SYNC Connector for Microsoft CRM

Manual

Version 4.83

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1. Contents

2. Redware Research Limited

Redware Research Limited is a software house specialising in solutions for **Microsoft CRM** and **Sage Accounting.** We are a Microsoft Registered Partner and have Sage Developer status and are based on the south coast of England and welcome telephone enquiries on **0845 3010 444**.

We specialise in **accounting** and **billing** solutions and have add-on software for Microsoft CRM to integrate your accounting system with CRM. We currently have solutions for Sage accounting and QuickBooks. We offer a consultancy package to adapt our software to integrate with any accounting package.

Our 100-page **Microsoft CRM 4.0 User Handbook** is available online to help you get started and explore all the features of Microsoft CRM including the sales, marketing, and service areas. You can read and print out chapters online or buy the book. Please take a look and give us some feedback.

Redware has developed a range of software add-ons for Microsoft CRM covering a broad range of functionality including **CTI telephony** connection to TAPI compliant telephone systems, **SMS text messaging** to mobile phones, and **company credit check** using financial data from Companies House.

We also sell software to help handle billing requirements for users of the Sage 50 accounting system which includes our **SYNC Accounting** web site to make the sales history available over the internet as part of a customer portal and **SYNC Billing** to upload invoices into Sage from a spreadsheet. We offer a bespoke **Telecoms Reseller** package based on our technology.

Our non-commercial focus is to get young children aged 8-12 programming with the **Scratch** programming language available free from the Lifelong Learning Group at MIT and we have resources for parents and teachers available on our website. We encourage you to empower your children with programming skills using our training videos and lesson plans.

Please contact us with any enquiries on any of our products or for a discussion on how our consultancy service might help integrate your business systems and processes.

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3. Introduction

Thank you for purchasing the **SYNC Connector** from **redware research limited** for transferring data from your accounting database into Microsoft CRM. This is the fourth release of the software and we now support versions 3.0 and 4.0 of Microsoft CRM and both hosted and on premise installations.

Note: The evaluation version is fully functional but will only work with accounts beginning with letters in the range A-C.

If you have any questions or problems with the software, please email sync@redware.com for email support. You should be careful and back up your CRM and accounting databases when you first start using the Connector and before any large updates.

Our software extracts data from the accounting database and imports into Microsoft CRM as new customer **accounts**, **products**, and **invoices**. The principle behind the synchronisation process is to create a new record if the data has not already been entered into CRM but make minimal changes if the record is already there.

You can upload historical data from your accounting database as soon as you install the SYNC Connector. Uploading all your customers and products into CRM allows your salespeople to begin using the **sales cycle** in CRM, issuing Quotations and Sales Orders as soon as they have been trained in how to use CRM and your best business practices.

Uploading the **invoice history** is especially useful to the marketing department who can use CRM to create marketing lists of existing customers depending on the past products purchased for up-selling and cross-selling campaigns.

Note: The Connector considers all customer accounts to be companies and may not be suitable for B2C retail environments (although you should contact us if you have this requirement).

One-way synchronisation of data from the accounting system into CRM is fully supported for all versions of **Sage Line 50** and several other accounting systems including **QuickBooks**, **Sage Instant Accounts**, **Sage MMS 3.5**, and **Sage 200**.

We currently support **two-way integration** for Sage Line 50 only (although we have the capability to create versions for Sage 200 and QuickBooks). This automatically creates new customers, products, and invoices within the accounts system from sales orders (or invoices) in CRM. The salesperson simply changes the status of the sales order and the order is entered into the accounting database accurately and efficiently with no re-typing required.

The user interface is straightforward and uncomplicated as this application is designed to be a synchronisation utility rather than a full bodied application. The installation process is however a little tedious and requires editing of an XML configuration file to set up the parameters for the application.

Please note also that the current version is not fully multi-currency and simply uses the **default currency** of the user identity to specify the currency for all accounts, products, and invoice items.

Microsoft CRM does not support credit notes and purchase accounts and orders in the default configuration. Our SYNC Accounting product (see below) allows access to this information from within CRM.

We also offer a **consultancy service** alongside our software to integrate with any accounting system. This will typically require 5-10 days of implementation time provided that we can read your accounting database and use a software development kit to get data into the accounting database.

3.1. SYNC Accounting

We have a companion software product called **SYNC Accounting** that provides read-only access to accounting information directly from CRM simply by entering the sales account reference into the **accountnumber** field of CRM.

This approach has little impact on your systems and is not restricted by the database structures of CRM and shows credit notes and additional accounting information that cannot be stored easily in CRM.

The disadvantage with this approach is that data is not available within CRM for use in the sales cycle or for creating marketing lists and reports. Some of our customers use just the SYNC Accounting product, particularly if they are using the accounting package for the sales cycle, and others use just the SYNC Connector or both systems concurrently – one for powering the sales cycle within CRM and the other to provide a window on the accounting database.

Please see our website for more information on SYNC Accounting which we offer together with the SYNC Connector for many of our customers.

4. Overview

The SYNC Connector copies new customer **accounts**, **products**, and **invoices** from your accounting system into CRM with minor updates made to data that is already in the CRM database.

The principle behind the synchronisation process is to create a new record if the data has not already been entered into CRM but make minimal changes if the record is already in the database.

This means, for example, that account details are created in CRM if necessary but the address information is not constantly updated by the synchronisation process.

4.1. Accounting Data into CRM

The SYNC Connector performs the following functionality to copy data over from your accounting database into Microsoft CRM:

- Upload new customer accounts into CRM together with the associated contact.
- Upload new product details and default prices into CRM (also creates a pricelist item for every product/units combination).
- Upload new invoices and invoice line items into CRM.

Minimal information is updated in CRM if the corresponding record already exists:

- Credit Limited, Revenue and On Hold Status for existing customers.
- List Price, Standard Cost, and Stock Levels for existing products.
- Paid Status for fully paid invoices.

4.1.1. Customers

New customer accounts are recognised by matching the **relationship type** and the **accountnumber** fields values in CRM against the **account reference** in the accounting database. An associated contact record is created for new customer accounts although this is not set as the primary contact.

Existing customers in CRM have the **credit limit**, **revenue**, and **on hold status** updated each time a new transaction or invoice is discovered for that customer. Address and contact information is not touched.

4.1.2. Products

New products are matched up against the **productnumber** field in the product catalog in CRM. A **pricelist item** for the **default units** is also created in the CRM database for the products held in the accounting database. See below for the procedure when uploading new products together with an invoice.

Existing products in CRM have the **list price**, **standard cost** and **stock level** overwritten during the synchronisation process only if the units held against the product in the accounting database match the default units for the product in CRM. Other information including the product description is not updated for existing records.

CRM requires that a new pricelist item record is created for each combination of product and units that occurs for any invoice item. The SYNC Connector creates the appropriate **pricelist item** and **units** records against a default pricelist and unit group but does not specify a price against them or a quantity for the number of units so we do not recommend that you use the prices against these items in the sales cycle as they are not correct.

4.1.3. Invoices

Invoices are uploaded with **individual pricing** specified for each line item together with the tax amounts. Existing invoices are not overwritten and the amount outstanding against each invoice is not available within CRM. Credit notes and payment transactions are not uploaded into CRM.

4.2. CRM data into the Accounting Database

Two-way integration is supported with Sage Line 50 only although we do have the capacity to supply a version for Sage 200 and QuickBooks and can integrate with most accounting systems on a consultancy basis.

The upload process is triggered by setting the appropriate **status reason** on a **sales order** (or **invoice**) record in CRM.

The accountant will often run the SYNC Connector software to load any new customers and products into the accounting database before uploading the new invoices. This provides an opportunity to update the nominal codes and VAT rate against the products before uploading the invoices. Alternatively, the Connector can be run in unattended mode to work completely automatically without user intervention.

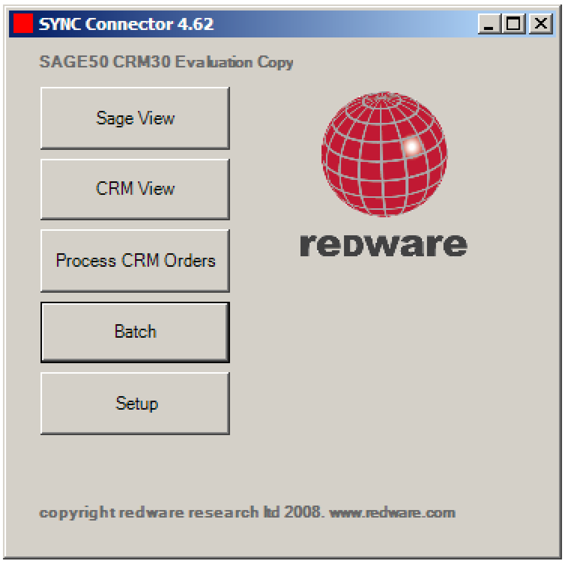
SYNC Connector identifies the appropriate Sales Order or Invoice records in CRM and then performs some or all of the following processes:

- Determine an appropriate account number and set into the **accountnumber** field in the CRM account record if the account number has not already been specified.
- Add any **new customer** records into the accounting database.
- Add any **new product** records into the accounting database.
- Add the **Sales Order** or **Invoice** records from CRM into the accounting database.
- Record the activity in the **log** file.

5. Home Page

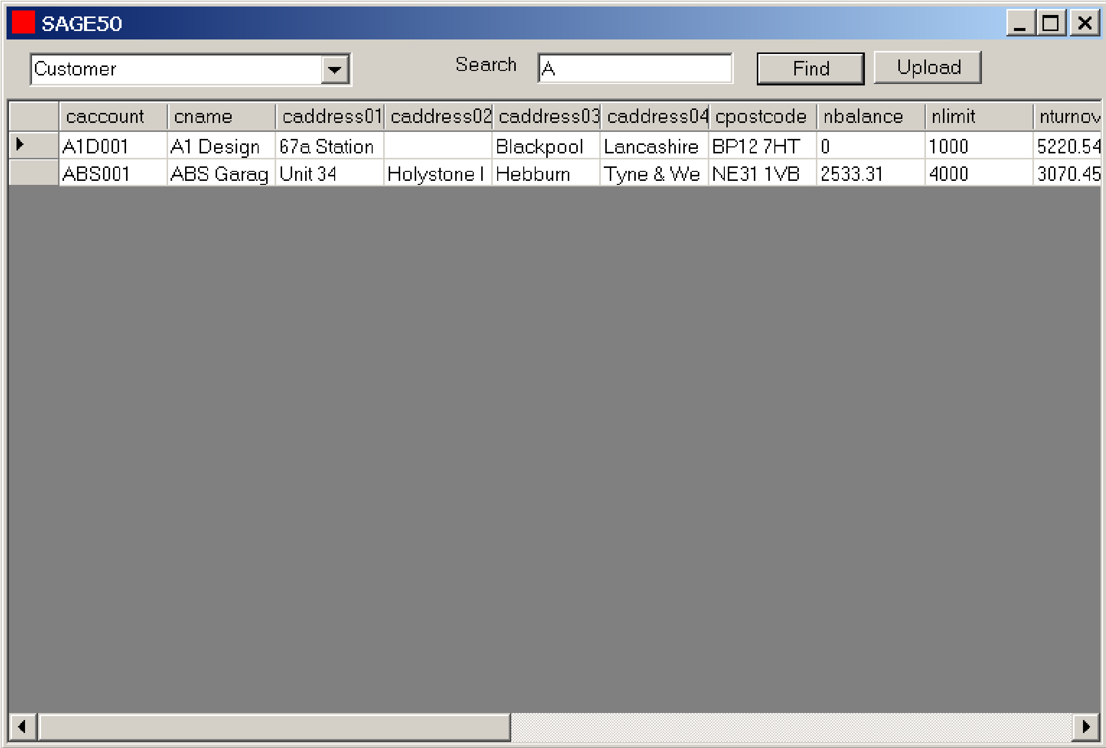
The home page appears when you run the application:

- **Sage View** accesses the accounting data and lets you view customers, products, invoices and transaction as well as upload these entities into CRM.
- **CRM View** accesses CRM data and lets you upload customers and products into the accounting database.
- **Process CRM Orders** lets you view the customers, products, and orders (or invoices) that are ready to load into the accounting database (only for Sage Line 50).
- **Batch** automatically processes data from the accoutring system into CRM (and from CRM to the accounting system if two-way integration is supported).
- **Setup** performs diagnostics on the current settings in case you have problems when first installing your system.



6. Upload into CRM

This form allows you to view various entities within the accounting database and selectively upload records into CRM. You should use this when first installing and testing the software and only rely on the batch process once you are confident that things are working well.



The available entities are shown in the drop down at the top left of the form and a selection of records can be made by entering a few letters into the search textbox before pressing the **Find** button:

- **Customers** are searched for on the account reference field.
- **Products** are searched for on the product reference field.
- **Invoices** are searched for using the account reference.
- **Invoice** Items are searched for using the account reference.
- **Sales Transactions** searched for using the account reference.

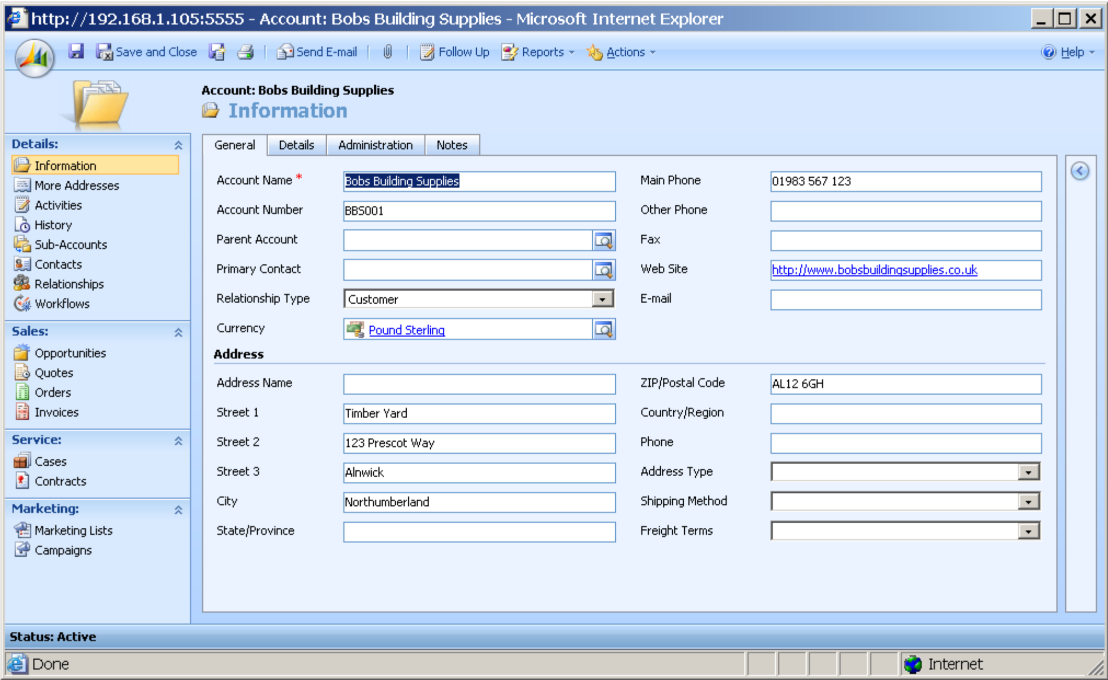
Note: The evaluation version of the SYNC Connector will only allow accounts and products with the first letter in the range A-C.

The selected records can be uploaded into CRM by pressing the **Upload** button which will upload the associated **customers**, **products** (and **pricelist items** and **units**), **invoice**, and **invoice item** records as required. Remember that records that already exist in CRM are only partially updated.

Note: SYNC Connector is not yet multi-currency and simply uses the default currency of the user credentials specified in the configuration file.

6.1. Uploading Customers

SYNC Connector assumes that all sales accounts are companies and uploads into the account entity of CRM after checking for existing records by checking against the **relationship type** and the **account number** fields.



Only three fields are updated if the customer record already exists:

- **Annual Revenue**
- **On Hold Status**
- **Credit Limit**

SYNC Connector does not check any CRM records with a blank account number or with a different relationship type to the one specified in the configuration. Consequently if duplicate records are created, you will need to use the **merge** feature within CRM to merge the records. We have a **matching** function available from the setup page which will pass through the CRM accounts records and set the account number from Sage by matching against the company name.

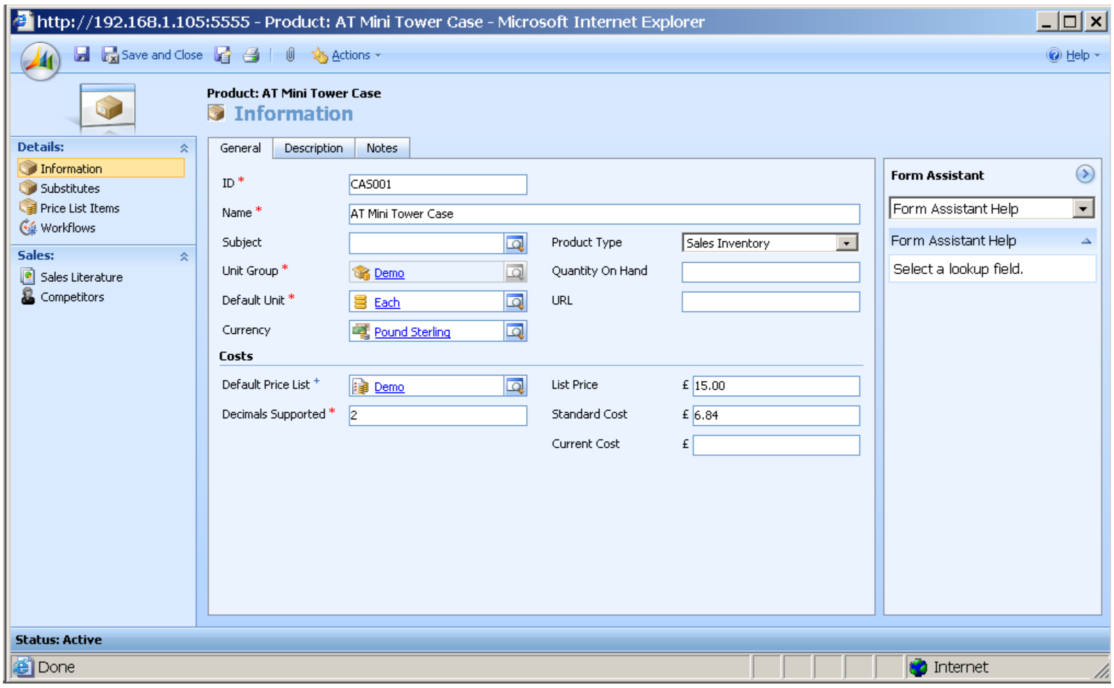
Note: Be careful with the user credentials you specify in the configuration file and make sure that the appropriate ***security roles*** *and privileges are set within CRM. The Connector needs at least read-access to all the customer records, for example, otherwise duplicate records will be created.*

The contact details held against the account in the accounting database are uploaded as an associated **contact** record for a new customer although this is not set as the primary contact.

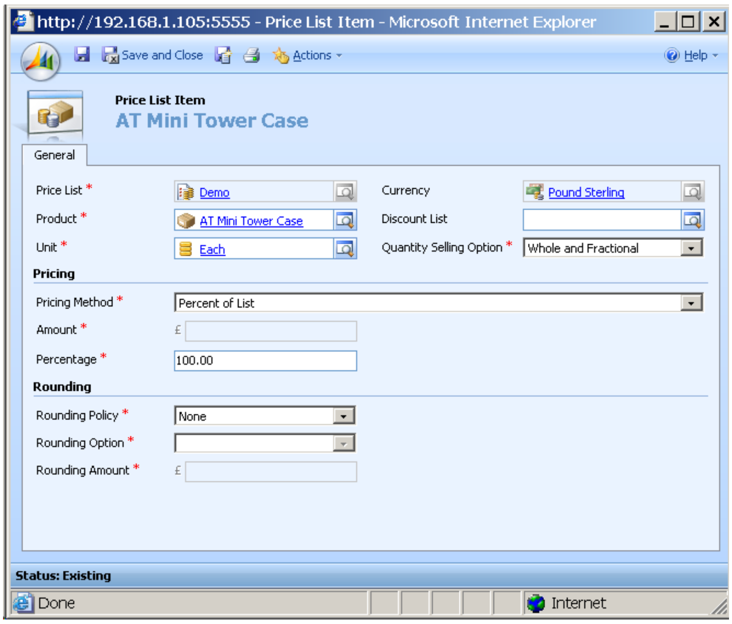
Note: QuickBooks has account numbers specified only on selected accounts and so the unique fullname of the account is used as the accountnumber. This is often larger than the default width of the field in CRM and you will need to customise the accountnumber field to be a larger size as noted in the installation instructions. We do not currently support Contacts and B2C *functionality in CRM so retail accounts will be loaded up as accounts in CRM (with an associated contact record).*

6.2. Uploading Products

Products are uploaded by matching the **product number** field in the product catalog. All products are loaded into a single pricelist and the **Pricelist** and **Unit Group** (and the **default Unit**) must have already been entered into CRM and set up in the config file.



The **list price** and **standard cost** is set into the product record and an associated pricelist item created for the default units and assigned a price set to 100% of the list price of the product record.



Each combination of a product and units that is uploaded from the accounting package requires a new **pricelist item** record to be created and associated with the relevant units against the **unit group**. We recommend that you maintain your own units separately to the uploaded units as the accounting system may specify more product/unit combinations than you require.

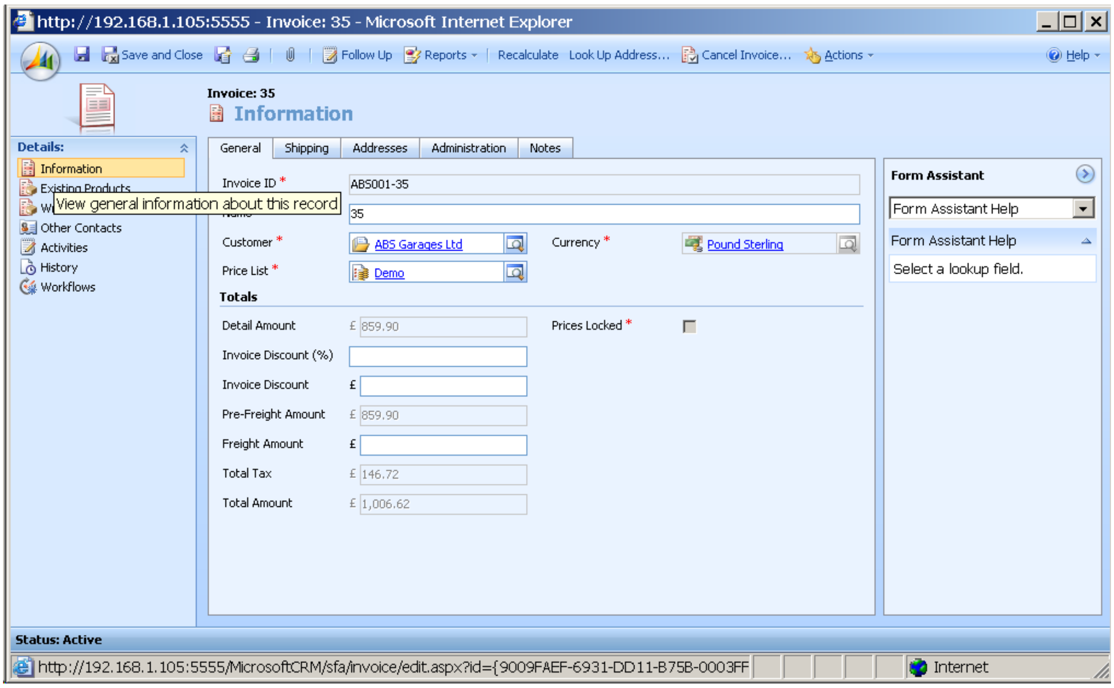
The upload process creates new units when required but does not specify the number of base units which are ignored for pricing purposes. These items inherit the price from the product list price and need to be maintained manually if you are to use them in the CRM sales cycle as the inherited price will only be correct for the default units of the product (this does not affect uploaded invoices as they always specify a price and override the default pricing).

Note: *We recommend that you create and maintain your own pricelist and unit groups using the product records uploaded from the accounting system as only the price against the default units will be correct in the uploaded pricelist. Alternatively you can maintain the units and the price list item prices yourself and use those.*

Uploads of a product that already exists in CRM will update the **stock level** and the **list price** and **standard price** only if the **units** correspond to the default units of the product:

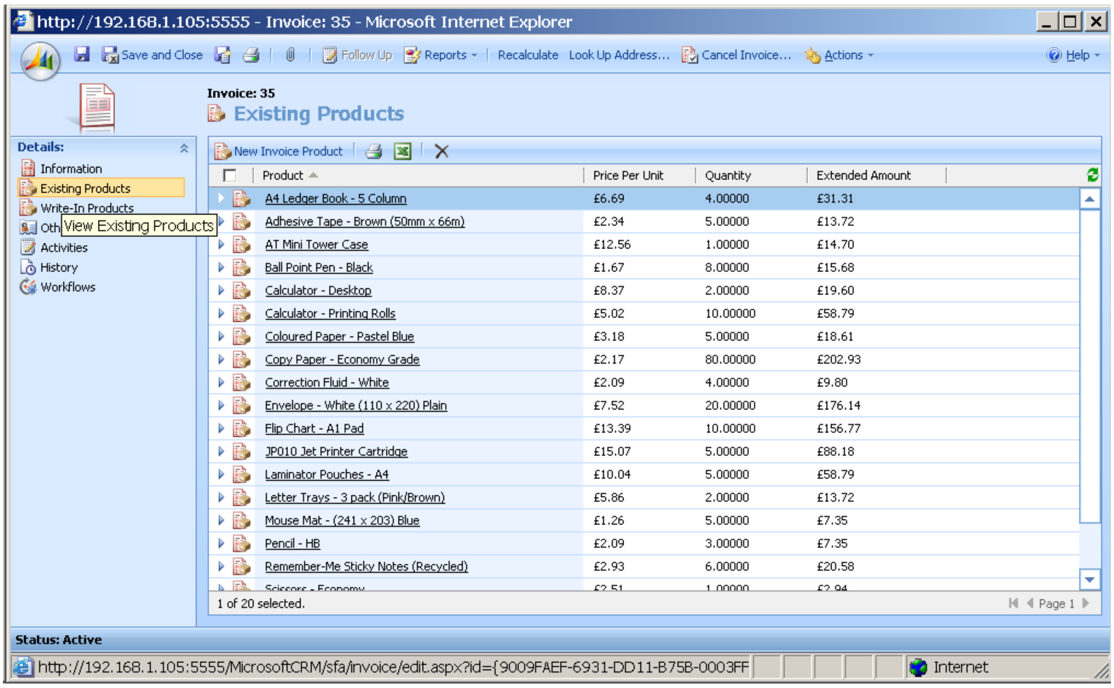
6.3. Uploading Invoices

Invoices are loaded against the corresponding account and given an Invoice ID of the account number and invoice number separated with a hyphen. The invoice number is copied into the name field and the default pricelist selected.



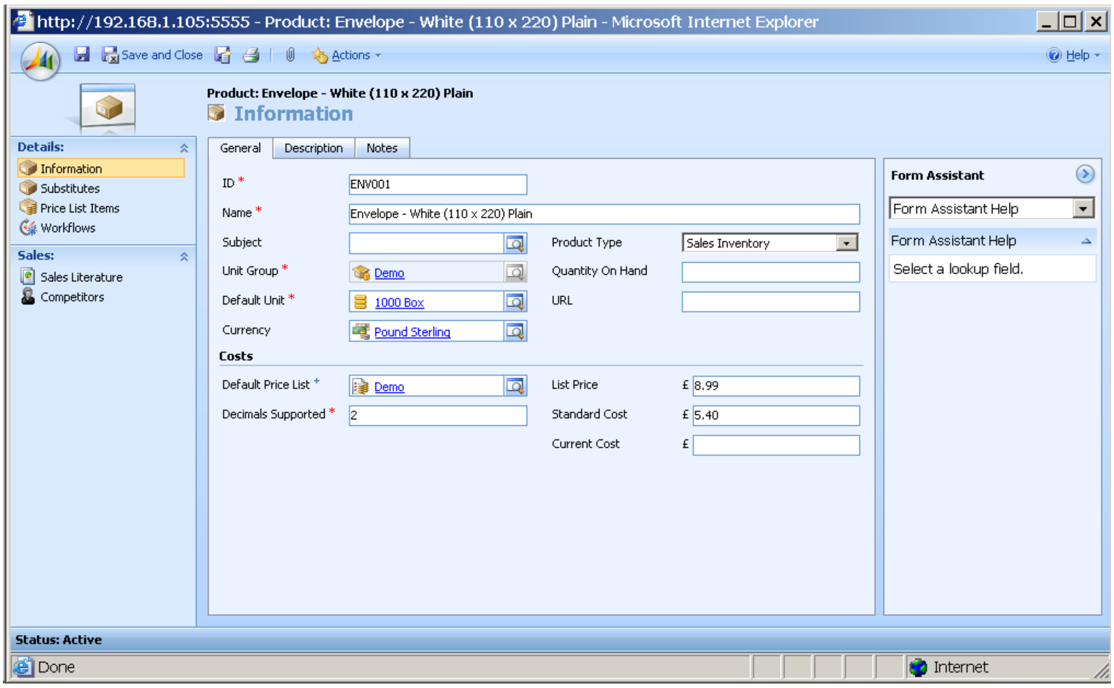
Products are uploaded using existing products where possible and as write in products where no product is found for the item in the accounting database. The product description for both types of item is written into the description field of the product item.

Note: Sage 50 uses product codes S1, S2, S3 for miscellaneous products and M for a note which are loaded as write-in products by the Connector.



All items override the product price and contain the **price per unit**, the **quantity**, **tax amount**, and **total price**. The outstanding amount for each invoice is not available here but each invoice can be flagged when the invoice has been fully paid (with Sage 50).

Note: Discounts are not uploaded but the discount field is often used to match the exact price from the accounting system as CRM demands that the price shown is the price per unit multiplied by the quantity.



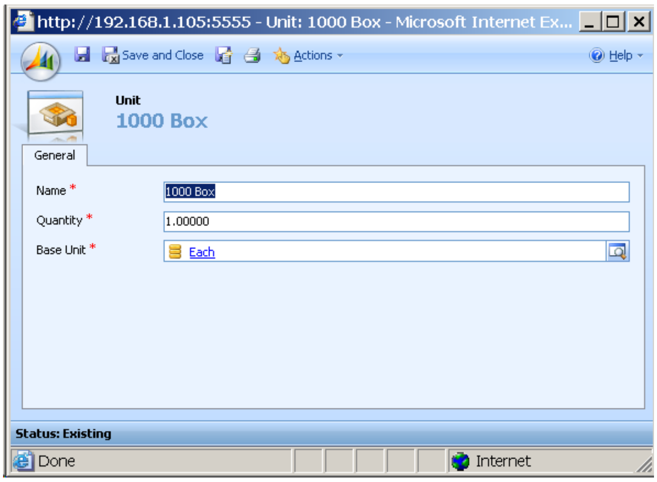
The **default values** for the product type and **decimals** supported are set in the config file.

Note: See information on our SYNC Accounting product to see how to view outstanding invoices, credit notes, and other account data from within CRM.

6.4. Units

CRM requires that each combination of a product and units have a pricelist item created and the unit defined against a unit group.

New units are created in the Connector **default unit group** where necessary so the units can be uploaded from the accounting package. The Connector cannot however work out how many of the primary unit are represented here and you will need to overwrite this value if you are to use this manually within CRM for creating Quotations and Orders in the sales cycle.



Note: Our recommendation is that you define a pricelist and a unit group used only by the Connector software and define a different pricelist for your own use in the sales cycle.

6.5. Setting the Paid Status for an Invoice

The Connector for Sage 50 supports functionality that sets the **PAID** status on an Invoice in CRM when the Invoice has been fully paid within the accounts system.

The PAID status of the invoice is checked when an invoice is first uploaded and each time the batch process is run and comes across a payment transaction for the invoice in question. Selected fields on the account record are also updated at this time.

7. Process CRM Orders

This section only applies for two-way integrations from CRM into the accounting system currently implemented only for **Sage 50**.

You can use the CRM View form to upload customers and products from CRM into the accounting package. However most processing is driven with **the Process CRM Orders** form which looks at the sales orders with the appropriate status reason set and uploads new customers and products before creating the order or invoice in the accounting database.

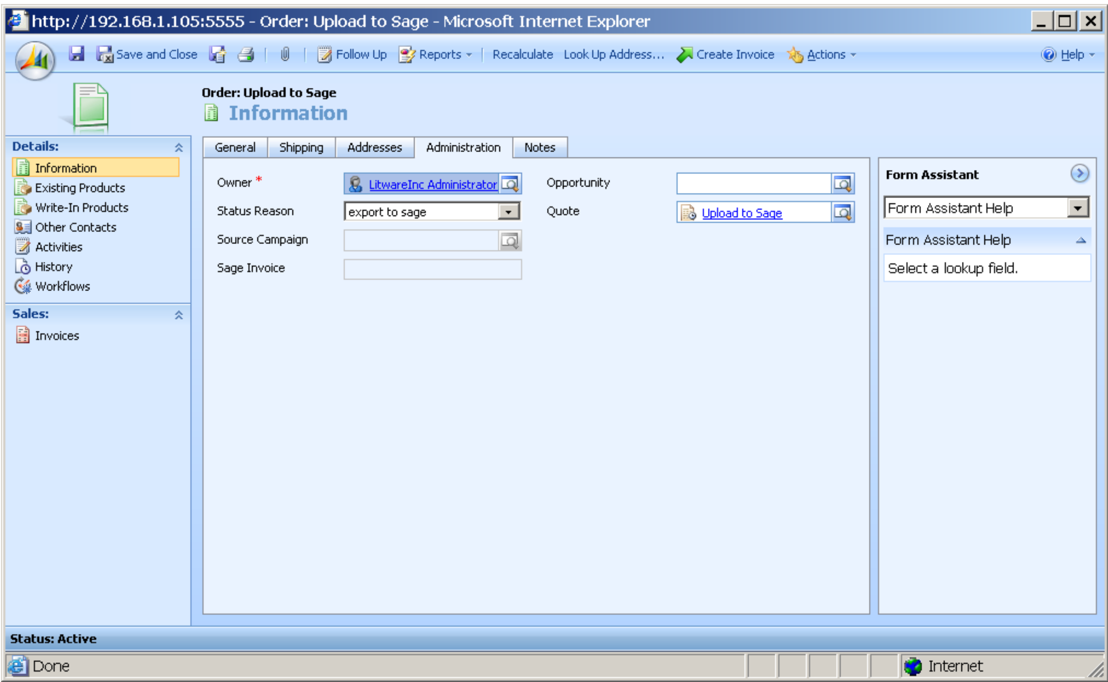
7.1. CRM View

The **CRM View** has similar functionality to the accounting view page but allows only customers and products to be uploaded from CRM into the accounting database.

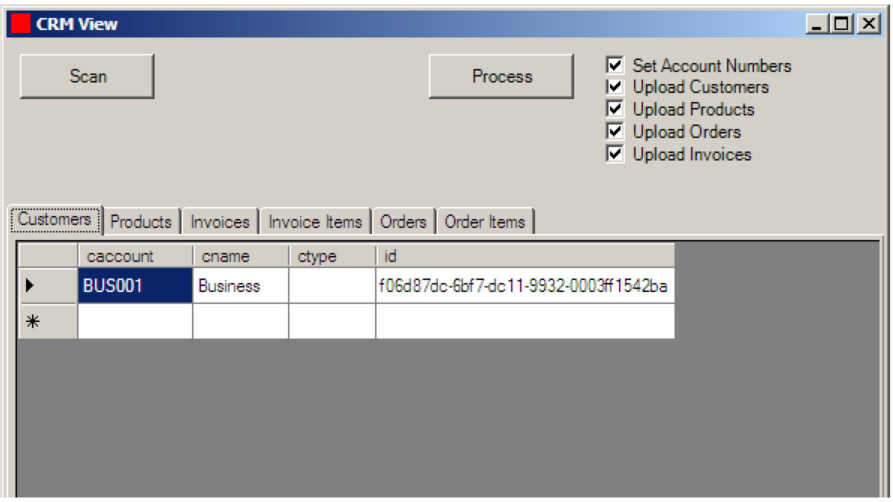
Select customers and products in this form and press the Upload button to upload into the accounting database. Products in CRM might be uploaded into the accounting database against a default nominal code and modified by the accountant before being used in the sales cycle.

7.2. Process CRM Orders

Sales Orders within CRM need to have the appropriate **status reason** field set before they appear in the CRM View. You should create two status codes for the sales order table one to indicate that the sales order is ready for processing into sage and the second to indicate that the record has been uploaded. All these values must be set up in the configuration file.



The **Process CRM Orders** form is used for uploading sales orders into your accounting database. Currently we only support Sage Line 50 for this process. The Scan button is used to show all the customers, products, invoices, and invoice items associated with any sales orders waiting to be processed.



The CRM View form allows you to view several different entities:

- Customers associated with the invoices to upload.
- Products associated with the invoices to upload.
- Sales Orders to be created in the accounting database.
- Sales Order items to be uploaded.
- Invoices to be created from the accounting database.
- Invoice items to be uploaded.

Accountants often upload the customers and products into the accounting database first and make sure that the correct nominal accounts and tax codes are set up before importing the invoices.

7.3. Set Account Numbers

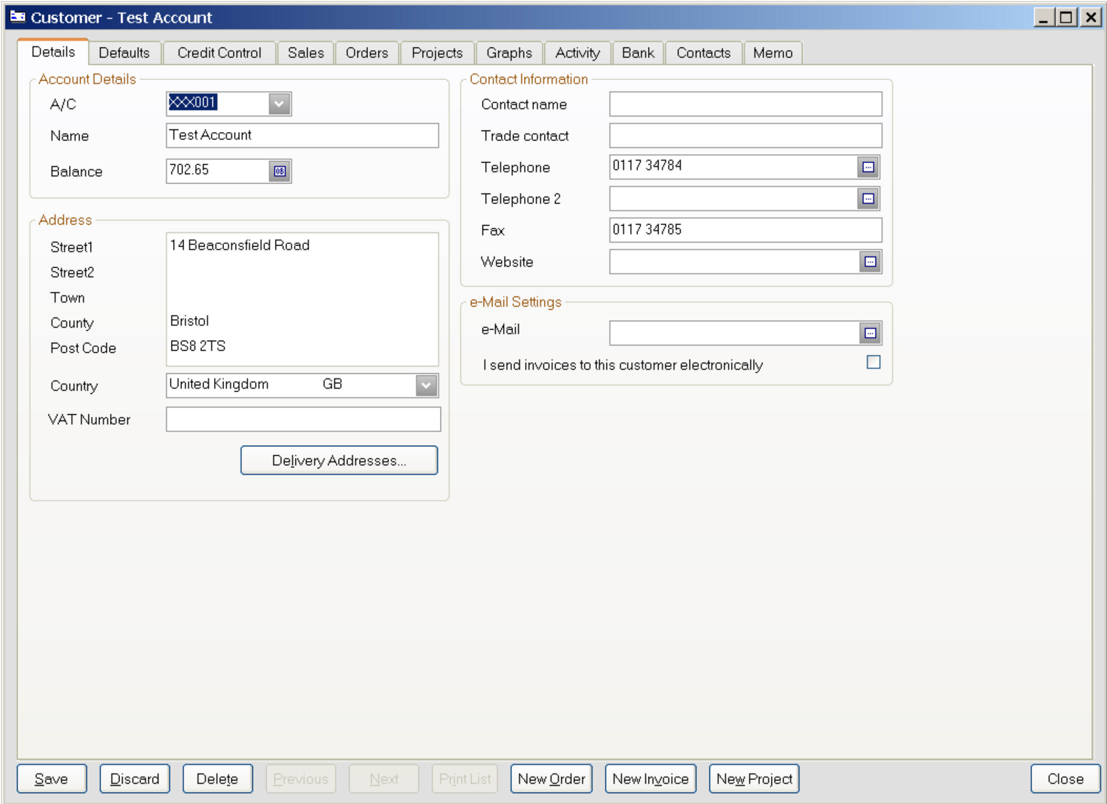
The **accountnumber** value may be blank against the account record in CRM for a new customer. The **set account numbers** functionality looks at the accounting system and allocates a new account reference to the accountnumber field in CRM which is then used to create the new customer record in the accounting system.

Note: You can use the matching function on the setup page to match existing company names to the accounting database when you start using the Connector.

7.4. Upload Customers

Customer records are only created in the accounting system if the account number does not already exist in the sales ledger. Existing account data in the accounting database is never touched if the account has already been created in the accounting system.

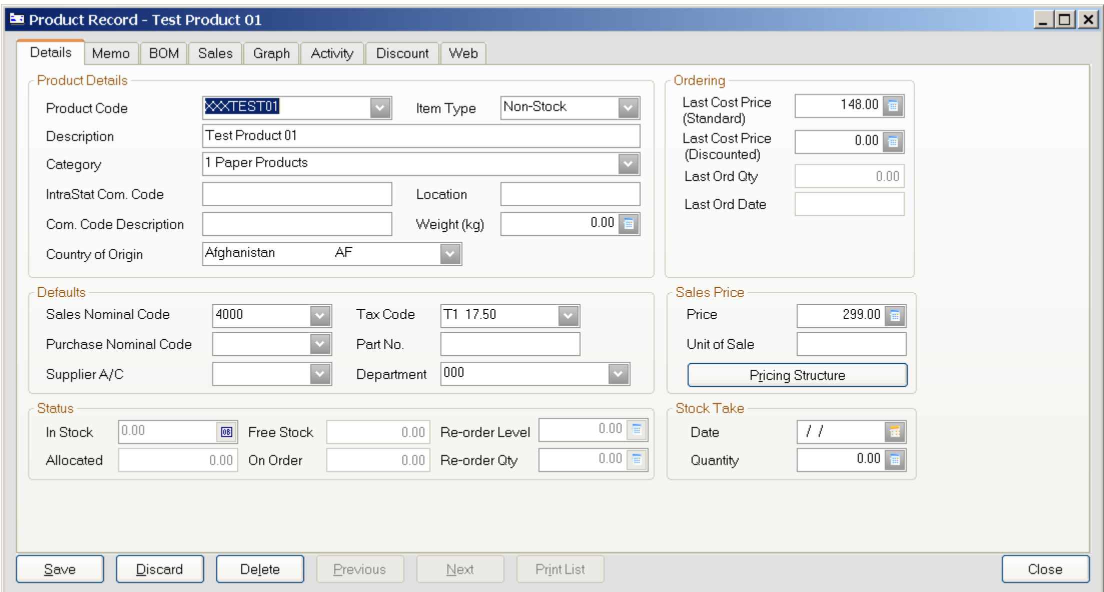
You will need to edit the appropriate account record in CRM if the desired reference has not been entered in the **accountnumber** field or created by the **Set Account Numbers** functionality. Take care not to duplicate values for the account number as the Connector simply looks at the **accountnumber** to identify the account for uploading invoices and does not check the company name or other information.



7.5. Upload Products

Product records are imported into the accounting system and are give the default nominal ledger values specified in the configuration file and are set up for tax.

You can edit the product record in the accounting system to change some of the defaults before uploading invoices so the correct tax and nominal codes can be applied by the accounting system.

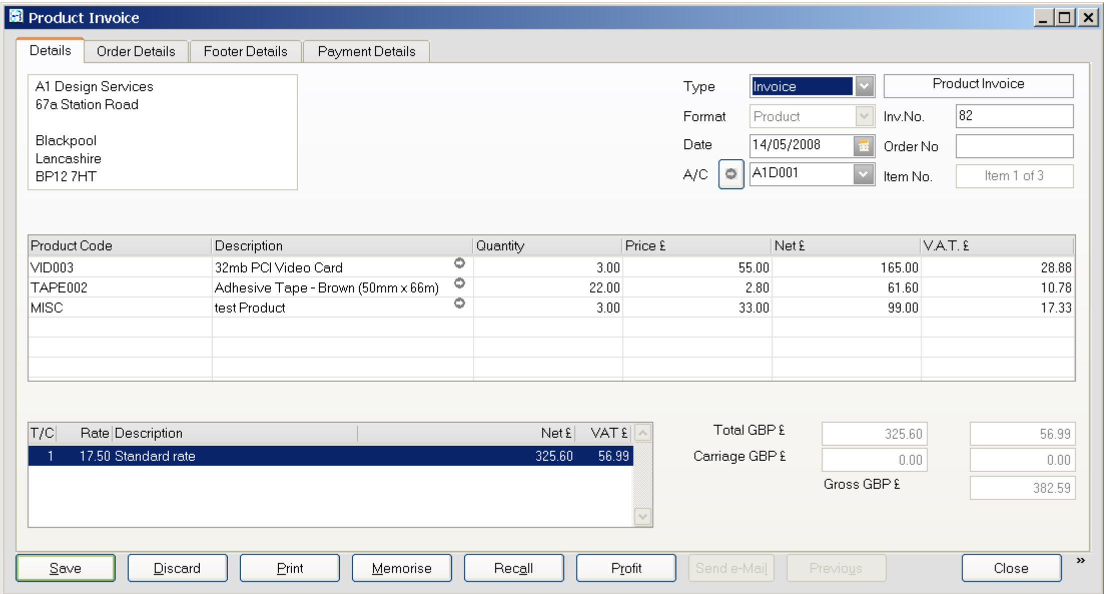


Tax specified in the CRM record is ignored for the purposes of the upload and recalculated according to the tax codes setup for the product in the accounting system. **Product prices** are always ignored and the value specified in the sales order is applied.

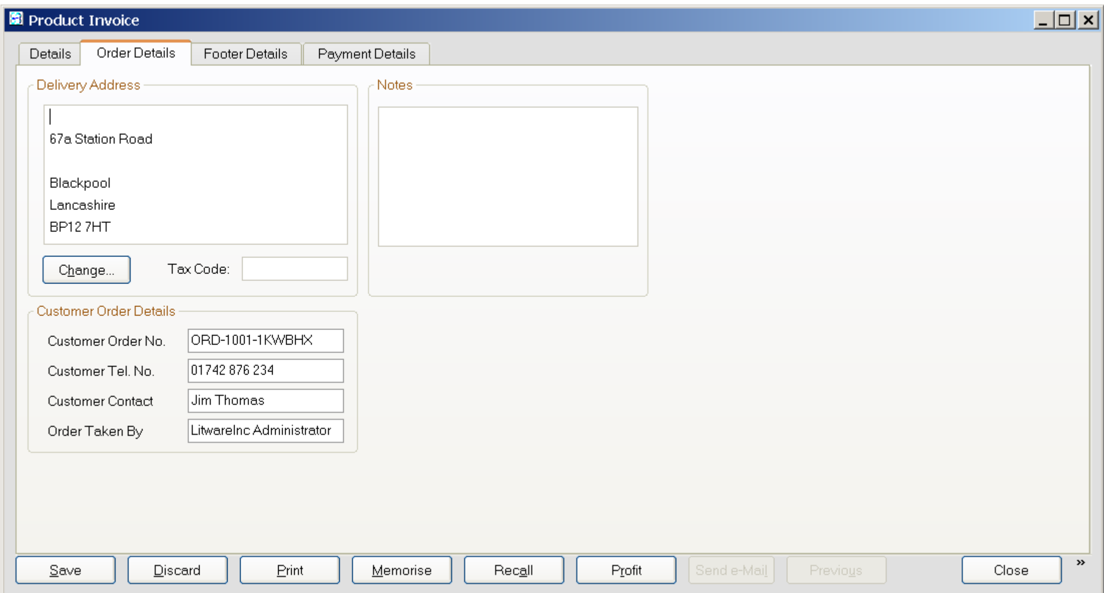
7.6. Upload Invoices

Sales Orders are uploaded as **product invoices** in Sage and can be reviewed (or deleted) before posting to the sales ledgers in Sage.

Two CRM status values are specified in CRM. The first tells the Connector to upload the sales order (either as an Order or as an Invoice) into the accounting system and the status is set to the second status value after a successful upload. The state of the sales order can be changed at this point as well if required.



The **order number** from CRM is recorded in the invoice for reconciliation purposes and the **owner** specified as the taken by contact.



7.7. Discounts and Special Pricing

The SYNC Connector applies discounts entered at the line item level correctly but ignores the overall discount percentage or discount amount and freight amount defined against the sales order header record. It is a good idea therefore to remove these fields from the CRM Order and Invoice form.

Sage accounting allows special pricing to be defined against individual customers against each product. The Connector only updates the retail and cost price (and stock level) data and leaves you to create pricelists of any complexity within CRM. One workaround if you have specific pricing entered in Sage is for the accountant to select the Account again when viewing the Sales Order or Invoice. This prompts the user to reapply special pricing to the record and will recalculate all pricing accordingly. The CRM User will view these changes once the order becomes an Invoice and is re-imported back into CRM as part of the batch process.

7.8. Upload Orders

Sales Orders can be uploaded into the accounting database in a similar manner to Invoices.

Creating Sales Orders in the accounting system allows the accountants to access additional workflow within the accounting system which may not be available if invoices are uploaded directly.

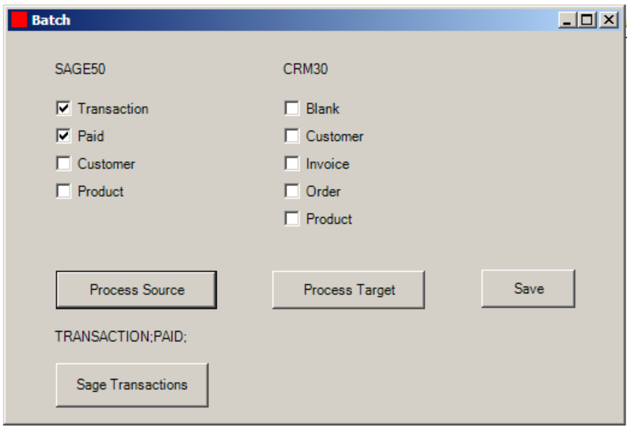
Stock Control is available in Sage 50 only from the Sales Order entity and stock can be allocated before promoting the Sales Order to an Invoice. The final posted invoice will find its way back into CRM as part of the synchronisation process from the accounting system back into CRM.

8. Batch

Batch mode processing allows you to set up the procedure for synchronising your accounting and CRM data so that you can run the process automatically every hour or so if you wish.

Note: The Batch form shown below is available only once you have registered your software and two way processing from CRM into the accounting system currently only available with Sage 50.

Batch processing is typically incremental and will store the last transaction or date processed and only process records from the accounting system that have been entered since the last time the process was run. Use the Accounting View forms if you want to process old data or change the transaction number or date in the transaction window available from this form.



You can select the required options by selecting the appropriate checkbox items and test the processing by pressing the **process source** and **process target** buttons. Press the save button to save the settings to the configuration file and set up a scheduled task to run this process automatically every few hours or so for unattended operation (see the installation instructions for Batch processing).

8.1. Loading data from the accounting database into CRM

The following modes can be configured for the Batch process from the accounting database into CRM:

- **TRANSACTION** – processes transactions incrementally to copy new invoices (and associated customer and product records) into CRM.
- **PAID** – updates payment status for existing invoices in CRM and without creating the invoice if it does not already exist.
- **CUSTOMER** – to add new and update all the sales accounts each time.
- **PRODUCT** – to add new and update all existing products each time.

Both **TRANSACTION** and **PAID** would be set to automatically load all invoices into CRM and update payment status..

8.2. Loading data from CRM into the Accounting Database

The following modes can be configured for batch processing from CRM into the accounting database:

- **BLANK** – set the account number for new customers into the CRM account record.
- **CUSTOMER** – upload new customers only without the orders or invoices.
- **INVOICE** – upload invoices and associated new customers and products.
- **ORDER** – upload orders and associated new customers and products
- **PRODUCT** – upload new products only without the orders or invoices.

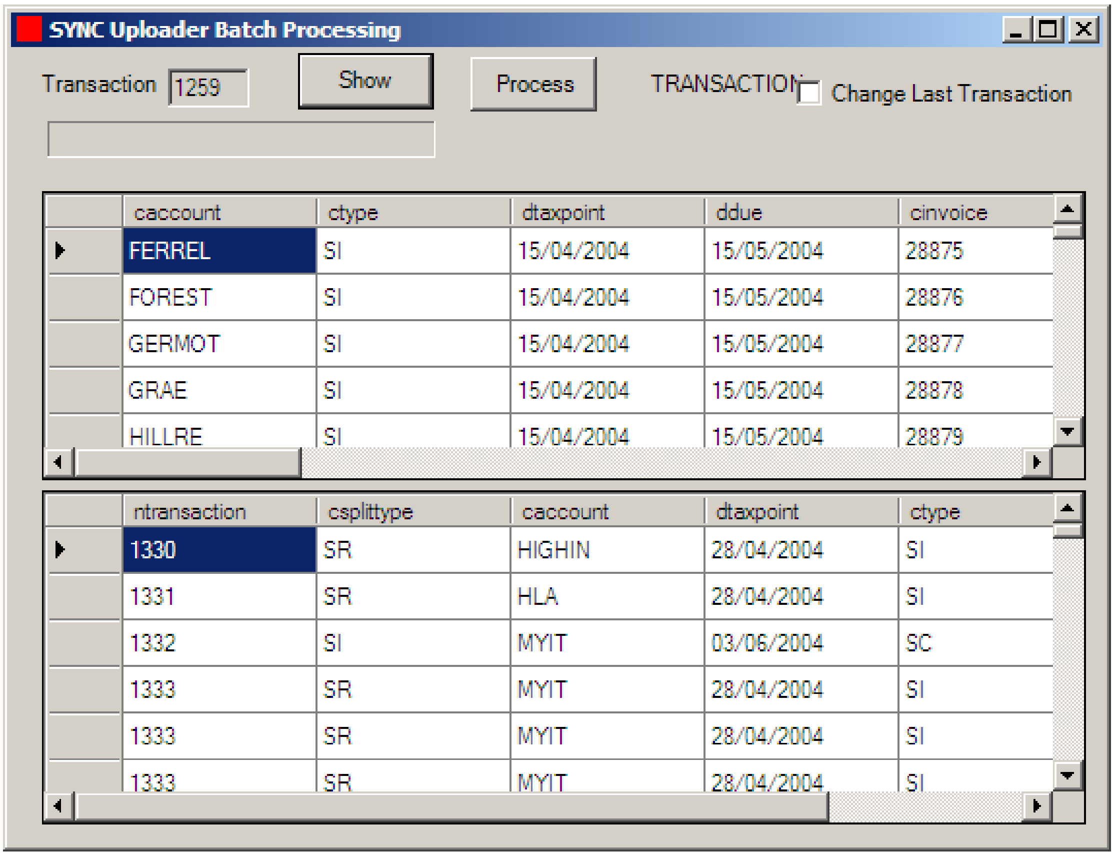
Some notes:

- Use the **BLANK;ORDER;INVOICE** options for automated batch processing from CRM into the accounting database. Specifying INVOICE will automatically copy any new Customer and Product records so selecting these items is not necessary.
- Accountants may want better control and might set just the **BLANK;CUSTOMER;PRODUCT** to allow adjustments to be made to customers and products before uploading the invoices and orders (you may want to change the default nominal and tax codes).
- If full control of the account reference for the new account s required, then do not specify the **BLANK** option. You will need to enter the **accountnumber** value in CRM with the required account number before the new customer can be processed.

8.3. Sage Transaction Processing

Specific functionality has been implemented for Sage 50 to process transactions so that only new data is processed into CRM from the accounting database.

The latest transaction number is used to drive the batch upload which will determine new **invoices** to add into the CRM database together with associated **customer** and **product** records. The transaction number is also used to look through any new payment transactions and update the **paid status** value of the invoices in CRM.



The transaction number is normally stored and maintained automatically in the **sync.lasttransaction** setting of the configuration file but can be modified by checking the **change last transaction** checkbox which will allow you to edit the value of the last transaction.

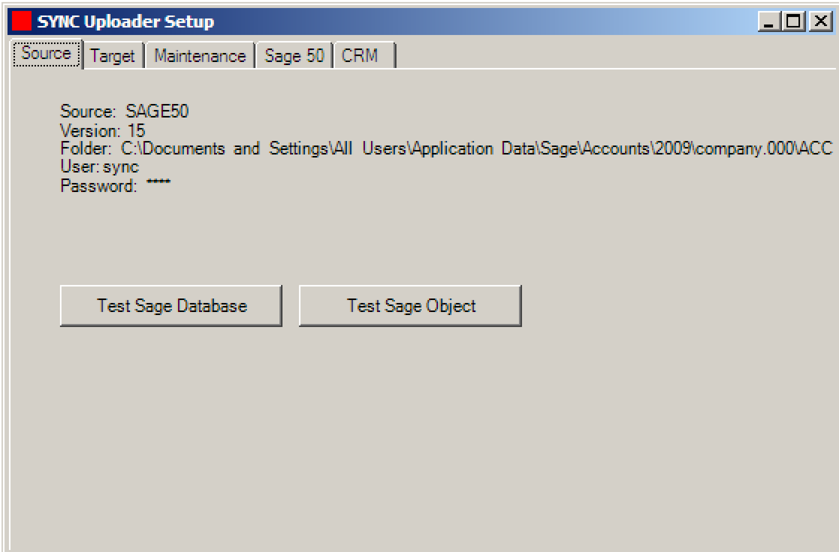
Pressing the **Show** button will show all the transactions to be processed according with sales records displayed in the top part of the form and payment records below.

9. Setup

The setup page (available from the home page) has a few utilities to help you test your configuration. The configuration process involves editing a configuration file and is described in the next section. You will want to use the setup pages to test the configuration during the installation process but also if things stop working.

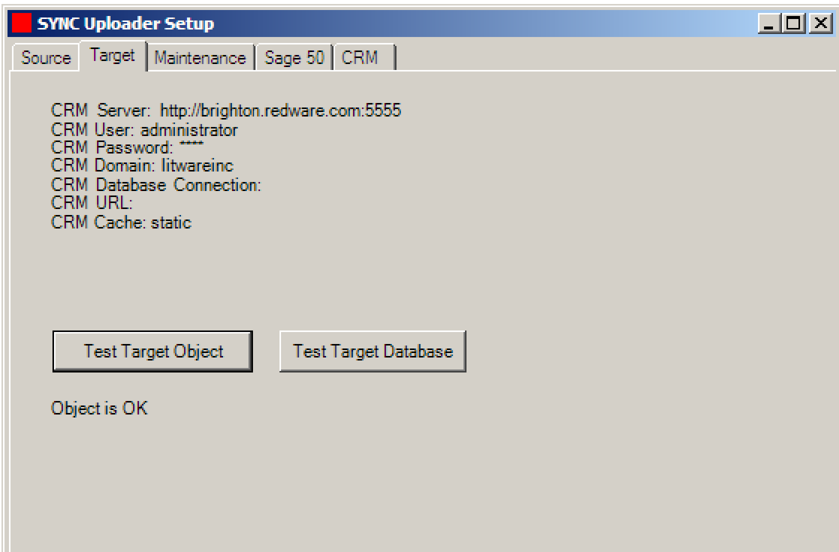
9.1. Source

The configuration for your accounting system (in this case SAGE50) is shown and **the test database** and **test object** buttons allow you to check that the connection to the accounting database is working fine.



9.2. Target

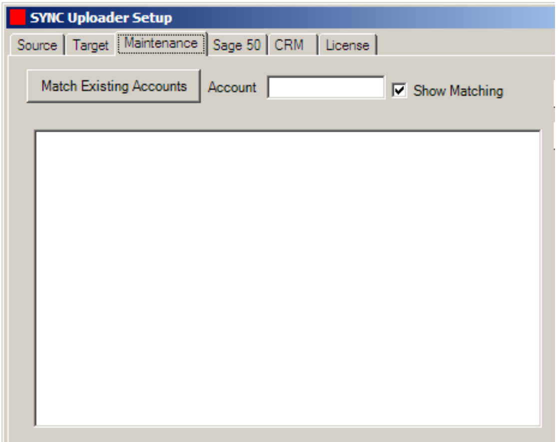
The configuration for the target system (in this case CRM) is shown and press **test database** and **test object** to test the connection.



Note: The CRM Connection can take 20 seconds for the first connection in any session. The database connection may not be possible for hosted systems and is not required for the synchronisation process.

9.3. Match Existing Accounts

You may have account records in CRM that need matching up with the companies already entered in you accounting system. The **match existing accounts** option will do just that.



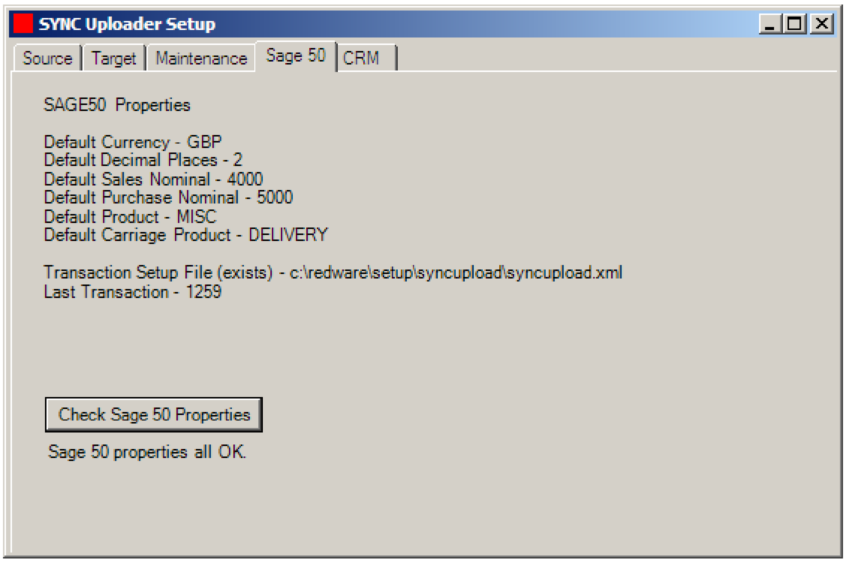
Specify the first few letters of the account reference in the accounting system that you want to match (in this case all account references beginning with A). The program will prompt you to continue and then check the company name from the accounting system against the company name of all accounts in CRM.

Specify the **show matching** option just to view the results, otherwise if a match is found with the company names **exactly** the same then:

- Nothing happens if there is already a value set into the **accountnumber** field in CRM (an entry is made in the log if the value is different).
- The **accountnumber** is set in CRM if the current value is blank in CRM and only one record is found and the **relationship type** is set to customer (as specified in the config file).
- An entry is made in the log if no matching company is found. Search for the log file in your program installation folder (the folder is specified by the **redware.logfolder** setting in the config).

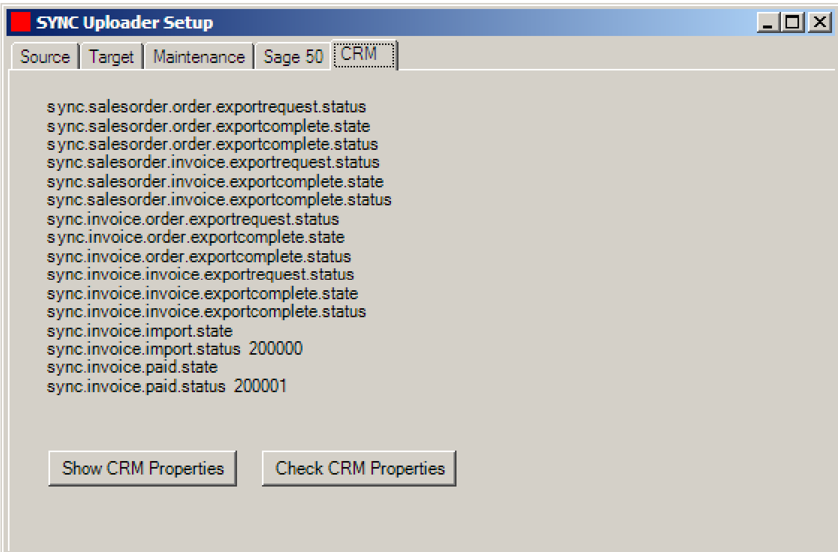
9.4. Sage 50

The Sage 50 section checks the product settings for uploading products from CRM into Sage.



9.5. CRM

The CRM tab checks the status codes allocated against the sales order and invoice entities in CRM used to trigger the synchronisation from CRM into the accounting system and also the invoice status used to receive invoices from the accounting system and the fully paid status.



Click the **Check CRM Properties** to make sure that you have configured each option correctly against the appropriate value in your CRM database.

9.6. License

See the installation section for configuring your license information.

10. Installation

10.1. Requirements

SYNC Connector typically runs on a workstation:

- The workstations should already be running the accounting software.
- .NET framework 2.0 is required. If you are running Windows XP You can install the .NET framework using Windows Updates or download from the Microsoft website.
- You should be able to connect to CRM using your browser from the machine.
- Sage 50 V 11 and earlier will not connect with our software on Windows Vista. You need to upgrade Sage 50 or run under Windows XP.
- You may need administration rights on the local machine to install.

10.2. Installation

We have an installation package for the software. Simply copy to a folder on your machine and run the **sync-connector.msi** program. If you cannot get admin rights on the local machine then use our zip file to install simply by copying files onto the local hard drive.

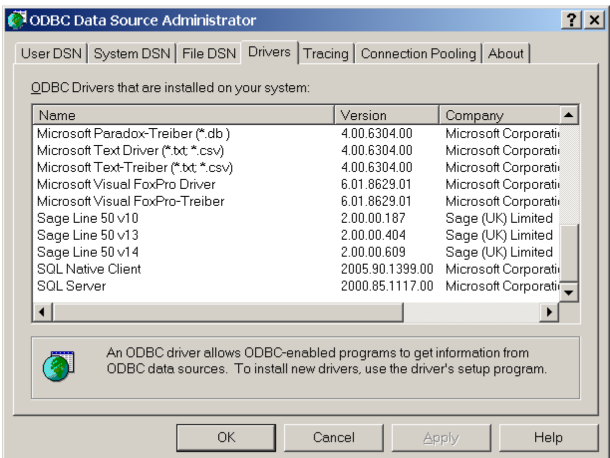
By default the application installs into your **c:\program files\redware\sync connector for microsoft crm** folder and creates a shortcut on your program menu and desktop.

This manual is available from the shortcut in the program menu and can be found in the installation folder or on our website.

10.3. Sage 50

10.3.1. Sage ODBC Driver

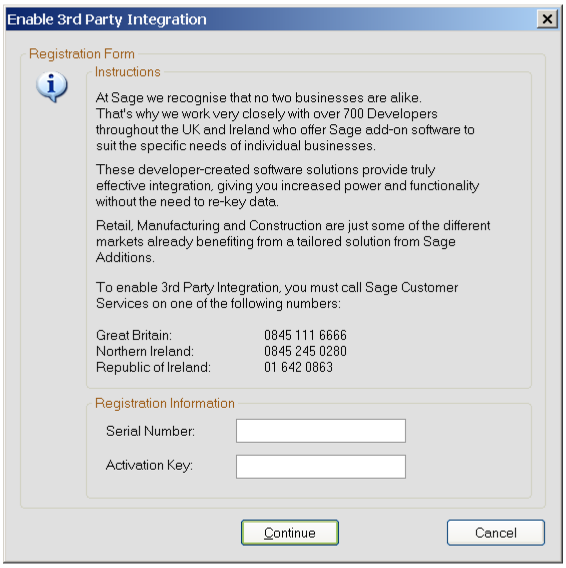
SYNC Connector access the accounting database using the ODBC driver provided by Sage. Some versions of Sage Line 50 do not have the ODBC driver installed by default. You can view the currently installed drivers from the control panel by selecting **Administrative Tools-Data Sources(ODBC)** and choosing the **Drivers** tab as shown below.



If you cannot see the appropriate driver for your version of Sage Line 50 (or Sage Instant Accounting), then look at the installation folder of your local Sage installation (usually **C:\Program Files\Sage\Accounts\ODBC32**) and you will find a folder called ODBC32 which contains a setup file. Make sure you have local administration rights on the machine and run the installation to load the driver.

10.3.2. Sage Third Party Activation

Sage Line 50 is usually installed with the Third Party Activation settings created for you. These are required only for importing data into Sage from CRM. You should check under the **Tools-Activation-Enable 3rd Party Activation** menu of the application to make sure the application is enabled for third party software and follow the instructions to call Sage and get hold of the activation keys if required. This service is free from Sage and you just need to provide them with the serial number for your installation.



There are problems with Windows Vista and Sage Version 11.1 where the third party activation looks fine but does not work with two-way integration because of problems registering SGREGISTER.DLL. You need to upgrade your version of Sage or run under Windows XP.

Note: You must activate and restart a newly installed version of Sage 50 from the ***Tools-Activate-Upgrade Program*** *menu option otherwise the Sage Data Objects are incorrectly registered and you will get an error saying that you have exceeded the user count.*

10.3.3. Add a User

We recommend that you add a user for the SYNC Connector program for the two way integration with Sage 50.

Use the **Settings-Access Rights** menu option within Sage 50 to create a new user specifically for the SYNC Connector program and give it Full Access to the accounting database.

10.4. Other Versions of Sage

10.4.1. Sage Instant Accounting

You need to install the ODBC driver on the local machine and set up the appropriate configuration parameters as discussed later in this section. Sage have now released the API for Instant Accounting so two-way integration is now possible although we have not yet done the development work. Please contact us if you require this option.

10.4.2. Sage MMS and Sage 200

In the case of Sage MMS and Sage 200, access is directly to the SQL Server database and you need to create the appropriate read-only login security on the database and specify the connection string in the configuration file.

We have access to the Sage 200 API and could develop a two-way integration. Please contact us if you require this option.

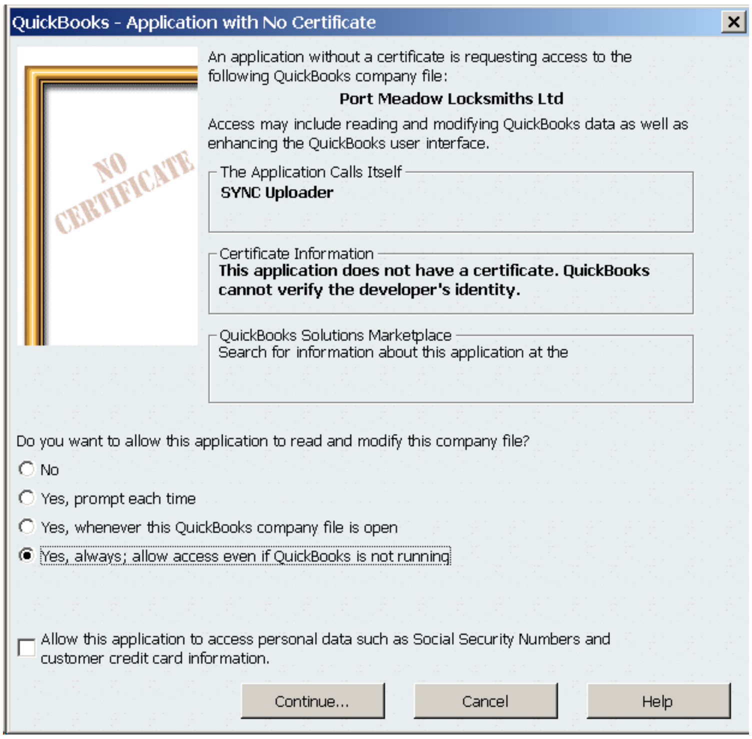
10.5. QuickBooks

Currently we have one way integration with QuickBooks although two-way integration is high on our priority list.

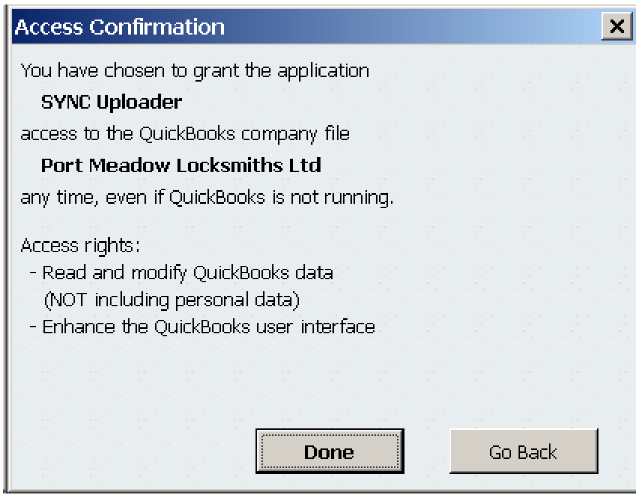
10.5.1. QuickBooks Security

QuickBooks needs to be running on the machine you are using for the SYNC Connector to work. You are prompted to allow access to the accounting database when you first run a query from the Connector. You can choose the level of access you allow to the application as shown below.

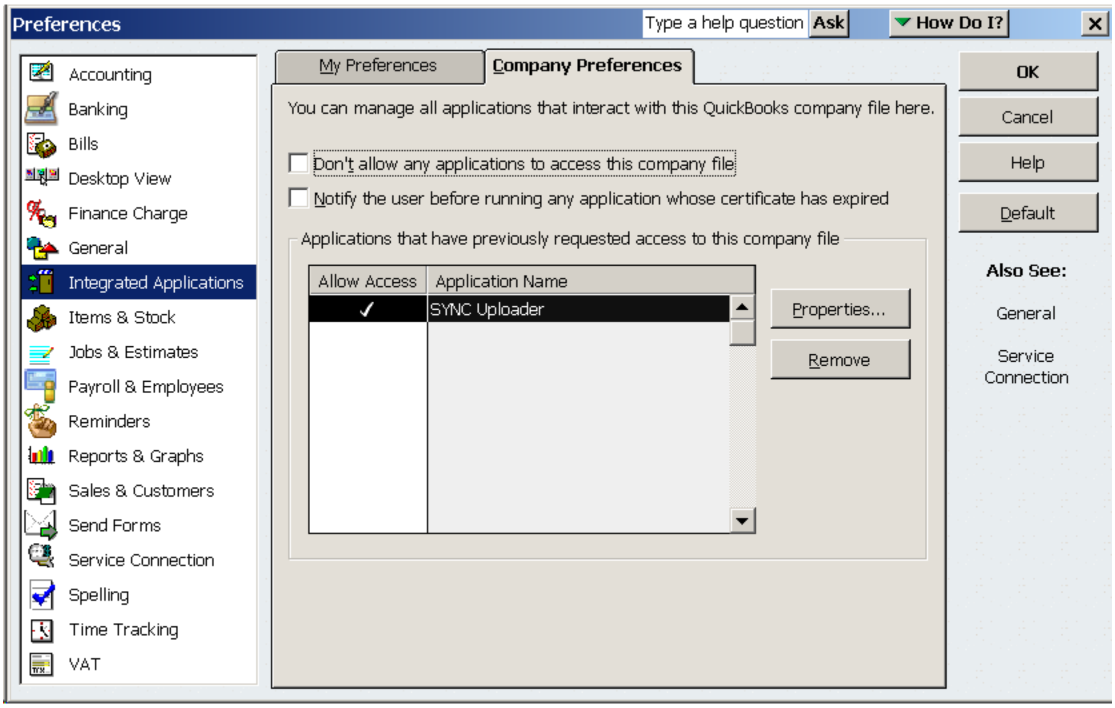
Note that this version of the SYNC Connector does not have a certificate so ignore the subsequent warning.



You will see the following dialog once access is granted.



You can change or remove the access at any time from the **Edit-Preferences** section of your QuickBooks application.



10.5.2. AccountNumber Customisation

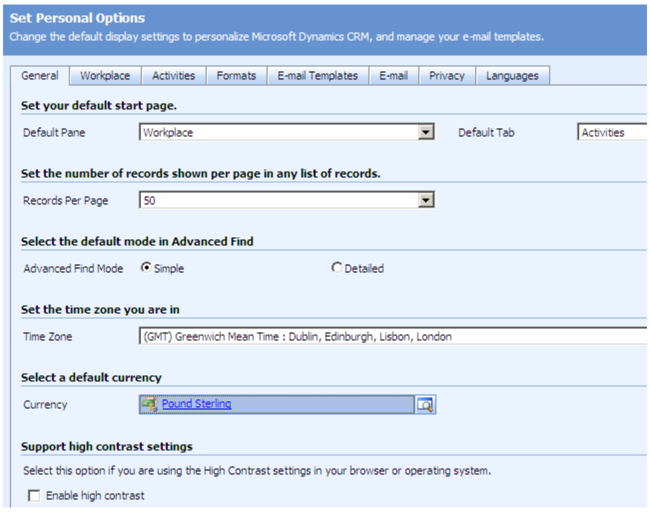
QuickBooks integration will upload using the **fullname** identifier on the account which can be longer than the default **accountnumber** field specified for an account. You should customise (and publish the changes) the account table in CRM to increase the length of the accountnumber field to accommodate your data (perhaps 60 or 100).

*Note: In CRM 4.0 you can access the **Settings-Customisation-Customise Entities** and select the **Account** Entity and the **accountnumber** field from the **Attributes** page and change the **maximum length** from the default of 20 to 80.*

11. CRM Configuration

11.1.1. Default Currency

The SYNC Connector is not truly multi-currency and simply uses the default currency for the user specified in the connection settings as the currency. Make sure you have specified the appropriate currency for the user in CRM in the from **Tools-Options** menu:



11.1.2. Relationship Types

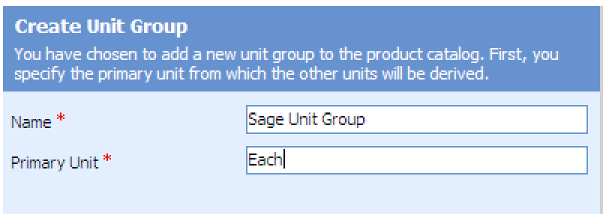
The **crm.customertypecode** specifies the picklist value for the **relationship type** field on the account to be used to identify customer accounts. You can view the picklist values for your CRM installation by customising the account entity and looking at the values against the **customertypecode** attribute. The default value for a customer is 3 and 10 for a supplier.

```
<add key="crm.customertypecode" value="3"/>
<add key="crm.suppliertypecode" value="10"/>
```

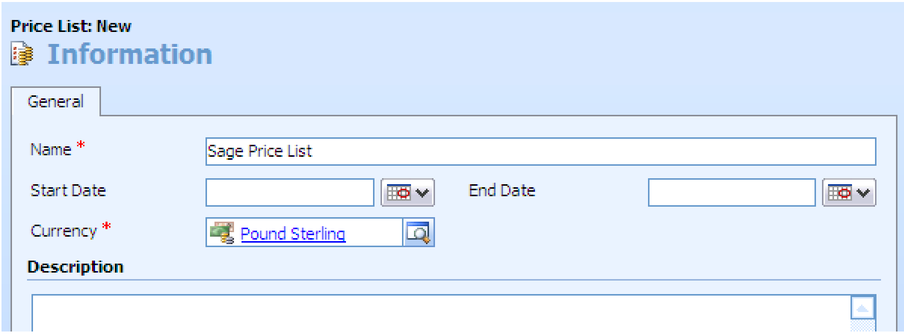
11.1.3. Product Settings

You need to create a **pricelist**, with a default **Unit Group** and default **Units** in CRM before uploading products.

Create the **Unit Group** from the **Settings-Product Catalog-Unit Groups** section in CRM and assign the **default units**:



Add a new price list record using the **Settings-Product Catalog-Price Lists** section:



Now specify the settings for the pricelist into the **product.pricelevel** setting, the default units into **product.defaultunits** and the unit group into the **product.defaultschedule** setting as shown below:

```
<!-- CRM Product Defaults -->
<add key="product.defaultschedule" value="Sage Unit Group" />
<add key="product.defaultunits" value="Each" />
<add key="product.pricelevel" value="Sage Price List" />
```

You can specify default values for the **quantitydecimal**, **producttypecode**, and **roundingpolicycode** values on the product entity. Once you have uploaded a product, you can change these values and they will not be overwritten. Our recommended defaults are specified below and take care that the values you specify do exist:

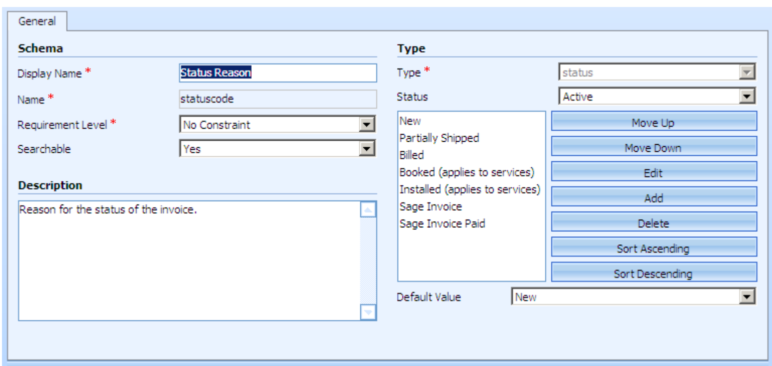
```
<add key="product.quantitydecimal" value="2"/>
<add key="product.producttypecode" value="1"/>
<add key="product.roundingpolicycode" value="1"/>
```

Note: You can upload products from the accounting system into CRM once these product settings have been defined.

11.1.4. Invoice Settings

Invoices are uploaded into CRM from the accounting system together with a status code to indicate that the invoice originated in the accounting system.

Use the **Settings-Customise-Customise Entities** page in CRM to select the Status Reason (**statuscode**) field from the **Attributes** of the **Invoice** entity and add status reason codes to indicate that the invoice has been loaded from the accounting system and a second code to indicate that it has been fully paid:



Don't forget to **publish** the changes by pressing the publish button available when you have highlighted the invoice entity on the **Customise Entities** view.

Make a note of the numbers and specify in the appropriate status codes (you can also use the text value of the state code if you like but you will have problems deleting and modifying these records later).

```
<add key="sync.invoice.import.state" value="" />
  <add key="sync.invoice.import.status" value="200000" />
  <add key="sync.invoice.paid.state" value="" />
  <add key="sync.invoice.paid.status" value="200001" />
```

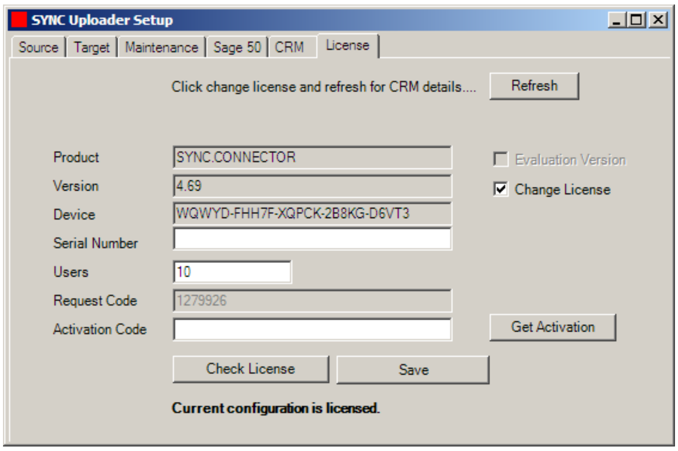
See the section on setting up the batch process for how the paid status can be updated. Invoices can be uploaded manually from the Sage View form by selecting the account and viewing and uploading records or automatically as they are created in the accounting system with the batch update.

11.2. License

You need a **serial number** and an **activation code** to activate your license. Your reseller should be able to give you a serial number (or we will email you one if you purchased directly). Otherwise you can purchase your software online at www.redware.com to receive your serial number.

Enter your **serial number** and the **number of users** in the license page on the setup form of SYNC Connector. Pressing the **Get Activation** button will contact our server to get your activation code which you may then save to activate your software.

If you have any problems, you can also get this number from your reseller and type it in directly (you will need to provide the **product**, **serial number**, **number of users**, and **request code**).



The license key values are stored in the configuration file:

```
<add key="sync.company" value="21" />
<add key="sync.connector.device" value="WQWYD-FHH7F-XQPCK-2B8KG-D6VT3" />
<add key="sync.connector.serial" value=" " />
<add key="sync.connector.request" value="1279926" />
<add key="sync.connector.activation" value="" />
<add key="sync.connector.users" value="10" />
```

12. Configuration File

Configuration involves editing the **syncupload.exe.config** file found in your application folder. Take a backup of this file and take care with the syntax of the XML as it is easy to break the file by omitting a closing bracket for example.

Configuration is not a particularly easy process as there are a lot of values to set and these values need to be set to match your system. A good way to implement is change values slowly and use the **setup** functionality to test as you go.

Often our resellers or will install the system for you for a small fee by accessing your system over a VPN (or you can ask us to do it for you for a small fee).

Note: redware have published a handbook for Microsoft CRM 4.0 available online which might be of use if you need some help navigating CRM and configuring some of the options. It is available online at http://www.redware.com/mscrm/handbook/index.html and also as a hard copy from Amazon.

Some preparation is useful before editing the config:

- Identify the version of Sage and the folder containing the accounting data and a valid user name and password. We recommend that you create a new user if you are updating values into Sage.
- Create a default pricelist in CRM with a Unit Group and default Units.
- Add status reason codes for uploaded and paid invoice records.

See the following section for the configuration for two-way integration.

12.1. Source and Target

The **sync.targetmode** and **sync.targetmode** are set to SAGE50 and CRM30 respectively for integration between Sage 50 and Microsoft CRM.

```
<!-- SYNC Source and Target Modes -->
<add key="sync.sourcemode" value="SAGE50" />
<add key="sync.targetmode" value="CRM30" />
<add key="sync.company" value="1" />
```

Various other accounting packages are also supported as shown in the accounting section below.

*Note: You should use the **CRM30** setting even for version 4.0 if you are using the default organisation with Active Directory. You need a different build of the software to access multi-tenanted CRM or IFD authentication (see below).*

12.2. CRM Connection

The Connector needs to access the CRM database using the web services. Our software works with both CRM 3.0 and CRM 4.0 and typically you should follow the instructions for CRM 3.0 if you are accessing the default organization in CRM 4.0 using Active Directory authentication.

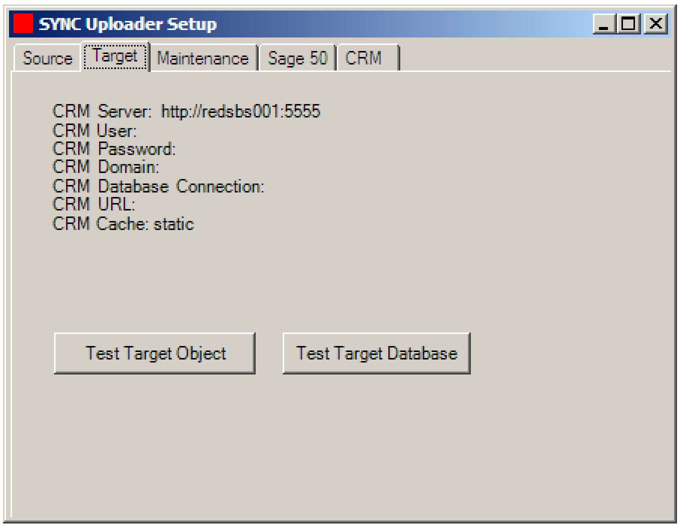
12.2.1. Connection Settings

The **crm.server** setting should point to the CRM Server web services URL and the **crm.user**, **crm.password, crm.domain** value can be left blank if you want the

Connector to assume the identity of the currently logged on user. We recommend however that you specify user credentials here that have the required access and privileges on the database and CRM.

```
<add key="crm.version" value="CRM30"
<add key="crm.authentication" value="AD"/>
<add key="crm.server" value="http://192.168.1.105:5555/"/>
<add key="crm.organisation" value="" />
<add key="crm.user" value="administrator"/>
<add key="crm.password" value="pass@word1"/>
<add key="crm.domain" value="litwareinc"/>
```

Once you have set these values, make sure you run the application and test using the Setup pages. Press the Test Target Object to make sure you can connect to CRM (it can take 20 seconds to connect the first time).



You should now be able to go to the CRM View page and view any products or customers that have been entered in CRM (remember that customers need to have the appropriate relationship type set).

The **crm.connection** setting is not required for the SYNC Connector and the **Test Database** button will not work without the setting:

```
<add key="crm.connection" value=""/>
```

12.2.2. CRM 4.0 Multi-Tenancy or IFD Connection Settings

Make sure you download the version for CRM 4.0 if you want to connect to an organisation other than the default in multi-tenanted CRM 4.0 or use the IFD internet facing deployment authentication which is required for hosted CRM.

For CRM 4.0 or hosted CRM you need to add or change the following settings:

```
<add key="crm.version" value="CRM40"
<add key="crm.authentication" value="AD"/>
<add key="crm.server" value="http://192.168.1.105:5555/"/>
<add key="crm.organisation" value="CompanyCRM" />
<add key="crm.user" value="administrator"/>
<add key="crm.password" value="pass@word1"/>
<add key="crm.domain" value="litwareinc"/>
```


12.3. Accounts Connection

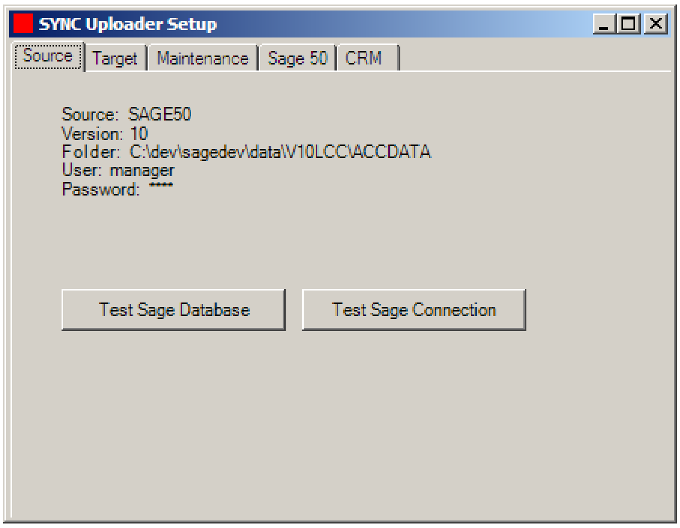
You can connect to the following accounting systems (and make sure you have set the **sync.sourcemode** accordingly):

```
<add key="sync.sourcemode" value="SAGE50"/>
```

The **sync.sourcemode** is set according to your accounting system software as follows:

- **QUICKBOOKS**
- **SAGE50**
- **SAGEINSTANT**
- **SAGEMMS**
- **SAGE200**
- **ACCESS** if you are connecting to the Sync Accounting database

Once you have configured the accounts settings below you can use the **Test Database** and **Test Object** test function in the setup to check the configuration:



Once the database and object connections are working you can view the sales accounts, products, and invoices in the **Sage View** window.

Note: The Sage Object Connection is required only for two-way connectivity.

12.3.1. Sage Line 50

The **sage.mode** is set to **SAGE50** and remaining parameters indicate the **version**, the **folder** containing the accounting data, and a **user** name and **password**.

```
    <!-- Sage 50 Connection -->
    <add key="sage.mode" value="SAGE50" />
    <add key="sage.version" value="15" />
    <add key="sage.folder" value="C:\Documents and Settings\All Users\Application
Data\Sage\Accounts\2009\Demodata\Accdata" />
    <add key="sage.user" value="sync" />
    <add key="sage.password" value="sync" />
```

Note: Sage 2007 is version 13, Sage 2008 is 14 and Sage 2009 is 15 and the corresponding ODBC driver must be installed on the machine.

We recommend that you create a specific username and password for the Connector program if you are performing two-way integration and passing data back into Sage.

12.3.2. QuickBooks

There are no additional settings for QuickBooks other than the **sync.sourcemode** and **sync.defaultcurrency** settings. You will need to provide access to the application within QuickBooks as discussed in a previous section.

12.3.3. Sage Instant Accounting

The **sage.mode** above is set the **SAGEINSTANT** and the correct ODBC driver string must be specified as shown below.

```
        <add key="sage.instant.connection" value="DRIVER=Instant Accounting 2000
v6;UID=MANAGER;DIR=C:\PROGRAM FILES\SAGEINSTANT2000\ACCDATA\"/>
```

12.3.4. Sage MMS and Sage 200

Remember to set the **sync.targetmode** and **sage.mode** values to the appropriate sage setting and then add the connection string below after creating a read only user on the database:

```
<add key="sage.mms.connection"
value="server=red001;database=sagemmsdatabase;UID=CRMSage;PWD=redware;Language=British
"/>
```

Or

```
<add key="sage.200.connection"
value="server=red001;database=sage200database;UID=CRMSage;PWD=redware;Language=British
"/>
```

12.3.5. SYNC Accounting

The following settings are required if you want to upload into the SYNC Accounting access database to provide further accounting information for CRM (see the documentation for SYNC Accounting):

```
<add key="sync.mode" value="ACCESS"/>
<add key="sync.mdb" value="c:\dev\vs2005\syncupload\data\syncupload.mdb"/>
<add key="sync.company" value="6"/>
<add key="sync.outputfolder" value=""/>
```

13. Two-Way Integration for Sage Line 50

Two-way integration back into the accounting database from CRM is triggered by changing the status on a sales order to the appropriate value. The SYNC Connector can then add a new customer and products as required before creating the sales order (or invoice) in the accounting system.

If you are performing two-way uploading back in to your accounting database you will need to find out and configure the following information:

- Specify the default nominal code for new products.
- Create a product in the accounting system to be used with write-in products that do not have a product code.
- Create a product in the accounting system to be used for the delivery charges.
- Create new **statuscode** values for the sales order entity in CRM trigger the update into Sage and a second status code value to indicate that the order has been uploaded.

13.1. Create two Products in Sage

```
<add key="sage.defaultproduct" value="MISC" />
<add key="sage.carriageproduct" value="DELIVERY" />
```

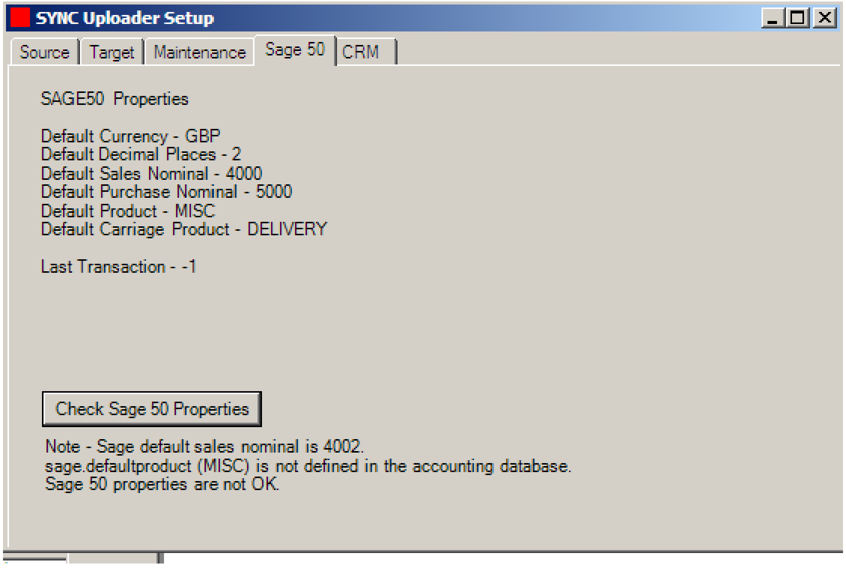
Two products are required in the accounting database to represent write-in products which do not have a product code and delivery charges. Make sure you have created these in Sage and set the values into the configuration file.

13.2. Sage Defaults

We suggest that you upload products first and then set the nominal values as you like in Sage before uploading invoice items.

```
<!-- Sage Two Way Integration -->
<add key="sage.defaultsalesnominal" value="4000" />
<add key="sage.defaultpurchasenominal" value="5000" />
<add key="sage.defaultcurrency" value="GBP" />
<add key="sage.defaultproduct" value="MISC" />
<add key="sage.carriageproduct" value="DELIVERY" />
<add key="sync.invoice.field" value="" />
```

You can view the default properties in Sage from the **product defaults** page available on the **settings** menu. Use the **Sage 50** section of the **setup** form to check that the values are correct:

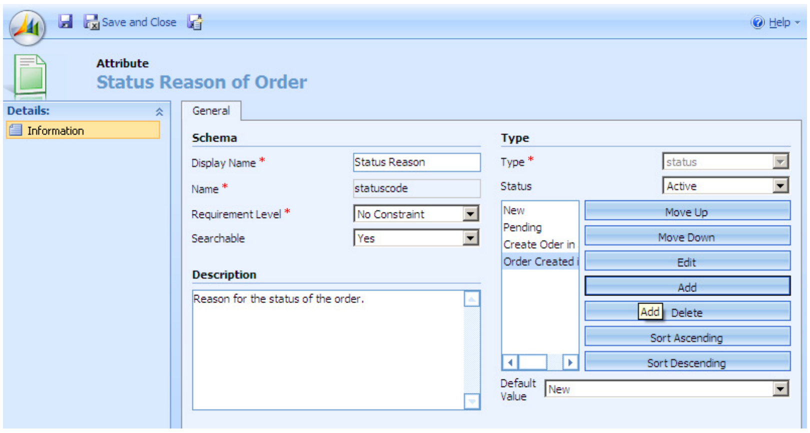


13.3. Sales Order Status Codes

Sales Order Status codes need to be configured within CRM to trigger the upload process. At least two status codes are required:

- Create Sales Order in Accounting System
- Sales Order Created in Accounting System

You can create the status codes in CRM using the **Settings-Customisations-Customise Entities** section and selecting the **Attributes** page for the Order (**salesorder**) entity and selecting the Status Reason (**statuscode**) field. Press the **Add** button to add items and make a note of the numeric field created for the status code. Don't forget to **publish** the changes by pressing the publish button available when you have highlighted the sales order entity on the **Customise Entities** view.



The setting below uses status reason 200001 to trigger the request to upload into the accounting system and sets the value to 200002 after processing:

```
<add key="sync.salesorder.order.exportrequest.status" value="200000" />
<add key="sync.salesorder.order.exportcomplete.state" value="" />
<add key="sync.salesorder.order.exportcomplete.status" value="200001" />
```

Note: You can also change the state when uploading a sales order usually to the state FULFILLED. Make sure that status reason code is configured against this *status but take care because FULFILLED sales orders cannot be deleted in CRM.*

You can also specify status codes to create an Invoice in the accounting system directly from a CRM Sales Order:

```
<add key="sync.salesorder.invoice.exportrequest.status" value="200002" />
<add key="sync.salesorder.invoice.exportcomplete.state" value="" />
<add key="sync.salesorder.invoice.exportcomplete.status" value="200003" />
```

Note: Sage 50 only allows you to allocate stock for a sales order so stock items are normally pushed through as sales orders into Sage and then allocated and dispatched in Sage with the invoice created in Sage.

It is possible (though not recommended) that you want to promote the sales order to an invoice within CRM before exporting to the accounting system. In that case, leave the above settings blank and perform a similar configuration process on the invoice entity in CRM and set the corresponding **sync.invoice** settings in the config file.

13.3.1. Micellaneous

These are historical values and not yet documented.

```
<add key="product.producturl" value=""/>
<add key="sync.accessfilepath" value=""/>
```

13.4. CRM Configuration

Some simplifications should be made to the Sales Order and Invoice forms:

- Remove the discount percentage and total as these are not uploaded.
- Remove the freight amount.
- Perhaps bring the description field to the front tab as this is passed into the accounting system as the note field (useful for storing special customer requests and noting the customer purchase order number).
- Perhaps bring the status reason drop down from the Administration section to the general tab so the salesperson can easily specify that the order is complete.
- Consider automating the status reason change.
- Disable editing the Sales Order (or make sure the status is changed) when the order is requested to upload into the accounts system.
- Remove the Convert to Invoice button from the user interface.
- Set the security on Invoice so only the user employed to run the Connector can create and edit Invoices.
- Add the status reason field into the views so the salesperson can see the status of each order.

The Order Items could have the following modifications:

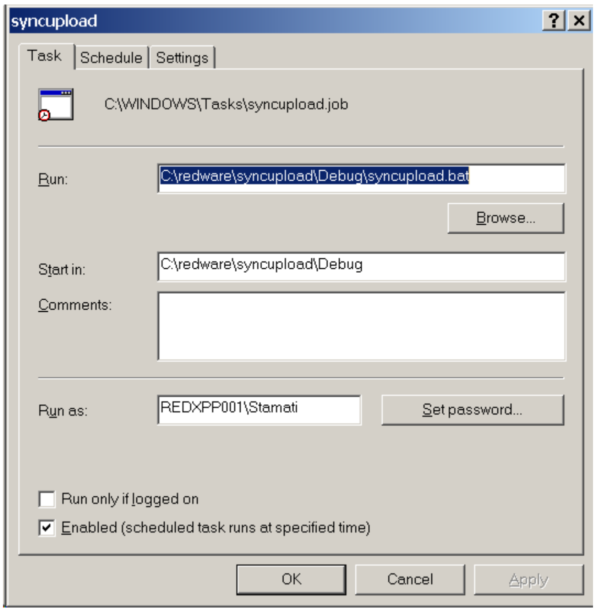
- Add the description field for existing products so the user can add a description for the order item if required.
- Automatically calculate the tax with some javascript (although this data is ignored and the defaults set in the accounting system are used by the Connector).

13.5. Registration

You need to register your software to get the full functionality. The evaluation version allows only a subset of accounts to be processed and deactivates batch processing.

13.6. Batch Process

The batch process for copying accounting data from the accounting database up in to CRM can be set up to run automatically (say every couple of hours) with the task scheduler that can be found in the control panel under **Scheduled Tasks** (you may have to create a task for each time that you want to run during the day).



*Note: This is available from **Accessories-System Tools-Schedule Tasks** on your program menu in Windows XP.*

Create a text file named **syncupload.bat** with the following commands and schedule to run periodically under the appropriate user credentials:

```
C:
cd \program files\redware\syncupload
syncupload.exe batch
```


14. Improvements

We normally charge 20% software maintenance fee for all our software to enable us to improve our software. We aim to provide at least two releases each year which include new features as well as bug fixes (we aim to respond to bug fixes within a few weeks).

Some of the new features under review include:

- Allow customer accounts to be recognised without using the relationship type field or allowing multiple relationship types.
- Allow orders for contacts either against the contact accountnumber or against a parent account but using an order stored against a contact.
- Allow a custom field to be specified for the invoice date for an invoice record and the balance for an account.
- Allow an alternative to the accountnumber field to be specified for the account reference in the accounting system.
- Allow true multi-currency.
- Two way integration for QuickBooks.
- Two way integration for Sage Instant Accounting or Sage 200.
- Two way integration for Microsoft Accounting.
- Two way integration for Pegasus Opera.

Please contact us if any of these features interest you. We are driven by our customer requirements and prioritise according to the feedback we receive from our existing or potential customers. Please let us know if there are features you require not listed above.