virtua

Integrated Library System

System Management: Acquisitions & Serials

VIRTUA ILS - INTEGRATED LIBRARY SYSTEM

Virtua System Management
Acquisitions and Serials User's Guide
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Table of Contents

1. Introduction

This user's guide describes the procedures for running executables and scripts related to the Virtua Acquisitions and Serials subsystems. This information is intended for system administrators who feel comfortable working with programs that directly modify the contents of the Virtua database.

The scripts and executables documented in this guide are not programs that you need to run daily. If you are unsure of whether you need to run a script or executable, contact an Innovative Customer Services representative. Additionally, if you do not feel comfortable running a script or executable, or if you are unaware of the consequences of running a script or executable, contact Innovative.

> **Important:**
> - Since many of the scripts and executables documented in this guide modify data in the database, it is important that you have good backups of your database. For information about database backup, see the *System Management Reference Guide.*
> - Most scripts in Virtua contain descriptive comments at the beginning of the file. Before you run a script, open it in a text editor and read ALL of the comments contained in the header.

This introduction covers the following topics:

⇒ Using this Guide
⇒ Recommended Knowledge for Using this Guide
⇒ An Important Note About Environment Variables

1.1 Using this Guide

The *Virtua System Management: Acquisitions and Serials User's Guide* contains instructions for running scripts and executables related to the Acquisitions and Serials subsystems. You can use the list below and the table of contents to locate specific information in this guide.

For . . .	See . . .
Instructions for batch processing acquisitions and serials claims	Chapter 2

1.2 Recommended Knowledge for Using this Guide

This user's guide is intended primarily for system administrators who are comfortable working with programs that directly modify the contents of the Virtua database. Throughout this guide, we assume that you have experience working with your server from the command line.

Additionally, throughout this guide, we assume that you have already read the *Virtua System Management Reference Guide*, which provides . . .

- Details on the directory of Virtua and the Virtua database.
- Administrative tips for working with UNIX, such as information on . . .
  - ♦ Running scripts and executables as background processes.
  - ♦ Redirecting output.
  - ♦ Detecting and killing processes.
  - ♦ Working with cron jobs.
- Administrative tips for working with Oracle, such as information on . . .
  - ♦ Accessing SQL*Plus.
  - ♦ Starting and shutting down the database.
  - ♦ Working with the Oracle Listener.
  - ♦ Managing passwords.

             ◆   Exporting tables.
- Information on database backups.
- Details on character maps.
- Information on working with **psdriver.exe**.

> **Important:** Information provided in the *Virtua System Management Reference Guide* is generally NOT repeated in this user's guide.

1.3 An Important Note about Environment Variables

Environment variables specify information about the working environment in the current UNIX session. Programs such as Virtua access and use environment variables when executing functions. Additionally, some of these variables are available for use from the command line.

Before you run any of the scripts or executables documented in this guide, you need to check the settings of at least three environment variables:

- **EXE_DIR** - Defines the path to the directory in which the scripts and executables for this version of Virtua are stored.
- **ORACLE_SID** - Defines the Oracle SID setting (i.e., *vtls01* or *vtls99*).
- **NLS_LANG** - Determines the character set used by Oracle.

If these variables are not set correctly, it is possible that you will run the wrong version of a program, modify the wrong database, or corrupt your data. Generally, these variables will be set for you in the **dbadmin** profile when you log in to the system, but we recommend that you double-check their setting before you run any scripts or executables. For information on setting and checking these and other environment variables such as VIRTUA_USER and VIRTUA_PASSWORD, see the *System Management Reference Guide*.

2. Batch Processing Claims

Virtua offers a batch processing utility that lets you process claims. When you use this program, Virtua processes claims using the same criteria as when you process claims manually in the Virtua client. The program **autoClaim.exe** processes . . .

- Acquisitions claims for overdue purchase order line items.
- Acquisitions reclaims for purchase orders and purchase order line item for which reclaim dates have passed.
- Serial claims for issues for which expected dates have passed.
- Serial reclaims for issues for which reclaim dates have passed.

In this chapter, we limit our discussion to topics specifically related to **autoClaim.exe**. For detailed information about the claiming process, see the *Acquisitions Workflow-based Reference Guide* or the *Serials Workflow-based Reference Guide*.

Note: Three tables are modified when you run **autoClaim.exe**. Before you run this program, export these tables:
- Claims
- PO_Header
- PO_Detail

This chapter covers the following topics:

⇒ Setting Logging Options
⇒ Running autoClaim.exe

2.1 Setting Logging Options

The **autoClaim.exe** program uses two environment variables to determine logging options:

- CLAIM_BATCH_LEVEL - Determines the type of information that is logged by the **autoClaim.exe** program. You can assign any of the following values for this environment variable:

  ♦ **1** - Log debug messages.

♦ **2** - Log information messages.
♦ **3** - Log warning messages.
♦ **4** - Log error messages.
♦ **5** - Log critical messages

- CLAIM_BATCH_TYPE - Specifies the destination of the log messages written by **autoClaim.exe**. You can choose to output log messages to standard error (**stderr**), syslog, or a file (**autoClaim.log**). If you do not set this environment variable, **autoClaim.exe** will write log messages to **autoClaim.log**.

  You can assign any of the following values for this environment variable:

  ♦ **1** - Log messages to standard error (**stderr**).
  ♦ **2** - Log messages to syslog.
  ♦ **3** - Log messages to **autoClaim.log**.

You should set values for these environment variables before you run **autoClaim.exe**. For information about working with environment variables, see the *System Management Reference Guide*.

2.2 Running autoClaim.exe

To process claims and reclaims in batch,

1. Log in to your server as **dbadmin**.
2. At the server prompt, type: **`autoClaim.exe [claim type]`**

   Where **[claim type]** is one of the following codes that indicate the type of claim the program will process:

   - **-t1** - Serials
   - **-t2** - Acquisitions
   - **-t0** - All claims (both Serials and Acquisitions).

   For example, to process claims for Acquisitions, type: **`autoClaim.exe -t2`**

3. Press Enter.

   The program announces that it is about to process claims.

4. Press Enter to continue.
   -OR-
   Press the CTRL + D keys to cancel the operation.

   The program processes the claim type you specified. Depending on logging options you choose, the program writes information about both successful and unsuccessful attempts to process claims.

   > **Note:** When processing an Acquisitions claim, if the maximum number of claims defined in the Vendor record is exceeded, the program will check the Auto Cancel Purchase Orders Flag. If this parameter is…
   > - Enabled, **autoClaim.exe** will cancel the purchase order or line item.
   > - Disabled, the program will not issue the claim for the purchase order or line item. Additionally, it will indicate in the log file that the purchase order or line item is valid for cancellation.

After you run **autoClaim.exe**, you can use the Virtua client to transmit the claims the program processed. For information about transmitting claims, see the *Acquisitions Workflow-based Reference Guide* or the *Serials Workflow-based Reference Guide*.

For details on scheduling **autoClaim.exe** to run automatically using the Schedule Auto Claims parameter, see the *Virtua Profiler/Acquisitions Parameters User's Guide*.

3. Rolling Over the Fiscal Year

T he program **fyRollover.exe** rolls over acquisitions data for a location from one fiscal year to the new fiscal year. When you run this program, you have the option to roll over the following data:

- Account structure.
- Account allocations.
- Open orders.
- Unpaid invoices.
- Invoice fee and tax parameters.
- Unused credits.

Additionally you have the option to . . .

- Disable the accounts for a location for the old fiscal year.
- Disable the old fiscal year for ALL locations.

Note: This program assumes that all fiscal years prior to the one from which you are rolling over data have already been closed out.

This chapter covers the following topics:

⇒ Preparing to Run the Program
⇒ Running fyRollover.exe

3.1 Preparing to Run fyRollover.exe

When you run **fyRollover.exe**, you will be prompted to enter information that will determine how the program rolls over data. If you enter the incorrect information when answering these questions, the rollover will either fail or result in the wrong data being rolled over. It is important that you understand these questions and are prepared to answer them.

In the following sections, we list questions that will prepare you for running the script. Read and answer each question before running **fyRollover.exe**.

3.1.1 Enter the institution symbol:

> **Important:** This question appears for consortium installations ONLY.

Know the symbol of the institution whose fiscal year you wish to roll over. Institution symbols can be found as the "Institution Code" in the Virtua Profiler.

3.1.2 Do you want to roll over all locations?

If you answer Yes,

- The program rolls over acquisitions data for all locations.

If you answer No,

- The program asks you to enter the location *code* of the location for which you want to roll over acquisitions data.
- When you have entered a location, the executable will ask you if you want to enter another location. When you are finished entering locations, press Enter. The program will roll over acquisitions data for the locations you specify.

> **Note:** The only function of **fyRollover.exe** that is not location-specific is the one that closes out the fiscal year. If you choose to close out the fiscal year, you do so for ALL locations.

3.1.3 Which fiscal year do you want to roll over?

Know the fiscal year from which you want to transfer acquisitions data. You can view a list of fiscal years in the Fiscal Years parameter in the Virtua Profiler.

3.1.4 What is the year to which you want to roll over data?

Know the fiscal year to which you want to roll over acquisitions data. The year you choose must be a fiscal year that exists in the Fiscal Years parameter in the Virtua Profiler and has not yet been closed out.

3.1.5 Do you want to duplicate the account structure?

If you choose to have the program duplicate the account structure of the old fiscal year, the program will recreate, for the new fiscal year, the exact account structure.

If you choose NOT to have the program duplicate the account structure, you need to have created an account structure for the new fiscal year *before* running **fyRollover.exe**.

Note: If you do not duplicate the account structure, you will encounter problems if you try to roll over data related to accounts that do not exist in the new fiscal year. Make sure that all necessary accounts exist in the new fiscal year *before* running **fyRollover.exe**.

3.1.6 How do you want to handle allocations to new accounts?

If you decide to duplicate the account structure from the old fiscal year, you have the option to . . .

- Use the original allocations from the old fiscal year. If you choose this option, accounts in the new fiscal year will have the same amount allocated to them as was *originally* allocated in the old fiscal year.
- Set all allocations to zero. If you choose this option, a balance of zero will be allocated to the accounts in the new fiscal year.

Note: If you chose NOT to duplicate the account structure (see the previous question), you will not have these options.

3.1.7 Do you want to move open orders to the new fiscal year?

If you choose to move open orders to the new fiscal year, all orders that have not been *completely* invoiced will be rolled over.

If you choose NOT to move open orders, encumbrances for the open orders remain in the old fiscal year.

3.1.8 Do you want to move unpaid invoices to the new fiscal year?

If you choose to move unpaid invoices to the new fiscal year, all invoices that have not been *completely* paid will be rolled over.

Note: If you choose to roll over unpaid invoices but not open orders, any orders associated with the unpaid invoices will be rolled over as well.

If you choose NOT to move unpaid invoices to the new fiscal year, encumbrances for the unpaid invoices remain in the old fiscal year.

Note: In the audit trail, the fyRollover program records an encumbrance moved from one year to another as "Encumbrance Rolled In" (to the new) and "Encumbrance Rolled Out" (from the old) transactions instead of as "encumbrance" and "disencumbrance" transactions. In this way, you can easily track the encumbrances carried over from one year to the next.

3.1.9 Do you want to move invoice fee and tax parameters to the new fiscal year?

If you answer Yes,

- The program tries to locate the account of each fee or tax in the new fiscal year and switch the fee or tax to the new account. If no corresponding account exists in the new fiscal year, the fee or tax will not be moved and an error will appear in **fyRollover_hh24_mi_ss_mon_dd_yyyy.log**. The program will move only those fees/taxes that are associated with accounts in the new year. An error rolling over one fee or tax will not prevent other fees or taxes from being rolled over.

If you answer No and have fees or taxes associated with an account in the old fiscal year,

- The fees or taxes will remain linked to the old account.
- You will not be able to disable accounts.

If you answer No and do NOT have any fees or taxes associated with an account in the old fiscal years,

- You will be able to disable accounts.

Note: Rolling over the fee/tax parameters serves two purposes: 1) It provides a means for libraries to keep their fees and taxes pointing to accounts in the new fiscal year. 2) It assists in disabling the accounts since Virtua will not allow you to disable any account linked to fees and taxes whether you are using the client or **fyRollover.exe**.

3.1.10 Do you want to move account-specific credits to the new fiscal year?

If you choose to move account-specific credits, the program will attempt to move the existing credits to the new account structure. If a credit exists that does not have an associated account in the new fiscal year, the program will fail.

3.1.11 Do you want to move open purchase requests to the new fiscal year?

If you choose to roll over purchase request data, any purchase request that is linked to a fund account in the old fiscal year is updated so that it is linked to the corresponding fund account in the new fiscal year. Updates to purchase requests are logged in the Acquisitions Transaction Log.

3.1.12 Do you want to disable accounts in the old fiscal year?

If you choose to disable accounts in the old fiscal year, you will no longer be able to do anything with the old accounts. Before you choose this option, make sure that you will not need to process any further transactions for the accounts in the location for which you are doing the rollover.

The fyRollover executable prevents an account from being disabled if the account goes against open orders, invoices, or credits, or if the account is associated with a distribution group or with a fee or tax in the Virtua Profiler. If an account cannot be disabled, a message will be written to **fyRollover_hh24_mi_ss_mon_dd_yyyy.log**. An error disabling one account will not prevent other accounts from being disabled.

> **Important:** If you want **fyRollover.exe** to complete successfully, you must answer Yes to this question and the next; i.e., if you want to close out (disable) the old fiscal year (see the next question), you cannot have open (enabled) accounts in the old fiscal year.

3.1.13 Do you want to close out the old fiscal year for ALL locations?

It is important to note that this option applies to ALL locations. If you choose to close out the fiscal year for all locations, you will not be able to process any further transactions related to the old fiscal year. **Warning:** Do NOT close out the fiscal year until ALL locations have been rolled over.

3.2 Running fyRollover.exe

To roll over the fiscal year,

1. Log in to your server as **dbadmin**.

2. Cease all acquisitions activity at ALL locations. Do NOT resume acquisitions activity until after the program finishes running AND you have verified that your data was processed correctly.

3. Export the following tables:

- Fiscal_Year
- Fund_Account
- POAccts
- Invoice_Detail_Acct
- Invoice_Header_Acct
- Invoice_fee_type
- Invoice_tax_type
- Credits

If a failure occurs when you run the program, you can use the export file to recover those tables.

> **Note:** To export the tables and, in case of failure, import them to restore the database, you can use the script **AcqTablesForFYRolloverRestore.sh** with two different options (see the section "Exporting and Restoring Acquisitions Tables for FY Rollover").

4. At the prompt, type **fyRollover.exe**

5. Press Enter.

6. Using the answers you gave to the questions in the previous section, complete the information requested by the program.

   After you answer the program's questions, **fyRollover.exe** performs the rollover. While it runs, **fyRollover.exe** writes to . . .
   - **stdout** the general progress of the program. Unless you run the program as a background process or redirect the output, this information appears on the screen.
   - **fyRollover_hh24_mi_ss_mon_dd_yyyy.log** details about each activity the program processes. The date and time in the log filename reflect the system date and time that the log is written.

   If the program encounters an error, it will write details about the problem in the last line of **fyRollover_hh24_mi_ss_mon_dd_yyyy.log**. For information about what occurs when the program encounters an error, see the section "If the program encounters an error . . ." in this guide.

> **Note:** If a previously generated version of
> **fyRollover_hh24_mi_ss_mon_dd_yyyy.log** exists, the program will write over
> that file. If you want to retain an old log file, rename the file or move it to
> another directory.

7. Verify that your acquisitions data were rolled over properly. If there were
    problems with the rollover, you can use the export file you created to recover to
    the previous state. For a complete list of the program's activity, view the file
    fyRollover_hh24_mi_ss_mon_dd_yyyy.log.

8. If the rollover was successful, and all your acquisitions data are correct, you can
    resume acquisitions activity.

> **Note:** If you use the export file to recover, you will revert the data to the state they
> were in at the time of the export. Any acquisitions activity since the export will be
> lost when you recover.

3.2.1 If the program encounters an error . . .

When **fyRollover.exe** runs, it tries to roll over acquisitions data based on the
information that you provide. If the program encounters an unexpected error such
as a database error, it will stop running. Depending on where it encounters the error,
some rollover activity may be rolled back in the database to the original state.

Below, we list the order in which the program attempts to roll over activity and the
points at which the program commits changes. When a change is committed in the
database, it cannot be rolled back.

The program processes the rollover in the following order:

1. The program connects to the database and begins processing data based on your
    inputs.

2. If you chose to duplicate the account structure, the program . . .

    *   Duplicates the account structure.
    *   *Commits changes.*

3. If you chose to roll over orders, the program . . .

    *   Rolls over orders.

- *Commits changes.*

4. If you chose to roll over invoices, the program . . .

  - Rolls over invoices.
  - *Commits changes.*
  - Rolls over invoice detail fees.
  - *Commits changes.*
  - Rolls over invoice detail taxes.
  - *Commits changes.*
  - Rolls over invoice header fees.
  - *Commits changes.*
  - Rolls over invoice header taxes
  - *Commits changes.*

5. If you chose to roll over credits, the program . . .

  - Rolls over credits.
  - *Commits changes.*

6. If you chose to disable accounts, the program disables accounts.

7. If you chose to close out the fiscal year, the program closes out the fiscal year.

8. The program commits changes.

If at any point during the process the program encounters an unexpected error, it will roll back to the last commit and stop running. For example, if the program encounters an unexpected error when rolling over invoice header fees, it will roll back the invoice header fees that had been processed before the error. The program made the last commit after it finished rolling over invoice detail taxes, so any changes made prior to this commit will not be rolled back.

3.3 Exporting and Restoring Acquisitions Tables for FY Rollover

Before you run **fyRollover.exe**, you need to export to a file all of the Acquisitions tables used during the execution of the program. The file will serve as a backup. If a failure occurs when you run the program, you can import the file to recover those tables and return the database to its previous state.

To export all of the tables related to **fyRollover.exe** or to import them in case of a failure, you need to run only one script, **AcqTablesForFYRolloverRestore.sh**. The script can be run with a different option for either exporting data or importing data.

To run AcqTablesForFYRolloverRestore.sh,

1. Log in to the server as **dbadmin**.

2. At the server prompt, type:

    ```
    AcqTablesForFYRolloverRestore.sh [Datapump option] [Folder
    location for files]
    ```

    Where…

    - **[Datapump option]** is one of the following:

        ♦ **Export** – This option takes an export of the Acquisitions tables and needs to be used *before* you run **fyRollover.exe**.

        ♦ **Import** – This option returns the database to the state before **fyRollover.exe** was run and needs to be used *only* in the event of a failure.

    AND…

    - **[Folder location for files]** is the folder where the exported data needs to be placed (Export option) OR where the exported data has already been placed (Import option).

3. Press Enter.

4. Acquisitions Transaction Log

The **Acq_Transaction_Log** table contains a row for each acquisitions-related activity logged by the system. This chapter lists and describes the columns in this table.

Note: If you have installed the Ad Hoc Reporting System, you can view the transaction information in the Acq_Transaction_Log_v view. For information about this view, see the *Ad Hoc Reporting Reference Guide*.

4.1 Columns in the Transaction Log

The chart below lists the columns in the Acq_Transaction_Log table in the database.

Column Name	Data Type	Can Be Null?	Description
Transaction_ID	NUMBER(9)	No	**Primary Key.** A unique ID for the row.
Action	NUMBER(5)	No	A code that indicates the type of the transaction. For information about possible values for this field, see the section "Action Values" in this guide.
Transaction_Date	DATE	No	The date on which the transaction was recorded.
Operator_ID	NUMBER(9)	No	The numeric operator ID of the Virtua user profile that executed the activity.
AcctNo	NUMBER(9)	Yes	ID of the account related to the transaction.
POID	NUMBER(9)	Yes	ID of the purchase order related to the transaction.
POLineNo	NUMBER(5)	Yes	Purchase order line number related to the transaction.
ReceiptID	NUMBER(9)	Yes	ID of the receipt related to the transaction.

Column Name	Data Type	Can Be Null?	Description
Invoice_ID	VARCHAR2(35)	Yes	ID of the invoice related to the transaction.
VoucherID	NUMBER(9)	Yes	ID of the voucher related to the transaction.
CreditNo	NUMBER(9)	Yes	ID of the credit related to the transaction.
VendorID	NUMBER(9)	Yes	ID of the vendor related to the transaction.
Purchase_Request_ID	NUMBER(9)	Yes	Internal ID of the purchase request related to the transaction
Reason	VARCHAR2(150)	Yes	The reason that the transaction was performed.
Bib_ID	NUMBER(9)	Yes	The bib ID of the bib record associated with the transaction
Session_History_ID	NUMBER(9)	Yes	Link to Virtua_Session_History table for hostname
Previous_Status	NUMBER(9)	Yes	Stores the previous purchase request status
Patron_ID	NUMBER(9)	Yes	Stores the patron who initiated a purchase request
Status_Change_Reason	VARCHAR2(150)	Yes	Stores the reason for a status change for a purchase request

Note: Depending on the type of transaction, some transactions will not have entries in one or more of the fields that are allowed to be null.

4.2 Action Values . . .

Below is a list of the possible values of the Action column of the **Acq_Transaction_Log** table.

Action Value	Description of activity
100	Account Added
101	Account Modified
102	Account Deleted

Action Value	Description of activity
103	Account Funds Added
104	Account Funds Transfer
105	Account Disabled During Fiscal Year Rollover
200	Purchase Order Added
201	Purchase Order Modified
202	Purchase Order Deleted
203	Purchase Order Canceled
204	Purchase Order Transmitted
205	Purchase Order Cancel Transmitted
206	Purchase Order Renewed
210	Purchase Order Line Item Added
211	Purchase Order Line Item Modified
212	Purchase Order Line Item Deleted
213	Purchase Order Line Item Canceled
214	Purchase Order Line Item Renewed
215	Order Line Rolled Over
300	Receipt Added
301	Receipt Modified
302	Receipt Deleted
303	Receipt Automatically Added
400	Invoice Added
401	Invoice Modified
402	Invoice Deleted
403	Header Fee Rolled Over
404	Header Tax Rolled Over
410	Invoice Detail Added
411	Invoice Detail Modified
412	Invoice Detail Deleted
413	Invoice Price Rolled Over
414	Line Fee Rolled Over
415	Line Tax Rolled Over
500	Payment Added
501	Payment No Invoice Added
502	Payment Updated
503	Payment Deleted
504	Payment No Invoice Updated
505	Payment No Invoice Deleted
600	Credit Added
601	Credit Modified
602	Credit Deleted
603	Credit Applied

Action Value	Description of activity
604	Credit Rolled Over
701	Incorporated the latest currency conversion factors into acquisitions encumbrances
702	Fixed acquisitions order line encumbrances
801	Vendor Added
802	Vendor Updated
803	Vendor Deleted
900	Purchase Request Added
901	Purchase Request Modified
902	Purchase Request Deleted
903	Purchase Request Rejected

5. Running Scheduled Activities

You can schedule three activities in Acquisitions to take place automatically:

- Transferring EDIFACT files (for details, see the section "Scheduling Automatic File and MARC File Transfers" in this guide).
- Downloading currency conversion rates (for details, see the *Virtua Profiler/Global Settings User's Guide*).
- Running **autoClaim.exe** (for details, see the section "Batch Processing Claims" in this guide and the *Virtua Profiler/Acquisitions Parameters User's Guide*).

For these activities to take place as scheduled, the program **JobScheduler.exe** must be running. The program requires one parameter—the wait time in seconds between jobs. **JobScheduler.exe** reads the timetable in the database where job schedules are stored and executes the scheduled activity at the specified intervals.

To set a schedule for transferring EDIFACT files, downloading currency rates, and running **autoClaim.exe**, you must access the Scheduler utility. For details on accessing the Scheduler window, see the individual guides that deal with EDIFACT file transfers, the Currency parameter, and the Schedule Auto Claim parameter.

To run JobScheduler.exe,

1. Log in to your server as the **dbadmin** user.
2. At the prompt, type: **JobScheduler.exe**
3. Press Enter.

   The server prompts you to enter the one parameter to be used with the executable: **JobScheduler.exe <Wait Time (seconds)>**

4. At the prompt, type the command again with a wait-time value; for example, type **JobScheduler.exe 60**

5. Press Enter.

6. The program automatically becomes a background process, doing its job every 60 seconds.

To shut down the JobScheduler, just kill it.

6. Deleting Vendor Records in Batch

Virtua gives you the ability to delete vendor records from your system based on a file of vendor IDs. The executable **BatchDeleteVendors.exe** takes a filename as a command-line parameter and deletes the vendor records specified in the file. If one or more vendors cannot be deleted, the script will display a notification.

To run BatchDeleteVendors.exe,

1. Log in to your server as **dbadmin**.

2. At the database prompt, type:

    `BatchDeleteVendors.exe <[filename]`

    Where **`[filename]`** is the name of a file of vendor IDs.

3. Press Enter.

The executable deletes the vendor records associated with the vendor IDs in the file.

If one or more vendor IDs are invalid or cannot be deleted, the executable will display the vendor IDs it could not delete along with an error message. In addition, the executable displays a final count of the number of vendor IDs that were or were not deleted.

7. Deleting Old Purchase Requests

The script **DeleteOldPurchaseRequests.sh** can be run to delete purchase requests whose age has passed the threshold defined in the Retain Information For setting in the Purchase Request Processing section on the Acquisitions Basic Options window in the Virtua Profiler (see the *Virtua Profiler/Acquisitions Parameters User's Guide* for information about this setting).

This script takes no arguments.

To run DeleteOldPurchaseRequests.sh,

1. Log in to your server as **dbadmin**.

2. At the database prompt, type:

   ```
   DeleteOldPurchaseRequests.sh
   ```

3. Press Enter.

The script deletes the purchase requests with an age that meets or is beyond the age defined in the Retain Information For setting.

8. Determining the Display of Serial Enumeration and Chronology

By default, Virtua displays enumeration and chronology information for compressed serial holdings in compliance with NISO standards. This means that on the View Holdings Record window in the Virtua client, the display is in the following format: vol. no. - vol. no. YYYYMMM - YYYYMMM; e.g., v. 87 no. 21 - v. 88 no. 6 1962 Dec - 1963 Mar.

If you prefer a different format for the display, you have the option of running a script to change it. The script **SetNoNISOSerialDisplay.sh** can be run according to the following usage:

0 - Display compressed serials as per NISO (*default*)
1 - Do NOT display compressed serials as per NISO

- If **SetNoNISOSerialDisplay.sh** is run with a value of **0**, *or if it is not run at all*, enumeration and chronology information is displayed as follows:
  vol. no. - vol. no. YYYYMMM - YYYYMMM; e.g.,
  v. 87 no. 21 - v. 88 no. 6 1962 Dec - 1963 Mar.

- If **SetNoNISOSerialDisplay.sh** is run with a value of **1**, the same information is displayed as follows:
  vol. - vol., no. - no., YYYYMMM - YYYYMMM; e.g.,
  v. 87- v. 88 no. 21- no. 6 1962 Dec - 1963 Mar.

If you do not want to display compressed serials as per NISO, run SetNoNISOSerialDisplay.sh as follows:

1. Log in to your server as **dbadmin**.

2. At the database prompt, type:

   ```
   SetNoNISOSerialDisplay.sh 1
   ```

3. Press Enter.

Virtua will display the enumeration and chronology information for compressed serials holdings in the non-NISO format.

Note: This script does not currently affect the display of enumeration and chronology information for compressed serial holdings in Chamo.

9. Appendix A - Working with EDIFACT

Virtua's Acquisitions subsystem supports EDIFACT communication with vendors. This appendix provides information about configuring Virtua's EDIFACT features so that you can send and receive EDIFACT communications with compliant vendors.

To use EDIFACT communications, your server must be able to FTP to external servers. For data transfer to take place electronically, both Virtua and the vendor/supplier must support the EDIFACT standard. In addition, the vendor record must specify the SAN and the agency (for details on configuring vendor records, see the *Acquisitions Workflow-based Reference Guide*).

9.1 Working with the Configure EDIFACT Window

The Configure EDIFACT window lets you view, add, and edit information regarding EDIFACT settings for a selected vendor.

To display the Configure EDIFACT window,

- On the EDIFACT tab of the Create New Vendor window, click the Configure button.

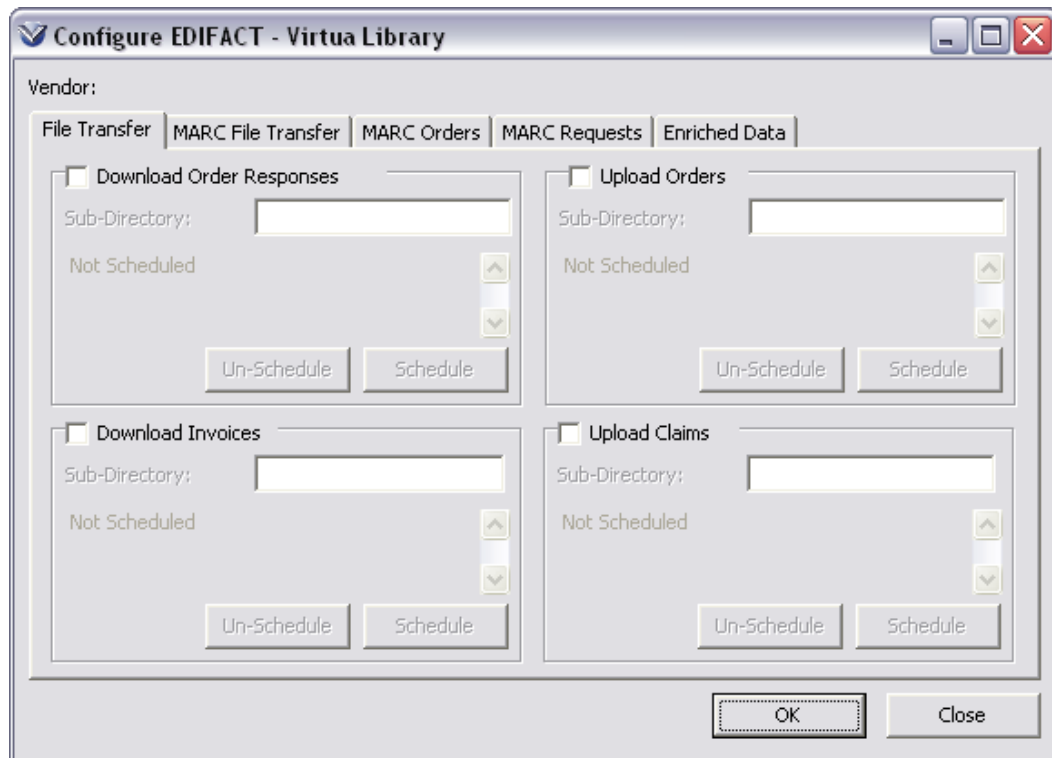The Configure EDIFACT window appears (*Figure 9-1*).

Figure 9-1. Configure EDIFACT Window

The Configure EDIFACT window displays the vendor's name at the top of the window. Below the name are the following tabs:

- File Transfer
- MARC File Transfer
- MARC Orders
- MARC Requests
- Enriched Data

The elements on each of these tabs are discussed below.

9.1.1 File Transfer Tab and MARC File Transfer Tab

The File Transfer tab and MARC File Transfer tab let you edit file transfer information for each type of EDIFACT communication. On these tabs you can also specify a schedule for Virtua to use when automatically communicating information to and from the vendor's FTP server. If no schedule has been created or if you need to initiate a communication at an unscheduled time, you can use the EDIFACT Tracker (see the section "Tracking EDIFACT Communications").

9.1.1.1 File Transfer Tab

The File Transfer tab on the Configure EDIFACT window lets you enter and edit file transfer data for EDIFACT order responses, orders, invoices, and claims. It also lets you specify a schedule for Virtua to use to communicate EDIFACT information to and from the vendor's FTP server. Based on the schedules you set on this tab, the Virtua Scheduler will try to…

- Download EDIFACT order response messages from the vendor's FTP site.
- Download EDIFACT invoices from the vendor's FTP site and then create invoices in the Virtua database.
- Create EDIFACT order files for all the vendor's unsent, approved orders that have a transmission method of EDIFACT. Virtua will then try to upload them to the vendor's FTP server.
- Create serial EDIFACT claim files for all the vendor's unsent Serial claims that have a transmission method of EDIFACT. Virtua will then try to upload them to the vendor's FTP server.

Note: If you do not want to create a schedule for Virtua to follow, you can use the EDIFACT Tracker instead to send and receive EDIFACT communications interactively.

To configure File Transfer data,

1. On the Configure EDIFACT window, click the File Transfer tab (*Figure 9-2*).
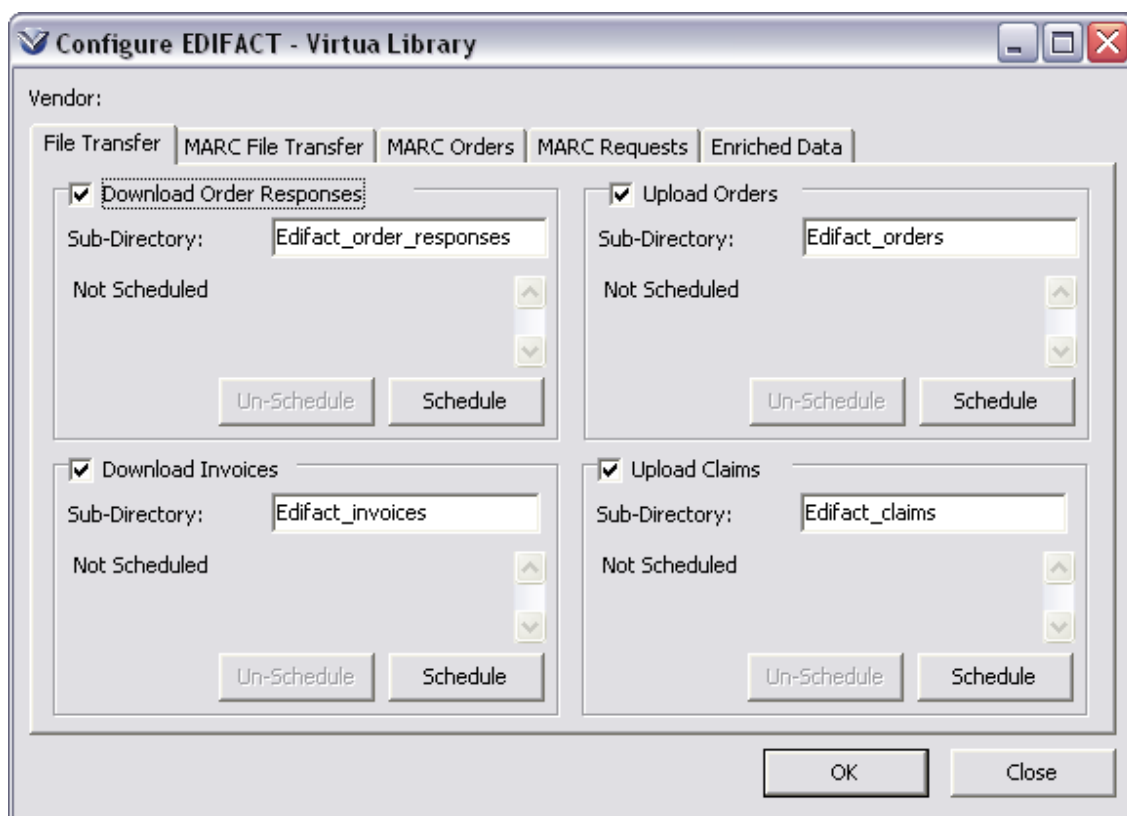
Figure 9-2. Configure EDIFACT Window - File Transfer Tab

The File Transfer tab displays four sections, each of which controls the schedule for one of the following types of EDIFACT communications: order responses, invoices, orders, and claims.

2. For each type of file transfer that you want to configure, click the associated check box. This enables the Subdirectory field and Schedule button for each type of communication.

3. In the Download Order Responses field, type the subdirectory (or directory path in relation to the log-in directory) on the vendor's FTP server from which order response files will be transferred. If there is no subdirectory, leave this field blank.

4. In the Download Invoices Subdirectory field, type the subdirectory (or directory path in relation to the log-in directory) on the vendor's FTP server from which invoice files will be transferred. If there is no subdirectory, leave it blank.

5. In the Upload Orders Subdirectory field, type the subdirectory (or directory path in relation to the log-in directory) on the vendor's FTP server to which orders will be transferred. If there is no subdirectory, leave it blank.

6. In the Upload Claims Subdirectory field, type the subdirectory (or directory path in relation to the log-in directory) on the vendor's FTP server to which Serial claims will be transferred. If there is no subdirectory, leave it blank.

> **Note:** In order for EDIFACT Serial claims to be created, Virtua requires the following in the holdings record:
> - Vendor's subscription number in subfield $b of the 941 tag.
> - Vendor's customer account ID in subfield $a of the 942 tag. When a Serial purchase order is created using an EDIFACT vendor, Virtua automatically inserts the account ID in the 942 tag.

7. Schedule automatic transfers as needed (see the section "Scheduling Automatic File and MARC File Transfers").

9.1.1.2 MARC File Transfer Tab

The MARC File Transfer tab on the Configure EDIFACT window lets you enter and edit MARC file transfer data for MARC orders and MARC requests.

MARC orders and MARC requests are MARC records from a vendor's website that are embedded with purchase order data. Once Virtua receives these records, the software is programmed to convert the data in the records to Virtua purchase orders:

- MARC orders are MARC records that contain data for items that *have been ordered* through the vendor's website.
- MARC requests are MARC records that contain order data for items that have been requested through the vendor's website but *need to be ordered* through Virtua.

The MARC File Transfer tab also lets you specify a schedule for Virtua to use to communicate EDIFACT information automatically from the vendor's FTP server. Based on the schedules you set on this tab, the Virtua Scheduler will try to…

- Download MARC orders from the vendor's FTP site and then create *sent* orders in the Virtua database.
- Download MARC requests from the vendor's FTP site and then create *unsent* orders in the Virtua database

> **Note:** If you do not want to create a schedule, you can use the EDIFACT Tracker instead (see the section "Tracking EDIFACT Communications") to send and receive EDIFACT communications interactively.

To configure MARC File Transfer data,

1. On the Configure EDIFACT window, click the MARC File Transfer tab (*Figure 9-3*).
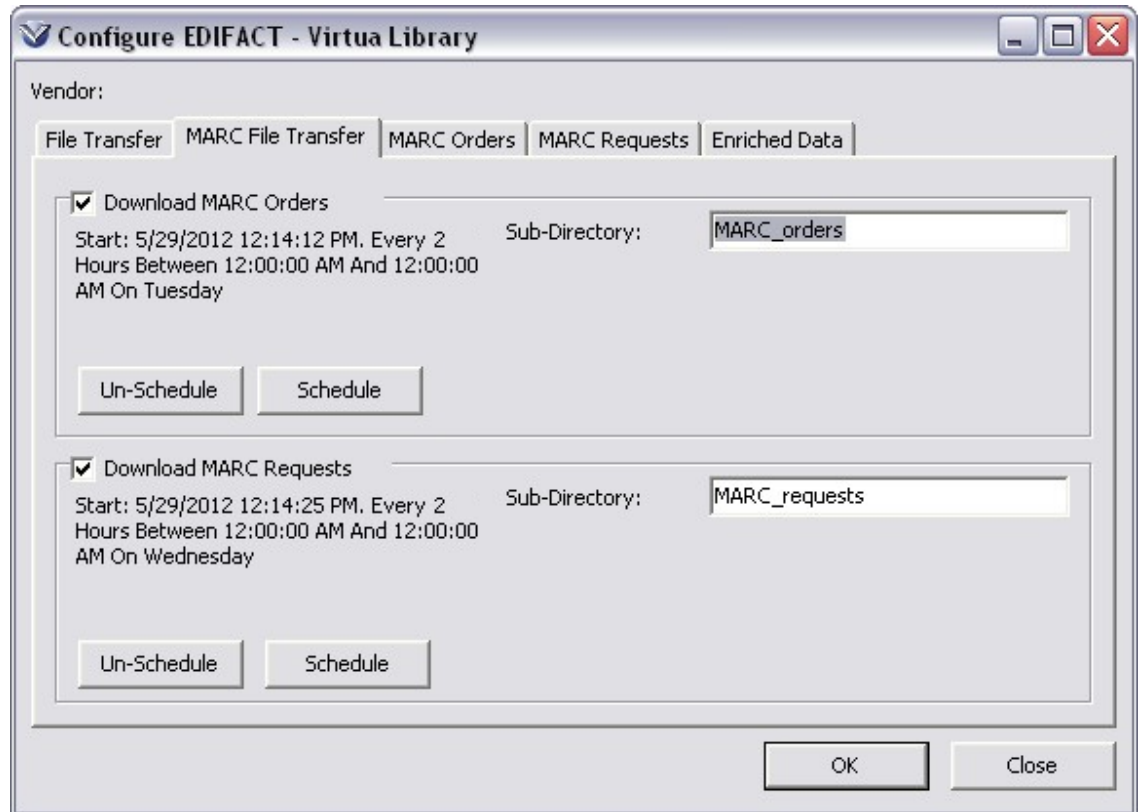
Figure 9-3. Configure EDIFACT Window - MARC File Transfer Tab

The MARC File Transfer tab displays two sections, one for downloading MARC orders and one for downloading MARC requests.

2. For each type of file transfer that you want to configure, click the associated check box. This enables the Subdirectory field and Schedule button for each type of communication.

3. In the Subdirectory fields, type the subdirectory (or directory path, in relation to the log-in directory) on the vendor's FTP server from which files will be transferred. If there is no subdirectory, leave it blank.

   Note: For Baker & Taylor, Inc., only specify a subdirectory (or directory path, in relation to the log-in directory) on your library's FTP server, which is assumed to

be the Virtua server also (see the section "Baker & Taylor, Inc.: Workflow" in this guide).

4. Schedule automatic transfers as needed (see the section "Scheduling Automatic File and MARC File Transfers").

9.1.1.3 Scheduling Automatic File and MARC File Transfers

Via the Virtua Scheduler, you can specify a schedule for Virtua to use when automatically communicating information to and from the vendor's FTP server. You can do this for regular file transfers and for MARC file transfers. In both cases, before scheduled transfers can take place automatically, the following needs to happen:

- An executable must be running in the background. The executable is **JobScheduler.exe**, which will handle ALL scheduling for Virtua. It is expected that your system administrator will run this executable at the command line each time the database is brought up. The program runs in the background and reads the database table that contains scheduling information. For details about running **JobScheduler.exe**, see the section "Running Scheduled Activities" in this guide.

In addition, with regard to invoice file transfers, a parameter must be set in the Virtua Profiler. The setting is called EDIFACT Invoice Processing, and it is part of the Acquisitions Basic Options parameter.

To schedule automatic File Transfers or MARC File Transfers,

1. On either the File Transfer tab or the MARC File Transfer tab, make sure the desired transfer is selected and configured.

2. Click the Schedule button associated with the transfer.

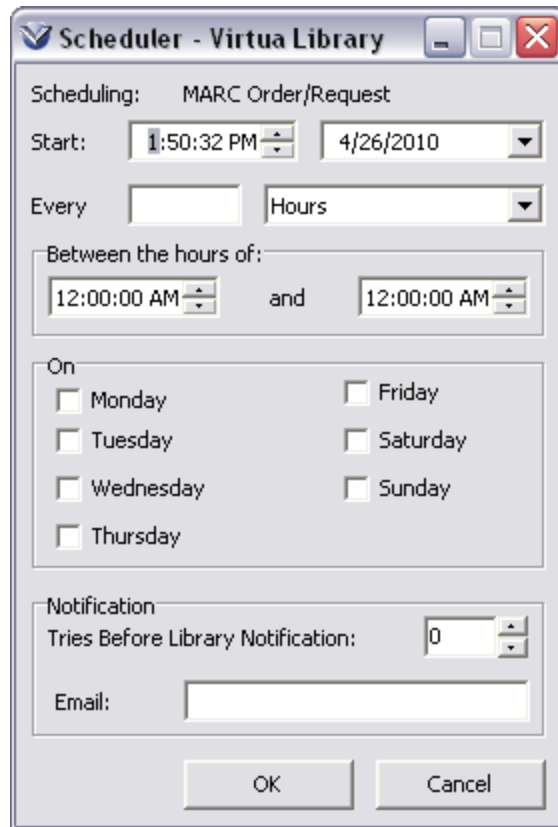   The Scheduler window appears (*Figure 9-4*).

Figure 9-4. Scheduler Window

3. Set the various elements on the window. Each group box lets you define specific scheduling information:

    - Start time and start date for transfers.
    - Frequency of the transfer (requires you to type a number and then choose a period).
    - Hours between which transfers are to take place.
    - Days on which transfers are to take place.
    - Tries Before Library Notification: The number of unsuccessful scheduled upload/download attempts the system will make before sending a generic notification regarding the problem.
    - E-mail address of the person to be notified.

4. Click the OK button.

5. Repeat steps 1-3 for other file transfers as required.

After you finish scheduling automatic transfers…

- A description of each schedule that you set will appear on the Transfer tab (see the example below).
- The Un-Schedule button associated with each schedule will be enabled.
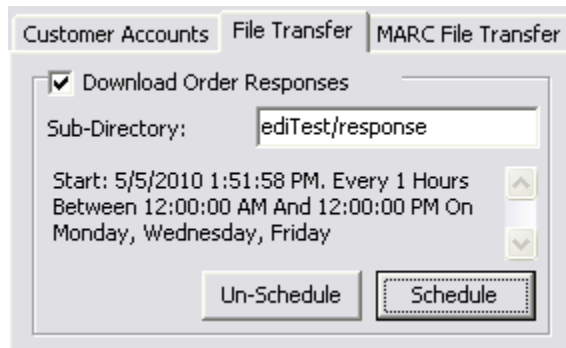
Figure 9-5. File Transfer Tab Showing Download Schedule

To delete the schedule for an EDIFACT communication,

- Click the appropriate Un-Schedule button.

    Virtua will ask for a confirmation of the deletion. Click Yes, and the automatic transfer feature will be disabled for this communication.

To edit an existing schedule for an EDIFACT communication,

1. Click the appropriate Schedule button.
2. Edit the values on the Scheduler window.
3. Click the OK button.

9.1.2 MARC Orders Tab

The MARC Orders tab on the Configure EDIFACT window (*Figure 9-6*) lists all the elements of a purchase order and maps each element to a tag/subfield combination in a MARC order record that your library receives from the vendor. The MARC Orders tab displays a set of default tags and subfields, which your library can modify to satisfy local requirements as well as the vendor's requirements.

Note: It's important that you contact each of your vendors to discuss the appropriate mapping of information into tags and subfields to be used for MARC orders/requests.

Virtua uses the data mapped in MARC order records to create *sent* orders in the Virtua database.

Note: If the account associated with the order is disabled or has insufficient funds, the EDIFACT Tracker will display the status of the communication as "Created with Errors."

Figure 9-6. Configure EDIFACT Window - MARC Orders Tab

9.1.2.1 Mapped Order Elements

Note: MARC fields on a vendor's website may not correspond exactly to the MARC fields on the MARC Orders tab of the Configure EDIFACT window. For example, on the Baker & Taylor website, the MARC field labeled Agency Code maps to Virtua's Location field, and the MARC field labeled Item Code maps to Virtua's

Account Number field (*Figure 9-6*). Be sure to discuss the mapping of order elements with your vendor.

The following mapped order elements appear on the MARC Orders tab of the Configure EDIFACT window:

- **Purchase Order Number** – The purchase order number, which is submitted at the vendor's website. If this data is missing in the MARC record, Virtua will automatically assign a new order number.

- **Customer Account** (*required*) – The customer account ID assigned by the vendor. If this data is missing in the MARC record, Virtua will log an error in the EDIFACT Tracker and will NOT create the order.

- **Order Date** – The date the order was created at the vendor's website. The format should be *yyyymmdd*. If this data is missing or is in the wrong format, Virtua will use the date the record was downloaded to the Virtua database.

- **Currency Code** – The currency in which the order price is stated. If this data is missing in the MARC record, Virtua will use the default currency specified in the vendor record.

- **Location** (*required*) – The circulation location for which the item is being ordered. Virtua will use this location to set the location where the order was created and to set the order line location. If this data is missing in the MARC record, Virtua will log an error in the EDIFACT Tracker and will NOT create the order.

- **Vendor Title ID** – The unique identifier by which the vendor refers to this order line. Virtua uses this element to match the EDIFACT invoice line with the order line.

- **Quantity** (*required*) – The number of copies of this item being ordered.

- **Price** (*required*) – The estimated unit price of this item at the time of the order.

- **Account Number** (*required*) – The number of the fund account from which this item will be paid. If this data is missing or does not match any account in the current fiscal year, Virtua will log an error in the EDIFACT Tracker.

- **Notes To Vendor** – Notes for the attention of the vendor. For each occurrence of this element, Virtua will create a priority line note with the Transmit to Vendor check box selected.

- **Library Notes** – Notes that are for internal library use only. For each occurrence of this element, Virtua will create a priority line note with the Transmit to Vendor check box unselected.

9.1.2.2 Check Boxes

The following check boxes appear on the MARC Orders tab:

Separate Order for Each Line Item check box – Indicates the method by which the order line items in incoming MARC order records should be grouped on a purchase order

- If a purchase order number is provided in the incoming MARC records, the line items in the records will be grouped by the purchase order number.

- If a purchase order number is NOT provided in the incoming MARC records, the state of the Separate Order for Each Line Item check box will be used to group the items.
  - If the check box is not checked, the line items in all the records will be put into the same purchase order.
  - If the check box is checked, a new purchase order will be created for each line item in each record.

- If a purchase order number is provided for some, but not all, of the incoming MARC records, those that have the same purchase order number will be grouped on the same order. The other records will be grouped according to the state of the Separate Order for Each Line Item check box.

Auto Receive check box – Indicates whether the order line item should be received automatically when the MARC order record is downloaded. If this check box is selected, Virtua will automatically create a receipt for the line item as it is reading the MARC record.

9.1.2.3 Match/Merge Options

The following match and merge options appear on the MARC Orders tab:

Match/Merge Options field – Specifies how Virtua should handle the incoming MARC record if a similar record already exists in the Virtua database. If the Preferred Workflow as specified on the vendor record is MARC Orders, *this field is mandatory*.

Options button – Displays the MARC Orders Load Options window (*Figure 9-7*) where you can specify the match and merge rules to use when downloading MARC orders from the vendor.
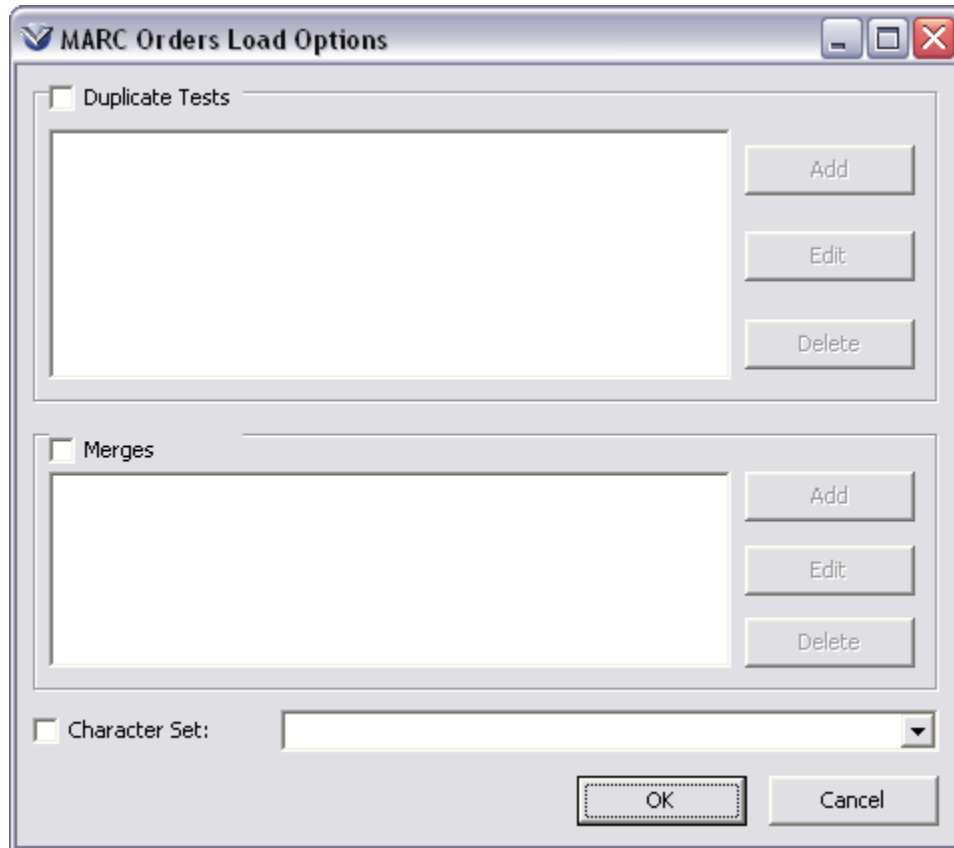
Figure 9-7. MARC Orders Load Options Window

The MARC Orders Load Options window gives you options for specifying rules for duplicate record processing and merging. These same options are also available on the Bibliographic tab, Authority tab, and Patron tab of the Load Options window in the client. For a detailed discussion of using these options for setting up duplicate tests and merge rules, see the *Virtua Record Loading User's Guide*.

9.1.3 MARC Requests Tab

The MARC Requests tab on the Configure EDIFACT window (*Figure 9-8*) lists all the elements of a purchase order and maps each element to a tag/subfield combination in a MARC order request record that your library receives from the vendor. For most vendors, the mapping on the MARC Request tab will match the mapping on the MARC Orders tab, but for some vendors the mapping will need to be different.

Virtua uses the data mapped in MARC order request records to create *unsent* orders in the Virtua database.

Figure 9-8. Configure EDIFACT Window - MARC Requests Tab

The elements on the MARC Requests tab match those of the MARC Orders tab except for the following:

Order Immediately check box: Indicates if the order line item should be ordered immediately.

- If the check box is selected, Virtua will give the order line item a status of Approved and will encumber it. If the vendor supports EDIFACT orders, the order will be sent at the next scheduled time for uploading EDIFACT orders.

> **Note:** If the account associated with the order is disabled or has insufficient funds, the EDIFACT Tracker will display the status of the communication as "Created with Errors."

- If the check box is not selected, Virtua will give the order line item a status of Needs Approval and will not encumber the order line item.

9.1.4 Enriched Data Tab

The Enriched Data tab on the Configure EDIFACT window (*Figure 9-8*) lists the enriched data fields defined by the Enriched Data Fields setting on the Acquisitions Basic Options window in the Virtua Profiler. Left and right arrows allow you to select and de-select enriched data fields to send to the vendor along with your orders. The enriched data for each order can be configured on the Order Line Editor window (see the *Acquisitions Workflow-based Reference Guide*).

> **Note:** For information about configuring the Enriched Data Fields setting in the Virtua Profiler, see the *Virtua Profiler/Acquisitions Parameters User's Guide.*
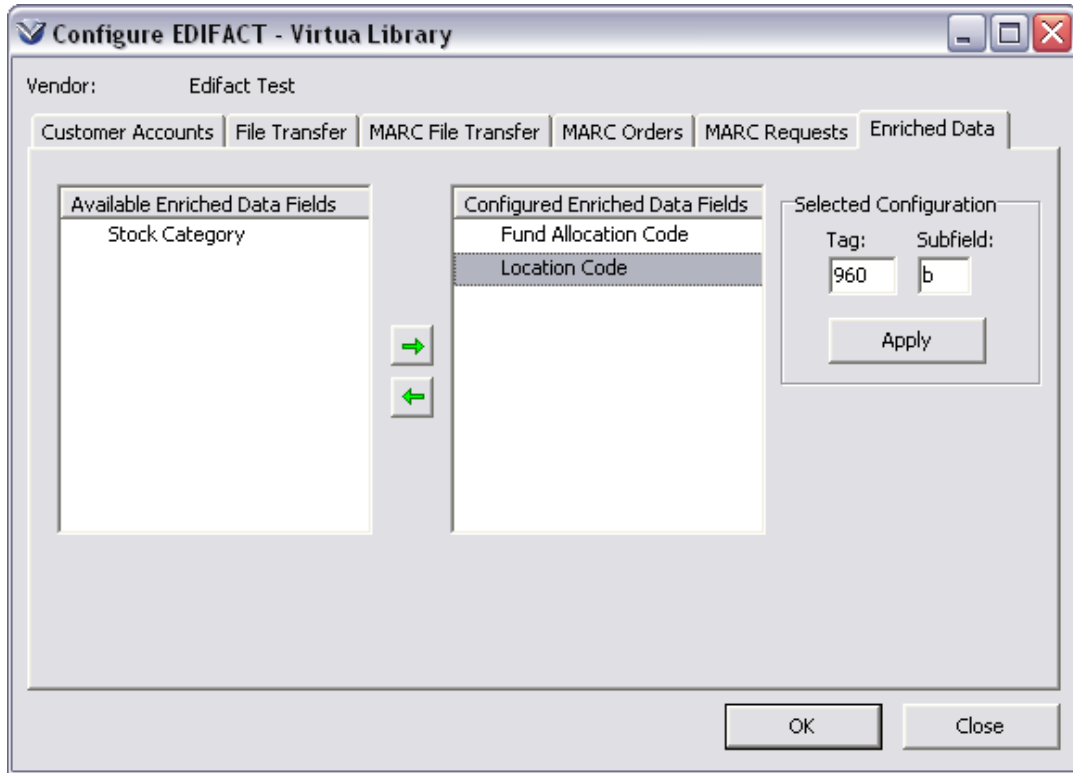
Figure 9-9. Configure EDIFACT Window - Enriched Data Tab

The Enriched Data tab consists of . . .

- **Available Enriched Data Fields** - List of all of the enriched data fields that are configured in the Enriched Data Fields parameter in the Profiler, minus the fields in the Configured Enriched Data Fields list.

- **Configured Enriched Data Fields** - List of enriched data fields that will be included when sending enriched data to the EDIFACT vendor.

- **Selected Configuration** - The tag and subfield of the selected enriched data field.

To move an enriched data field from one list to another,

- Use the right or left arrow.

To change the tag or subfield assigned to an enriched data field,

1. Select the field you would like to change from the Configured Enriched Data Fields area.

2. Make your desired changes in the Selected Configuration area. If the tag or subfield fields are left blank, Virtua will not include any information on the purchase order for this data field.

3. Click the Apply button.

After making changes, click the OK button to save your configuration.

9.2 Tracking EDIFACT Communications

Virtua gives you a tool to track and manage your EDIFACT communications. By using the EDIFACT Tracker, you can see at a glance the status of EDIFACT communications for a selected vendor. In addition to displaying a log of different types of EDIFACT file transfers, the tracker lets you initiate EDIFACT communications interactively. Using the tracker you can download invoices and upload orders, print orders transmitted as EDIFACT and Print, issue and print Serial claims, and work with MARC orders/MARC requests.

To access the EDIFACT Tracker,

1. Click the Acquisitions menu, and then choose EDIFACT Tracker.

   The EDIFACT Request dialog box appears (*Figure 9-10*).
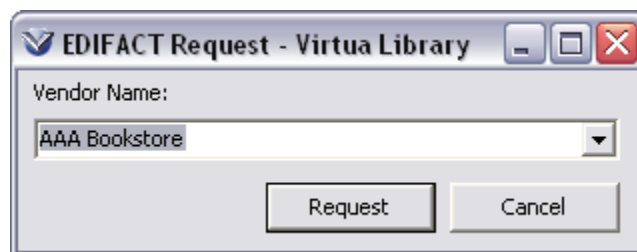
Figure 9-10. EDIFACT Request Dialog Box

2. Type the first letter of the desired vendor, or choose a vendor from the drop-down list.

3. Click the Request button.

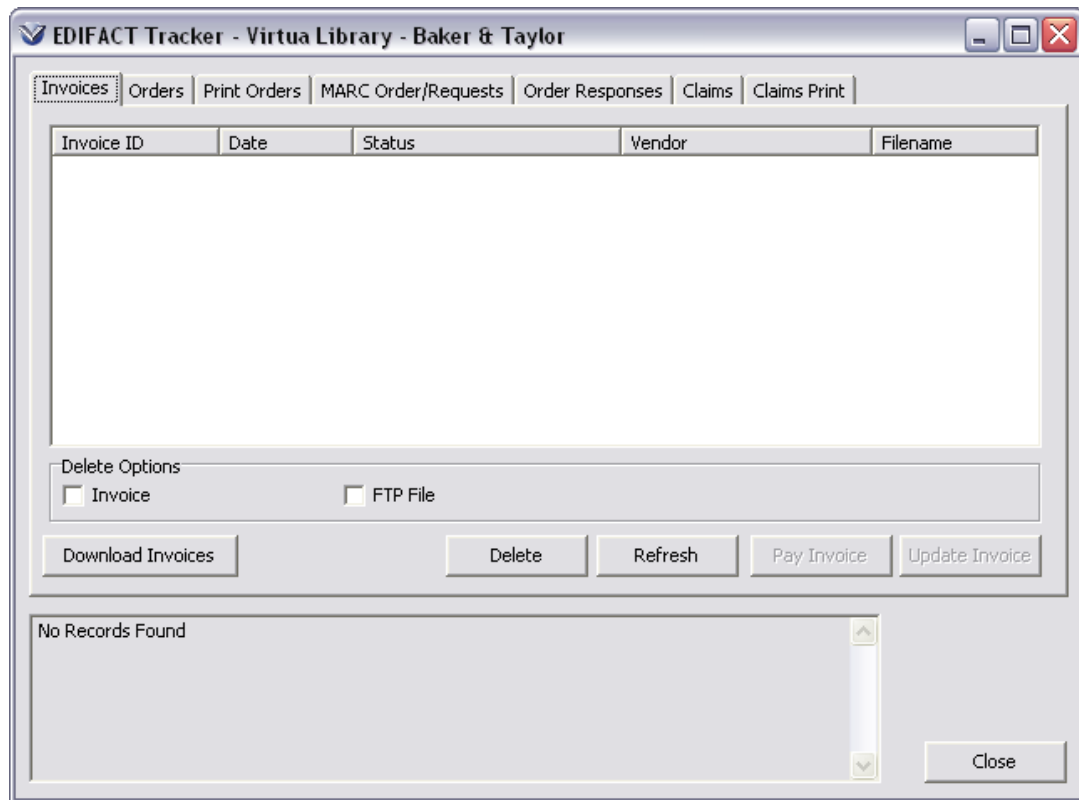   The EDIFACT Tracker window appears (*Figure 9-11*).

Figure 9-11. EDIFACT Tracker Window

The EDIFACT Tracker window displays information on seven tabs:

- Invoices - Log of EDIFACT invoices
- Orders - Log of unsent EDIFACT orders
- Print Orders - Log of sent EDIFACT orders that need to be printed
- MARC Order/Requests - Log of MARC orders and MARC requests
- Order Responses - Log of order response messages received from the vendor.
- Claims - Log of unsent serial EDIFACT claims
- Claims Print - Log of sent serial EDIFACT claims that need to be printed

The text box at the bottom of the window displays any errors or other information associated with a selected item in the display box.

The tabs are described in detail below.

9.2.1 Aspects of the Invoices Tab

The Invoices tab of the EDIFACT Tracker (*Figure 9-11*) displays a list of unreviewed EDIFACT invoices that have been downloaded from the vendor's FTP server. If the Filter Acquisitions Records by Log-in Location flag is on in the Acquisitions parameters, Virtua will display only those unreviewed invoices associated with the log-in location of the user.

Command buttons let you perform various tasks related to the invoices listed.

9.2.1.1 Display Box

Each unreviewed invoice in the display box contains the following information:

Invoice ID – The ID of the downloaded invoice.

Date – The vendor-assigned invoice date. If that date is not available, it will be the date that Virtua downloaded the invoice.

Status – The status of the downloaded invoice. There are three types of statuses:
- **Created Successfully** – Virtua successfully downloaded the invoice file and created a Virtua invoice.
- **Created with Errors** - Virtua downloaded the invoice file and created a Virtua invoice but with errors.
- **Failed** – Virtua downloaded the invoice file to the Virtua server, but could not create a Virtua invoice.

Note: When an invoice has the status of Created with Errors or Failed, you can select it and view the associated errors in the area below the display box.

Vendor – The name of the vendor that created the invoice.

9.2.1.2 Delete Options Area

The Delete Options area of the Invoices tab lets you specify additional objects that should be deleted:

Invoice - When you click the Delete button, the entire invoice will be deleted. This option is only available for invoices with a status of Created Successfully or Created with Errors.

FTP File - When you click the Delete button, Virtua deletes the EDIFACT file from the vendor's FTP server (if permitted). If the vendor's FTP server does not permit deletion, that invoice will not be downloaded from the vendor's server again, though there will still be an error shown for that invoice. This option is only available for invoices with a status of Failed.

9.2.1.3 Command Buttons

Download Invoices - Starts the process of transferring EDIFACT invoices, which Virtua creates in the database, from the vendor's FTP site. In this way, you do not have to wait for any scheduled download.

Delete – Deletes selected entries, including any errors.

Refresh - Loads a fresh copy of the unprocessed invoice list from the Virtua database.

Pay Invoice - Lets you pay a successfully created invoice selected in the list. The selected line must have a status of Created Successfully, and the EDIFACT Processing flag in the Acquisitions parameters must be set to Encumber at Download; otherwise, the button will be disabled (for details, see the *Virtua Profiler/Acquisitions Parameters User's Guide*).

Update Invoice - Displays the Update Invoice window for the selected invoice unless the selected invoice is at status Failed, in which case the button will be disabled.

Note: When an invoice has been paid or successfully saved from the Update Invoice window, it will no longer appear in the display box.

9.2.1.4 Display of Errors

If errors occur while reading in EDIFACT invoices, the software will display them in the box below the display box. Sample invoice errors include:

- Price variance
- Over-encumbrance (when the EDIFACT Processing flag is set to Encumber at Download)
- Inability to match an invoice line against an order line item in the database
- Loading the invoice into the Virtua database

For more information about error notification, see the Scheduler window, which is part of the file transfer configuration for an EDIFACT vendor.

9.2.2 Aspects of the Orders Tab

The Orders tab of the EDIFACT Tracker (*Figure 9-12*) displays a list of unsent EDIFACT orders destined for the vendor's FTP server and any errors that occurred while uploading them. If the Filter Acquisitions Records by Log-in Location flag is on in the Acquisitions parameters, Virtua will display only those unsent orders associated with the log-in location of the user.

Command buttons let you perform various tasks related to the orders listed.
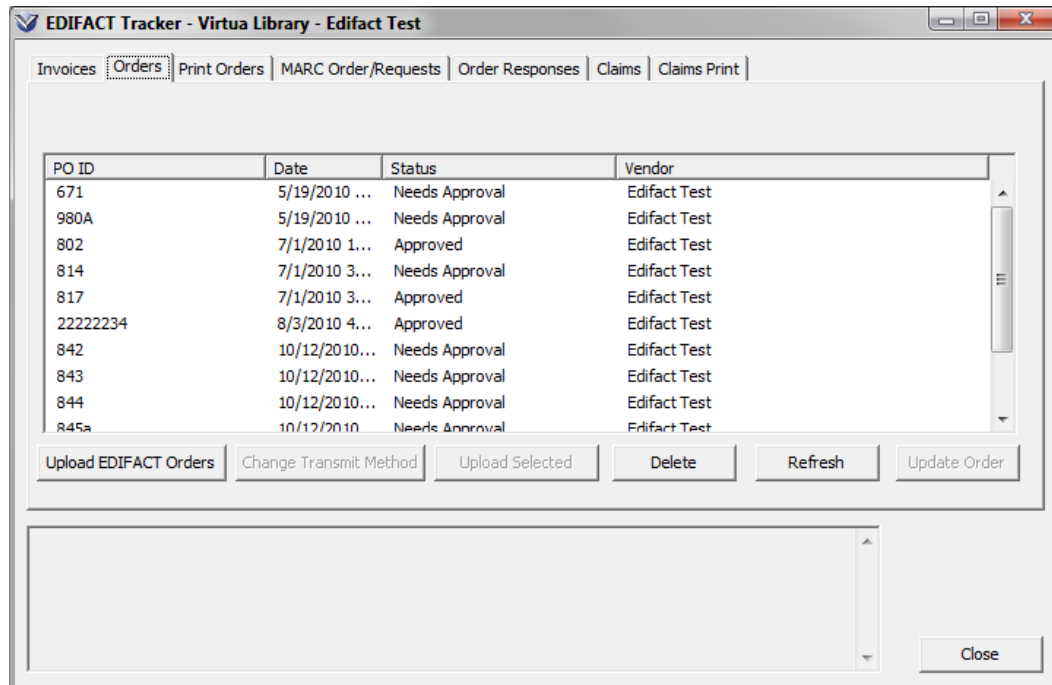
Figure 9-12. EDIFACT Tracker Window – Orders Tab

9.2.2.1 Display Box

Each unsent order in the display box contains the following information:
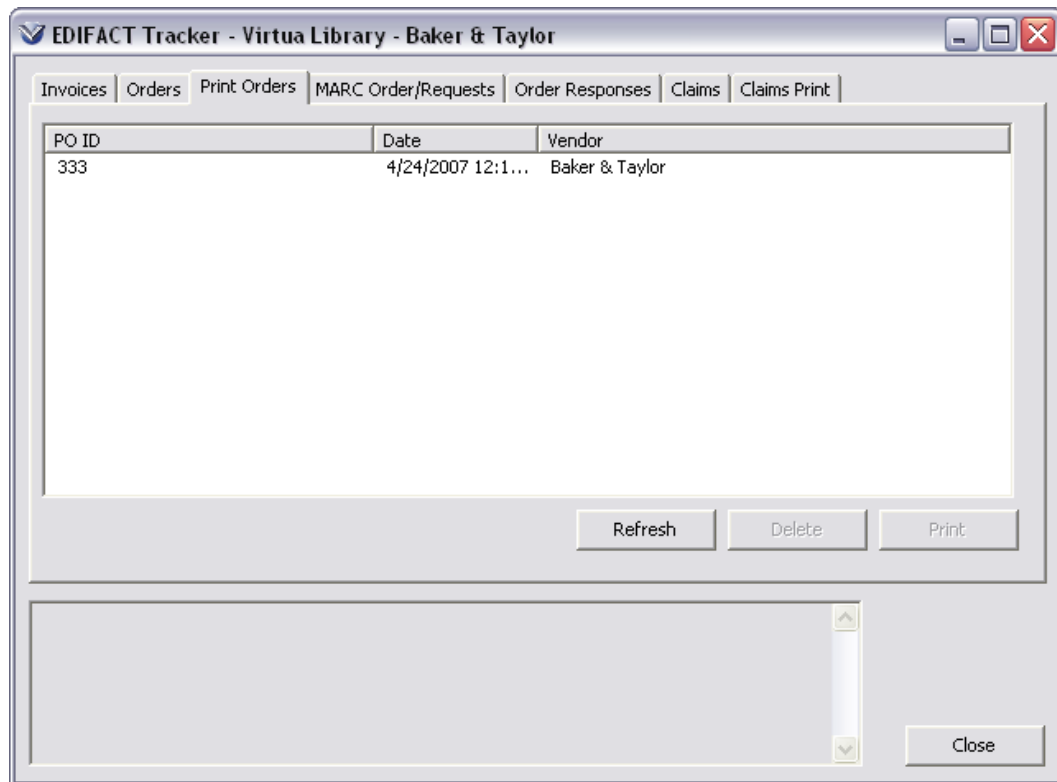
PO ID – The ID of the order to be sent.

Date – The date on which the order was created, unless someone tried to send the order, in which case, the date the attempt was made.

Status – The status of the order transaction. There are three types of statuses:
- **Error Sending** – Virtua tried to send the order, but there was an error in the process.
- **Needs Approval** – The order is not at status Approved. It must be approved before it can be sent.
- **Approved** – The order is at status Approved, but it has not yet been sent. It may be sent at the next scheduled time or immediately via the Upload EDIFACT Orders button.

Note: When an order has the status of Error Sending, you can select it and view the associated errors in the area below the display box.

Vendor – The name of the vendor that is to receive the order.

9.2.2.2 Command Buttons

Upload EDIFACT Orders - Starts the process of transferring ALL EDIFACT orders, which the Virtua server creates, to the vendor's FTP site. In this way, you do not have to wait for a scheduled upload.

Change Transmit Method - Lets you change the method of transmission for the selected order(s). If you change the transmit method to a non-EDIFACT method (i.e., e-mail or print), the software will remove the order from the display box. The button is disabled for orders at status Error Sending.
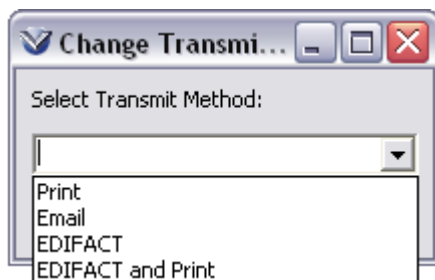
Figure 9-13. Change Transmit Method Dialog Box

Upload Selected - Uploads the orders highlighted in the Display Box to the vendor's FTP site. This option allows you to select which orders to upload, unlike the Upload EDIFACT Orders button or scheduled uploads, where Virtua

determines which records are uploaded. You will only be able to upload orders with a status of Approved.

Delete - Deletes the order and/or errors associated with the selected entries.

Refresh - Loads a fresh copy of the unsent EDIFACT order list from the Virtua database.

Update Order - Displays the Update Order window for the selected order. The button is disabled for orders at status Error Sending.

9.2.2.3 Display of Errors

If errors occur while sending EDIFACT orders, the software will display them in the box below the display box. Sample order errors include:

- Insufficient vendor information
- Insufficient acquisitions address information
- Insufficient order information
- Creating a file on the Virtua server

For more information about error notification, see the Scheduler window, which is part of the file transfer configuration for an EDIFACT vendor.

9.2.3 Aspects of the Print Orders Tab

The Print Orders tab of the EDIFACT Tracker (*Figure 9-14*) lists the sent but unprinted EDIFACT orders for which the method of transmission is EDIFACT and Print. If the Filter Acquisitions Records by Log-in Location flag is on in the Acquisitions parameters, Virtua will display only those unprinted orders associated with the log-in location of the user.

Command buttons let you perform tasks related to the unprinted orders listed.

Figure 9-14. EDIFACT Tracker Window – Print Orders Tab

9.2.3.1 Display Box

Each unprinted EDIFACT order listed in the display box contains the following information:

PO ID - The ID of the order to be printed.

Date - The date on which the order was sent.

Vendor - The name of the vendor that is to receive the order.

9.2.3.2 Command Buttons

Refresh - Loads a fresh copy of the list of unprinted EDIFACT orders from the Virtua database.

Delete - Deletes the order and/or errors associated with the selected entries.

Print - Prints the selected order.

9.2.4 Aspects of the MARC Order/Requests Tab

The MARC Order/Requests tab of the EDIFACT Tracker (*Figure 9-15*) lists the MARC order records and/or MARC request records for the current vendor. It also displays any errors that occurred while downloading the MARC orders or MARC requests that were submitted from the vendor's website. In Figure 9-15, each line number is one entry for one record, but depending on the configuration desired by the vendor, several line numbers could be entries for one *single* record.

If the Filter Acquisitions Records by Log-in Location flag is on in the Acquisitions parameters, Virtua will display only those line entries associated with the location where the user is logged in.

Note: The workflow for MARC orders and MARC requests generally requires that your institution place MARC orders or requests on a vendor's website and submit/download them. (Whether your Web submission is an order or a request depends on the vendor.) Virtua's normal MARC order workflow assumes that all the files downloaded to a vendor's MARC orders/MARC requests subdirectory on the FTP/Virtua server are of the same type, either orders or requests.

Once Virtua has received a MARC order/request record (whether via the Import MARC Orders/Requests tool, scheduled file transfer, or download from the EDIFACT Tracker), the purchase order ID and line number will appear on the MARC Order/Requests tab.

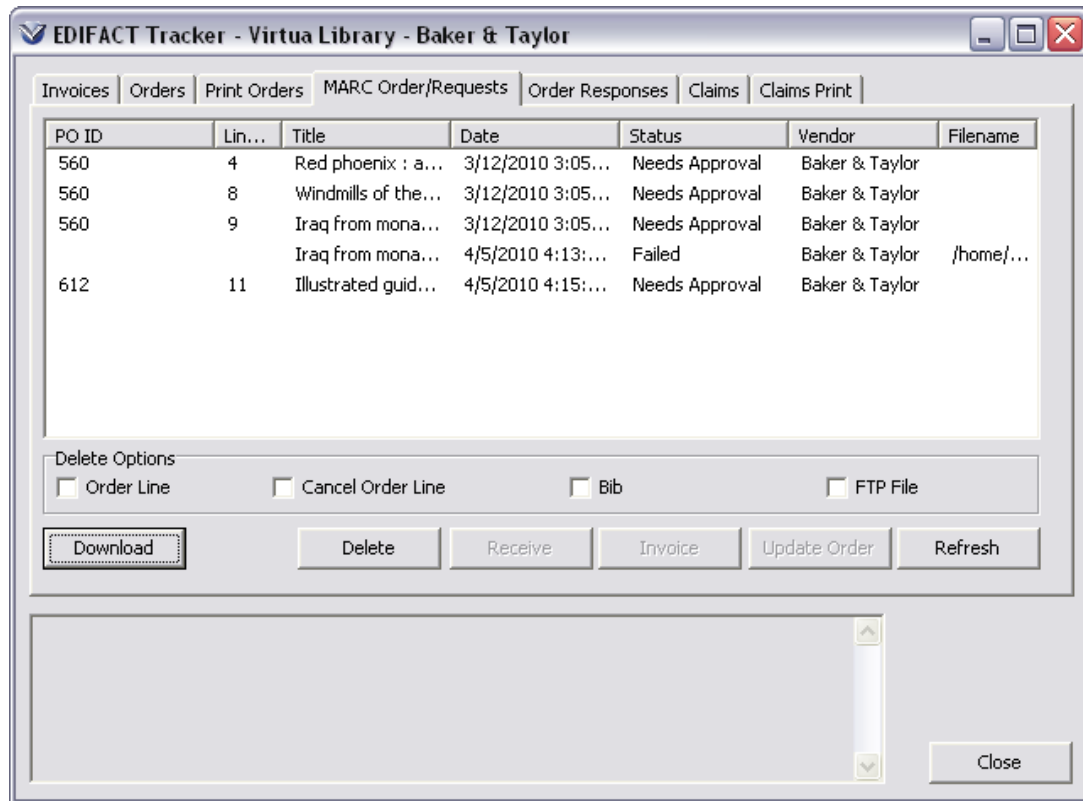Command buttons let you perform various tasks related to the MARC order and MARC request records listed.

Figure 9-15. EDIFACT Tracker - MARC Orders/Requests Tab

9.2.4.1 Display Box

The display box contains an entry for each MARC order/request record. Each entry contains the following information:

PO ID – The order ID associated with the downloaded record. If the entry is for a generic error that does not apply to any specific record, this value will be blank.

Line – The order line number associated with the downloaded record. If the entry is for a generic error that does not apply to any specific record, this value will be blank.

Title – The title associated with the downloaded record. If the entry is for a generic error that does not apply to any specific record or if the MARC record does not have a title, this value will be blank.

Date – The vendor's order date pulled from the tag specified in the appropriate MARC data mapping. If that date is not available, this will be the date Virtua downloaded the record.

Status – The status of the downloaded record, which can be one of the following:

- **Needs Approval** – Indicates that the order line needs to be reviewed by library staff.
- **Approved** – Indicates that the order line was not ordered through the vendor's website. If the vendor supports EDIFACT orders, the order that Virtua created will be sent at the next scheduled upload time.
- **Ordered** – Indicates that the order line has already been transmitted through the vendor's website.
- **Created With Errors** – Indicates that the record was downloaded and created, but it contains errors, and the order line was given a status of Needs Approval. To see the errors associated with that record, click the line; the errors appear in a text box near the bottom of the EDIFACT Tracker window.

  For Example: If the account associated with the order is disabled or has insufficient funds, the EDIFACT Tracker will display the status of the communication as "Created With Errors."

- **Failed** – Indicates that a fatal error occurred while downloading the record. The MARC file(s) was left on the vendor's FTP server. No order(s) was created in Virtua. To see the errors associated with that record, click the line; the errors appear in a text box near the bottom of the EDIFACT Tracker window.

Vendor – The vendor that created the record.

Note: When an order line has been modified, transmitted via EDIFACT, invoiced, or manually received via the Receipts window, it will no longer appear in the display box.

9.2.4.2 Delete Options Area

The Delete Options area of the MARC Order/Requests tab lets you specify additional objects that should be deleted:

Order Line - When you click the Delete button, Virtua will delete the entire order line. If the order has only one order line, then the entire order will be deleted. This option is only available for orders with a status of Needs Approval, Approved, or Created with Errors.

Cancel Order Line - When you click the Delete button, Virtua cancels the entire order line. This option is available when a line item has a status of Ordered.

Bib - When you click the Delete button, Virtua deletes the bibliographic record related to the selected order line. If the Order Line option is not selected, the

bibliographic record will not be deleted, but it will no longer be linked to the order line, and the order line title will say Not Available. This option does not work if there are items attached to the bibliographic record. This option is available for all line items.

FTP File - When you click the Delete button, the file will be deleted from the vendor's FTP server (if permitted). If the vendor's FTP server does not permit deletion, the order will not be downloaded from the vendor's server again, though there will still be an error shown for that order. This option is only available for order lines with a status of Failed and for which bibliographic record was not created.

9.2.4.3 Command Buttons

Delete – Deletes the selected entries, including any errors.

Download – Transfers MARC orders and/or MARC requests from the vendor FTP site to the Virtua database. In this way, you do not have to wait for the next scheduled download. Clicking the Download button refreshes the window to display newly transferred records.

Receive – Brings up the Receipts window for the selected order line. The Receive button will be active only if the order line has a status of Ordered.

Invoice – Brings up the Add/Update Invoice window for the selected order line so that the order line can be added to an invoice. The Invoice button will be active only if the order line has a status of Ordered.

Update Order – Displays the Update Order window for the selected order line so that the order can be viewed or updated. The button will be active as long as the record does not have a status of Failed.

Refresh – Loads a fresh copy of the unprocessed MARC orders/MARC requests list from the Virtua database.

9.2.4.4 Right-click Menu

A right-click menu is available on the MARC Orders/Requests tab of the EDIFACT Tracker. It lets you access the bibliographic record for a selected line item as long as the line item is not associated with a generic error (*Figure 9-16*).
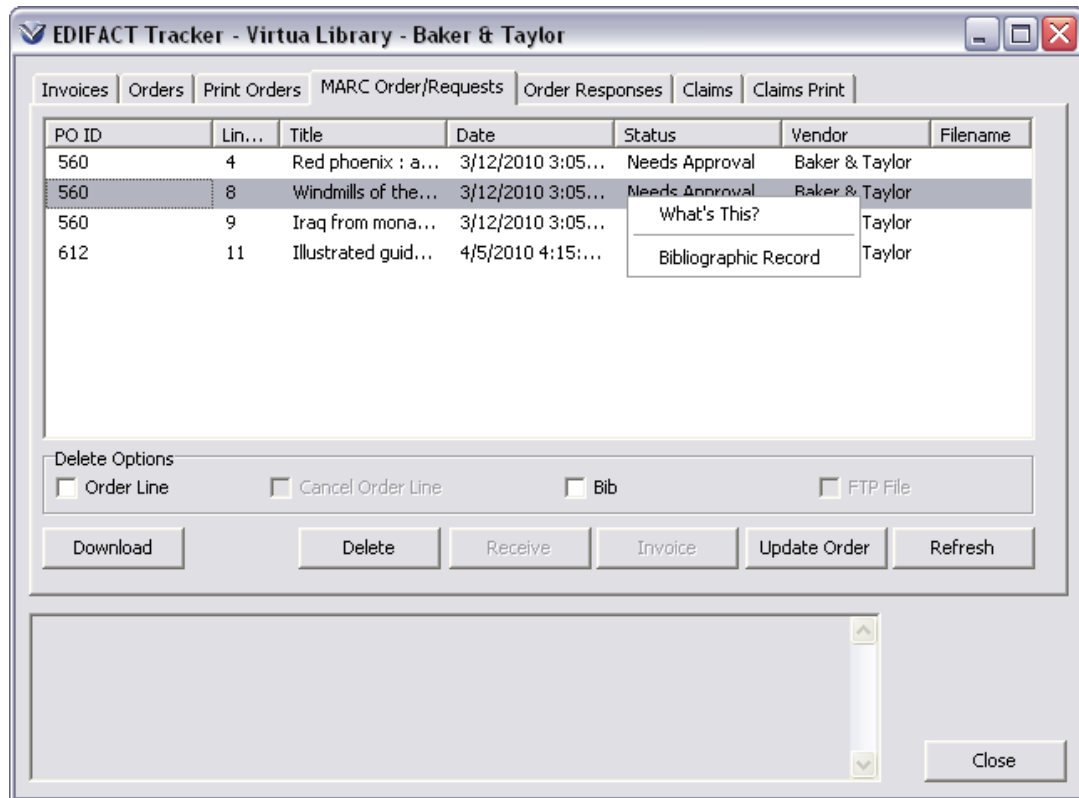
Figure 9-16. EDIFACT Tracker - MARC Orders/Requests Tab - Right-click Menu

9.2.5 Aspects of the Order Responses Tab

After an order has been sent, some vendors such as Baker & Taylor send the customer a response. The response is sent in the form of an e-mail or an EDIFACT order response message, which Virtua can download, process, and display.

The entries on the EDIFACT Order Responses tab confirm that the vendor received the order and notify the library of the status of the order. They may inform the library of the following: 1) When to expect the item, 2) that the item is on backorder, 3) that the order has been canceled because the item is no longer carried, or 3) that the order has been rejected because the library's account with the vendor is no longer valid.

Command buttons let you perform various tasks related to the order responses listed.
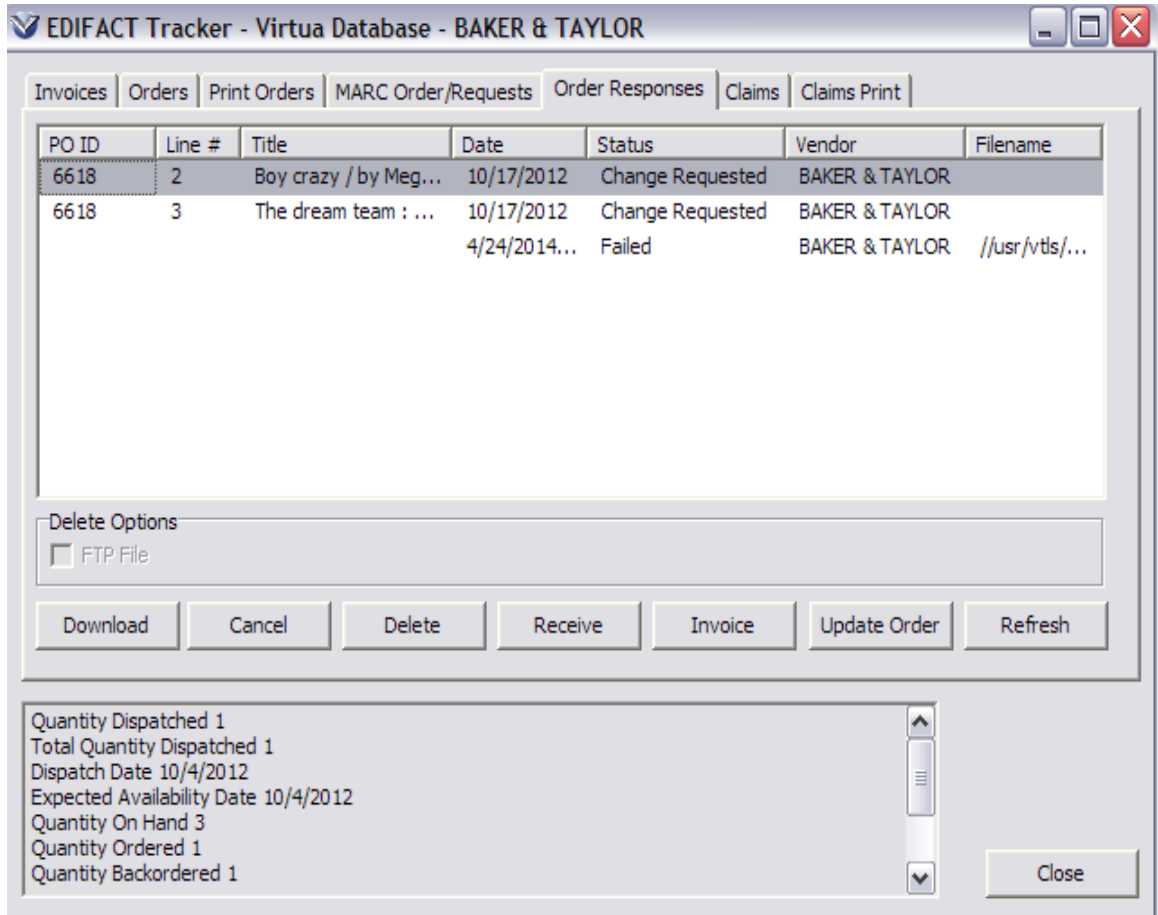
Figure 9-17. EDIFACT Tracker – Order Responses Tab

Unlike other EDIFACT Tracker tabs, entries on the Order Responses tab are NOT deleted automatically when the order is updated, received, or invoiced. However, each time responses are downloaded, errors will be deleted automatically.

Note: Do not delete the information contained in the order response message until you move it somewhere else or determine that it is not needed any more.

The box at the bottom of the window displays additional information from the order response, such as backorder quantities and notes. You can copy this information to the clipboard. Error messages are also displayed for error entries. The information displayed for a successful order response depends on the information that the response contains.

9.2.5.1 Display Box

The display box contains an entry for each order response message. Each entry contains the following information:

PO ID – The order ID associated with the downloaded message. If the entry is for a generic error, this value will be blank.

Line – The order line number associated with the downloaded message. If the entry is for a generic error, this value will be blank.

Title – The title associated with the downloaded message. If the entry is for a generic error, this value will be blank.

Date – The vendor's order date pulled from the tag specified in the appropriate MARC data mapping. If that date is not available, this will be the date Virtua downloaded the message.

Status – The status of the order with respect to the vendor, which can be one of the following:
- **Rejected** – The vendor has rejected the order. This status will only be used for order responses that apply to the whole order. The information box at the bottom of the window will likely be empty. The library will have to contact the vendor to determine why the order was rejected.
- **Canceled –** The vendor has canceled the order line. The information box will show the cancel quantity and the reason for the cancellation.
- **Accepted** – The vendor has accepted the order. No changes are necessary. The information box may be empty for entries with this status.
- **Change Requested** – The vendor has requested a change. The information box at the bottom will specify the change.
- **Failed** – There was an error communicating with the FTP server or reading the order response message. The information box at the bottom will specify the error.

Vendor – The vendor that created the message.

9.2.5.2 Delete Options Area

The Delete Options area of the Order Reponses tab lets you specify additional objects that should be deleted:

Order Line - When you click the Delete button, Virtua will delete the entire order line. If the order has only one order line, Virtua will delete the entire order. This option is only available for orders with a status of Needs Approval, Approved, or Created with Errors.

FTP File - When you click the Delete button, the file will be deleted from the vendor's FTP server (if permitted). If the vendor's FTP server does not permit deletion, the message will not be downloaded from the vendor's server again, though the error for that message will still be displayed. This option is only available for order lines with a status of Failed and for which a bibliographic record was not created.

9.2.5.3 Command Buttons

Download – Transfers order response messages from the vendor FTP site to the Virtua database. In this way, you do not have to wait for the next scheduled download. Clicking the Download button refreshes the window to display newly transferred messages and deletes errors.

Cancel – Brings up the Cancel Order window with the line automatically canceled for the cancel quantity from the order response or the order quantity if no cancel quantity is included in the response.

Note: The Cancel button does not appear for entries with a status of Failed or that go against the order as a whole.

Delete - Deletes a selected order response message. Do not delete the information contained in the order response message until you move it somewhere else or determine that it is not needed any more.

Receive – Brings up the Receipts window for the selected order line. The Receive button will be active only if the order line has a status of Ordered.

Invoice – Brings up the Add/Update Invoice window for the selected order line so that the order line can be added to an invoice. The Invoice button will be active only if the order line has a status of Ordered.

Update Order – Displays the Update Order window for the selected order line so that the order can be viewed or updated. The button will be active as long as the record does not have a status of Failed.

Refresh – Loads a fresh copy of the transferred order response messages.

9.2.6 Aspects of the Claims Tab

The Claims tab of the EDIFACT Tracker (*Figure 9-18*) lists all of the claims that are waiting to be sent to the selected vendor via EDIFACT and displays any errors encountered while uploading the EDIFACT claims.

Command buttons let you perform various tasks related to the unsent claims listed.
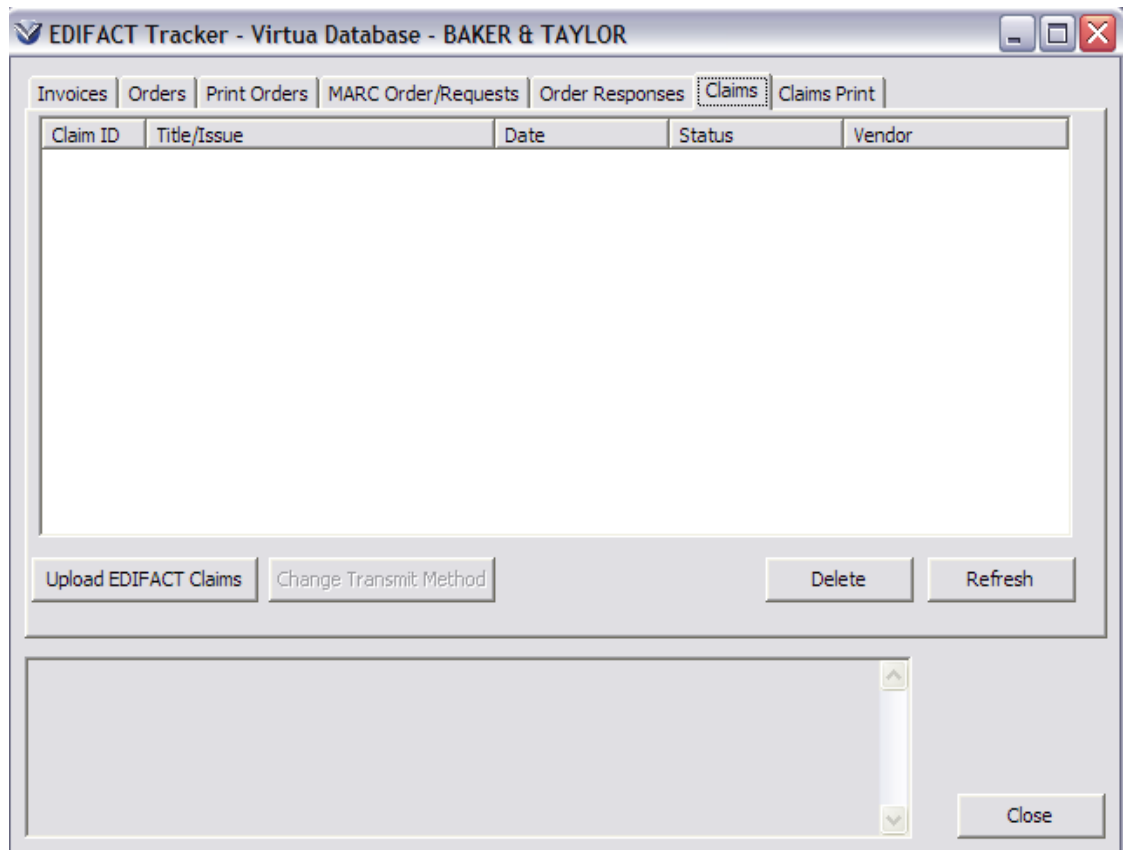
Figure 9-18. EDIFACT Tracker – Claims Tab

9.2.6.1 Display Box

The display box contains an entry for each unsent EDIFACT claim. Each log entry contains the following data:

Claim ID – The Virtua assigned claim ID. If the entry is for a generic error that does not apply to any specific claim, this value will be blank.

Title/Issue – Description of the holdings record or issue being claimed. If a holdings record is being claimed, Virtua will display the title from the bib record. If an issue is being claimed, Virtua will append the issue display string to the end of the title. If the entry is for a generic error that does not apply to any specific claim, this value will be blank.

Date – The date on which the claim was created, if no attempt has been made to send this claim. Otherwise, this is the date an attempt was made to send the claim.

Status – The status of the claim transaction. Possible statuses are:
- **Error Sending** – Virtua attempted to send the claim, but an error was encountered in the process. The user can click on claim to see errors associated with the claim in a text box near the bottom of the Virtua EDIFACT Tracker window.
- **Not Transmitted** – The claim has not been transmitted yet. It will be sent at the vendor's next scheduled communication point.

    Vendor – The vendor the claim is for.

9.2.6.2 Command Buttons

Upload EDIFACT Claims button – Initiates the process of uploading EDIFACT claims to the vendor FTP site. This lets you upload files immediately, rather than waiting for the next scheduled time. When you click this button, the window is refreshed to display the new status of the EDIFACT claims.

Change Transmit Method button – Lets you change the transmit method of the selected claim(s). Clicking on this button brings up the Change Transmit Method window.

Refresh button – Loads a fresh copy of the unsent EDIFACT claim list from the Virtua database.

Delete button – Deletes a selected claim from the Claims tab.

9.2.7 Aspects of the Claims Print Tab

The Claims Print tab of the EDIFACT Tracker (*Figure 9-19*) lists the sent but unprinted claims for which the method of transmission is "EDIFACT and Print."

Command buttons let you perform various tasks related to the unprinted claims listed.
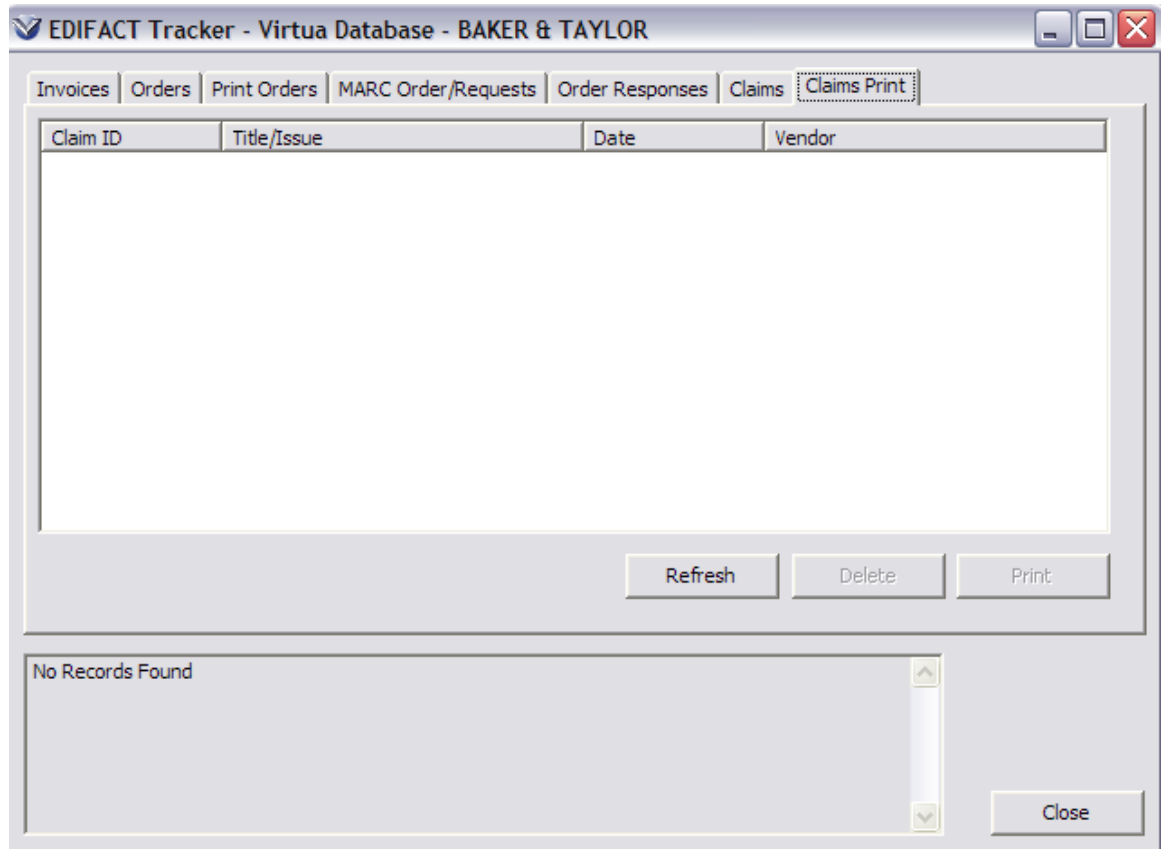
Figure 9-19. EDIFACT Tracker – Claims Print Tab

9.2.7.1 Display Box

The display box contains an entry for each sent EDIFACT claim that has not been printed. Each row contains the following data:

Claim ID – Virtua assigned claim ID.

Title/Issue – Description of the holdings record or issue that was claimed. If a holdings record was claimed, Virtua will display the title from the bibliographic record. If an issue was claimed, Virtua will append the issue display string to the end of the title.

Date – Date on which the claim was sent.

Vendor – Vendor the claim is for.

9.2.7.2 Command Buttons

Refresh button – Loads a fresh copy of the list of unprinted EDIFACT claims from the Virtua database.

Delete button – Deletes a selected EDIFACT claim without printing it.

Print button – Prints the selected claim(s). After a refresh, the claim(s) will be removed from the tab.

9.3 EDIFACT Workflows

If your library plans to use EDIFACT for communication with vendors, Innovative suggests that you take the following steps:

- Ask each vendor whether they support EDIFACT.

- Complete the information on the EDIFACT tab in each vendor record (see the *Application User Guide - Acquisitions*), as appropriate, and configure the settings on the Configure EDIFACT window.

- On the File Transfer tab of the Configure EDIFACT window, specify the directories on the vendor's FTP server to and from which files will be transferred. If desired, create a schedule for Virtua to use to communicate EDIFACT information automatically to and from the vendor's FTP server.

- If the vendor supports MARC orders and MARC requests, review the section "MARC Orders and MARC Requests," below.

- After you configure your EDIFACT settings, use the EDIFACT Tracker to monitor all your EDIFACT communications.

After discussing EDIFACT issues with your vendor, if you still have questions, do not hesitate to call your Innovative Customer Services representative.

Most vendors will support the normal Virtua workflow for handling EDIFACT files, but there are exceptions, which are discussed in the following sections.

9.3.1 Orders

Currently for **Brodart Co.,** the only deviation from the standard EDIFACT/MARC order workflow is for EDIFACT orders. Brodart needs a different version of the EDIFACT order message than normal. For Brodart…

- The name of the file that placed on Brodart's ftp server needs to end with "ord."
- The customer account and the SAN from the Library ID field of the Acquisitions Addresses record *both* need to be sent in the EDIFACT order message.

Note: Blackwell requires EDIFACT orders in order for their EDIFACT invoices to work properly (see the "Invoices" section below).

If you are using **Casalini Libri** as your vendor, note that you should limit your orders to ONE line. Casalini requires one line per message and one message per file.

9.3.2 Invoices

The normal Virtua workflow for downloading invoices is to assume all files in the invoice subdirectory on the vendor's FTP server are invoices. As a result, Virtua will download ALL files from that subdirectory. After Virtua successfully loads the files into the database and creates invoices, Virtua will try to delete the files that it retrieved from the vendor's FTP server.

For **YBP Library Services**, Virtua expects invoices (both old and new) to be in their own directory. Virtua will use the modification date of the invoice files to determine which files are new and which are old. Virtua will NOT delete invoice files from YBP's FTP server.

With respect to **Blackwell**, for EDIFACT invoices to work properly, you need to send EDIFACT orders. It is recommended that you use the MARC request workflow and download records from Collection Manager (Blackwell's web-based selection and ordering system) to Virtua and then send an EDIFACT order.

9.3.3 MARC Orders and MARC Requests

MARC orders and MARC requests are MARC records from a vendor's website that are embedded with purchase order data. Once Virtua receives these records, it converts the data in the records to Virtua purchase orders.

- MARC orders are MARC records that contain data for items that *have been ordered* through the vendor's website.
- MARC requests are MARC records that contain order data for items that have been requested through the vendor's website but *need to be ordered* through Virtua.

Note: If an incoming MARC order or MARC request does not have fund account or location information or has fund/location information that does not match any values in Virtua, Virtua will use a default value.
- Virtua will use the smallest location ID as the default location ID.
- Virtua will use the account in the current fiscal year that has an account number of "Default" as the default fund account.

Every library and vendor will have unique issues regarding MARC orders/requests. While some of these issues are discussed in this section, the steps that all libraries will need to take to prepare for using MARC orders/requests are addressed first.

9.3.3.1 Steps for Getting Set Up

For libraries planning to use MARC orders and MARC requests, here are the steps to get set up with those vendors that support MARC orders/requests:

- Determine whether the vendor supports MARC orders or MARC requests or both.

- If Blackwell is one of your vendors, on the vendor record, set the Preferred Workflow option.

- In the vendor record, configure the settings on the MARC Orders tab and/or MARC Requests tab of the Configure EDIFACT window. To do this, you should work with the vendor to determine the appropriate mapping of order/request data into the tags and subfields on the MARC order and/or MARC request.

- On the MARC File Transfer tab of the Configure EDIFACT window, specify the directories on the vendor's FTP server from which files will be transferred. If desired, create a schedule for Virtua to use to transfer MARC order/request information automatically from the vendor's FTP server.

Note: For Baker and Taylor only, the specified directories need to be on the *Virtua* server (see the section "Baker & Taylor, Inc.: Workflow," below).

- If you do not plan to use EDIFACT via FTP (or if the vendor does not offer EDIFACT via FTP), you will need to download files from the vendor's website to your PC. From your PC, you can import the files into your Virtua database (see the section "Working with the Import MARC Orders/Requests Tool" in the *Virtua Record Loading User' Guide*.

- Create a fund account with the account number of "Default." This is the account Virtua will use if an incoming MARC order or MARC request is lacking fund account information.

9.3.3.2 Normal Workflow

Virtua's normal MARC order workflow assumes that all the MARC files in a particular directory on the vendor's FTP server will be of the same type, i.e., MARC orders or MARC requests. So if MARC requests are being downloaded, Virtua will assume ALL the files in the vendor's MARC request subdirectory are MARC requests. After Virtua successfully loads the records into the database, Virtua will try to delete the files from the vendor's FTP server.

Blackwell presents an exception to this "normal" workflow. With Blackwell, Virtua cannot assume that all the MARC files in a particular directory are of the same type (see the section "Blackwell: Workflow" below).

9.3.3.3 Baker & Taylor, Inc.: Workflow

Baker & Taylor, Inc. does not place MARC order records on its FTP server. All MARC files from Baker & Taylor will be MARC *requests,* which will be placed on your Virtua library server via FTP.

Hint: Baker and Taylor's Title Source 3 offers an optional service called 'grids'. Grid templates allow your library to pre-define how many copies are generally ordered for a particular branch/location and associate an acquisitions fund with the line item.

There are several ways your library can place orders using Title Source 3 and Virtua Acquisitions:

- If you purchase MARC records from Baker and Taylor, you can download the MARC files interactively from the Title Source 3 website and use the EDIFACT Tracker to have Virtua retrieve the files from the Virtua server and automatically create purchase orders.

- Because Baker & Taylor does not store MARC files on its server, the files are FTPed to the server you designate. For this to occur, your library's system administrator will need to create a UNIX user account on the server. This same user account and the associated password will be stored in your MARC Profile in Title Source 3. When a cart of records is selected for download, Title Source 3 will place files in the directory designated in the profile. The directory often takes the form of **/home/user**. The access permissions for this directory must be set at 770.

  Once the files are placed in the defined directory, Virtua will look for them (by way of a scheduled process or a forced-manual action) and retrieve the files as the dbadmin user. The access permissions on the directory where the files are placed must be set to 666. After Virtua successfully loads the records into the database and successfully creates the order, it will delete the files from the directory on the server.

  Note: The dbadmin user must be in the same group as the created UNIX user.

- You can download Baker & Taylor MARC requests to your local PC and then import the records into the database using the Import MARC Orders/Requests function (see the *Virtua Record Loading User's Guide* for details). Currently, this process places each title in the file on a separate purchase order.

Important: Baker & Taylor sends the customer account ID as the **SAN [space] suffix**. To download MARC requests from Baker & Taylor without error, the Account ID field on the Customer Accounts tab of the Configure EDIFACT window must have that information. For example, if your SAN is 1234567 and the four-digit SAN suffix is 0001, then the Account ID value must be **1234567 0001.**

If the Account ID in the vendor record does not contain SAN [space] suffix AND if the Order Immediately check box on the MARC Requests tab is selected, Virtua will report an error. Furthermore, if an error is reported, records in a file may be placed on separate orders even if you have NOT selected the Separate Order for Each Line Item check box. This is because Virtua will group records together on one order ONLY if it reads the records in a file without error.

9.3.3.4 Blackwell: Workflow

Virtua cannot assume that all the MARC files in a particular directory on Blackwell's FTP server are of the same type. Because of this, Virtua uses the setting in the Preferred Workflow options on the EDIFACT tab of the vendor record to determine how to treat any and all MARC records transferred from Blackwell. If you want Virtua to treat a MARC record in a way that does not match the Preferred Workflow setting, you can download it to your FTP server and import it into the Virtua database using the Import MARC Orders/Requests function (see the *Virtua Record Loading User's Guide* for details). The Import MARC Orders/Requests function has a workflow option that lets you override the Preferred Workflow option in the vendor record.

In addition, if Blackwell is your vendor and your institution uses EDIFACT invoices, you need to send Blackwell EDIFACT orders. It is recommended that you use the MARC request workflow, download records from Collection Manager (Blackwell's web-based selection and ordering system) to Virtua, and then send an EDIFACT order.

9.3.3.5 YBP Library Services: Workflow

Virtua assumes that YBP MARC orders reside in a different directory than MARC requests. After Virtua downloads MARC order or MARC request files from YBP's server, Virtua will not delete them from the server. To avoid downloading the same group of files at each download, the server will look only at the *last* download for YBP.

9.3.4 EDIFACT Serials

Virtua supports normal EDIFACT Serial invoices for Swets Information Services , DA Information Services, and EBSCO Information Services.

Some vendors, including Swets Information Services, create a separate invoice line for each item ordered. This means that if a quantity of three is ordered, the vendor will create three distinct invoice lines. Since Virtua merges all the lines on an invoice that pertain to the same order line, Virtua will merge the three invoice lines in our example into ONE invoice line.

Generally, vendors invoice the membership title, but they want only the individual titles to be claimed. For this reason, Virtua assumes that the membership title and its bibliographic record are used in ordering and invoicing. For claiming purposes, however, your library should create a separate holdings record for each purchase order line item.

For ordering and invoicing, Virtua depends on the vendor's membership number or subscription number, which is in the Vendor Title ID field for the order line item. Virtua uses this number to match the EDIFACT invoice line with the order line.

For EDIFACT Serial claims, Virtua requires the vendor's subscription number to be in subfield $b of the 941 tag in the holdings record. Virtua also requires the vendor's customer account ID to be present in subfield $a of the 942 tag in the holdings record. When a Serial purchase order is created using an EDIFACT vendor, Virtua automatically inserts the account ID in the 942 tag.

9.4 Data Sent with EDIFACT Purchase Orders

DATA ELEMENT SENT	COMMENT
Message code and order number.	220 (normal order) and 224 (rush order) are the message codes supported.
Message date in YYYYMMDD format.	Date the order was transmitted via the Virtua Client.
Name and address of the Billing Sent To library from the purchase order header; the ID and agency as specified in the Virtua Profiler.	For agency, 9 = EAN, 31SB = US SBN Agency, 92 = Buyer assigned.
Vendor ID, agency, name and address from the vendor record.	See buyer for notes.
Name and address of the Shipping Sent To library from the purchase order header.	See buyer for notes. If the Billing Sent To and Shipping Sent To addresses are the same, Virtua will not include this segment.
The currency code of the order specified in the purchase order header.	
Line sequence number of the message.	Virtua starts this number at one and increments it by one for each successive line, regardless of what the actual line number is on the purchase order.
ISBN	Virtua will not include this segment if there is no ISBN.

DATA ELEMENT SENT	COMMENT
The vendor title ID specified in the purchase order line editor.	
The author of the line item.	The author is obtained by using a standard function used throughout Virtua. This function returns the data from all of the subfields of the tag it fetches from.
The title of the line item.	The title is obtained by using a standard function used throughout Virtua. This function returns the data from all of the subfields of the tag it fetches from.
The publisher of the line item.	Publisher information is obtained from subfields $b and $c of the 260 tag of the bib record. If there is a linking 880 tag, information from that tag is used instead.
The quantity of the purchase order line item ordered.	
Enriched data attached to the order line items.	
The price of the purchase order line item, not including taxes, credits, or fees.	Virtua sends two digits after the decimal place no matter what the currency. In the future, Virtua should be upgraded to use the decimal digits for the currency of the order.
A unique line reference number.	Virtua's format for this number is: *<line number>-<order number>*
A unique reference fund code for this purchase order line item.	Used by the vendor to determine in which box and invoice to include the line item (if the order is going to multiple locations).
The location to which the purchase order line item should be shipped.	If the Main Location specified on the order line is different than the Ship To location specified on the order header, Virtua sends this information along with the ID and agency (e.g. EAN, US SBN) from the Main Location. If this information is sent, the vendor should ship the entire line to this location.

DATA ELEMENT SENT	COMMENT
The Shipping Method from the purchase order header.	

10. Appendix B - Scripts and Executables Discussed in this Guide

T his appendix provides a list of the scripts and executables that are documented in this user's guide. You can use the hyperlink in the Filename column to go to the section that discusses that script or executable.

Filename	Purpose	Command-line parameters	Notes
AcqTablesForFYRolloverRestore.sh	Exports or imports all of the Acquisitions tables used during **fyRollover.exe**.	The specification of "Export" or "Import" and the name of the backup folder.	Used to back up and, if needed, restore the data in the event of a **fyRollover.exe** failure.
autoClaim.exe	Processes in batch Acquisitions and Serials claims.	One of the following codes that indicate the type of claim the program will process: **1** - Serials **2** - Acquisitions **0** - All claims (both Serials and Acquisitions).	The program writes information about both successful and unsuccessful attempts to process claims in a file named **autoClaim.log**.
BatchDeleteVendors.exe	Deletes vendor records based on a file of vendor IDs.	The name of a file containing vendor IDs.	None
DeleteOldPurchaseRequests.sh	Deletes purchase requests based on age.	None.	This script uses the value in the Acquisitions Basic Option "Retain Information For"

Filename	Purpose	Command-line parameters	Notes
fyRollover.exe	Rolls over information from one fiscal year to a new fiscal year.	None. This is an interactive program.	If you choose the option to close out the old fiscal year, the fiscal year for ALL locations will be disabled.
JobScheduler.exe	Reads the timetable in the database where job schedules are stored and executes scheduled activities at the specified intervals.	Wait time in seconds between jobs	None
SetNoNISOSerialDisplay.sh	Determines the format of the display of compressed serials holdings.	**0** - Display compressed serials as per NISO (*default*) **1** – Do NOT display compressed serials as per NISO	

11. Appendix C - Changes in this Guide

11.1 Changes for Version 16.1

No changes were made.

Index

9

942 $a in holdings record, customer account ID and · 30, 67

A

accounts, disabling · 12
Acq_Transaction_Log · 17
   primary key · 17
   values in the Action column · 18
Acq_Transaction_Log_v view · 17
AcqTablesForFYRolloverRestore.sh · 16, 70
Acquisitions Basic Options · 23
acquisitions transaction log · 17
Ad Hoc Reporting Reference Guide · 17
autoClaim.exe · 4, 5, 70
   running · 5
   tables to export before running · 4
autoClaim.log · 5

B

Baker & Taylor, Inc. · 31, 64
BatchDeleteVendors.exe · 22, 70
bibliographic record
   deleting when created for order · 53
   un-linking from order · 53
bibliographic records
   accessing for MARC orders/requests · 53
Blackwell · 62, 66
Brodart Co. · 62

C

canceling MARC orders/MARC requests · 57
Casalini Libri · 62
Change Transmit Method button
   claims · 59
   orders · 47
changes in the guide · 72
Claims table · 4
claims, processing for
   overdue issues · 4
   overdue orders · 4
Configure
   EDIFACT window

Enriched Data tab · 40
File Transfer tab · 28
MARC File Transfer tab · 30
MARC Orders tab · 34
MARC Requests tab · 39
Configure EDIFACT window
   working with · 26
Configure EDIFACT window (fig)
   Customer Accounts tab · 27
   File Transfer tab · 29, 31
consortium databases
   rolling over fiscal year · 8
Created with Errors status · 35, 40, 52
Credits table · 12
Currency parameter · 21

D

database
   backing up before running a script or executable · 1
   exporting tables before running
      autoClaim.exe · 4
      fyRollover.exe · 12
   modified by scripts and executables · 1
dbadmin · 3
Delete Options area
   on Invoices tab of EDIFACT Tracker · 44
   on MARC Order/Requests tab of EDIFACT Tracker · 52
   on Order Responses tab of EDIFACT Tracker · 56
DeleteOldPurchaseRequests.sh · 23
deleting MARC orders/MARC requests · 53
deleting vendor records · 22
disabled accounts, effect on MARC requests/orders · 35, 40, 52
disabling
   accounts · 12
   fiscal years · 12
Download EDIFACT Invoices button · 45
Download EDIFACT Invoices check box · 29
Download EDIFACT MARC orders/MARC requests button · 53
Download EDIFACT order responses button · 57
Download EDIFACT Order Responses check box · 29
Download MARC Orders check box · 30, 31
Download MARC Requests check box · 30, 31

E

EBSCO Information Services · 66

F

Upload EDIFACT Orders check box · 29
Upload Selected button on EDIFACT Tracker · 47

V

vendor records, deleting in batch · 22
Virtua Acquisitions subsystem · 1
Virtua Profiler · 8, 12

Virtua Profiler/Acquisitions Parameters User's Guide · 6
Virtua Profiler/Global Settings User's Guide · 21
VIRTUA_PASSWORD · 3
VIRTUA_USER · 3

Y

YBP Library Services · 62, 66