

Import Manager v5 – Light

User Guide

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Introduction

Import Manager v5 - Light from CRM Extensions provides you with a powerful and easy import tool that gives you the ability to:

- Import core data into Microsoft Dynamics CRM 2011 - Online.
- Relate Entities to each other.
- Create customized field mappings.
- Create customized duplicate checking routines.
- Clean data.

Import Manager v5 - Light makes it possible to import data from one or more data sources, create new records of a given entity in the CRM database and make relations to other entities in one single process. Compared to Microsoft Dynamics CRM, Import Manager offers a more flexible import of data, including the ability to create relationships to an existing entity in Microsoft Dynamics CRM and to create new relationships between entities, while they are in the process of being imported.

If you use the scheduling option, the import process can be performed automatically on a regular basis so that the CRM database is always up-to-date with the newest information from all external data sources.

FEATURES

Import to all CRM Entities
Relationships between all entities
Save import templates
Duplicate check
Update records with new information
Text plugin (import from text files)
ODBC plugin (Import from a database)

Import Manager v5 -Light



Requirements

Import Manager v5 - Light ONLY works with Microsoft Dynamics CRM 2011 - Online and requires .NET Framework 2.0 or above to be installed on the computer.

You do not need to install Import Manager v5 - Light on a server. The program can be installed on a client computer which is connected to the internet.

Installation and license

Please refer to the Install Guide for Import Manager v5 - Light document for an in-depth guide on how to install Import Manager v5 - Light, setup the connections and validate the license file.

The latest version can be found on www.crmextensions.com

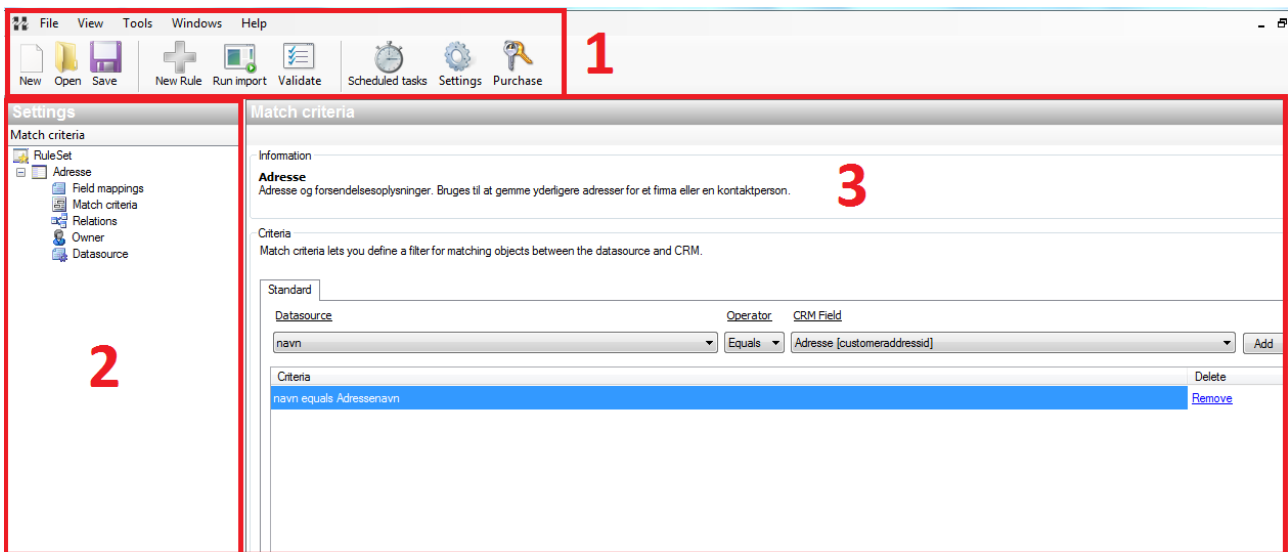
If you do not have a valid license, Import Manager will still allow you to import up to 10 records at the time, allowing you to try out the program before purchase.

Basic Imports

To import data into CRM, you must first make a rule set and define one or more rules for this rule set. The basic import section of this guide will cover the creation and basic setup of a simple rule, but it will not encompass rule settings and relations.

Workspace

The Import Manager v5 - Light Workspace is divided into 3 distinct parts as seen in the screen shot below.



1. Menu

In the upper menu bar you will find various menus under the classic categories File, View, Tools, Windows and Help. The quick buttons enable you to quickly create a new rule set, open an existing rule set or save the current rule set. The main buttons are only visible when you have access to a data source and enable you to “Add a new rule” to the currently selected rule set, “Validate data” to do a checkup of the rules you have created and finally “Run import” to run the import with the currently selected rule set.

2. Explorer

The checked box in the left side of the workspace shows the currently selected rule set, its sub rules and an expandable menu for each of these.

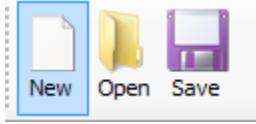
3. Main window.

The large striped box in the right lower side of the workspace shows the currently chosen settings window, which will depend on what the user has chosen in the explorer window to the left.

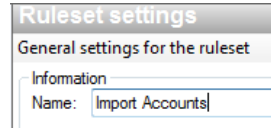
Create ruleset

Follow the steps below to create a new rule set.

1: In the menu bar in the top, click “New”.



2: Give the RuleSet a name.

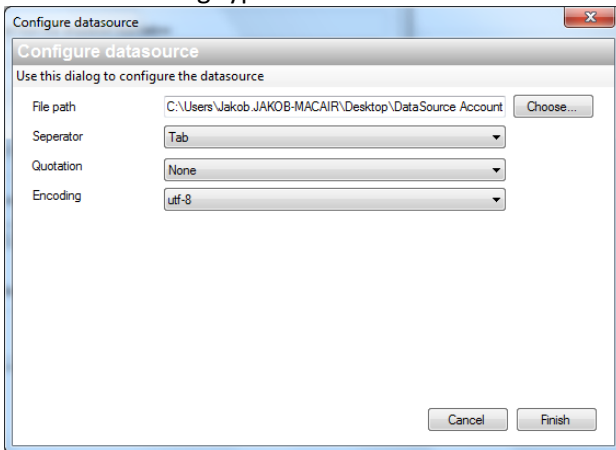


3: Click the “Add new rule” button to add a new rule.

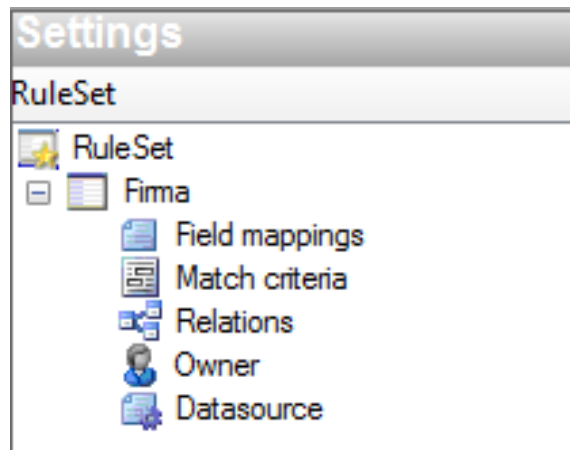


4: Select the entity in CRM you wish to import into and select what type of datasource you wish to import from. For the purpose of this demonstration a simple text file was selected as source.

5: Select the datasource file (click “Choose” and browse to the file) and configure the various settings, such as the Separator, Quotations if any and the Encoding type. Click “Finish”.



6: The tree in the settings window to the left will now show a tree structure with the new entity.

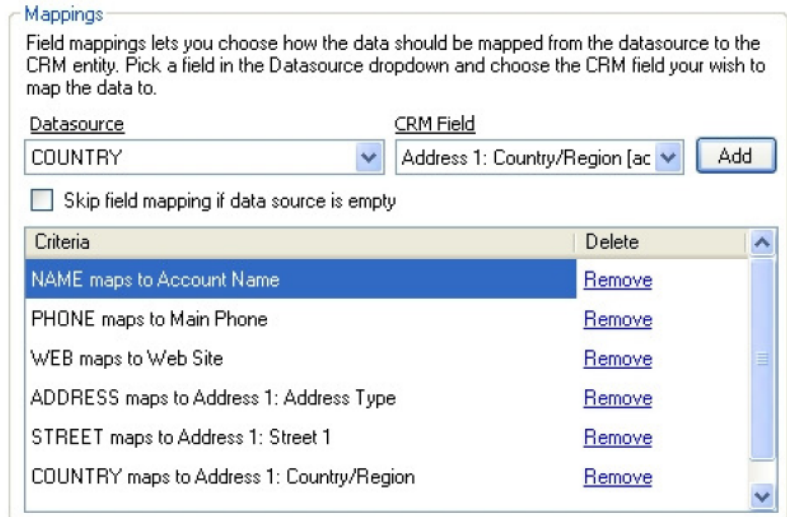


Basic field mappings

After having created a rule you need to set up the field mappings, where you map fields from your datasource with fields in the chosen entity in CRM. If the datasource has been selected and configured correctly, Import Manager will populate the Datasource drop down menu with the field names. To the right of this menu, the CRM Field drop down menu has been populated with all existing fields from the current entity (in the example below, the Account entity). It is now a simple task to map a datasource field to a CRM field. Simply choose the corresponding fields in each of the drop down menus and click add. The field mappings will then be inserted into the criteria list below, as they are created. To remove a criterion, click the “Remove” link in the Delete column next to the field mapping.

When importing from a text file, the first line in the text file will always be assumed to hold the field names, and each successive line hereafter will then constitute one record.

It will soon become obvious for the recurrent user that normally not all the fields of a CRM entity will be available in a given datasource. Normally these fields will be created as empty fields during the actual import, though this depends on the rule settings.



If the “Skip field mapping if data source is empty” field has been ticked off, the field mapping for a field will be skipped if it is found to be empty in the datasource.

Basic match criteria

To eliminate the creation of duplicate entries, it is possible to set up several criteria to ensure a match. E.g. a match could be that if emails match OR if telephones match, there is an overall match. To create a match criteria, do the following:

1. Select a field in the “Datasource” drop down menu.
2. Select an Operator in the “Operator” drop down menu.
3. Select the CRM field that the datasource field will be compared to in the “CRM Field” drop down menu.



The simplest match criteria is made with a field containing a unique value, which is present in both the datasource and the CRM entity, in which case the corresponding fields are simply selected with an Equals operator. However while this is the ideal case, in most cases you will only be able to compare field values that are likely to have possible duplicates. E.g. while a phone number or email is unique, the phone or email address may be shared by the employees of a company, but if a comparison is made on email, phone number and address, unless the employees live and work together, a match is certain.

The operator can alternatively be set to Contains. This is useful in many cases. Imagine you have a CRM database full of contacts where the phone numbers have been set with country codes and you want to use import manager to import a second set of contacts where some are duplicates and the phone numbers have been set without country codes. In such a case, setting a criterion along the lines of PHONENUMBER contains Main Phone would do the trick. Then Import Manager would look for the string of digits that make up the PHONENUMBER, inside the Main Phone.

Owner

In MS CRM, when an object is created (say a new person has been created as a contact) the creator will be set as the Owner of that object. The owner can be viewed and changed on the entity form.

Import Manager will normally set the owner to be the user that is logged on to the computer and this applies to both the creation and updating of objects. Under the “Owner settings” of a rule, this can be changed to apply to only updates or only creations and instead of the logged on user, a user from the datasource or even the logical owner of another entity can be chosen.

Apply on
Select in which cases the owner mapping should apply

Only on create Both create and update Only on update

Owner

Logged on user, if no user specified
Current user:  Gail Erickson

User from datasource
Choose a field from the data source that contains information about a specific system user or business unit and then pick the field that contains that information in the CRM system.

Matching field: maps to:

Logical owner
A logical owner is an owner that has a logical relationship to the current object. Choose the logical relation in the dropdown list below. If no relation is present the logged on user will be used.

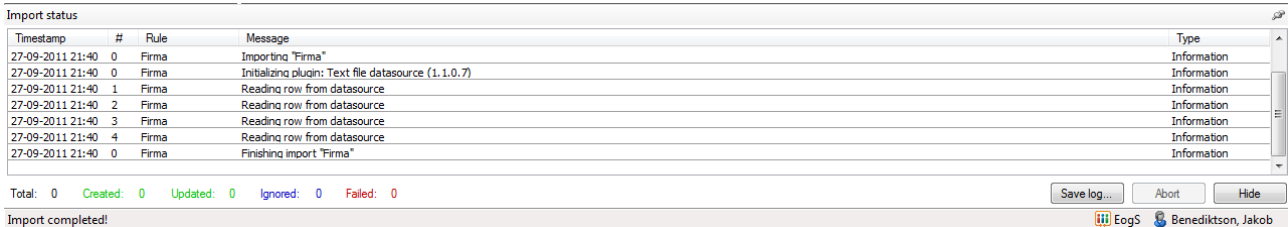
Logical field:

 Using this function can slow down the overall performance of the import

Validating data

Having created a rule set with rules, it is best to validate the output of this rule set before you run the actual import, to make sure there are no errors. For this purpose the Validate data button can be used, which will open up an Import status window in the bottom of your workspace.

Sample output created upon clicking this button can be seen below.



The screenshot shows the 'Import status' window with a table of logs and summary statistics. The table has columns for Timestamp, #, Rule, Message, and Type. The logs show the process of importing 'Firma' data, including initializing the plugin, reading rows, and finishing the import. The summary statistics at the bottom indicate: Total: 0, Created: 0, Updated: 0, Ignored: 1, Failed: 0. There are also buttons for 'Save log...', 'Abort', and 'Hide'.

Timestamp	#	Rule	Message	Type
27-09-2011 21:40	0	Firma	Importing "Firma"	Information
27-09-2011 21:40	0	Firma	Initializing plugin: Text file datasource (1.1.0.7)	Information
27-09-2011 21:40	1	Firma	Reading row from datasource	Information
27-09-2011 21:40	2	Firma	Reading row from datasource	Information
27-09-2011 21:40	3	Firma	Reading row from datasource	Information
27-09-2011 21:40	4	Firma	Reading row from datasource	Information
27-09-2011 21:40	0	Firma	Finishing import "Firma"	Information

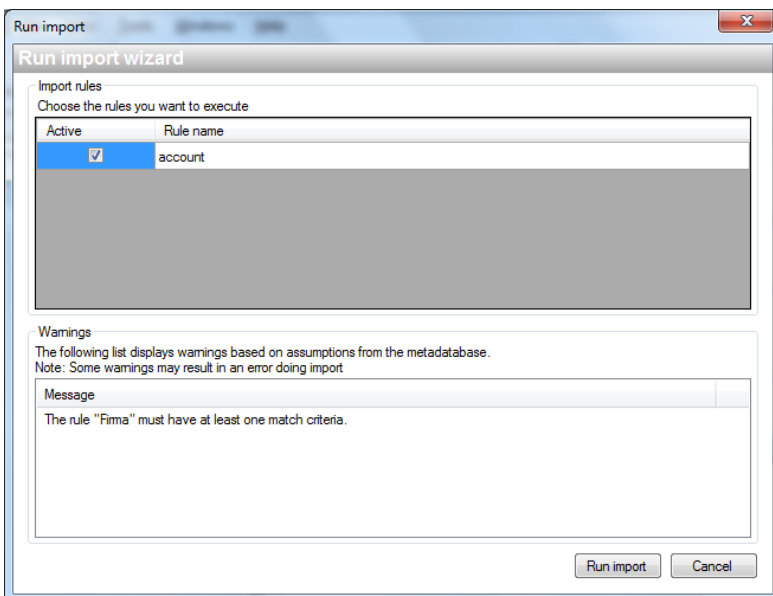
Total: 0 Created: 0 Updated: 0 Ignored: 1 Failed: 0

The output above shows 0 in "Failed", though if there had been any failed imports, it would be a good idea to review the rules in the rule set to determine why. Furthermore we can see a 1 in "ignored", though this is common, depending on our settings (see section 6.1). If the "Run import" button had been clicked instead, a number of created and updated records would be shown by numbers in their respective fields here.

The information given here is vital to running more complex imports and it is possible to save a log as a text file for later review. Naturally, if it is a routine import and there is less likelihood of problems, it is possible to press the "Hide" button to hide this window.

Run import

Once a rule set has been created, validated and found to work, it is time to run the import. By clicking the "Run import" button, the following wizard will pop up. Here it is possible to select one or more rules from the rule set and heed any warnings from the metadatabase. Once satisfied, click the "Run Import" button.



The output generated will be shown just like when validating data, except that the result will likely be different. In the sample output below, two accounts were created in CRM, while one was ignored.

	#	Rule	Message
15:20	1	Account	Reading row from datasource
15:21	1	Account	Object successfully created
15:21	2	Account	Reading row from datasource
15:21	2	Account	Object successfully created
15:21	3	Account	Reading row from datasource
15:21	3	Account	Record ignored due to import setting: WhenTwoOrMoreMatches
15:21	0	Account	Finishing import "Account"

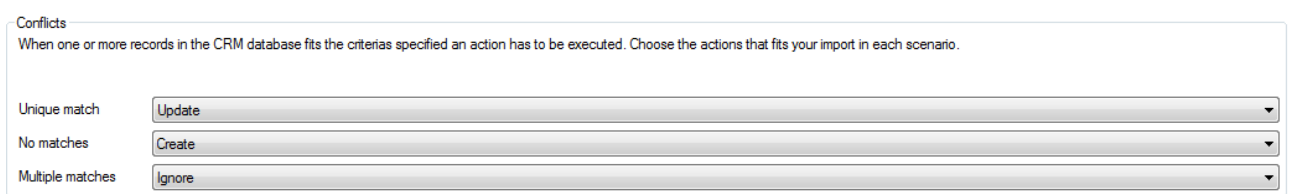
Created: 2 Updated: 0 Ignored: 1 Failed: 0

Advanced imports

In this chapter we will cover a more advanced import scenario that will describe the aforementioned in more detail, as well as relations and rule settings.

Rule settings

To fully master more advanced imports, it is important to know what actions will be taken when matches are made or errors are encountered. For this purpose you will need the Rule settings. When you click a rule in the explorer tree in the left window, the right window will display the rule settings for the selected rule. In this window, you will be able to configure the Rule settings with regards to conflicts and error handling. In the top of each section you can read information about the rule. The first section is the Conflicts section, as depicted below. Here you can specify what actions should be taken when one or more records in the CRM database fits the match criteria specified.



The screenshot shows the 'Conflicts' section of the Rule settings window. It contains a descriptive text: 'When one or more records in the CRM database fits the criterias specified an action has to be executed. Choose the actions that fits your import in each scenario.' Below this text are three rows, each with a label and a dropdown menu:

Scenario	Action
Unique match	Update
No matches	Create
Multiple matches	Ignore

If there's a Unique match you can either update, ignore or create, noting that with the latter, duplicate records might be created. If there are No matches on a given record you can likewise update, ignore or create, which might strike some as odd. However, think of a rule created to update only existing records, in which case whenever no matches were made, Import Manager should ignore the record. The third setting looks at what happens when multiple matches are made and it gives the same three options.

The last section in the Rule settings window gives various options for error handling as shown in the screen below. Here you can specify the actions to be taken when a Property error, a picklist error or a Lookup error is encountered."



The screenshot shows the 'Errorhandling' section of the Rule settings window. It contains three rows, each with a label and a dropdown menu:

Error Type	Action
Property error	IgnoreRecord
Picklist error	UseEmptyValue
Lookup error	UseEmptyValue

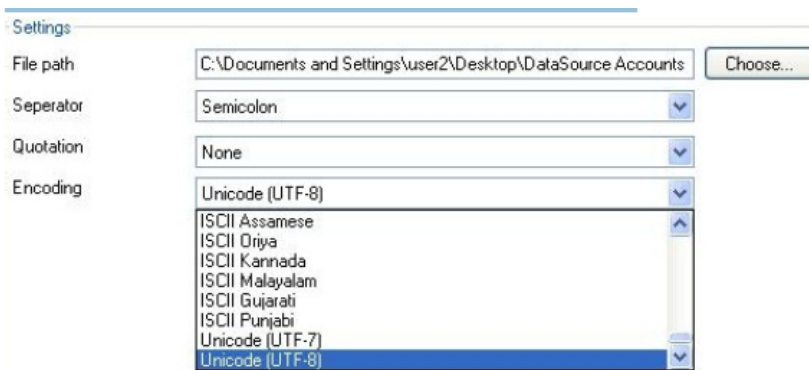
When a property error is encountered, Import Manager will as default ignore the record (the Ignore Record setting), but instead you can set Import Manager to use an empty value (the UseEmptyValue setting) or just ignore the erroneous property (the IgnoreProperty setting). A property error could be a too large value or string or when Import Manager finds invalid characters, such as letters where only numbers are valid.

A picklist error is encountered when you've mapped the choices of the picklist and an alien choice is encountered (e.g. you've mapped black, grey and white to dark, medium and light and the color brown is encountered). In such a case you can perform the same three actions as when a property error is encountered. Choose IgnoreRecord to ignore the whole record, choose UseEmptyValue to simply insert an empty value in the property or choose IgnoreProperty to ignore the property altogether.

The final error type is a Lookup error and it is encountered when you try to relate one record to another that doesn't exist. Again you have the three options of ignoring the entire record (the IgnoreRecord setting), using an empty value (the UseEmptyValue setting) or ignoring the property (the IgnoreProperty setting) – in all three cases a relation will obviously not be made.

Create ruleset

Create a rule set just like you would with a basic import, but make two rules. For the purpose of our demonstration, we created one for importing accounts and one for importing contacts. Simply click "Add new rule", choose Account (and Contact for the second) under "Entity type" and "text file datasource" under the Datasource dropdown menu. Choose the "DataSource Accounts 2.txt" file as data source for the account rule and the "DataSource Contacts.txt" file as data source for the contact rule.

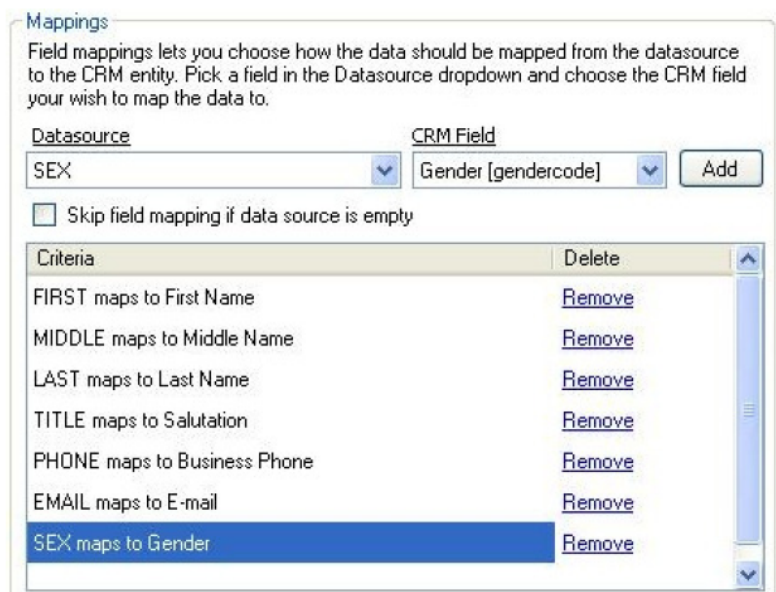


When choosing "Encoding" for your text file, make sure it matches with the actual text file, to avoid compatibility errors. Text files saved in Vista and Windows 7 usually use the UTF-8 encoding, as seen on the screen to the left, while XP uses another standard (usually Western European).

Advanced field mappings

Nothing new here, just set up the field mappings like you did in the basic import example. The screen below shows the field mappings already set up in the Field mappings window for the Account rule.

Note that the COMPANY field from the datasource has not been set! This is intentional, as the information in this field will be used to create relations in section 'relations'. The last field SEX has been set to the CRM Field Gender [gendercode], which is a picklist. While it looks just like any of the other fields, care must be taken when mapping these fields. This is because picklists only take very specific predefined values or words, in this case only the words Male or Female can be used. In error handling, a picklist error as a default is set to use an empty value, which



means that if anything but Male or Female is encountered in the datasource, it will be replaced with an empty value in the CRM entity. To check what kind of values or words can be used, simply open up CRM and look at one of the objects. If you open up an arbitrary contact and click the details tab, under the gender drop down menu, you will see the possible values for the gendercode in our example (the screen below). Naturally this will differ depending on what picklist you're checking and thus being familiar with CRM will make it easier to find these.

The screenshot shows a CRM form with two sections: "Professional Information" and "Personal Information".

Professional Information:

- Department: [Text Input]
- Manager: [Text Input]
- Manager Phone: [Text Input]
- Role: [Text Input]
- Assist: [Text Input]
- Assist: [Text Input]

Personal Information:

- Gender: [Dropdown Menu] (Open, showing "Male" and "Female")
- Birthdate: [Text Input]
- Marital Status: [Text Input]
- Anniv: [Text Input]
- Spouse/Partner Name: [Text Input]

In some cases, there may be doubt as to whether a field contains a picklist or some other property. E.g. in the above example, arguably instead of a picklist, it could have been a Boolean value. In these cases the way to make sure is to log into CRM with administrator rights, go to settings > customizations > customize the system. From there you can select "Entities", and see fields and values for all entity types in the CRM organization.

Relations

When importing records, you might want to relate these records with each other or with records already in the database. When relating records as they are imported with records already in the CRM database, make sure you've contemplated what actions should be taken, should an error occur (chapter under error handling, lookup errors). In our example we've already created an import rule for the accounts with advanced matching, as well as an import rule for our contacts and we now need to create a relation between the two, as some of the contacts are also the primary contacts for some of the accounts.

Click "Relations" under the Contact rule in the tree in the left window. In the main window a Relations section will appear where you can set up relations quite easily. You choose the field in the data source you wish to relate to in the "Datasource" drop down menu, first to the left. In the "CRM Field" drop down menu you choose the CRM Field to relate to and in the "Object type" drop down menu the object type to relate to is selected. Finally the field to match to is selected in the last menu, the "Match field" drop down menu.

The screenshot shows the "Relations" configuration window in CRM. It has a header "Relations" and a "Choose" section with four dropdown menus: "Datasource", "CRM Field", "Object type", and "Match field".

The "Choose" section is populated with:

- Datasource: COMPANY
- CRM Field: Parent Customer [parent]
- Object type: account
- Match field: Account Name

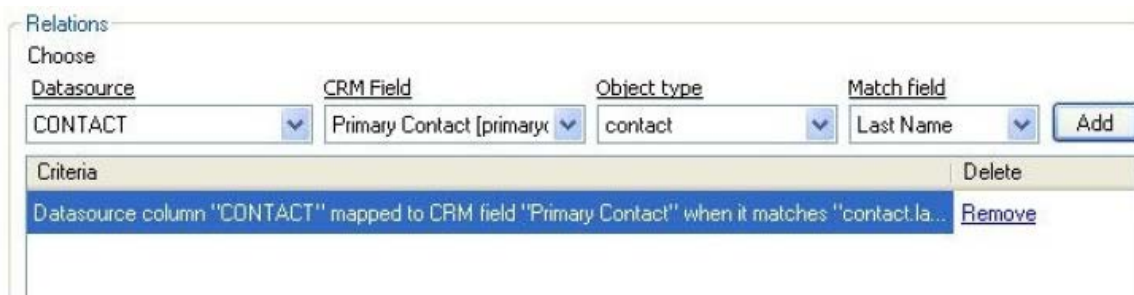
There is an "Add" button to the right of the "Match field" dropdown.

Below the "Choose" section is a "Criteria" table with a "Delete" button on the right. The table contains one row:

Criteria	Delete
Datasource column "COMPANY" mapped to CRM field "Parent Customer" when it matches "account.nam...	Remove

In our example, illustrated above, we select the COMPANY field from the “Datasource”, the Parent Customer from the “CRM Field”, the account from the “Object type” and the Account Name from the “Match field”. As the criterion so bluntly states: Datasource column “COMPANY” mapped to CRM field “Parent Customer” when it matches “account.name”. In other words, for every record, the company name found under the “COMPANY” column in the data source, will be compared to existing accounts’ “Account Name” field and if a match is found, the corresponding account will be set as the company of the datasource. Remember that the data source is a contact and that they work for a company. By setting the “Parent Customer” field in CRM of the contact to the “Account Name” field from account we have effectively achieved the relation as intended. It’s as easy to remove the matches as it is to create them, by a click on the “Remove” link immediately after the relation.

Note that while this will create a relation in the contact entity to the account entity, there is no relation in the account entity to the contact entity - it is a one way relation! To create a two way relation we have to run a rule on the account records AFTER the contact relation has been set up. This rule doesn’t have to import anything; it only has to update the relations to match with the contacts.



In our example, as seen above, the CONTACT field has been selected from the “Datasource”, the Primary Contact from the “CRM Field”, contact from the “Object Type” and Last Name from the “Match field”. Setting this relation in the account rule and running the import, will update all the newly created account records with relations, so that there is a two way relation.

ODBC imports

Instead of using a text file it is also possible to import from an ODBC source (Open Database Connectivity), which is a widely supported format used by both SQL, Oracle and many others. Since we cannot cover all of these from their plethora of sources, we will give one example using an SQL database, though this example can easily be adapted to your needs. What is important to know, is how you interact with the database.

Setting up the source and everything on the other end, will not be covered in this guide. Start out by creating a new rule set and then add a rule to this set. In entity type select contact and from datasource select ODBC datasource. You now have to configure the datasource, which is where this method differs from using a text file datasource. In the top window you have a drop down with the most common DSN (Data Source Name) connection type connection strings, where all you have to do, is simply substitute the values with the corresponding values for your database.

Configure datasource
Use this dialog to configure the datasource

DSN: Driver={SQL Server};Server=[ServerName];Database=[Database];Uid=[Username];Pwd=[Password];

Connecting to other data sources? Find more connection strings here.

Connection Timeout (sec): 30

SQL: `SELECT * FROM [Table]`

In the example above the standard DSN connection string for a SQL Server has been selected. Everything inside the [] (square brackets) pairs has to be substituted with the server name, database name, username and password for your SQL connection and database. In the example below, the substitution has been made.

Configure datasource
Use this dialog to configure the datasource

DSN: Driver={SQL Server};Server=AD2;Database=StagingDataBase;Uid=Kasper;Pwd=Ab123!;

Connecting to other data sources? Find more connection strings here.

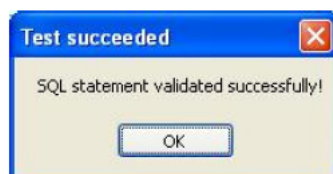
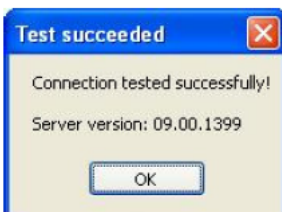
Connection Timeout (sec): 30

SQL: `SELECT * FROM Contact`

Apart from this substitution, you also have to select from which table you want to select records, simply done, by substituting Table in the SQL box with the name of your table – in our example, the table contact.

The link below the DSN drop down menu, asking if you're connecting to other data sources, will take you directly to <http://www.connectionstrings.com> where further connection strings can be found for just about any ODBC compatible source imaginable.

To make sure no errors have been made, you can then use the test buttons "Test DSN" and "Test SQL" to the right to see if you've entered a valid connection string and SQL query. If a valid connection string has been entered, the response from the "Test DSN" button should look along the lines of the "Test succeeded" box to the left below and if a valid SQL query has been entered, the response from the "Test SQL" button should look like the "Test succeeded" box to the right below.



When importing from an ODBC source, the user is given more power over what to import and how to import it, as the SQL window in the “Configure datasource” window is quite powerful and will allow any legal SQL query to run! However, the user should bear in mind that this is dependent on the source, as an Oracle DB allows different SQL compared to a Windows SQL Server DB. This enables users with SQL knowledge to utilize Import Manager in new ways and while this goes beyond the scope of this guide, we will give a little demonstration to whet your appetite.

Say you have a table of employees and a table of companies and you want to import all the employees that work for American companies, as contacts in your CRM database. Using a SQL query like the one below could achieve this.

```
SELECT Employees.* FROM Employees, Companies
WHERE Employees.Company_ID=Companies.Company_ID
AND Companies.Country = 'US'
```

Now all you would have to do is map the fields from the datasource to fields in the CRM entity contacts.

Scheduled tasks

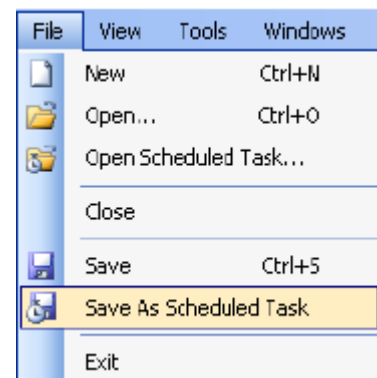
Import Manager can be setup to run automatically as a scheduled task. This is a useful tool when using Import Manager to clean data or when simply doing periodic imports.

We have provided a small guide to each of these methods.

Create Scheduled task.

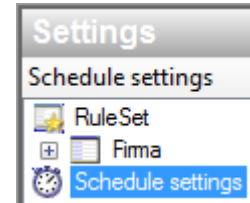
Inside Import Manager, create or load the ruleset you wish to set up as a scheduled task.

Click “File” in the top bar menu and select “Save as Scheduled Task” from the drop down menu.



Edit Schedule.

Click the “Schedule settings” explorer item in the explorer menu to the left. Next, click the “Edit schedule” button in the “Scheduled Task Settings” window which appears to the right.



Task tab

The scheduled task will be opened up like any other scheduled task, with the focus on the Task tab bar. In this menu window you can choose various options and as seen in the screen below, most of them have already been set by Import Manager. In fact you don't need to change the settings here at all.

Scheduled tab

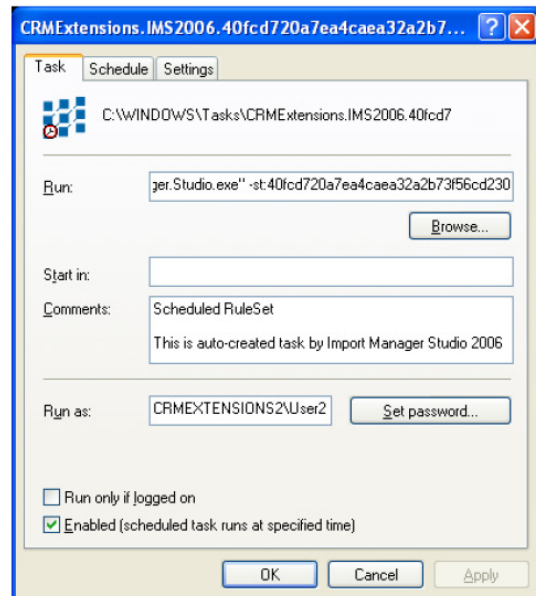
Under the Schedule tab, click “New” to create a new scheduled task.

Set time

Select when and how often the task should run. Click “Apply”.

Set profile

Select what profile should run the task and enter the password. Click “OK”.



Settings tab

Under the Settings tab you can customize how the task should run in detail. Once everything is setup to your satisfaction, click “OK”.

Running Scheduled Task.

The scheduled task will run by itself. You don't need to keep Import Manager open, though if you do, the “Scheduled Task Settings” window will keep you informed about what is happening. On the screen to the left the task is Running.

Task done.

Once the task has been performed and you've hit the refresh button in the lower right corner, the “Scheduled Task Settings” window will update and show you the task with a timestamp, as well as various information on how it went.

If you click the timestamp link, the log file for the task will be opened with detailed information on what went on during the Import.

Best practices

This section will show you various best practices to help you use Import Manager to its fullest. Some practices are aimed at avoiding errors, while others are aimed at improving speed or extending comprehension.

Matching criteria

When choosing matching criteria, make sure you avoid matching values that are often left empty, as this will result in a high number of matches in most databases, due to the fact that many fields are often left empty. A different, simple method to avoid this problem is to use the standard match criteria setup and select enough criterions, to make sure you get only a single match, though selecting too many, can slow down the process.

E.g. Using an email address as a matching criterion may seem like a good idea, because an email is unique. However, as some people or companies don't use email or have several different addresses, it might pose a problem. Instead using a name, which is virtually guaranteed to exist for any entity (though it can hardly be assumed to be unique), in conjunction with a phone number or part of an address, may prove the better choice.