QAD Enterprise Applications
Enterprise Edition

User Guide

QAD EDI eCommerce

EDI eCommerce Overview
Setting Up EDI eCommerce
Using EDI eCommerce
EDI eCommerce Error Messages

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Contents

Chapter 1

EDI eCommerce Overview

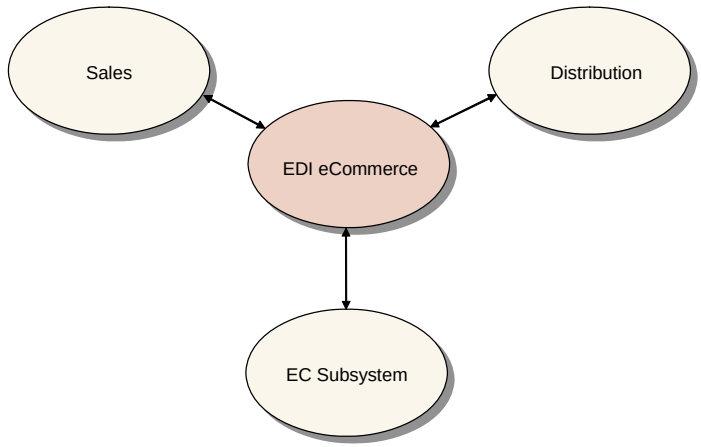
This chapter describes how EDI eCommerce exchanges business documents with external electronic commerce (EC) subsystems.

Introduction to EDI eCommerce

EDI eCommerce is an improved method of managing electronic data interchange (EDI) communications with trading partners. It is the interface between the system and third-party EDI communications or translator products called EC subsystems.

EC subsystems send and receive EDI data files containing documents used by such products as QAD Sales. This packaged software performs electronic data communications for flat-file transfer. In the EDI eCommerce context, EC subsystems translate EDI data to and from the QAD standards-neutral formats (SNFs), which are defined for all inbound and outbound EDI documents.

Fig. 1.1
EDI eCommerce Overview



EDI eCommerce's table-based logical structure supports all major EDI standards, making the system compatible with most EC subsystem translation capabilities. Additionally, you can map inbound or outbound data in extensible markup language (XML) format—an important feature in making EDI communications interoperable with external systems.

Traditional EDI processing applications require program changes at the code level to meet the input and output requirements of external systems. In contrast, eCommerce's processing logic, EDI document specifications, and trading partner specifications are stored in database tables. These tables can be modified through the user interface with a set of maintenance programs.

The import and export processes use gateway programs to move data into and out of the database. These programs are the same for all combinations of document type and trading partner. Specifications for trading partners and application document definitions are set up in tables instead of in the code.

EDI eCommerce also stores the EDI data in tables. This enhances the system's ability to manipulate, analyze, edit, and reprocess EDI documents.

The EDI eCommerce Trading Partner Library includes a set of file definitions and transformation mappings between the system and a variety of SNFs. Since these are trading-partner specific, you can often use them as-is to exchange documents with the trading partners for whom they were designed. Additionally, implementers can use these mappings as templates, then use eCommerce maintenance programs to make the maps fit their specific needs.

Contact your account representative or see the QAD Web site for more information.

Note EDI eCommerce supports the EDI requirements of the Enterprise Material Transfer (EMT) module, which allows you to automatically generate purchase orders from sales orders and transmit them to lower-level suppliers. Use eCommerce programs to communicate the following types of EMT-related documents among trading partners:

- Purchase orders
- Purchase order acknowledgments
- Purchase order changes
- Purchase order change acknowledgments
- Advance ship notices (ASNs)

See *User Guide: QAD Sales.*

Elements of EDI eCommerce

EDI eCommerce consists of several elements.

- A document repository
- A tool set containing table definitions and transformation procedures needed to integrate transactions and support table maintenance, import, and export
- Document import and export process control functions

Document Repository

EDI eCommerce includes a document repository, a set of tables that store data in transition during various phases of processing. Types of data included in the repository include:

- Exchange file documents
- Application documents
- Turnaround data

See “EDI eCommerce Processing” on page 6.

Maintenance programs let you change all three types of repository data. However, this should be done with care since modifying data values in the eCommerce tables can cause data synchronization problems within the database.

See “Maintaining the Document Repository” on page 105.

Exchange File Repository

This portion of the repository holds data at two stages of processing.

- Inbound data from a standards neutral format (SNF) file before it undergoes transformation processing and is moved into the application document repository
- Outbound data that has already undergone transformation processing before it is written to an SNF file and transferred to the EC subsystem

The system moves documents into and out of the repository as needed. A maintenance program lets you modify data in the exchange file data repository, if necessary.

See “Exchange Data Repository” on page 106.

Application Data Repository

The application data repository includes data in business-document formats:

- Outbound data that is awaiting transformation processing before it is moved to the exchange file repository
- Inbound data that has already undergone transformation processing and is waiting to be transferred into the database

The system moves documents into and out of the repository as needed. A maintenance program lets you modify data in the application document repository, if necessary.

See “Application Document Repository” on page 107.

Direct Import to Application Repository

To provide flexibility in using the document mapping functions of EDI eCommerce, you can import source files directly into the application document repository and export them without having to create business documents.

For example, you can use this feature to:

- Receive an EDI file containing a sales order from an external system.
- Load it into the repository based on an implementation definition.
- Transform it into XML format.
- Post it using an HTTP adapter on a Web server where it is available to a second external system.

During this process, you never are required to create a sales order in the database.

See “Importing Documents” on page 82.

Turnaround Data

Turnaround data includes some data items being stored from transactions imported from an EC subsystem. Such data items cannot be mapped into the database as elements of a business document, but are required for related outbound documents.

Example An inbound supplier schedule includes additional customer data your company does not ordinarily track in shipping documents. However, the customer requires the same data to be included on all advance ship notices (ASNs) your company exports for items included on the schedule.

You can define inbound documents from this customer to map turnaround data during gateway processing. The system marks this data as turnaround data and stores it, but does not attempt to map it to the database. The corresponding outbound implementation for this trading partner indicates that the outbound gateway program should pick up these data items and place them in the appropriate fields on the ASN exchange file document sent to the EC subsystem.

EDI eCommerce provides a tool for modifying stored turnaround data.

See “Turnaround Data” on page 109.

EDI eCommerce Tool Set

The EDI eCommerce tool set includes a set of tables containing trading partner data, exchange file document definitions, and implementation-specific application document definitions used in the transformation process. Additionally, a set of menu programs lets you maintain these tables. Other menu programs are used to set up the system and to run the import and export functions.

Most of the programs are not intended for day-to-day use. Typically, a user requires only import and export programs, reprocessing programs, and a few reports and browses.

The other programs are used by system implementers to perform initial setup and to add trading partners and document types during system maintenance.

EDI eCommerce programs are located on the 35 menu.

Document Types

EDI eCommerce allows several types of documents to be exchanged with EC subsystems. Table 1.1 lists examples of the international standards typically associated with some of the document types supported by eCommerce. Standards include those defined by the following:

- American National Standards Institute (ANSI) Accredited Standards Committee (ASC) X12
- Electronic Data Interchange for Administration, Commerce, and Transportation (EDIFACT)
- Organization for Data Exchange by Teletransmission in Europe (ODETTE)
- Verband der Automobilindustrie e.V. (VDA)

Note These standards are provided as examples. Because of the flexible, database-centered design of eCommerce, the SNF-based maps can be tailored to any standard or nonstandard business document.

Table 1.1
Sample EDI eCommerce Document Types

Document Type	Examples of International Standards
Planning and shipping schedules	• ANSI X12 830 and 862 • EDIFACT DELFOR and DELJIT • ODETTE DELINS • VDA 4905
Purchase orders (including changes and acknowledgments)	• ANSI X12 850, 860, and 865 • EDIFACT ORDERS and ORDCHG • ODETTE ORDERR
Invoices	• ANSI X12 810 • EDIFACT INVOIC • ODETTE INVOIC • VDA 4906
Remittance advices	• ANSI X12 820 • EDIFACT REMADV

Document Type	Examples of International Standards
Advance ship notices (ASNs)	• ANSI 856 • EDIFACT DESADV • ODETTE AVIEXP • VDA 4913
Inventory advices	• ANSI X12 846 • EDIFACT INVRPT • ODETTE STOACT
Distribution order receipts	• ANSI X12 944 • ODETTE STOACT
Sales order shipments	• ANSI X12 945 • ODETTE STOACT

Note QAD's Trading Partner Library is an evolving collection of EDI eCommerce implementation data prepared to meet the needs of specific companies and document standards. Contact your account representative for more information.

EDI eCommerce Processing

During import and export, the system stores data in repository tables based on table-resident exchange file definitions and trading-partner-specific implementation definitions of business documents. Then, it uses transformation definitions to determine the processing actions needed to convert between the EDI-oriented exchange file and the system-oriented business document.

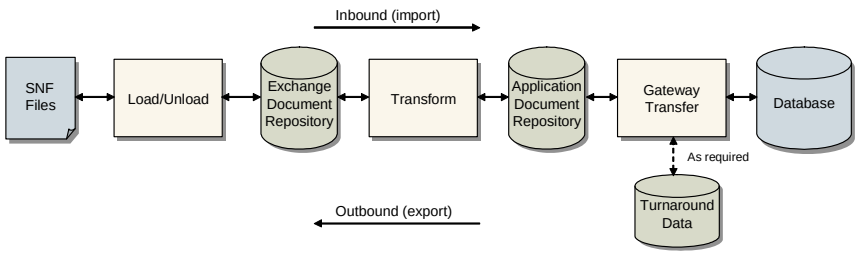
Most eCommerce processing is done at a programmatic level. Very little system interface is required on the part of the day-to-day user.

Menu-level programs let you select documents for import and export processing, if required. Depending on how your system is set up, processing might not start from the user interface, as in the following cases.

- You can use Export/Import Controller (35.17.5) to set up a time-based process that searches for documents or files and automatically begins processing them. See "Scheduling Automatic Processing" on page 66.
- The external EC subsystem can use a custom-written program to start inbound eCommerce processing when files are ready for import.

Three basic steps take place when you import or export a file with eCommerce: load/unload, transform, and gateway transfer. Each step moves data into or out of the repository. Figure 1.2 summarizes the process.

Fig. 1.2
Import/Export Process Steps



- Load/Unload
  - The inbound process loads EDI data from the EC subsystem SNF files into the exchange file repository.
  - The outbound process unloads data from the exchange file repository into the EC subsystem SNF files.
- Transform
  - The inbound process transforms the documents from the EDI format into business document format, applying trading partner-specific logic to map fields appropriately.
  - The same process is applied in reverse to outbound documents—business documents are transformed into EDI-oriented formats.
- Gateway transfer
  - The inbound process extracts transformed documents from the repository and calls the appropriate gateway program to update the database.
  - The outbound transfer process starts with the selection of a gateway program. Data is then placed in the document repository.
  - The transfer process also stores trading partner-specific turnaround data on inbound messages. It retrieves stored turnaround data for outbound messages.

The import and export processes run automatically from beginning to end. If the system detects an error with a file or document at any time, it generates error messages and continues processing the rest of the job. Depending on where the error occurs, documents with errors are placed either in an error file or in the appropriate repository with a field indicating an error status. You can then use reporting tools to determine why errors occurred, then correct the problems and reprocess the documents.

See “Correcting Errors” on page 102.

Imports

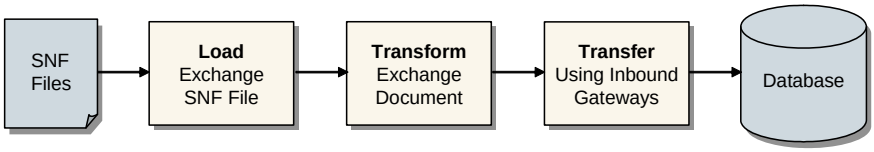
The way import documents are processed and the way gateways are used to transfer data depends on the types of files loaded from the EC subsystem. A single menu program provides access to the documents available for import and allows you to select from a list of eligible files. The system reads control records in the SNF file to determine the document type, then selects the appropriate gateway processing program. All further processing is automatic.

You can also use the import function to load files from the EC subsystem directly into the application document repository. This feature lets you transform inbound files and export them again without ever creating business documents in the database.

See “Importing Documents” on page 82.

The import process control flow is shown in Figure 1.3.

Fig. 1.3
Document Import Process



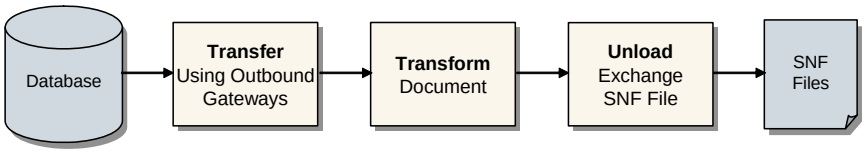
Exports

Document export processing is similar to import processing at the user interface, with one exception. Instead of a single export program, there is a program for each type of document. This lets the user enter selection criteria for the specific type of document to be exported.

These programs begin the process of extracting document data from the database and transforming it into a format that meets the requirements of the receiving trading partner.

The export process control flow is shown in Figure 1.4.

Fig. 1.4
Document Export Process



See “Exporting Documents” on page 84.

The system can create optional tracking records for exported documents. After acknowledgment messages are imported from the EC subsystem, tracking records are automatically updated with status information from both the EC subsystem and the trading partner’s application.

See “Tracking Exported Documents” on page 103.

Multiple Domains

You can use a single instance of eCommerce to import and export documents between multiple domains and the EC subsystem.

“Multiple-Domain Processing” on page 75 describes how the system processes EDI transactions in a multi-domain environment.

Chapter 2

Setting Up EDI eCommerce

This chapter discusses the programs used to implement and set up EDI eCommerce.

Introduction to eCommerce Setup

This chapter is for the system implementers and EDI specialists setting up eCommerce to exchange data with EC subsystems.

The complexity of setting up and implementing eCommerce depends on your company's specific needs. If you usually exchange standard types of EDI documents with your trading partners, then the QAD-developed transformation mappings available with the Trading Partner Library will probably meet your needs with a minimum of customization. However, eCommerce's powerful implementation tools let you perform setup tasks of much greater complexity.

This chapter describes all the programs available for implementing eCommerce. Depending on the complexity of your implementation scenario, you may not need to use all of the programs—or even most of them.

See Chapter 1 for a description of how eCommerce works.

Setup Overview

The implementation definition is the main element used to customize the transformation of data exchanged with an external system. Building an implementation definition is a complex task. But many eCommerce installations will never require this activity. QAD provides a set of templates with much of the basic content already in place. eCommerce implementers then use eCommerce programs to copy and modify the template and to perform other required setup tasks.

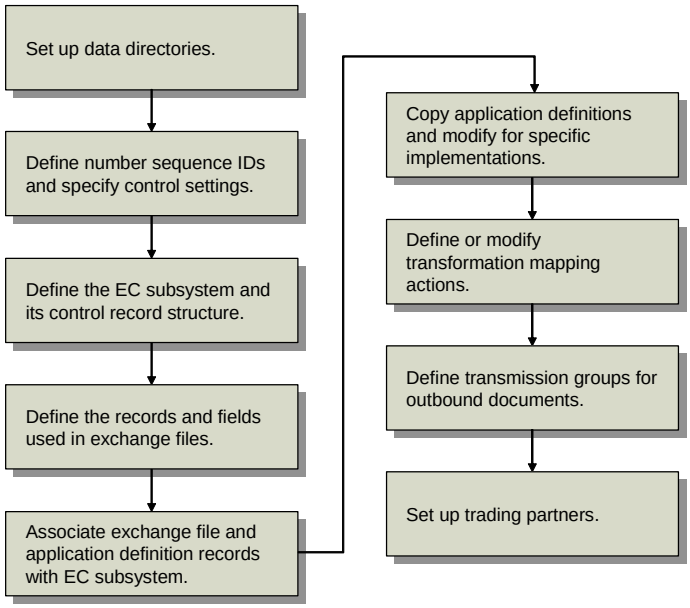
The setup procedures assume that you have already completed a standard system implementation and have defined common base data such as items, customers, and sites.

A significant step in the EDI eCommerce implementation process is to define the document exchange requirements of an external EC subsystem. During setup, you do this in terms of several elements:

- Control record structures and formats used by the EC subsystem.
- Data structure definitions of the standards neutral format (SNF) exchange files communicated with the EC subsystem.
- Transformation mappings that describe the actions needed to transform data from one system's specifications to the other's. If these actions require functions not provided with eCommerce, you can define your own functions. See "Using Transformation Functions" on page 63.

Figure 2.1 summarizes a typical setup workflow. The degree to which you use the setup programs depends on your company's trading partners and the types of documents you exchange with them.

Fig. 2.1
Typical Setup Workflow



In addition to the initial setup programs, the eCommerce menus provide several other programs you can use to customize the way your system uses eCommerce. These programs allow you to:

- Copy the QAD-provided exchange file, application document, and implementation definitions so that you can modify them for your specific needs.
- Build your own application document definitions to be used in designing trading-partner-specific implementations.
- Custom-define additional definitions and functions used in transformation mapping. You can copy existing items to use as the basis for new ones.
- Define cross-references to specific data values that can be converted automatically to new values during processing.
- Define data values that can be validated automatically against specified values during transformation.
- Set up a polling schedule that enables the system to search automatically for files and begin processing when it finds them.

See “Using Other Setup Programs” on page 52.

Setting Up Data Directories

Before setting up EDI eCommerce, the system administrator should set up a data directory for eCommerce data files. Below that directory, there must be several subdirectories for the following types of data:

- Error files
- Inbound files for import. See “Direct Import to Application Repository” on page 4
- Archive files, which are inbound flat files that have completed processing

- Function definition files, which include the user-defined functions used for transformation processing
- Files from an external system that are imported directly into the document repository for transformation and export to another external system
- Outbound files, which contain exported documents.

All but the outbound directories are specified in eCommerce Control (35.13.24). Outbound directories are used in Transmission Group Maintenance (35.13.13) to specify where exported document files should be stored for a trading partner. You can set up a separate outbound directory for each trading partner.

If your company's environment includes clients on multiple operating systems, your system administrator must ensure that these directory definitions do not contain anything that is operating system-specific.

To set up a dual environment, you still must create a master data directory that includes the other eCommerce subdirectories. Then change the PROPATH—an environment variable containing the list of directories searched by Progress—for eCommerce users to include the master directory as the first item. For the directory definitions in eCommerce Control (35.13.24) and Transmission Group Maintenance (35.13.13), use only the names of the subdirectories, such as error or archive.

Example A directory structure might look like the following:

```
/qad/Ecommerce/Data
   /qad/Ecommerce/Data/inbound
   /qad/Ecommerce/Data/arch
   /qad/Ecommerce/Data/error
   /qad/Ecommerce/Data/scan
   /qad/Ecommerce/Data/oarch
   /qad/Ecommerce/Data/oerror
   /qad/Ecommerce/Data/funcs
   /qad/Ecommerce/Data/companyA
   /qad/Ecommerce/Data/companyB
```

In this case, you would add `/qad/Ecommerce/data` as the first entry in the PROPATH. The first four items on the list would be specified as eCommerce Control directory entries, as shown in Figure 2.3. You would reference the `companyA` and `companyB` subdirectories in the Destination field in Transmission Group Maintenance.

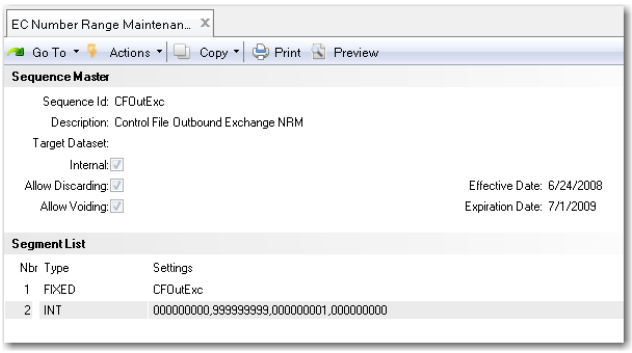
See "Defining Transmission Groups" on page 44.

Using Sequence IDs

The system uses Number Range Management (NRM) sequences to generate repository document numbers and other numbers used during processing.

Use EC Number Range Maintenance (35.21.1) to create sequences and define their parameters.

Fig. 2.2
EC Number Range Maintenance (35.21.1)



This program is similar to Number Range Maintenance (36.2.21.1). However, EC Number Range Maintenance defines sequences that are specific to the eCommerce processing domain.

After defining number sequences, assign them as system and application-level defaults in eCommerce Control. You can change the defaults for trading partners or trading partner documents using Trading Partner Maintenance (35.13.7). When assigning a new sequence number, the system looks for a sequence definition in the following order:

1. Trading partner document record
2. Trading partner record
3. Application control record
4. Control record

The system maintains a history of numbers generated that can be displayed using EC Sequence Number History Report. When this history is no longer needed online, remove it using EC Sequence Delete/Archive.

See *User Guide: QAD System Administration* for information on setting up sequence IDs.

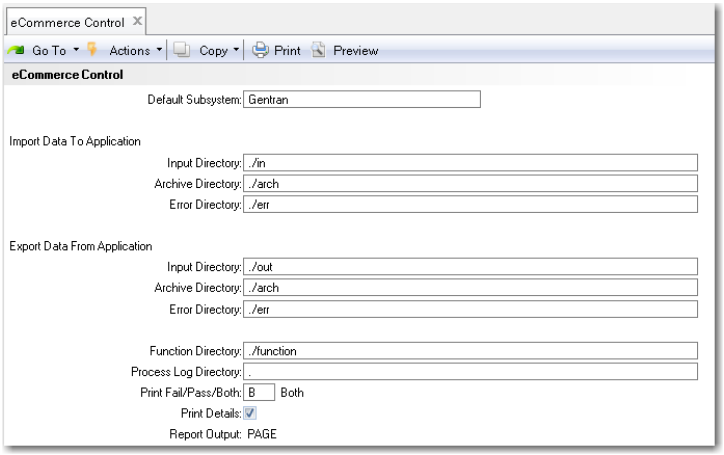
Configuring eCommerce Control

Use eCommerce Control (35.13.24) to set default values for eCommerce processing. This program is also available on the eCommerce Utilities menu (35.17).

The program includes three frames:

- Use the initial frame to set domain-level control values, such as directories used during document import and export.
- The second frame sets default values for error handling, as well as the default sequence IDs used to generate repository document numbers.
- The third optional frame lets you set application-specific values that apply only to such functions as Financials, EMT, and so on.

Fig. 2.3
eCommerce Control (35.13.24), Initial Frame



Default Subsystem. Enter the name of the EC subsystem to be used when documents being processed do not identify the originating subsystem. This subsystem must be defined in EC Subsystem Definition Maint (35.13.1) before you can enter it in this field.

Input Directory (Import). Enter the directory where the EC subsystem places files for import. When you run Document Import (35.1) with Direction set to Outbound, the system uses this as the source directory for selecting files.

Note Destination directories for exported files are specified in the Destination field in Transmission Group Maintenance (35.13.13).

Note The system prompts you to create directories if they do not already exist.

Archive Directory (Import). Enter the directory where the system places the original SNF files when processing begins.

Error Directory (Import). Enter the directory where files from the Input Directory that fail during load or unload are stored. Reporting and reprocessing functions use this directory for input.

Input Directory (Export). Enter the directory where the system looks for files to load directly into the document repository and process for export without creating business documents.

When you run Document Import with Direction set to Outbound, the system uses this as the source directory for selecting files.

Archive Directory (Export). Specify the directory where files from the Input Directory are moved after export processing.

Error Directory (Export). Enter the directory where files from the Import Directory that fail during export processing are stored. Reporting and reprocessing functions use this directory for input.

Function Directory. Enter the directory where the user-defined functions used during transformation processing are stored. See “Using Transformation Functions” on page 63.

Process Log Directory. Specify the default directory where the system creates log files when it is processing documents. If the directory does not exist, the system attempts to create it.

You can leave this field blank. If you enter a value, it defaults to the same field for new records in EC Subsystem Definition Maintenance (35.13.1).

Process log files can be used for two purposes:

- As a record of what took place during a processing session, including warning and error messages.
- As source information for system-generated e-mail messages. When processing errors occur, the system automatically notifies the user by adding the process log file to an e-mail message, provided that e-mail system and address information is defined in User Maintenance. Additionally, it sends status information from the log to other e-mail addresses specified for individual location cross-reference records in Trading Partner Maintenance (35.13.7).

Unless it is blank, the subsystem definition value overrides the eCommerce Control value. If both are blank, logging is disabled, and process control functions do not create permanent log files. Instead, the system creates temporary log files in the user's startup directory. After sending process status e-mail messages, the system deletes the temporary logs.

Three fields set values for output reports produced when processing is initiated from outside the EDI eCommerce user interface. For example, some Financials applications can be used to process bank transactions directly from a related menu item.

Print Fail/Pass/Both. Specify the level of information included in the output report.

Failed (default): Only files that failed to load are included in the report.

Passed: Only files that loaded successfully are included.

Both: All processed files are included.

Print Details. Set this field to Yes to include detailed error and warning messages in the output report.

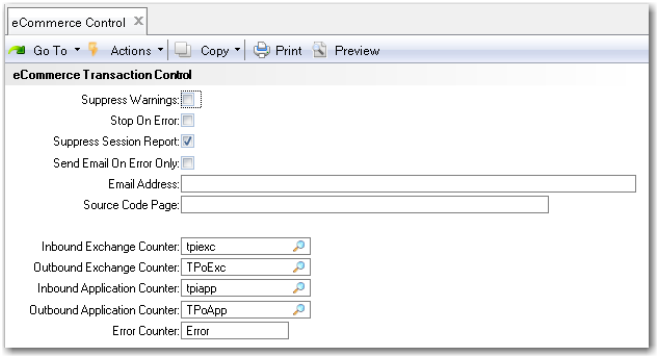
When it is No, the report includes only a summary of process events.

Report Output. Enter the output device or file name the system uses to display the report.

If you leave this field blank and click Next, the system sets it to the file name eComOut.

Note When you use an EDI eCommerce menu program to select documents for import or export, these fields have no effect. You can set the corresponding values directly in the user interface.

Fig. 2.4
eCommerce Control, Transaction Control Frame



Suppress Warnings. Enter Yes to prevent the system from generating status messages that result from warning conditions during transformation or gateway processing.

When this field is No (the default), the system always generates warnings in the status message table.

This field defaults to new records in Trading Partner Maintenance. You can override it at the trading partner, trading partner document, and trading partner location cross-reference level.

Stop on Error. Enter Yes to have the system stop processing a document during transformation when the first error is encountered. The system skips the rest of the document and moves to the next sequence number.

When this field is No (the default), processing continues regardless of the number of errors that occur.

This field defaults to new records in Trading Partner Maintenance. You can override it at the trading partner, trading partner document, and trading partner location cross-reference level.

Suppress Session Report. Enter Yes to prevent the system from generating a session report following document load or unload.

When this field is No (the default), the system always generates session reports.

This field defaults to new records in Trading Partner Maintenance. You can override it at the trading partner, trading partner document, and trading partner location cross-reference level.

Send E-mail on Error Only. Enter Yes to have the system send e-mail only when the document does not process successfully. Otherwise, e-mail is sent regardless of document status.

This field defaults to new trading partner location cross-reference records defined in Trading Partner Maintenance. You can override the control program value as needed.

E-mail Address. Enter the e-mail address of the person who receives a message when an error occurs during an import or export session.

Note This is not related to the Send E-mail on Error Only field.

These must be complete email addresses; for example, jsmith@company1.com.

Use Email Definition Maintenance to set up your system to manage automated email messages.

Source Code Page. Optionally, specify the default code page used to create files imported to your system. During import processing, the system converts the data to the system code page.

This field is not validated. Be sure that the value you enter is included in the Progress file `DLC/convmap.cp`. Otherwise, the conversion program returns an error.

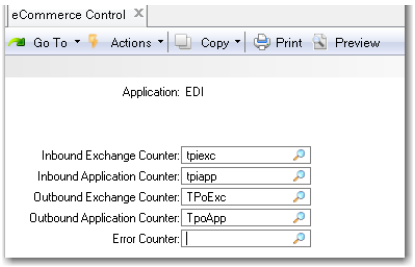
If you enter a value, it defaults to EC Subsystem Definition Maintenance. You can update it as needed for individual subsystems.

Counters: Inbound Exchange, Outbound Exchange, Inbound Application, Outbound Application, Error. Specify the default sequence IDs used to assign numbers to documents during processing. You can override these values in Trading Partner Maintenance.

The fields cannot be blank. They must contain values defined in EC Number Range Maintenance.

You can use the next frame to override one or more settings for individual applications.

Fig. 2.5
eCommerce Control, Application Frame



Use this frame to override system-level sequence ID defaults defined in the previous frame for a specific application. You can save your changes only if you enter a valid sequence ID in one or more fields. For blank fields, the system continues to use the sequence IDs from the Transaction Control frame.

See “Using Sequence IDs” on page 13.

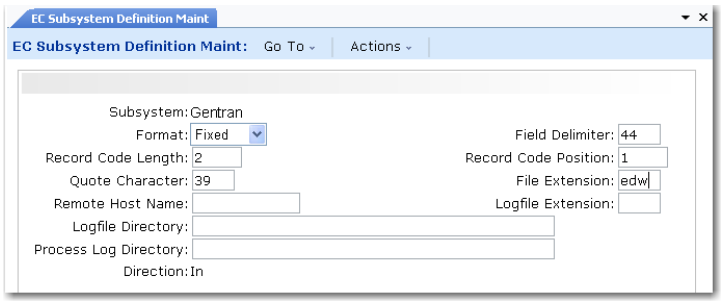
Defining the EC Subsystem

Use EC Subsystem Definition Maint (35.13.1) to define the format and content of the control records exchanged with an EC subsystem. The values you enter must correspond to those used in the SNF file by the EC subsystem you are defining.

Create a separate EC Subsystem Definition Maint record for each direction—inbound and outbound. The combination of subsystem and direction is a unique identifier, so you can use the same subsystem name for both.

The program consists of three frames. Use the first frame to define basic EC subsystem data.

Fig. 2.6
EC Subsystem Definition Maint (35.13.1), First Frame



Subsystem. Enter up to 20 characters to identify an EC subsystem that exchanges data with your system. Use any name that makes the subsystem easy to identify. For example, if you use the same subsystem for both imports and exports, you might add the suffix “In” or “Out” to the end of the subsystem name.

Format. Specify whether the fields in the records used by the EC subsystem are fixed or variable lengths. Enter a question mark (?) to indicate XML format.

Field Delimiter. If you specify variable-length fields for this EC subsystem, enter the ASCII code for the character the EC subsystem uses to separate fields.

Record Code Length. Enter the number of characters the EC subsystem uses to indicate the type of record it is sending. This value must be between 1 and 20.

Record Code Position. Enter the number of the character position where the record code begins.

Enter zero to indicate that the record code is in the last position in the document.

Quote Character. Enter the ASCII code for the quote character used by the EC subsystem. If no quote character is required, enter zero.

File Extension. Enter the three-character file extension that the EC subsystem uses to identify its inbound files. For outbound files exported by your system, the system appends this extension to identify the files to the EC subsystem. The name of the file is based on data you define in Transmission Group Maint.

Additionally, the load function uses this extension to determine which EC subsystem definition to use for interpreting control records.

See “Defining Transmission Groups” on page 44.

Remote Host Name. If this EC subsystem runs automated activities on a host computer, enter the name of that host computer. For example, you might run an e-mail program on this system to process messages containing exported files.

To specify the program to be run on the remote host, use the Processing Program field in the Transmission Group record for the transmission group that accesses this host.

Logfile Extension. If the computer specified in Remote Host Name creates a log file related to its processing activities, enter its file extension.

Logfile Directory. If the computer specified in Remote Host Name creates a log file related to its processing activities, enter the directory that contains the log file.

Process Log Directory. Enter the complete path to the directory where the system creates log files when processing documents using this subsystem. The system verifies that this is a valid directory. This defaults from eCommerce Control, if a value is specified.

Process log files can be used for two purposes:

- As a record of what took place during a processing session, including warning and error messages.
- As source information for system-generated e-mail messages. When processing errors occur, the system automatically notifies the user by adding the process log file to an e-mail message, provided that e-mail system and address information is defined in User Maintenance. Additionally, it sends status information from the log to other e-mail addresses specified for individual location cross-reference records in Trading Partner Maintenance.

Unless it is blank, the subsystem definition value overrides the eCommerce Control value. If both are blank, logging is disabled, and process control functions do not create permanent log files. Instead, the system creates temporary log files in the user’s startup directory. After sending process status e-mail messages, the system deletes the temporary logs.

Direction. Specify whether this EC subsystem definition is for inbound or outbound records. In eCommerce, direction is always relative to your system—inbound for imports and outbound for exports.

Each EC subsystem must have separate definitions for inbound and outbound records.

Application. Enter a code representing the application to which this subsystem definition applies. The default is EDI.

Source Code Page. Optionally, specify the code page required by inbound files. This field defaults from eCommerce Control.

During import processing, the system converts the data to the system code page using the specified code page.

This field is not validated. Be sure that the value you enter is included in the Progress file `DLC/convmap.cp`. Otherwise, the conversion program returns an error.

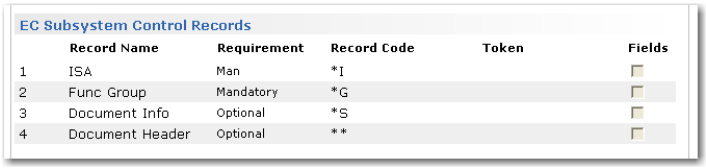
Parsing Program. For an inbound subsystem definition, optionally specify the Progress program name of a procedure that runs before the system attempts to load the imported document.

A primary use of this field is to specify a program that sets default token values in situations where the inbound document does not provide such values.

Example When you import bank statements for use by QAD Financials, the inbound document does not provide values required for the control record to set the tokens. Parsing Program can reference a program that rewrites the incoming document to an SNF file that provides a record code on each line. When it reads this file, the system can use these record identifiers to correctly interpret the document so that it loads without errors.

Use the second frame to define the control records for this EC subsystem.

Fig. 2.7
EC Subsystem Definition Maint, Control Records Frame



Seq. Enter a sequence number identifying the order in which control records are received from or sent to the EC subsystem.

Record Name. Enter the name of this control record.

Requirement. Specify whether this control record is mandatory or optional for the receiving system—your system for inbound documents or the EC subsystem for outbound documents. When mandatory records are not included in a document being processed, the system generates an error.

Record Code. Enter the alphanumeric code the EC subsystem uses to define this type of record.

Token. A token is a critical variable used to populate the exchange file master record during the load process. It provides such information as the trading partner identifier or the document type. Tokens determine the specific way data is transformed between the EC subsystem and your system.

If applicable, enter the name of the token associated with this record. Valid tokens are:

- tp-id (mandatory for transformation processing)

- tp-document-id (mandatory for transformation processing)
- tp-document-nbr
- tp-message-nbr
- tp-func-grp-nbr
- tp-interchange-nbr
- tp-address
- tp-site
- app-table
- app-table-index
- app-table-value
- app-document-id
- app-document-vers
- app-address
- app-site

To assign multiple tokens to one field, separate them with commas.

The system treats any other values in this field as reference information.

Omit Record. Enter Yes to prevent the system from writing this record to the output file. This field applies to exported files only.

Omit Record Code. Enter Yes to prevent the system from writing the record code to the output file. To prevent the record itself from being added to the file, set Omit Record to Yes.

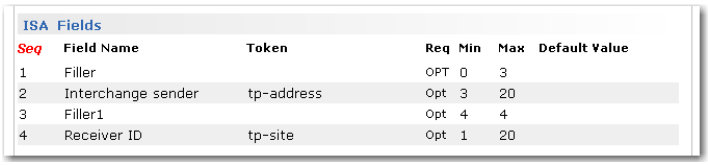
This field applies to exported files only.

Fields. Enter Yes to display an additional frame that lets you enter or edit the fields contained in this record.

Use the last frame to define each field included in the control records for this EC subsystem.

Note This frame displays only when Fields is Yes for the selected record.

Fig. 2.8
EC Subsystem Definition Maint, Control Record Fields Frame


ISA Fields

Seq	Field Name	Token	Req	Min	Max	Default Value
1	Filler		OPT	0	3	
2	Interchange sender	tp-address	Opt	3	20	
3	Filler1		Opt	4	4	
4	Receiver ID	tp-site	Opt	1	20	

Seq. Enter the numerical sequence in which this field occurs in the record.

Field Name. Enter a descriptive name for this field. See page 20.

Token. If applicable, enter the token that applies to this record.

Req. Specify whether this field is mandatory (Man) or optional (Opt) for the receiving system—your system for inbound documents or the EC subsystem for outbound documents.

Min. Enter the minimum length of this field. The system validates that data included in the field is greater than or equal to the minimum required number of characters.

Max. Enter the maximum length of this field.

- If the field lengths are variable and separated by the specified delimiter, the system validates that the field length is between the Min and Max values.
- If the field lengths are fixed, the system uses this value as the actual length to calculate where each field starts and ends.

Default Value. Optionally enter a default value for the system to place in this field if no other value is specified. For example, this field could be used on an outbound transaction when the receiving EC subsystem requires a value in a field that generally is blank.

Use EC Subsystem Report (35.13.2) to review the structure of the records and fields in an existing subsystem definition.

Defining an Exchange File

An exchange file defines the documents communicated between the EC subsystem and your system. It includes data record structures that match the definition of the SNF communicated with the EC subsystem.

Note You can use this program to modify an exchange file definition you have created yourself or one based on a copy of a QAD-developed template definition. However, the system does not allow you to modify a QAD-developed definition. If you attempt to do so, the program acts as an inquiry and shows the data in display-only mode. Use Exchange Definition Copy (35.15.1) to copy a definition before modifying it. See “Copying Exchange File Definitions” on page 61.

Use Exchange Definition Maintenance (35.15.6) to define the layout and content of the exchange file documents. You can define records and fields in records.

Important You must create a different exchange file definition for each type of document.

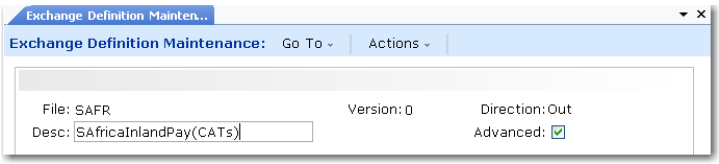
Note It is also possible to create an exchange file definition based on an existing document definition, as well as an external .xml or .xsd file, or on Progress source code that defines a temporary table. See “Creating Document Definitions” on page 42.

The program consists of three standard frames. Optionally, when the exchange definition is used for mapping outbound documents to extensible markup language (XML) format, additional frames display.

Use the first frame to identify an exchange file definition by a unique combination of name, version, and direction. You can delete a definition by choosing Delete when the cursor is the Description field. However, if the system finds an existing transformation map or EC subsystem cross-reference record that references this definition, it displays an error message. You must delete the transformation map in Transformation Definition Maintenance or the cross-reference in EC Subsystem/Exchange Maintenance before deleting the exchange file definition.

Note You cannot delete QAD-provided exchange definitions.

Fig. 2.9
Exchange Definition Maintenance (35.15.6), First Frame



Name. Enter a name for the exchange file definition.

Version. Enter a version number. You can use the same name for more than one definition, then use a different version number to differentiate among multiple definitions with the same name.

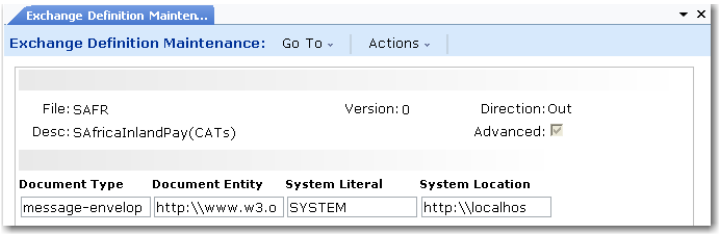
Additionally, you can use Direction—inbound or outbound—to distinguish between multiple definitions with the same name.

Direction. Enter the direction of the file transfer that will use this exchange file definition. Specify the direction relative to your system. Documents imported into your system are inbound, while those exported from your system are outbound.

Desc. Optionally enter a text description of this exchange file definition. This description is for reference only.

Advanced. When this field is Yes, another frame lets you specify information related to XML translation of data. This field is enabled only for outbound definitions.

Fig. 2.10
Exchange Definition Maintenance, XML Information Frame



Document Type. Enter the document-level XML identifier for the document to be created using this definition. The resulting XML document includes this identifier in the first line.

Document Entity. Enter the URL containing the namespace definition that controls the XML structure associated with documents created using this definition; for example, http://www.w3.org/2000/xmlns/.

An XML namespace is a collection of names, identified by a specific uniform reference locator (URL), which are used in XML documents as element types and attribute names.

System Literal. Specify whether the document type definition (DTD) used to validate the content of exported XML files is on a public server or within a system domain. Valid values are:

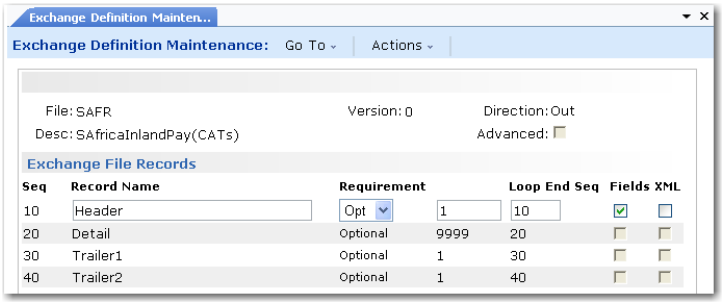
PUBLIC: The value specified in System Location is outside the local system domain.

SYSTEM: The specified system location is within the local system domain.

System Location. Enter the path to the location where the document type definition (DTD) used to validate the content of XML files is stored.

Use the next frame to define exchange file records.

Fig. 2.11
Exchange Definition Maintenance, Exchange File Records Frame



Seq. The sequence number of this record. Choose Insert to add a new record. The system automatically assigns the next number, but you can change this to any number. You should set up a logical numerical hierarchy for record sequence numbers.

Important In all cases, the first record in a document added to the repository must be sequence number 1. Other records can be numbered as you choose. The following examples show valid and invalid record sequences.

Valid	Invalid
1, 2, 3, 4, 5	2, 3, 4, 5
1, 10, 20, 22, 30	10, 20, 22, 30

After you have used an exchange definition in a transformation definition, you cannot change record sequences in the exchange definition without deleting and reentering the entire transformation definition.

Record Name. Enter a name for this record. Each record name must be unique in an exchange file definition.

This record name is used as a variable during the transformation process, without the sequence number.

Requirement. Enter Mandatory to indicate that this record is required during the load or unload process or Optional to indicate that it is not. When the system cannot find a mandatory record to load or unload, it generates an error message and does not process the associated document.

Loop Occurs. Enter the number of times the processing logic should loop through the records during transformation.

Loop Ends Seq. Enter a defined record sequence number to indicate where the loop ends. For example, enter a Loop Ends Seq value of 2 on sequence number 2 to indicate that the entire loop sequence takes place on a single record. Or, enter an end sequence of 4 on sequence number 3 to indicate a loop that starts at 3 and ends at 4.

To specify a loop structure that includes all records, enter zero or a number higher than the last record sequence defined.

Fields. Enter Yes to display an additional frame that lets you enter or edit the fields contained in this record.

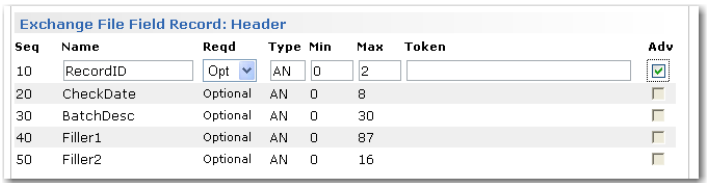
XML, Namespace. Enter Yes to display a pop-up that lets you specify an XML namespace for this record. This field is enabled only for outbound definitions.

In XML, a namespace is a unique identifier for a collection of element type and attribute names. This lets you use identical type and attribute names for multiple purposes based on the namespace identifier. The value entered here will be prefixed to the field names in this record followed by a colon.

Use the last frame to edit or enter field information for the selected record. Choose Insert to add a new field.

Note This frame displays only when Fields is Yes for the selected record.

Fig. 2.12
Exchange Definition Maintenance, Exchange File Field Record Frame



Seq. The sequence number of this field in the record. Choose Insert to add a new field. The system automatically assigns the next available number. You can modify the number as needed or navigate to the blank fields at the bottom of the frame and assign numbers.

Note It is recommended that you number the fields sequentially, beginning with 1. When you do this, a total of 99 fields are available for each record. Although the system accepts non-sequential numbers, their use is not recommended.

Name. Enter the name of the field. The name must be unique in the record. This field name is concatenated with the record name and used as a variable during the transformation process, without the sequence number.

Reqd. Enter Mandatory to indicate that this field is required during the load process or Optional to indicate that it is not. When the system cannot find mandatory fields to load, it generates an error message and does not process the associated record.

Type. Enter a code representing the type of data stored in this field. Valid entries are:

- AN: Alphanumeric
- D: Date
- I: Integer
- L: Logical
- R: Real number

Min. Enter the minimum number of characters to be included in this field. The system validates that required or optional data is greater than or equal to the minimum required value for the field.

Max. Enter the maximum number of characters to be included in this field.

- If the field lengths are variable and separated by the delimiter specified in EC Subsystem Definition Maint, the system validates that the field length is between the Min and Max values.

- If the field lengths are fixed, the system uses this value to calculate where each field starts and ends.

Token. A token is a critical variable used to populate the exchange file master record during the load process. It provides such information as the trading partner identifier or the document type. Tokens determine the specific way data is transformed between your system and the EC subsystem.

If applicable, enter the name of the token associated with this field. Valid values are the same as those used when you define the EC subsystem.

At least tp-id and tp-document-id must be defined.

See page 20.

Adv. Enter Yes to display another frame that lets you specify field-level information related to outbound XML translation of data. This field is enabled only for outbound definitions.

Fig. 2.13
Exchange Definition Maintenance, Field XML Information

XML Tag. Optionally enter an alternate XML tag name associated with this field. If you do not enter a value, the system uses the field name as the tag.

XML Tag Type. Indicate the type of the specified XML tag. Valid values are Attribute and Element. The default is Element.

Namespace. Optionally enter the XML namespace associated with this field.

In XML, a namespace is a unique identifier for a collection of element type and attribute names. This lets you use identical type and attribute names for multiple purposes based on the namespace identifier. The value entered here will be prefixed to the field name followed by a colon.

Defining EC Subsystem Cross-References

Depending on whether you are importing documents that will be added to the database or bringing them in from an external source for transformation and export in a new format, use one of the following methods to set up cross-reference records between eCommerce and an EC subsystem:

- When you load records into the exchange repository, then through transformation, into the document repository, and through a gateway into the database, set up cross-reference records using EC Subsystem/Exchange Maintenance (35.13.3).
- When you load records directly into the document repository, you can transform files for export without ever creating business documents in the database. Set up cross-reference records for this type of processing using EC Subsystem/Application Maintenance (35.13.5).

See “EDI eCommerce Processing” on page 6.

EC Subsystem to Exchange File Cross-References

Use EC Subsystem/Exchange Maint (35.13.3) to correlate the structure of the data records in the SNF file received from the EC subsystem with an exchange file definition.

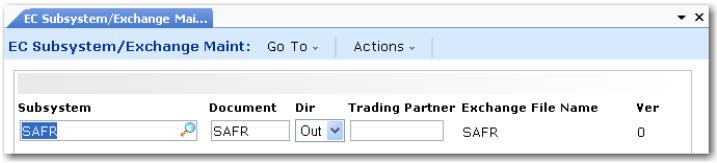
This lets the system place data properly in the exchange repository before beginning transformation processing.

Control records are defined in EC Subsystem Definition Maint.

See “Defining the EC Subsystem” on page 18.

This program consists of two frames. In the first, you define a unique combination of EC subsystem, document type, and exchange file name.

Fig. 2.14
EC Subsystem/ Exchange Maint (35.13.3), First Frame



Subsystem. Enter the name of an EC subsystem defined in EC Subsystem Definition Maint.

Document. Enter the type of document to be exchanged between your system and this EC subsystem. For example, 810 could be used to identify an ANSI X12 standard 810 document, which is used to export an invoice. This is ordinarily the value represented by the tp-doc-id token. See “Token” on page 21.

Direction. Enter the direction for this document type—inbound or outbound. Documents imported into your system are inbound, while those exported to an EC subsystem are outbound.

Trading Partner. Enter an identifier for the trading partner to which this exchange/subsystem cross-reference applies. Leave blank if it applies to all trading partners.

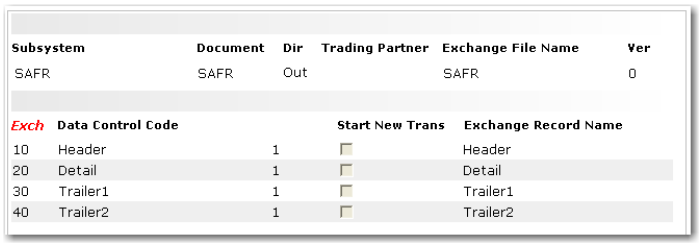
By setting up trading partner-specific cross-reference records, you can apply different SNF definitions for different trading partners.

Exchange File Name. Enter the name of the exchange file to be associated with this document type. If you have set up multiple exchange files with the same file name in Exchange Definition Maintenance, scroll through the unique name, version, and direction combinations and select the appropriate one.

Ver. Enter the version of the exchange file to be associated with this document type. Multiple exchange files can have the same name. Be sure to use the correct version for the specific exchange file.

Use the next frame to establish a link between the document type and the record sequences, data control codes, and data record names in the exchange file.

Fig. 2.15
EC Subsystem/ Exchange Maint, Second Frame



Exchange Sequence. Enter a number to represent the sequence in which this record appears in the exchange file document.

Data Control Code. Enter the code or XML tag the EC subsystem uses to identify this type of data record in this document type.

Break Level. Enter the break level associated with this record.

Break level lets you define documents in which the same record name can be used more than once. For example, you can use Comment in both the header and in the detail. When the system processes data during transformation and encounters a duplicate record name, it looks for the record with a higher Break value than the previous instance.

Omit Record Code. Enter Yes to prevent the system from writing the record code to the output file. This field applies to exported files only.

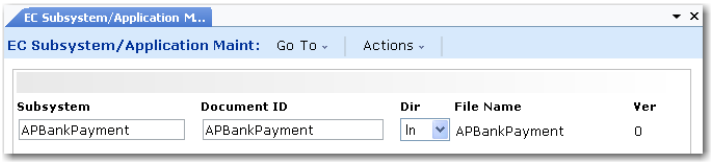
Start New Trans. Enter Yes if you want the data in this record to be treated as a separate transaction line. This lets you process multiple transactions separately even when they are not separated by control data records.

Exchange Record Name. The system displays the name of the record from the exchange file definition.

EC Subsystem to Application Cross-References

Use EC Subsystem/Application Maintenance (35.13.5) to cross-reference the EC subsystem definition to application document definitions. This lets you load files from an external source directly into the application document repository.

Fig. 2.16
EC Subsystem/ Application Maintenance (35.13.5)



This program is very similar to EC Subsystem/Exchange Maintenance. The major difference is that you are cross-referencing file structures to the application document repository with this program, rather than to the exchange repository.

See page 27.

Defining a Specific Implementation

EDI eCommerce includes a number of generalized application document definitions for data. You cannot directly edit these definitions. Instead, you can copy a definition and tailor it as needed to accommodate the data exchange needs of a specific trading partner. In eCommerce, this is known as an *implementation*.

The system uses three definitions to correlate the specific data structure and format requirements of your system and the EC subsystem:

- The implementation definition
- An exchange file definition
- A transformation definition

Note You can use this program to modify an implementation definition you have created yourself or one based on a copy of a QAD-developed template definition. However, the system does not allow you to modify a QAD-developed definition. If you attempt to do so, the program acts as an inquiry and shows the data in display-only mode. Use Implementation Definition Copy (35.15.3) to copy a definition before modifying it. See “Copying Implementation Definitions” on page 62.

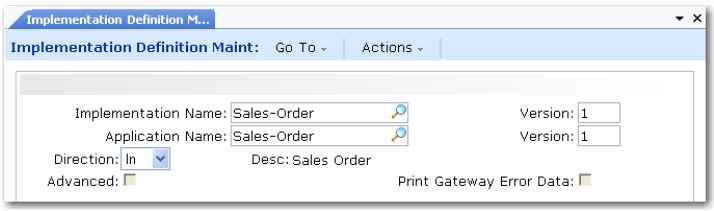
Use Implementation Definition Maint (35.15.13) to define the data exchange requirements for a specific trading-partner implementation. The program includes three primary frames. Optional frames display under the following circumstances:

- When this implementation is used for mapping data to or from extensible markup language (XML) format
- When you are defining turnaround data
- When you are setting up fields that can be updated during document export

Note It is also possible to create an implementation definition based on an existing document definition, as well as an external .xml or .xsd file, or on Progress source code that defines a temporary table. See “Creating Document Definitions” on page 42.

In the first frame, you name the implementation and specify an associated application document definition.

Fig. 2.17
Implementation Definition Maint (35.15.13), First Frame



Implementation Name. Enter an alphanumeric name for this implementation.

Version. Enter a version number for this implementation. You can use the same name for more than one implementation, then use a different version number to distinguish between them.

Application Name. Enter the name of a document definition to be copied to create this implementation definition. This can be one you created or one supplied by QAD.

Version. Enter the version number of the document definition you are using as a template for this implementation document.

Direction. Enter the direction relative to your system—inbound or outbound—of the document definition you are using as a template for this implementation definition.

Multiple document definitions can have the same name and version number and be distinguished only by direction. Be sure to use the right version.

Desc. Optionally enter a text description of this implementation. This description is for reference only.

Advanced. When this field is Yes, another frame lets you specify information related to XML translation of data. This is identical to the frame that displays when you set Advanced to Yes in Exchange Definition Maintenance (35.15.6). See Figure 2.10 on page 23.

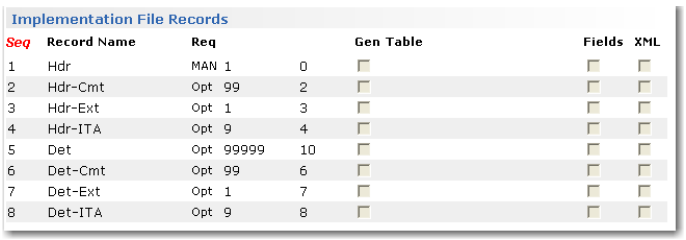
Print Gateway Error Data. Enter Yes to print the data from the repository for each field defined in Implementation Definition Maintenance where Display is set to Yes.

Note More must be set to Yes to access the Display field.

When a gateway error occurs, this feature lets you view the data that may have caused the failure.

Use the next frame to edit an existing record structure or add new records. To add or modify fields in a record, set Fields to Yes for that record line and choose Go.

Fig. 2.18
Implementation Definition Maint, Implementation File Records Frame


Implementation File Records

Seq	Record Name	Req		Gen Table	Fields	XML
1	Hdr	MAN	1	0		
2	Hdr-Cmt	Opt	99	2		
3	Hdr-Ext	Opt	1	3		
4	Hdr-ITA	Opt	9	4		
5	Det	Opt	99999	10		
6	Det-Cmt	Opt	99	6		
7	Det-Ext	Opt	1	7		
8	Det-ITA	Opt	9	8		

Seq. The sequence number of this record. Choose Insert to add a new record. The system automatically assigns the next number. You can modify sequence numbers as needed. Choose Go to modify an existing record.

Important In all cases, the first record in a document added to the repository must be sequence number 1. Other records can be numbered as you choose. The following table shows examples of valid and invalid record sequences.

Valid	Invalid
1, 2, 3, 4, 5	2, 3, 4, 5
1, 10, 20, 22, 30	10, 20, 22, 30

After you have used an implementation definition in a transformation definition, you cannot change record sequences in the implementation definition without deleting and reentering the entire transformation definition.

Record Name. Enter a name for this record. Each record name must be unique in an implementation definition.

The transformation process uses this as the first part of the record variable, independent of the sequence number.

Note Naming conventions apply to the record names used in application document definitions and implementation definitions. When you create new definitions, you must use these names. Table 2.1 lists the naming conventions.

Table 2.1
Record Naming Conventions

Document Type	Record Name	Description
Sales Order	HDR	Header
	HDR-EXT	Header Extended
	HDR-CMT	Header Comment
	DET	Detail
	DET-EXT	Detail Extended
	DET-CMT	Detail Comments
	DET-SOB	SO Configuration Bill
Customer Schedule	HDR	Header
	HDR-EXT	Header Extended
	DET	Detail
	DET-EXT	Detail Extended
	ATH	Authorizations
Invoice	HDR	Header
	HDR-EXT	Header Extended
	HDR-CMT	Header Comment
	DET	Detail
	DET-EXT	Detail Extended
	DET-CMT	Detail Comments
	ADDR	Address
ASN	HDR	Header
	HDR-EXT	Header Extended
	CTR-TARE-SUMM	Container Tare Summary
	TARE-HDR	Tare Header
	TARE-DET	Tare Detail
	CTR-TARE	Container Tare
	CTR-PRIM	Container Primary
	CTR-ITEM	Container Item
	ITM	Item
	ITM-EXT	Item Extended
	ITM-AUTH	Item Authorizations

Requirement. Enter Mandatory to indicate that this record is required during the load or unload process or Optional to indicate that it is not. If the system cannot load or unload mandatory records, it generates an error message and does not process the associated document.

Loop Occurs. Enter the number of times the processing logic should loop through the records during loading or unloading.

Loop Ends Seq. Enter a defined record sequence number to indicate where the loop ends. For example, enter a Loop Ends Seq value of 2 on sequence number 2 to indicate that the entire loop sequence takes place on a single record. Or, enter an end sequence of 4 on sequence number 3 to indicate a loop that starts at 3 and ends at 4.

To specify a loop structure that includes all records, enter zero or a number higher than the last record sequence defined.

Gen. Enter Yes if this record applies generically to one or more database tables within the application. The Table field is then enabled so you can enter table names.

Table. Enter the schema names of the tables this record applies to. Separate multiple table names with commas. You cannot leave this field blank when Generic is Yes. The system validates your entries and displays a warning if the tables do not exist.

Fields. Enter Yes to display an additional frame that lets you enter or edit the fields contained in this record.

XML. Enter Yes to display the XML Tag and Namespace fields. Those fields do not display when XML is No.

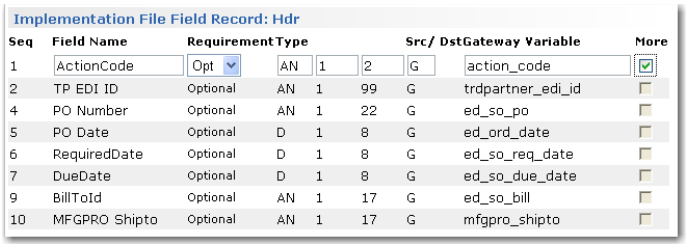
XML Tag. Optionally enter the XML tag associated with this record. When the field is blank, the system uses the record name as the XML tag when transforming documents to XML format.

Namespace. Optionally enter the XML namespace associated with this implementation record.

In XML, a namespace is a unique identifier for a collection of element type and attribute names. This lets you use identical type and attribute names for multiple purposes based on the namespace identifier.

In the next frame, you can edit the fields copied from the application document definition or add new fields.

Fig. 2.19
Implementation Definition Maint, Implementation File Field Record Frame



Seq. The sequence number of this field in the record. Choose Insert to add a new field. The system automatically assigns the next number. You can modify the number as needed or navigate to the blank fields at the bottom of the frame and assign numbers.

Note It is recommended that you number the fields sequentially, beginning with 1. Provided you do this, a total of 99 fields are available for each record. Although the system will accept non-sequential numbers, their use is not recommended.

Select a line and choose Go to edit an existing field record.

Field Name. Enter or modify the name of the field. This value is used with the record name, formatted as `recordname.fieldname`, during transformation.

Requirement. Enter Mandatory to indicate that this field is required during the load or unload process or Optional to indicate that it is not. If the system cannot find mandatory fields while loading records, it generates an error message and does not process the associated record.

Type. Enter the type of data stored in this field. Valid entries are:

- AN: Alphanumeric
- D: Date
- I: Integer
- L: Logical
- R: Real number

Min. Enter the minimum length of this field. The system validates that required or optional data is greater than or equal to the minimum required value for the field.

Max. Enter the maximum length of this field.

- If the field lengths are variable and separated by the delimiter specified in EC Subsystem Definition Maint, the system validates that the field length is between the Min and Max values.
- If the field lengths are fixed, the system uses this value to calculate where each field starts and ends.

Source/Destination. Enter the type of variable associated with this field. Valid choices include:

- G: Gateway. This variable type is used by the gateway during the transfer process.
- T: Turnaround. This variable type represents imported data that is stored in the turnaround data table, indexed, and later associated with an exported document.
- D: Data entry. The operator adds this data during processing. This function is not currently implemented.

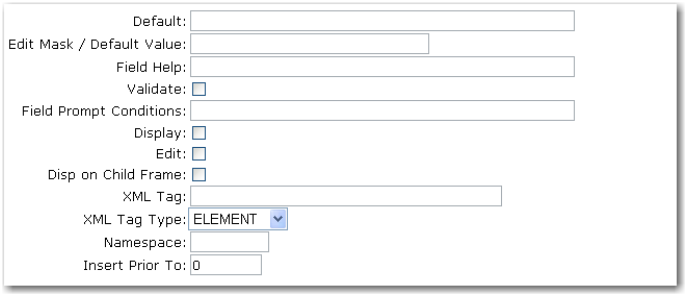
Gateway Variable. Enter the name of the variable associated with this field. The gateway program uses this variable to move data into the application. The default variable is copied from the associated application document definition.

More. Leave this field set to No to skip the next frame. Enter Yes to display another frame that you can use to define field data used in additional applications of the implementation definition.

The next optional frame applies to implementation definitions used for the following purposes:

- Outbound ASNs and invoices, when you want to be able to update data on the outbound document before exporting it to your trading partner
- Imported documents, when you want to define custom fields that display on the report generated during import
- XML documents, when you want to specify an XML tag type and tag for a field

Fig. 2.20
Implementation Definition Maint, Field Update Frame



The following fields in this frame are currently implemented:

Default. Enter the value to be included in the field when Display is No. When that is the case, the system does not prompt for a value during processing.

Edit Mask/Default. When you want to display custom fields on the report generated during import, use this field to specify the field length and label to display, separated by a slash (/). For example, if you enter 4/Max, the report displays the output defined in this implementation record in a four-character field, with a label of Max.

Note Set Display to Yes for these values to have an effect.

Field Help. Enter text to be displayed at the bottom of the data entry screen when the cursor is in this field during editing. For example, you can describe the type of data or values that should be entered.

Validate. Enter Yes to activate the validation process for all documents using this implementation definition. The applies to both inbound and outbound documents. When set to Yes, the value of the field associated with this option is compared against the values defined in Data Validation Maintenance. If the value is not found, a transformation error occurs. See “Validating Data Values” on page 56.

Field Prompt Conditions. This field is not currently used.

Display. This field is used under the following circumstances:

- When you are defining fields to be included in custom reports that are printed for inbound documents created based on this implementation definition. When you define a field length and column label for a custom report in the Edit Mask/Default Value field, you must set Display to Yes for the field to be included in the report.
- When Print Gateway Error Data is set to Yes in the initial frame. You must set Display to Yes so that field data displays when errors occur.
- When the implementation is for an exported document such as an invoice or ASN and you want the system to display a prompt to update a value during export. You must set this field to Yes for the data entered in the Edit Mask/Default Value field to display when the document is exported.

Edit. Enter Yes to have this field display for editing when you specify Update or Both in the Update/Export/Both field of Shipment ASN Export (35.4.1) or Invoice Export (35.4.3). See “Exporting Documents” on page 84.

Disp on Child Frame. This is used during the export update process. When set to Yes, this functions like the Display option but instead displays field on a child frame, retaining the information previously displayed.

XML Tag. Optionally enter an XML tag name associated with this field. If you do not enter a value, the system uses the field name as the tag.

XML Tag Type. Indicate the type of the specified XML tag. Valid values are Attribute and Element. The default is Element.

Namespace. Optionally enter the XML namespace associated with this field.

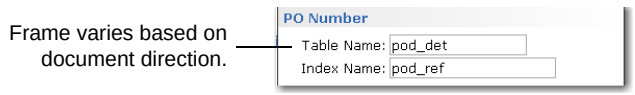
In XML, a namespace is a unique identifier for a collection of element type and attribute names. This lets you use identical type and attribute names for multiple purposes based on the namespace identifier.

Display Prior To. When this implementation creates XML documents, specify the sequence number of the record before which you want to insert the value of this field. Use the up and down arrow keys to scroll through available record sequence numbers; the system displays the names of the associated records.

If Src/Dst is T, indicating a turnaround variable, another frame displays. Use it on inbound definitions to enter the table and field with which the turnaround data for this implementation should be associated. On implementations for outbound documents, enter the name of the function used to retrieve the turnaround data and attach it to the exported document.

See “Storing and Retrieving Turnaround Data” on page 72.

Fig. 2.21
Turnaround Data Location, Inbound



See “Turnaround Data” on page 109.

Table Name and Index Name. On implementation definitions for imported documents, enter the name of the database table and field with which this turnaround data value is associated.

Note Turnaround data is not actually stored in the specified table. Instead, it is stored in a set of turnaround repository tables that use the table and field names as part of the index.

Fig. 2.22
Turnaround Data Retrieval, Outbound

Retrieval Function. On implementation definitions for exported documents, enter the name of the function defined in eCommerce Function Maintenance (35.15.21) used to retrieve the turnaround data from the database and add it to the outbound document. When you enter a valid function, the system displays the parameters from the function definition for update. See “Using Transformation Functions” on page 63.

Note The QAD function GetTadData is provided for turnaround data retrieval.

Defining Transformation Maps

The system uses a transformation map in combination with an exchange file definition and an implementation file definition to exchange data between your system and an external EC subsystem. The resulting output meets the specific data structure and format requirements of both systems.

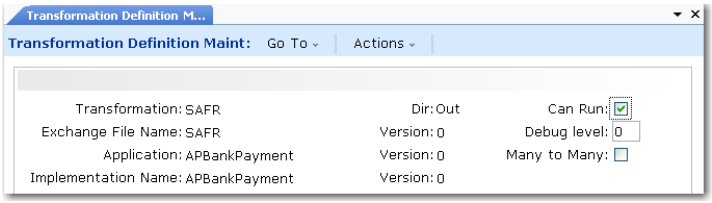
Note You can use this program to modify a transformation definition you have created yourself or one based on a copy of a QAD-developed definition. However, the system does not allow you to modify a QAD-developed definition. If you attempt to do so, the program acts as an inquiry and shows the data in display-only mode. Use Transformation Definition Copy (35.17.1) to copy a definition before modifying it. See “Copying Transformation Definitions” on page 63.

Use Transformation Definition Maint (35.15.17) to define a transformation map.

This program consists of several frames. Use the first frame to:

- Name the transformation definition.
- Identify the combination of an existing exchange file definition, application document definition, and specific implementation that uses this transformation map.
- Set up two fields for testing the transformation map. The Can Run and Debug Level options can be especially valuable when you are testing a new implementation for a new trading partner or document.

Fig. 2.23
Transformation Definition Maint (35.15.17), First Frame



Transformation. Enter a name for this transformation definition.

Direction. Specify the direction—inbound or outbound—of the documents to be transformed using this definition. Documents imported into your system are inbound, while those exported from your system are outbound.

Two transformation definitions can have the same name and be distinguished only by direction.

Exchange File Name, Version. Enter the name and version of the exchange file definition used in this transformation.

Note Multiple exchange file, application document, and implementation definitions can use the same name. Make sure to specify the correct version numbers.

Application, Version. Enter the name and version of the document definition used in this transformation. This can be a QAD-supplied definition or one you created.

Implementation Name, Version. Enter the name and version of the implementation definition used in this transformation.

Can Run. Set to Yes to make this transformation map completely operational.

During testing, you can set this field to No. The system then runs the entire transformation process, but backs the data out of the repository instead of storing it. You can identify transformation mapping problems and correct them before changing the field to Yes, letting the data be saved in the data repository.

Debug Level. Specify a value between 0 and 9 to indicate the level of detail reported in the activity file created when this transformation is run. Lower levels provide less detail. For example, you can set this to 9 during testing to get a complete record of what happens during transformation processing.

Warning Leaving this field set to a high value can produce very large files and can lead to disk space problems.

The system names these activity files using the convention *MMDDYYYY*.DBG, where *MMDDYYYY* is the date the transformation map is used. A new file is created when the first session is run each day. A record of each transformation operation that occurs during that day is appended to this file.

Many to Many. Set to Yes to combine multiple input documents and treat them as one document. This lets the system back out multiple files or create a single output from several inputs.

If No, the system always maps one input document to one or many output documents, depending on how many times the transformation definition indicates a new header should be written.

Before displaying the second frame, the system creates variables from the exchange file and the implementation associated with this transformation definition. Only these and user-defined variables can be used during transformation, along with the following automatically assigned variables.

- tp-id
- tp-document-id
- tp-message-nbr
- tp-func-grp-nbr
- tp-interchange-nbr
- tp-document-nbr
- tp-doc-dir
- tp-site
- tp-address
- tp-token-val-list
- mfg/pro-site
- mfg/pro-address
- map-name
- map-exf-vers
- map-imp-name
- map-imp-vers
- map-mfg-name
- map-mfg-vers
- map-exf-name
- map-many-to-many
- map-debug-level
- map-can-run
- current-exf-seq
- current-mfg-seq
- conditional-rec-flushed

The trading partner variables correspond to tokens. The system uses MFG/PRO-SITE and MFG/PRO-ADDRESS to determine the customer address and the site code automatically, based on the cross-reference defined in Trading Partner Maintenance (35.13.7). You can also assign these values as an event that takes place during transformation. Other variables contain information associated with the transformation definition.

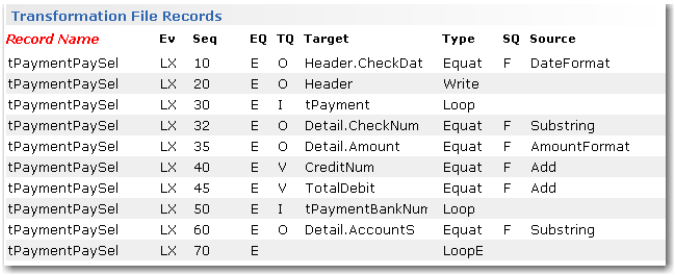
See “Token” on page 21.

The second frame displays the events and actions associated with the current transformation definition records. The records are always related to the direction of the document. For example, an inbound document always displays exchange file record names.

Choose Insert to define a new event. To delete the current selection, choose Delete, then confirm the deletion when prompted.

Note The system provides a set of editing tools that let you modify existing records without deleting them.

Fig. 2.24
Transformation Definition Maint, Transformation File Records Frame


Transformation File Records

Record Name	Ev	Seq	EQ	TQ	Target	Type	SQ	Source
tPaymentPaySel	LX	10	E	O	Header.CheckDat	Equat	F	DateFormat
tPaymentPaySel	LX	20	E	O	Header	Write		
tPaymentPaySel	LX	30	E	I	tPayment	Loop		
tPaymentPaySel	LX	32	E	O	Detail.CheckNum	Equat	F	Substring
tPaymentPaySel	LX	35	E	O	Detail.Amount	Equat	F	AmountFormat
tPaymentPaySel	LX	40	E	V	CreditNum	Equat	F	Add
tPaymentPaySel	LX	45	E	V	TotalDebit	Equat	F	Add
tPaymentPaySel	LX	50	E	I	tPaymentBankNum	Loop		
tPaymentPaySel	LX	60	E	O	Detail.AccountS	Equat	F	Substring
tPaymentPaySel	LX	70	E			LoopE		

In the Event Qualifiers frame, begin identifying a new event by specifying a combination of event qualifier, event, record name, and action sequence.

Fig. 2.25
Transformation Definition Maint, Event Qualifiers Frame


Event Qualifiers

	Ev Qual	Event		Record Name		Record Name Action Seq
For	Each	FIELD-EXIT	of	tPaymentPaySel	Perform Seq	90

Ev Qual. Enter an event qualifier or use Next/Previous to scroll through the list and choose Go to select a value.

Note The current version of eCommerce uses only the Each option.

Event. Enter the type of event or use Next/Previous to scroll through the list and choose Go to select a value. Valid values are:

- Loop-Entry
- Record-Entry
- Field-Entry
- Loop-Exit
- Record-Exit
- Field-Exit

Record Name. Enter the name of the record to be acted upon during this event.

You can also use Next/Previous to scroll through the list and choose Go to select a value. Because the record name is associated with the direction of the document, Next/Previous displays only the records that can be used as input to the transformation. For example, on an outbound document, only implementation record names are available.

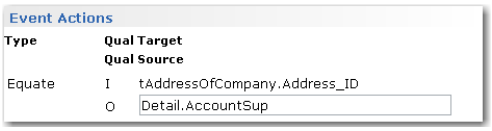
Action Seq. Enter a number to represent the sequence in which this event occurs.

Note When setting up event qualifiers, consider using increments of 10 so you can later insert intermediate sequence numbers. If necessary, you can use editing options to resequence events, as described in “Editing Transformation Events” on page 41. Alternatively, use the Transformation Renumber Utility (35.17.3) to update all the event sequence numbers automatically and to leave space between numbers in which to insert new events. See “Renumbering Transformation Actions” on page 66.

After you enter a value in Action Sequence and choose Go, a final frame displays for you to enter the type of action associated with this event—for example, equating two values or reading a record into memory. You also specify a qualifier for the source, the target, or both, depending on the type of action.

Note The target is always the element being acted upon. For example, if you are equating two values, you are instructing the system to make the target equal to the source.

Fig. 2.26
Transformation Definition Maint, Event Actions Frame



Type. Specify the type of action to be performed or use Next/Previous to scroll through the list of action types and choose Go to select one. Valid action types are:

- Equate: Set the target equal to the source.
- Read: Read the target record fields into memory. This can be used only with an input record.
- Clear: Remove the target record fields from memory.
- Write: Write the target record to the database. You can only write an output record. You must write a header record before another record can be written. Write can be used optionally with the QAD-provided check-hash function, which determines the header for which the detail will be written.
- New: Logical placeholder documenting the initialization of new outbound records.
- Loop: Loop through the records already read into memory.
- EndLoop: End a loop. Does not require a source or target.
- If: Conditional logic based on the source and source qualifier. The If statement must return a value of True or Yes. It allows the use of Else and Endif and does not require a source or target.
- Endif: End of an If statement. Endif does not require a source or target.
- Else: Logical branch between If and Endif statements. Else does not require a source or target.
- Repeat: Repeats a section of transformation event actions a specified number of times.
- EndRepeat: Ends the section of transformation event actions being repeated by the previous Repeat action.

Qual Target. Select the form of data to be specified as the target for this event. Valid values for the Target field are determined by this setting.

Enter the qualifier for the target or use Next/Previous to scroll through the list of qualifiers and choose Go to select one. Valid values are:

- I: Input data
- O: Output data
- V: Variable

Target. Enter the inbound record or field, outbound record or field, or variable that is the target of the action specified in Type.

Enter the name of the target or use Next/Previous to scroll through the list of available targets and choose Go to select one.

Qual Source. Select the form of data to be specified as the source for this event. Valid values for the Source field are determined by this setting.

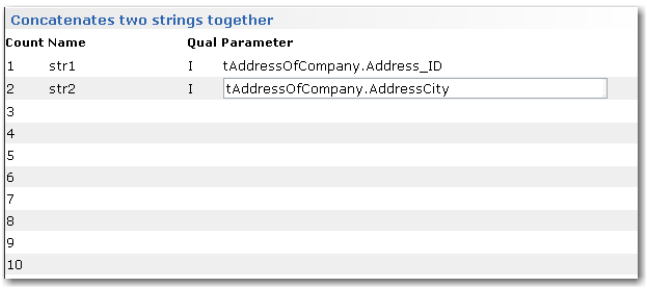
- I: Input data
- O: Output data
- V: Variable
- C: Constant
- F: Function
- S: Sort (only allowed for Loop event type)

If you specify a function and enter its name in Source, another frame lets you modify it as needed for this specific instance. Some functions are provided with eCommerce. However, you can also define your own functions with eCommerce Function Maintenance (35.15.21). Use eCommerce Function Copy (35.17.2) to copy an existing function before modifying it as required.

See “Using Transformation Functions” on page 63.

Source. Enter the inbound record or field, outbound record or field, variable, constant, or function that is the source of the action specified in Type. If you enter the name of a function, another frame displays. Use it to modify the qualifiers and parameters as needed for this specific instance.

Fig. 2.27
Transformation Definition Maint, Function Frame



Qual. Enter a code indicating the structure of the data passed in this parameter. Valid values for the Parameter field are determined by this setting.

Enter the qualifier for the parameter or use Next/Previous to scroll through a list of qualifiers and choose Go to select one. Valid values include:

- I: Input data

- O: Output data
- V: Variable
- C: Constant

Parameter. Enter the name of the input, output, or variable. You can use Next/Previous to scroll through a list of available parameters and choose Go to select one. The contents of the list are determined by the Qual value.

If Qual is C, you must enter a constant. If you enter a value not already defined, the system prompts you to define the data type as one of the following:

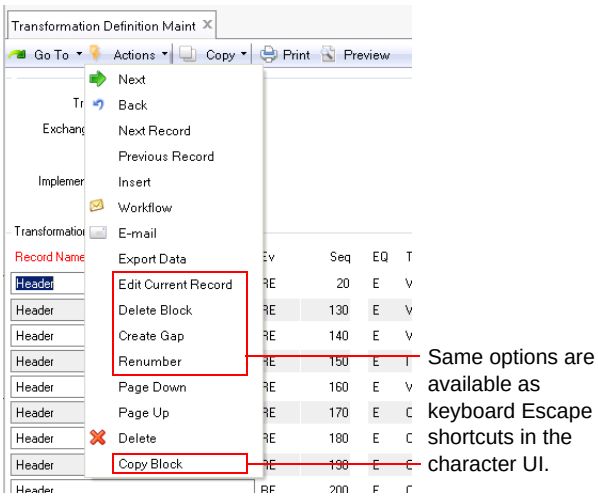
- AN: Alphanumeric
- D: Date
- I: Integer
- L: Logical
- R: Real number

Editing Transformation Events

Transformation Definition Maintenance includes editing options that let you—among other actions—modify current event records without deleting and re-entering them. These options are available in both QAD .NET UI and character user interface when focus is on a record in the Transformation File Records frame.

- In QAD .NET UI, choose an option from the Actions menu.
- In the character UI, use the appropriate keyboard shortcut:
  - Edit Current Record: Esc-e
  - Delete Block: Esc-d
  - Create Gap: Esc-g
  - Renumber: Esc-r
  - Copy Block: Esc-c

Fig. 2.28
Transformation Definition Maintenance Editing Options in .NET UI



Edit Current Record

Use this option to update a transformation map event. You can change the event type, qualifier, target, source, and sequence. If the event action calls a function, you can reset the parameter values or change to a different function.

Delete Block

The system displays a selection range for the current record. The defaults cover all the action event sequence numbers for the record. Leave the fields as-is to delete all the events for the record, or modify them to delete just the range of events you want to remove.

Create Gap

The system prompts you to specify the length of the gap in sequence numbers to be created after the selected event. For example, if focus is on event action sequence 60 and you set the Create Gap Of field to 100, the system adds 100 to all the subsequent events in the current record. So, if the next sequence numbers were 70, 80, 90, the system would set the sequence numbers for the record to 60, 170, 180, 190, and so on.

Renumber

The system prompts you for an Interval—the new starting sequence number for each record in the transformation map, as well as the increment between event sequences. The system disregards the current sequences and begins each record with the specified value. For example, if you set Interval to 5, the system renumbers the events in each record as 5, 10, 15, 25, 35, and so on. You can perform this same function using Transformation Number Utility (35.17.3).

Copy Block

Use this function to copy a specified range of event actions to the current transformation map or any other map in the system.

The system prompts you for the range of sequence numbers you want to copy. The default range is from the current event through the last one in the record. You then specify the destination of the copied events. The defaults represent the current record and transformation map. Use the arrow keys to scroll through valid destinations.

The new events start with the specified Destination Sequence; the system maintains the increments between the source events when assigning new sequence numbers. For example, if you copy sequence numbers 10, 15, 20 and specify a Destination Sequence of 21, the new events would be numbered 21, 26, 31—maintaining the original increment of 5 between events.

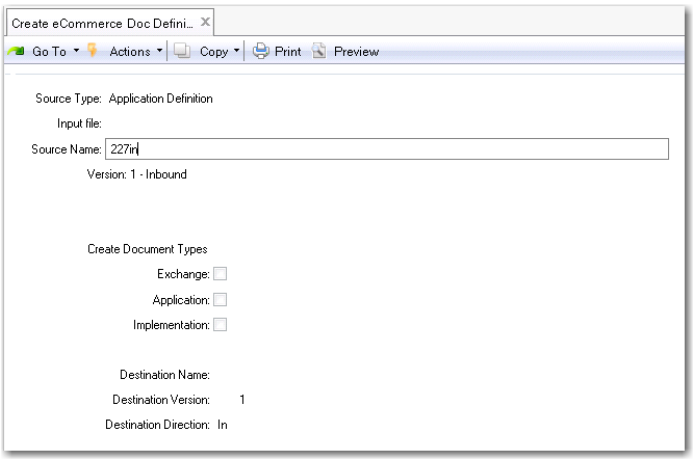
Creating Document Definitions

You can create exchange file, application, and implementation document definitions by loading them from trading partner library files, entering them manually, or copying them from an existing definition of the same type.

An additional menu program—Create eCommerce Doc Definitions (35.15.4)—offers more ways to create these document definitions. You can create a definition from:

- A different type of document definition
- A temp-table definition in Progress syntax from either Progress source code (.p or .i file) or a .txt file
- An XML document (.xml file)
- An XSD document (.xsd file)

Fig. 2.29
Create eCommerce Document Definition (35.15.4)



Source Type. Select the type of source you want to use for creating the new document definition. Valid values are:

Exchange File Definition

Application Definition

Implementation Definition

Temp Table Definition (*.i, *.p, *.txt)

XML Document (*.xml)

XSD Document (*.xsd)

Input File. Enter the name of the file that contains the source file for the new definition. You can only access this field when the source type is a temp table, .xml document, or .xsd document. Leave blank to display a navigation screen for selecting files.

Source Name. Select the source document that the new document will be copied from. You can only access this field when the source type is an exchange file, application, or implementation definition. Use the arrow keys to scroll through available documents of the selected source type. The system displays information about each document.

Create Document Type. Select one or more document types to be created. You must select at least one type.

Destination Name, Version, Direction. Specify a name, version, and direction (inbound, outbound) for the new document definitions.

Special Considerations for Creating Definitions from Files

Although creating a new document definition based on an existing exchange, application, or implementation definition does not have any particular limitations, some special considerations apply when you create a new definition from temp tables or .xml/.xsd files.

Fields Defined in Temp Tables

When you use temp table definitions as the source, all fields required for the definition must be included within the “define” statement itself. Additional fields defined in a referenced include file will not be part of the resulting document definition.

Example The following temp table definition would create the record `tt_doc_status` with only the fields `tt_doc_seq` and `tt_gtwy_pgm`. Any fields defined in `ednrmfdf.i` would not be part of the new document definition.

```
define temp-table tt_doc_status no-undo
       field tt_doc_seq like edmfs_mfd_seq
       field tt_gtwy_pgm like edmf_gtwy_pgm
       {ednrmfdf.i}
index tt_gtwy_idx tt_doc_seq.
```

Record Fields

- Maximum number of fields. Creating a new definition from a file limits the maximum number of fields that can be created for each record:
  - For Enterprise Edition: 300
  - For Standard Edition: 100

  If the number of fields in the file exceeds the limit, the system ignores additional fields when creating the new definition.
- Data type. When creating a definition from an XML file, the system sets the data type for each field to AN (alphanumeric). For XSD or temp table definition files, the field is assigned the data type defined in the file, unless the syntax defines the field as “like” another field. In that case, the system uses AN as the data type.
- Order. Although the system creates fields for nodes in an XML file that do not have a value, the order in which the fields are created is not necessarily the same as the order in which they appear in the XML document.

Record Loop End Sequence

When creating a new definition from an XSD file or a temp-table definition that contains data relationship information, the system attempts to determine the loop ending sequence number for a record. In cases where it cannot, it sets the end sequence to 0 (zero).

For definitions created from XML documents, the loop end sequence number is always set to 0.

Defining Transmission Groups

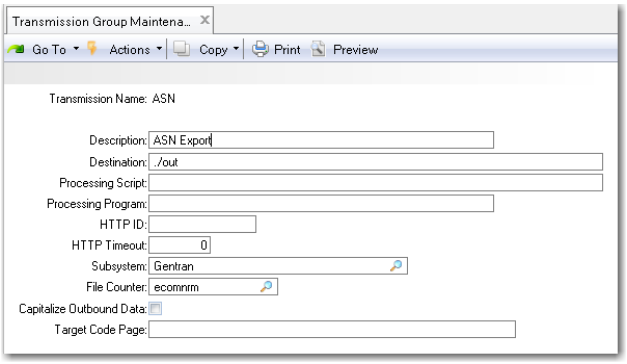
Transmission groups consolidate multiple trading partners by network location so that outbound documents can be batched appropriately. For example, you can create a transmission group for all the trading partners on one value-added network (VAN).

When you set up trading partners who will receive documents exported from your system, you assign them to a transmission group. This relationship indicates such information as where the system should place outbound files for the trading partner.

See “Setting Up Trading Partners” on page 46.

Use Transmission Group Maintenance (35.13.13) to define transmission groups.

Fig. 2.30
Transmission Group Maintenance (35.13.13)



Transmission Name. Enter a name for the transmission group or use Next/Previous to scroll through the existing records and choose Go to select one.

Description. Enter a description of the transmission group, such as a company name.

Destination. Enter the directory where exported SNF files associated with this group will be written. See “Setting Up Data Directories” on page 12.

Processing Script. Optionally enter the file name of a custom script to be run after a group of documents is created. For example, this could be a script that invokes an e-mail program to transmit the exported files to the trading partner.

Processing Program. Enter the path name to an executable program file to be run when a file is exported to this transmission group. For example, this might be an e-mail program that transmits the file to a trading partner.

To specify a processing program on a different computer, use the Remote Host Name field in the EC Subsystem Definition Maintenance record for the EC subsystem associated with this transmission group.

HTTP ID. Enter the code representing the set of parameters used to post XML data to a server for trading partners in this transmission group. If specified, this must be a valid code defined in HTTP Adapter Maintenance (35.13.19). See “Defining HTTP Adapters” on page 55.

By default, the Progress program `edimhtad.p` is used to post this data. If you use a custom-written processing program for this task, it should be set up to receive the following parameters:

- INPUT: The table storing parameter values (in matching pairs).
- INPUT: The XML pointer. This can be blank. In the case of `edimhtad.p`, the program is using the memory pointer from the XML document that was created in memory.
- INPUT-OUTPUT: The message table used to capture messages and pass messages back to the calling procedure.

- OUTPUT: The success flag used to determine if the process was successful.

HTTP Timeout. Enter the number of minutes that the system waits for a response from the HTTP posting process before displaying a timeout message. Leave the field set to the default (0) to have the system wait indefinitely.

Subsystem. Enter the EC subsystem associated with this transmission group. This subsystem must be defined in EC Subsystem Definition Maint.

This field determines the file extension used for the SNF files sent to trading partners assigned to this transmission group.

File Name Counter. Specify the sequence ID that is used to assign file names to files exported to this transmission group. This must be a valid sequence ID defined in EC Number Range Maintenance.

Capitalize Outbound Data. Enter Yes to convert the data in exported files for this transmission group into all capital letters.

Target Code Page. Specify the code page required by the receiving application for files sent to this transmission group. When creating the export file, the system converts the data as needed to match the specified code page.

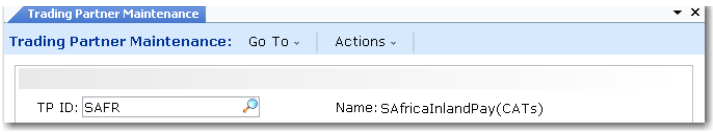
This field is not validated. Be sure that the value you enter is included in the Progress file `DLC/convmap.cp`. Otherwise, the conversion program returns an error.

Setting Up Trading Partners

Use Trading Partner Maintenance (35.13.7) to identify the document types that are exchanged with each trading partner and to set up cross-references between trading partner documents and your system. You can also cross-reference the trading partner's site and address codes to the codes used in your database.

This program consists of multiple frames. In the first frame, specify the ID the trading partner uses to identify itself in the control record portion of the SNF files exchanged between the EC subsystem and your system.

Fig. 2.31
Trading Partner Maintenance (35.13.7), First Frame

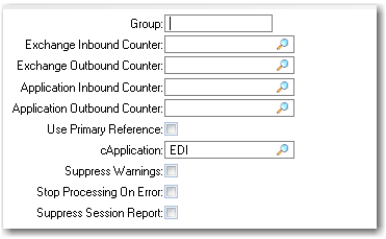


TP ID. Enter an alphanumeric identification code for this trading partner. This must be the same as the code used in the SNF file control record for the tp-id token. See "Token" on page 21.

Name. Enter an identifier for this trading partner. This is for reference only.

In the second frame, enter control information used during document processing for this trading partner. Several of the fields serve as defaults for trading partner documents defined in the subsequent frame, such as the sequence IDs used to generate document sequence numbers in the repositories.

Fig. 2.32
Trading Partner Maintenance, Control Information Frame



Group. Optionally, enter the name of a trading partner group. You can use this group name to associate multiple trading partners for reporting purposes.

Counters: Inbound Exchange, Outbound Exchange, Inbound Application, Outbound Application. Specify the sequence IDs that are used to assign numbers to repository documents during processing for this trading partner.

These fields are optional. If you enter a value, it must be a valid sequence ID defined in EC Number Range Maintenance. See “Using Sequence IDs” on page 13.

Use Primary Reference ID. Enter Yes to have the system use a reference ID number provided in the document being processed, rather than using a sequence ID defined in EC Number Range Maintenance to generate an ID number. This field defaults to the Trading Partner Document Records frame for new records.

When you use this feature, assign the token PRIMARY-REF-ID to a field in the exchange file, application, and implementation definitions to represent the reference ID.

Note If this field is Yes and the token is not assigned in a required definition, the system uses the appropriate sequence ID specified in the eCommerce Transaction Control frame of eCommerce Control to generate a number.

Application. Enter a code representing the application to which this record applies.

The field in the initial frame defaults to EDI. You can change it as required. That value defaults to new records created in the Trading Partner Document Records frame; that value in turn defaults to new TP location cross-reference records.

Suppress Warnings. Enter Yes to prevent the system from generating status messages that result from warning conditions during transformation or gateway processing.

When this field is No, the system always generates warnings in the status message table.

This field defaults from eCommerce Control. It defaults to the Trading Partner Document Records frame for new document records.

Stop on Error. Enter Yes to have the system stop processing a document during transformation when the first error is encountered. The system skips the rest of the document and moves to the next sequence number.

When this field is No, processing continues regardless of the number of errors that occur.

This field defaults from eCommerce Control. It defaults to the Trading Partner Document Records frame when you set up a new document record.

Suppress Session Report. Enter Yes to prevent the system from generating a session report following document load or unload.

When this field is No, the system always generates session reports.

This field defaults from eCommerce Control. It defaults to the Trading Partner Document Records frame when you set up a new document record.

The Trading Partner Document Records frame displays next. Set up a separate record for each document type exchanged with this trading partner.

Fig. 2.33
Trading Partner Maintenance, Trading Partner Document Records Frame

TP Doc ID. Enter the identifier for the document type exchanged with this trading partner. For example, this might be 810 to indicate an invoice exported in the ANSI X12 810 format. This must be the same as the code used in the SNF file control record for the tp-document-id token. See “Token” on page 21.

Dir. Specify whether this record applies to inbound or outbound records. This field lets you distinguish between two trading partner records with the same document type by making one inbound and the other outbound.

Document Map. Enter the name of the transformation map to be used in converting the data in this record for this combination of trading partner, document type, and direction. This transformation map must be defined in Transformation Definition Maint. See “Defining Transformation Maps” on page 36.

Transmission Group. Enter the name of the transmission group associated with this trading partner for this document type. This group must be defined in Transmission Group Maintenance. The field is mandatory for outbound documents. See “Defining Transmission Groups” on page 44.

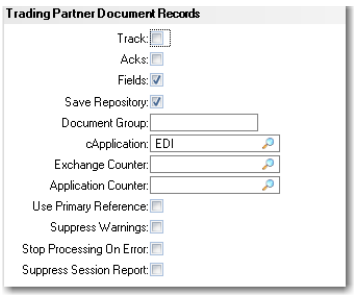
Token List. Optionally enter a comma-separated list of valid tokens for the system to use to differentiate between multiple trading partner cross-references to the same combination of site and ship-to address. These values are used to determine the source of imported documents.

When Fields is Yes, you can then associate corresponding comma-separated values for each combination of trading partner site and address.

Enter enough tokens and values to create a unique combination of trading partner site, trading partner address, and tokens for each instance where trading partner site and trading partner address are the same. See “Token” on page 21.

The next frame displays additional fields for the selected record.

Fig. 2.34
Trading Partner Maintenance, Additional Trading Partner Document Records Frame



Track. Indicate whether the system should automatically generate tracking records when exporting documents of this type to this trading partner. The system can then import acknowledgment and status messages from the EC subsystem and update the tracking records as required. See “Tracking Exported Documents” on page 103.

When this field is No, tracking records are not created and imported acknowledgments are disregarded.

Note Documents are tracked only when the Primary Reference field in the exchange repository master record contains a value. For example, this can be a purchase order, invoice, or ASN number.

Acks. Indicate whether the system typically receives acknowledgment messages from the EC subsystem after the subsystem processes exported documents of this type for this trading partner.

When Track is set to Yes, the system creates a tracking record each time it exports this type of document to this trading partner. When Ack to Yes, the system leaves the Ack Status field in the tracking record blank until importing an acknowledgment message from the EC subsystem. When Ack is No, the system automatically sets Ack Status to None Expected. The system can still update the Ack Status field by importing a status message.

Fields. Enter Yes to display an additional frame that lets you enter or edit trading partner cross-reference information.

Save Repository. Specify whether the system retains data in the document repositories after processing.

Yes (default): Any records created in the repositories when processing this document are saved.

No: The system deletes repository records related to this document after processing is completed.

Document Group. Optionally, enter the name of a trading partner document group. You can use this group name to associate multiple trading partners for reporting purposes.

Application. Enter a code representing the application to which this record applies.

This field defaults from the initial trading partner data frame. It defaults to the TP Location Cross-Reference frame when you set up a new cross-reference record.

Exchange, Application Counter. Specify the sequence IDs that are used to assign numbers to repository documents for this trading partner.

These fields are optional. If you enter a value, it must be a valid sequence ID defined in EC Number Range Maintenance.

Use Primary Reference ID. Enter Yes to have the system use a reference ID number provided in the document being processed, rather than using a sequence ID defined in EC Number Range Maintenance to generate an ID number. This field defaults from the initial trading partner setup frame.

When you use this feature, assign the token PRIMARY-REF-ID to a field in the exchange file, application, and implementation definitions to represent the reference ID.

Note If this field is Yes and the token is not assigned in a required definition, the system uses the appropriate sequence ID specified in the eCommerce Transaction Control frame of eCommerce Control to generate a number.

Suppress Warnings. Enter Yes to prevent the system from generating status messages that result from warning conditions during transformation or gateway processing.

When this field is No, the system always generates warnings in the status message table.

This field defaults from the initial trading partner data frame. It defaults to the TP Location Cross-Reference frame when you set up a new cross-reference record.

Stop on Error. Enter Yes to have the system stop processing a document during transformation when the first error is encountered. The system skips the rest of the document and moves to the next sequence number.

When this field is No, processing continues regardless of the number of errors that occur.

This field defaults from the initial trading partner data frame. It defaults to the TP Location Cross-Reference frame when you set up a new cross-reference record.

Suppress Session Report. Enter Yes to prevent the system from generating a session report following document load or unload.

When this field is No, the system always generates session reports.

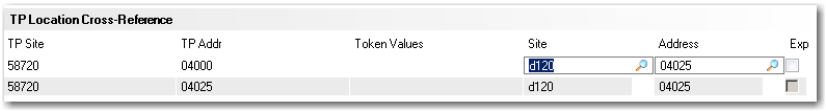
This field defaults from the initial trading partner data frame. It defaults to the TP Location Cross-Reference frame when you set up a new cross-reference record.

The next frame lets you set up cross-references between the trading partner's site and address codes and those used by your system. The system uses these cross-references during the transformation process to automatically identify such information as the customer's site and address. Without the cross-references, you must use Transformation Definition Maintenance (35.15.17) to assign the MFG/PRO-SITE and MFG/PRO-ADDRESS variables before the output header record is written. Otherwise, the system generates a transformation error message.

Note This frame displays only when you set Fields to Yes.

The frame acts as a selection list for all the needed combinations for this trading partner. Select an existing record and choose Go to update it. Choose Insert to add a new record.

Fig. 2.35
Trading Partner Maintenance, TP Location Cross- Reference Frame



TP Site and TP Address Reference. Enter the site and address codes used by the trading partner. Several different site and address combinations can exist at this level. For example, one cross-reference may be for the trading partner (sold-to) and the others for the ship-to addresses.

For inbound documents, the combination of trading partner site and address provides a cross-reference to the site and address. For outbound documents, the transformation process determines the trading partner site and address codes using the following three elements:

- Application document definition name and version
- Implementation name and version
- Site and address codes from your system

Token List Values. Enter a comma-separated list of values associated with the tokens entered in Token List in the previous frame. Be sure that there is one-to-one correspondence between tokens and values.

On imported documents only, the system uses these values to differentiate between multiple trading partner cross-references to the same combination of site and address.

Site and MFG Addr. Enter cross-references from the trading partner site and address to the site and address codes in your system.

Note Site and Address are not validated against master records defined in your system.

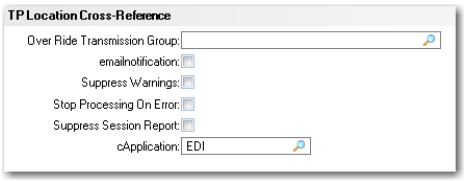
Export. Specify whether the system exports this document type to this combination of site and address for this trading partner.

In an environment where you have mapped more than one trading partner cross-reference to the same combination of site and address, this field lets you limit the trading partner addresses that are selected to receive exported documents. For example, you can send an ASN both to a ship-to customer and to the central ordering point that placed the order by having a cross-reference record for each and setting Export to Yes for both.

This field can be updated only when the Direction field for a trading partner document ID is Out.

The next frame includes additional location cross-reference fields.

Fig. 2.36
Trading Partner Maintenance, Additional TP Location Cross- Reference Fields



Transmission Group Override. Set this field to Yes to display an additional frame that lets you override the document-level transmission group value in the Trading Partner Document Records frame for a specific trading partner/site reference.

You can use this feature to define different HTTP parameters for posting XML documents for specific trading partner locations; this is useful, for example, when you are using QXtend to communicate documents created by EDI eCommerce.

Email. Enter Yes to display an additional frame that lets you enter one or more e-mail addresses of individuals who receive process status notifications regarding documents that use this trading partner location cross-reference.

You also can specify whether the system sends e-mail to the address only when a processing error occurs.

These must be complete email addresses; for example, jsmith@company1.com.

Use Email Definition Maintenance (36.4.20) to set up your system to manage automated email messages.

Suppress Warnings. Enter Yes to prevent the system from generating status messages that result from warning conditions during transformation or gateway processing.

When this field is No, the system always generates warnings in the status message table.

This field defaults from the Trading Partner Document Records frame.

Stop on Error. Enter Yes to have the system stop processing a document during transformation when the first error is encountered. The system skips the rest of the document and moves to the next sequence number.

When this field is No, processing continues regardless of the number of errors that occur.

This field defaults from the Trading Partner Document Records frame.

Suppress Session Report. Enter Yes to prevent the system from generating a session report following document load or unload.

When this field is No, the system always generates session reports.

This field defaults from the Trading Partner Document Records frame.

Using Other Setup Programs

Several other programs on the eCommerce menu support initial setup and system maintenance:

- Trading Partner Parameter Maint (35.13.10)
- Data Cross-Reference Maintenance (35.13.16)
- HTTP Adapter Maintenance (35.13.19)
- Data Validation Maintenance (35.13.21)
- Application Definition Maintenance (35.15.10)
- Definition copy programs
  - Exchange Definition Copy (35.15.1)
  - Application Definition Copy (35.15.2)
  - Implementation Definition Copy (35.15.3)
  - Transformation Definition Copy (35.17.1)
- eCommerce Function Maintenance (35.15.21)
- eCommerce Function Copy (35.17.2)
- Transformation Renumber Utility (35.17.3)
- Export/Import Controller (35.17.5)
- Document definition unload and load programs
  - Trading Partner Library Load (35.17.7)
  - Trading Partner Library Unload (35.17.8)
- For managing obsolete trading partner document setup records, Trading Partner Document Delete (35.17.10)

Defining Trading Partner Parameters

Use Trading Partner Parameter Maint (35.13.10) to assign parameters and values to a variety of trading-partner-specific processing actions.

The system creates a parameter record for each unique combination of trading partner address and site specified in Trading Partner Maintenance (35.13.7). If you delete an address and site combination in Trading Partner Maintenance, the parameter record for that combination is also deleted.

System-generated default values for some standard parameters are created at the same time the record is generated. Several of these are used to specify values required by the import and export gateway programs. For example:

- Logical fields for a trading partner determine which types of documents you exchange with that partner.
- Another logical fields specifies whether purchase orders imported from this trading partner should be entered as confirmed sales orders.
- Character and integer parameters provide the gateway programs with the names and version numbers of the application document definitions used in processing.

See “Setting Up Trading Partners” on page 46.

Example Logical parameters set default values for the EDI PO, EDI Schedule, and EDI PO Ack fields in Purchase Order Maintenance (5.7), Customer Scheduled Order Maintenance (7.3.13), and Sales Order Maintenance (7.1.1), respectively.

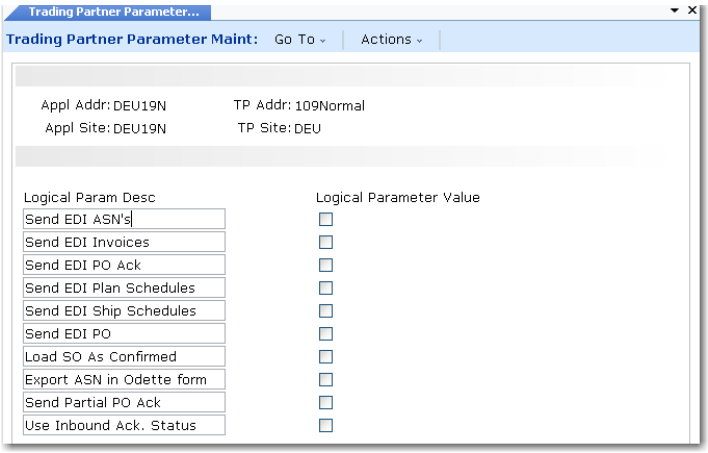
Program-specific parameters used by the programs on the Document Export Menu are included with the individual program descriptions.

The program consists of five frames. In the first you select the combination of trading partner address and site for which you want to define or modify parameters. In the bottom part of the frame, you can define up to 40 logical parameters. The first frame displays 10 lines. Choose Go to access 10 more.

See “Exporting Documents” on page 84.

Note The system only displays frames that already include parameters. Frames with no entries are skipped.

Fig. 2.37
Trading Partner Parameter Maint (35.13.10)



App Addr and App Site. Enter the address and site codes from your system that represent the trading partner whose parameters are defined in this record.

The system displays the corresponding trading partner address and site cross-references, defined in Trading Partner Maintenance, in the TP Addr and TP Site fields.

Logical Param Desc. Enter an alphanumeric description of the logical parameter defined in Logical Param Value.

Logical Param Value. Enter Yes or No to define the logical value of this parameter.

Continue to choose Go to display input screens where you can enter up to 40 descriptions and values for the following types of parameters:

- Character parameters. These consist of up to 40 alphanumeric characters.
- Date parameters. Enter a date in MM/DD/YYYY format. The system validates this entry.
- Integer parameters. These are positive or negative whole numbers of up to 9 digits.
- Decimal parameters. These are positive or negative decimal numbers. The system accepts up to eight characters to the left of the decimal point and two characters to the right.

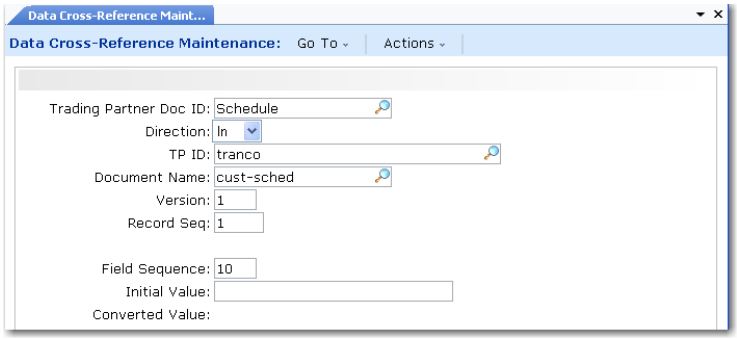
Defining Data Cross-References

Use Data Cross-Reference Maintenance (35.13.16) to set up automatic conversions from one specified value to another in inbound or outbound documents during the transformation process. You can do this on a variety of broad and specific levels. For example, you can apply the conversion to all documents from a certain trading partner or only to those from that trading partner that use a specific document type.

Example You can use this function to perform unit-of-measure conversions between an incoming trading partner document and the target business document in your system.

Use Data Cross-Reference Browse (35.13.17) or Data Cross-Reference Report (35.13.18) to view existing cross-references.

Fig. 2.38
Data Cross-Reference Maintenance (35.13.16)



Trading Partner Doc ID. Enter the trading partner document to which this conversion applies.

Direction. Enter the direction of the documents to which this conversion applies. Documents imported into your system are inbound, while those exported to the EC subsystem are outbound.

Trading Partner ID. Enter a valid ID code of a trading partner defined in Trading Partner Maintenance (35.13.7). This conversion will apply only to documents involving this trading partner.

Document Name and Version. Enter the document definition and version to which this conversion applies.

Record Seq. Enter the sequence number of the record to be modified during the conversion.

Field Seq. Enter the sequence number of the field to be modified during the conversion.

Initial Value. Enter the target value to be converted, indicating how the field reads before conversion.

Converted Value. Enter the new value, indicating how the field will read after conversion.

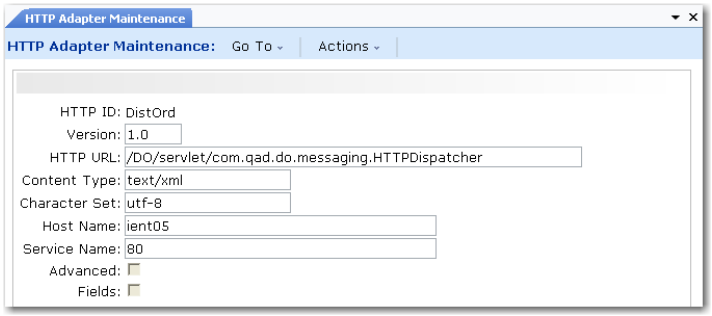
Defining HTTP Adapters

Use HTTP Adapter Maintenance (35.13.19) to define information for the system to use in posting documents in XML format to a server to make the documents available to an external application after EDI eCommerce processing.

Associate connection records with trading partners using Transmission Group Maintenance (35.13.13). While sending records to that transmission group, the system passes the specified connection information and parameters, along with the XML data itself, to the receiving server using an HTTP adapter program.

See “Defining Transmission Groups” on page 44.

Fig. 2.39
HTTP Adapter Maintenance (35.13.19)



HTTP ID. Enter an alphanumeric code identifying this HTTP connection record. You reference this code in Transmission Group Maintenance to associate XML files with the server that receives them.

Version. Enter the HTTP version number associated with the parameters in this record.

HTTP URL. Enter the URL address on the specified host where the XML data is made available for the external application.

Content Type. Enter the type of content included in the files that are posted using this parameter record. Typically this is text/xml.

Character Set. Enter the character set associated with the files that are posted using this parameter record; for example, utf-8.

Host Name. Enter the host name of the server to which the data is posted.

Service Name. Enter the port number on the specified host that your system uses for connecting with it.

Advanced. Enter Yes to display a text input frame. You can use it to enter additional values other than the default HTTP header information that must be sent along with the protocol header, such as SOAPAction information.

Fields. Enter Yes to display another frame that lets you enter a set of parameter codes and associated values or token names that are appended to the specified URL.

Fig. 2.40
HTTP Adapter Maintenance, HTTP Parameters Frame

Sequence. Enter the relative sequence of this parameter. The system appends the parameters to the URL according to this sequence.

Parameter Code. Enter the literal name of a parameter to append to the specified URL when it is posted to the HTTP server.

You can associate either of two types of values with this parameter:

- A hard-coded text string in the Parameter Data field.
- A variable value in the Token field. The system extracts the value associated with the token from the file and adds it to the URL as the value of this parameter.

For example, if Parameter Code is `xxx` and Parameter Data is `yyy`, the system adds `xxx=yyy` to the URL.

Parameter Data. Enter a literal text string to be associated with this parameter when it is appended to the specified URL.

If you enter a value in Token, this field must be left blank.

Token. Enter a token to be associated with this parameter when it is appended to the specified URL. The system extracts the value associated with this token from the file and adds it to the URL as the value of this parameter.

If you enter a text string in Parameter Data, this field must be left blank.

See page 21.

Validating Data Values

Use Data Validation Maintenance (35.13.21) to define values that will automatically be validated in inbound or outbound documents during the transformation process.

Note Validation only takes place when the specified implementation definition has Validate set to Yes.

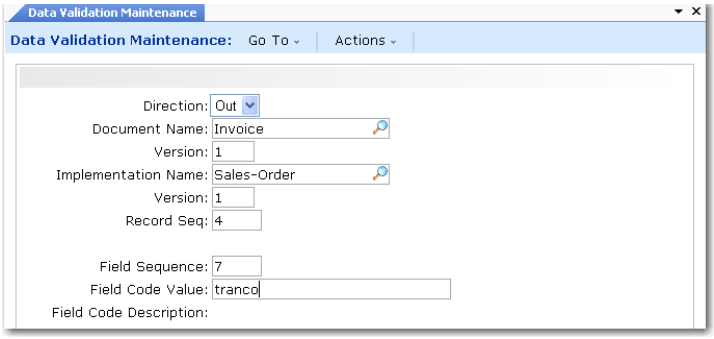
Define the required value down to the field level. If the data cannot be validated against the specified value during transformation, the system generates an error.

You can set up more than one data validation for same document, record, and field. The system then performs validation against each of the specified values. If the field's value does not match one of those specified, the system generates an error.

Because validation records are implementation specific, you can define different validations for different trading partners.

See “Validate” on page 34.

Fig. 2.41
Data Validation Maintenance (35.13.21)



Direction. Enter the direction of the documents that will have the field value validated. Documents imported into your system are inbound, while those exported to the EC subsystem are outbound.

Document Name and Version. Enter the name and version of the document definition that contains the field to be validated.

Implementation Name and Version. Enter the name and version of the implementation associated with the document to be validated.

Record Seq. Enter the sequence number of the record containing the field to be validated.

Field Seq. Enter the sequence number of the field containing the value to be validated.

Field Code Value. Enter the value against which the field will be validated.

Field Code Desc. The system displays the description from the field definition.

Use Data Validation Browse (35.13.22) or Data Validation Report (35.13.23) to view existing data codes.

Creating Application Document Definitions

QAD provides a number of standard definitions for the layout and contents of documents to be used as templates when you are defining specific implementations.

To set up your own templates, use Application Definition Maintenance (35.15.10). You can define formats at both the record and field levels.

Note You can use this program to create new document definitions or to modify any definitions you have created yourself. However, you cannot modify the QAD-developed document definitions that were provided with eCommerce. Instead, copy an existing definition with Application Definition Copy (35.15.2) and then modify the copy.

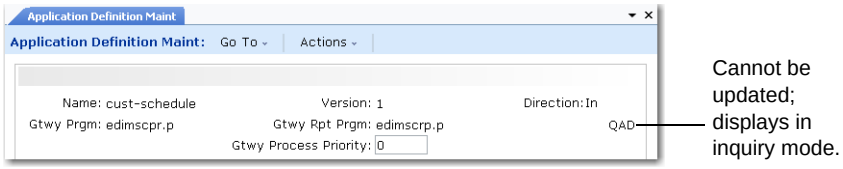
Create a different definition for each type of document. Use the first frame to identify a definition by a unique combination of name, version, and direction. You also specify the gateway programs used to transfer the data and to produce reports during processing.

See “Defining a Specific Implementation” on page 29.

See “Copying Application Document Definitions” on page 61.

Note It is also possible to create an implementation definition based on an existing document definition, as well as an external .xml or .xsd file, or on Progress source code that defines a temporary table. See “Creating Document Definitions” on page 42.

Fig. 2.42
Application Definition Maintenance (35.15.10)



Name. Enter a name for the document definition or use the arrow keys to scroll through the list of existing documents.

Note You cannot modify the QAD-developed template document definitions that were provided with eCommerce.

Version. Enter a version number. You can use the same name for more than one document definition, then use a different version number to differentiate among multiple document definitions with the same name.

Additionally, you can use Direction—inbound or outbound—to distinguish between multiple documents with the same name.

Direction. Enter the direction of the file transfer that uses this document definition. Always specify the direction relative to your system—documents imported into your system are inbound, while those exported from your system are outbound.

Gateway Program. Enter the name of the Progress gateway program used to transfer this document. If this definition is based on a QAD-developed definition, the value defaults. If you are creating your own, this is the name of a custom-developed Progress program.

Gateway Report Program. Enter the name of the Progress program used to generate reports related to document transfers.

Gtwy Process Priority. Enter the process priority value (0-99999) to set the gateway processing priority for this document. The default is 0, which is the lowest (normal) processing priority.

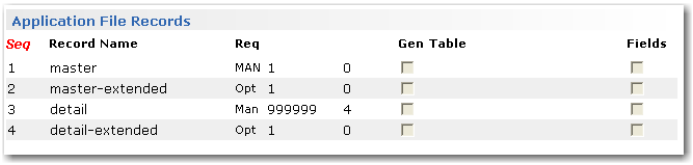
This value controls the sequence in which different document types are processed at the gateway level. For example, eCommerce Manager (35.22.13) uses the priority to determine the sequence in which the business unit processes multiple EMT documents.

DS Program. Optionally, enter the name of the Progress program that is run persistently and contains the dataset definition and methods.

Procedure. If you enter a value in DS Program, enter the name of the procedure or method that is run to process the dataset.

Choose Go to define the records and fields that are included in the document.

Fig. 2.43
Application Definition Maintenance (35.15.10),
Application File Records Frame



Seq. The sequence number of this record. Choose Insert to add a new record. The system automatically assigns the next number, but you can change it to any number. Organize the records in a logical numerical hierarchy.

Important In all cases, the first record created must be sequence number 1. For example, you cannot use a sequence of 10, 20, 30, 40. Instead, use 1, 10, 20, 30, 40.

Record Name. Enter a name for this record. Each record name must be unique in an application document definition. Record names in application document definitions and implementation definitions must follow a set of naming conventions.

This record name is used as a record variable by the transformation process, independent of the sequence number. See Table 2.1, “Record Naming Conventions,” on page 31.

Requirement. Enter Mandatory to indicate that this record is required during the transfer process, Optional to indicate that it is not. If the system cannot find mandatory records while transferring records, it generates an error message and does not process the associated document.

Loop Occurs. Enter the number of times the processing logic should loop through the records during transformation.

Loop Ends Seq. Enter a defined record sequence number to indicate where the loop ends. For example, enter a Loop Ends Seq value of 2 on sequence number 2 to indicate that the entire loop sequence takes place on a single record. Or, enter an end sequence of 4 on sequence number 3 to indicate a loop that starts at 3 and ends at 4.

To specify a loop structure that includes all records, enter zero or a number higher than the last record sequence defined.

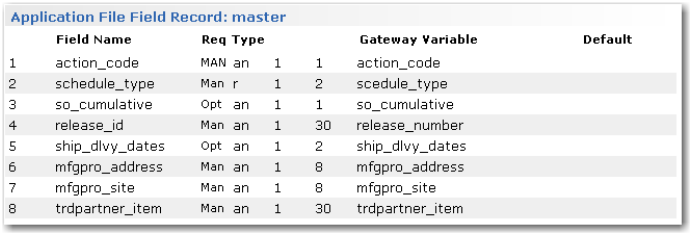
Generic. Enter Yes if this record for generic mapping of one or more database tables within the application. The Table field is then enabled so you can enter table names.

Table. Enter the schema names of the tables this record applies to. Separate multiple table names with commas. You cannot leave this field blank when Generic is Yes. The system validates your entries and displays a warning if the tables do not exist.

Fields. Enter Yes to access an additional frame that lets you display, enter, or edit the fields contained in this record.

You cannot access the fields for a record if Fields is No.

Fig. 2.44
Application Definition Maintenance (35.15.10), Application File Field Record Frame



Application File Field Record: master

	Field Name	Req	Type			Gateway Variable	Default
1	action_code	MAN	an	1	1	action_code	
2	schedule_type	Man	r	1	2	scedule_type	
3	so_cumulative	Opt	an	1	1	so_cumulative	
4	release_id	Man	an	1	30	release_number	
5	ship_dlvy_dates	Opt	an	1	2	ship_dlvy_dates	
6	mfgpro_address	Man	an	1	8	mfgpro_address	
7	mfgpro_site	Man	an	1	8	mfgpro_site	
8	trdpartner_item	Man	an	1	30	trdpartner_item	

Field Seq. The sequence number of this field in the record. Choose Insert to add a new field. The system automatically assigns the next available number. You can modify the number as needed or navigate to the blank fields at the bottom of the frame and assign numbers.

Note It is recommended that you number the fields sequentially, beginning with 1. If you do this, a total of 100 fields are available for each record. Although the system accepts non-sequential numbers, their use is not recommended.

Field Name. Enter the name of the field. This must be unique in the record.

Requirement. Enter Mandatory to indicate that this field is required during the load process, Optional to indicate that it is not. If the system cannot locate mandatory fields, it generates an error message and does not process the associated record.

Type. Enter the type of data that will be included in this field. Valid entries are:

- AN (Alphanumeric)
- D (Date)
- I (Integer)
- L (Logical)
- R (Real number)

Min. Enter the minimum number of characters required in this field. The system validates that required or optional data is greater than or equal to the minimum required value for the field.

Max. Enter the maximum number of characters allowed in this field.

- If the field lengths are variable and separated by the delimiter specified in EC Subsystem Definition Maint, the system validates that the field length is between the Min and Max values.
- If the field lengths are fixed, the system uses this value to calculate where each field starts and ends.

Gateway Variable. Enter the name of the gateway variable associated with this field. These variables determine the specific way data is transformed. If this document definition was copied from a QAD-provided template, the gateway variable is copied from that file. If not, the variable must be defined in the program specified in the Gateway Program field.

Default. Optionally enter a default value for this field.

Copying Definitions

QAD provides a library of trading partner template definitions with eCommerce. You cannot directly modify these templates with a maintenance program. If you need to change any of the data in a QAD-provided exchange file definition, application document definition, implementation definition, or transformation definition, you must first copy the template with one of these programs:

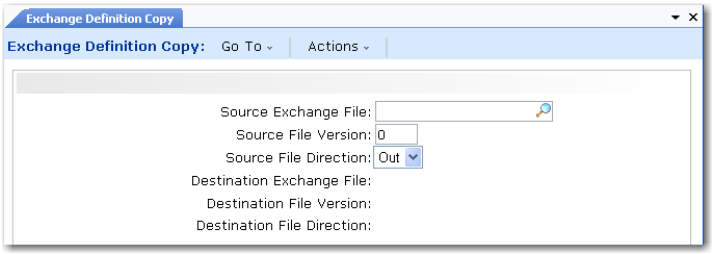
- Exchange Definition Copy (35.15.1)
- Application Definition Copy (35.15.2)
- Implementation Definition Copy (35.15.3)
- Transformation Definition Copy (35.17.1)

Copying Exchange File Definitions

Use Exchange Definition Copy (35.15.1) to copy an exchange file definition from an existing definition. Then, use Exchange Definition Maintenance (35.15.6) to modify the copy as needed.

See “Defining an Exchange File” on page 22.

Fig. 2.45
Exchange Definition Copy (35.15.1)



Source Exchange File, Version, and Direction. Specify the exchange file definition you want to copy. Use the arrow keys to scroll through the list of existing definitions.

Destination Exchange File, Version, and Direction. Specify a unique combination of file name, version, and direction to identify the new exchange definition.

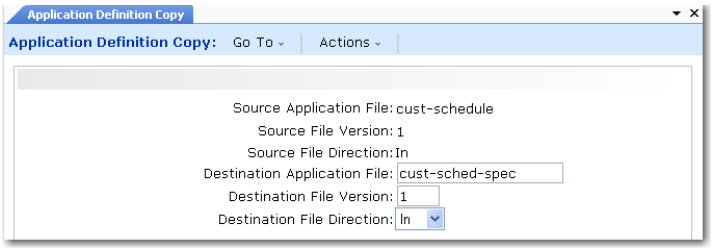
Note The direction does not have to be the same for the source and destination file. For example, you can base an outbound definition copy on an inbound source definition.

Copying Application Document Definitions

Use Application Definition Copy (35.15.2) to copy an application document definition from an existing definition. Then, use Application Definition Maintenance (35.15.10) to modify the copy as needed.

See page 57.

Fig. 2.46
Application Definition Copy (35.15.2)



Source Application File, Version, and Direction. Specify the document definition you want to copy. Use the arrow keys to scroll through the list of existing definitions.

Destination Application File, Version, and Direction. Specify a unique combination of file name, version, and direction to identify the new document definition.

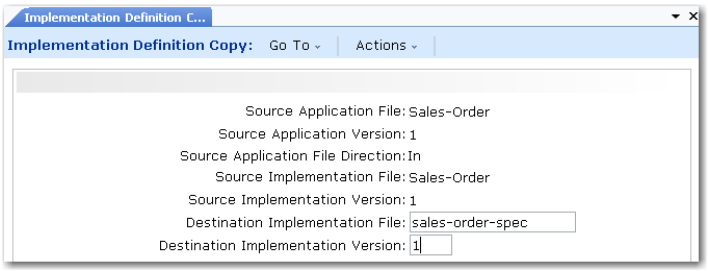
Note The direction does not have to be the same for the source and destination file. For example, you can base an outbound definition copy on an inbound source definition.

Copying Implementation Definitions

Use Implementation Definition Copy (35.15.3) to copy an implementation definition from an existing definition. Then, use Implementation Definition Maint (35.15.13) to modify the copy as needed.

See “Defining a Specific Implementation” on page 29.

Fig. 2.47
Implementation Definition Copy (35.15.3)



Source Application File, Version, and Direction. Specify the document definition associated with the implementation definition you want to copy. Use the arrow keys to scroll through the list of existing definitions.

Source Implementation File and Version. Specify the document definition associated with the implementation definition you want to copy. Use the arrow keys to scroll through the list of existing definitions.

Destination Implementation File and Version. Specify a unique combination of file name and version to identify the new implementation definition.

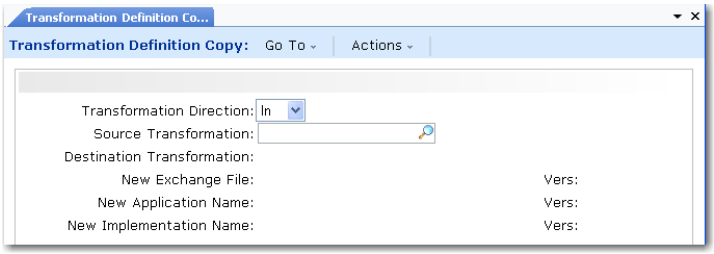
Copying Transformation Definitions

Use Transformation Definition Copy (35.17.1) to copy an existing transformation definition to a new file. Then, use Transformation Definition Maint (35.15.17) to modify the transformation mapping data in the new definition file as needed.

Use this method to streamline creation of similar definitions.

See “Defining Transformation Maps” on page 36.

Fig. 2.48
Transformation Definition Copy (35.17.1)



Transformation Direction. Enter the direction of the transformation definition to be copied. Documents imported into your system are inbound, while those exported from your system are outbound.

This field determines the records that will be available for copying in the Source Transformation field.

Source Transformation. Enter the name of the transformation definition to be copied. You can also use the arrow keys to scroll through the list of definitions, which will be inbound or outbound depending on the setting in Transformation Direction.

Destination Transformation. Enter the name of the new transformation definition.

In the remaining fields, enter the names and versions of the exchange file, application, and implementation definitions to be used with the new transformation definition.

Using Transformation Functions

A transformation function is a Progress procedure that performs a predefined action during the transformation process. For example, a function can add two values or retrieve the current system date.

Using QAD-Provided Functions

eCommerce includes a number of functions that can be used for transforming data between an EC subsystem and your system. They are specified as part of the transformation definition.

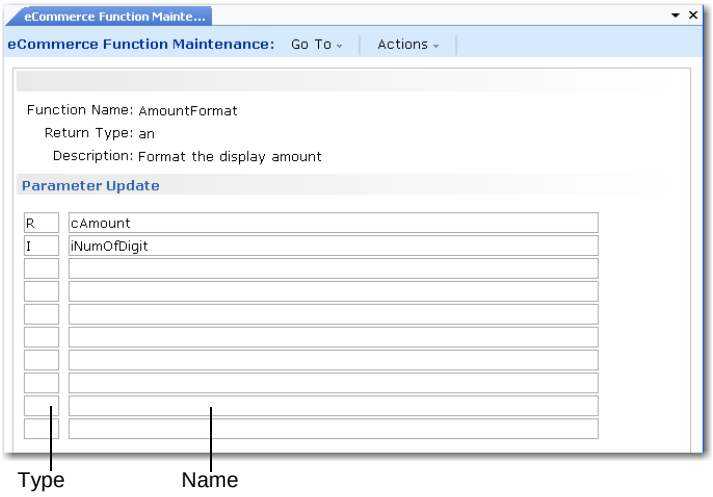
Creating User-Defined Functions

Use eCommerce Function Maintenance (35.15.21) to create additional functions, if needed.

Define the type of return required—alphanumeric, integer, real number, date, or logical—as well as the names and types of the parameters passed by the function. The program uses your input to create a Progress program template. After saving the template to disk, use a text editor to open the file and complete the code.

The system saves user-defined functions in the directory specified in eCommerce Control with the file name *FunctionName*.p.

Fig. 2.49
eCommerce Function Maintenance (35.15.21)



Function Name. Enter a unique alphanumeric name for this function. Do not use the name of any existing QAD-provided or user-defined function.

Important The file name is based on the function name you specify. Use function names that follow the naming conventions of your operating system.

Description. Optionally describe what this function does.

Return Type. Enter the type of value returned as output when this function is performed. Valid settings are:

- AN: Alphanumeric
- R: Real number
- I: Integer
- L: Logical
- D: Date

Type. Enter the type of value represented by this variable. Valid settings are the same as for Return Type.

Name. Enter the name of the variable that will be created inside the program.

Important Do not use Progress keywords or special characters as the variable name. Doing so will cause the function to fail.

Viewing Existing Transformation Functions

Two programs display information about existing transformation functions.

- Use eCommerce Function Inquiry (35.15.22) to scroll through summary information on functions.
- Use eCommerce Function Report (35.15.23) to generate a complete report on a selected range of functions.

Copying Transformation Functions

Use eCommerce Function Copy (35.17.2) to copy an existing transformation function—either QAD-provided or user-defined—to a new function name. Then, use eCommerce Function Maintenance to modify the copy as needed.

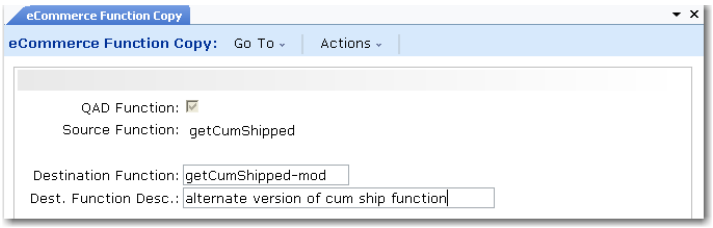
The new definition is created in the function directory specified in eCommerce Control.

Use this method to streamline creation of similar definitions.

You can also use this program to delete existing user-defined functions. To do this, move the cursor to the Source Function field in the applicable record and choose Delete. Enter Yes at the delete confirmation prompt.

Note You cannot delete QAD-supplied functions.

Fig. 2.50
eCommerce Function Copy (35.17.2)



QAD Function. Enter Yes to specify that the function to be copied is one provided as part of eCommerce. If No, the function is user-defined.

Source Function. Enter the name of the existing function to be copied or deleted. Use the arrow keys to scroll through the list of available functions, determined by the setting in QAD Function.

Destination Function. Enter a name for the new function. The system saves the new file in the function directory specified in eCommerce Control with the file name:

`DestinationFunction.p`

Important The file name is based on the function name you specify. Use function names that follow the naming conventions of your operating system.

Dest. Function Desc. Optionally enter a description for the new function.

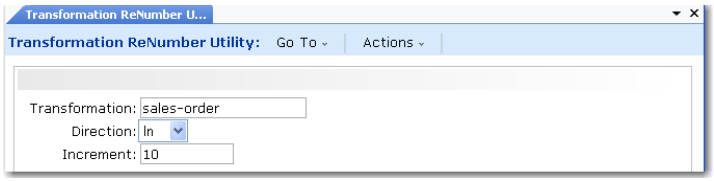
Renumbering Transformation Actions

When you define the transformation process that converts data between EDI formats and business document formats using Transformation Definition Maint (35.15.17), you use the Action Seq field to establish the sequence in which the transformation events take place. You cannot edit an event record—including its sequence—after it has been created. The only way to modify an event is to delete it and reenter the modified version.

If you need to insert an event between two existing events and no intermediate sequence number is available, you can use Transformation Renumber Utility (35.17.3) to reset all the action sequences in the transformation definition to a higher value.

Example A transformation definition was set up in sequence increments of 5; that is, the first step was numbered 5, the second 10, and so on. In subsequent changes to the definition, you have added event sequences 6, 7, 8, and 9. It is now necessary to add another event between sequences 7 and 8. To avoid deleting and reentering events 8, 9, and 10 to assign them higher sequence numbers, you can use Transformation Renumber Utility to increase the gaps between all the sequences in the definition.

Fig. 2.51
Transformation Renumber Utility (35.17.3)



Transformation. Enter the name of the transformation definition with action sequences that you want to reset to different values.

Direction. Specify the direction—inbound or outbound—of the documents that are transformed using this definition.

Important Make sure to select the appropriate direction. Two transformation definitions can have the same name and be distinguished only by direction.

Increment. Enter the incremental factor the system should use in renumbering the event action sequences. This is also the number assigned to the first event. For example, if you enter 5, the system numbers the first event 5 and subsequent 10, 15, 20, and so on.

Scheduling Automatic Processing

Use Export/Import Controller (35.17.5) to export and import files on a regular schedule.

Based on the frequency and number of hours you specify, the system searches the database for confirmed shippers or invoices that have not been exported. When it finds a document, eCommerce begins processing automatically.

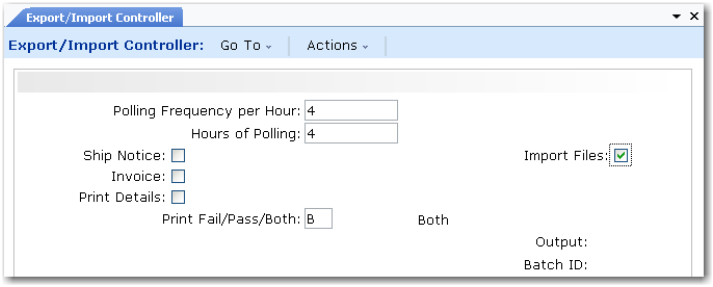
For imports, the system polls the import directory defined in eCommerce Control.

Logical fields let you set up polling for various combinations of import and export documents.

When the program is running in the foreground, a summary frame displays processing data.

You can choose to run this process later using the Batch ID field.

Fig. 2.52
Export/Import Controller (35.17.5)



Polling Frequency per Hour. Enter the number of times per hour the process should check for files to import or documents to export.

Hours of Polling. Enter the number of hours the process should check for files to import or documents to export. If you enter zero, the process keeps checking for available items until you manually interrupt it.

This is a decimal field. For example, enter 2.50 to indicate two and one-half hours of polling.

Ship Notice. Enter Yes to have the system automatically search for and process confirmed shippers in the database and generate ASNs.

Invoice. Enter Yes to have the system automatically search for and process invoices in the database.

Import Files. Enter Yes to have the system automatically search for and process files in the inbound directory specified in eCommerce Control.

Input Directory. Enter the directory path to the location of the files to be processed. This must be a valid directory.

Initially, the field defaults from eCommerce Control. If you change it, the system associates the value you enter with your user ID. Next time you run this program, the field defaults to the same value you entered previously.

File Mask. Specify one or more patterns, including wildcards (*), for the system to use in selecting files for processing. For example, if you enter *.EDW, the system selects all files with an extension of EDW. Separate multiple entries with commas.

Print Details. Enter Yes to include detailed error and warning message information on the report that is output when this program executes. If you enter No, the report is limited to higher-level summary information.

Print Failed/Passed/Both. Specify the status of documents to be included in the output report of this program.

Failed (the default): The report is limited to documents that failed to process.

Passed: The report is limited to documents that processed correctly.

Both: The report includes all documents regardless of status.

Unloading and Loading Trading Partner Library Data

EDI eCommerce includes tools that let you:

- Load downloaded trading partner library records into your database.
- Create trading partner library files for submittal to QAD's Trading Partner Library Web site.

Data Load

Use Trading Partner Library Load (35.17.7) to create new trading partner and supporting document definition data based on the contents of imported source files XML files created using Trading Partner Document Unload. Each file represents a complete trading partner document.

You can select individual trading partner documents from a list, or load all the documents in a specified directory at the same time. Source files are typically downloaded from the online QAD Trading Partner Library.

Optionally, you also can decide which specific components of the XML files have records created in the destination domain.

Note This program does not check or enforce data integrity for records you choose not to import. For example, you can choose to create document definitions but not the associated transformation definition. This does not cause the import process to generate an error message.

Use the first frame to identify the source directory for imported files, as well as the domain to which domain-specific types of records will be loaded. To select all documents in the directory, leave Import set to Select All. If you want to select from a list of documents in the specified directory, set Import to Select Some to display another frame when you press Go. When you finish selecting documents, press Go.

Note To select a single file, you also can press the up and down arrow keys with the cursor in the Import field. The system scrolls through all the documents in the specified directory. When the document you want to load displays, press Go.

Use the Components field to control which specific types records are created as a result of the load. When that field is Select All, the system loads all of the records from each selected XML file. Set the field to Select Some to display a list of available record types. Deselect any types that you do not want to load.

You can also control whether the source ID (stored in the XML file when it was created using Trading Partner Library Unload) is used as part of the new record names. If you choose to use it, you can specify whether it appears as a prefix or as a suffix.

Subsequent frames display several types of information about the document currently being loaded. You can update many of the fields as needed. Note that navigation may vary depending on whether you choose not to create some types of records.

1. The system determines if cross-reference records exist for the specified target domain. You are prompted to create new cross-references if required. If no target domains are available, the system prompts you to select an existing eCommerce domain as the target.
2. Only when the target domain has not had eCommerce Control initialized, the next frame displays the fields from that program. You can update default values as needed; an additional field lets you specify the process log directory that will be associated with the newly created EC subsystem record.

- If one of the fields includes a directory that does not exist, the system prompts you to create it. If you respond No, you can still enter the directory path and create it later in the file system.
- The system creates a new sequence ID record (ordinarily defined in EC Number Range Maintenance) called eComNRM. It is assigned to all the sequence ID fields in the eCommerce Transaction Control frame.
- When you load multiple documents during a single session, this frame displays only when the first document is loaded. Control settings apply to all the documents in the target domain.

3 For outbound definitions only, the system next displays Transmission Group Maintenance fields. If required, you can edit them, or change the Name field to associate a different existing transmission group with the trading partner. If you update the directory path or subsystem, the system validates the new values.

4 The system then displays the trading partner ID from the load data and prompts you to change it before proceeding.

5 The error handling and sequence ID counter fields display from Trading Partner Maintenance. You can update them as required.

6 The Trading Partner Document Records frame displays. As required, select a record to update its settings, including error handling and sequence ID counters, as well as TP location cross-references. You can update a subset of the fields; for example, you can reference a different address/site combination. You also can enter e-mail addresses to receive status messages during document processing.

7 The program checks for any existing definitions that match the data being loaded and displays a list of duplicates, along with an Overwrite setting. If the trading partner definition is a duplicate, it is listed first, with Overwrite set to Yes. If you change the field to No, the system cancels the load process for this trading partner.

All other duplicate records have Overwrite set to No. For each one that you change to Yes, the system displays information about where the existing record is used and prompts you to rename the new record, overwrite the existing record with the new definition, or keep the existing one.

8 The system prompts you to apply the update.

9 If the document references user-defined functions, the system compiles the code and saves the files in the function directory specified in eCommerce Control.

10 If multiple documents are selected for loading, the system repeats the load process for the next document on the list.

11 After you have completed all the documents, the system lists the files that were loaded. It also indicates whether any errors occurred. A log file called *`filename`*`-import.log` is created in the specified input directory.

Bank Payment Applications

To use this program to support bank payments in the Financials AP and AR modules, you need to load a bank-specific file for each financial institution with which you want to exchange data. This creates mapping records that let the system process incoming files correctly, as well as generate outbound files that meet the requirements of the receiving bank. Additionally, it updates a set of financial setup tables that define the payment format for each bank.

Follow these steps to do the basic EDI setup needed for bank payments.

See *User Guide: QAD Financials* for information.

Note Unless you have experience with EDI eCommerce implementations, you should accept all other default values.

1. Download the appropriate XML source files from the QAD Support Web site.
2. In Trading Partner Document Load, specify the directory where the source files are stored.
3. If not already defined, set up cross-reference between the target eCommerce processing domain and the application domain.
4. For documents that the bank sends you, such as AR bank statements, specify the inbound directory where the system will look for files to process in eCommerce Control.
5. For documents that you will send to the bank, such as AP payment instructions, specify in the Transmission Group frame the directory where the system will create exported files.

   Note The default Transmission Group name matches the Trading Partner ID and also maps to the bank format name.

Data Unload

Use Trading Partner Library Unload (35.17.8) to create XML files containing document definition data. You can control which domains, trading partners, and trading partner documents are included in the exported files. The system creates one XML file for each document.

Note This program does not check or enforce data integrity. For example, you can choose to export document definitions but not the associated transformation definition.

This program is typically used by EDI system administrators to create source files that can be uploaded for submittal to the QAD Trading Partner Library. They can then be downloaded and used to create new sets of trading partner records using Trading Partner Document Load.

Use the first frame to select the documents that will be written to XML files. At three levels of granularity (domain, trading partner, trading partner document), you can either have the system export all the records, or manually select the records from a list by setting the associated field to Select Some. On each level, when you choose to select records manually, you can specify filter criteria to limit the items that are selected by default when the list is displayed.

From the selection list, use the space bar to toggle the Export field between Yes and No in the character UI. In the QAD .NET UI, use the check box to select records. When you finish selecting records at each level, press Go or click Next to move to the next selection field.

You also can specify which prefix the system adds to the exported XML files. When Use TP As Source Domain is Yes, the file name is in the form *domain name-trading partner ID-document ID*.xml. When the field is No, you can add your own prefix in the Source ID field; this replaces the domain name.

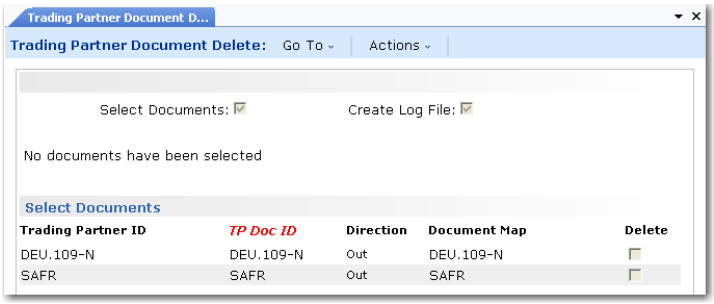
The program creates an activity log for each document in the specified dump directory. It shows the document definitions that were unloaded, a list of any non-QAD functions needed to support transformation, and any error messages that were generated during processing.

Additionally, if transformation processing calls for user-defined functions, the system attempts to find the program files in the Function Directory specified in eCommerce Control. If it finds the files, it includes the source code in the XML file. The functions can then be created during the load process.

Deleting Trading Partner Setup Data

Use Trading Partner Document Delete (35.17.10) to clean up your database by deleting trading partner document definitions that are no longer needed.

Fig. 2.53
Trading Partner Document Delete (35.17.10)



When Select Documents is Yes, the system displays all available trading partner documents, as defined in Trading Partner Maintenance. By default, the Delete column is No. Use the space bar to toggle it to Yes for documents you want to delete.

When you click Next and confirm the selection, the system deletes the following records:

- The trading partner document
- The corresponding record in Trading Partner Parameter Maint, if the site/address combination is not used elsewhere in EDI eCommerce
- The transformation, implementation, exchange, and application document definitions, if they are not used for other documents in the system
- The Trading Partner Maintenance record, if all the documents have been deleted from it

When Create Log File is Yes, the system summarizes the records that were deleted in the process log directory specified in eCommerce Control. If that field is blank, the file is created in the user startup directory. The file naming convention is `tpdocdelete_MM-DD-YYYY_HHMMSS.log`.

Storing and Retrieving Turnaround Data

In EDI eCommerce, turnaround data is data imported into a business document that does not have an equivalent field in the database. However, the imported value must be retained so it can be included in an associated exported file.

This section describes the steps used to define turnaround data in inbound and outbound implementation definitions. It includes an example based on a customer's requirement to include a department number from the original imported purchase order on the associated exported invoice.

See "Defining a Specific Implementation" on page 29.

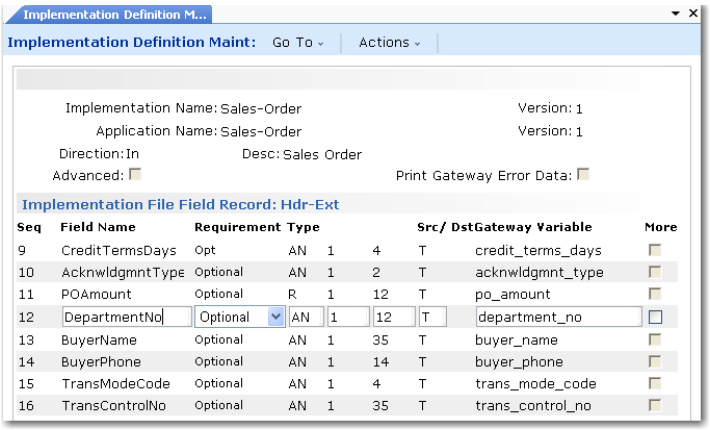
Storing Inbound Turnaround Data

In Implementation Definition Maintenance, select the implementation that is being used for the inbound document. In the example shown in Figure 2.54, this is called Sales-Order.

By convention, the turnaround data fields are defined in the *ext* record definitions. Most implementation definitions contain *ext* records at both the header and detail levels of the document. You can store turnaround data any level—depending on which field values are selected for the Turnaround data index or key.

The example illustrated in Figure 2.54 uses the Hdr-Ext record, storing the inbound purchase order department number as turnaround data in the DepartmentNo field.

Fig. 2.54
Inbound Turnaround Data Implementation Record



Set the Src/Dst field to T to indicate that the field is to be stored as turnaround data. The system then prompts you to define the table and index names to be used for storing the inbound value.

- Table Name: You can enter any constant value here; it becomes part of the index. By convention, using a table name helps create a logical reference to the data. For example, the record shown in Figure 2.55 uses so_mstr, because the inbound purchase order results in a sales order.
- Index Name: This must be a valid variable name for the implementation you are using. During transformation, it will contain the data that you want to store (index) the DepartmentNo data on. You can enter multiple data variables using commas (without any spaces) as separators.

For example, this record uses the variable ED_SO_PO as the index. This variable will contain the purchase order number to be associated with the inbound department number. During invoice export, the system uses the PO number to retrieve the correct department number.

Important The variable used for the index must contain data—that is, the record containing the data must precede the data being stored. For example, you cannot use a data variable from a detail record as an index to store turnaround at the header level.

Another consideration is the way you make the index unique. For example, you must ensure that subsequent records do not overwrite data you want to retain. Conversely, you should not make the index so detailed that it is difficult to retrieve.

Fig. 2.55
Turnaround Data Storage Index Prompt

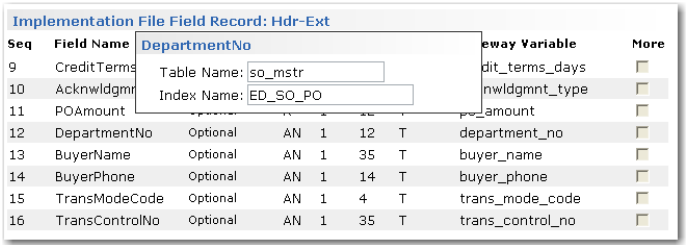
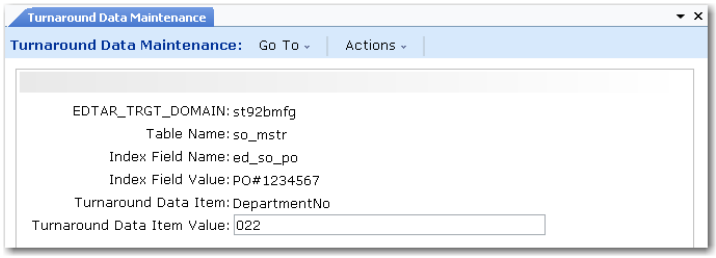


Figure 2.56 illustrates an example of an imported record—as shown in Turnaround Data Maintenance—created using this implementation definition. The imported department number is 022.

Fig. 2.56
Turnaround Data Record

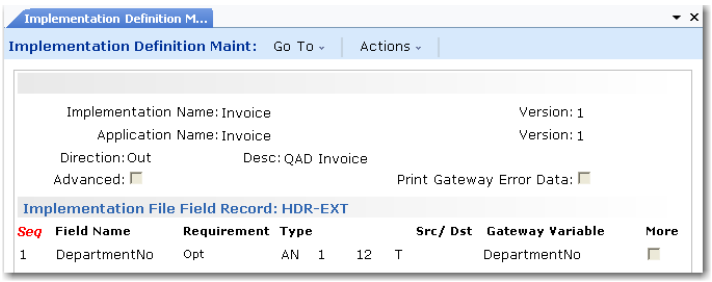


Retrieving Turnaround Data for Export

Basic Implementation Definition setup for retrieving outbound turnaround data for export is similar to the equivalent inbound setup.

This time, you select the implementation definition that is being used for the outbound document. In this example, this is Invoice. You can define turnaround data on both header and detail level, and the convention is to use *ext* records definitions. The example in Figure 2.57 uses HEADER-EXT.

Fig. 2.57
Outbound Turnaround Data Implementation Record

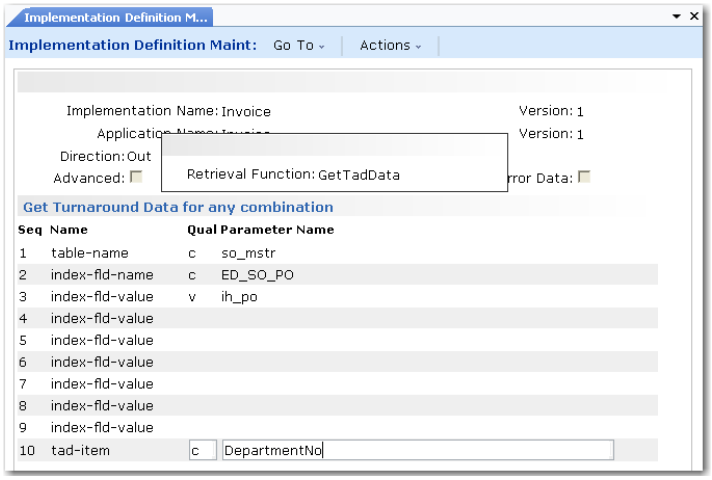


Set Src/Dest to T. For outbound implementations, the system next prompts you for the retrieval function to be used.

GetTadData is a QAD-provided generic transformation function that can retrieve any turnaround data based on the specified parameters. When you enter the function name and click Next, the system displays the function record so you can update parameters for this instance.

In Figure 2.58, the parameters are set up to retrieve the DepartmentNo field from the turnaround data table using the ih_po record from invoice history. The associated department number is then placed in the application repository HDR-EXT record DepartmentNo field, from which it is exported with the invoice data.

Fig. 2.58
Turnaround Data Retrieval Function Parameters



Using eCommerce with Multiple Domains

You can use a single instance of eCommerce to import and export documents between multiple domains and the EC subsystem.

This section describes how the system processes EDI transactions and how you set up multiple domain features.

Multiple-Domain Processing

The primary factor the system uses in determining how to process EDI transactions in a multiple-domain environment is the eCommerce processing domain—the domain in which repository records and business documents are stored. This domain is one of the following:

- By default, the login domain of the EDI eCommerce user—either at initial login or modified by changing the domain during a processing session
- The processing domain specified after login using Change Current eCommerce Domain (35.11.11)
- The domain associated with the user's login domain in Domain Cross-Reference Maintenance (35.11.1)

In some cases, all EDI eCommerce processing and document creation happens within a single domain. For example, the user who imports a purchase order is logged in to the same domain where the resulting sales order will be created. System-generated repository records are in the user's domain, so that error-reporting and repository maintenance functions have direct access to the records that the transformation and gateway processes use to create the sales order.

In a different scenario, the user might not create records in the login domain, based on one of the following factors:

- A record created in Domain Cross-Ref Maintenance associates the user's login domain and a second domain used for eCommerce processing. See "Specifying Domain Cross-References" on page 77.
- A domain identifier in the transformation definition sets the value of the DOMAIN token during transformation. In this case, a token variable set to this value causes the document to be created in the EDI eCommerce processing domain. However, the transaction data is created in a different domain. See "Changing the Target Domain During Transformation" on page 78.

In either of these cases, the system can load repository data and create the business document—the sales order, for example—in a different domain than where the user is logged in.

Note If any user transformation functions were defined prior to the release of multiple-domain functionality, you must update them to reference an additional Progress include file and a domain-associated variable used during transformation. See "Updating Legacy User-Defined Functions" on page 78.

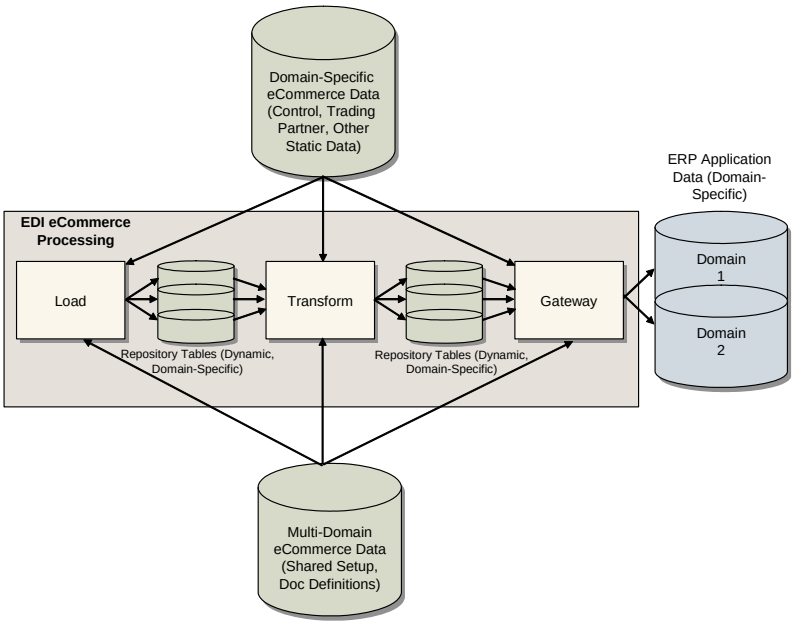
During export, the system similarly uses either the user's session login domain or a cross-reference record to determine the eCommerce processing domain that provides domain-specific data—such as trading partner information—for outbound documents. It uses the DOMAIN variable for reference to determine the correct source domain for exported data, including any turnaround data.

Turnaround data is stored based on the eCommerce processing domain used when the source document is imported. When you update turnaround data using Turnaround Data Maintenance (35.9.17), use the Target Domain field to specify the domain associated with the turnaround data you want to maintain. You also can specify the target domain when you archive and delete turnaround data using Turnaround Data Archive/Delete (35.17.16).

Note When you use a single-domain database, the domain is essentially transparent to the EDI eCommerce setup and processing functions. No special setup or implementation steps are needed, with the exception of updating existing user-defined functions that access the database to let them handle system-required domain values. See “Updating Legacy User-Defined Functions” on page 78.

Figure 2.59 is an overview of how EDI eCommerce processes documents in a multiple-domain environment.

Fig. 2.59
EDI eCommerce Multiple-Domain Processing Flow



Multiple-Domain Setup

The majority of data-intensive records—including the exchange file, application document, implementation, and transformation definitions—are shared by all the domains in a database. However, to use the product in a multiple-domain environment, several kinds of data must be set up in each domain. These types of data are records that typically vary between domains, such as trading partner records and control settings.

Note Each domain has its own eCommerce Control (35.13.24) record. This lets you set up different inbound directories so that the location where the system looks for imported files can vary by login domain.

To enter domain-specific setup data, either log in to the target domain at sign-on, switch to the appropriate domain, or use Change Current eCommerce Domain (35.11.11). The system automatically assigns the records you create to the appropriate eCommerce processing domain.

Table 2.2 lists the programs used to set up required domain-specific records.

Table 2.2
Domain-Specific Setup Programs

Program	Menu	Comments
Turnaround Data Maintenance	35.9.17	
EC Subsystem/Exchange Maint	35.13.3	
EC Subsystem/Application Maint	35.13.5	
Trading Partner Maintenance	35.13.7	
Trading Partner Parameter Maint	35.13.10	
Data Cross-Reference Maintenance	35.13.16	Optional functionality
Data Validation Maintenance	35.13.21	Optional functionality
eCommerce Control	35.13.24	

When you are loading new data from trading partner library files rather than entering it manually using one of the listed programs, the system automatically separates domain-specific information and loads it into the EDI eCommerce domain you specify during the load process.

See “Loading Trading Partner Library Records” on page 78.

Specifying Domain Cross-References

By default, EDI eCommerce processing is based on the domain of the logged-in user session. The system uses domain-specific setup records, looks for data associated with that domain, and generates repository records using that domain as a key field. However, in some EDI environments, not all of those elements are in the login domain. For example, a centralized EDI processing area that supports several domains can load data for each domain individually, but can maintain the EDI data within a central domain.

Use Domain Cross-Reference Maintenance (35.11.1) to set up a cross-reference record between the user’s login domain and a domain used in EDI eCommerce processing.

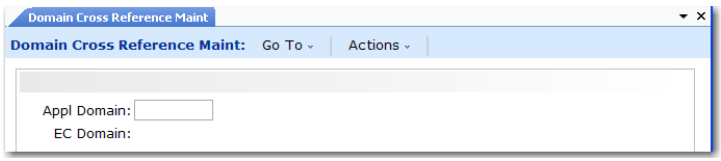
The system uses a cross-reference record under either of the following circumstances:

- The user’s login domain is the same as the specified value.
- The user changes to this domain.

When no cross-reference records are set up, the system uses the login domain of the user as the eCommerce domain. To switch to a different processing domain during a session, use Change Current eCommerce Domain (35.11.11).

Note No cross-reference records are needed in a single-domain environment.

Fig. 2.60
Domain Cross Reference Maintenance (35.11.1)

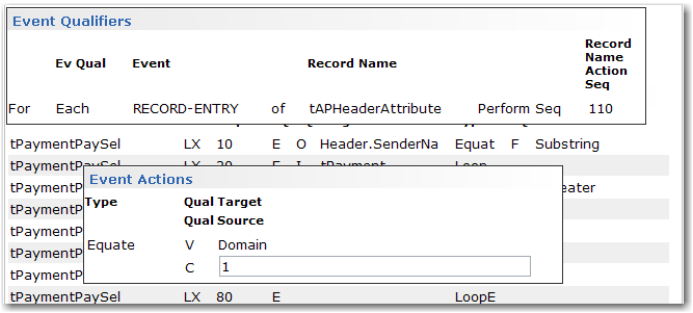


Changing the Target Domain During Transformation

By default, during document import the system creates application repository documents and the resulting business documents—such as sales orders—in the eCommerce processing domain. It also is possible to have the system map the document to a different domain by assigning a target domain during transformation.

Use Transformation Definition Maintenance (35.15.17) to specify an event action that determines the domain associated with the document. For example, the event action shown in Figure 2.61 assigns the domain variable a value of 1. The import gateway associated with the transformation creates the resulting document in domain 1.

Fig. 2.61
Transformation Definition Maintenance (35.15.17), Event Action Example



Loading Trading Partner Library Records

Although most elements added by Trading Partner Library Load (35.17.7) are shared by all domains, several kinds of data are domain specific.

Use the Target Domain field to specify which domain the domain-specific parts of the new setup data will be associated with. The field defaults from the user's login domain. You can change it to any valid domain defined in Domain Maintenance (36.1.1.1).

Updating Legacy User-Defined Functions

EDI eCommerce assigns a shared variable to user-defined transformation functions when you generate them using eCommerce Function Maintenance (35.15.21). This variable, trgt_domain, lets functions identify the correct domain associated with the data that the function will access or process. For example, it is used to set the target domain to the value of the DOMAIN token.

If you have legacy functions designed in an earlier, non-domain version of the product, you must update the code for any existing functions that access the database to let them continue to support transformation with no risk of degrading processing performance. Additionally, the functions should have a reference to the Progress include file `mgdomain.i`.

To update user-defined functions, use a text editor to add the following code to the beginning of each Progress function program:

```
{mgdomain.i}
define shared variable trgt_domain like global_domain no-undo.
```

User-defined functions are stored in the directory specified in the Function Directory field in eCommerce Control (35.13.24).

Chapter 3

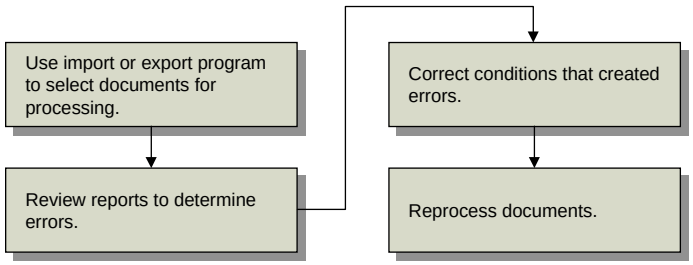
Using EDI eCommerce

This chapter discusses day-to-day use of EDI eCommerce.

Introduction to eCommerce Use

Because the system does most of the processing automatically based on the way trading partner documents, exchange files, and transformation maps are set up, day-to-day users of eCommerce generally use only a few programs to import and export files. Figure 3.1 shows a typical task flow.

Fig. 3.1
eCommerce User Task Flow



EDI eCommerce's process control logic can be started in one of three ways:

- A system user can begin processing by selecting documents using either Document Import (35.1) or one of the programs on the Document Export menu (35.4).
- The system can search at regular intervals for inbound files from an EC subsystem or outbound documents in the database. When it finds new files or documents, the system automatically begins processing.
- You can write a custom program that lets the EC subsystem invoke eCommerce processing whenever it has files to send to your system. See "Scheduling Automatic Processing" on page 66.

This chapter assumes that processing begins when the operator selects documents using one of the menu programs.

In addition to import and export programs, eCommerce provides several tools for viewing and modifying data in the data repository. Items in the data repository include documents in various stages of transition between the EC subsystem and your system. Routinely using these programs to change data is not recommended. However, they can be valuable for modifying such things as erroneous control records that prevent the system from processing a file.

To regain disk space, you can archive and delete data when it is no longer needed. For example, you can delete exchange file and application documents that have already completed processing, transformation, and loading to the EC subsystem or the database. Other programs let you archive and delete turnaround data records and comments linked to imported orders.

See "Maintaining the Document Repository" on page 105.

Note The gateway programs used to import and export documents check for blocked customer/supplier transactions defined for the corresponding menu program. For example, you can use Document Import to import a customer's purchase order, which creates a sales order during gateway processing. However, if the customer address is blocked from creating transactions in Sales Order Maintenance, EDI eCommerce issues error messages during import and does not create a sales order from the imported document. See "Archiving and Deleting EDI eCommerce Data" on page 111.

See *User Guide: QAD Master Data* for information on blocked transactions.

Using eCommerce with EMT

EDI eCommerce supports Enterprise Material Transfer (EMT), which lets you automatically generate purchase orders from sales orders. You can use eCommerce to exchange EMT purchase orders, PO change and acknowledgment documents, and shipping documents with your trading partners up and down the supply chain.

Several eCommerce programs are designed specifically for use with EMT. To put them in the appropriate context, these programs are described in the EMT chapter of *User Guide: QAD Sales*.

- eCommerce Manager (35.22.13)
- PO Change Ack Export (35.22.15)
- PO Change Export (35.22.16)

See *User Guide: QAD Sales*.

Using eCommerce with Trade Sales

Under trade sales agreements, trade sales suppliers do not communicate directly with the customer. A sales agreement exists between you and your customer that you create orders, transact, and document the material delivery from a trade sales supplier to the customer; however, the trade sales supplier delivers the actual material to the customer. You transact the order and shipment and inventory is temporarily added and issued; however, no trade sales supplier materials are ever physically added to your inventory or consumed.

When you create customer trade sales orders in Customer Scheduled Order Maintenance (7.3.13), the system automatically:

- Creates supplier scheduled orders
- Creates supplier planning or shipping schedules when you import active trade sales customer planning or shipping schedules
- Creates the following shipment documents when you import an ASN for a trade sales supplier scheduled order: PO shipper, PO shipper receipt, SO shipper, SO shipper confirmation, and optional ASN sent to the customer

See *User Guide: QAD Scheduled Order Management.*

Fields in EDI eCommerce work with parameter settings in Trading Partner Parameter Maintenance (35.13.10) to automate trade sales processing. You can set up EDI eCommerce to manage two ASN processes:

- Trade sales suppliers send you an original ASN.
- Trade sales suppliers send you a copy of the ASN.

If the trade sales supplier sends you the original ASN, you send your own ASN to the customer. The system automatically creates your ASN from the SO shipper. If the trade sales supplier sends you a copy, you typically do not send your own ASN to the customer as this duplicates data the customer receives and can lead to confusion.

The system creates an SO Shipper automatically from the ASN data that the trade sales supplier sends to you, so no additional ASN setup is required to create the SO shipper.

Set the following to send ASNs to the customer automatically:

- Export ASN to Yes in eCommerce Manager
- Queue Trade Sales ASN to Yes in Trading Partner Parameter Maintenance for the supplier

Set the following to automatically send system-created supplier planning or shipping schedules to trade sales suppliers:

- Export Supplier Schedules to Yes in eCommerce Manager
- Queue TS Schedules to Yes in Trading Partner Parameter Maintenance for the supplier
- Send EDI Plan Schedule or Send EDI Ship Schedule to Yes in Trading Partner Parameter Maintenance for the supplier

The system adds exported schedules to the eCommerce Session Report.

Importing Documents

Use Document Import (35.1) in two ways:

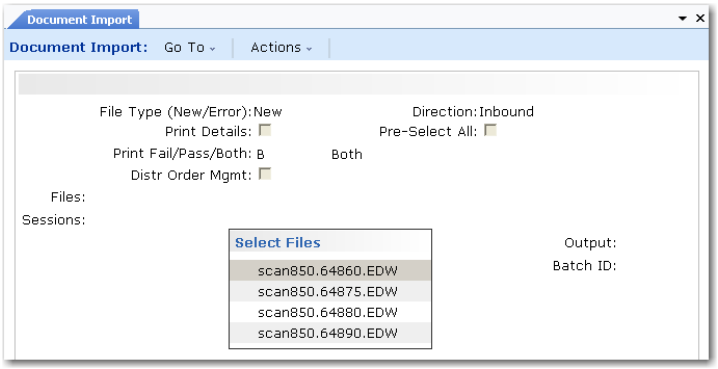
- To start the process of loading SNF files from the EC subsystem, transforming them into usable formats, and transferring them into the database using a gateway program. See “Imports” on page 7.

  This feature also lets you import files containing documents used in EMT. Ordinarily, you use eCommerce Manager to import such files. However, Document Import lets you select individual files from the specified import directory. See *User Guide: QAD Sales* for information on EMT.
- To load files from the EC subsystem directly into the data repository. This feature lets you transform inbound files and export them again without ever creating business documents.

The system generates a report on imported files to the device specified in Output. You can choose to run this process later using the Batch ID field.

Note The system associates several field values with your user ID. Next time you run this program, the field defaults to the same values you entered previously.

Fig. 3.2
Document Import (35.1)



File Type (New/Error). Specify the type of files to be listed in the Select File(s) frame.

- Enter New to display a list of unprocessed files located in either the Inbound Directory or the Outbound Scan Directory specified in eCommerce Control (35.13.24), depending on the setting of Direction.
- Enter Error to display only files containing documents that encountered errors during previous imports. These files are located in either the Error File Directory or the Outbound Error Directory specified in eCommerce Control, depending on the setting of Direction.

Direction. Specify the source of the files the system will select for import:

Inbound: The program selects files from the directory specified in the Inbound Directory field in eCommerce Control. It then imports EDI documents to the exchange repository based on a standards-neutral format (SNF) by transforming them using specified maps, placing them in the application document repository, and loading them into the database.

Outbound: The system selects files from the directory specified in the Outbound Scan Directory field in eCommerce Control. Instead of using exchange records based on an SNF, the system imports these files directly into the application document repository for processing.

See “Configuring eCommerce Control” on page 14.

For example, you would specify this directory as the source of files that are provided by an external system and are to be transformed and exported using EDI eCommerce without creating business documents.

See “Direct Import to Application Repository” on page 4.

Print Details. Enter Yes to include detailed error and warning messages on the report generated when this program executes. If you enter No, the report is limited to higher-level summary information.

Pre-Select All. Enter Yes to have all files selected—that is, marked with an asterisk (*)—when displayed on the Select File(s) list. If this field is No, the files still display, but none are initially selected.

Print Fail/Pass/Both. Specify the status of documents to be included in the output report of this program.

Failed (the default): The report is limited to documents that failed to process.

Passed: The report is limited to documents that processed correctly.

Both: The report includes all documents regardless of status.

Input Directory. Enter the directory path to the location of the files to be processed. This must be a valid directory.

Initially, the field defaults from eCommerce Control. If you change it, the system associates the value you enter with your user ID. Next time you run this program, the field defaults to the same value you entered previously.

File Mask. Specify one or more patterns, including wildcards (*), for the system to use in selecting files for processing. For example, if you enter *.GEN, the system selects all files with an extension of GEN. Separate multiple entries with commas.

Files. Enter the names of the files to be processed, including extensions. Separate multiple file names with commas. The system validates your input.

Do not enter the full path to these files. The system automatically looks in either the Inbound Directory or the Outbound Scan Directory specified in eCommerce Control, depending on the setting of Direction.

You can also leave Files blank and choose Go to display a list of files—either new files or previously imported files that encountered errors during load processing, depending on how File Type (New/Error) is set. Select or deselect files from the list as required. Selected files are marked with an asterisk (*).

After selecting files from the list, choose Go. Selected files display in the Files field.

Sessions. These system-assigned numbers group all the files imported during a particular session. Use them to track the status of the documents you have imported and to identify any errors that occurred during processing.

Additionally, the system assigns a sequence number to each file selected. This number is used to group the documents within the file. If any documents cannot be loaded, the system writes them to an error file that uses the process session number as a file name.

See “Tracking Import/Export Document Status” on page 99.

Exporting Documents

The Document Export menu (35.4) includes programs used for exporting several types of documents:

- Shipment ASN Export (35.4.1)
- Consignment Usage Export (35.4.2)
- Invoice Export (35.4.3)
- Purchase Order Acknowledgment (35.4.5)
- Supplier Shipping Schedule (35.4.8)
- Purchase Order Export (35.4.9)
- Supplier Self Billing Export (35.4.11)
- Inventory Cycle Count Export (35.4.13)
- Packing List Export (35.4.15)
- DO Packing List Export (35.4.16)
- Price Catalog Export (35.4.17)
- Warehouse Shipment Advice (35.4.18)
- Generic Gateway Export (35.4.20). See “Exports” on page 8.

Two additional document export programs are designed specifically for use with Enterprise Material Transfer (EMT). To place them in the appropriate context, these programs are available from the eCommerce EMT menu (35.22):

- PO Change Ack Export (35.22.15)
- PO Change Export (35.22.16)

See *User Guide: QAD Sales.*

Based on trading partner setup data, the system can create optional tracking records when it exports documents. These records are automatically updated with status information when acknowledgments are imported from the EC subsystem.

See “Tracking Exported Documents” on page 103.

Audit report functions are associated with several export programs; these are available on the Export Audit Reports menu (35.4.6). You can use these programs to view information about exported documents. Specific details vary by document type; for example, the ASN report includes the site, shipper number, ship-to address, and shipping date, as well as status data. All reports include batch information.

The following table lists the audit report programs.

Menu	Menu Label	Program Name
35.4.6.1	ASN Export Audit Report	edexasrp.p
35.4.6.2	Invoice Export Audit Report	edexivrp.p
35.4.6.3	Order Export Audit Report	edexporp.p
35.4.6.4	Schedule Export Audit Report	edexscrp.p
35.4.6.5	Order Ack Export Audit Report	edexparp.p

Exporting ASNs

An advance ship notice (ASN) document informs customers when items have left the supplier’s site.

Depending on specific trading partner implementations, an ASN can provide a wide variety of shipment-related data items. Typically, an ASN includes the following:

- Purchase order number
- Item number
- Authorization number
- Quantity shipped
- Cumulative quantities
- Shipment time

In Shipment ASN Export (35.4.1), enter selection criteria to indicate which shipments should have ASNs sent. The system uses these criteria to execute the appropriate gateway program, select the appropriate trading partner information, and transform the outbound data to the format required by the receiving party’s EC subsystem.

This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

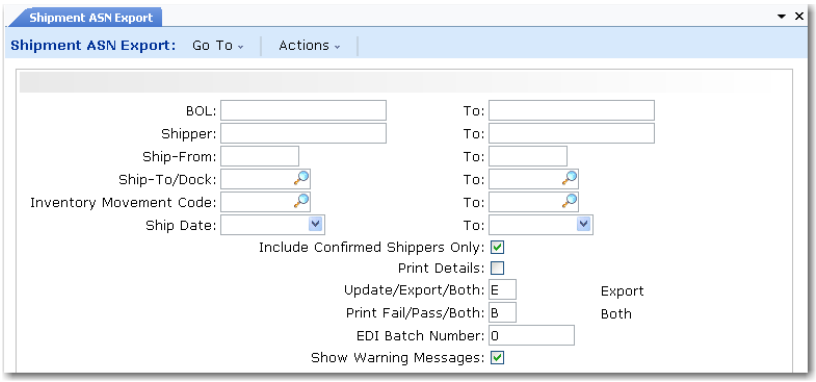
- Logical position 01: Send EDI ASNs; set to Yes or No
- Character: Shipping Document Name; set to the name of the application document definition to use; for example, Shipping-Notice
- Integer: Shipping Document Ver; set to the version number of the application document definition to use

See “Defining Trading Partner Parameters” on page 52.

EMT suppliers can use this program to export an ASN indicating that a secondary sales order has been shipped. Ordinarily, you use eCommerce Manager to export such ASNs. However, Shipment ASN Export lets you enter selection criteria to specify a range of shipments or even a single shipment to have an ASN exported.

See *User Guide: QAD Sales* for information on ASNs in EMT.

Fig. 3.3
Shipment ASN Export (35.4.1)



Bill of Lading (BOL), Shipper, Ship-From, Ship-To/Dock, Inventory Movement Code, Ship Date. Use these fields to specify ranges of selection criteria for the system to use in selecting ASNs for export.

Include Confirmed Shippers Only. Enter Yes to include only confirmed shippers in the selection.

Print Details. Enter Yes to include detailed error and warning message information on the report generated when this program executes. If you enter No, the report is limited to higher-level summary information.

Update/Export/Both. Specify whether the system should prompt you to update previously defined fields before exporting the documents meeting the selection criteria:

Update: The system displays the fields you have set up as editable in the implementation definition for exporting this document type. You can modify them as needed.

Any updates you make are not reflected in the database. They affect only the outbound document.

See page 34.

Important If you set this field to Update, you must export the documents in two steps. First, enter selection criteria and update the selected documents as needed. Then run the program again with the same selection criteria and set this field to Export.

Export: The system exports the documents that meet the selection criteria without prompting you to update them.

Both: The system prompts you to update the documents, then exports them as part of the same process.

Print Fail/Pass/Both. Specify the status of documents to be included in the output report of this program.

Failed (the default): The report is limited to documents that failed to process.

Passed: The report is limited to documents that processed correctly.

Both: The report includes all documents regardless of status.

EDI Batch No. To reexport a group of documents, enter the batch number assigned to the group.

When exporting a new group of documents, leave this field set to zero. The system assigns a new batch number to each group of exported documents.

Show Warning Messages. When this field is Yes, the system displays warning messages stating that some of the selected documents were skipped during export because of trading partner parameter setup data. Otherwise, the system skips the documents without displaying the messages.

In some circumstances, you may need to combine multiple shipment lines into a single shipping document. For example, bar-code scanning can produce many more lines than necessary, such as one line for each container.

When you want to combine similar line items into one line for ASN processing for a trading partner, you can set up a record in Trading Partner Parameter Maintenance (35.13.10) to define the combining logic.

For the selected address/site combination, create a record in the Integer Parameters frame. In the Integer Param Desc field of any available line, enter Combine Like Items Level. For Integer Param Value, enter the appropriate value from Table 3.1 to indicate the selected combining level code.

See “Defining Trading Partner Parameters” on page 52.

Table 3.1
ASN Combining Logic Codes

Implementation Record Name	Level Code	Combining Logic Structure
CTR-TARE (CT)	5	CT,CP,CI,I.item-no,I.reference
CTR-PRIM (CP)	4	CP,CI,I.item-no,I.reference
CTR-ITEM (CI)	3	CI,I.item-no,I.reference
ITEM (I)	2	I.item-no,I.reference
	1	I.item-no
	0	No items are combined.

Example If you specify a level code 4 for a trading partner, the system will combine shipping records for items, container items, and the primary container into a single ASN for that trading partner’s shipments.

Exporting Consignment Usage Data

Use Consignment Usage Export (35.4.2) to notify your supplier that you have consumed inventory shipped to your location on a consignment basis. Since ownership of consigned inventory items is not transferred from the supplier to the customer until the items are used, the supplier can use the information in the exported file to determine how much of the total order quantity is available for invoicing.

For information on Supplier Consignment Inventory, see *User Guide: QAD Purchasing*.

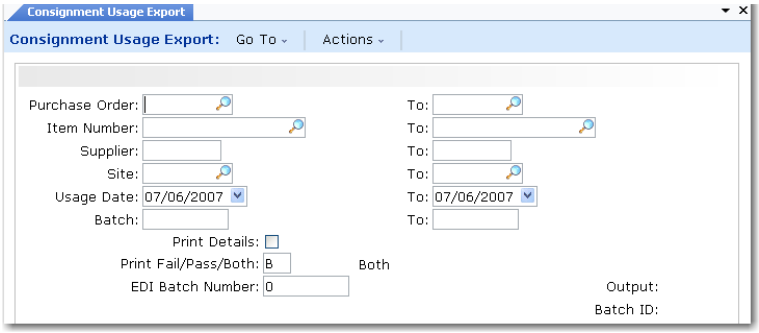
This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 14: Send EDI Consignment; set to Yes or No
- Character: Supplier Consign Doc; set to the name of the application document definition to use; for example, Consignment
- Integer: Supplier Consign Ver; set to the version number of the application document definition to use

See “Defining Trading Partner Parameters” on page 52.

Enter ranges of selection criteria for purchase order, item number, supplier, ship-to site, and transaction dates that apply to the records you want to export. You can also select records based on batch numbers, which are assigned by some Supplier Consignment Inventory functions when consumption is recorded.

Fig. 3.4
Consignment Usage Export (35.4.2)



Exporting Invoices

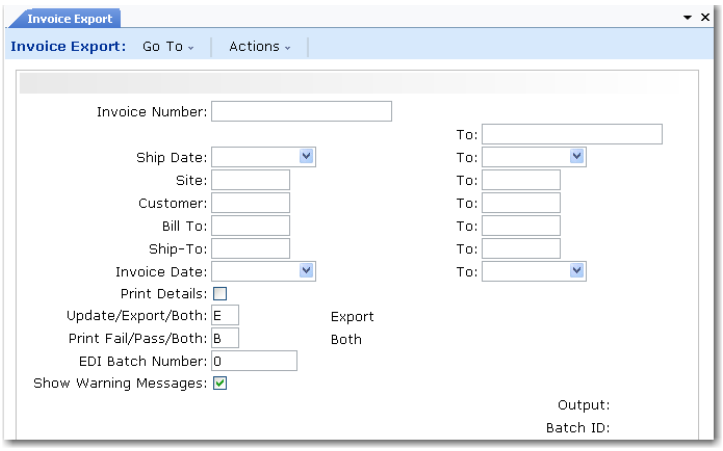
Use Invoice Export (35.4.3) to export individual, multiple, or cumulative invoices to a customer.

This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 02: Send EDI Invoices; set to Yes or No
- Character: Invoicing Document Name; set to the name of the application document definition to use; for example, Invoice
- Integer: Invoicing Document Ver; set to the version number of the application document definition to use

Enter ranges of selection criteria for invoice number, ship date, and so on as required to select invoices for export. The system uses these criteria to execute the appropriate gateway program, select the appropriate trading partner information, and transform the outbound data to the format required by the receiving party’s EC subsystem.

Fig. 3.5
Invoice Export (35.4.3)



While the selection criteria are different and more numerous, this program works very similarly to Shipment ASN Export. Like the ASN program, it includes the capability to update fields on outbound documents before exporting them, as long as those fields have been defined as editable in Implementation Definition Maint.

See “Exporting ASNs” on page 85.

Note The country of the bill-to customer determines the numeric and date formats.

Exporting Purchase Orders

Use Purchase Order Export (35.4.9) to export a purchase order to a supplier.

Create purchase orders using Purchase Order Maintenance (5.7).

This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 06: Send EDI PO; set to Yes or No
- Character: PO Document Name; set to the name of the application document definition to use (for example, MFG850)
- Integer: PO Document Ver; set to the version number of the application document definition to use

See *User Guide: QAD Purchasing* for information on purchase orders.

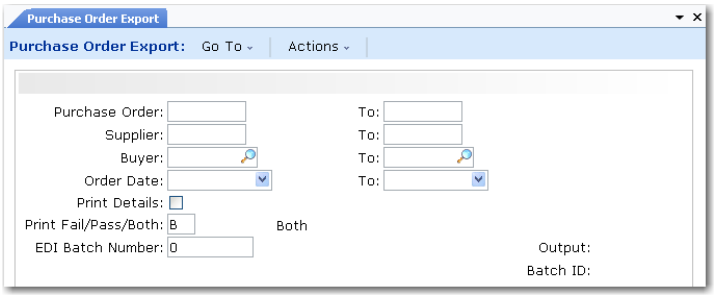
Important When you plan to export purchase orders to a supplier, set Send EDI PO to Yes for that supplier in Trading Partner Parameter Maint. This sets the EDI PO field to Yes in the purchase order trailer so that the order is available for selection in Purchase Order Export.

This program is similar to the other export programs on the menu. Enter selection criteria to indicate which purchase orders should be exported. To reexport a purchase order, enter the batch number that was assigned during an earlier export process.

You can also use this program to export purchase orders that have been automatically generated from EMT sales orders. Ordinarily, you use eCommerce Manager to export such POs. However, Purchase Order Export lets you enter selection criteria to specify a range of POs or even a single PO to be exported.

See *User Guide: QAD Sales for* information on EMT.

Fig. 3.6
Purchase Order Export (35.4.9)



Acknowledging Purchase Orders

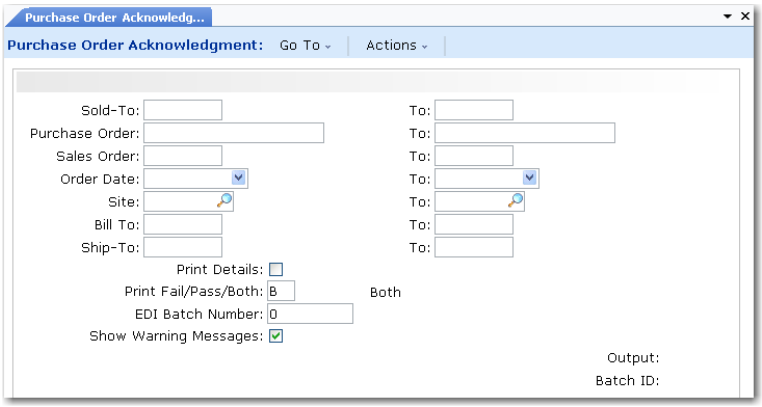
Use Purchase Order Acknowledgment (35.4.5) to notify your trading partner that you have received a purchase order and entered it as a confirmed sales order. Sales orders must be confirmed to be acknowledged.

This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 03: Send EDI PO Ack; set to Yes or No
- Character: PO Ack Document Name; set to the name of the application document definition to use; for example, MFG855
- Integer: POAck Document Ver; set to the version number of the application document definition to use

See “Defining Trading Partner Parameters” on page 52.

Fig. 3.7
Purchase Order Acknowledgment (35.4.5)



A purchase order acknowledgment reflects the contents of the sales order. This is not necessarily identical to the original purchase order that generated the sales order. For example, the quantity ordered may not be available on the due date. The acknowledgment document in that case reflects a different quantity, a different due date, or both.

You can also use this program to export purchase order acknowledgments that have been automatically generated from EMT sales orders. Ordinarily, you use eCommerce Manager to export such PO acknowledgments. However, Purchase Order Acknowledgment lets you enter selection criteria to specify a range of POs or even a single PO to be acknowledged.

See *User Guide: QAD Sales* for information on EMT.

Optionally, you can use Purchase Order Ack. Maintenance (35.4.4) to assign or modify the status of purchase orders before sending the acknowledgments to the customer.

Enter selection criteria to specify which purchase orders to update based on the customer, the customer's purchase order number, or your sales order number. You can update all lines of all the purchase orders meeting the selection criteria at once by setting Update Purchase Orders Automatically to Yes. Then set Status to indicate which status all the lines should be changed to. Leave Update Purchase Orders Automatically set to No to display the individual purchase order lines. You can then assign an individual status code to each line.

Valid status codes are:

0: Pending

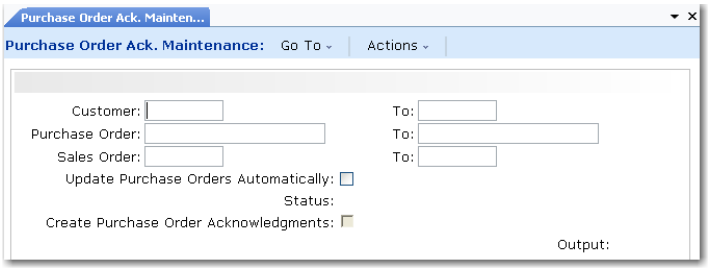
1: Accepted in full

2: Accepted with a change

3: Rejected

When you choose to update the selected purchase orders automatically, you can generate a report for review before actually updating the status. To do this, set Create Purchase Order Acknowledgments to No. When this field is Yes, the system selects the purchase orders and automatically updates the status.

Fig. 3.8
Purchase Order Ack. Maintenance (35.4.4)



Exporting Supplier Schedules

Use Supplier Shipping Schedule (35.4.8) to send your suppliers planning and shipping schedules—based on scheduled orders—to communicate short-term and long-term requirements.

Supplier schedules are cumulative, schedule-driven purchase orders with multiple line items from which releases of requirements and due dates are issued. They are typically used by companies with long-term supplier contracts that require regular weekly or daily deliveries. The schedules specify, for the near term, dates and even hours of deliveries. They also inform MRP and the supplier about long-term plans.

See *User Guide: QAD Scheduled Order Management* for information on Supplier Schedules.

The types of schedules you can export are determined by whether you use the optional Supplier Shipping Schedules module.

If you are not using Supplier Shipping Schedules, you create and export schedules that combine planning and shipping data. With the optional functionality, you can separate long-term planning requirements from specific daily and hourly delivery requirements.

If you have this module installed and enabled in Supplier Schedule Control (5.5.7.24), you can update the Export Planning Schedule and Export Shipping Schedule fields in Supplier Schedule Export. Otherwise, Export Supplier Schedule is the only available option.

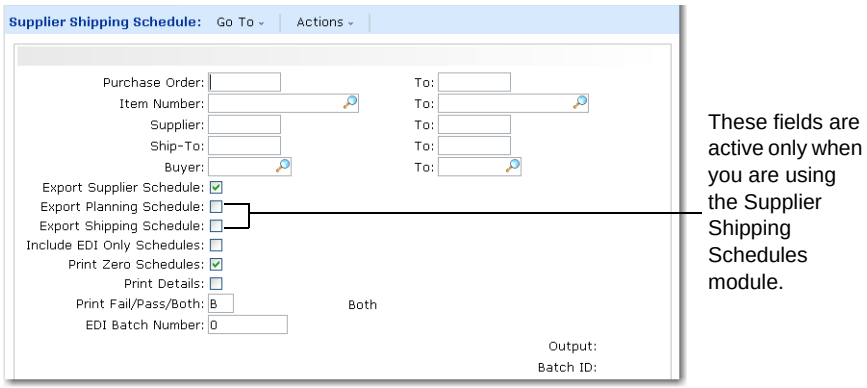
For details, see *User Guide: QAD Scheduled Order Management*

This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 04: Send EDI Plan Schedules; set to Yes or No
- Character: Plan Sch Document Name; set to the name of the application document definition to use; for example, MFG830
- Integer: Plan Sch Document Ver; set to the version number of the application document definition to use
- Logical position 05: Send EDI Ship Schedules; set to Yes or No
- Character: Ship Sch Document Name; set to the name of the application document definition to use; for example, MFG830
- Integer: Ship Sch Document Ver; set to the version number of the application document definition to use

See “Defining Trading Partner Parameters” on page 52.

Fig. 3.9
Supplier Shipping Schedule (35.4.8)



You select schedules for export by specifying criteria, just as in the other export programs. Supplier Shipping Schedule has four additional fields:

Export Supplier Schedule. Enter Yes to export supplier schedules that match the selection criteria. Otherwise, enter No.

When the Supplier Shipping Schedules module is active, this field defaults to No and cannot be modified.

When the Supplier Shipping Schedules module is not active, this field defaults to Yes and can be modified as needed.

Export Planning Schedule. Enter Yes to export planning schedules that match the selection criteria. Otherwise, enter No.

When the Supplier Shipping Schedules module is active, this field defaults to Yes and can be modified as needed.

When the Supplier Shipping Schedules module is not active, this field defaults to No and cannot be modified.

Export Shipping Schedule. Enter Yes to export shipping schedules that match the selection criteria. Otherwise, enter No.

When the Supplier Shipping Schedules module is active, this field defaults to No and can be modified as needed.

When the Supplier Shipping Schedules module is not active, this field defaults to No and cannot be modified.

Include EDI Only Schedules. Enter No to export both EDI and non-EDI schedules. Supplier Shipping Schedules disregards the setting for EDI Schedules in Supplier Scheduled Order Maintenance and includes both EDI and non-EDI supplier schedules for export.

Enter Yes to export only schedules that have EDI Schedules set to Yes in Supplier Scheduled Order Maintenance.

When this is No and the system cannot find valid associated settings in Trading Partner Parameter Maint (35.13.10), errors result. By setting the field to Yes, you can avoid having to review error messages associated with schedules that should not be exported.

Print Zero Schedules. Enter Yes to select all scheduled orders that meet the other selection criteria, including those with no requirements. You can use this option to select a zero schedule to inform your supplier that requirements from a previous schedule are no longer needed.

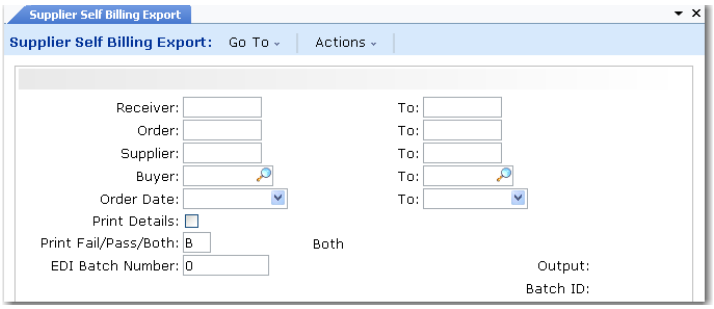
If No, only scheduled orders with at least one non-zero requirement quantity are selected.

Exporting Self-Billing Information

Use Supplier Self Billing Export (35.4.11) to export payment invoice information to your suppliers in a self-billing environment. They can then use this information in either a self-billing or receipt-advice context to associate your payments with their corresponding sales order and shipping records. For example, you could use this program to export self-billing information to suppliers using the Self-Billing module.

Enter selection criteria to specify which supplier invoice data to export based on the receiver number, purchase order number, supplier, buyer, or date you received the order. The system then exports data from supplier invoices. For example, you can export supplier invoices created with Evaluated Receipts Settlement (ERS).

Fig. 3.10
Supplier Self Billing Export (35.4.11)



To ensure that the same supplier invoice cannot be exported twice, the system records the batch ID in the vendor purchase order detail table (vpo_det).

Note The batch number is recorded whenever a supplier invoice is selected for export, even if the document does not export successfully.

To be able to select a supplier's invoices for export by this program, you must define some related parameters in Trading Partner Parameter Maintenance (35.13.10). The parameter record of each supplier who can receive self-billing documents must include:

- Logical position 11: Send Supplier Invoice; set to Yes or No
- Character: ERS Document Name; set to Supplier Invoice
- Integer: ERS Document Ver; set to 1

See "Defining Trading Partner Parameters" on page 52.

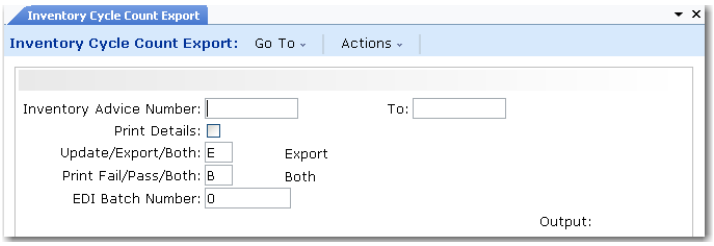
Exporting Cycle Count Data

Use Inventory Cycle Count Export (35.4.13) to export cycle count information that can be used by your trading partner to compare inventory discrepancies between physical counts and the inventory levels recorded in the trading partner's database.

The exported document includes the information generated when you run Inventory Balance Update (3.16.21) in response to a request for a cycle count.

See *User Guide: QAD Master Data* for information on cycle counts.

Fig. 3.11
Inventory Cycle Count Export (35.4.13)



Enter an ID number range in Inventory Advice Number to select records for export. This number is included on the cycle count request.

Based on the implementation definition, you can optionally update some of the data in the document before exporting it. Use the Update/Export/Both field to control this feature.

This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 12: Send Inv/Recv Adjustments; set to Yes or No
- Character: Inv Adv CC Doc Name; set to the name of the application document definition to use; for example, Inv-Cycle-Count
- Integer: Inv Adv CC Doc Name; set to the version number of the application document definition to use

See “Defining Trading Partner Parameters” on page 52.

Exporting Packing Lists

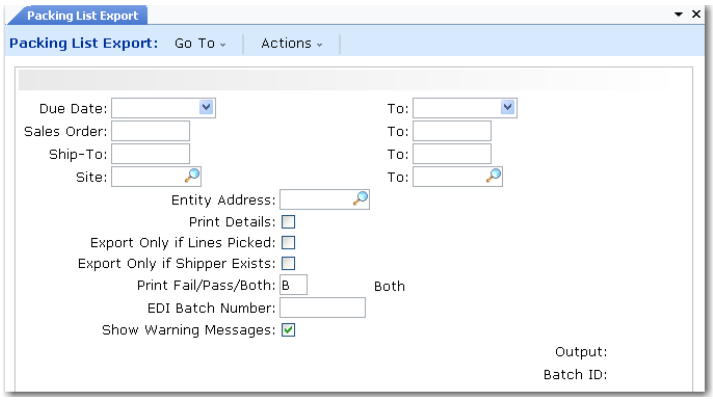
Use Packing List Export (35.4.15) used to communicate a request for shipment of product from a public warehouse to a customer location.

For example, you can create a shipping order that informs a public warehouse that the listed items and quantities should be shipped to the end customer’s location.

Note This program generates packing lists for shipment to customers based on sales order picklists. To instruct a warehouse to deliver to another warehouse based on a distribution order packing list, use DO Packing List Export.

This program is similar to Sales Order Packing List (79.13). However, instead of sending standard packing list data to a specified output device, Packing List Export uses EDI eCommerce setup records to generate an export file in the format specified for the receiving trading partner.

Fig. 3.12
Packing List Export (35.4.15)



This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 13: Send Packing Lists; set to Yes or No
- Character: Packing List Doc Name; set to the name of the application document definition to use (for example, Packing-List)

- Integer: Packing List Doc Name; set to the version number of the application document definition to use

To determine whether to select packing lists for export, the system first looks for a trading partner parameter record matching the site and company address specified in the selection criteria. If not found, the system uses the site and bill-to from the sales order to look for a parameter record with Send Packing Lists set to Yes.

See “Defining Trading Partner Parameters” on page 52.

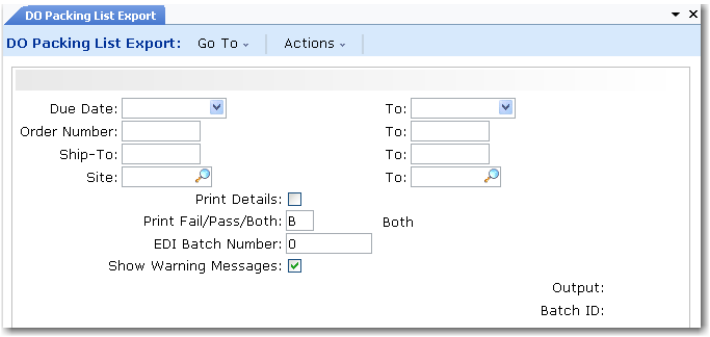
Exporting Distribution Order Packing Lists

Use DO Packing List Export (35.4.16) to generate and export a warehouse distribution order packing list, such as one used as an ANSI X12 format 940 warehouse shipping order.

For example, you can use DO Packing List Export to create a shipping order that informs a warehouse that the listed items and quantities should be shipped to another warehouse.

Note This program generates packing lists for other warehouses based on distribution orders. To instruct a warehouse to deliver to a customer address based on a sales order picklist, use Packing List Export. See “Exporting Packing Lists” on page 95.

Fig. 3.13
DO Packing List Export (35.4.16)



This program is similar to Distribution Order Picklist Print (12.17.19). However, instead of sending standard packing list data to a specified output device, DO Packing List Export uses EDI eCommerce setup records to generate an export file in the format specified for the receiving trading partner.

See *User Guide: QAD Supply Chain Planning* for information on distribution orders.

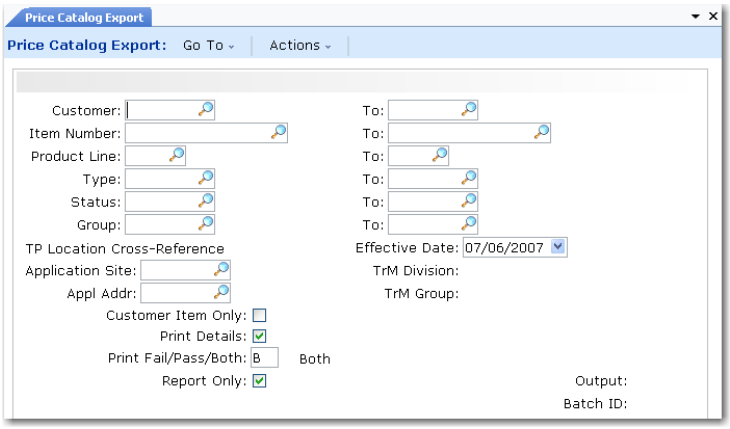
This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 19: Send DO Packing List; set to Yes or No
- Character: DO Packing List Doc Name; set to the name of the application document definition to use; for example, Packing-List
- Integer: DO Packing List Doc Ver; set to the version number of the application document definition to use

Exporting Price Lists

Use Price Catalog Export (35.4.17) to export item and price information as an EDI message to an external system. For example, the external system could be a catalog system or a customer who wants the latest list of prices.

Fig. 3.14
Price Catalog Export (35.4.17)



Enter selection criteria as needed to identify ranges of customers and characteristics of items that will have pricing data exported. If you use Customer Item Maintenance (1.16) to define cross-references between your item numbers and those used by your customers, set Customer Item Only to Yes to limit the export to items that have cross-references.

This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 16: Send Price Catalog; set to Yes or No
- Character: Price Catalog Doc Name; set to the name of the application document definition to use; for example, Price-Catalog
- Integer: Price Catalog Doc Name; set to the version number of the application document definition to use

The system uses information in the Address and Site fields to find cross-references to trading partner identifiers defined in Trading Partner Maintenance. This determines where the exported data is sent.

Best pricing functionality determines the price for each selected item based on price lists or item master data, as appropriate. Run this program with Report Only set to Yes to review a report on items selected and their prices before actually exporting data. If you want the pricing to be based on information for a date other than the current one, modify Effective Date.

See “Defining Trading Partner Parameters” on page 52.

Note Prices are exported in the currency associated with the customer in Customer Maintenance.

Exporting Warehouse Shipment Advice Documents

Use Warehouse Shipment Advice (35.4.18) to advise a receiving warehouse that materials have been shipped from another warehouse based on a received distribution order packing list. This document type supports such EDI standards as ANSI X12 943, Warehouse Stock Transfer/Shipment Advice.

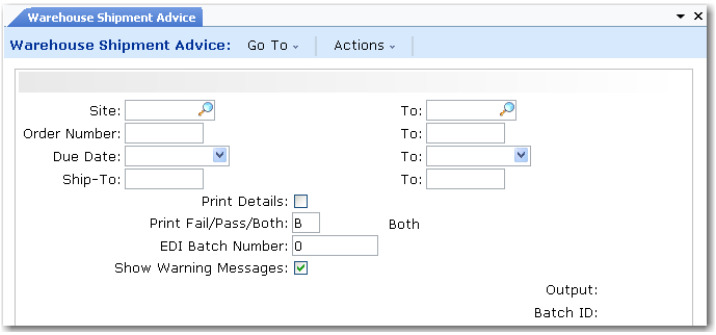
This is the equivalent of an ASN in cases where the shipment is based on a sales order.

This export uses the following trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10):

- Logical position 20: Send Warehouse Shipment; set to Yes or No
- Character: Warehouse Shipment Doc Name; set to the name of the application document definition to use
- Integer: Warehouse Shipment Doc Ver; set to the version number of the application document definition to use

See “Defining Trading Partner Parameters” on page 52.

Fig. 3.15
Warehouse Shipment Advice (35.4.18)

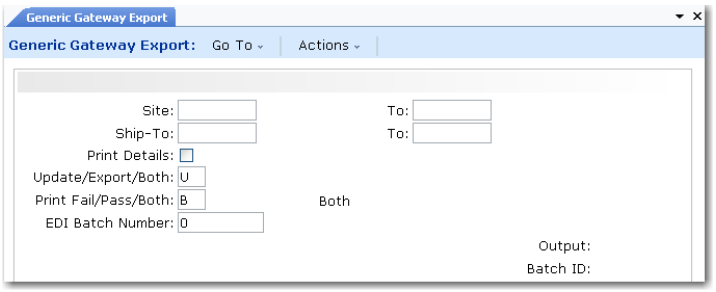


Exporting Data Using the Generic Gateway

Use Generic Gateway Export (35.4.20) to enter and export EDI data based on implementation definitions when a specific export gateway program is not available for the associated document type. You can enter data for any field defined in the implementation definition. The values you enter are then mapped to the outbound document as specified in the associated transformation definition.

See “Defining a Specific Implementation” on page 29.

Fig. 3.16
Generic Gateway Export (35.4.20)



To use the program, enter site and ship-to address criteria. The system searches for matching cross-reference records defined in Trading Partner Maintenance (35.13.7) and displays a list of available trading partners and document types for the site/ship-to combination. Select the trading partner and document type you want to export and choose Go to display the structure of the first record in the implementation definition. Choose Insert to display the entire record structure. You can then select records and enter data in fields as needed.

See “Setting Up Trading Partners” on page 46.

Note Mandatory fields are marked with an asterisk (*).

When you complete data entry and choose Go, the system creates the document based on the values you entered. Depending on the value of Update/Export/Both, you can also have the system automatically export it at the end of the process.

Note Unlike other export programs, Generic Gateway Export does not use trading partner parameters, which are set up in Trading Partner Parameter Maint (35.13.10). Instead, the program exports for any Site and Address combination defined in Trading Partner Maintenance (35.13.7).
See “Setting Up Trading Partners” on page 46.

Tracking Import/Export Document Status

Status and error tracking are important concepts in eCommerce. The process is designed to run continuously:

- During import, from initially loading the SNF file through transforming it and transferring it to the database
- During export, from initially selecting a business document through transforming it and unloading it into an SNF file for transmission to the EC subsystem.

These are complex processes, and errors can occur at any of the three major steps: load/unload, transformation, or gateway transfer.

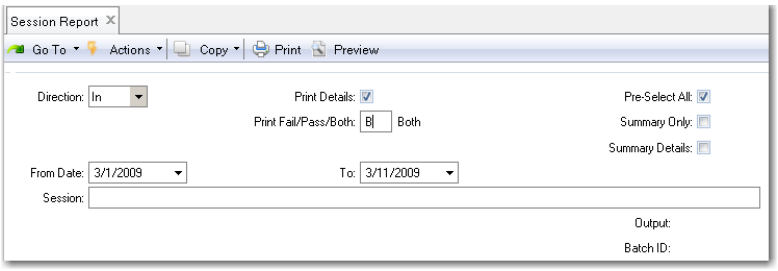
Each time you run an import or export program, the system automatically assigns a session number. You can use that number to track the status of documents processed during that session

Session Report (35.7) shows the status of document imports or exports at each processing step. Use the report to analyze where problems occurred, then resolve the problems either at the source—for example, by adding missing data with the appropriate maintenance program—or in the data repository. Once the problems are corrected, either start the import or export again or use one of the reprocessing programs.

See “EDI eCommerce Processing” on page 6.

See “Reprocessing Documents” on page 102.

Fig. 3.17
Session Report (35.7)



Direction. Enter the direction of the document transfers to be included in this report. Documents imported into your system are inbound, while those exported to the EC subsystem are outbound.

Print Details. Enter Yes to include error messages on the report. If you enter No, the report includes only the status code for each document processed during the session.

Pre-Select All. Enter Yes to have all sessions selected—that is, marked with an asterisk (*)—when displayed in the selection list. When this field is No, the sessions still display, but none are initially selected.

When the list displays, you can select or deselect sessions as needed.

Print Fail/Pass/Both. Specify the status of documents to be included in the output report of this program.

Failed (the default): The report is limited to documents that failed to process.

Passed: The report is limited to documents that processed correctly.

Both: The report includes all documents regardless of status.

From/To Dates. Enter an optional date range to limit the selection to session numbers processed between those dates.

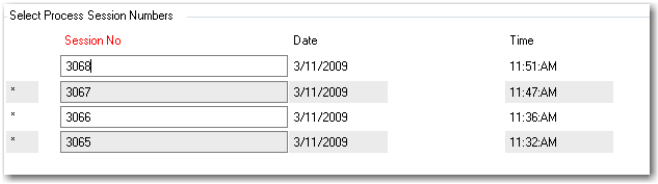
Session. Enter the session numbers of the process sessions to be included in this report. Separate multiple entries with commas. Choose Go to display a list of sessions showing the date and time they were started. Selected sessions are marked with an asterisk (*). You can deselect sessions as needed.

Note If you enter both a date range and one or more session numbers, the report includes the specified sessions only if they fall within the date range. If none of the sessions match the date range, the system displays the message `No files to process`.

Summary Only. Set this field to Yes to limit the report to the summary section, which includes a trading-partner-level summary of which documents were processed, how many passed, and how many failed. The Load, Transformation, and Gateway Process sections do not display.

Summary Details. Set this field to Yes to have each section of the report include additional processing details, including status information for each sequence number created, as well as cross-references between exchange file and application document reference IDs and sequences.

Fig. 3.18
Session Report, Select Process Session Numbers Frame



After selecting sessions from the list, Choose Go. Selected sessions display in the Session field. Then, select an output for the report or specify a batch ID.

The system assigns a status code to each document at each step of the process. Status codes are listed in Table 3.2.

Table 3.2
Document Processing Status Codes

Code	Direction	Status
11	Inbound	Load process failed. Could indicate problem in SNF file or with trading partner or document definition.
12	Inbound	Exchange file load successful.
13	Inbound	Exchange file transformation errors.
14	Inbound	Exchange file transformation successful.
21	Inbound	Application document created, but has not moved to transfer process. May indicate a problem with gateway processing.
22	Inbound	Application document transfer errors.
23	Inbound	Application document transfer successful.
31	Outbound	Application document transfer errors. Correct in application, then treat as new export.
32	Outbound	Application document transfer successful.
33	Outbound	Application document transformation errors.
34	Outbound	Application document transformation successful.
41	Outbound	Exchange file created, but has not moved to unload process. May indicate a problem with gateway processing.
42	Outbound	Exchange file unload errors.
43	Outbound	Exchange file unload successful.

When you know the status of the document, which tells you where in the process any errors occurred, you can use one of the document repository inquiry or report programs to display the error messages and identify the causes of specific problems:

- Exchange Doc Status Inquiry (35.9.1) or Report (35.9.2)
- Application Doc Status Inquiry (35.9.8) or Report (35.9.9)

Correcting Errors

In addition to processing status codes, which indicate the general state of documents within the import or export process, the system generates detailed error messages during eCommerce processing. These display on the terminal running the process session and are summarized on a number of reports. How you correct an error depends on where in the process the error occurred. Chapter 4 lists processing error messages and related corrective actions.

See Chapter 4, “EDI eCommerce Error Messages,” on page 115.

Example The system detects an error while loading an imported file into the exchange file repository (status 11). The document is copied into an error file that is placed in the directory specified in eCommerce Control.

If the load error involves the way mapping is defined in eCommerce, resolve the mapping problem in the appropriate maintenance program. Then, in Document Import (35.1), set File Type (New/Error) to Error. The selection list shows only error files, whose names begin with the prefix specified in eCommerce Control. Select the appropriate file, then rerun the import.

If the load error originated in an SNF file sent by the EC subsystem—for example, missing data in a mandatory field—you might have to contact the trading partner to have them correct the file. In that case, you would start the import over again, treating the corrected file as new input.

See “Importing Documents” on page 82.

In a similar case involving an exported file—when required data is missing from a business document, producing a status 31—correct the document in the appropriate maintenance program and reexport it as a new document.

When documents successfully complete the load or transfer process and are placed in the document repository, you can fix some errors there. eCommerce provides a set of programs you can use for modifying data in the exchange file or application document repository.

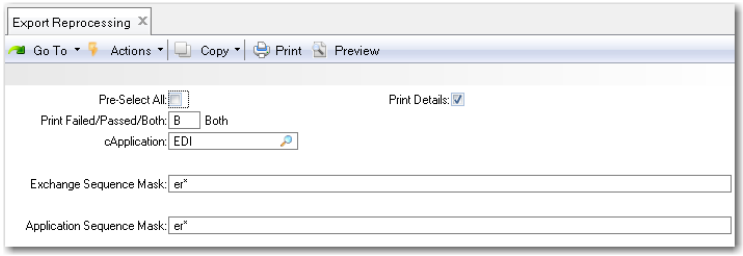
See “Maintaining the Document Repository” on page 105.

Reprocessing Documents

After resolving a problem with import or export processing, use the appropriate program—Import Reprocessing (35.9.21) or Export Reprocessing (35.9.22)—to repeat processing for selected process sequence numbers. Based on the status of the document, the system automatically begins the processing flow from the point the error occurred.

The system generates a report on the reprocessed files to the device specified in Output. You can choose to run this process later using the Batch ID field.

Fig. 3.19
Export Reprocessing (35.9.22)



Pre-Select All. Enter Yes to have all documents selected—that is, marked with an asterisk (*)—when displayed on the selection list. When this field is No, the documents still display, but none are initially selected.

When the list displays, you can select or deselect documents as needed.

Print Details. Enter Yes to include detailed information on the report that is output when this program is executed. If you enter No, the report includes only summary information.

Application. Enter a code representing the application that will have documents processed. The default is EDI.

Exchange, Application Sequence Mask. Specify one or more patterns, including wildcards (*), for the system to use in selecting records from the exchange or application repository for processing. For example, if you enter EDW* in Exchange Sequence Mask, the system selects all sequence numbers in the exchange repository that begin with EDW. Separate multiple entries with commas.

The system associates the values you enter with your user ID. Next time you run this program, the field defaults to the same values you entered previously.

Tracking Exported Documents

For exported documents, the system can automatically create tracking records that let you determine the status of the document both within your system and from the viewpoint of the EC subsystem and your trading partner’s application.

When Track is Yes in a document-level record in Trading Partner Maintenance (35.13.7), the system generates a tracking record each time you export a document of that type to that trading partner. After receiving the exported EDI file from your system, the EC subsystem can send an acknowledgment message. When this message is imported, the system updates the related tracking record with the status code assigned by the EC subsystem. If the message also includes an optional status code assigned by the trading partner’s application, it is added to the tracking record.

See “Setting Up Trading Partners” on page 46.

Example The EC subsystem returns an acknowledgment status of Received, along with an application status of Accepted. When you import acknowledgment messages using Document Import (35.1), the system updates the tracking record to include both status codes.

The acknowledgment message typically includes an interchange control number assigned by the EC subsystem, which is also added to the tracking record. Your system has no knowledge of this control number when the document is exported, so being able to associate it with the exported document can provide a valuable cross-reference tool.

Note Documents are tracked only when the Primary Reference field in the exchange repository master record contains a value. For example, this can be a purchase order, invoice, or ASN number.

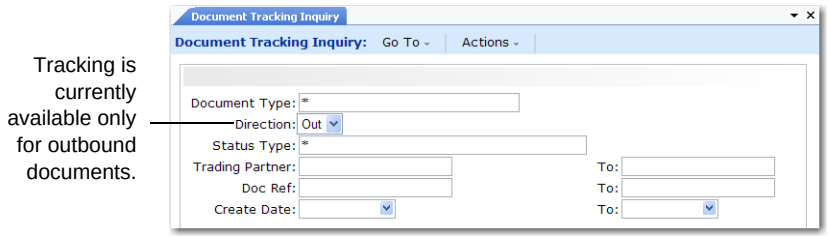
When tracking records are no longer needed online, you can delete them from the system and optionally archive them using Document Tracking Archive/Delete (35.9.16.13).

See page 113.

Use of Tracking Data

Use Document Tracking Inquiry (35.9.16.3) to view document and status information based on tracking records.

Fig. 3.20
Document Tracking Inquiry (35.9.16.3), First Frame



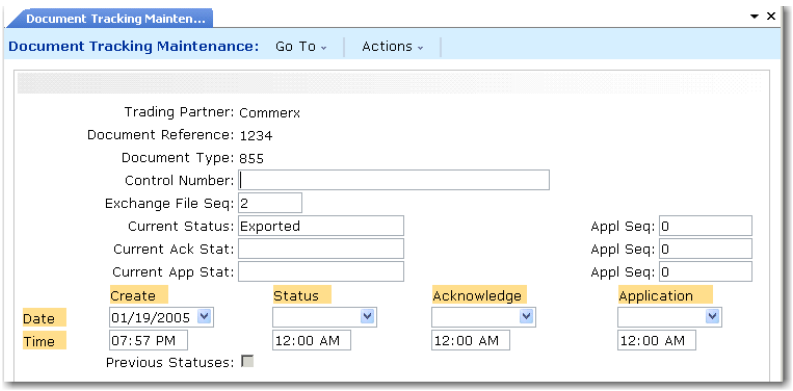
Enter ranges of selection criteria for displaying documents and click Next. The system displays a list of documents that match the criteria, along with a status summary. To view more information, select a record, then click Next. Subsequent screens let you view exchange file or application document status, as well as the content of the associated repository records, for the original document and each acknowledgment or status update document received from the EC subsystem.

Manually Updating Tracking Records

Under some circumstances, you might need to make manual changes to a system-maintained document tracking record; for example, if a communication error prevents your system from importing an acknowledgment message from the EC subsystem.

Use Document Tracking Maintenance (35.9.16.1) to make manual updates to system-maintained tracking records associated with exported documents.

Fig. 3.21
Document Tracking Maintenance (35.9.16.1)



Trading Partner. Enter the identifier representing the trading partner that received the exported document tracked with this record.

Entries are validated against IDs defined in Trading Partner Maintenance.

Document Reference. Enter the number of the exported business document tracked with this record. For example, this could be a purchase order, invoice, or ASN number.

Document Type. Enter the type of the exported document tracked with this record. For example, this could be ANSI X12 document 856 or EDIFACT document DESADV.

Entries are validated against document types defined for the specified ID in Trading Partner Maintenance (35.13.7).

Control Number. Enter the interchange control number assigned by the EC subsystem to the exported document.

Exchange File Seq. Enter the exchange sequence number of the exported document associated with this tracking record. Entries are validated against exchange repository master records.

Current Status. Enter the processing status code assigned most recently to the exported document.

For example, when a document is successfully exported, the system sets this status to Exported. After all acknowledgments are received from the EC subsystem and the trading partner's application, it can be changed to Completed.

When this field is updated, the system maintains a history of previous processing status codes. Set Previous Statuses to Yes to view a list.

Current Ack Status. Enter the most recent status code assigned by the EC subsystem.

When Ack is Yes for the document type in Trading Partner Maintenance, the system leaves this field blank until an acknowledgment message is imported from the EC subsystem.

When Ack is No, the tracking record is created with None Expected in this field. If an acknowledgment status is received from the EC subsystem, the new status overwrites the system-assigned value.

Current App Status. Enter the most recent status code assigned by the trading partner's application.

Application Sequence. Enter the application document repository sequence number associated with the document that reported the current status, acknowledgment status, or application status.

Additional fields show the dates and times associated with document creation and status updates.

Set Previous Statuses to Yes to list the processing status codes and associated application repository sequence numbers previously assigned to a document tracking record. The list includes values that previously displayed in the Current Status field.

Maintaining the Document Repository

You can use menu programs to modify all three types of data in the repository: exchange file document data, application document data, or turnaround data.

Additionally, if you are using the QAD .NET UI, you can use a menu collection to view, update, and reprocess related exchange file and application repository documents in a workbench-style interface. This is described in “Maintain eCommerce Repository Data Collection” on page 108.

You can also archive and delete repository data to reduce disk space requirements.

Important Use caution when modifying repository data. Changing data in the repository can lead to database synchronization problems. Use menu security to restrict access to the repository maintenance programs.

Exchange Data Repository

Use Exchange Data Repository Maint (35.9.3) to modify or add data in the exchange file portion of the data repository. For example, you might use this program to add a value to a missing mandatory field that is preventing the transformation process from completing.

The exchange file repository includes two types of data:

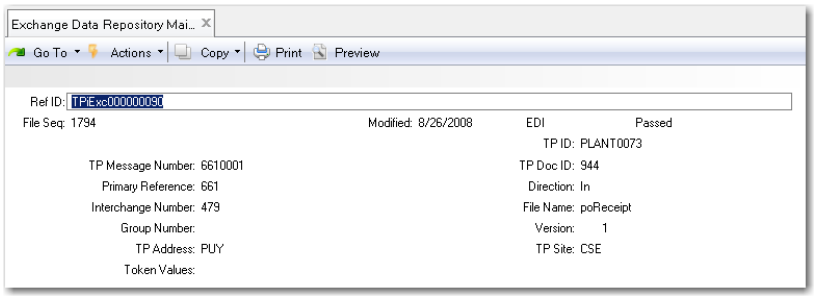
- Inbound exchange files that have been loaded from the EC subsystem SNF files but have not been transformed for transfer into your system
- Outbound exchange files consisting of transformed business document data that has not been unloaded to the EC subsystem

Note The repository stores all exchange files that pass through it during processing, whether or not they complete all the subsequent steps. These exchange files remain in the repository until they are archived and deleted. See “Archiving and Deleting EDI eCommerce Data” on page 111.

This program includes three frames. When you select an exchange file to maintain in the first frame, the system displays trading partner data and reference information about the exchange file. Use the second and third frames to select the exchange file record and field that contains the data you want to maintain.

Note A .NET UI menu collection lets you select a repository record through a browse and view or update associated records in both repositories, as well as reprocess them after correcting problems, through a single UI. Its repository maintenance functionality is similar to this program. See “Maintain eCommerce Repository Data Collection” on page 108.

Fig. 3.22
Exchange Data Repository Maint (35.9.3)



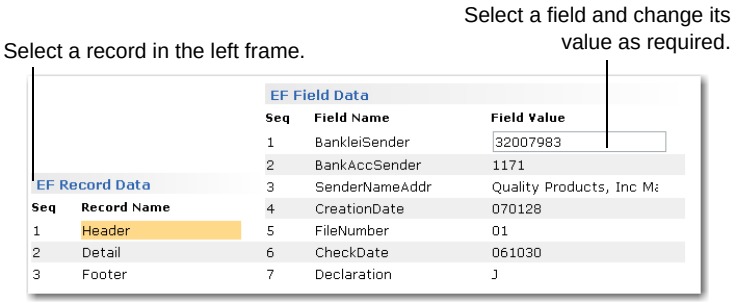
Ref ID. Enter the reference number of the repository record you want to maintain. Use the arrow keys to scroll through the list of available record IDs.

When you choose Go, two additional frames display.

Because of the possible many-to-one or one-to-many relationships between exchange files and application files, the sequence numbers assigned to the files do not stay the same throughout processing. eCommerce provides a tool for determining cross-references between numbers.

See “Identifying Cross-References Between Repository Files” on page 110.

Fig. 3.23
Exchange Data Repository Maint, EF Record and Field Data Frames



Seq and Record Name. The sequence numbers and names associated with the records in the selected exchange file.

Use the arrow keys to move through the records in the file. Choose Go to select the record whose fields you want to change.

Seq and Field Name. The sequence numbers and names associated with the fields in the selected exchange file record.

Use the arrow keys to move through the field sequence numbers. Choose Go to select the field whose value you want to change.

Field Value. The system displays the current value of this field in the selected record.

Enter or change data as required. Choose Go to record the change and return to the Seq field.

When all field entries are complete, choose End to return to the EF Record Data frame.

Application Document Repository

Use Application Data Repository Maint (35.9.10) to modify or add data to an imported or exported document. For instance, you can use the program to add missing data to a required field.

The application document repository includes two types of data:

- Outbound documents that have been transferred from the database with an export gateway but have not been transformed into an exchange file format
- Inbound documents consisting of transformed business document data that has not been transferred by a gateway program to the database

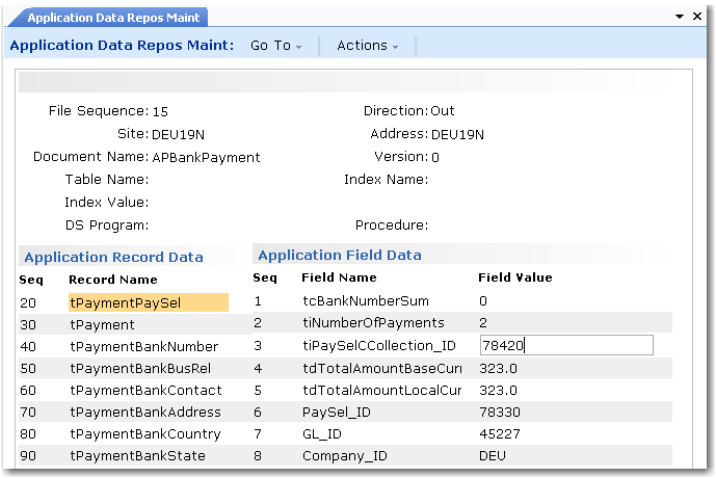
The repository stores all documents that pass through it during processing, whether or not they complete all the subsequent steps. These documents remain in the repository until they are archived and deleted. See “Archiving and Deleting EDI eCommerce Data” on page 111.

Warning Any changes you make to data fields with this program do not update actual business documents—only the eCommerce repository tables. Changing repository data can lead to data synchronization problems. Use menu security to limit access to this program.

This program works the same way as Exchange Data Repository Maint (35.9.3). See page 106.

Note A .NET UI menu collection lets you select a repository record through a browse and view or update associated records in both repositories, as well as reprocess them after correcting problems, through a single UI. Its repository maintenance functionality is similar to this program. See “Maintain eCommerce Repository Data Collection”.

Fig. 3.24
Application Data Repository Maint (35.9.10)

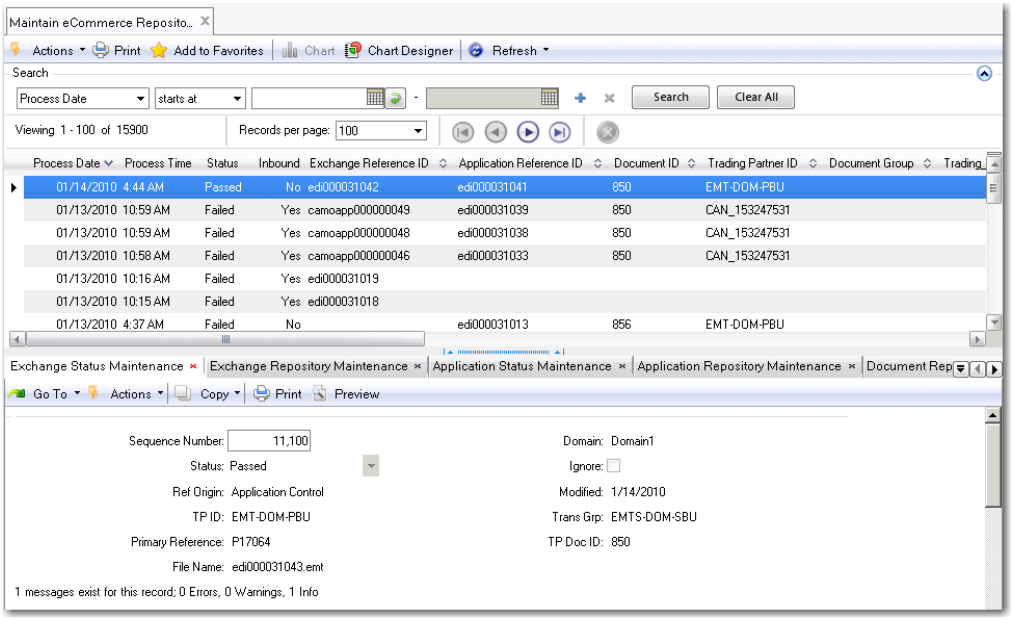


Maintain eCommerce Repository Data Collection

In the QAD .NET UI, Maintain eCommerce Repository Data allows you to view and update EDI eCommerce repository and status records from a single workbench-style access point.

In the initial browse window, you can use standard .NET UI filtering functions to limit the selection of documents displayed by process date, status, document direction, trading partner ID, and several other criteria. Next, select a record from the main browse window. The system populates the Sequence ID field in each of the five associated programs (shown as tabs below the browse window) based on the selected record:

Fig. 3.25
Maintain eCommerce Repository Data



After selecting a record, you can use the workbench functions to:

- View status and processing messages in either the exchange or application repository. This is similar to the standard Exchange Doc Status Inquiry and Application Doc Status Inquiry programs, with some added functionality: You also can update the Passed/Failed status in either repository. Additionally, you can select an Ignore field, which makes the document unavailable for reprocessing through either the workbench Document Reprocess program or the menu-level Import Reprocessing/Export Reprocessing programs.
- Modify information in the associated exchange or application repository document. The two workbench repository maintenance programs are very similar to the menu-level Exchange Data Repository Maint and Application Data Repository Maint functions. The main difference is that the workbench programs display less read-only data because it is available in the main browse window.
- Reprocess the updated records in both repositories using values that you have updated in the other programs. This is similar to the menu-level Import Reprocessing and Export Reprocessing functions. Note that reprocessing only takes place on the repository level. To re-import or re-export a file, use Document Import or the appropriate program—based on the document type—from the Document Export menu.

Turnaround Data

Turnaround data consists of inbound data items that do not match existing database fields but are required for related outbound documents.

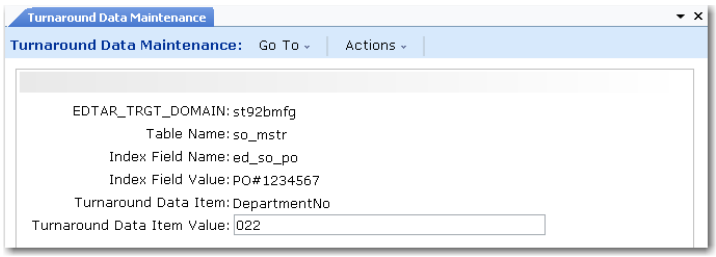
Turnaround data is generally defined in Implementation Definition Maint (35.15.13). During gateway processing, the system relates it to index information provided in Implementation Definition Maint and stores it in the turnaround data table. During outbound processing, the system uses the turnaround data mapping table to relate the turnaround data to the outbound document.

Use Turnaround Data Maintenance (35.9.17) to modify turnaround data.

You can edit only one field in this program—Turnaround Data Item Value. The other key fields identify the location of the data.

See “Turnaround Data” on page 4.

Fig. 3.26
Turnaround Data Maintenance (35.9.17)



Target Domain. Enter the domain associated with the turnaround data you want to maintain. The default is your current working domain.

Table Name. Enter the name of the table associated with this turnaround data item, or use the arrow keys to scroll through a list of tables. The table name is specified in the turnaround data mapping table. For example, if the turnaround data is related to a sales order, this could be so_mstr.

Note Turnaround data is not actually stored in the table. Instead, it is stored in a set of turnaround repository tables that use the table and field names as part of the index.

Index Field Name. The name of the field associated with this turnaround data item. The field name is specified in the turnaround data mapping table. For example, if the turnaround data is related to a sales order, this could be so_nbr.

Index Field Value. The value of the variable associated with this turnaround data. For example, if the turnaround data is related to a sales order, this could be the sales order number.

Turnaround Data Item. The name of the turnaround variable.

Turnaround Data Item Value. The value of the turnaround data. Modify it as needed and choose Go to save your changes.

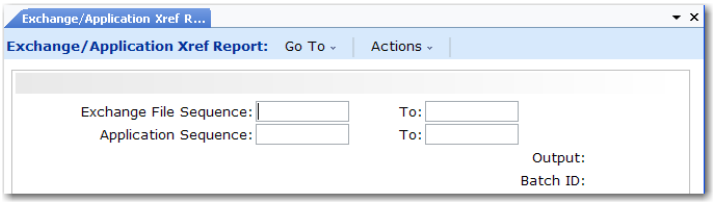
Identifying Cross-References Between Repository Files

Files exchanged between your system and an EC subsystem can be converted on a one-to-many, many-to-one, or many-to-many basis. This means that a one-to-one correspondence between document sequence numbers may not exist.

Two programs let you determine cross-references between application document sequence numbers and exchange file sequence numbers:

- Use Exchange-Application Xref Browse (35.9.13) to view exchange file sequence numbers and their corresponding application document sequence numbers.
- Use Exchange-Application Xref Report (35.9.14) to generate a report on cross-references for selected ranges of application document and exchange file sequence numbers.

Fig. 3.27
Exchange-Application Xref Report (35.9.14)



Archiving and Deleting EDI eCommerce Data

EDI eCommerce provides no automated features for purging the database of repository documents and other information that are no longer needed. To maintain control of disk space, you should regularly run an archive/delete utility. EDI eCommerce includes delete/archive programs used for several types of data:

- Repository document data
- Text comment data
- Turnaround data
- Document tracking records

Repository Data

Two programs are available for deleting unneeded repository documents:

- Use Inbound Delete/Archive (35.17.13) to delete and archive imported documents from the exchange file and application document repositories.
- Use Outbound Delete/Archive (35.17.14) to delete and archive exported documents from repositories.

The two programs function identically. Enter selection criteria to select repository documents by combinations of file sequence numbers and processing dates. Then, specify whether to select documents that passed, failed, or both.

The outbound program selects records based on application sequence numbers; the inbound program uses the exchange sequence as the selection key. Each program automatically looks up cross-references to corresponding records in the other repository (exchange or application) and deletes/archives them.

An archive program is usually run twice. First, run the program with all Delete fields set to No and review the report. Then, run it again with the appropriate field or fields set to Yes.

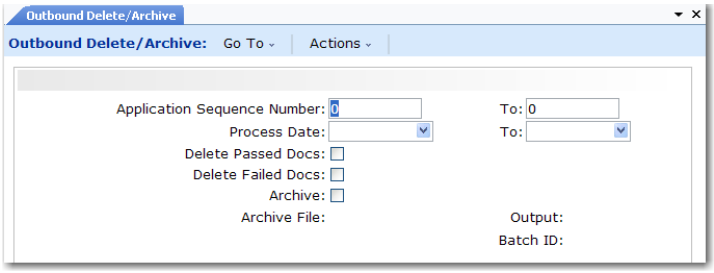
When Archive is set to Yes, the system stores deleted data in a file named *xxyymmdd*`.hst`, where *xx* is `ob` for outbound documents and `ib` for inbound documents, and *yymmdd* is the date you ran the archive function.You can restore this file to the system using Archive File Reload (36.16.5).

Warning Deleted data that is not archived cannot be recovered.

Important Date and time in the stored data are formatted based on the country code associated with the user who archived the data. If a user with a different date and time format reloads the data, load errors and corrupted data can occur.

To avoid these problems, use the same settings when archiving and reloading the data. Before loading data, use User Maintenance (36.3.1) to temporarily change your country code to match that of the user who archived the data.

Fig. 3.28
Outbound Delete/Archive (35.17.14)



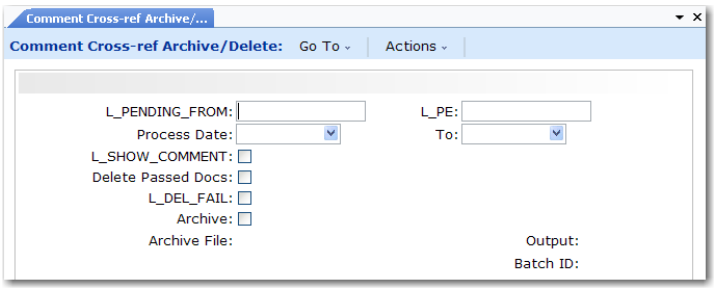
Text Comments

Use Comment Cross-Ref Archive/Delete (35.17.15) to archive and delete records containing imported text comments cross-referenced to sales orders or scheduled orders.

The system deletes such documents automatically only when the trading partner's record in Trading Partner Parameter Maintenance (35.13.10) includes a Remove Connected Comments parameter set to Yes. Otherwise, you should run this program to delete unneeded comment files.

See "Defining Trading Partner Parameters" on page 52.

Fig. 3.29
Comment Cross-Ref Archive/Delete (35.17.15)



This program is similar to the repository delete/archive programs. Enter selection criteria as required to select documents by ID numbers included in the imported comments file or processing dates. Then, specify whether to select documents that completed processing by successfully attaching the comment text to the order, those that did not, or both.

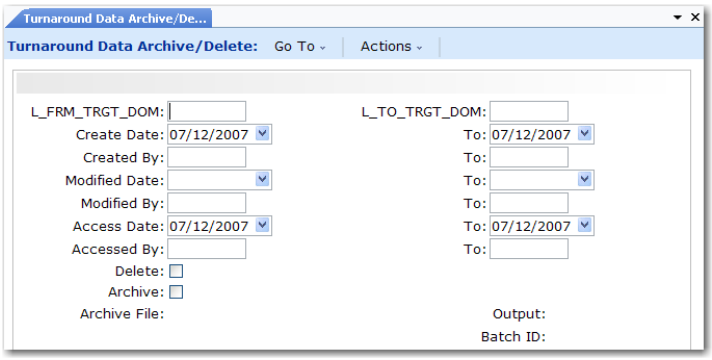
Optionally, you can have the system display the comments selected for deletion. When you choose to archive comment data, the system places it in a file named `ob`*`yymmdd`*`.hst`, where *yymmdd* is the date you ran the archive function.

Turnaround Data

Use Turnaround Data Archive/Delete (35.17.16) to delete from the system and optionally archive turnaround data that is no longer required.

See "Turnaround Data" on page 4.

Fig. 3.30
Turnaround Data Archive/Delete (35.17.16)



There is no other mechanism for selecting and deleting turnaround data records. How often you should run this function depends on how long you need to retain turnaround data in your database.

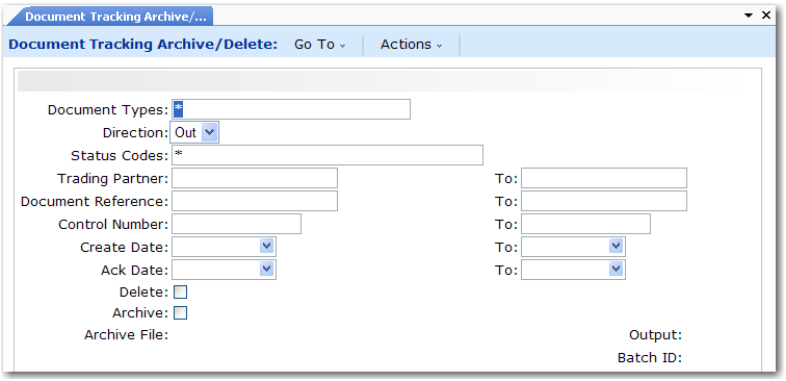
This program is similar to the repository delete/archive programs. Select records based on ranges of dates and user IDs. When you choose to archive turnaround data, the system places it in a file named `ta`*`yymmdd`*`.hst`, where *yymmdd* is the date you ran the archive function.

Document Tracking Records

Use Document Tracking Archive/Delete (35.9.16.13) to delete from the system and optionally archive document tracking records that are no longer required. How often you should run this function depends on how long you need to retain tracking data in your database.

See “Tracking Exported Documents” on page 103.

Fig. 3.31
Document Tracking Archive/Delete (35.9.16.13)



This program is similar to the repository delete/archive programs. Select records based on ranges of document information and dates. You can also enter comma-separated lists of document types and status codes. To select all records regardless of document type or status code, leave the asterisk (*) in the appropriate field.

Note Leave Direction set to Out. Document tracking currently supports only exported documents.

When you choose to archive document tracking data, the system places it in a file named `ob`*`yymmdd`*`.hst`, where *yymmdd* is the date you ran the archive function.

Chapter 4

EDI eCommerce Error Messages

This chapter describes eCommerce-specific error messages. It explains the conditions that cause the errors and suggests solutions.

No.	Message	Cause	Solution
4400	<*directory*> listed in control program does not exist	• Control program was not initially set up or the specified path is incorrect. • Directory was removed after control program setup.	• Use eCommerce Control (35.17.24) to add or correct the directory name or path. • Contact the system administrator to have the directory created.
4401	User does not have write privileges to <*directory*>	Directory was created by user other than system administrator. or System administrator did not grant read, write, create, modify, and delete rights to all users for the specified directory.	Contact the system administrator. Users must have read, write, create, modify, and delete rights to the specified directory. or Change the directory location. • For an inbound document, use eCommerce Control (35.17.24). • For an outbound document, use Transmission Group Maintenance (35.13.13).
4402	Mandatory exchange file data record is missing: <*subsystem*>; <*record name*>; <*exchange file name*>; <*version*>; <*filename*>; <*error file*> **Note:** <*filename*> and <*error file*> are not applicable on outbound documents.	• The trading partner did not send the data record specified, or the SNF file <*filename*> was not complete. • <*record name*> has been defined as mandatory in the document definition for this combination of <*exchange file name*>, <*version*>, and document direction when it should be defined as optional.	• Have the trading partner correct the problem and resend the document. • If this is a recurring error for this <*exchange file name*>, <*version*>, and direction, use Exchange Definition Maintenance (35.15.6) to select the appropriate combination of exchange file name, version, and direction, go to <*record name*>, and set Requirement to Optional.
4403	No matching quote found in record. <*record*> (first 5 characters); <*file name*>; <*error file*>	The EC subsystem is defined as variable-format with a quote character surrounding alphanumeric data. A beginning quote character was found without a matching closing quote.	Have the trading partner correct the problem and resend the document. or Open the error file in a text editor and locate the subject record. Insert the closing quote character at the end of the data field. Then, use Document Import (35.1) to import the error file.
4404	Duplicate <*record code*> records: <*subsystem*>; <*filename*>; <*error file*>	A control or data record is repeated within the document without the data information. A control record can only appear once for a document. Data records are expected to follow the control records and come before the next document's control record.	Have the trading partner correct the problem and resend the document. or Open the error file in a text editor and locate the duplicate control records. Verify that the data within the records are the same. If they are the same, remove one of the control records and use Document Import (35.1) to import the error file.

No.	Message	Cause	Solution
4405	Mandatory control record is missing in input file: <*record code*>; <*subsystem*>; <*direction*>; <*filename*>; <*error file*>	• The trading partner did not send the data record specified or the SNF file <*filename*> was not complete. • The control record identified in <*record code*> has been defined as mandatory in the definition for this EC subsystem and direction when it should be defined as optional.	• Have the trading partner correct the problem and resend the document. • If this is a recurring error for this EC subsystem and direction, then use EC Subsystem Definition Maint (35.13.1) to select the EC Subsystem and direction, go to the <*record code*>, and set Requirement to Optional.
4406	Unknown or blank record code: <*record code*>; <*subsystem*>; <*file name*>; <*error file*>	The EC subsystem sent a record code that has not been defined as a control code or a data control code.	Open the error file in a text editor and determine if this code is for a data segment or a control segment. Then, define the segment as required. • For a data segment, use EC Subsystem/Exchange Maint (35.13.3) to define the data control code. • For a control segment, use EC Subsystem Definition Maint (35.13.1) to define the control code.
4407	Control field length outside boundaries: <*subsystem*>; <*record sequence*>; <*field name*>; <*field length*>; <*file name*>; <*error file*>	The EC subsystem is defined as using variable-format control field lengths. The number of characters <*field length*> is not within the minimum and maximum values specified for the field.	Using EC Subsystem Definition Maint (35.13.1), locate the specified sequence number <*record sequence*>. Select the field name for the appropriate record sequence and adjust the minimum and maximum values.
4408	Mandatory control field has not been set: <*subsystem*>; <*record sequence*>; <*field name*>; <*file name*>; <*error file*>	• The trading partner did not send the data specified. The SNF file <*filename*> was not complete. • The control record field <*field name*> for the <*record sequence*> has been defined as mandatory in the definition for EC Subsystem <*subsystem*> and direction when it should be defined as optional.	• Have the trading partner correct the problem and resend the document. • If this is a recurring error for this EC subsystem and direction, then use EC Subsystem Definition Maint (35.13.1) to select the EC subsystem and direction, go to the <*record sequence*>, locate the <*field name*>, and set the requirement to optional.

No.	Message	Cause	Solution
4409	Mandatory data field has not been set: <*subsystem*>; <*exchange file name*>; <*version*>; <*record sequence*>; <*field name*>; <*file name*>; <*error file*> **Note:** <*filename*> and <*error file*> are not applicable on outbound documents.	• The trading partner did not send the data specified, or the SNF file <*filename*> was not complete. • The data record field <*field name*> for the <*record sequence*> has been defined as mandatory in the exchange file document definition for the <*exchange file name*>, <*version*>, and direction when it should be defined as optional.	• Have the trading partner correct the problem and resend the document. • If this is a recurring error for this exchange file name, version, and direction, then use Exchange Definition Maintenance (35.15.6) to select the appropriate exchange file document definition, go to the <*record sequence*>, locate the <*field name*>, and set Requirement to Optional.
4410	Data field length outside boundaries: <*subsystem*>; <*exchange file name*>; <*version*>; <*record sequence*>; <*field name*>; <*field length*>; <*file name*>; <*error file*> **Note:** <*filename*> and <*error file*> are not applicable on outbound documents.	EC subsystem is defined as using variable-length fields. The number of characters <*field length*> is not within the minimum and maximum values specified for the field.	Use Exchange Definition Maintenance (35.15.6) to locate the specified sequence number <*record sequence*> for the specified EC subsystem <*subsystem*>, <*exchange file name*>, <*version*>, and direction. Locate the field name <*field name*> for the record sequence and adjust the minimum and maximum values.
4411	EC Subsystem does not exist: <*subsystem*>; <*file name*>; <*error file*>	The specified EC subsystem <*subsystem*> has not been defined.	• Use EC Subsystem Definition Maint (35.13.1) to define the subsystem and its control codes. • Use EC Subsystem/Exchange Maint (35.13.3) to create the data control codes.
4412	Unknown file format: <*file name*>; <*error file*>	The file extension is used to identify the subsystem name and file format. If a subsystem cannot be identified by the extension, then the system attempts to locate the subsystem definition of the default subsystem defined in the control program.	• Use EC Subsystem Definition Maint (35.13.1) to define the subsystem and its control codes. • Use EC Subsystem/Exchange Maint (35.13.3) to create the data control codes.
4413	Input control record is not in sequence: <*sequence number*>	The SNF file was not complete.	Have the trading partner correct the problem and resend the document.
4414	Exchange file record table record does not exist: <*exchange file name*>; <*version*>; <*record sequence number*>	The record was deleted from the exchange file document definition after the EC subsystem/exchange cross-reference was defined.	Use Exchange Definition Maintenance (35.15.6) to redefine the record sequence for the specified exchange file name and version.
4415	Current record sequence has exceeded its loop occurrence: <*exchange file name*>; <*version*>; <*record sequence*>	There are more occurrences of the record type within the data than allowed by the exchange file document definition.	Use Exchange Definition Maintenance (35.15.6) to locate the record sequence for the specified exchange file name and version. Increase the loop occurrences allowed for the record.

No.	Message	Cause	Solution
4416	Invalid document transmission group name: <*transmission group name*>	The specified transmission group has not been defined.	Use Transmission Group Maintenance (35.13.13) to define the transmission group.
4417	Destination dir/file prefix is blank for transmission group: <*transmission group name*>	The directory or file prefix for the specified transmission group has been left blank.	Use Transmission Group Maintenance (35.13.13) to add the missing information.
4418	Exchange file repository master record not found	Database corruption.	Contact database administrator.
4419	EC Subsystem control record does not exist: <*subsystem*>; <*transmission group name*>	Control record codes have not been defined for the subsystem.	• Use EC Subsystem Definition Maint (35.13.1) to define the subsystem and its control codes. • Use EC Subsystem/Exchange Maint (35.13.3) to create the data control codes.
4420	Repository detail record does not exist for sequence	Database corruption.	Contact database administrator.
4421	EC Subsystem cross-reference record not available for: <*subsystem*>; <*document type*>; <*record sequence number*>	Cross-reference was not set up completely, or a record sequence was added to the exchange file document definition after the cross-reference was set up.	Use EC Subsystem/Exchange Maint (35.13.3) to create the data control code.
4422	Record code is blank for data records: <*subsystem*>; <*document type*>; <*record sequence number*>	Cross-reference was not set up completely, or a record sequence was added to the exchange file document definition after the cross-reference was set up.	Use EC Subsystem/Exchange Maint (35.13.3) to create the data control code.
4423	Unable to create directory <*directory*> for transmission group: <*transmission group name*>	Directory was created by user other than system administrator. or System administrator did not grant read, write, create, modify, and delete rights to all users for the specified directory.	Contact the system administrator. Users must have read, write, create, modify, and delete rights to the specified directory. or Change the directory location. • For an inbound document, use eCommerce Control (35.17.24). • For an outbound document, use Transmission Group Maintenance (35.13.13).
4424	Unable to create directory: <*directory*>	Directory was created by user other than system administrator. or System administrator did not grant read, write, create, modify, and delete rights to all users for the specified directory.	Contact the system administrator. Users must have read, write, create, modify, and delete rights to the specified directory. or Change the directory location. • For an inbound document, use eCommerce Control (35.17.24). • For an outbound document, use Transmission Group Maintenance (35.13.13).

No.	Message	Cause	Solution
4425	Mandatory control token limits are not met: <*subsystem*>; <*record sequence*>; <*field name*>; <*token*>; <*field length*>	EC subsystem is defined as using variable-length fields. The number of characters <*field length*> is not within the range of minimum and maximum values specified for the field.	Use EC Subsystem Definition Maint (35.13.1) to locate the specified sequence number <*record sequence*> for the specified EC subsystem <*subsystem*>. Locate the field name <*field name*> for the record sequence and adjust the minimum and maximum values.
4426	Optional control token limits are not met: <*subsystem*>; <*record sequence*>; <*field name*>; <*token*>; <*field length*>	EC subsystem is defined as using variable-length fields. The number of characters <*field length*> is not within the range of minimum and maximum values specified for the field.	Use EC Subsystem Definition Maint (35.13.1) to locate the specified sequence number <*record sequence*> for the specified EC Subsystem <*subsystem*>. Locate the field name <*field name*> for the record sequence and adjust the minimum and maximum values.
4427	EC Subsystem control field records not found: <*subsystem*>; <*exchange file sequence number*>	An outbound subsystem has not been defined.	Use EC Subsystem Definition Maint (35.13.1) to define the subsystem and its control codes.
4428	Document status record does not exist:	Database corruption.	Contact database administrator.
4429	Invoice history header record does not exist: <*invoice number*>; <*sales order number*>	Database corruption. or Data may have been archived.	Contact database administrator.
4430	Trading partner location cross-reference does not exist: <*document name*>; <*version*>; <*site*>; <*address*>	Trading partner has not been set up properly.	• Use Trading Partner Report (35.13.9) to print a list of all trading partners. • Locate a trading partner ID on the report where the Application Site = <*site*> and the Application Address = <*address*>. • With the trading partner ID retrieved from the report, use Trading Partner Maintenance (35.13.7) to create a cross-reference record.
4431	Implementation record does not exist: <*document name*>; <*doc vers*>; <*imp name*>; <*imp vers*>; <*record sequence or record name*>	Setup of implementation definition not complete. or The specified record has been deleted.	Use Implementation Definition Maint (35.15.13) to create the required record.
4432	Repository master record does not exist:	Database corruption.	Contact database administrator.

No.	Message	Cause	Solution
4434	Variable not found while obtaining variable name <*variable name*> <*variable type*>	Variable defined for transformation is no longer available to transformation process.	Verify definitions exist in the exchange or implementation definition records. If they exist, delete them and recreate them. If they do not exist, create them in the exchange or implementation definition records, then delete them.
4435	Variable not available to be set: <*recid of variable*>	Variable defined for transformation is no longer available. Possibly, it was deleted prior to loading the transformation definitions.	Restart the transformation. If it still does not work, contact database administrator to report possible data corruption.
4436	Variable not available while obtaining variable value: <*recid of variable*>	Variable defined for transformation is no longer available. Possibly, it was deleted prior to loading the transformation definitions.	Restart the transformation. If it still does not work, contact database administrator to report possible data corruption.
4437	Variable has not been assigned a value: <*variable name*> <*variable qualifier*>	Variable within transformation has not been assigned a value or initialized.	Verify that the variable <*variable name*> has been assigned a value before using it as a source for another target variable.
4438	Function or variable is not available: <*variable/function name*> <*variable qualifier*>	Value for function or variable did not return a valid value.	Correct the returning value from the function program or verify that the function program compiled properly.
4439	Value not available for variable: <*variable/function name*> <*variable qualifier*>	Value for function or variable did not return a valid value.	Transformation definition is requesting a value from a variable, but variable has not yet been assigned a value. Assign the variable as a target before using it as a source.
4440	Function not found: <*function name*>	Function defined within the transformation definitions does not exist within function definitions.	Check function definitions for the function requested from the transformation definition map. If the record exists, contact database administrator. Otherwise, create the record being requested. **Note:** If the function has been saved to disk already and the function definition has been removed, do not reprocess it to the disk. This will overwrite the program currently on the disk.
4441	Function returned error: <*returned value set by function*>	Function did not perform correctly and was not able to return a value.	• Check that the function on disk compiles correctly. • Check the parameter values being sent to the function for correct data type matching. • If the function is user-defined, look at the function program to see the error message and why it occurs.

No.	Message	Cause	Solution
4442	Illegal target qualifier found: <*target qualifier that is illegal*>	An invalid target qualifier was mistakenly entered or allowed in transformation definitions.	Change the target qualifier to a valid target qualifier (I, O, or V). All others are considered illegal.
4443	Sequence number not processed <*sequence number*>	Either no repository exists, no trading partner information exists, or no map exists.	• Verify that the repository has been created. If not, then load or unload the file again. • If the repository is being created, verify that the trading partner information has been set up for the information found on the repository master records. • If the trading partner information is missing, create the missing information again. If the information is not missing, confirm that the trading partner map definition is pointing to a valid and existing map.
4444	Function has not been processed to disk: <*function name*>; <*internal function name*)	Transformation process tried to run the function from the disk and the program was not found.	• Verify that the program resides in the function directory specified in eCommerce Control (35.13.24). If it does not, it to the correct directory. • If the program does not exist, use eCommerce Function Maintenance (35.15.21) to create a program shell and then modify the program as required.
4445	BILL-TO does not exist in address master <*bill to address*>	The application document repository has a BILL-TO address that has not been defined.	Use Customer Address Maintenance (2.1.1) to define the customer bill-to address.
4449	Sequence number not set from conditional write function	The conditional write function *check-hash* did not return a valid sequence number. **Note:** The check-hash function is used only to write master records; for example, a new application document such as an order header or schedule header. This function is not used for lower data record writes. Use IF logic to perform lower-level conditional writes.	• Verify that the parameters are being sent to the function. • If so, and this error still occurs, call QAD support.
4450	Invoice history detail record does not exist: <*invoice number*>; <*sales order number*>	Database corruption. or Data may have been archived.	Contact database administrator.
4451	Turnaround Mapping record does not exist: <*document name*>;*document version*>;<*Implementation name*>;<*Implementation version*>;<*record sequence*>;<*field name*>	The implementation definition does not have a Table Name and Index Name specified for a field with Src/Dest set to T.	Use Implementation Definition Maint (35.15.13) to add the missing information.

No.	Message	Cause	Solution
4452	Field(s) # cannot be blank	Blank field number.	Enter field number.
4453	Control record cannot be deleted	The control record is being used and therefore cannot be deleted.	Remove all references to the control record before deleting.
4454	Invalid default subsystem	Subsystem has not been defined.	Enter a valid subsystem set up in in EC Subsystem Definition Maint (35.13.1).
4455	Directory does not exist: <*directory name*>; attempting to create	Warning issued when specifying directory path names in eCommerce Control and Transmission Group Maint.	If you want to use this path, ignore warning. If incorrect, manually delete unneeded directory and modify path as needed.
4456	Positive/negative integer expected from check-hash function: <*returned value*>	The write function was called with a function that returned an invalid sequence number.	Verify that the conditional write is on a record defined as sequence number 1. Also verify that the function being used is the check-hash function.
4460	Additional error message can be found in <*file name*>	Errors were discovered after control was passed to the gateway program. Error messages have been captured and written to <*file name*>.	Open the file with a viewer or editing program and review the error messages.
4464	Processing flat file. Please hold.	This is a normal status message during an EDI session and is for information only.	No action necessary.
4465	Transformation occurring. Please hold.	This is a normal status message during an EDI session and is for information only.	No action necessary.
4466	Processing application documents. Please hold.	This is a normal status message during an EDI session and is for information only.	No action necessary.
4469	No matching else or endif within record seq <*record sequence*> and action type <*event type*>	An If statement used in transformation did not have an Else or closing Endif statement within the record sequence and event type.	Use Transformation Definition Maint (35.15.17) to change the transformation definitions to include a closing Else or Endif within the same record and event type.
4470	Else with no matching if within record seq <*record sequence*> and action type <*action type*>	An Else statement used in transformation did not have an If beginning statement within the record sequence and event type.	Use Transformation Definition Maint (35.15.17) to change the transformation definitions to include a beginning If within the same record and event type.
4471	No closing endif within record seq <*record sequence*> and action type <*action type*>	An If or Else statement in the transformation definitions is not closed by an Endif statement within the record sequence and event type.	Use Transformation Definition Maint (35.15.17) to change the transformation definitions to include a closing Endif within the same record and event type.

No.	Message	Cause	Solution
4472	No invoices were exported	One or more invoices were selected on the invoice export that were unable to cross-reference the site and address to retrieve a valid implementation file name and version number.	Check the following intruding Partner Parameter Maint (35.17.10) for the address and site of the invoice being exported: • Logical parameter 2: Send Invoice must be set to Yes. • Char parameter 2: Invoicing Document Name must be set to a valid application document definition name. • Integer parameter 2: Invoicing Document Version must be set to a valid application document definition version number. In addition, check to see that the address and site are entered in the correct Trading Partner Maintenance (35.13.7) record.
4473	Code does not exist in validation codes table *<document name>;<document version>;<implemention name>;<implementation version>;<record sequence>;<field sequence>;<field name>*	The implementation definition has Validate set to Yes for this field name and the code has not been defined in Data Validation Maintenance (35.13.21).	Do one of the following: • Correct the invalid code data. • Enter the code in Data Validation Maintenance. • Change Validate to No in the implementation definition for this field.
4474	Cannot delete record; related record found in # # #	This error is displayed while trying to delete a record or field in Exchange Definition Maintenance, Application Definition Maintenance or Implementation Definition Maintenance when it is being used in a transformation map.	Delete the record or field from the transformation map.
4475	A seq in a many-to-many list failed. All sequences were deleted: *<list of bad sequences>*	A map defined as many-to-many had either a single or multiple document sequence fail, which caused all of the related input documents to fail.	Correct the error in the failed document, then reprocess the files as a group.
4477	*<file name>* file record cannot have 2 records with the same name	When entering a file definition the record names within the file must be unique.	If duplicate record names occur in a file, the record name must be unique but can be cross-referenced in EC Subsystem/ Exchange Maint (35.13.3) to the same record code using the Break Level field.
4478	Cannot delete exchange file record; used in map:	Exchange file definition is being used in an active transformation map; deletion is not allowed.	Definition can only be deleted if it is not in use.

No.	Message	Cause	Solution
4479	No files to process.	This error message is displayed under one of the following conditions: • No files are found in the inbound directory during Document Import (35.1). • No sequences are available with Failed status during Import Reprocessing (35.9.21) or Export Reprocessing (35.9.23) • No records are available in both exchange and application statuses during Session Report (35.7).	Make sure that SNF flat file exists in the inbound directory and that Exchange Document Status / Application Document Status records exists for reprocessing.
4480	No files selected, procedure cancelled	This error message is displayed when no files are selected during Document Import (35.1) or when no sequences are selected using Import Reprocessing (35.9.21), Export Reprocessing (35.9.23), or Session Report (35.7).	Make sure that SNF flat files are selected during Document Import, and that Exchange / Application Document sequences are selected during import/export processing and session report.
4481	<*function name*> function not defined	A function name has been used that has not been defined.	Define function in 35.15.21 eCommerce Function Maint
4482	<*##*> not found. Press down arrow to get selection	This error message is displayed in Transformation Definition Maintenance (35.15.17) when no action type (read, write, and so on) is specified in the Type field.	Make sure that at least one action type is selected before leaving the Type field.
4483	Trading Partner name cannot be blank.	A valid trading partner name must be entered	Enter a valid trading partner name.
4484	Cannot use target qualifier <*qualifier*> with action type <*action type*>.	This error message is displayed when action types such as Read, Clear, Write, New, Loop, Loopend, Repeat, Repeatend, Else (without If) are selected, and when the Target Qualifier is not O (output) or I (Input).	Make sure that the record or field from Input or Output is selected.
4485	Cannot find Trading Partner record.	This error message is displayed in Data Cross-Reference Maintenance (35.13.16) when an entered Trading Partner ID does not exist.	Make sure that the entered Trading Partner ID exists in Trading Partner Maintenance (35.13.7).
4486	Document definition does not exist.	Invalid application document definition name.	Use correct application document name or add using Application Definition Maintenance (35.15.10).
4487	Document record definition does not exist.	Invalid application document record name.	Use correct application document record name OR add the record to the application document definition using Application Definition Maintenance (35.15.10).

No.	Message	Cause	Solution
4488	File <*gateway program name*> not found for gateway document: <*document name*> version: <*document version*>	This error message is displayed when the Gateway Report Program specified in Application Definition Maintenance (35.15.10) is blank.	Make sure that the proper Gateway Report Program is specified in Application Definition Maintenance.
4489	Document field definition does not exist.	Invalid application document field name.	Use correct application document field name or add the field using Application Definition Maintenance (35.15.10).
4490	Function cannot contain spaces.	Function name with spaces.	Remove spaces from function name.
4491	Data type not defined. Must be AN, I, R, D or L.	Invalid data type entered.	Enter valid data type—AN, I, R, D, or L.
4492	Process function to disk?	This prompt displays when a new function has been defined in eCommerce Function Maintenance (35.15.21).	• Yes: The system writes a shell program source code to the user function directory with the name of the function. To make the function operational, you must add logic to the code that will calculate the return value. • No: Source code for the new function is not created.
4493	Sequence value of <*sequence value*> is not numeric. It will be discarded.	This error message is displayed in various programs. • Import and Export Reprocessing. This error is displayed when a sequence number selected is not numeric. This can happen when a user enters the sequence number manually. • When defining REPEAT logic in Transformation Definition Maintenance (35.15.17). During transformation processing, the REPEAT logic repeats the number of times specified in the transformation map. If the value specified is non-numeric, this error message displays.	Specify a numeric value when using these functions.
4494	Processed function <*function name*> to disk	This status message displays when a new function has been defined in eCommerce Function Maintenance (35.15.21) and you have answered Yes to the Process to disk prompt.	No action needed; message indicates that the .p program source code has been written to the user function directory with the name of the function. To make the function operational, logic must be added to the code that will calculate the return value.
4496	Enter the data type for new # variable (#)	This prompt displays when a new variable has been specified in Transformation Definition Maint (35.15.17).	Enter the data type for the new variable: AN, I, R, D, or L.

No.	Message	Cause	Solution
4497	BILL-TO does not exist in address master <*bill to address*>	The application repository has a BILL-TO address that has not been defined.	Use Customer Address Maintenance (2.1.1) to define the customer bill-to address.
4498	Document record <*document sequence number*> skipped; not supported.	This error message is displayed during Shipment ASN Export (35.4.1) when Implementation Definition Maint (35.15.13) has record names other than the following: HDR, HDR-EXT, HDR-USER-FLDS, CTR-USER-FLDS, ITM, ITM-EXT, ITM-USER-FLDS, CTR-DATA, ITM-CHARGES, CTR-ITEM-LID, TARE-HDR, TARE-DET, ITM-SEQ, ITM-SUMM, CTR-SUMM, CTR-TARE-SUMM, and PLT-SUMM	Use only valid record names when setting up implementation definitions for outbound ASNs.
4700	Status record in use: <*record id*>	This error message is displayed when during Shipment ASN Export (35.4.1) the sequence in the application document status master record is locked by another user.	This check is done as a precautionary measure. This situation will not arise in a normal condition.
4701	Turnaround data repository does not exist	This warning message is displayed when the QAD-defined function GetTadData is unable to locate a turnaround data record for the passed parameter.	Make sure that turnaround data exists in the turnaround data repository master table for the data passed as parameters.
4702	Schedule has not been printed	Status message information only	No action.
4703	Implementation record does not exist: <*document name*>;<*document version*>;<*implementation name*>;<*implementation version*>	Invalid implementation record name.	Use correct implementation record name or add using Implementation Definition Maint (35.15.13).
4704	Sequence <*sequence number*> is invalid for reprocessing.	Reprocessing EDI and this record cannot reprocess.	Rerun the EDI import or export process to reprocess this record.
4706	Sequence <*sequence number*> does not exist	This error message is displayed during import or export reprocessing when an entered application document sequence does not exist in the application document status table.	Enter a valid application sequence.
4707	Map does not exist with name: <*map name*>	The trading partner setup has specified a Document Map (transformation definition name) that does not exist.	For the document type and trading partner being processed, enter a valid Document Map name in Trading Partner Maintenance (35.13.7).
4708	Two parameters within same function cannot have the same name	When entering the parameter names in EC Function Maintenance (35.15.21), each parameter name must be unique.	Correct the parameter name being entered.

No.	Message	Cause	Solution
4709	Function exists on disk! Overwrite?	Creating a new function where the .p program for the function already exists in the user's function directory.	Answering Yes to this prompt will cause the system to overwrite the .p function program in the user's function directory with the newly created shell .p program. Answer No and enter a new function name to keep the existing .p program.
4710	Function name cannot be blank	Blank function name	Enter a function name.
4711	<*definition record name*> Definition record does not exist	The file definition record name that has been entered cannot be found.	Enter a valid file definition record name
4712	Please confirm delete of EC Subsystem/Exchange File Cross-Ref	Warning message prompt.	Enter Yes to delete.
4713	Transformation Function does not exist	A function name has been used that has not been defined.	Define function in eCommerce Function Maint (35.15.21).
4714	Record Code <*record code*> already exists	A record code that has already been used cannot be entered.	Entering a different Break Level will allow duplicate record codes.
4715	Record Name already exists	Record Name must be unique	Enter unique record name.
4716	Field Name already exists	Field names must be unique within a record.	Enter unique field name.
4717	Please confirm delete of Control Record Fields	Confirmation prompt.	Enter Yes to proceed with the deletion.
4718	Invalid token name	Name entered is not a valid token name.	Enter a valid token name.
4719	Cannot flush record until header record has been flushed.	The header record must always be the first record written. Attempting to write another record before the header will cause this.	Correct the transformation write logic.
4720	Variable <*variable name*> can not be source; has not been targeted for update	Using a variable as a source before it has a value assigned to it.	Correct the transformation to initialize the variable before using it as the source in an event action statement.
4721	Adding new control record field	Message	Status message
4722	Adding new control record	Message	Status message
4723	Invalid number of characters in record code	The value entered for the record code has exceeded the specified record code length.	Enter an allowable record code or expand the allowable length of the record code in the EC Subsystem Definition Maint (35.13.1).
4724	Record code length must be between 1 and 4	The record code length entered is greater than the field length limit.	In eB2 and later the record code field length is expanded to 20.
4725	Cannot delete a Qad designed function: #	Attempting to delete a QAD-provided function.	Deleting a QAD function is not allowed.
4726	Cannot change File Name or Version	Attempting to change a file name or version is not allowed.	Cannot change file name or version.

No.	Message	Cause	Solution
4727	Order does not exist for incoming schedule: *<Ship from>;<ship to>;<item>;<PO>*	Schedule load EDI gateway cannot find scheduled order for this incoming release	Enter order for this ship-from/ ship-to for item/PO in Customer Scheduled Order Maintenance (7.3.13).
4728	Record code is blank for control record: *<subsystem>*; *<direction>*; *<record sequence number>*	The specified EC subsystem *<subsystem>* has not been defined.	• Use EC Subsystem Definition Maint (35.13.1) to define the subsystem and its control codes. • Use EC Subsystem/Exchange Maint (35.13.3) to create the data control codes.
4729	Mandatory data record is missing: *<document name>*; *<document version>*; *<implementation name>*; *<implementation version>*; *<record name>*	• The trading partner did not send the data specified, or the SNF file *<filename>* was not complete. • The data record field noted *<field name>* for the *<record sequence>* has been defined as mandatory in the exchange file document definition for the *<exchange file name>*, *<version>* and direction when it should be defined as optional.	• Have the trading partner correct the problem and resend the document. • If this is a recurring error for this *<exchange file name>*, *<version>* and direction, use Exchange Definition Maintenance (35.15.6) to select the appropriate combination of exchange file name, version, and direction. Then, select the *<record sequence>*, locate the *<field name>*, and set Requirement to Optional.
4730	Data field length outside boundaries: *<document name>;<document version>;<implementation name>;<implementation version>;<record sequence>; <field name>;<field length>*	The data in *<record sequence>* is greater than the maximum allowed in the implementation definition for the specified field.	Correct the invalid data or change field length in Implementation Definition Maint (35.15.13).
4731	Created *<directory name>* successfully	Status message	Information only

No.	Message	Cause	Solution
4732	Master table locked, document not processed	This error message is displayed when during the export of the following gateways, the sequence in the Application Document Status Master record is locked by another user: • PO Change Export (35.22.16) • Inventory Cycle Count Export (35.4.13) • Generic Gateway Export (35.4.20) • Invoice Export (35.4.3) • Purchase Order Export (35.4.9) • PO Change Ack. Export (35.22.15) • Purchase Order Acknowledgement (35.4.5) • Packing List Export (35.4.15) • Purchase Order Ack. Maintenance (35.4.4) • Supplier Shipping Schedule (35.4.8) • Consignment Usage Export(35.4.2) • Supplier Self Billing Export(35.4.11)	This check is done as a precautionary measure. This situation will not arise in a normal condition. If this happens, make sure that no other process or user is locking this record.
4733	Data field length outside boundaries: *<document name>;<document version>;<implementation name>;<implementation version>;<record sequence>;<field name>;<field length>*	The data in *<record sequence>* is greater than the maximum allowed in the implementation definition for the specified field.	Correct the invalid data or change field length in Implementation Definition Maint (35.15.13).
4734	Loop occurrence must be 1 or greater	This error message is displayed in the following programs when the Loop Occurrence value of the current record is less than or equal to zero: • Exchange Definition Maintenance (35.15.6) • Implementation Definition Maintenance (35.15.13) • Application Definition Maintenance (35.15.10)	Make sure that the Loop Occurrence of the current record is greater than or equal to zero.
4735	End loop cannot be less than current loop sequence	This error message is displayed when adding a record using the following programs if the Loop End Sequence of the current record is less than the Record Sequence: • Exchange Definition Maintenance (35.15.6) • Implementation Definition Maintenance (35.15.13) • Application Definition Maintenance (35.15.10)	Make sure that the Loop End Sequence of the current record is greater than or equal to the Loop End Sequence.

No.	Message	Cause	Solution
4736	Directory does not exist: <*directory name*>; Create it?	Control program is initially doing set up or the specified path is incorrect.	Use one of the following methods: • Answer Yes to create the directory. • If permission is not granted, then contact the system administrator to have the directory created.
4737	Transmission group name can not be blank	Blank transmission group is not allowed for outbound documents.	Enter a valid transmission group name.
4739	Extension already defined	The file extension must be unique for each EC Subsystem.	Enter a unique file extension.
4740	Exchange file document status record does not exist	This error message is displayed when the Sequence Number entered in Exchange Doc Status Inquiry (35.9.1) does not exist in the Exchange Document Status Master table.	Enter a valid Exchange Sequence.
4742	Distribution dump file created	Status message	Status message
4743	Transformation definition <*transformation definition*> flagged as nonrunnable	The transformation definition record has the Can Run field set to No.	In Transformation Definition Maint (35.15.17), change the transformation definition by setting Can Run to Yes.
4745	Exchange file definition does not exist	The exchange file definition name cannot be found.	Enter valid exchange file definition name.
4746	Minimum length greater than maximum length	Entering a minimum field length that is greater than the maximum field length is not allowed.	Change either the minimum or maximum length to allowable range.
4747	Cross reference already exists	Cross-reference must be unique.	Enter a unique cross-reference.
4748	Variable <*variable name*> could not be validated with the value <*value*>	This error is displayed when transformation processing tries to validate the data written to a field by looking up in EDI eCommerce Validation Master (edval_mstr). This is done when a Write is performed in an inbound document and when a Read is performed on an outbound document.	Make sure that validation codes are set up correctly in Data Validation Maintenance (35.13.21).
4749	Trading partner parameter does not exist for site <*site id*> / address <*address id*>	The system is unable to find a parameter record for the trading partner.	This is an abnormal situation, because Trading Partner Maint (35.13.7) automatically creates the trading partner parameter record when the site and address are entered. Delete the site and address entry in Trading Partner Maint, then reenter the line to create a TP parameter record. Go to Trading Partner Parameter Maint (35.13.10) to verify the record has been added.

No.	Message	Cause	Solution
4750	Trading partner parameter states document should not be exported	At least one of the documents that have been selected for export does not have the trading partner parameter set to Yes for exporting the specified document type.	Using Trading Partner Parameter Maint (35.13.10) to ensure that the export parameters have been set to Yes to allow the EDI export.
4751	Using default shipment document: Shipping Notice	Normal status message	Normal status message
4752	Document definition is not defined correctly # / #	This error message is displayed when the application document definition record does not exist.	Make sure that application document definition being used does exist in Application Definition Maintenance (35.15.10).
4753	Skipping Shipment <shipment number>	The ASN export is skipping this shipper for export. This is caused by the Trading Partner Parameter not being set properly to export ASN for this site / address.	Can be a normal situation if shippers are selected for export that should not be exported. Correct the Trading Partner Parameter 35.13.10 setup if shippers are being skipped that should be exported.
4754	Using default invoicing document: Invoice	Normal status message	Normal status message
4755	Skipping Invoice <invoice number>	The Invoice export is skipping this invoice for export because a trading partner parameter is not set to export invoices for this site/address.	This can be a normal situation if invoices are selected for export that should not be exported. If this is not the case, correct the Trading Partner Parameter (35.13.10).
4756	Implementation does not exist:	The implementation file definition specified in the transformation definition (document map) does not exist	Correct the implementation file specification. In Transformation Definition Maintenance 35.15.17 make sure that the Implementation file name and version number are the same as an entry in Implementation Definition Maintenance 35.15.13. The application document definition must also be the same
4757	Function returned warning: <*warning description*>	Transformation has made a call to a function that has encountered an error that is not fatal and returns a warning with a description of the error condition.	Analyze the warning description to determine any corrective action if necessary.

No.	Message	Cause	Solution
4761	Document HEADER record does not exist:	Reference from the status table to a application header record has failed.	Normally this is a problem with exporting a document. Check the application definition and version being used in TP Parameter setup. Try re-exporting.
4766	Record written out of sequence	This is displayed when an error occurs while creating records in Application Data Repository Detail table; for example, when trying to create duplicate records in Application Data Repository Detail. This situation should not happen in a normal environment. This is done just as a precaution.	Correct the transformation logic.

Index