Table of Contents

*** IMPORTANT NOTE ***

You <u>CANNOT</u> convert QuickBooks information into an existing E2 database. When using the conversion utility, it can only create a new E2 Company and will not merge with an existing one.

Using QuickBooks with E2

The Direct Connect methods are not available in any "Standard" or Internet version of QuickBooks regardless of release date. Only the "Pro" versions and above contain this feature. The Sync method, whether Manual or Real-Time, allows E2 to "talk" directly with QuickBooks and doesn't require a file to be created for the information transfer. You also no longer need to run QuickBooks concurrently with E2SS!

Direct Connection (Sync) transfer method

The Manual Sync method uses the Direct Connection (Manual) option in Company Maintenance for setup. A/R (from Billing or Packing Lists), A/P (from Receivers or Vendor Invoices), and Attendance record information can be transferred from E2 to QuickBooks using this method. To transfer information, the user would open the Packing Lists or A/R Billing, Receivers or A/P Vendor Invoices, or Time & Attendance and then click the Sync button. A screen displays to allow setting a date range for the information to be transferred along with a few other settings that will be explained in detail in later sections. When the Sync button is clicked, it will first verify that all Terms Codes, Sales ID's, Tax Codes, Vendor Types, and Shipping Codes that are in E2 are also entered in QuickBooks. Depending on the items to be transferred, it will then make sure GL Codes, Customers, Vendors, Parts, and Employees are all entered in QuickBooks from the A/R, A/P, and attendance tickets to be added to QuickBooks. All forms added to QuickBooks are marked as exported in E2 so that they do not get applied a second time if the same date range is synced again in the future.

## Direct Connection (Real-Time) transfer method

The Real-Time Sync method will also use the Direct Connection (Sync) option in Company Maintenance for setup, but the sync buttons will no longer be needed in each individual area. A/R (from Billing or Packing Lists) and A/P (from Receivers or Vendor Invoices) can be transferred from E2 to QuickBooks using this method. Attendance Record information is not available in the Real-Time Sync since Attendance Tickets remain open-ended until the end of each shift and need to be sent over as a completed batch. These will need to be handled with the Manual Sync method during the Payroll business process. To transfer information, the user first runs the appropriate QBServer executable from their Source directory. Running the server creates a direct connection between E2SS and you're QuickBooks company, but you do not need to have QuickBooks running simultaneously. Once the QBServer is running, all the items you select to be sync'd will automatically transfer to QuickBooks. When the Real-Time Sync begins, it will first verify that all Customers, Vendors, Employees, Terms Codes, Sales ID's, Tax Codes, Vendor Types, GL Codes, Shipping Codes, and Parts that are in E2 are also entered in QuickBooks. Then it will sync any new billing, invoicing, and attendance tickets to be added to QuickBooks. All forms added to QuickBooks are marked as exported in E2 so that they do not get applied a second time during the next sync. If you elect to create customer bills in QuickBooks from Packing Lists though and then at some point in the future change this option to work with AR | Billing, any customer billing you have generated from E2 Packing Lists WILL be sync'd and create duplicate customer invoicing. The Activity tab on the QBServer will list all exports and any failures. The Audit Trail run by the UserID = E2QBSERVER will give you more details about each export for your reference.

Conversion from QuickBooks to E2

If you have been using QuickBooks to manage your companies' information and are now ready to begin using E2, a utility included with the E2 Shop System will allow you to perform a conversion of your QuickBooks information to E2 as noted above. This conversion brings all Customers, Vendors, Parts, GL Codes and other related information over to the E2 database so you don't have to manually enter the information into E2. "History" information like customer orders, vendor purchase orders, invoices, employee time, and other related types of information are not converted to the E2 company database. Though the conversion utility can be run multiple times, *it **will not** merge information into an already existing E2 database.* At this point, you will either have to manually enter the information from QuickBooks into the existing E2 company or "abandon" this company and start with a fresh conversion using a different company code in E2.

Installing the Interface File (QBFC11_0Installer.exe)

In order for E2 to establish a connection with QuickBooks, you need to install the interface file on each computer that will be used to communicate between E2 and QuickBooks (for either conversion, Manual syncing, or Real-Time syncing), otherwise you will receive the following message:
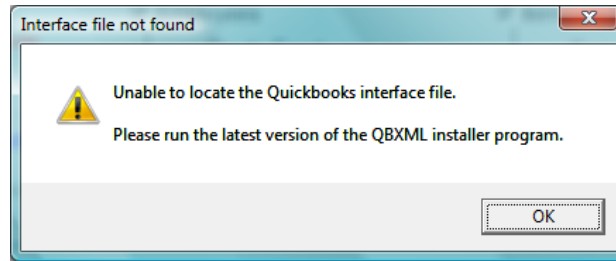

The file – QBFC11_0installer.exe – is located in the Source Directory on your server where E2 is located. When launched, the installer will display a few screens as the files are installed to your computer system and, when completed, may require you to reboot your computer. You should now be ready for either the conversion or sync process.

Determining if your version of QuickBooks can use the Sync method

Only certain versions of QuickBooks have the direct connection feature built in. (**Note**: For US version only – **all** Canadian revisions of QuickBooks Pro, Premier or Accountant will work with the direct connect feature, though the Standard version will not.)

1) The level of QuickBooks must be "Pro" or better; the "Standard" versions do not have this feature.

2) The current 2 years of versions supported by QuickBooks should be able to directly make use of this feature.

To check the version of QuickBooks that you are using, press the CTRL and 1 (not F1) keys to display the information screen.
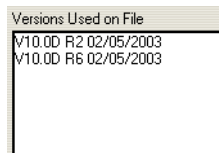
The versions list must show at least the V10.0D R4 on the list for the direct connection feature to work.

## Converting information from QuickBooks

Prior to converting information from QuickBooks to E2, verify the following:

1) Make sure that the QBFC11_0Installer.exe file has been run as indicated above.

2) Within QuickBooks, verify that the "*Use account numbers*" option has been enabled. This is located under Edit | Preferences | Accounting | Company Preferences. **DO NOT** enable "*Show lowest sub-account only*". If it is enabled, turn it off.

3) Review your Customer & Vendor Names in QuickBooks. The conversion will use these values to populate the Customer & Vendor Codes in E2 and will be the basis for identifying Customers & Vendors for future syncs. *NOTE*: These fields have a *maximum length of 12 characters* in E2. If your QuickBooks Customer & Vendor Names are longer than 12 characters, they will be truncated to fit into E2 and will **not** match when attempting to sync invoices. **The Customer & Vendor Names in QuickBooks must match the corresponding Customer & Vendor Codes in E2 for successful syncing of bills and invoices.** If they do not match, the interface will create a duplicate entry in QuickBooks using the Customer or Vendor Code from E2 or you will receive an error message that the specified Customer/Vendor could not be located within QuickBooks. So it is recommended these values be edited to 12 or fewer characters in QuickBooks prior to the final conversion of data to E2.

Conversion From QuickBooks

When you are ready to proceed with the conversion, follow these steps:

1. Make sure that QuickBooks is running and logged into the company you want to transfer information from.
2. Under **Company Maintenance**, click the **New** button. You will receive the following prompt:

3. Click **Yes**. The following screen will display:
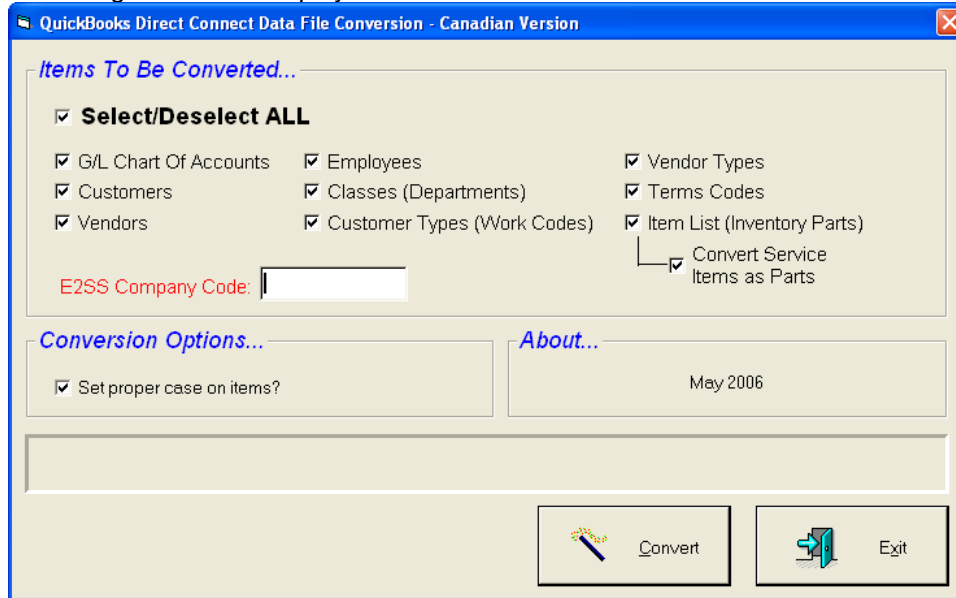
1. Enter the **Company Code** to be used by E2. The code can be alphabetic only and no more than 8 characters long.
2. QuickBooks allows keeping track of inventory items, non-inventory items, and service items. If you are keeping track of these items, work centers or machines are usually entered as Service Items. If you are unsure of how any items may have been entered into QuickBooks, it is safer to check the Convert Service Items as Parts box. This will convert all service items as parts in E2 instead of as Work Centers.
3. Some items can be unchecked if you do not wish to have them converted. *However, you will need to make sure that the G/L Chart Of Accounts box is checked or the conversion will not fully run*.

Important Note: Make sure you have the **Use Account Numbers** option enabled in **Accounting | Preferences** in QuickBooks prior to conversion. If the GL number is not in the GL Account Number field in QuickBooks, the GL Code will not be converted to E2. (See *Settings in QuickBooks for Sync Option* for details about turning this feature on.)
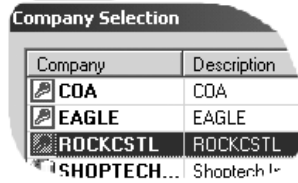
1) Click the **Convert** button and the selected items will be converted into an empty E2 database. When the **Update Company** screen displays, enter your company's address information and other defaults you want to specify at this time. You can always edit this screen at a later date.

- If the conversion finds errors, it will stop and display a report of them. Users can elect to make corrections to their QuickBooks data and begin the conversion again or ignore them and continue the one-time conversion, which could bring over truncated Table Maintenance items like Customers and Vendors. These will produce errors in future syncs though and will have to be handled at some point.

2) Click **OK** to continue the conversion and the **Company Defaults Detail** screen displays for you to select the default Accounts to be used by E2. ***The items shown in red on the screen MUST have account numbers selected before the conversion can continue***. This is why the Chart of Accounts box needed to be selected in Step 5. At this time, the GL Code selected is not critical, as it can be edited later. However, each required field *must* have a GL Code entered regardless of what it is.
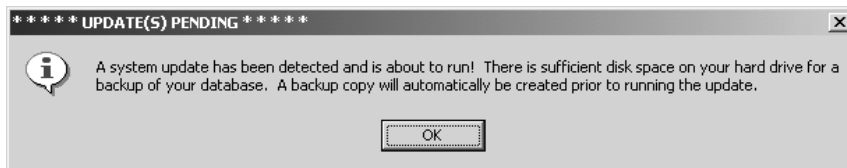

3) Click **OK** to continue. The program will display that the conversion is complete.

Conversion Complete!

4) Click the **Exit** button to close the conversion utility.

5) Start E2 and login as Supervisor or the UserID that created the converted company. You will see the new company code available in the list.

Company Selection	
Company	Description
COA	COA
EAGLE	EAGLE
ROCKCSTL	ROCKCSTL
SHOPTECH...	Shoptech Iᵣ

6) Select the new company from the list and click the **OK** button. An update screen will be shown:

***** UPDATE(S) PENDING *****   ×

A system update has been detected and is about to run! There is sufficient disk space on your hard drive for a backup of your database. A backup copy will automatically be created prior to running the update.

OK

7) Click the **OK** button and after several updates are run, the main E2 screen will display. You should go through the *Implementation Guide* to make sure all of the customers, vendors, accounts, and other information converted correctly. Any time spent verifying the information is correct will be saved many times over if anything needs to be changed after you have begun entering daily information into the database. In many cases it may be impossible to make corrections, so please take the time now to verify the data.

Whether you converted your data or created a new company manually in E2, there are some settings to be checked both in E2 and QuickBooks prior to syncing for the first time.

Settings in E2 for Sync Option

Setting the Interface Method

1. Go to **File** | **Company Maintenance**.
2. Select your company code in the list and click the **Defaults** button.
3. Click on the **Interfaces | Documents** tab.
4. Select the radio button labeled "QuickBooks Interface (Direct Connect Method)" and complete the import (for payroll import) and export paths. XP users can have QuickBooks running while setting these paths, but Vista and Windows 7 users cannot have the application running when setting the path here or in the QBServer.
5. Click **OK** to save these changes and then the **Close** button to return to the main E2 screen.

Verify Customer Information

1. Go to **Tables | Customers** and verify that the entries are correct for each customer.
2. On the **General** tab, make sure there is a **Sales ID** listed. If not, you will need to select one as this is a required field for the interface. If you do not have any Sales IDs, create a "House" Sales ID and attach it to every Customer.
3. On the **Credit** tab, make sure there is a **Terms Code** – this is also a required field for the interface.
4. *Though not required at the Customer level in order for the interface to work, it should be noted that AR Invoices in general also require a Tax Code & Sales Tax Account (GL Code) at their creation, so it would be beneficial to enter these default items at the Customer level for these items as well.*

5. Compare your E2 Customer Codes with your QuickBooks Customer Names. As noted in the pre-conversion section, the Customer Code field has a maximum length of 12 characters. If you did not edit the Customer Name in QuickBooks prior to conversion, you will need to do so now. If you do not, and the Customer Code and Customer Name do not match *exactly*, the interface will create a duplicate Customer entry in QuickBooks when invoices are synced or you will receive an error message.

   If you did not edit the Customer Name prior to conversion, but do not want to use the truncated Customer Code created during the conversion process, you can edit the Customer Code using the Mass Update Utility in E2. (For assistance in using this utility, contact Customer Support at 1-800-677-9640.) Regardless of what the name is, it cannot exceed 12 characters and the QuickBooks Customer Name **must** be edited to match.

Verify Vendor Information

1. Compare your E2 Vendor Codes to your QuickBooks Vendor Names. As noted in the pre-conversion section, the Vendor Code field has a maximum length of 12 characters. If you did not edit Vendor Names in QuickBooks before converting, you should do it now. If you do not, and the Vendor Code (E2) and Vendor Name (QB) do not match EXACTLY, the interface will create a duplicate vendor entry in QuickBooks when your invoices are synced.

   If you did not edit the Vendor Name before converting and got truncated Vendor Codes that you do not want to use, simply edit the Vendor Codes using the Mass Update Utility under File | System Maintenance. For assistance using this utility, please call Customer Support (800/677-9640). Regardless of what the name is, it cannot exceed 12 characters and the QuickBooks Vendor Name MUST be edited to match the Vendor Code in E2.

Attendance Ticket/Payroll Information

When syncing Attendance Tickets, all non-overtime records will be sent to QuickBooks using the payroll rate description in E2. You must have a payroll item in QuickBooks that matches the payroll rate description in E2 EXACTLY. Overtime will go to the Overtime Payroll item regardless of the payroll rate description.

Customer Billing Driven By and GL Accounts

The Sales GL Account always pulls from the Product Code on the part. If there is no Product Code associated on a part, the interface will assign the dummy E2 Income account.

Settings in QuickBooks for Sync Option
(For Canadian Users – Please see the Canadian Users Section for extra setup required on Sales Tax Codes before syncing can take place.)

Using Account Numbers
1) Go to **Edit | Preferences**.

2) Click on the **Accounting** item and select the Company Preferences tab.

3) Check the **Use Account Numbers** box if it is not selected. This needs to be turned on in order for E2 to "see" all of the account numbers in QuickBooks instead of the account names when if verifies that the accounts exist. If this is not checked, the sync process will not run. (*This will already be set if you created your E2 company by converting from QuickBooks*)

Sales Tax
1) Next, select the **Company Preferences** tab for the **Sales Tax** icon item.
2) Make sure the **Do you charge sales tax?** option is set to **Yes** and that the default sales tax codes are set to **Tax** and **Non** as the defaults. When E2 transfers invoices to QuickBooks it has to be able to set the codes to **Tax** or **Non** even if you do not use sales tax in either E2 or QuickBooks. QuickBooks requires that E2 specify the tax status for each invoice. (*Canadian customers should view the Canadian Users Section for additional info regarding Tax Codes.*)
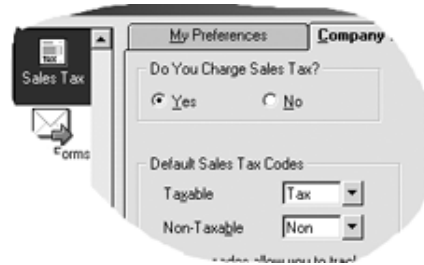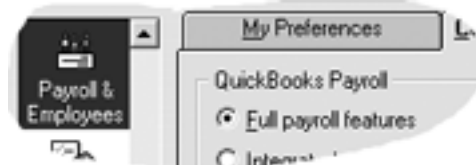
GET NEW SHOT

Time Options
If you will be transferring Employee Time and Attendance information from E2 to QuickBooks, you will also need to make these changes
1) Go to **Edit | Preferences** and select the **Payroll & Employees** icon item and click the **Company Preferences** tab. Make sure that the **Full Payroll** features option is selected.
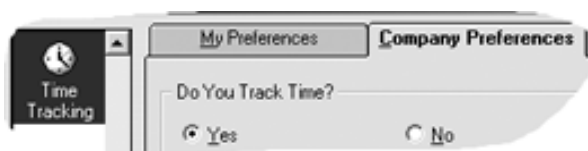
2) Also make sure the **First Name** radio button is selected under the **Display Employee List by:** section.
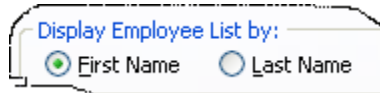
3) Then click the **Employee Defaults** button to open that detail screen and make sure the **Use time data to create paychecks** is checked.
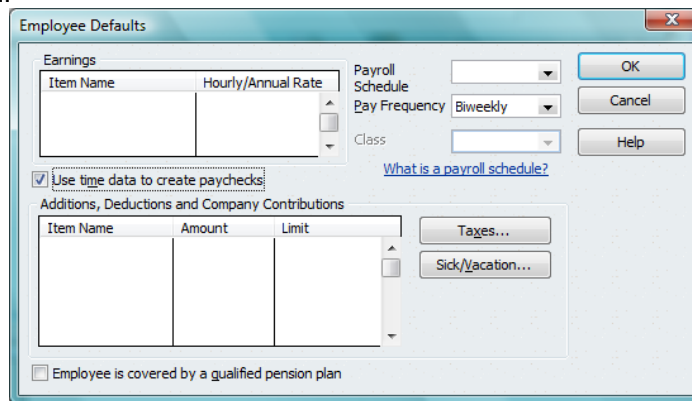
4) Select the **Time & Expenses** icon item and go to the **Company Preferences** tab. Make sure it shows that you do time tracking.

GET NEW SHOT

In order for Attendance information to transfer to QuickBooks, appropriate Payroll Items must be present. For any time not flagged as **Overtime** on an **Attendance Ticket**, the **Pay Rate** (as defined in **Company Maintenance** of E2) is used as the **Payroll Item** and must be defined in QuickBooks prior to syncing the record. You will receive an error noting the problem otherwise. To create the required Payroll Items:

1) Go to **Lists | Payroll Item List**.
2) On the **Payroll Item** screen shown click new payroll item. Then select the **Custom** option and click the **Next** button.
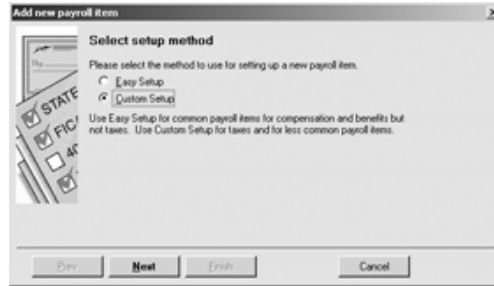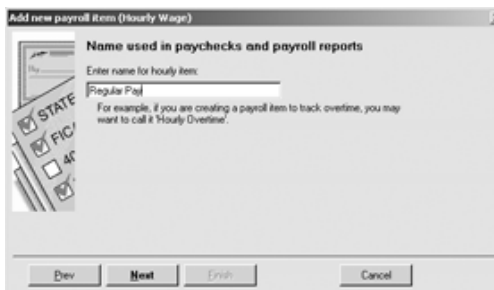

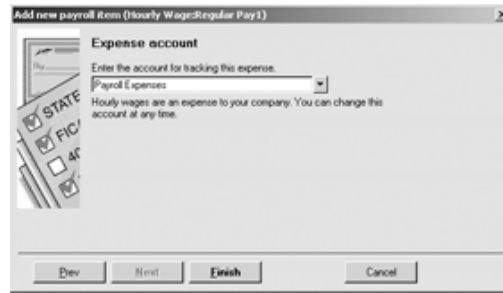3) Select the **Wage (Hourly, Salary)** option and click the **Next** button.
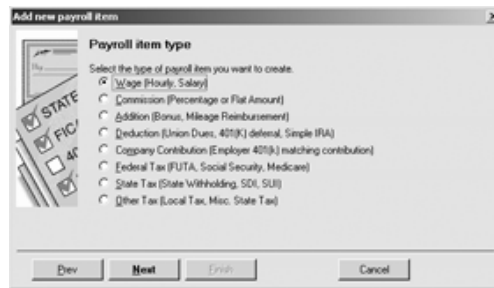
4) Select the **Hourly Wages** and **Regular Pay** options and click the **Next** button.
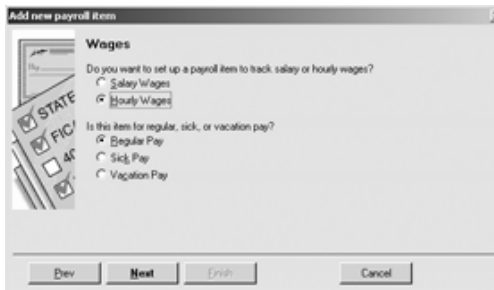
5) Enter the **Item Name** to match the **Payroll Rate** from E2 and click the **Next** button.

6) Select the correct **Payroll Expense** account and then click the **Finish** button.

7) Repeat the procedure to add any additional Payroll Items that will be needed for non-overtime pay.

For Overtime pay (pay that has been marked "Y" in the Overtime column of the E2 Attendance Ticket), follow the above procedure, but use OVERTIME PAY as the Item Name.

QuickBooks Real-Time Sync

Three executables in the E2SS Source directory enable the real-time sync: QBFC11_0Installer.exe, QBServer.exe, and QBSrvADO.exe. If you do not wish to use the Real-Time Sync, you can continue the Direct Connect Sync and when you set the path in Company Maintenance to your QBW file (which allows E2SS to automatically access QB), you no longer need to run QB concurrent with E2! The current two versions supported by QuickBooks are supported by this Real-Time Synchronization.

The new installer file merges the US and Canadian versions and allows multi-currency usage so that users no longer have to determine which executable installer to run and upgrades the E2SS interface with QuickBooks to the most current SDK version being used by Intuit.

The server EXEs (one for Access and one for SQL) enable real-time synchronization of Packing Lists or AR Billing, Receiving or AP Invoices. When you run the appropriate server executable, you no longer have to run the Direct Connect Sync out of these individual areas. With the server running, simply saving the forms and having the Interval time elapse triggers the real-time synchronization! Time and Attendance tickets will have to be brought over to QuickBooks with the sync button in the Time and Attendance module since this is not a real-time operation.

Settings in E2SS and QuickBooks

1. Navigate to your **Source** directory and locate the **QBFC11_0Installer.EXE** and double click it to run this executable. This prepares your workstation to allow communication between E2SS and QuickBooks. If you elect to NOT use the new Real-Time Sync, you will still need to run this installer file to upgrade to the latest version Intuit has available.

2. The first time you launch QBServer.exe (or QBSrvADO.exe), you will be prompted to set the Company Code for E2 and QuickBooks. When you attempt to restart, it will prompt the certificate where you should select the **Yes, always; allow access even if QuickBooks is not running** option. Traditionally this process should be done in single user mode, but if you cannot get the certificate to display, attempt this process in multi-user mode.
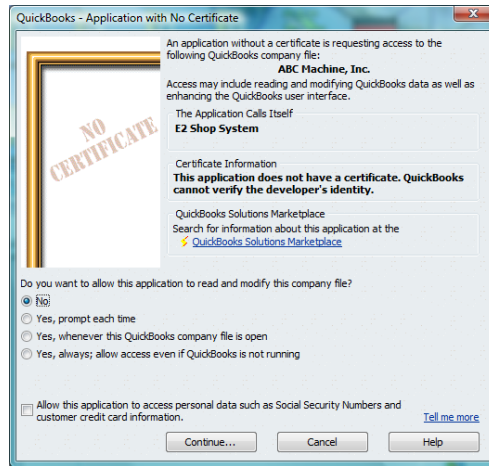

Settings in QBServer

Now begin working in E2 and running the QuickBooks Server. Before you begin entering documents to be sync'd with QuickBooks, you'll have to start the appropriate QBServer for your SQL or Access version. This works much like the E2Server.exe where several options will have to be manually set before you begin using Real-Time synch'g for the first time. Once the QBServer is up and running, click the **Pause Server** button to apply the changes necessary for your company.

If you have multiple E2SS and/or QuickBooks companies, you will need to designate a separate workstation for each combination of E2SS and QuickBooks and not alter these as the QBServer uses the paths that are saved in each machine's registry file. If this is not possible for your setup, you should continue to use the manual sync to ensure that data from the incorrect E2 Company does not get transferred to the incorrect QuickBooks Company.

Settings Tab

The **E2 Settings** section is where you set the path to the E2 company you will be using. Your E2 company must be accessible by SUPERVISOR to display in the Company Code drop down list. The **QuickBooks Settings** section is where you set the path to your Inuit files and the actual QBW you use in QuickBooks. Once you set this path, make sure you click **Apply** so that your settings will be saved.
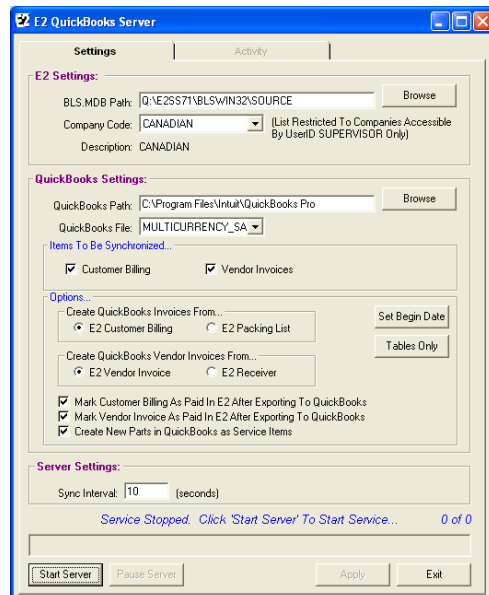
The **Items To Be Synchronized** are the forms you are able to sync back into QuickBooks from E2.

- You must have the **Billing** checkbox selected in the **Items To Be Synchronized** in order to enable one of the options to create QuickBooks invoices. The **Options** section allows you the flexibility to create customer bills in QuickBooks either from AR | Billing or Packing Lists.

- You must have the **Vendor Invoices** checkbox selected in the **Items To Be Synchronized** in order to enable one of the options to create QuickBooks invoices. The **Options** section allows you the flexibility to create vendor invoices in QuickBooks either from AP | Invoices or Receivers. **Vendor Invoices** you create in E2 will sync over into QuickBooks. But if you will not be using the Accounting module in E2, make sure **Receivers** is the **Option** selected to create Vendor Invoices in QuickBooks. These Item Receipts in QuickBooks can be used to generate your Vendor Invoices. With the release of v2010, Canadian users will now be able to use the **E2 Receiver** option and create QuickBooks Invoices from Receivers.
  - o If you select **E2 Packing List** or **E2 Receiver**, **AR** | **Billing** and **AP** | **Invoicing** records cannot be created because exported **Packing Lists** get marked as Billed = Yes and **Receivers** get marked as Vendor Billed = Yes. So they will not even display for selection in the Billing or Invoicing modules. If you select **Customer Billing** or **Vendor Invoice** as the items to be synchronized, their exports will also mark **Packing Lists** and **Receivers** as Billed = Yes, but they will not be checked as **Exported to QB**. Rather you will see them as exported on the **Audit Trail** tab on **Packing Lists** and **Receivers**.
  - o If you alter this selection though in the future and change the option from **E2 Packing List** or **E2 Receiver** to **E2 Customer Billing** or **E2 Vendor Invoice**, any **AR** | **Billing** or **AP** | **Invoicing** you may have created from **Packing Lists** or **Receivers** in the past will be duplicated in QuickBooks when the next interval passes. To be safe, users making this change should manually check the box for **Exported to QB** on those bills and invoices. You could also change the Set Begin Date to "today" so that all the previous bills and invoices would automatically be marked as exported and skipped. Switching away from **Billing** and **Invoicing** midstream back to **Packing Lists** and **Receivers**, could create the same duplication so any older forms should also be manually marked as exported or the Set Begin Date could again be used.

The **Options** section also allows you to automatically mark Customer Billing and Vendor Invoices as paid as soon as they are exported by the QBServer and allows you to send all new parts entered in E2SS over to QuickBooks as Service Items. If you do not select this option for Service Items, be aware that your parts will go over to QuickBooks marked as Inventory.

- The **Set Begin Date** button can only be used when the QBServer has been paused. It should be used by all new QBServer users BEFORE they run the executable for the first time. We suggest that you set this date to "today," especially if you want to begin using Receivers and Packing Lists to bypass the E2 Accounting module. This will set all the items that can be sync'd previous to this date as already exported so that you do not create duplication, especially in billing (E2 Packing Lists) and unnecessary item receipts (E2 Receivers), over in QuickBooks. When you click the button, the prompt will instruct you to select your date. Click **OK**, select your date from the popup calendar, click **OK** and the system will go out and mark all the necessary items as exported and disregard them when you run the QBServer.
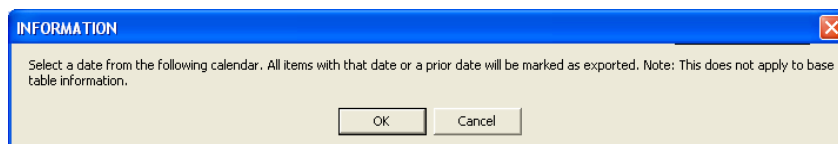
- The **Tables Only** button can be used as long as the QBServer has been paused and allows you to validate all your base tables with one click. You will want to click this button before you begin using the Real-Time Sync to ensure that all your base tables in E2 are loaded in QuickBooks. The sync process looks at the following tables in the order listed here: Sales IDs, Tax Codes, Vendor Types, Account Codes, Customer, Parts, Vendors, and finally Employees.

The **Server Settings** are defaulted to use a 10 second interval to maintain the Real-Time capabilities, but you can alter this time if it suits your needs better. You can also elect to run the QBServer as an NT Service so that it is always running as long as the workstation where it resides is on. If you want to open/close QuickBooks during the real-time sync, you MUST use the Pause Server button first so that QuickBooks errors do not occur. This breaks the automatic connection on the QB side.

Activity Tab

All the QBServer activity is tracked on this tab. You will see any starts and stops as well as all exports and any failures. If a form fails to export correctly, it will continue to do so (and display on the Activity tab) until you correct the error. The basics of the error will display here, but to see the actual errors and their full descriptions, you will need to go to **GL | Audit Trail Summary** and run that report.

Running the Audit Trail Summary

To discover the errors the QBServer is encountering during a Real-Time Sync, you will want to run the **Audit Trail** with the **UserID equal to** criteria set to **E2QBSERVER,** the **Area equal to** criteria should be set to the appropriate area you are wanting to see (e.g., Customer or Invoice), and the **Action equal to** criteria should be set to **EXPORT**.

Remember, the **Activity** tab will give you the basics of the failure to help you use the criteria efficiently on the **Audit Trail Summary**. Also be aware that errors will repeat on the Audit Trail for each time the sync finds it. So an uncorrected error will continually be found and reported on the **Audit Trail Summary** until it has been corrected.

Running the QBServer

You must run the QBServer on a workstation that has QuickBooks loaded in order for the Real-Time Sync to work successfully and you cannot run multiple instances of it. Once you have your settings in place and the path to your QBW file is correct, the action of saving one of the **Items To Be Synchronized** will be looked at every 10 seconds (or whatever you have set your **Sync Interval** to). These settings will be saved to your registry as long as you click the Apply button on the **QBServer Settings** tab. So you will not have to re-select them each time you run the QBServer. If you do not use the Apply button when making changes, the next time you run the QBServer, those changes will not be automatically checked.

If you have not done the **Set Begin Date** or run the **Tables Only** function before the first time running the Real-Time sync, it may take some time since everything in your E2 data is "new" to the QBServer so it will all be reviewed to determine what needs to be added to QuickBooks. This may be especially long if the parts database is large, but once this initial process is complete, only new items since the last sync will be reviewed and they will automatically be entered in Tables when they are found.

If the QBServer is running, you cannot open or close QuickBooks. If you do, a pop-up message will warn you to stop. You must use the **Pause Server** button before opening or closing QuickBooks.

If you save one of the forms to be synchronized and then edit that form before it has been exported by the QBServer, duplicate exports may occur if the export happens while the form is open. This duplicate will have to be manually deleted in QuickBooks. Users will still have to manually edit or delete any items in QuickBooks that they change in E2 after the export. You can also duplicate forms if you have more than one session of the Trigger server running.

What if I Forget to Run the Installer File?

If you get the download for 7.2.2.2 or higher, but do not run the new installer file, you will still get the new SDK5 connection sync screen if you attempt a manual Sync, BUT…
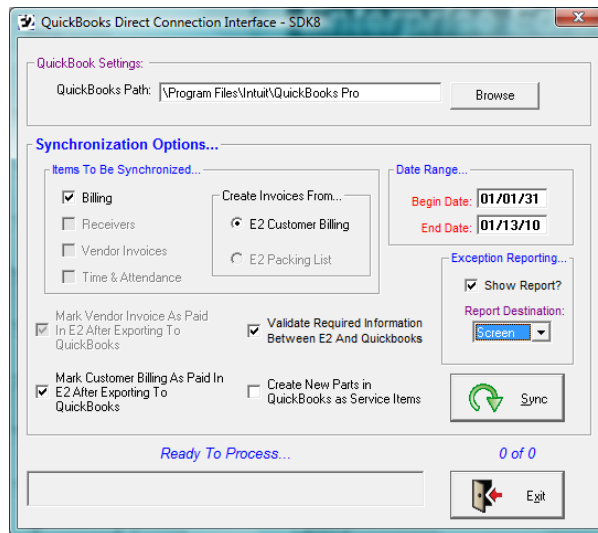
you will immediately see the QBFC11.0 Installer Wizard and it will automatically begin running to launch the QBFC11_0Installer.exe, which supersedes the QBFC5_0Installer.exe. This wizard will also automatically begin if you try to launch the QBServer.exe without having first run the new installer file.

So even if the new installer is forgotten, the first time you go to use the manual Sync or double click the QBServer, this wizard will run and install all the necessary information to run either the manual Sync or the Real-Time Sync.

Troubleshooting

The QBServer MUST be run from a workstation that has QuickBooks loaded or the automatic connection cannot be made. The first time the QBServer is run, users will have to open QuickBooks to allow the automatic connection.

In order to make changes to the **Settings** tab of the QBServer or to start or stop QuickBooks, you must first use the **Pause Server** button to stop the service. Then you can make new selections. If you would like a selection to run for just this session of the QBServer run, you can simply click the Restart button. When you close the QBServer and then run it again on a subsequent session, that item will not be saved as a selection. If you would like your selections to be saved, you must **Pause** the server, make your selections, click the **Apply** button, and then click the **Restart** button.

The **Billing** checkbox under **Items To Be Synchronized** on the **Settings** tab of the QBServer must be checked and you need to select the option your company will use to create billing in QuickBooks. You can elect to use the **E2 Vendor Invoicing** module or the **E2 Receiver** module.

The **Vendor Invoices** checkbox under **Items To Be Synchronized** on the **Settings** tab of the QBServer must be checked and you need to select the option your company will use to create invoices in QuickBooks. You can elect to use the **E2 Customer Billing** module or the **E2 Packing List** module.

NOTE: If you switch back and forth between the **E2 Customer Billing** and **E2 Packing List** options to create bills, you will create duplicate invoices in QuickBooks

Error Synchronizing issues should be reviewed in the Audit Trail for a complete description of the problem. You might see the following:

> Error synchronizing Packing List 5571
> There is an invalid reference to QuickBooks AR Account "1210"in the Invoice.
> QuickBooks error message: Unknown Error
> **OR**
> Error synchronizing Customer invoice number 5476

There is an invalid reference to QuickBooks Item "705" in the Invoice line.
QuickBooks error message: Invalid argument. The specified record does not
exist in the list.

These errors are letting you know that the AR Account in the first error cannot be used on this Packing List that is being sync'd as a Customer Invoice. The part number of "705" in the 2nd error is not recognized by QuickBooks. This part failed to be sync'd from E2 to QuickBooks and will have to be manually entered in QuickBooks.

The **Audit Trail** run by **UserID = E2QBSERVER** and the **Action = EXPORT** will provide the detail of all sync errors.

Canadian versions of QuickBooks require users to have individual AR and AP accounts for all their foreign Customers. This will likely become a requirement in US versions also. These accounts can be applied to **Work Codes** that are then set on each individual account.

All your parts should have **Product Codes** with all the appropriate GL Accounts in place. Any new part entered in E2 without a Product Code associated (no GL Accounts) will sync into QuickBooks using the generic E2PartIncome Account.

New Customers entered into E2 without a **Work Code** associated (no GL Accounts) will sync into QuickBooks using the default AR Account set in your Company Maintenance.

Transferring Information via the Sync Button

Here are the steps for syncing A/R Invoices. Packing Lists, Receivers, Vendor Invoices, and Attendance Ticket transfers are performed in the same manner but from their respective screens.

1) Go to **AR | Billing**.
2) Click the **Sync** button on the main **Billing** screen.
3) The QuickBooks Direct Connection Interface – SDK7 screen displays.
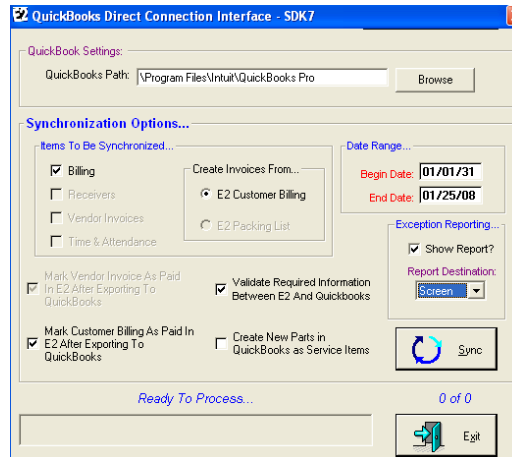
4) Enter the **Begin Date** and **End Date** range for the invoices to be transferred, based on invoice date.
5) If you would like your **AR | Billing** to automatically be marked as Paid in E2, make sure that checkbox is selected.
6) If you do not want **Table Maintenance** items to validate, you can remove the checkmark, but be aware that new items may cause some Billing to fail. You will be notified via the **Exception Reporting** that gets generated so that you can make any necessary corrections.
7) If you want any new parts found on **AR | Billing** forms to be sync'd to convert to QuickBooks as a Service Item instead of an Inventory Part, check the box during each sync where this is the case. New **Customers** added in E2 will only sync over to QuickBooks when they are sync'd on an **AR | Billing**. New **Parts**, **Employees**, **Customers**, and **Vendors** will only be sync'd to QuickBooks when they are recognized on **T&A Tickets**, **AR | Billing/Packing Lists** or **AP | Invoicing/Receivers**. GL Codes must be used on AP | Invoices.
8) Click the **Sync** button and the process will begin.
9) If this is the first time that E2 has connected to QuickBooks, this screen will be displayed by QuickBooks:
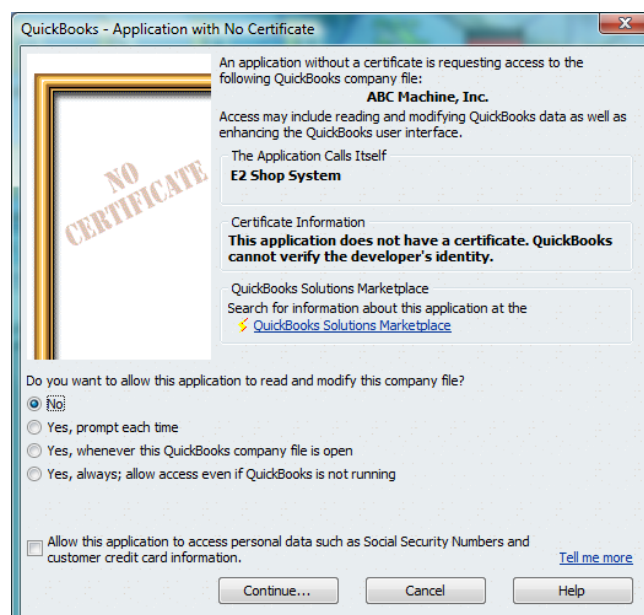
10) Click the **Yes Always** button and **Yes** on the warning screen that is then shown to allow E2 to connect in the future without asking permission. **You must have Administrative rights in QuickBooks to grant this access.**
11) The sync screen will now update the progress bar for each section of information that is being checked/updated.
12) The process will continue until all items have been transferred and a final message that everything is completed will be shown. You can click the **Exit** button at this time to close the sync screen and return to E2.
13) If any exceptions occurred during the sync process, you will receive a transaction log advising you of the issues encountered unless you removed the checkmark from the "show report?" option under the exception reporting section. We recommend leaving this feature on as it will provide useful information regarding any items that have been added to QuickBooks (such as Parts, Customers, Vendors, etc) or what area to review if any errors occurred during the sync. The interface checks that all required information is already entered into QuickBooks that will be needed by the billing to be transferred. If an item is not found, such as a Customer, the interface will attempt to add it to QuickBooks for you. However, if there is a slight difference between the information in E2 and QuickBooks, an item may not be found when first checking, but will be rejected later when full validation is applied while adding the item. Once an error like this occurs, the entire batch of invoices (or Attendance Tickets) is typically rejected and will not be sent to QuickBooks until the issue indicated is resolved. (See *Appendix A: Common Troubleshooting Issues* for examples.)

A Note About Part Numbers

When new parts are encountered on an AR Invoice being synchronized to QuickBooks, it will automatically be added to the Item List as an Inventory Part (unless the option to add it as a Service Part was selected instead). If the part was not first "defined" in E2, it will be created using the E2PartIncomeAcct, the E2PartCOGSAcct and the E2PartAssetAcct values. For an explanation of why this occurs, see the related issue in *Appendix A*. To avoid this, you can designate the appropriate GL Codes for the part in E2 prior to syncing it to QuickBooks for the first time as indicated below:

Added by Sync as an Inventory Item

QB Account	pulls from	E2 Account
COGS		Purchasing GL Code (Purchasing Tab of Inventory Item)
Asset		Inventory GL Code (General Tab of Inventory Item)
Income		Sales Account of Product Code associated with the Part

Added by Sync as a Service Item

QB Account	pulls from	E2 Account
Income*		Sales Account of Product Code associated with the Part

*Service Items only have one (1) GL Account option in QuickBooks.

If any of these values are not "pre-defined" in E2 before syncing the first time, the above referenced "generic" accounts will be used instead when the part is created and can be changed in QuickBooks.

Multi-Currency Users (US or Canadian)

In order for the interface to determine the correct **A/R** and **A/P** GL Account when syncing Packing Lists and Receivers, the interface will use the primary AR and AP Accounts from **Company Maintenance** | **Defaults** | **General Ledger** tab. BUT if you have a Packing List or Receiver that is in a non-native currency (currency code for the Vendor/Customer Code is different than in Company Maintenance), the interface will look for specific phrases in the GL Code **Descriptions** for these secondary A/R and A/P accounts. You MUST set the **Description** on the default secondary account to **A/R** or **Accounts Receivable** and **A/P** or **Accounts Payable** for the same Currency Code in order for the interface to choose the correct account. It looks first for the Currency Code and then the descriptions by GL Ascending order and will use the first A/R of A/P it finds that matches. If you have three (3) or more A/R and A/P accounts you'll have to manual adjust the accounts in QuickBooks.

Once users (US or Canadian) flip the flag to multi-currency = Yes, an entire listing of currencies will load for all users with the only difference being the Tax Codes for Canadian users. This alters the database so once this is turned on, it CANNOT be turned off and you cannot return to your original database structure.

Canadian User's Section

New Setup Steps for Canadian Users

With the new release of Canadian Quickbooks 2012, users will need to do further set up before the sync can be completed.

1) Under **Preferences | Sales Tax** verify the option **Do you charge sales tax?** is set to **Yes** and that the default sales tax codes are set to codes you use most often.
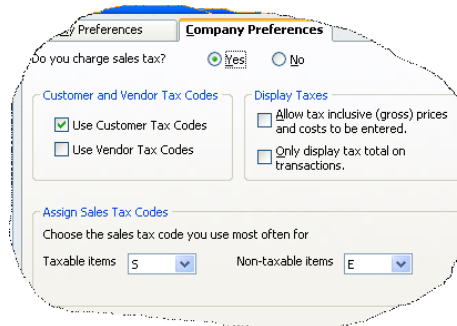
2) The standard Sales tax codes will still appear in the Sales Tax Code list which can be found under **Lists | Sales Tax Code List,** however, two new fields have been added to assist in better sales tax tracking**.** These fields are called **Tax Item for Purchases** and **Tax Item for Sales**.
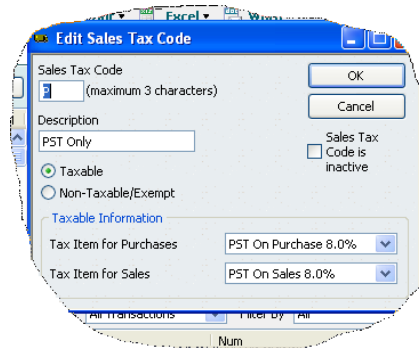
3) Due to the addition of these fields, the **Sales Tax Codes** will now need to be added to the **Item List** (this is a one-time manual entry).
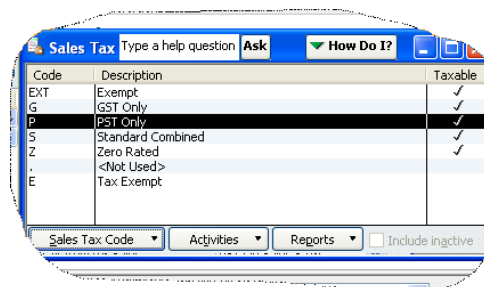
4) Before we can begin to enter our Sales Tax Items, we must go to the Vendor Centre and edit the **E2TaxVendor.** Mark the box **Vendor is a Sales Tax Agency.**
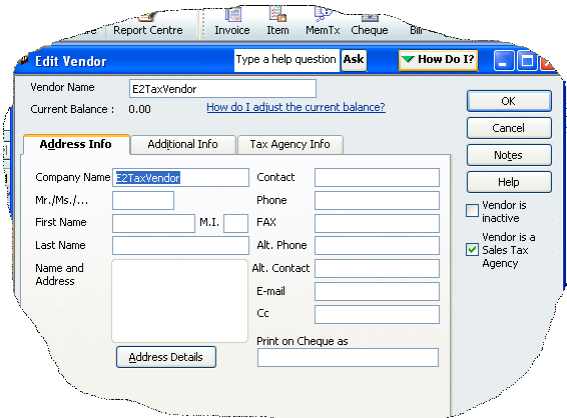
5) Go to **Lists | Item List | New Item.** Depending on the type of Sales Tax Code you are entering, you will either choose **Sales Tax Item** or **Sales Tax Group**.
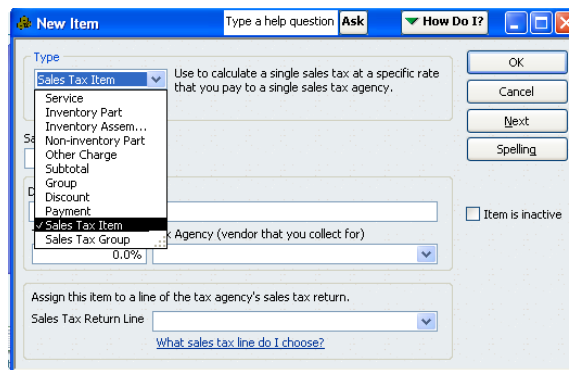
6) To determine whether the Sales Tax Code should be coded as an Item or a Group, this information can be located on the Sales Tax Code | Tax Item for Purchases or Tax Item for Sales dropdown menu. So for Sales Tax Code 'P' below, the correct selection would be Sales Tax Item.
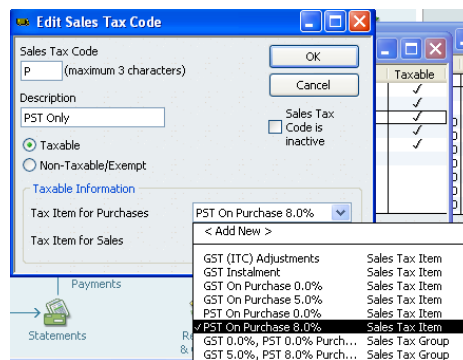
7) Enter the Sales Tax Code 'Short Name' in the Sales Tax Name field and enter the Description, along with the tax rate and the select **E2TaxVendor** from the Tax Agency dropdown.

Required files

The Canadian version of the software requires one (1) file be present – Qbooks2kCA.exe. For a list of all required files and their functions for both US and Canadian versions, please see Appendix B: Required File Listing.

Tax Codes

The Canadian version of QuickBooks allows 3- digit Tax Codes, regardless of the code in E2. The standard Sales Tax Codes for Canadian users are P, G, S, E, Z, & H. These will each hold a 3-character Tax Code.

Unit of Measure

The Canadian version of QuickBooks has a feature that will automatically convert LB to KG for Units of Measure. However, according to Intuit's own documentation, it is recommended that this feature not be turned on when performing an interface such as the one with E2. Though there are no Known issues with this at present, we are following Intuit's advice and recommend this feature not be turned on. (Note: Once activated, this feature *cannot* be turned off.)

Credit Memos

The way in which credit items are treated in the Canadian version of QuickBooks is a bit different than in the US version. If you are exporting a "pure" Credit Memo (that is, there is nothing on the Invoice except the credit line item), there is no difference – the Credit memo will be created and placed in the Credit Memo section of QuickBooks. However, if you attempt to sync an Invoice that has both positive and credit line items, you will receive an error message that the Invoice could not be created in QuickBooks and will direct you to make the quantity negative. In order to allow the "mixed invoice" to sync into QuickBooks, you will either need to create an "independent" Credit memo or make the Qty field negative instead of the Unit Price on the credit item on the "mixed" one.

Social Security Numbers

E2 pre-formats the SSNs in the Employee Code as xxx-xx-xxx, but Canadian SSNs are formatted xxx-xxx-xxx. During a sync from E2 to QB, QB will see these as new and attempt to add them in from E2. In order to avoid this duplication, remove the SSNs on each Employee Code within E2 and manually enter these in the QB data. If these SSNs are necessary to be saved in E2, enter them as a User-Defined field on each employee.

Appendix A: Common Troubleshooting Issues

Issue: I hit the Sync button in Invoices or Attendance Tickets, but nothing happens.

Things to check: In certain cases, the QuickBooks Interface module gets "stuck" behind the active windows & does not appear to be functioning. In order to correct the problem, close the E2 form and minimize the E2SS software. The Sync window will then be displaying.

Issue: I receive one of the following transaction log error messages when syncing invoices:

    Invalid reference to QuickBooks Sales ID "" in the Customers
    Invalid reference to QuickBooks Terms Code "" in the Customers

Things to check: The QuickBooks interface requires that a Sales ID and Terms Code be present on all Customers. In order for the AR Invoices to export correctly, *every* **Customer & AR Invoice** must have these items attached.

Issue: When attempting to export invoices, I receive an error message that the noted item already exists in QuickBooks.

Things to check: There are a few areas to check here. First of all, prior to 5.1.14, this was an issue if an item was marked inactive in E2 and in QuickBooks, such as an Employee, Inventory Item, etc., then you would receive this kind of error. Either update to the newest version of E2, or mark these items active.

This kind of error has also been noted in association with exporting Employee Attendance Tickets to QuickBooks. If encountered, verify that the option to display the Employee name is set to First Name in Edit/ Preferences/Payroll & Employees/Company Preferences.

Issue: I have an AR Invoice in E2, but it won't export to QuickBooks.

Things to check: It could be due to a "compatibility issue" (such as a Sales ID, etc.); however, such an issue should produce an item on the error log. If there is nothing on the error log, make sure that the Invoice has a balance, as zero balance AR Invoices will not export in the Direct Connect method.

NOTE: Unlike the old IIF method, negative balances* (credit memos) DO export to QuickBooks in the Sync method.
*See Canadian User's Section for details on Credit Memos in the Canadian version of QuickBooks.

Also verify that the date range you have selected is correct. Remember, the date used for syncing is the *date entered*, not the date of the invoice.

Issue: When I export AR Invoices, I receive a message that there was an error adding FreightAcct, SalesTaxAcct, and E2PartIncomeAcct.

Things to check: Make sure to turn off the "Show Lowest Subaccount Only" check box in the Preferences/ Accounting screen. This lets the E2PartIncomeAcct, E2PartCOGSAcct, E2PartAssetAcct, FreightAcct, and SalesTaxAcct all get created in QuickBooks. The various E2Partxxxx accounts are all created the first time Parts are synced from AR. The Freight and SalesTax accounts are created as part of the Validate Info process.

Issue: When I export AR Invoices, income is posted to the E2PartIncome Account in QuickBooks.

Things to check: This occurs because QuickBooks requires certain accounts to be associated with every Part that is created (COGS Account, Asset Account & Income Account). The problem arises from the fact that E2 does not have any directly corresponding *required* accounts for the Asset & COGS values, creating the possibility that there could be blank fields when the part was exported to QuickBooks. Additionally, since the same part could very well have a different income account attached to it on a different invoice within E2, the interface does not even "look" at the income account located on the AR Invoice. (In fact, the Part is created in QuickBooks before the Invoices are even exported, rendering the income account impractical as the source of this information for QuickBooks.)

If the Customer desires to have these accounts set to a specific GL Account, there are two options:

(1) Go to *each* new part added through the sync process and manually change the accounts accordingly. At this point, QuickBooks will ask if they want all existing invoices to change to match – answer "yes". All future invoices with that Part will also be "correct" from that point on.

(2) "Define" the part in E2 first – See Pg. 10, "A Note About Part Numbers" for details on how to do so.

Issue: I have Attendance Tickets in E2, but they do not show in QuickBooks after I sync.

Things to check: Verify that there is a dollar amount attached to the Pay Rate being used on the Attendance Ticket. If the dollar amount is zero, the interface will not transfer the ticket to QuickBooks.

Also verify that the End Date of the date range on the Sync page is at least one day beyond the date of the Attendance Ticket you are syncing into QuickBooks. It will not "see" Attendance Tickets until after the complete day the ticket was entered has passed & therefore they will not be sent to QuickBooks.

Issue: I receive the following transaction log error when syncing an AP Invoice:

   Sales tax detail line must have a vendor.

Things to check: This occurs when the Sales Tax GL Code on the AP Invoice is the same as the Tax liability account used on AR Invoices. You will need to either manually change the Tax Code GL on each invoice as appropriate (if tax is being applied) or create a "purchase" Tax Code with an expense GL Code associated with the Vendor.

Issue: I get the following error message when attempting to sync an invoice:

Things to check: This typically indicates that a Customer, Vendor or Part is missing a name. Narrow down the date range where the invoice(s) having the trouble is located and check each one to see what item is missing its name. Once determined, you will need to edit the item in questions & then re-select it on the invoice(s) affected.

Appendix B: Required File Listing

Direct Connect Method

Below is a list of the files required in order to install and use the QuickBooks Direct Connect Interface utility for E2. All files listed should be located in Source Directory of the E2 folder.

File Name	Function
QBFC11_0Installer.exe	Required to allow the Sync process to take place. This file is required to run the conversion and/or the Sync
QBDAO.exe	Access version of manual Sync program
QBADO.exe	SQL version of manual Sync program
Qbooks2k.exe	Conversion utility from U.S. QuickBooks to E2
Qbooks2kCA.exe	Conversion utility from Canadian QuickBooks to E2
QBServer.exe	Access version of Real-Time Sync program
QBSrvADO.exe	SQL version of Real-Time Sync program

Appendix C: Pre-Conversion and Pre-Sync Checklists
(See pages 3-9 for additional details)

Prior to running the conversion utility, verify the following:

1) Make sure that the QBFC11_0Installer.exe file has been loaded and run as indicated above.

2) Within QuickBooks, verify that the "*Use account numbers*" option has been enabled. This is located under Edit/Preferences/Accounting/Company Preferences. **DO NOT** enable "*Show lowest sub-account only*". If it is enabled, turn it off.

3) Review your Customer Names in QuickBooks. The conversion will use these values to populate the Customer Code in E2 and will be the basis for identifying Customers for future syncs. *NOTE*: The Customer Code field in E2 has a *maximum length of 12 characters*. If your QuickBooks Customer Name is longer than 12 characters, it will be truncated to fit into E2 and will **not** match when attempting to sync invoices. **The Customer Name in QuickBooks must be 12 characters or less.** If a Customer Name is longer than this and you do not edit it prior to conversion, or edit it to match what the conversion creates as the E2 Customer Code prior to syncing, the interface will create a duplicate entry in QuickBooks using the Customer Code from E2.

*NOTE: The conversion utility **CANNOT** merge information into an existing E2 Company. See Pg. 2 for details.*

Prior to syncing Invoices or Attendance Tickets to QuickBooks, verify the following:

In E2:

1) Set the Interface Method in Company Maintenance to the Direct Connect Method and set the Import/Export path.

2) Verify Customer Information

   a. Each Customer needs to have a Sales ID and Terms Code that matches one in QuickBooks

   b. Verify the E2 Customer Code matches the QuickBooks Customer Name. If they do not, the QuickBooks Customer Name must be edited to match the E2 Customer Code as the E2 Code has a maximum length of 12 characters.

In QuickBooks

1) Enable "Use account numbers" option. (This will already be enabled if you used the conversion utility.)

2) Enable "Do You Charge Sales Tax" option (this will be set to Yes for Canadian users, but users need to select the most used taxes)

3) If syncing Attendance Tickets:

   a. Make sure the full payroll features are enabled and Time Tracking is enabled

   b. Add Payroll Items as needed for overtime & non-overtime attendance entries