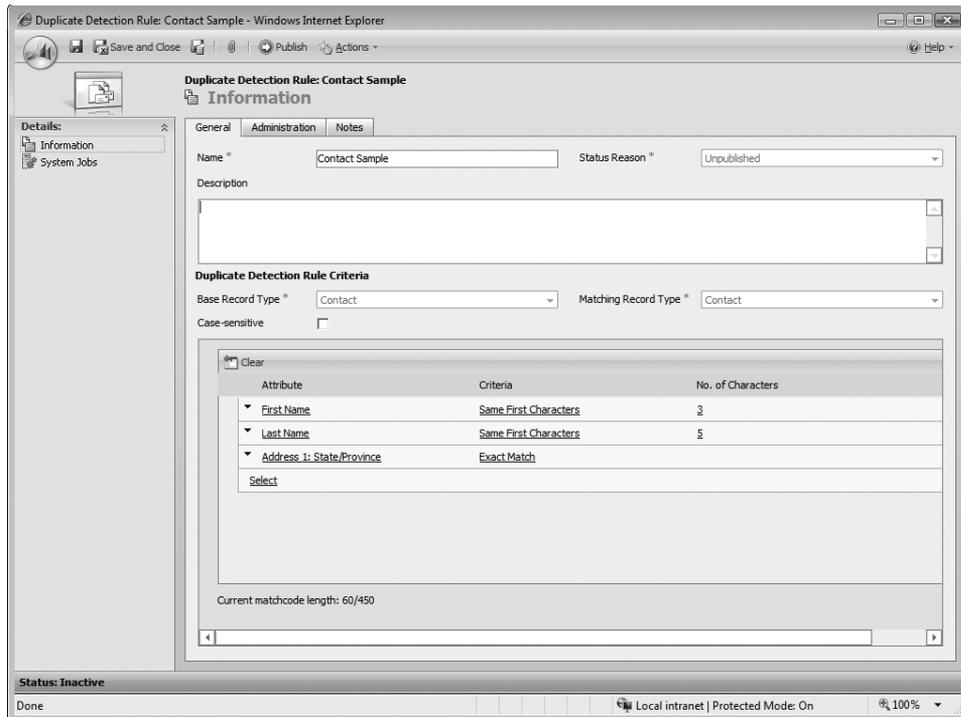
You can enable duplicate detection for your organization and determine when Microsoft Dynamics CRM should perform the duplicate checks. The three options to configure these settings are the following:

- When a record is created or updated
- When Microsoft Dynamics CRM for Outlook goes from offline to online
- During a data import

You can choose to enable duplicate detection for some or all of these settings, but you cannot selectively apply these settings to specific entities. For example, if you enable duplicate detection for record creation and update, Microsoft Dynamics CRM will apply that setting to *all* entities. Assuming you enable duplicate detection for the organization, you can configure duplicate detection for individual entities as explained in Chapter 6, "Entity Customization: Relationships, Custom Entities, and Site Map."

### Duplicate Detection Rules

Because every organization defines duplicates differently, Microsoft Dynamics CRM lets you configure your own duplicate detection rules per your specific business needs. After you define and publish a duplicate detection rule, Microsoft Dynamics CRM creates a *match-code* for every record created or updated in the previous 5 minutes. This matchcode process runs continually in the background every 5 minutes, even for deactivated records. Microsoft Dynamics CRM uses matchcodes behind the scenes to look for duplicate records per your duplicate detection settings. Figure 2-29 shows a sample duplicate detection rule that we set up.



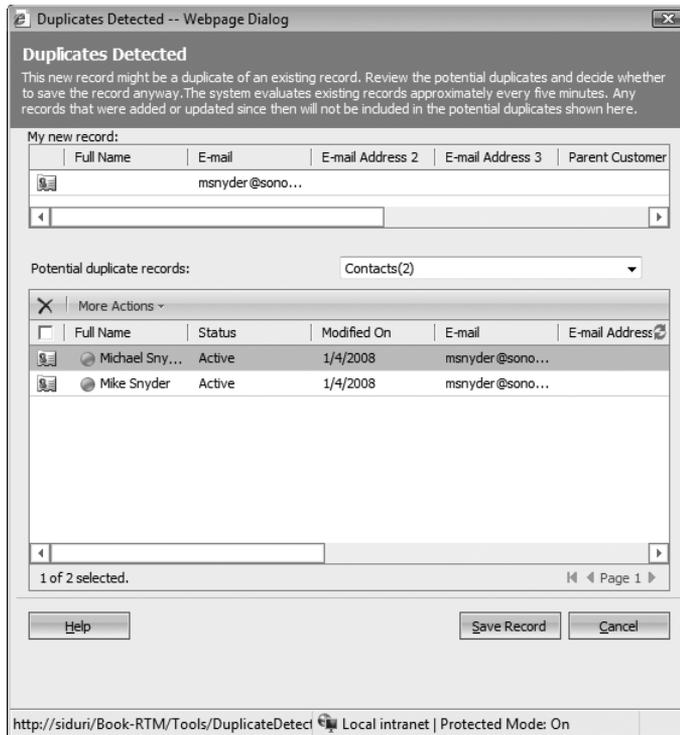
**FIGURE 2-29** Duplicate detection rule configured on the Contact entity

In this example, Microsoft Dynamics CRM will identify a duplicate if all of the following conditions are met:

- The first three characters of the first name match
- The first five characters of the last name match
- All of the characters in the state/province field match

Unlike the Advanced Find tool, you cannot configure OR conditions in a duplicate detection rule, but you can set up multiple rules for a single entity. In addition, you can configure your rule to search cross-entity (such as Contact to Lead) and can specify whether the checks should be case-sensitive. Last, you need to consider that each attribute you add to your duplicate detection rule will add to the matchcode length, and Microsoft Dynamics CRM enforces a maximum matchcode length of 450. Each change to the rule will update the current matchcode length so that you can monitor where you stand in relation to the maximum. When you're finished configuring the rule, publish it by clicking the Publish button on the toolbar.

Then, if a user tries to enter a record that Microsoft Dynamics CRM determines is a duplicate, the user will see a dialog box like the one shown in Figure 2-30.



**FIGURE 2-30** Duplicate detection warning dialog box

From here, the user can choose to save the record or cancel the create/update operation. Unfortunately, there is no way to merge the new or updated record into one of the duplicates identified by Microsoft Dynamics CRM.



**Important** Because the matchcode process runs every 5 minutes, if you rapidly create or update records that qualify as duplicates before the matchcodes can update, Microsoft Dynamics CRM will not immediately recognize those records as duplicates. To find these duplicates, you should use the duplicate job process that we explain next.

You may wonder if you can permanently dismiss this duplicate warning if you know for a fact that the record you updated is not a duplicate even though it meets the duplicate detection rules. Again, unfortunately, you cannot permanently dismiss a duplicate check for a record, so you will see this dialog box each time you update the record. In this scenario, we recommend that you tweak your duplicate detection rule to avoid the situation.

## Duplicate Jobs

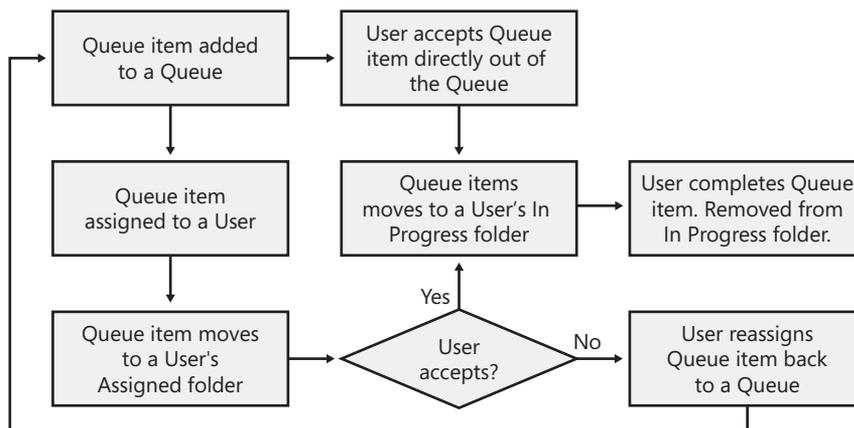
In addition to the duplicate detection settings, you can also configure Microsoft Dynamics CRM to perform a duplicate detection job on a scheduled interval to look for potential duplicates. To create a new duplicate detection job, navigate to the Data Management section of

Settings, and click Duplicate Detection Jobs. Next, click New, and Microsoft Dynamics CRM will open the Duplicate Detection Wizard. For each duplicate job, you can use the Advanced Find interface to create a subset of records on which to perform the duplicate check. You can also schedule the duplicate check job to repeat and run again on a scheduled interval such as every 7, 30, 90, 180, or 365 days. After Microsoft Dynamics CRM completes the duplicate job, you can open that job record and click View Duplicates in the navigation pane to resolve any duplicates found during the job.

## Queues

Imagine that a sample organization, Adventure Works Cycle, has created the e-mail address *bikesupport@adventure-works.com* to handle all incoming customer support requests. The goal of this support alias is to allow the Adventure Works customer service representatives to monitor incoming support requests in a single location to make sure that everything is resolved in a timely manner. Microsoft Dynamics CRM uses the Queue feature to track and hold pending work items until they are assigned to a user. Adventure Works Cycle could create a queue called Bicycle Cases; then, every e-mail message sent to *bikesupport@adventure-works.com* would create a queue item in the Bicycle Cases queue. In addition to activities such as E-mails and Tasks, you can also assign Cases to a queue. Users can access the queues for your organization by browsing to the Queues subarea of the Workplace area.

Microsoft Dynamics CRM removes items from a queue when they're assigned to a user, or when a user accepts an item currently in the queue. If you assign a queue item to a user, the item will move to the Assigned folder until the user accepts it. When a user accepts an item, it moves to the user's In Progress folder until he or she completes the item. Microsoft Dynamics CRM automatically removes Cases and Activities from the In Progress folder when you complete them, except for completed E-mail activities. To remove a completed E-mail item from the In Progress folder, you must delete it. This does not delete the item, it just removes it from the In Progress folder. Figure 2-31 shows the queue flow chart.



**FIGURE 2-31** How items move through a queue

You can set up and manage queues by browsing to the Settings area, clicking Business Management, and then clicking Queues. You don't have to use an e-mail address for each queue, but you can configure this functionality by following the detailed instructions included in the Microsoft Dynamics CRM Implementation Guide.

The following are additional important points to consider regarding queues:

- You can use queues for any type of business activity that uses activities, including incoming sales requests and marketing tasks. You should not consider queues as strictly a customer service tool.
- Queues do not own records, so assigning an item to a queue will not change its ownership (or trigger the workflow assign event), but it will add the item to the queue.
- Although assigning an item to a queue does not change ownership, assigning a queue item to a user changes the ownership of the item.
- Items listed in the queue respect the Microsoft Dynamics CRM security settings regarding which records each user can read, write, delete, and so on. However, all users can view all the queues and all the items in queues (even though Microsoft Dynamics CRM won't allow them to open records to which they don't have access).
- If you set up an e-mail alias to automatically create queue items, Microsoft Dynamics CRM will not automatically create Cases for each e-mail message sent to the alias. You must do this manually or with custom programming code.
- A queue is not a customizable entity, so you cannot modify the columns that appear for the queue folders.

Although queues do involve a few minor constraints, they are a great tool to help your organization streamline and automate many business operations.

## Summary

Microsoft Dynamics CRM offers excellent integration with Microsoft Office Outlook through the Microsoft Dynamics CRM for Outlook software. With Microsoft Dynamics CRM for Outlook installed, users can synchronize contacts, tasks, appointments, phone calls, letters, and faxes in Microsoft Dynamics CRM and Outlook. Conversely, users can update records in Outlook, and then Microsoft Dynamics CRM for Outlook will synchronize the changes to the server. By using Microsoft Dynamics CRM for Outlook with Offline Access, users can work while disconnected from the server. Microsoft Dynamics CRM also includes productivity tools that help users work more efficiently with e-mail and mail merges. Microsoft Dynamics CRM data management features include data import capabilities and duplicate detection processes.