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Section 1: EDI Basics

In an EDI trading partnership between a customer and one or more principals, the customer dictates how EDI documents (i.e., purchase orders and invoices) are to be implemented. When several principals trade EDI with a given customer, all the principals must follow that customer’s rules for receiving and translating purchase orders. Likewise, all the principals must follow the customer’s rules for creating and sending EDI invoices.

These customer-specific “rules” are sometimes known as EDI guidelines, and all EDI-capable customers publish their own guidelines for the documents they trade. The guidelines tell the principal which EDI standard and version he must use to trade with the customer. The guidelines also provide detailed information about what must be contained in each line of the document. These include how customer-specific store numbers and distribution center codes must be used, positioning of product identifiers and which identifiers are allowed, etc. It falls on the principals – and, therefore the manufacturer’s reps - to follow the rules for each of their customers they wish to trade with.

It is important to remember that EDI documents travel in the same directions as do paper documents. The customer sends original purchase orders to their vendors (principals), and principals send original invoices to their customers. A principal who receives a group of EDI purchase orders need only identify the sender of that group; the principal can safely assume that he, regardless of the number of customers he trades with, is the intended receiver.

Usually, a manufacturer’s rep receives carbon copies of original documents. Unlike a principal, a manufacturer’s rep that represents many principals must differentiate between individual receivers of original purchase orders as well as the senders. Only then can the rep credit the purchase order or the invoice to the correct customer and principal. In EDI, a document’s sender and receiver are found in the EDI transmission’s group header. A group header is simply an EDI “envelope” that carries codes (EDI addresses) of the original sender and receiver. How those addresses are translated is determined by how trading partner profiles are set up in the EDI management software application.

Processing EDI and uploading EDI documents into RPMS requires three components:

- EDI mailbox and network service.
- Locally installed and operated EDI management software.
- RPMS Transaction Upload/EDI Feature and transaction maps(s).

Commerce Exchange¹ is a network that provides a secure EDI mailbox system that stores and forwards all of your EDI transactions.

GENTRAN:Director[®] **5.x** is an EDI management software that connects you to your EDI mailbox. EDI invoices (810 sets) and purchase orders (850 sets) are received, and trading partners are identified. The transactions are then translated and exported into standardized, fixed-length ASCII file which, in turn, can be retrieved by and prepared for upload into RPMS with a custom, transaction map program.

¹ Commerce Exchange and GENTRAN:Director are registered trademarks of Sterling Commerce. RPMS has been a Sterling Commerce EC Solutions Partner since 1996.

Section 1: EDI Basics

The RPMS Transaction Upload Feature and Transaction Maps allow you “keyless” entry of received EDI purchase orders and invoices into RPMS’ Backlog (Order Tracking Feature), thereby providing a measure of integration with inbound EDI. Transaction maps are tailored to the upload needs of your company and the implementation guidelines of your EDI customers.

Section 2: Using GENTRAN:Director® Partner Profiles

A partner profile is simply a mechanism by which Director looks at the sender and receiver codes in the EDI group envelop, and translates them to (roughly) plain English. It also does other things, but it's main purpose is to answer the question, "who's this document from, and who's it for?"

When adding new partner profile to Director², always enter the Profile ID in caps. The Profile ID is a ten-character field. In defining a purchase order relationship, enter the first five letters of the customer's company name in the first five character spaces of the field. For characters six through ten of the Profile ID field, enter the first five letters of the principal's company name. If either company's name is less than five letters long, use your space bar to fill out the remaining character space(s). In the EDI Code field, enter the customer's group sender ID followed by the principal's group sender ID. (If you, the manufacturer's rep, are receiving original purchase orders instead of carbon copies, then call RPMS' EDI support for assistance in entering the correct EDI code).

In the case of EDI invoices, the principal is the sender and the customer is the receiver. Profile ID and EDI Code entry is exactly reverse from that of an EDI purchase order partnership.

² *GENTRAN:Director® for Windows® Version 5.1 User's Guide*, Sterling Commerce, December, 1998, pp. 3-27 through 3-29.

Section 3: The RPMS Map Program and Documentation

A map is a program that installs on the front-end of RPMS' EDI Feature. It is a program that "maps" purchase order, invoice or product activity data from a text file, and prepares that data for upload into the RPMS system. The data may be a text translation of EDI-formatted data, or it may be text data sent directly from a principal or point-of-sale distributor.

Each map program comes with a *RPMS Uploader Map Layout* document. This document contains information pertinent to the map program's design. Please, make this document a part of your RPMS manual.

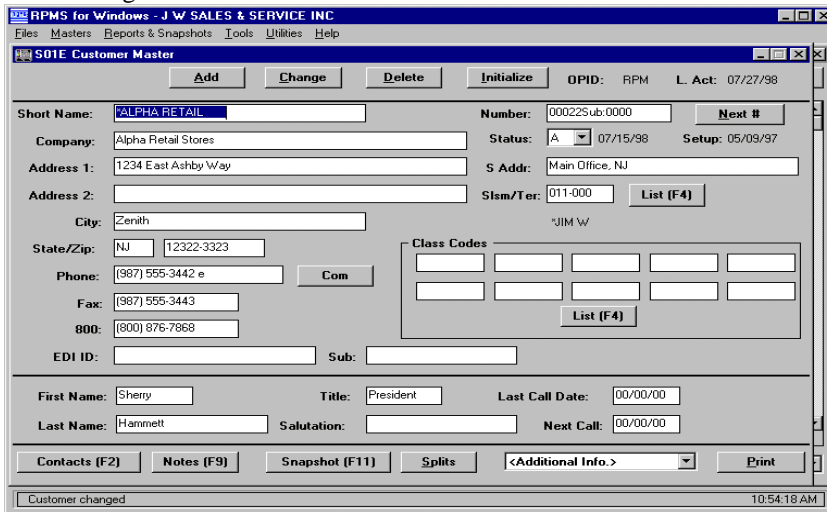
- The program file name
- The "Input file" name and path. The map as been programmed to look for an input file with this name in the drive and directory (folder) that is indicated.
- The "Upload by" entity. This is usually the entity (i.e., Customer, Principal, and Distributor) whose standards for the data records are being implemented.
- The "Upload type", or the type of document to be mapped and how it is to be uploaded.
- The EDI ID of the "Upload by" entity (i.e., customer or principal or distributor). This ID may be explicit in the data to be mapped, or it may be implied and, therefore, inserted by the map program.
- The map program screen name, or how the listing of this map will appear in the EDI Feature's Translator menu.
- A matrix describing how the records contained in the input file is to be mapped. This includes references to Notes to the user and Program notes.
- Notes to the user describe unusual circumstances or exceptions of which you, the user, should be aware.
- Program notes describe conditions that the programmer must meet in creating the map program.
- Record of changes describes, in detail, changes that have been made to the map, either to correct problems or the meet updates to the data. The date of the program and the date that the program was tested are included; all maps, both new programs and changes to existing designs, are tested for installation and proper operation prior to shipping to our customers.
- References cite data documentation and the name, date and time of the sample data file that was used for designing and testing the map.

New map programs, and changes to existing map programs are shipped on single 3.5-inch floppy diskettes. Printed installation instructions are included.

Section 4: Mapping and Uploading EDI Purchase Order and Invoice Data

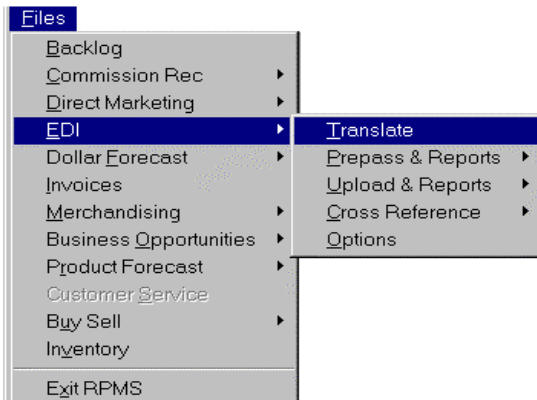
1. Setup the RPMS Customer. RPMS EDI 850 maps generally upload by customer; that is to say that the customer is the sender of the original EDI purchase order, and a principal is the receiver of that original document. Start by setting-up the customer as and EDI sender. Access the Customer Master screen in RPMS and enter the maps EDI ID for that customer in the EDI ID field. (The EDI ID is found in the map layout, either in the EDI ID blank, or in the “NOTES TO THE USER”.) If you have multiple master records for this customer for the purpose tracking sales and orders to various warehouses or stores, you may need to enter the warehouse or store number in the EDI ID Sub field as well. Click the change button.

Figure 1.



2. Translate the Input File. Be sure that the input file is in place (refer to “Input file” on the layout document).

Figure 2.

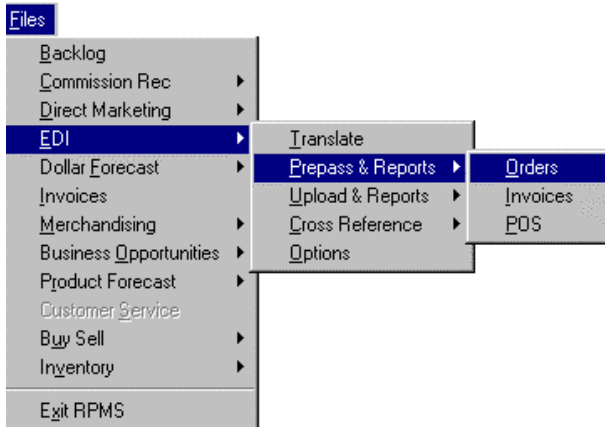


Select the appropriate RPMS Map and click the Process button. The map will move the input file to RPMS’ data folder, then the input file is translated (mapped) to the order upload file named RPFEDI.DAT.

3. Prepass & Reports. This function is essentially an upload test. The upload file is reviewed for accurate customer-to-principal cross referencing, valid dates, and known product numbers. *Nothing is uploaded to RPMS.*

Figure 3.

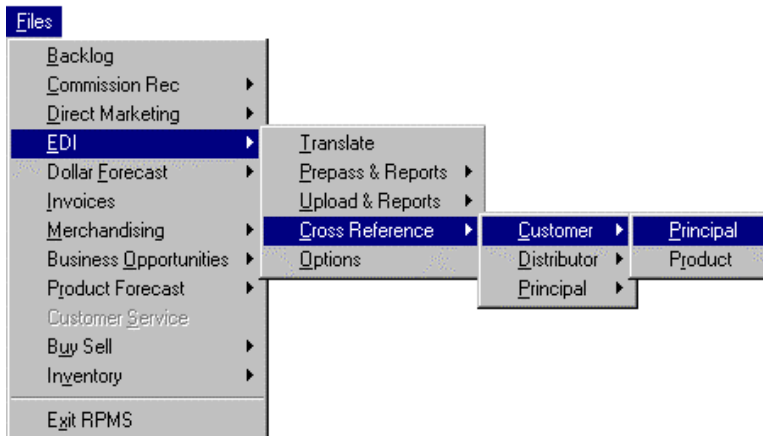
Section 4: Mapping and Uploading EDI Purchase Order and Invoice Data



The pre-pass program produces two detailed reports. The *EDI ORDER PRE-PASS TO RPMS AUDIT* reports all purchase orders found in the order upload file that will upload. The *EDI ORDER RE-PASS TO RPMS ERRORS* reports all invalid orders found in the order upload file. In initially setting up a new map, the audit report will probably be blank, and the errors report will indicate that all upload orders have invalid principals. The principal ID's as they are listed in the EDI input file are reported in the *PRINCIPAL* column of each order. Print the *ERRORS* Report and use it as reference for entering Customer-to-Principal cross-references (see step 4).

4. Cross Reference; Customer-to-Principal- Navigate to the customer-to-principal cross reference table.

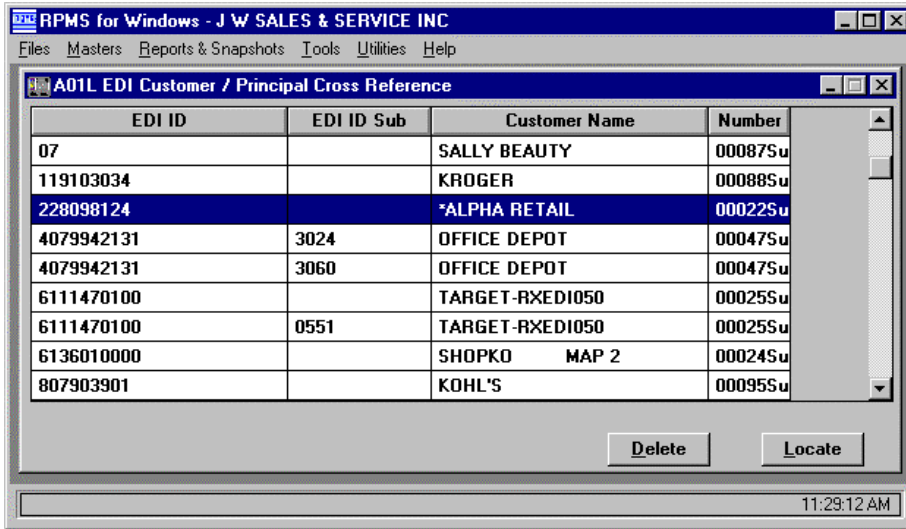
Figure 4a.



At the *Customer / Principal Cross Reference* screen, locate the appropriate EDI Customer record, and double-click it.

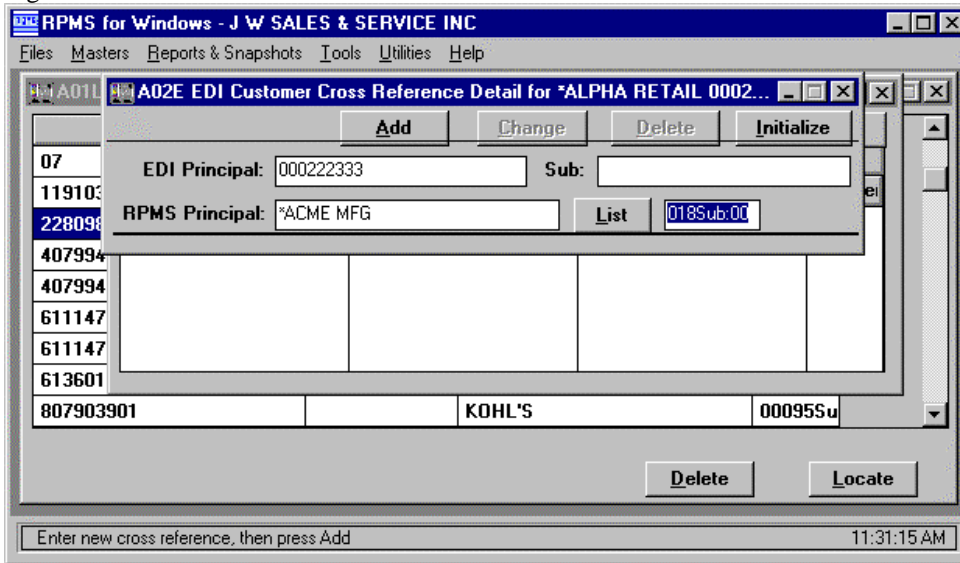
Figure 4b.

Section 4: Mapping and Uploading EDI Purchase Order and Invoice Data



Using the *ERRORS* report, enter the “** INVALID PRINCIPAL **” identifier in the EDI Principal field. Cross reference it to the appropriate RPMS Principal and principal number. Click the Add button.

Figure 4c.

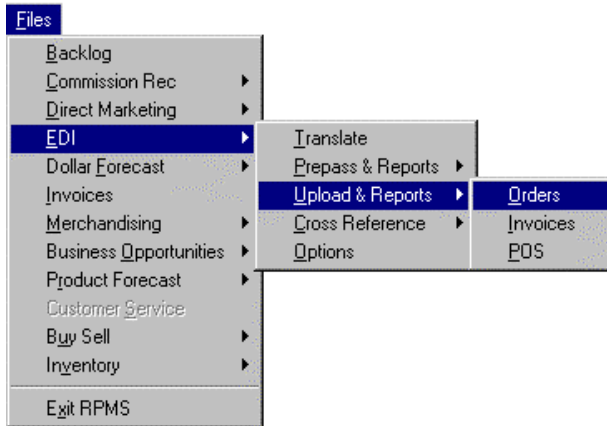


5. Pre-pass Again. After adding the customer-to-principal cross references, pre-pass the translated input again (see figure 3). Review the new *ERRORS* report for ** INVALID PRINCIPAL ** listings. Update the cross references, then pre-pass the order upload file again as often as necessary. When no errors are found by the *ERRORS* report, proceed the upload function.

Section 4: Mapping and Uploading EDI Purchase Order and Invoice Data

6. Upload & Reports. Upload the invoices.

Figure 6.



The upload program produces the *EDI ORDER UPLOAD TO RPMS AUDIT* and *EDI ORDER UPLOAD TO RPMS ERRORS* reports. The audit provides a detailed list of customer purchase orders that are now part of the RPMS system. The errors report in detail those invoices that were exempted from uploading, and why. If no pre-pass errors were reported, the upload will have no errors.

Mapping, Reporting and Uploading EDI Invoice Data:
ANSI X-12 Standard 810 Sets

In a customer to vendor (principal) EDI trading partnership, 810 invoice implementation is usually dictated by the customer, also. If your EDI management application is GENTRAN:Director®, your set-up for an RPMS EDI 810 map for the same customer has already been accomplished by having successfully executed the preceding steps.

Section 5: Mapping and Uploading Non-EDI Invoice Data from a Principal

RPMS' EDI feature can be used to upload invoice data from a non-EDI format. This occurs when the principal sends invoice data directly to the manufacturer's rep on a disk or as an e-mail attachment. The data does not meet any EDI standard, therefore the use of an EDI mailbox and an EDI management application is unnecessary. As long as the data is in a plain, text format, RPMS can program a custom transaction map for it based on the data structure that the principal uses for each invoice record in the data.

1. Setup the RPMS Principal. Generally, maps for this type of data are designated as an "Upload by" principal map. Start by accessing the principal list and opening the principal master of the principal providing the input file. In the EDI ID field enter the principal's EDI identification exactly as it is written in the "EDI ID" blank in the *RPMS Uploader Map Layout*. Click the change button. You only need to do this one time.

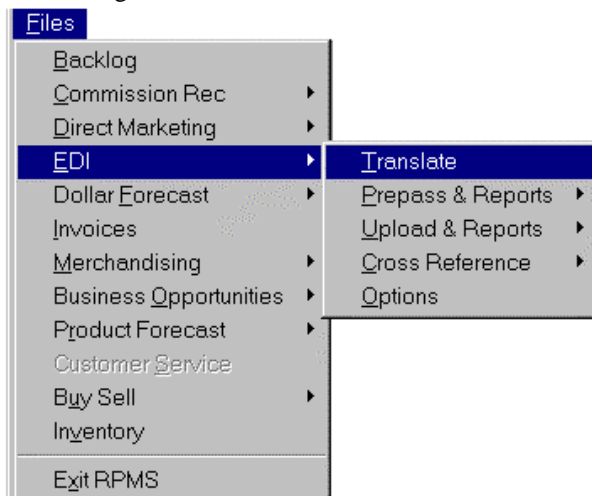
Figure 1.

The screenshot shows the 'S02E Principal Master' window in RPMS for Windows - J W SALES. The window title is 'S02E Principal Master'. It contains several fields and buttons:

- Buttons:** Add, Change, Delete, Initialize, OPID: RPM, L. Act: 07/17/98
- Short Name:** ACME MFG
- Company:** Acme Manufacturing Company
- Address 1:** 1244 E Armour Road
- Address 2:** (empty)
- City:** North Kansas City
- State/Zip:** MD 64111
- EDI ID:** ACME
- Number:** 018Sub:00
- Status:** A
- Phone:** (555) 222-5555 e
- Track Sales Units:** Y
- Track Orders Units:** Y
- Update Unit History Snapshots:** Y
- First Name:** Joe
- Last Name:** Durbin
- Title:** President
- Salutation:** (empty)
- Standard Commission Rates:** A- 4.50%, B- 3.00%, C- 1.50%
- FOB:** ORIGIN
- Terms:** NET 30
- Ship Via:** BIG TRUCK CD
- Buttons at bottom:** Rates, Log Days, Next #, Print, Products, Notes (F9), Contacts (F2), Snapshot (F11)

2. Translate the Input File. Be sure that the input file is in place; refer to the "Input file" file name and path in the layout document. (The input file name and path can be changed on site; for assistance contact RPMS.) Translate the input file using the RPMS map.

Figure 2.

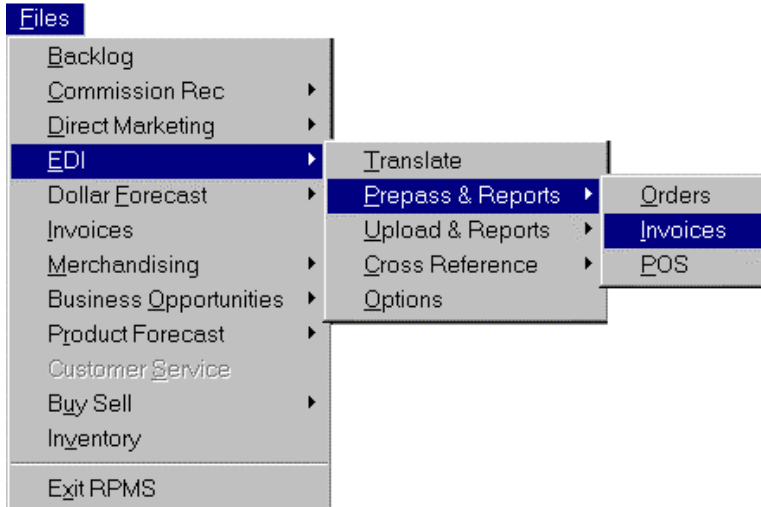


Section 5: Mapping and Uploading Non-EDI Invoice Data from a Principal

Section 5: Mapping and Uploading Non-EDI Invoice Data from a Principal

3. Prepass & Reports. Pre-pass the translated input file. This function pre-passes the input file without uploading the invoices.

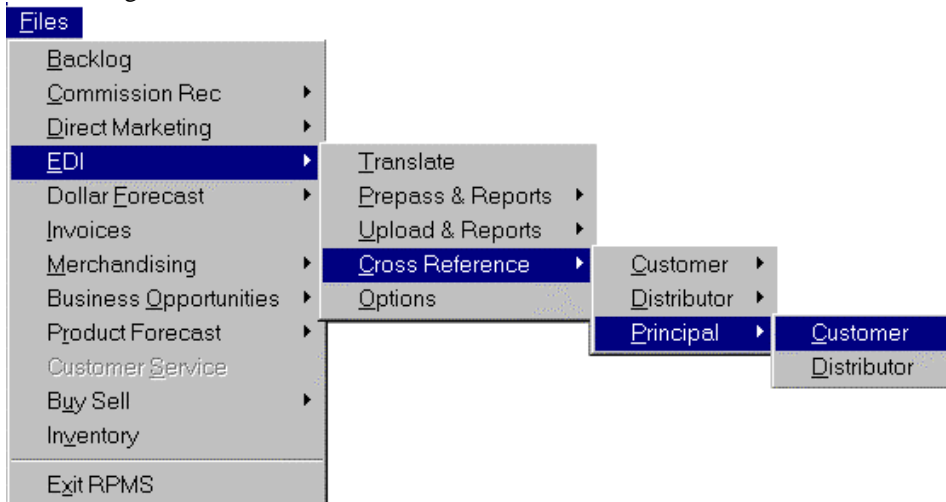
Figure 3.



This function produces two reports. In initially setting up a new map, print the *PRE-PASS INVOICE TO RPMS ERRORS* for reference in entering your principal's cross references to it's customers.

4. Cross Reference Principal-to-Customer. Navigate to the principal-to-customer cross-reference table.

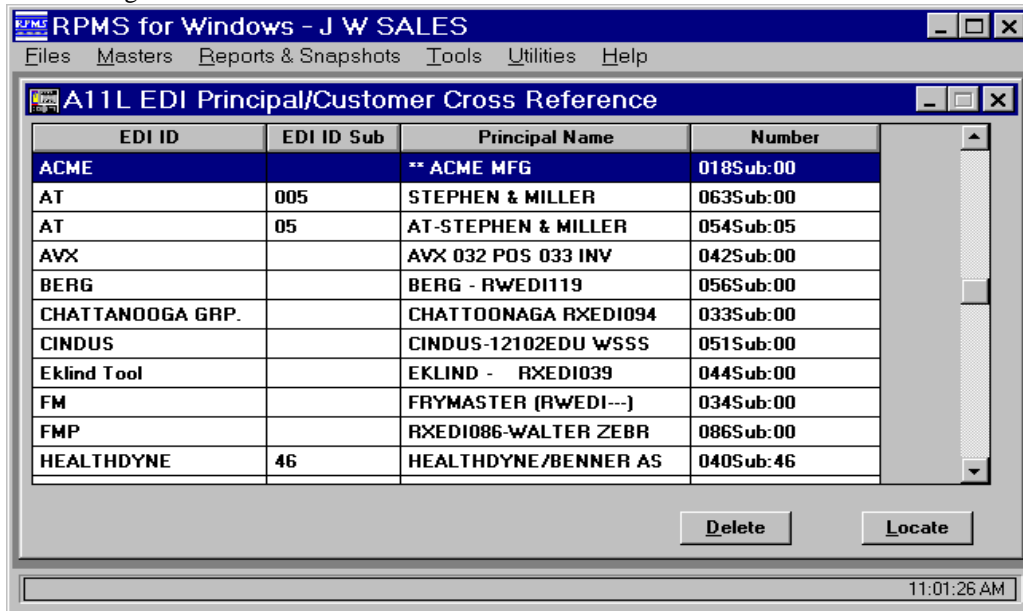
Figure 4a.



Locate the principal, and double-click.

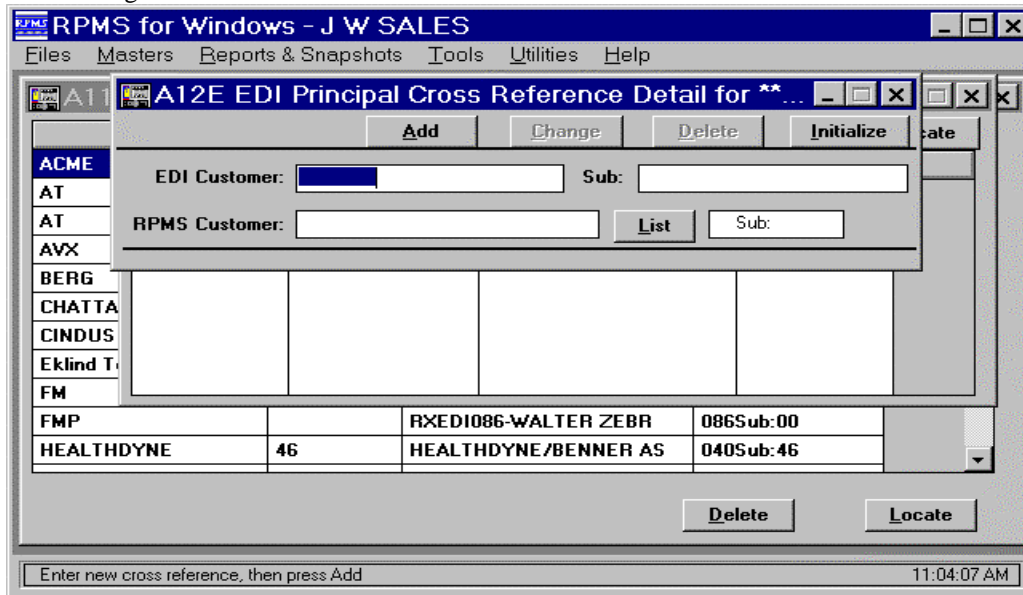
Section 5: Mapping and Uploading Non-EDI Invoice Data from a Principal

Figure 4b.



Customers requiring cross-referencing appear on the *ERRORS* report, as “** INVALID CUSTOMER **”. In such cases the Principal’s customer ID is listed under the report’s customer column. Enter the Principal’s customer ID in the EDI Customer field. Cross-reference it to the appropriate RPMS Customer and customer number. Click the Add button. You need only add one principal-to-customer cross-reference record for each of this principal’s customers; the records will be available for the next time you translate, pre-pass and upload this principal’s invoices.

Figure 4c.



NOTE: If you are an **Electronic Components Rep** and RPMS’ Point-of-Sale (POS) feature is registered to your company, always cross-reference to an OEM customer (i.e., an “A” status customer with an RPMS

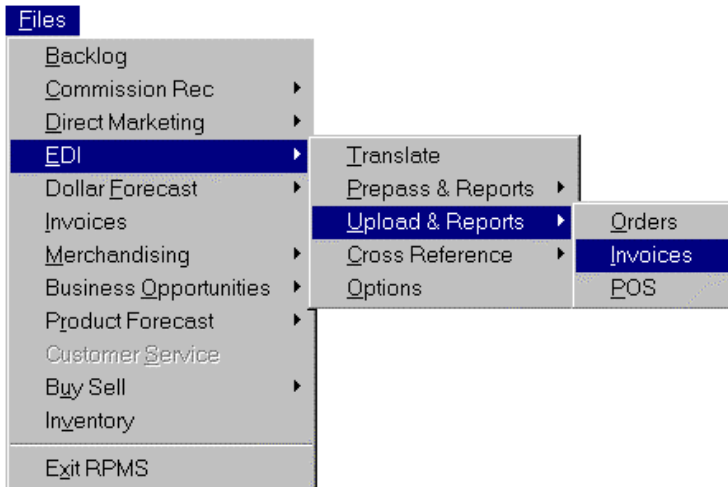
Section 5: Mapping and Uploading Non-EDI Invoice Data from a Principal

customer sub-number = “0000”). You will also need to cross-reference your principal to each of your distributors – See the “Principal-to-Distributor Cross-Reference” instruction.

5. Pre-pass Again. After adding the principal-to-customer cross-references, pre-pass the translated input again (see figure 3). Review the new *ERRORS* report for **** INVALID CUSTOMER **** again. Update the cross-references and pre-pass as often as necessary. When no errors are found by the *ERRORS* report, perform the upload function.

6. Upload & Reports. Upload the invoices.

Figure 6.

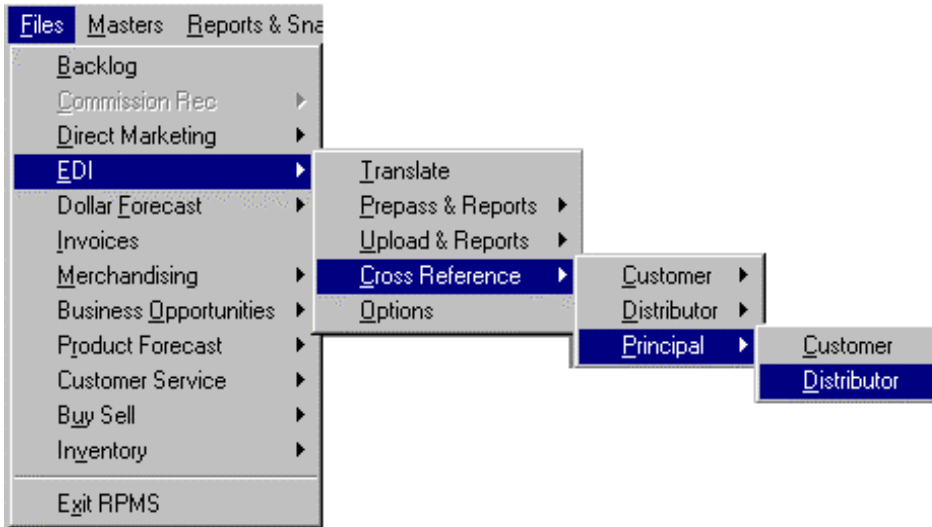


The reports *EDI INVOICES UPDATE/ADD TO RPMS AUDIT* and *EDI INVOICES UPDATE/ADD TO RPMS ERRORS* will be produced. The audit reports in detail the invoices that are now part of the RPMS system. The errors report in detail those invoices that were exempted from uploading, and why.

Section 6: Managing POS (Distribution Point-of-Sale) Data from a Principal

Distributors requiring cross-referencing appear on the *ERRORS* report as “** INVALID DISTRIBUTOR**”. In such cases the Principal’s customer ID is listed under the report’s customer column.

Navigate to the Principal/Distributor Cross Reference screen.



Select the principal from the list to which distributors are to be cross referenced and double click it with your mouse button.

EDI ID	EDI ID Sub	Principal Name	Number
10		C&K-BUP2	101Sub:00
007477400		TRU-SERVE-810	135Sub:00
030		CHANNELLOCK	002Sub:00
072488		RETAIL PRODUCTS CORP	904Sub:00
36200CL		RXEDI051.DLL	051Sub:00
A&D		A&D	092Sub:00
ACME		ACME MFG	001Sub:00
AMANA		AMANA	081Sub:00
ATLASSOUNDOLIER		ATLAS SOUNDOLIER	137Sub:00
ATMEL		ATMEL-BUP5	140Sub:00
AVX		AVX-UP2/UP3/UP5	033Sub:00

Buttons: Delete, Locate

On the next screen click the Add button with your mouse. The screen “EDI Principal Cross Reference Detail for...” your principal will appear. This is an entry template.

Section 6: Managing POS (Distribution Point-of-Sale) Data from a Principal

Enter the Principal's distributor ID in the EDI Distributor field. Cross-reference it to the appropriate RPMS Distributor Master name and number. Click the Add button. You need only add one principal-to-distributor cross-reference record for each of this principal's distributors; the records will be available for the next time you translate, pre-pass and upload this principal's invoices.