Oracle® e-Commerce Gateway

Implementation Manual

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Oracle e-Commerce Gateway Implementation Manual, Release 11*i*

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Preface

The Oracle e-Commerce Gateway Implementation Manual is used to implement application integrations for electronic commerce.

Intended Audience

This manual is intended for anyone who is interested in implementing Oracle e-Commerce Gateway.

Structure

This manual contains eleven chapters and one appendix:

- Chapter 1 Introduces Oracle e-Commerce Gateway implementation.
- Chapter 2 Explains Oracle e-Commerce Gateway implementation additional requirements
- Chapter 3 Contains the Oracle e-Commerce Gateway implementation checklist.
- Chapter 4 Provides Oracle e-Commerce Gateway implementation details.
- Chapter 5 Contains the details of the Transaction Interface File Architecture.
- Chatper 6 Explains the transaction details by Oracle application.
- Chapter 7 Explains how to test an inbound or outbound transaction.
- Chapter 8 Contains information regarding troubleshooting Oracle e-Commerce Gateway errors.
- Chapter 9 Explains in detail about Oracle e-Commerce Gateway Trading Partners.

- Chapter 10 Explains how to define and use Code Conversions used by Oracle e-Commerce Gateway.
- Chapter 11 Describes Extensible Architecture and how it relates to outbound transactions.
- Appendix A Includes the transaction summary layouts by product.

Related Documents

For more information, see the following manuals in the Release 11*i* Oracle Applications Open Interface Guides:

- *Oracle e-Commerce Gateway User's Guide*
- *Oracle Purchasing User's Guide*
- *Oracle Supplier Scheduling User's Guide*
- *Oracle Payables User's Guide*
- *Oracle Receivables User's Guide*
- *Oracle Order Management User's Guide*
- Oracle Shipping Execution User's Guide
- Oracle Release Management User's Guide
- Oracle Manufacturing, Distribution, Sales and Service Open Interface Manual
- Oracle Payables User's Guide, Payables Open Interface
- *Oracle e-Commerce Gateway Technical Reference Manual*
- *Oracle Purchasing Technical Reference Manual*
- *Oracle Supplier Scheduling Technical Reference Manual*
- *Oracle Payables Technical Reference Manual*
- *Oracle Receivables Technical Reference Manual*
- *Oracle Order Management Technical Reference Manual*
- Oracle Shipping Execution *Technical Reference Manual*
- Oracle Release Management *Technical Reference Manual*

Conventions

The following conventions are used in this manual:

Convention	Meaning
. . .	Vertical ellipsis points in an example mean that information not directly related to the example has been omitted.
. . .	Horizontal ellipsis points in statements or commands mean that parts of the statement or command not directly related to the example have been omitted
boldface text	Boldface type in text indicates a term defined in the text, the glossary, or in both locations.
< >	Angle brackets enclose user-supplied names.
[ ]	Brackets enclose optional clauses from which you can choose one or none.

1

Introduction

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

Purpose of the Implementation Guide

The Oracle e-Commerce Gateway Implementation Guide provides details to facilitate implementation of the product, and highlights additional actions to ensure a successful implementation.

While Oracle e-Commerce Gateway is in itself, a comprehensive product that will suit most customer's e-business integration requirements, most of the effort expended during an implementation cycle concerns defining, mapping, and balancing customer requirements against trading partner expectations. This guide includes implementation details, and contains an overview of the main points that should be taken into consideration during the course of an Oracle e-Commerce Gateway project.

The Oracle e-Commerce Gateway Implementation Guide provides the following:

- Required knowledge profile for an implementer
- Implementation checklist
- Profiles and validation rules setup details
- Trading Partner setup details and recommendations
- Code conversion setup details and recommendations

- Oracle Application setups for the transactions
- Transaction interface file architecture
- Transaction interface file modification guidelines
- Testing recommendations
- Details about the supported transactions
- Trouble Shooting tools and recommendations
- Recommendations on how to extend the supported transactions

  Note: Details for adding transactions not supported by Oracle e-Commerce Gateway are not included in this document.

Documentation

The following documentation for Oracle e-Commerce Gateway is available:

- Oracle e-Commerce Gateway User's Guide
- Oracle e-Commerce Gateway Technical Reference Manual (TRM)

  Someone in your organization may need this manual if any customizations such as extension tables are implemented.
- Oracle Manufacturing, Distribution, Sales and Service Open Interface Manual
- Oracle Payables User's Guide

  Note: Get the latest Oracle e-Commerce Gateway supplemental documents from Oracle Support Service's MetaLink web site.

Oracle e-Commerce Gateway Overview

e-Business Integration

Oracle e-Commerce Gateway is a standards-based integration product for Oracle Applications. This integration product allows you to integrate Oracle Applications with applications residing inside or outside of your enterprise, communicating via the Intranet, Extranet, or the Internet.

Oracle e-Commerce Gateway evolved from the Oracle EDI Gateway product, focusing on Electronic Data Interchange (EDI) into a product focused on e-business integration. All the

features and functions of Oracle EDI Gateway are retained and enhanced to create the Oracle e-Commerce Gateway product

Oracle e-Commerce Gateway supports seamless integration, streamlined implementation, and rule-based transaction processing to automate your business operations. The major features include:

- Open and Extensible Architecture
- Streamlined Transaction Implementation
- Configurable Integration Environment
- Rule-Based Process Management
- Reports

Oracle e-Commerce Gateway is designed with an open and extensible architecture for easy integration with any third party application.

The product is designed with self-contained yet integrated modules focused on ease of implementation; you simply define the business rules and configuration parameters, then you can implement any of the pre-built transactions.

Extensibility hooks are provided to integrate custom transactions and extend the Oracle e-Commerce Gateway supported transactions by incorporating data from non-Oracle Applications data sources.

Configurable Integration Environment

Oracle e-Commerce Gateway supports configurations at the system, transaction, trading partner, and process levels giving you utmost control of your data, interface files, and business processes.

You can configure how data elements are validated and mapped, the structure and layout of an interface file, when a business process is initiated, and how it should proceed. Furthermore, you can control the behavior of a process if an exception is detected.

All rules are stored in a repository to support dynamic run-time message creation, automated process monitoring, and exception analysis. Using a single window, you can change a rule by changing the information stored in the Oracle e-Commerce Gateway repository. The updated rule takes effect at run-time without any code modifications.

System level configurations apply to all transactions, and include the following:

- Define inbound/outbound file directory
- Enable/disable transactions

- Define text wrapping rules

Transaction level configurations apply to a specific transaction, and include the following:

- Validation Rules
- Code Conversions
- Transaction Layout

By defining the validation rules, you indicate how a transaction is to be validated, what constitutes an exception, and what action to take if an exception is detected. This ensures that only valid transactions are passed to Oracle e-Commerce Gateway for processing. Oracle e-Commerce Gateway supports the following validation and exception processing rules:
The transaction exception rules include invalid trading partner, invalid Address, nd Test/Production mode discrepancy.

The data validation rules and their descriptions are listed in the following table:

Data Rule	Description
Data Type Checking	Compare the data types of the data in the file to the data type defined in Gateway transaction table.
Default if Null	Move a default value to the staging table column, if the field is NULL (blank) in the interface file.
Null Dependency	Checks if the incoming data for a given column has a null dependency.
Predefined List	Checks if the incoming data for a given column is equal to or not equal to a value in a predefined list in the Oracle e-Commerce Gateway.
Simple Lookup	Checks if the incoming data for a given column is a valid value equal to the one found in the user-defined table and column that will be used in a SQL Select Statement.
Valueset Lookup	Checks if the incoming data for a given column is a valid value in a standard Oracle Valueset.
Value is Required	Checks if the incoming data for a given column has a non-null value, i.e. it cannot be blank.

Each rule is associated with an action taken when an exception is detected. The exception processing options are skip current document, log the violation and continue processing, or abort the entire run.

Another form of transaction configuration is performed on the transaction data, based on user-defined code conversion rules. The Oracle e-Commerce Gateway Code Conversion module supports the following:

- One Oracle code to one external code
- One Oracle code to many external codes
- Criteria-based code conversion
- Intelligent search for Oracle or external code(s)

An example of a one-to-one relationship is the conversion of a single Oracle code for unit of measure to a unit of measure code based on the ISO 9000 code list, the ASC X12 code list, or your private code list. An example of a one to many relationship is the conversion of a single Oracle code for payment terms to its ASC X12 components for discount percent, discount days, and net days.

You can define a code conversion rule that applies to all transactions for all trading partners or one that is specific to a trading partner and transaction combination. For maximum flexibility, you can define up to five specific criteria per rule.

Intelligent search is used to identify the Oracle internal or external codes by performing the search using the maximum number of user-defined criteria then reducing the number of criteria by one until a match is found. If a match is not found, a default is used.

The final transaction configuration is related to the transaction layout. Oracle e-Commerce Gateway delivers seeded transaction layout definitions representing relevant business data from or to Oracle Applications. The transaction layout definitions may be used as is, or customized to match the data you transmit to your trading partner. The transaction layout configuration options include change file structure, change record layout, change record attributes, and delete records.

In addition to the system and transaction level configurations, you may configure the trading partner attributes.

The trading partner is the entity you are doing business with and is the key link between Oracle e-Commerce Gateway and Oracle's suite of e-business products and between Oracle e-Commerce Gateway or any third party application. The third party application may be an EDI translator for EDI transactions or any other application internal or external to your enterprise. In addition to establishing these links, you can configure the trading partner attributes to indicate that a transaction is enabled or disabled for processing, and indicate the transaction status to be test or production for processing.

Once all the necessary system, transaction and trading partner level configurations are defined, and you are ready to initiate a transaction, Oracle e-Commerce Gateway supports three processing options:

Event-driven processing for time critical business transactions such as electronic payments or ship notices.

Schedule-based processing for less critical but routinely used business transactions such as purchase orders.

User-defined processing.

The processing option you select depends on the nature of your business and transaction criticality.

Once the transaction process is initiated, the run-time execution engine takes over and proceeds according to the system, transaction, and trading partner configurations you defined.

If necessary, a user-activated run-time execution log is available to assist with trouble shooting. This diagnostic tool supports multiple levels of trace details for both technical and non-technical analysts.

View Transaction Exceptions

The status of a transaction process and any reported exceptions may be viewed using a single “workbench style” window known as the View Staged Documents window. Summary or detailed inquires are supported using tree style navigation. Dynamic windows and drill-downs are provided to help analyze the cause of an exception.

Once the cause of the exception is identified and resolved, you have the option to submit the transaction for reprocessing or treat the exception as a warning by ignoring or deleting the exception.

The status inquiry, trouble-shooting and re-processing of transactions are all done in one single window, the View Staged Documents window.

Several reports facilitate the implementation process. Use the reports to view trading partner and code conversion data or review the seeded transaction layout definitions, and the contents of a data file.

Transaction List

Oracle e-Commerce Gateway is independent of all EDI standards and can be integrated with any upstream or downstream process via an ASCII file. It is this independence that enables you to select any EDI translator or third party application that best suits your business requirements.

Included in the Oracle e-Commerce Gateway product are many prebuilt business critical transactions, and integration configuration tools designed to streamline your implementation to easily transform your business to e-business.

The following table lists many of the transactions provided by Oracle e-Commerce Gateway including the direction of the transaction, a description of the transaction, and the base Oracle Application.

X12 Trans.	EDIFACT Message	Direction	Description	Base Oracle Application
850	ORDERS	outbound	Purchase Orders	from Oracle Purchasing
860	ORDCHG	outbound	Purchase Order Change Request	from Oracle Purchasing
832	PRICAT	inbound	Price/Sales Catalog	into Oracle Purchasing
843	QUOTES	inbound	Response to Request for Quotation	into Oracle Purchasing
856	DESADV	inbound	Ship Notice/Manifest	into Oracle Purchasing
857	no equivalent	inbound	Shipment and Billing Notice	into Oracle Purchasing and Payables
824	APERAK	outbound	Application Advice, diagnostic message used in response to the inbound ship notice, shipment/billing notice, and invoice transactions	from Oracle Purchasing and Payables
830	DELFOR	outbound	Planning Schedule	from Oracle Supplier Scheduling
862	DELJIT	outbound	Shipping Schedule	from Oracle Supplier Scheduling
810	INVOIC	inbound	Invoice, includes data for the ASC X12 110, 210, 410, 880 transactions	into Oracle Payables
820	PAYORD/ REMADV	outbound	Payment Orders / Remittance Advice	from Oracle Payables
850	ORDERS	inbound	Purchase Orders	into Oracle Order Management
855	ORDRSP	outbound	Purchase Order Acknowledgments	from Oracle Order Management
860	ORDCHG	inbound	Purchase Order Changes	from Oracle Order Management
865	ORDRSP	outbound	Purchase Order Change Acknowledgments	from Oracle Order Management

X12 Trans.	EDIFACT Message	Direction	Description	Base Oracle Application
856	DESADV	outbound	Ship Notice/Manifest	from Oracle Shipping Execution
830	DELFOR	inbound	Planning Schedule	into Oracle Release Management
862	DELJIT	inbound	Shipping Schedule	into Oracle Release Management
866	no equivalent	inbound	Production Sequence	into Oracle Release Management
810	INVOIC	outbound	Invoice, includes data for the ASC X12 110, 210, 410, 880 transactions	from Oracle Receivables
812	CREADV/DEBADV	outbound	Credit Memo, Debit Memo	from Oracle Receivables
N/A	CUSDEC	outbound	Movement Statistics (INTRASTAT)	from Oracle Inventory

The transactions in the following table are available with Oracle Process Manufacturing. The Inbound Purchase Order and Outbound Ship Notice/Manifest transactions are based on the Oracle Process Manufacturing data model and should be treated as different transactions even though they share the same name as their respective transactions in Oracle Order Management.

X12 Tran.	EDIFACT Message	Direction	Description	Base Oracle Application
850	ORDERS	inbound	Purchase Order	into Oracle Process Manufacturing
855	ORDRSP	outbound	Purchase Order Acknowledgment	from Oracle Process Manufacturing
856	DESADV	outbound	Ship Notice/Manifest	from Oracle Process Manufacturing

Processing Traditional EDI Transactions

Although Oracle e-Commerce Gateway has evolved into an e-business integrator, it continues to be the hub for processing high volume traditional EDI transactions.

The following section describes how traditional EDI transactions are processed through Oracle e-Commerce Gateway.

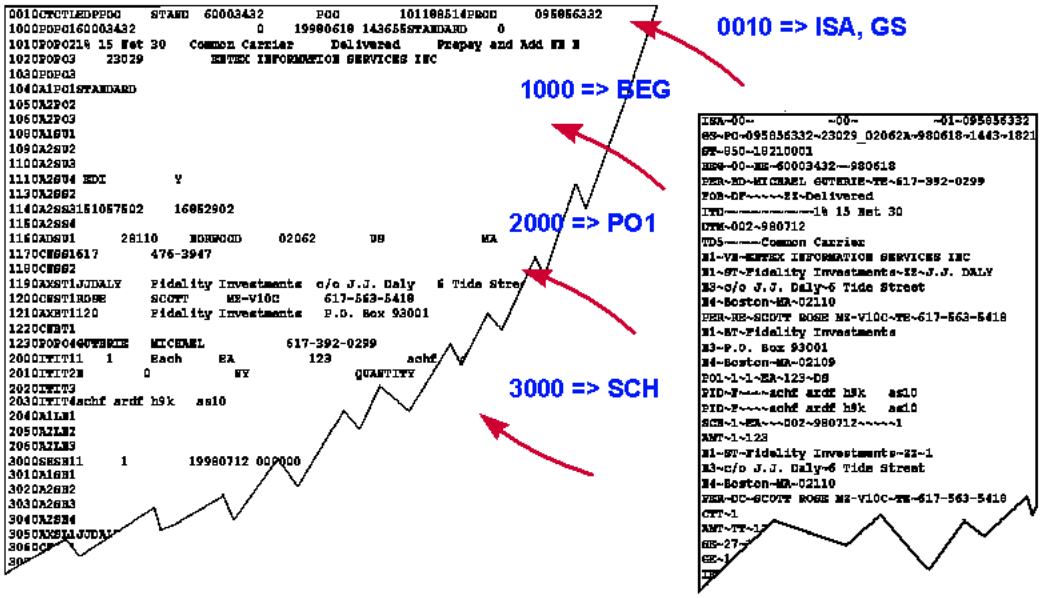
Interface Files between Oracle e-Commerce Gateway and Any Translator

ASCII files are passed between Oracle e-Commerce Gateway and any Translator for traditional EDI transaction processing.

For inbound transactions, the Translator copies the data from its position in the standard EDI transaction to its required position in the Oracle transaction interface file.

The reverse data mapping is done for outbound transactions. Oracle e-Commerce Gateway creates a transaction interface file of the data from the base Oracle Application. The Translator copies the data to its position in the chosen standard.

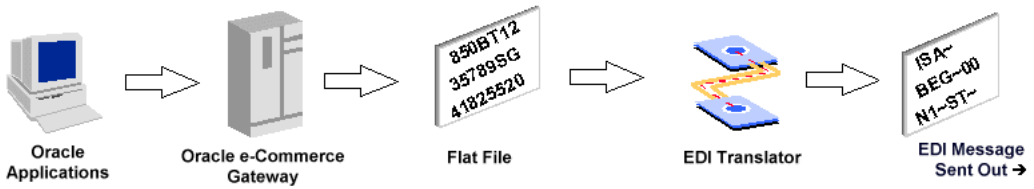
The following illustration shows sample data from an ASC X12 Purchase Order (850) transaction (on the right) and an Oracle e-Commerce Gateway outbound purchase order (POO) interface file (on the left).



Oracle e-Commerce Gateway extracts outbound transaction data from application tables and loads inbound transactions into the base Oracle Application Open Interface tables.

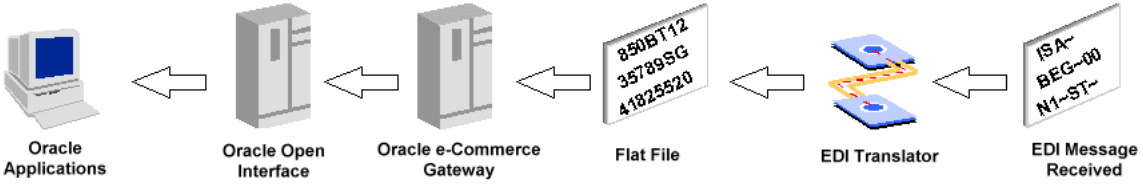
The components of the outbound transaction flow, as shown below are as follows: Oracle Applications > Oracle e-Commerce Gateway > Flat File > EDI Translator > EDI Message sent out.

Figure 1–1 Outbound Flow of a Transaction with Oracle e-Commerce Gateway



The components of the inbound transaction flow, as shown below, are as follows: EDI Message received > EDI Translator > Flat File > Oracle e-Commerce Gateway > Oracle Open Interface > Oracle Applications.

Figure 1–2 Inbound Flow of a Transaction with Oracle e-Commerce Gateway



Oracle e-Commerce Gateway resides between Oracle Applications and a translator and processes data using ASCII interface files.

The EDI Translator accommodates the EDI standards such as ASC X12 and EDIFACT, and monitors transmitting standard formatted data between Trading Partners. The format and content of this file can be adjusted using the Interface File Definition window within Oracle e-Commerce Gateway, though any changes must be implemented within the EDI Translator's data map and set-up.

An EDI Translator data map may be defined to produce a transaction according to the recommendations of any industry guideline such as UCS, EIDX, or AIAG. A data map may accommodate the data requirements of a single trading partner or many trading partners.

Oracle e-Commerce Gateway processes data via the transaction interface file that is received from or sent to the Translator. Oracle e-Commerce Gateway is independent of all standard formats since only the business data is found in the Oracle e-Commerce Gateway transaction interface files.

Oracle e-Commerce Gateway does not have communication software to transmit the standard formatted data between trading partners. Oracle e-Commerce Gateway relies on the Translator being connected to third party communication service providers to transmit data to, or receive data from, trading partners after the data is mapped to the desired standard format.

Outbound Process Flow

Oracle e-Commerce Gateway outbound transaction process creates interface data files to support any EDI Standard that is available from the Translator. Oracle e-Commerce Gateway collects all of the business data needed to map to a standard EDI transaction which the receiving Trading Partner can interpret properly into their receiving application using their equivalent of Oracle e-Commerce Gateway/Translator setup.

Oracle e-Commerce Gateway extracts the data from the base application tables, and optionally extracts data from other files/tables via extension tables. The use of extension tables requires the customization of standard code packages provided with Oracle e-Commerce Gateway.

Oracle e-Commerce Gateway does the following:

- Reviews the System and Transaction profiles.
- Gets Trading Partner processing parameters, e.g. location codes, allowable/enabled EDI transactions, etc.
- Extracts data from Oracle base applications tables relevant to the transaction being processed.
- Optionally, retrieves data from customer defined extension tables (requires some customization).
- Applies code conversions (when set up and activated).
- Populates Oracle e-Commerce Gateway tables with all the data gathered.

  Sets the data extract flags in the base Oracle Application table to prevent subsequent re-extraction.

  Produces an interface data file for use by the EDI Translator.

Inbound Process Flow

The inbound transaction flow is similar to the outbound transaction flow.

Oracle e-Commerce Gateway performs the following functions during an inbound transaction process after it receives an interface file from the EDI Translator or other process:

- Reviews the System and Transaction profiles.
- Gets Trading Partner validation processing parameters.
- Validates data based on user-defined process rules for the transaction.
- Applies code conversions (if set up and activated).
- Validates data based on user-defined column rules for the data elements.
- Captures transaction data exceptions. These exceptions can be reviewed on-line from the staging tables to examine the exception condition. The correction action is performed in a trading partner set up or other application set up, then the transaction can be revalidated. Optionally transactions may be deleted from the view staging tables.
- Loads valid transactions into the appropriate Oracle Application Open Interface tables for the transaction.

All the valid transactions are loaded into the Application Open Interface tables where it is validated by Oracle Open Interface's Application Program Interfaces (APIs). Valid data is loaded into Oracle Application base tables.

Exception data is detected both in Oracle e-Commerce Gateway and Oracle Applications depending on the type of exception encountered. For example, Oracle e-Commerce Gateway would detect that the trading partner was not set up for a given transaction, whereas the base Oracle Application API would detect a duplicate invoice.

The application's standard error handling functions are used to identify, report, and resolve errors. Errors detected by the Translator are resolved by the error handling in that process. Reoccurring data errors that originate from the sender should be discussed with the trading partner for permanent corrections.

EDI Translators

The following section describes function performed by an EDI Translator in the processing of traditional EDI transactions.

The various standards for message formatting are both precise and potentially changing, in addition, there are many issues regarding the various addressing methods and communication protocols that may be used for the actual exchange of transactions. A

formatting and communications interface is therefore required between Oracle e-Commerce Gateway and the external communications service. This interface software is called the EDI Translator. There are a number of specialist companies who operate in this area offering packages to address these requirements.

EDI Translators generally provide tools to map any interface data file format to any format including standard EDI transactions and messages, so data mapping to a standard like SPEC2000 should not be an issue with most Translator providers. They may not provide predefined data maps for all standards, but their software should provide a means to handle any-to-any data mapping.

Another key feature provided by the Translator is communication error and format checking to ensure that invalid messages are rejected and returned.

Translator software normally provides built in support for one or more of the EDI standards and communication methods. It may also offer support for pre-packaged extension products that include proprietary file formats.

EDI Translators perform the following main functions:

1. Integrated Audit Trail.

   Provides an audit trail of transaction activity and profile updates.

2. Trading Partner Identification.

   Trading partner identifications are maintained to define which transactions are enabled for test or production, which EDI standard and its version/release to map the data, define data for the electronic envelope, define the communications method to be used, etc.

3. Standards Translation.

   Maintains ASC X12 and EDIFACT transaction tables for all versions/releases, XML, and other standards as needed.

4. Data Mapping.

   Provide data mapping facilities between proprietary formats and the standards.

5. Communications.

   Provides scripts to access popular VANs and VASPs, They also have the capability to send data over the Internet.

6. Short-term Transaction Archival.

   Requeues transactions to transmit again as needed.

7. Automatic Transaction Status Feedback to the Application

Feedback is provided to Oracle Applications that transactions have confirmed receipts from trading partners or some other transmission status, e.g. buyers may wish to see a confirmation that a supplier received (or not) a specific order.

8. Audit Transaction Archival.

Maintains historical archival of data for audit purposes.

2

Implementation Positioning

This chapter contains information about Oracle e-Commerce Gateway implementation.

Implementation Positioning

To successfully implement the Oracle e-Commerce Gateway and enable specific transactions within the product, the implementer needs to have certain knowledge and experience beyond the Oracle e-Commerce Gateway. This section describes those additional requirements.

Understand Standards

If traditional EDI transactions are being implemented, the following must be understood:

Understand Standard Components

Implementers must be familiar with all EDI standards components, i.e., segments, elements, and code values that make up EDI transactions for which the E-Commerce Gateway interface is being implemented. Implementers must know which elements in an EDI transaction correspond with fields in an Oracle E-Commerce Gateway interface file to be able to assist with Translator software mapping. Implementers must be familiar with codes (qualifiers) that are used to identify data elements in an EDI transaction.

Understand Characteristics of the EDI Transaction

Implementers must be familiar with the characteristics of an EDI transaction.

For example, the ASC X12 standard Purchase Order 850 transaction has a three level structure: Header, Item, and Shipments. The Oracle Order Management Order Import open interface has a two level structure: header and the combined Item/Shipments. Each combination of the Item and Shipment in the transaction must be combined to create an item record in the transaction interface file.

Understand the Data Mapping Requirements

Implementers should review the client's data mapping requirements to identify elements for which there is no corresponding field in the Oracle E-Commerce Gateway transaction interface file. For example, the Trading Partner may send data at the detail line level in a purchase order transaction that identifies their warehouse bin/bulk location. The Trading Partner requires the supplier to print this data on a label and apply the label to each carton associated with the detail line item. This carton label facilitates the Trading Partner's receiving process.

If necessary, it is recommended that the EDI implementation team include an application specialist in the relevant transaction area.

Understanding the Oracle e-Commerce Gateway Functions

Attend an Oracle e-Commerce Gateway Course

Implementers should attend an Oracle e-Commerce Gateway course. They must understand all the features including profile setups, process rules, column rules, trading partner definitions, and code conversion for setting up the product.

Understand Trading Partner Setups It is essential that the relationship between Translator and EDI Location Codes be completely understood. Also a policy should be put in place with the customer so an administrator can easily maintain the trading partner setup screens given only basic data about the Trading Partner, Location, and permissible transactions.

Understand General Code Conversion Setups

The Code Conversion capabilities of the Oracle e-Commerce Gateway can provide a comprehensive set of criteria to convert internal Oracle codes, site codes, payment codes etc. to/from the terms used by the Trading Partners. These conversions can be undertaken globally or based upon specific criteria using up to five keys - see the *Oracle e-Commerce Gateway User's Manual* for more details. Conversion requirements should be carefully planned and kept as simple as possible to avoid over complex situations requiring burdensome maintenance.

Understand Extension tables (for Outbound Transactions)

Implementers should understand or have access to a developer who understands PL/SQL and how data is stored in the database. They can determine feasibility of changes, how to make those changes without disturbing the existing routines, and how to make them in such a way that the changes can be easily adapted when patches are installed. This also applies to

inbound transactions when additional routines are needed to make the data put into the interface tables by the Oracle e-Commerce Gateway compatible with the import process and/or the customer's needs.

A basic knowledge of the table structure of the relevant Oracle Applications and Oracle e-Commerce Gateway is a big advantage if any custom work is contemplated.

Understand Oracle Applications and Application Open Interfaces

Know the Transient Data in the Oracle Application

The Oracle Applications produce data as needed by the application. They may not retain data in the tables that is calculated because the numbers used to produce the calculation (number of units and discount percentage in the example below) may change each time the application is run. The data is printed on a permanent paper document. Because EDI is a substitute for the paper document, this data must be computed and stored in the outgoing file. The implementer must allow for this by defining a field in the EDI extension table and the code to populate it.

Know the Functionality of the Oracle Application

Verify that the Oracle Application performs the function expected by the transaction.

Know the Required Fields and Default Data

Know the required fields in the transaction interface file and the application open interface and know the defaults defined in the Oracle e-Commerce Gateway for the transaction

The open interface tables require certain fields to be populated to properly process the incoming data. Because it is not known whether the data is available on the source system, a default value can be used so that processing can continue. Required fields and default values are dependent on how the application is configured to handle keyboard entry in setup. It is also very important that the base application is set up with the data that it is expecting.

Other Application Implementations

For standard transactions, an e-Commerce environment must be installed. Generally the following must be done in the Translator specifically and the e-Commerce environment generally.

This document does not discuss the detail of installing Translators or the operation of Translators.

Translators

Each company must install a Translator to processes traditional standard transactions such as ASC X12 transactions and EDIFACT messages. They must review its system requirements, and its integration requirements with the Oracle e-Commerce Gateway.

The ability to configure the Translator to suit different formats is also a consideration to facilitate any changes that may be required from updates to the Oracle e-Commerce Gateway. These changes may be in the form of new or additional transactions, changes in the customer's business requirements, and changes occasioned by new or existing trading partners. If the Translator is difficult to update or configure, this may impact the successful, timely outcome of an EDI implementation.

Another consideration is whether or not the Translator is running on the same server as the Oracle e-Commerce Gateway. In some cases, the Translator has been installed on a separate machine, for example a mainframe. When this is the case, it is necessary to allow for file transfer requirements and scheduling to/from the Translator. In some instances a file transfer to/from a mainframe may require that the file be of fixed length. In this case. the variable nature of the files used by the Oracle e-Commerce Gateway may pose problems of padding (for outbound transactions) and interface file definition (for inbound transactions).

Trading Partner Definitions

Translators have criteria for defining trading partners, that is different from the trading partner definitions used in the Oracle e-Commerce Gateway.

The Translator setup requires identifying the following:

- Sender and receiver identification codes for the electronic envelopes.
- The EDI standard and its version/release or data dictionary for traditional EDI transactions.
- The transaction's data map used to map data between the source data file and the standard transaction.
- Which code conversion sets are to be used for the transaction for the trading partner.
- Communication method.
- Communication service provider.

The Oracle e-Commerce Gateway requires the Translator's identification code for its trading partner definition in the transaction interface file on the Control Record 0010. It is defined at the 'Translator Code' in the trading partner setup in the Trading Partner Detain tab in the Trading Partner setup.

Code Conversion

Like the Oracle e-Commerce Gateway, Translators provide for code conversion between the value defined in the base Oracle Application and the values required by the EDI standard or the trading partner. Code conversion is performed on specific data elements. You can use the Oracle e-Commerce Gateway for some data elements and the Translator on other data elements. You should decide where it is most efficient for your implementations, bearing in mind how easy it will be in the future to add, edit, or delete conversions in the Oracle e-Commerce Gateway or the Translator.

Data Mapping

Review the Oracle e-Commerce Gateway transaction interface files and the EDI standard transaction to determine where the data is positioned in the EDI standard transaction. If transaction data maps already exist, they provides a good starting point since the standard transaction portion of the data map can be copied from the existing data map. You will need to substitute its mapped position defined in the Oracle e-Commerce Gateway transaction interface file.

Some Translators provide a base data map for the Oracle e-Commerce Gateway transaction interface file. These base data maps are currently based on the initial release 11. They are not likely to be ‘plug and play’ data maps. Note that the Translator providers may charge additional license or service fees for these pre-configured data maps.

The base data maps most likely need customization for the following reasons:

- Whether the internal or external code(s) are available in the interface file (if you used code conversion)
- System or business requirements
- Trading partners requirements

The base data maps may also need changes if software patches add or change data element positions in the transaction interface file and you accept new records after the seed data reconciliation review.

The following reports may facilitate your data map reviews. Run the reports as needed:

- Transaction Record Layout report to see the transaction interface file
- Transaction Data File report to see data from a file against its transaction interface file layout

The following process should be followed after a patch is applied. This process attempts to restore the record layout to the layout as defined before the latest patches were applied.

Review the log from this process to see the impact of the patch and the reconstructed transaction record layout:

- Seed Data Reconciliation process

For outbound transactions, if data cannot be found in the transaction interface file as defined by the Oracle e-Commerce Gateway, supplemental data may be found in user defined flexfields or the user defined transaction extension tables. Data may also be mapped to transaction flexfields for inbound transactions. Custom code is required to populate the transaction extension tables if that option is used for outbound transactions.

If there are still gaps in the data, determine the best way to address data or functional gaps. Two alternatives may be followed for inbound transactions:

- Custom modifications may be necessary in the base application
- This applies to outbound transactions: there may be the case where the transaction passed all the validation in the Oracle e-Commerce Gateway, but the application open interface may still require additional data. Write custom code to add data to the transactions in the application open interface tables. This custom code is executed after the Oracle e-Commerce Gateway wrote the transactions to the application open interface table but before the application open interface executes.
- For inbound transactions, modifications should be made similarly to those made to populate the extension tables.

Transaction Processing

The Oracle e-Commerce Gateway creates transactions by the following methods:

- A transaction is initiated by an event in the base Oracle Application.
- The base application initiates a request within Concurrent manager with key data from the transaction to write the transaction to a transaction interface file.
- Created by a scheduled request within Concurrent Manager.

Usually the request extracts all eligible transactions that are ready to be extracted.

You can limit the transactions selected by entering selection parameters in the request.

Set up appropriate transaction interface file detection in the file directory. The file directory is defined in the initial application setup for all transactions in the System Profile Options in the Oracle e-Commerce Gateway. The Translator needs to be able to access the interface file.

Follow your file backup and archive procedures and practices that may also need to consider local fiscal requirements.

Determine the frequency that the Oracle e-Commerce Gateway files are processed through the Translator. Ideally, you should put completed transaction files either in another directory or under other file names so that the Translator cannot access the file until the Oracle e-Commerce Gateway is finished with it**.**

Determine Communications Methods For The Transactions

Ensure that the order in which the processes are performed - e.g. for outbound transactions, Oracle e-Commerce Gateway processing, file transfer, archive, or Translator - fits in with the local environment and other processes being performed around the Oracle e-Commerce Gateway.

Transaction Testing

Create test acceptance criteria to test the transactions.

Bear in mind that each trading partner may have its own requirements and therefore one size may not fit all. Customization may extend to a lower level than just the transaction type. This may increase the time required for both development and testing. Trading partner and customer are not synonymous! For example, if a chain of ten retail stores allows each store to require some sort of different data on a transaction, then there are ten trading partner data maps, not one data map. Another example is a trading partner in California where the state may require additional hazardous material data for shipping.

First test internally to validate initial mapping, conversions, settings and interaction between the Oracle e-Commerce Gateway and Translator, e.g.

- Interface file testing into/out of the Oracle e-Commerce Gateway
- Interaction testing to/from the Translator
- Interaction testing along the path between the applications and the Translator output/input
- Verify and compare the data passed to/from the applications with the EDI transaction file into/out of the Translator.

Nominate test Trading Partners for the initial transaction outbound/inbound and obtain their agreement to be test sites.

Where the number of trading partners is large, it may be necessary to take a phase testing approach, that is:

- An initial small set of test trading partners to validate correct mapping, and identify any initial issues caused by new mapping specifications and/or software.

- A second, larger set of trading partners to verify the fixes implemented as a result of the initial trading partner testing.
- Final testing with the total trading partner community, or move directly to production status.

It is important that acceptance of correct operation at each stage be documented before proceeding to the next stage of testing.

Implementation Planning

The process of sending and receiving an e-commerce transaction is relatively simple. As with all simple concepts however, there is usually a lot of work to do in mapping customer, trading partner, and Translator requirements to ensure that each stage has the required data in the correct fields. Most of the implementation time is taken in these tasks.

The checklist for the issues involved in a standard Oracle e-Commerce Gateway implementation can be summarized as:

- Data mapping requirements
- Trading Partner setups
- General Code Conversion setups
- Extension tables (for outbound transactions)
- Standards to be used for transactions
- Relevant functionality in the Oracle Application
- Required fields and defaults on transaction interface file and Application Open Interface
- Customer's setup and procedures for using the Applications
- Changes in procedures or business rules within the Application relating to e-Commerce
- Specific implementation rules negotiated with the Trading Partners
- Capabilities of the Translator in creating and using the transaction interface file
- Method for file transfer between the Translator and Oracle e-Commerce Gateway

The planning process includes the following:

- Develop project plans
- Investigate and understand the business impact of each transaction

- Identify customization requirements
- Co-ordinate the Translator interface
- Collate all setup data
- Write transaction or message specifications
- Produce Test Plans
- Develop transaction archiving policies
- Co-ordinate testing with Trading Partners

The scope of a project depends on the knowledge of the implementers, number of Trading partner sites to define, number of Transactions implemented, and the number of data maps needed in the Translator.

A simple project is one that involves one supported transaction, few trading partners, and minimal code conversion.

Setup includes the hardware setup and software installation of the pre-built products. It does not address the changes that may be needed for code conversion and customization which are part of the Modification phase. Also, Modification may either come before Testing (since the need for changes are identified in the Definition phase), or there may be another Testing phase after Modification. A good minimum guideline for this second phase would be one day of testing for each day of modification.

The following table represents a project timeline for a simple implementation project. The resources for the project are the Customer EDI Implementer and an Experienced Oracle e-Commerce Gateway Implementer. An "X" indicates that the resource participates in that phase of the project:

Phase	Time (Days)	Customer EDI Implementer	Experienced Oracle e-Commerce Gateway Implementer
Training	2	X	X
Project Definition	10	X	X
Setups	2	X	X
Testing	10	X	X
Modification	TBD	X	X
Moving to Production Status	5	X	
Production Status/ Ongoing Support	15	X	X

3

Oracle e-Commerce Gateway Implementation Checklist

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

Implementation Steps

The following is a list of the implementation steps to implement a transaction in Release 11*i*. Since the total solution requires other Oracle Application modules as well as a Translator, references to these products are included.

There are three possible starting points when implementing a transaction, they are as follows:

- Upgrading from Release 10.7/ Release 11 to Release 11*i*
- Fresh install of Release 11*i*
- Applying a maintenance patch for Release 11*i*

The purpose of the implementation checklist is to guide you through the implementation process. The details for each step are described in the implementation section referenced or the corresponding Oracle reference manual.

Implementation Checklist for Software Upgrade

Following is the implementation checklist presented in table format. Presented in the table are the step number, a required or optional indicator, a description of the step, and reference information.

Table 3–1 Implementation Steps

Step	Required/ Optional	Description	Reference (IM = Implementation Manual)
1	Required	Run the following server side scripts for each transaction implemented in Release 10.7/Release 11. These scripts will report the transaction layout definitions and code conversion assignments prior to the upgrade: Release 10.7: ECEUGR.sql - for layout definitions ECEUGR2.sql - for code conversion assignments Release 11: ECELAYDR.sql - for layout definitions ECEXREFR.sql - for code conversion assignments	Upgrade Documentation IM: Report Scripts IM: Review Release 11*i* Upgrade
2	Required	Install Release 11*i* Oracle e-Commerce Gateway.	Oracle AutoInstall Manual
3	Required	Run the following reports for each transaction implemented in Release 10.7/Release 11 to view the Release 11*i* transaction layout definitions and code conversion assignments after the upgrade. Transaction Layout Definition Report Code Conversion Values Report	User's Guide: Reports
4	As Needed	Compare the before and after upgrade reports for differences in transaction layout definitions and code conversion assignments. Make the necessary changes: Adjust transaction layout definitions Reassign code categories Since this is an upgrade, there will not be any validation rule differences to reconcile.	User's Guide: Changing the Interface Data File Record Layout Assigning Categories IM: Modify Transaction Interface File IM: Set Up Code Conversion

Table 3–1 Implementation Steps (Continued)

Step	Required/ Optional	Description	Reference (IM = Implementation Manual)
5	Required	Set up system profiles, pay special attention to the profiles for inbound and outbound directory path: Inbound file directory Outbound file directory	User's Guide: Setting Profile Options IM: Set Up Profiles
6	Required	Ensure that inbound and outbound directory paths defined in the system profile match UTL_FILE_DIR settings in INIT.ORA file. Restart the database if you made changes to the INIT.ORA file.	IM: Define UTL_FILE_DIR parameter in INIT.ORA file
7	As Needed	Set up general transaction profiles Enable/disable transaction (for all transactions) Address precedence (for inbound transactions)	User's Guide: Setting Profile Options IM: Set Up Profiles
8	As Needed	Set up transaction specific profiles for outbound transactions, such as the Purchase Order or Purchase Order Change transactions	User's Guide: Setting Profile Options IM: Set Up Profiles
9	Required, for inbound transaction	Review seeded Process Rule Actions and update rule action if default behavior is not desired	IM: Determine Process and Column Rules and Actions
10	Required, for inbound transaction	Review seeded Column Rule Actions for required fields and update rule action if default behavior is not desired	IM: Determine Process Column Rules and Actions Application Set Up
11	Required, for inbound transaction	Review seeded Column Rule Actions for date and numeric fields and update rule action if default behavior is not desired	IM: Determine Process and Column Rules and Actions
12	Optional, for inbound transactions	Determine if other columns in the transaction require Column Rules	IM: Determine Process and Column Rules and Actions
13	As Needed	Enable additional data fields as necessary using reference fields, descriptive flexfields or the Oracle e-Commerce Gateway Extensible Architecture	IM: Enable Additional Transaction Data
14	Optional	Review interface file definitions (record layouts) for the transaction and make any necessary adjustments	User's Guide: Changing the Interface Data File Record Layout IM: Modify Transaction Interface File

Table 3–1 Implementation Steps (Continued)

Step	Required/ Optional	Description	Reference (IM = Implementation Manual)
15	Required	Run Transaction Layout Definition Report to get the current definitions.	User's Guide: Reports
16	Required	Synchronize the data maps in the Translator with the transaction interface file definitions	IM: Interface with Translators
17	Required	Ensure that Location Code is defined for the trading partner entity (customer site, supplier site, bank branch, internal location) defined in Oracle Applications	IM: Application Transaction Detail
18	Required	Define trading partner: Assign trading partner to address site in Oracle Applications using Define Trading Partner, Assignment tab. Define translator code using Define Trading Partner, Details tab. This is the link to the Translator definition for the trading partner Enable transaction(s) for trading partner(s)	IM: Set Up Trading Partner Trading Partner
19	As Needed	Set up code conversions Review/define Code Conversion Categories Enable Code Conversion Define Code Conversion Values	IM: Set Up Code Conversion Code Conversion
20	Required	Review Oracle Applications set ups for each transaction and update as necessary	IM: Application Transaction Detail
21	Required	Prepare data to test transaction Add data in Oracle Applications to test outbound transaction Create inbound file to test inbound transaction	IM: Test Transactions

Table 3–1 Implementation Steps (Continued)

Step	Required/ Optional	Description	Reference (IM = Implementation Manual)
22	Required	Test the transaction being implemented at several levels until results match expectations Internally (Oracle e-Commerce Gateway and Oracle Applications) With Translator With Trading Partner	IM: Test Transactions
23	Required	Release fully tested transaction to production	
24	As Needed	Archive transaction interface files as needed	IM: Archive/Backup

In summary, the following has been installed or set up:

- The upgrade version is installed
- All custom development re-integrated after upgrade is completed (when appropriate)
- System and Transaction Profile setups are entered
- Process rules and Column rules are set up
- Code Conversion is set up
- Trading Partners are set up
- Base Oracle Application setups are complete
- Transaction interface file definitions modifications are completed (when appropriate)

Pass a simple outbound and/or inbound transaction through the Oracle e-Commerce Gateway to validate the installation before any site-specific configuration is undertaken.

Implementation Checklist for Fresh Install

To help ensure a successful implementation, do the following:

- Read the Introduction, and become familiar with the pre-requisites
- Implement related Oracle Applications modules before implementing Oracle e-Commerce Gateway
- Become familiar with the Oracle e-Commerce Gateway set ups

If you are implementing Oracle e-Commerce Gateway for the first time, steps 1, 3, and 4 described in the Implementation Checklist for Software Upgrade section are not required since there is no existing seed data to compare and reconcile. Insert steps 2.1 and 2.2 from the table below. All other implementation steps are still required in addition to defining an Oracle e-Commerce Gateway responsibility to start the implementation process.

Step	Required/ Optional	Description	Reference (IM: Implementation Guide)
1	Omit	Run Scripts.	
2.1	Required	Define Access Responsibilities.	IM: Define Responsibilities
2.2	Required	Define the utl_file_dir parameters. Done by DBA.	IM: Define UTL_FILE_DIR Parameter in INIT.ORA File
3	Omit	Run reports for each transaction	
4	Omit	Compare reports	

In summary, the following has been set up in addition to the summary items in the software upgrade:

- System options for the inbound and outbound directory paths are defined in the system profile and match the UTL_FILE_DIR settings in INIT.ORA file
- System and Transaction profile setups are entered (as needed)
- Transaction specific options have been implemented (as needed)

Implementation Checklist for Maintenance Patch

If you are installing a maintenance patch to a Release 11*i* environment, additional implementation steps are necessary to retain any customizations made to the original seed data.

There are four types of seed data that may be impacted by applying a maintenance patch, they are as follows:

- Transaction layout definitions
- Code conversion assignments
- Process rules and corresponding actions
- Column rules and corresponding actions

Use the Seed Data Reconciliation process in Oracle e-Commerce Gateway to compare the seed data values before and after the install. Depending on your response to the program parameters, the program either preserves or overwrites your seed data customizations. In addition, the program reports anything that it could not automatically reconcile. These exceptions must be reviewed and re-implemented as necessary.

The implementation steps presented in the following table are necessary to re-implement any seed data customizations to the original seed data values and to synchronize the transaction layout definitions with the Translator. Your ability to quickly install and implement a maintenance patch is essential to minimizing any business disruptions.

Step	Required/ Optional	Description	Reference (IM: Implementation Guide)
1	Required	Review README text delivered with the maintenance patch to identify transactions containing layout definition changes. Run seed data reports for each transaction identified to get the before values. Transaction Layout Definition Report Code Conversion Values Report	User's Guide: Reports
2	Required	Apply maintenance patch	Oracle AutoInstall Manual
3	As Needed	Run Seed Data Reconciliation process for each transaction in the list of values to resolve the seed data differences. The list of values will be adjusted to reflect the transactions processed. A report of seed data differences that could not be automatically reconciled will be provided.	User's Guide: Seed Data Reconciliation
4	As Needed	Manually resolve seed data differences that could not be automatically reconciled: Adjust transaction layout definitions Reassign code categories Redefine process rule actions Redefine column rules and actions Repeat this step for each transaction impacted.	User's Guide: Interface File Definition Assign Code Conversion Categories Assign Process Rules Assign Column Rules
5	As Needed	For new data elements added as a result of installing a maintenance patch, assign record attributes to the data element to activate them. Refer to the README text delivered with the maintenance patch for a description of the change(s).	User's Guide: Interface File Definition
6	As Needed	For new data elements added as a result of installing a maintenance patch, define column rules as necessary.	User's Guide: Assigning Column Rules IM: Determine Process and Column Rules and Actions
7	As Needed	Synchronize the data maps in the Translator with the transaction interface file definitions.	IM: Interface with Translators

In summary, the following has been installed or setup:

- Most current patches applied (when appropriate)

- All custom development re-integrated after patches applied (when appropriate)
- The Seed Data Reconciliation process preserved or overlaid the seed data
- Transaction interface file definitions modifications are completed (when appropriate)

Pass a simple outbound and/or inbound transaction through the Oracle e-Commerce Gateway to validate the installation before any site-specific configuration is undertaken.

4

Implementation Details

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

Report Scripts

There are two sets of server side SQL scripts to report the transaction layout definitions and code conversion assignments. The report script names are as follows:

Release 10.7	ECEUGR.sql - for transaction layout definitions ECEUGR2.sql - for code conversion assignments
Release 11	ECELAYDR.sql - for transaction layout definitions ECEXREFR.sql - for code conversion assignments

Contact your DBA to determine where these files are stored on the server.

These report scripts provide you with a before and after image of your transaction interface file definitions and code conversion assignments. You can use this information to re-implement any customizations from your original environment to your newly upgraded environment

If you are applying a maintenance patch to an existing Release 11*i* environment, this does not apply.

Refer to Seed Data Reconciliation for details on managing customized seed data in a Release 11*i* environment.

These reports can be run in SQLPLUS. The report scripts have two parameters as follows:

1. Output file name
2. Transaction ID

The following table lists the valid transaction IDs for Release 10.7:

Transaction ID	Transaction Description	ASC X12	EDIFACT
ASNO	Outbound Ship Notice/Manifest	856	DESADV
INO	Outbound Invoice	810	INVOIC
POO	Outbound Purchase Order	850	ORDERS
POI	Inbound Purchase Order	850	ORDERS

The following table lists the valid Transaction ID's for Release 11:

Transaction ID	Transaction Description	ASC X12	EDIFACT
ADVO	Outbound Application Advice	824	APERAK
DSNO	Outbound Ship Notice/Manifest	856	DESADV
INO	Outbound Invoice	810	INVOIC
POCO	Outbound Purchase Order Change	860	ORDCHG
POO	Outbound Purchase Order	850	ORDERS
PYO	Outbound Payment Order/Remittance Advice	820	PAYORD-REMADV
SPSO	Outbound Planning Schedule	830	DELFOR
SSSO	Outbound Shipping Schedule	862	DELJIT
ASNI	Inbound Ship Notice/Manifest	856	DESDAV
CATI	Inbound Price/Sales Catalog	832	PRICAT
INI	Inbound Invoice	810	INVOIC
POI	Inbound Purchase Order	850	ORDERS
RRQI	Inbound Response to RFQ	843	QUOTES
SBNI	Inbound Shipment & Billing Notice	857	n/a

Define Responsibilities

The System Administrator must assign the Oracle e-Commerce Gateway responsibility to the intended users of the Oracle e-Commerce Gateway database and windows.

Responsibility: System Administrator

Task: Assign Oracle e-Commerce Gateway responsibility to user(s)

Define UTL_FILE_DIR Parameter in INIT.ORA File

The Database Administrator (DBA) must define the UTL_FILE_DIR parameter in the INIT.ORA file.

To use Oracle e-Commerce Gateway, you must first create directories where data files, for both inbound and outbound transactions are stored. Oracle e-Commerce Gateway uses the UTL_FILE package to read and write the ASCII transaction interface flat files on the server.

UTL_FILE can only write to accessible directories. The directories are defined by the utl_file_dir parameter in the init<SID>.ora file. This file is usually found in the $ORACLE_HOME/dbs directory. Within this file, each accessible directory is indicated by a line similar to:

utl_file_dir = *directory_name*

The specification of ***directory_name*** will vary, depending on the operating system. If the operating system is case-sensitive, then ***directory_name*** is case sensitive. The value for ***directory_name*** must be a physical directory as opposed to a variable, logical or an alias. In addition, the value for ***directory_name*** must match the value defined in the Oracle e-Commerce Gateway profile for ECE: Inbound File Path and ECE: Output File Path. Refer to Set Up Profiles for the details.

For example, the following entries are legal for **a UNIX system**, assuming the directories specified exist:

utl_file_dir = /tmp

utl_file_dir = /home/oracle/output_files

In addition to this form of database security, **operating system security** must also be considered. The file I/O operations performed with UTL_FILE will be done by the Oracle user (the Oracle user is the owner of the files that are used to run the database, and also the owner of the processes that make up a database instance). Consequently, the Oracle user must have operating system privileges to read from and write to all of the accessible directories. If the Oracle user does not have privileges for an accessible directory, then any operations in that directory will be prohibited by the operating system.

To ensure that operating system security allows the Oracle user to create, delete, rename, read and write files in the specified directories, the DBA must grant directory and file access privileges by issuing the CHMOD 777 command at the operating system level. This is a UNIX example only, so use operating system appropriate commands for your environment.

The Oracle instance must be brought down and back up for the changes in the init<SID>.ora file to be effective.

Review Release 11*i* Upgrade Guideline

Release 11*i* Upgrade

This chapter provides general information about topics to consider while planning the upgrade to Release 11*i*.

To facilitate a successful upgrade to Release *11i*, make sure that the information contained in the *Upgrading Oracle Applications, Release 11i* manual is understood by everyone involved with the upgrade process. Note the following regarding the upgrade process:

- Plan the upgrade by reading all the steps that apply to your products before beginning. This allows the user to determine the most efficient way to prepare for and finish the process given the unique combination of products.
- Failure to complete the upgrade preparation and upgrade finishing steps correctly can adversely affect the upgrade process.
- You must be at either Release 10.7 (NCA, SmartClient or character-mode) or Release 11of the Oracle Applications to upgrade to Release 11*i*. You cannot upgrade to Release 11*i* directly from releases prior to Release 10.7.
- Pay close attention to all warnings that indicate where and when you run upgrade steps. Carefully coordinating your upgrade preparation work across different products will avoid errors.
- For a complete list of changes and enhancements to the Oracle Applications in Release 11*i*, review the *Oracle Applications Product Update Notes*.

If you are an Automotive customer, review the Release 11*i* Automotive Upgrade documentation to insure that all pre upgrade and post upgrade steps are performed.

For existing Oracle Order Entry users, it is important to note that Oracle Order Entry is not included in the initial Release 11*i* and, thereby, the inbound Purchase Orders (850/ORDERS) and the outbound Departure-based Shipping Notice/Manifest (856/DESADV) transactions will not be available for use until the new Oracle Order Management product is released.

It is important that customers stay current on the latest patch sets provided by Oracle e-Commerce Gateway. This insures that they have the most recent bug fixes and added functionality. Information on the latest patch sets available can be obtained from Oracle Support Services or their web site MetaLink.

Prior to running the Release 11*i* upgrade process, it is important to remember to run the two report scripts that are provided. These report scripts help identify customizations that may have been made to the existing transaction record layouts, any table updates to accommodate extension tables, and identifies new code conversion categories that may have been added.

If you have made any customizations to the seeded data including extension tables or program routines, execute the report scripts both before and after you apply the upgrade. The before report identifies the current definitions, the after report identifies the new definitions after the upgrade has been applied. The differences between the two reports identify the customizations that must be evaluated. If necessary, re-implemented your

customizations after you apply the upgrade. In addition, make certain you have complete documentation of software modifications before applying the patch. This allows you to easily re-apply your changes, and make additional changes if the seed data reconciliation could not restore that transaction layout or set up.

Detailed information on running these report scripts can be found the Release 11*i* Upgrade manual.

Seed Data Reconciliation

Seed data is generally defined as any data delivered with a standard installation of Oracle Applications. This includes menu definitions, concurrent manager definitions, list of values, etc. In this chapter, the definition of seed data is limited to the data used for:

- Definition of transaction record layouts
- Assignment of code categories to a transaction record layout
- Definition of process rules associated with a transaction
- Definition of column rules associated with a transaction

Whenever a transaction-specific patch is applied, there may be changes or additions to the transaction record layout. Code category assignments, column rules, and process rules are closely linked to the transaction record layout so these definitions may also be impacted by a change to the transaction record layout.

The Release 11*i* *Seed Data Reconciliation* process allows you to reapply the preexisting transaction record layout, if a patch updated the transaction record layout, or accept the new transaction record layout. Retaining the preexisting transaction record layout gives you a record layout that minimizes or eliminates transaction data map changes for any process that uses your transaction such as the Translator.

In addition to reconciling transaction record layouts, this process also performs reconciliation on the code conversion assignment, column rules, and process rules associated with the transaction record layout changes.

For detailed information on how the Seed Data Reconciliation process works, refer to the *Oracle e-Commerce Gateway User's Guide*.

Set Up Profiles

Recognizing that no two businesses operate in the exact same manner, Oracle e-Commerce Gateway provides users with profile options to configure their implementation. This allows the user to set up an ERP environment that matches their business environment.

Oracle e-Commerce Gateway supports two types of profile options; system level profile options which are used by all transactions and transaction level profile options used by a specific transaction. System level profiles are usually done as an initial set up whereas transaction level profile options are done as you implement a transaction.

System Profiles (Initial Setup)

The following table lists the three system profile options. The table also shows whether the profile option is required or optional and what the default value**:**

System Profile Option	Description	Required	Default Value
ECE:OUT_FILE_PATH	Indicates the directory to which outbound data files are written. This value must match the actual directory on disk and is designated in the INIT.ORA file	Yes	No Default
ECE: ATT_SPLIT_WORD_ ALLOWED	This profile option is used for attachments to the Purchase Order Outbound and Purchase Order Change Outbound transactions. A value of "Yes" indicates words in attachments are split when the segment size is reached. "No" indicates that words are not split. A new line is created after a space or a punctuation mark.	Yes	No Default
ECE: IN_FILE_PATH	Indicates the directory where inbound data files are expected. This value must match the actual directory on the disk and that is designated in the INIT.ORA file	Yes	No Default

System Profile Window

Note: For system profile options related to directory paths, refer to Define UTL_FILE_DIR Parameter in INIT.ORA File for the details.

Transaction Profiles (Ongoing as transactions are implemented)

Transaction profiles are categorized as follows:

- Address precedence for each inbound transaction
- Enable/disable flag for each transaction
- Transaction specific options

There are two transaction profiles for each transaction: an address precedence profile and a transaction-enabled profile. Both of these profile options are required. The table below lists the options, their descriptions, and the default values:

Transaction Profile Option	Description	Required	Default Value
ECE_XXX_ADDRESS_ PRECEDENCE	Enables Address Precedence for transaction where xxx represents a specific inbound transaction	Yes	LTC,PHA,LON
ECE_XXX_ENABLED	Enables the transaction where xxx represents a specific transaction	Yes	Yes

Transaction Profile Window

Enable/Disable Flag for Each Transaction

For each transaction supported by Oracle e-Commerce Gateway, there is a transaction enabled flag, (i.e.: ECE_XXX_ENABLED, where XXX represents a specific transaction). This flag indicates if a transaction will be enabled or disabled at the system level. The setting determines Oracle e-Commerce Gateway's ability to process a given transaction. If the flag is disabled, the transaction will not be processed by Oracle e-Commerce Gateway. You still need to enable the flag in the Detail tab of the Define Trading Partner *w*indow to enable the transaction at the trading partner level.

Address Precedence for Each Inbound Transaction

All inbound transactions have an address derivation precedence profile option. The address derivation derives addresses based on certain codes provided to the Oracle e-Commerce Gateway in inbound transaction interface files.

The address precedence has three categories of components. They have unique address ids, location code/translator codes, location names, and physical addresses. These addresses are verified and validated as transactions are processed. The user has the option of defining which derivation sequence the transaction will follow.

You can determine the order that the Oracle e-Commerce Gateway attempts to derive the address site in the base application, given the data in the transaction file.

Three searches are attempted; for example the combination LTC, PHA, LON for the EDI Location Code/Translator Code, Physical address, and Location name respectively. If the first rule, EDI Location Code/Translator Code combination (LTC), does not determine the address site in the base application, then use the full physical address (PHA) found in the

transaction to find the address site. The final attempt will be with the location name (LON) found in the transaction.

The address derivation precedence profile value requires users to define a sequence in which validation is performed for each inbound transaction prior to processing. The valid combinations are:

LTC, PHA, LON

LTC, LON, PHA

PHA, LTC, LON

PHA, LON, LTC

LON, LTC, PHA

LON, PHA, LTC

where:

LTC represents the EDI Location Code/Translator Code combination

PHA represents the Physical Address

LON represents the Location Name

Transaction Specific Options

Purchase Order Transactions

Additional profiles exist for the Purchase Order transactions, for the handling of attachment data to suppliers. These profiles require the user to define if attachments are to be enabled at various levels of a transaction. The purpose of these profile options is to make the transaction interface file size manageable. The available values for the profile names listed below are Yes or No. Yes will enable the attachments, and No will disable the attachments. If using attachments you also need to define the attachment segment size profile option.

Attachments are supported at different levels:

Header Level: header attachment

Inventory Item level: master item attachment and inventory item attachment

PO Line Level: line attachment

Shipment level: shipment attachment

Below is a table showing the purchase order-specific transaction profile options, their descriptions, an indicator of required or optional, and their default values:

Purchase Order Specific Transaction Profile Option	Description	Required	Default Value
ECE:POO_ATTACHMENT_SEGMENT_SIZE	Sets the attachment segment size for the outbound Purchase Order transaction. Attachments can be split into segments to accommodate their insertion into the data file. The segment size is expressed in bytes.	Yes	400
ECE:POO_HEADER_ATTACHMENT_ENABLED	Enables the header attachment for the outbound Purchase Order transaction.	Yes	No
ECE:POO_INVENTORY_MITEM_ATTACHMENT	Enables the master inventory item attachment for the outbound Purchase Order Request transactions	Yes	No
ECE:POO_INVENTORY_ITEM_ATTACHMENT	Enables the inventory item attachment for the outbound Purchase Request transactions	Yes	No
ECE:POO_LINE_ATTACHMENT_ENABLED	Enables the line attachment for the outbound Purchase Order transactions	Yes	No
ECE:POO_SHIPMENT_ATTACHMENT_ENABLED	Enables the shipment attachment for the outbound Purchase Order transactions	Yes	No

Note: The same options apply to the outbound Purchase Order Change Request transaction.

Outbound Purchase Order Transaction Profile

The ECE_POO_ATT_SEG_SIZE sets the attachment segment size for the outbound purchase order transaction. Attachments can be split into segments to accommodate their insertion into the interface file.

The segment size is expressed in bytes. The default is 400. You can change the default value to a value that matches the length of the target field. For example, if the attachment test is being mapped to an ASC X12 NTE segment, then set the profile value to 80 so that the attachment text is written to the interface file in 80 byte increments. This will make it easier for the Translator to map attachment text from the Oracle transaction interface file to the target field of the message.

The size of the attachment should be synchronized in three places. The following table illustrates where to change it:

Set Up for Text Length	Note	Original	Change	Use
Profile Options *w*indow: Transaction Profile Set up	Sets the **attachment size** for the transaction. Attachments can be split into segments to accommodate their insertion into the interface data file. The segment size is expressed in bytes. The default is 400.	400	80	80
Interface File Definition *w*indow	Set to the same length as the attachment. If the data element on the file is excessively long, the data element will have many trailing blanks. If the data element on the file is not long enough, the data may be truncated.	800	80	80
Translator Data Map	The translator will map each data element to a field that is your specified length. You do not need to manipulate text size to fit into a standard data element if the data was divided into several record in the transaction interface file.			80

The use of attachments is not required. If not used, consider disabling the attachment record defined for the transaction. Refer to Modify Transaction Interface File for more details.

Common Setup Errors

The following are common set up errors related to system/transaction level profiles:

- Did not define system level profile options
- Concurrent Manager log file reflects an error indicating transaction is not enabled
- Errors regarding address derivation occurred

Refer to the Troubleshooting chapter for more details.

Determine Process and Column Rules and Actions

Oracle e-Commerce Gateway's exception handler is designed to provide quick and easy analysis of any exception detected during inbound processing. It is a tool to pre-validate incoming data before the data is imported into Oracle Application's Open Interface tables for processing into Oracle Applications base tables.

The exception handler uses tree style navigation and color-coded icons to help you quickly identify the exception. Dynamic windows and drill downs provide summary and detailed information to help you analyze and diagnose the cause of any exception. Once the cause of an exception is identified and resolved, you have the option to resubmit the transaction for processing, ignore the exception or delete the transaction.

To take advantage of Oracle e-Commerce Gateway's exception handler, you must first define the validation rules. There are two types of validation rules; one at the process level for the overall transaction and the second at the column level for the individual data elements within a transaction. You define the validation rules using the Assign Process Rules or Assign Column Rules window accessible via the Interface File Definition window.

Process Rules

Process rules are defined at the transaction level and apply to the entire transaction. Process rules are required and should not be changed although the Assign Process Rules window does not prevent it. Oracle e-Commerce Gateway's exception handler supports three process rules as follows:

- Invalid Trading Partner

  This rule checks if the incoming translator code/location code combination (on the interface file, control record) is defined for a trading partner. Additionally, the transaction type identified on the incoming interface file must be enabled for the trading partner identified.

- Test/Production Discrepancy

  This rule checks if the incoming test flag (on the control record 0010 in the transaction interface file) matches the flag setting for the Trading Partner identified by the Translator Code/EDI Location Code combination (in the Trading Partner set-up). If they are different, then this rule is violated.

- Invalid Document Address

  There are several procedures, which validate and derive different types of addresses (Ship-to, Bill-to, Sold-To, etc.). If one of these procedures are unable to derive a unique address site, then this rule is violated. This validation occurs for all the key address sites associated with the transaction except for the location code on the control record.

- Seeded Process Rules

  Each inbound transaction is seeded with the three process rules outlined above. In addition, each rule is seeded with a default rule action of "Skip Document" that tells Oracle e-Commerce Gateway to skip the current document and proceed to the next document if a process rule exception is detected. You can change the corresponding process rule action if the default behavior is not desired (see below regarding Rule Actions).

Column Rules

Column rules are defined at the column level and apply to a specific data element of a given transaction. Except for the seeded column rules (see below regarding Seeded Column Rules), column rules are not required. If they are used, you must define an associated rule action that tells Oracle e-Commerce Gateway how to proceed if a column rule exception is detected. The same set of rule actions available for process rules are used for column rules (see below regarding Rule Actions).

Oracle e-Commerce Gateway's exception handler supports seven column rules as follows:

- Datatype Checking

  Examples of data types are alphanumeric, numeric, and date. This rule compares the data type defined in the ece_interface_columns table with the data type of the data in the incoming interface file. If the data types do not match, then this rule is violated.

- Default If Null

  This rule is used to put a value into the column if it is null (blank) in the incoming interface file. This is the only rule that modifies the incoming data as a value is placed in the Application Open Interface table. The interface file is not updated. Use the 'Log Only' rule action for this column rule.

- Null Dependency

  This rule is used to create complex comparisons for a column within the document. Null Dependency allows the user to set up conditional expressions that indicate whether the assigned column must be null or cannot be null depending on the values in other columns.

- Predefined List

  This rule is used to validate the incoming data for a given column against a user defined list. For example, transaction_method "Must Equal" EDI implies the value "EDI" is on the user defined list. If "Cannot Equal" is checked, then transaction_method cannot equal "EDI."

- Simple Lookup

  This rule requires you to identify the specific table and column containing a list of valid values. The table and column names are used to dynamically build a select statement that is used to select data to compare to the assigned column. The tables may be user-defined tables outside of the Oracle Applications. For example of a Simple Lookup, the dynamically built select statement is "select lookup_code from ece_ lookup_values." If the incoming transaction value does not exist in the list of selected values, then this rule is violated. No List of Value (LOV) is provided for the table,

column or condition field. Instead a "Validate" button may be used to verify the syntax of the dynamically built select statement.

- Valueset Lookup

  This rule is used to compare the value in the assigned column to an Oracle Application Valueset.

- Value is Required

  This rule checks if the incoming data for a given column has a non null value. If it is null, then it violates the rule.

General guidelines regarding column rule definitions are as follows:

- A column may have more than one rule defined
- A column may have the same rule defined multiple times each with different conditions
- The same rule may apply to multiple columns of a given transaction
- Different rules for a given column can have different rule actions (see below regarding Rule Action Precedence)

Seeded Column Rules

Each inbound transaction is seeded with column rules for required fields, date fields, and numeric fields. The default settings for column rule and rule action are shown in the following table:

Field Types	Column Rule	Rule Action
Required Fields	Value is Required	Skip Document
Date Fields	Data type Checking	Skip Document
Numeric Fields	Data type Checking	Skip Document

A column is identified as required if it is required by Oracle e-Commerce Gateway or the Application Open Interface to successfully import an interface file. Examples include values to key fields or parameters that identify a business rule to be used when validating incoming data. Refer to the Application Transaction Detail chapter for a list of required fields relevant to the transaction being implemented.

The Assign Column Rules window allows you to change or delete the column rules for required, date or numeric fields but this type of change is not recommended unless the potential exception can be resolved in the Application Open Interface. You can change the corresponding column rule action if the default behavior is not desired.

Whether you use Oracle e-Commerce Gateway's exception handler to pre-validate incoming data or not is dependent on your business rules and the accuracy of your trading partner's interface files. If you do not define any column rules at all, you are assured that at minimum the seeded column rules are executed.

Given the variety of ways in which Oracle Applications modules support error detection, error reporting and error research tools, it is easier to do as much pre-validation as possible via Oracle e-Commerce Gateway so that you can centralize the error research effort. This way all errors may be reviewed and resolved at the same time allowing the transaction to be reprocessed in a timely manner.

Column Rules and Code Conversion

Oracle e-Commerce Gateway applies code conversion prior to applying the column rules, therefore you can define a column rule for a column allocated for the internal value although the actual value is not placed on the transaction interface file but is derived during code conversion. This derived value will be validated using the column rule and then placed in the Application Open Interface table if valid or staged if invalid. Refer to Set Up Code Conversion for more details.

Rule Actions

Each process or column rule requires a rule action that tells Oracle e-Commerce Gateway how to proceed if an exception is detected. There are four rule actions as follows**:**

- Skip Document

  This action skips the current document and continues processing the next document. You can view the detected exceptions for this document via the View Staged Documents window.

- Log Only

  This action writes a message to the log file. It treats the document as a successful document and continues processing the remaining documents.

- Abort Run

  This action rolls back the entire run and sets the concurrent request status to 'Error'.

- Disabled

  This action temporarily disables the rule until you reactivate it by assigning an appropriate rule action.

Rule Action Precedence

Since a given data column can have more than one rule defined for it, it implies that there can be more than one rule action defined for it. If this occurs, the exception handler applies the rule actions beginning with most conservative to least conservative as follows:

1. Abort Run
2. Skip Document
3. Log Only

Exception Handler

Once the validation rules and associated actions are defined and the process is initiated, the run-time execution engine proceeds according to your validation rules.

The status of a transaction process and any detected exceptions may be viewed using a single "workbench style" window known as the View Staged Documents window. Summary or detailed inquiries are available to help you analyze the cause of an exception.

If necessary, a user-activated run-time execution log is available to assist with trouble shooting. This diagnostic tool supports multiple levels of trace details for both technical and non-technical analysts.

Refer to the Troubleshooting chapter for more details on how to use the Run-time Execution Log and View Staged Documents window(s) to research any detected exceptions.

Once the cause of an exception is identified and resolved, you have the option to resubmit the transaction for processing, ignore the exception or delete the transaction.

Error Correction

If you agree that a detected exception is an error, you must proceed to get the error corrected.

Since the documents being transmitted between you and your trading partner represent legal documents, Oracle e-Commerce Gateway does not allow you to correct any errors, so the errors must be corrected at the source.

If you cannot resolve the exception using the appropriate Oracle Applications set up, you can bypass the validation in Oracle e-Commerce Gateway by enabling the 'IGNORE' check box via the View Staged Documents window. Alternately, you can delete the transaction and ask your trading partner to resend a corrected transaction.

If the error originated in Oracle Applications, you must correct the error in the appropriate Oracle Applications module and then resubmit the transaction using the View Staged Documents window. There is no need to re-import the interface file from the sender.

If you determine that a detected exception is really a warning that does not adversely affect the process, you can do one of the following:

- Un-assign the column rule using the Assign Column Rules window. This change applies to all documents of the same transaction type until you re-assign the rule.
- Assign a less restrictive column rule or column rule action using the Assign Column Rules window. This change applies to all documents of the same transaction type until you reset the rule.
- Request that Oracle e-Commerce Gateway ignore the validation by enabling the IGNORE flag via the View Staged Documents window
- Delete the transaction using the View Staged Documents window

Once you processed the warning exception, you can resubmit the transaction using the View Staged Documents window for processing into the Application Open Interface tables. When the import process of loading data into the Application Open Interface tables completes successfully, you must resubmit the request to execute the Application Open Interface process so the data can be imported into the Oracle Applications base tables.

Oracle e-Commerce Gateway's exception handler is designed to validate the entire inbound file and report all exceptions to you so that you can make the necessary corrections all at once. However, if there are errors at multiple levels of the transaction, Oracle e-Commerce Gateway's exception handler proceeds as far as it can and then continue processing only after the necessary corrections are made and the transaction is resubmitted for processing. In the best case scenario, all exceptions are reported the first time. In the worse case scenario, this is an iterative process requiring your attention at each iteration until all exceptions are resolved.

Common Setup Errors

The Assign Process Rules and Assign Column Rules window prevents you from defining invalid or incomplete validation rules. However, if you define an incorrect rule or the rule is assigned incorrectly, the expected pre-validation may not be performed. The following are errors related to defining validation rules:

- Deleted or changed a required process rule
- Deleted a column rule for a required field
- Changed a column rule for a date or numeric field
- Assigned a column rule that does not match the type of data expected for the data element
- Did not activate a rule defined with a 'Disabled' rule action

- Did not provide a list of valid values for ‘Predefined List’ column rule
- Did not provide a valid Oracle Applications valueset for ‘Valueset Lookup’ column rule
- Did not provide a valid table, column, or condition for ‘Simple Lookup’ column rule

Refer to the Troubleshooting chapter for more details.

Enable Additional Transaction Data

The information presented in this section is of an advisory nature and assumes you have attended an Oracle e-Commerce Gateway training course and are familiar with standard Oracle features such as Flexfields.

Oracle e-Commerce Gateway provides several methods to add data elements to the transactions that are not defined in the base Oracle Applications data model. You may wish to add data elements to obtain data that is missing from the inbound file or that is required by multiple organizations. The following table lists these methods and whether they apply to inbound or outbound transactions.

Method	Applies to Outbound Transactions	Applies to Inbound Transactions
Trading Partner Header Reference fields	Yes	No
Descriptive Flexfields in the Oracle e-Commerce Gateway	Yes	Yes
Descriptive Flexfields in the base Oracle Applications	Yes	No
Oracle e-Commerce Gateway Extensible Architecture	Yes	No
Interface File Definition	Yes	Yes
Interface Data File processing	No	Yes

Trading Partner Header Reference fields

There are two Trading Partner reference fields on the Trading Partner header defined in the Define Trading Partner window as TP_REFERENCE_EXT1 and TP_REFERENCE_EXT2.

- These fields are written to the control record 0010 in every outbound transaction.
- This data can be mapped to a standard transaction field by the Translator if required

- These fields are not examined by the Oracle e-Commerce Gateway for inbound transactions.

Descriptive Flexfields in Oracle e-Commerce Gateway

Oracle e-Commerce Gateway standard mapping contains a selection of flexfields that allow for the transmission of additional data outbound/inbound if that data has its origin or destination in activated flexfields within the Oracle Applications.

- The availability and transaction level - header, line, shipment etc. - of these flexfields in the Oracle e-Commerce Gateway is dependent on the transaction involved. It cannot be assumed that every transaction will always have all flexfields available to be mapped, the mapping should therefore be verified on a case by case basis.
- Unlike the extensible architecture the data that can be mapped into the flexfields is limited to the number of flexfields that have been activated within Oracle Applications, and is also limited by the scope of the Application Open Interface for a given inbound transaction.
- Any additional data that is passed via flexfields must have a suitable corresponding position within the fields available in the message standard being used.

Descriptive Flexfields in the base Oracle Applications

Subject to the comments mentioned in the previous section, data contained within the flexfields activated in the Oracle Applications can be transmitted outbound via the Oracle e-Commerce Gateway. Most additional data transmission requirements can be met using mapped flexfields where the extra data required is to be found within the relevant Oracle Applications.

Oracle e-Commerce Gateway Extensible Architecture

The Oracle e-Commerce Gateway Extensible Architecture feature is used when data from an outside application must be merged with Oracle Applications data to create a single outbound transaction. This feature affords great flexibility to customize outbound transactions based on individual business needs. For example, there may be data contained in legacy systems tables or files that must be included in a transmission along with data extracted from the base Oracle Application. Data that is stored in additional columns in Oracle application tables, which are not in the standard Oracle application or Oracle e-Commerce Gateway configuration, may also be written to the extension tables.

Refer to the chapter on Extensible Architecture for more details.

Interface File Definition

The size, location and relative order of the fields processed by Oracle e-Commerce Gateway can be modified using the Interface File Definition window. The width of a field may be increased or decreased to suit customer or standards requirements. The relative position of a field within the interface file record may be changed, or a field may be activated to appear in the transaction interface file by allocating it a record number, relative position, and column width. Alternatively fields may be inactivated if they are not required, for example to reduce inbound/outbound file sizes, though it is recommended that the reasons for deactivating fields, other than not used flexfields, be well understood.

- External (code conversion) fields may be renumbered (changing the position numbers) to allow them to be inserted into, or read from, the interface file in a different order to their position in the Interface File Definition display - refer to the *Oracle e-Commerce Gateway User's Guide*. However, changing the position number impacts the data map in the Translator. Newly activated columns may be positioned after the seeded columns on a record or even written to another record to minimize the impact on existing data maps. The Internal (code conversion) field numbered '0' must not be altered. The '0' is an indicator that this field is the Internal code for the Oracle Application.
- Any changes to the interface file definition must be synchronized with the mapping to the Translator.
- Removing fields is a simple action, but the implications of finding that the fields are required at a later date will affect the Translator mapping and also may affect the Transaction Specification agreement with Trading Partners.

Refer to Modify Transaction Interface File for guidelines on changing transaction interface file definitions.

Interface Data File Processing

The file produced by Oracle e-Commerce Gateway for outbound transactions, and imported by it for inbound transactions, is a flat text file. It may be manipulated by standard editor or programming languages such as SQL and COBOL. Because of this the file may, for example, be padded in the case of transmission via software that requires fixed length fields. For inbound transmissions, data may be added by reference to the Oracle Applications, or third party tables in the case where data is missing from the inbound transactions, or data such as tax coding needs to be added based upon specific geographic supply sources.

Oracle e-Commerce Gateway files may also be easily read, or test files easily created, using standard editors. It should be noted, however, that because the file may extend to a width of 1024 characters the editor should be set to minimum margins with fixed, non-proportional width font to ensure properly formatted display without wrapped data.

Modify Transaction Interface File

Oracle e-Commerce Gateway creates outbound and receives inbound transaction interface files. The transaction record layouts (a.k.a. file formats) are pre-defined by Oracle e-Commerce Gateway and stored in a data repository. The seeded transaction layout definitions may be used as is or customized to match the data you transmit to or receive from your trading partner. You may want to change the seeded transaction layout definitions for the following reasons:

- Change file structure
- Change record layout
- Change column attributes
- Delete unused data elements and records
- Activate additional external fields for code conversion
- Activate unmapped data elements
- Extend Oracle e-Commerce Gateway supported transactions

Use the Transaction Layout Definition Report to review the seeded definitions including any modifications you may have entered. Use the Interface File Definitions window to make any necessary definition changes. Since the transaction layout definitions are stored in a data repository, all changes entered using the Interface File Definition window are effective at run-time without any code modifications. Once the necessary changes are entered, re-run the Transaction Layout Definition Report and use the report output to synchronize your new transaction layout definitions with the Translator.

Refer to the *Oracle e-Commerce Gateway User's Guide* for details on how to use the Transaction Layout Definition Report and the Interface File Definitions window.

The following table reviews some of the terms discussed in this section:

Term	Definition
Data Element	The smallest component of a transaction interface file
Record	A collection of data elements
Common Key	The first 100 bytes of every record containing key data about the Trading Partner and document
Control Record (Record 0010)	The first record of every transaction containing key data about the transaction and trading partner
Transaction Interface File	A collection of records containing transaction-specific data

Refer to the chapter on Transaction Interface File Architecture for a detailed description of Oracle e-Commerce Gateway's transaction interface file structure.

Change File Structure

The structure of a transaction interface file is defined during the design process and is based on how the data will be mapped per the message standards. The objective is to group the data in logical groups so that it can be easily mapped by the Translator.

The following are some guidelines regarding file structure changes:

- Due to the one-to-many relationship between header and detail level data, do not move detail level data to the header level.
- If you move header level data to the detail level, make sure the header level aggregated data is accurately represented as de-aggregated data at the detail level. This may require some re-mapping or custom coding to accomplish.
- Do not use the same record number across different data levels
- Moving records around within the same data level is acceptable

Change Record Layout

Each data element is defined to a relative position within a record. The relative position indicates the order the data elements are written to the transaction interface file. Except for the control record, the relative position of a data element in a record may be changed as necessary.

The following are some guidelines regarding record layout changes:

- Do not change the record layout of the common key in any record. The Interface File Definition window prevents this so this guideline applies to custom coding only.

- Do not change the record layout of the control record.
- If you move a data element from one record to another, make sure the total length of the record does not exceed 1024 bytes with the first 100 bytes reserved for the common key.

Change Column Attribute

Aside from being defined to a relative position within the record, each data element has seeded column attributes for record number, position, width, sequence, layout code, layout qualifier, process rules, and column rules. Any one of these column attributes may be changed as necessary with the following guidelines:

- Do not change the column attributes of the common key in any record. The Interface File Definition window prevents this so this guideline applies to custom coding only.
- Do not change the column attributes of the control record.
- Do not use detail level record numbers in header records.
- Do not repeat record numbers within or outside the same data level.
- Do not repeat position numbers within the same record.
- Define a column width less than or equal what Oracle Applications supports to prevent data from being truncated.
- Make sure the total length of the record does not exceed 1024 bytes with the first 100 bytes reserved for the common key.
- Do not use sequence number 0 as it is reserved for the data element's internal value.
- Make sure the external fields defined for code conversion are uniquely sequenced from 1 to 5.
- If you change a layout code, make sure you make the same change for every data element in the record. The layout code from the first data element in the record is written to the transaction interface file.
- If you change a layout qualifier, make sure you make the same change for the related data elements in the record. The layout qualifier from the first data element in the record is written to the transaction interface file.
- Do not change the seeded process rules, these are required. You may change the process rule action as necessary.
- Do not change the seeded column rules for data elements that are required by Oracle e-Commerce Gateway or Oracle Applications Open Interface. These data elements

have the 'Value is Required' column rule defined for it. Refer to the Application Transaction Detail chapter for a list of required fields by transaction.

Delete Unused Data Elements and Records

During the design process, the transaction interface file is defined to accommodate every relevant data element from Oracle Applications including descriptive flexfields. However, not all data elements are mapped or used because either the message standards or the trading partner did not require it. To maximize efficiency, delete all unused data elements and records using the following guidelines:

- Delete all unused Oracle e-Commerce Gateway and Oracle Applications descriptive flexfields.
- Delete all unused Oracle Applications free form text fields such as attachment, notes and descriptions
- Retain at minimum one of the five allocated external fields in case you want to activate code conversion for the data element in the future. Delete all other unused external fields.
- Do not delete the control record or any data elements in the record. This record is required.
- Do not delete any data elements in the common key. These data elements are required.
- Do not delete data elements containing a process rule, as process rules are required.
- Do not delete data elements required by Oracle e-Commerce Gateway or Oracle Applications Open Interface. These data elements have the 'Value is Required' column rule defined for it. Refer to the Application Transaction Detail chapter for a list of required fields by transaction.

Activate Additional External Fields for Code Conversion

During the design process, five external fields are defined for each data element identified as a candidate for code conversion. However, the actual number of external fields that are activated are based on the requirements of the receiving system. Examples of the receiving system's requirements are the EDI standards, ISO 9000 standards (i.e. UOM codes or currency codes) or specific trading partner requirements. Any of the five external fields that are not activated are available for you. You can activate these unmapped external fields by assigning the appropriate column attributes including record number, position number, width, sequence, layout code, layout qualifier and column rules. The following are guidelines for activating unmapped external fields:

- Use the same record number as the other related external fields if the maximum does not exceed 1024 bytes with the first 100 bytes reserved for the common key.
- To minimize re-mapping of existing data maps, use a position number that will position this data element to the end of the record.
- Define a column width less than or equal what Oracle Applications supports to prevent data from being truncated.
- Review the sequence number of the other related external fields and assign a sequence number not already used by the other fields. If you need to re-sequence the existing external fields to accommodate the new external field, make sure they are uniquely sequenced from 1 to 5.
- Do not use sequence number 0 as it is reserved for the data element's internal value.
- Use the same layout code and qualifier as the other related external fields in the record.
- Assign a column rule for the external field as necessary.

Activate Unmapped Data Elements

Similar to additional external fields for code conversion, there are other Oracle e-Commerce Gateway or Oracle Applications fields which were included in the transaction design but not mapped to the transaction interface file. You can activate these unmapped fields to add new data elements to existing transactions by assigning the appropriate column attributes. The guidelines are similar to those stated above for activating unmapped external fields for code conversion although these data elements are not limited to supporting code conversion requirements only.

Extend Oracle e-Commerce Gateway Supported Transactions

Oracle e-Commerce Gateway provides several methods to extend currently supported transactions through the use of trading partner reference fields, descriptive flexfields, and Oracle e-Commerce Gateway Extensible Architecture. Refer to Enable Additional Transaction Data for details on when and how to use each method.

Synchronize New Transaction Layout Definitions with Translator

Once the necessary changes are entered, re-run the Transaction Layout Definition Report and use the report output to synchronize your new transaction layout definitions with the translator.

Common Transaction Interface File Definition Errors

Moving data elements from the line level to the header level

Changing the record layout or column attributes of the control record

Deleting the control record

Incorrect usage of external fields for code conversion

Exceeding maximum record length of 1024 bytes

Deleting data element containing a process rule

Deleting data elements that are required by Oracle e-Commerce Gateway or Oracle Applications

Refer to the Troubleshooting chapter for more details.

Set Up Trading Partners

The steps for setting up a Trading Partner are detailed below. First read the chapter on the Trading Partner for important details about the Trading Partner. Reference the *Oracle e-Commerce Gateway User's Guide* for details to complete the windows.

Step 1: Define Trading Partner Group

Enter a new Trading Partner Group or access an existing Trading Partner Group.

Enter a new Trading Partner name or position your cursor on an existing Trading Partner name. Select the appropriate New or Open button.

Step 2: Define Trading Partner - Assignment

From the Define Trading Partner window, select the Assignment tab. Select the name and site from the list of values. Only the names and sites from the organization associated with your signon e-Commerce Gateway Responsibility are presented in the list of values. The EDI Location Code is returned from the base Oracle Application where the site is defined.

Step 3: Define Trading Partner - Details

From the Define Trading Partner window, select the Details tab. Enter the transactions, the transaction types, the translator code, and the document standard for code conversion for the trading partner. You will also enable the document (transaction) for processing, and set the Test indicator to flag the transaction as test or production.

Step 4: Define Trading Partner - Contact (Optional)

From the Define Trading Partner window, select the Contact tab. The information on the contact tab is optional. It contains contact data for the specified trading partner. It may be used by the EDI Coordinator for the trading partner's EDI Coordinator's contact data. This data is for reference only. It is not used by Oracle e-Commerce Gateway.

Common Setup Errors

The following are common Trading Partner setup errors:

- Invalid Trading Partner/EDI Location Code
- Transaction not enabled
- Invalid Trading Partner
- Trading Partner Group already exists
- This location already has a different Trading Partner value. Overwrite?
- INVALID_OPERATION error occurred while writing to the output file

Refer to the Troubleshooting chapter for more details.

Set Up Code Conversion

The steps for setting up a Code Conversion are detailed below. First read the section on Code Conversion Detail for important details about Code Conversion. Refer to the *Oracle e-Commerce Gateway User's Guide* for details to complete the forms.

Step 1: Review/Define Code Conversion Categories

Review the list of seeded Code Conversion Categories. Add additional Code Conversion Categories if needed for your code conversion value table entries.

Enable the number of search keys that you will use in the code conversion value table for each Code Conversion Category if you are using search keys.

Step 2: Enable Code Conversion

Locate the transaction, format map, and transaction level that has the column (data element) name that you need to enable for code conversion. You enable a column for code conversion by entering a code conversion category in the Category column. When this is done, only code conversion value table entries with the code conversion category will be accessed during code conversion for that column.

If you use search keys, enter the column name that contains the value to be used as part of the search key.

Step 3: Define Code Conversion Values

Enter all the data for the code conversion value tables: Category, Description, Direction, Search Key 1 - Key 5, Oracle internal code, External code 1 - external code 5.

Interface with Translators

The Translator is a third-party software application designed to transform a formatted file into any other format. Traditionally, it transforms proprietary formats to EDI transactions according to the designated standard (e.g., X12, EDIFACT). It considers both the data required by the chosen standard and the data required by the trading partner. It maps the data from the transaction interface file to the required file format according to the requirements. A Translator data map may be defined to produce a transaction according to the recommendations of any industry guideline such as UCS, EIDX, or AIAG. A single data map may accommodate the data requirements of a single trading partner or many trading partners.

The Translator identifies each trading partner's transactions with a unique code, and then invokes a communication method (ftp, e-mail, fax, etc.) to transmit this file either to the trading partner directly or to a third party for further processing or communication. The process is reversed (received communication of standard EDI file through translator to interface file) for inbound transactions.

The following should be considered for interfacing with a Translator:

- Accurate Translator Code
- Available reports
- Changes in Record Layout due to upgrade or patch.
- Predefined record layouts and data maps in the Translator.
- Synchronize record layouts in the Oracle e-Commerce Gateway and the Translator
- Create data maps in the Translator for inbound transaction
- Create data maps in the Translator for outbound transactions
- Detecting Files
- Transferring Files
- Communications

Accurate Translator Code

The Translator Code is used to identify Trading Partners between the Oracle e-Commerce Gateway and the Translator. The Translator Code is first defined in the Translator. In the Translator, it is used to access trading partner specific maps, codes, data, and their entire profile. It is copied to the Translator Code field in the Trading Partner Detail tab in the Define Trading Partner window in the Oracle e-Commerce Gateway. It must be accurate. The Translator Code along with the EDI Location Code are used to derive the trading partner site in the base Oracle Application. It is written on every Control Record 0010 at the start of each transaction in the transaction interface file. If the Translator Code is wrong, then the data may be mapped to the wrong data map, and/or sent to the wrong Trading Partner.

Available Reports

These reports should be present in one form or another on a Translator. Some Translators provide additional reports, the ability to develop different reports and the ability to execute user-defined queries on Oracle and other databases to produce other reports.

- Transaction Interface File Definition Report

  The record layout expected for outbound transactions and produced for inbound transactions.

- Transaction Data File Report

  Used to validate a data file against its record layout.

- Trading Partner Definition Report

  Shows the data entered for each Trading Partner, such as contacts, Translator Code, and method of communication.

- Trading Partner Map Report

  Show the translation map for a given Trading Partner or set of trading partners.

Changes in Record Layout due to Upgrade, Patch, or Customization

The Oracle Applications and the Oracle e-Commerce Gateway may change the layout or actual data contained in the transaction interface file because of an upgrade, or a patch. They may also change because of your customization to meet your own or a Trading Partner’s requirements.

Predefined Record Layouts and Data Maps in the Translator

Many Translator vendors provide pre-defined data maps in standard EDI formats for the most common transactions, such as purchase orders and invoices. They may even provide pre-defined base maps for particular large vendors, however, these maps will almost always need further definition for your particular situation.

Synchronize Record Layouts in the Oracle e-Commerce Gateway and the Translator

The Translator must know where to look for data to map to a given standard transaction and format. They rely on the Record Number on each record in the transaction interface file to identify the data on that record, given the transaction definitions in the Oracle e-Commerce Gateway. At the same time, a Translator may have a preference for getting certain data elements earlier in the outbound transaction interface file so that it can use that data in multiple places. In an inbound file, it may be easier for the Translator to process the incoming data into a certain order. Adjusting the layouts between the Oracle e-Commerce Gateway and the Translator can optimize the processing for both.

Create Data Maps in the Translator for Inbound Transaction

Some trading partners may want to use different data segments of the EDI standard or use other standard formats such as XML for inbound transactions. The Translator stores this layout and formatting information in a file called a data map or simply a map. This allows the translator to know where to look in the inbound transaction file for the data needed to populate the EDI segment. The translator can also use this map to perform code conversions from the values in the Oracle Applications to the EDI standard for weight, for example. Deciding which code conversions can be done on the Oracle e-Commerce Gateway and which on the translator is part of the Synchronization process above. One map can serve multiple trading partners.

Create Data Maps in the Translator for Outbound Transactions

Some trading partners may want to use different data segments of the EDI standard or use other standard formats such as XML for outbound transactions. The Translator stores this layout and formatting information in a file, called a data map, or simply a map. This allows the Translator to know where to put the data from the EDI segment in the output transaction file. The Translator can also use this map to perform code conversions from the values the EDI standard uses to those the Oracle Application expects for weight, for example. Deciding which code conversions can be done on the Oracle e-Commerce Gateway and which on the Translator is part of the Synchronization process above. One map can serve multiple Trading Partners.

Detecting Files

The Translator must recognize when it has data waiting to be translated or communicated. Normally this is done manually by the user or by the presence of a file in a given directory. This is why the files built by the Oracle e-Commerce Gateway are in one directory, moved to another directory to be translated, and once formatted to the desired standard moved into a third directory to be communicated.

Transferring Files

The link between the Translator and the Gateway must also be considered, i.e. are they on the same server, on different UNIX boxes, or is the Translator on a mainframe. This affects both the file structures going back and forth - e.g. variable for UNIX but fixed width for mainframe transfers - and (possibly) the functionality of the Translator. For example the mainframe based Translator may use an older architecture which means it is potentially less flexible in set-up terms than its (newer) UNIX cousin.

Communications

The Translator identifies and uses the communication method specified for each trading partner. This can be any method supported by the hardware and software of the system.

Archive/Backup

The goal of archiving or backing up data is to preserve data at each stage of its creation and transmission so that it can be recovered if it is lost or deleted. The first level is the backup of the Oracle database performed by the DBA, and makes sure that changes made to the applications in the database, from any source, are preserved for any needed recovery. The second level is the backup of the entire system, performed by the system administrator. This backs up the files from the operating system level, whether they are part of the database or not. The strategy you choose for these functions is the first step to determine how much archiving needs to be done.

The Oracle e-Commerce Gateway often needs another level of archiving. Once the data has been extracted from the base application into a transaction interface file, and again once that transaction interface file has been processed into a transaction file by the Translator, these files should be preserved. The first reason is to save them as an audit trail, showing what data was sent through the process to the trading partner. This audit trail also serves to identify the transformation done by the Oracle e-Commerce Gateway and the Translator, so that you can correct the conversions they do. The second reason is that there may be legal constraints in the trading partner's country and/or industry which require commercial documents to be kept for a period of months if not years. It is also possible that the trading

partner's industry sector may deal in huge value or high risk goods, e.g. aerospace, in which case secure archiving of transactions is essential in the case of disputes, investigations, or legal action. The other purpose of archiving is to be able to re-transmit outbound transactions to trading partners if necessary. But whatever the reason, or the transaction(s) involved, archiving should apply to both inbound and outbound transactions.

Transactions may be processed through the Oracle e-Commerce Gateway several times per day. Each time the extraction process is executed, an output file name must be provided to the Concurrent Request. To preserve each of these output files separately, a unique name is generated with each run. The application generates a default file name that starts with the transaction code, or you may enter your own file name.

Another place the archiving is handled is in the translator. Almost all translators archive the files they create either immediately after creation or after an attempted transmission whether successful or not. Some translators may handle archiving the input file from the Oracle e-Commerce Gateway. However, this only removes the need for the preceding step if the translator is run immediately after the extraction every time. For outbound transactions, it may also be necessary to designate the directories where a file will be placed by the Oracle e-Commerce Gateway, archived from the Oracle e-Commerce Gateway, picked up by the translator for processing, output by the translator, archived from the translator, or picked up by the communication process. For inbound transactions, the directories must be the directory the file is deposited into by the communication process; the directory the translator picks up the file from, the directory the pre-translation file is archived into, the directory the Translator writes the translated interface file into, and the directory the Oracle e-Commerce Gateway reads the file from.

Outbound Directory Structure

A sample set of directories and files are listed below.

D:\outbound_flat_file:

Directory the Oracle e-Commerce Gateway places outbound transaction files. It should be defined in UTL_FILE_DIR in the init.ora file and the Oracle e-Commerce Gateway profile ece:outbound file path.

D:\outbound_flat_file\archive:

Directory the files from the Oracle e-Commerce Gateway are copied into after generation. The reason for having this directory and the next one separate the source of file generation, so the translator cannot attempt to open a file the Oracle e-Commerce Gateway is generating.

D:\outbound_flat_file\Translator_input:

Directory the Translator reads its input file from. Although this can be the same as the Oracle e-Commerce Gateway archive directory, it generally should not be. This is because the translator usually looks in the outbound directory and reads every file in it. It assumes that if the file is in this directory, it should be processed.

D:\outbound_flat_file\Translator_input\archive:

Directory the translator archives each file as it successfully translates it.

D:\outbound_flat_file\Translator_output:

This is where the translator writes its outbound transaction files.

D:\outbound_flat_file\communication:

This is where the communication process looks for files that are ready to be sent.

D:\outbound_flat_file\communication\archive:

This is where the communication process copies files it has successfully transmitted.

Inbound Directory Structure

A sample set of directories and files are listed below.

D:\inbound_flat_file\communication:

This is where the receiving communication process deposits the incoming file. Once the communication process finishes, the file(s) are copied to the following file.

D:\inbound_flat_file\translator_input:

This is the directory where the translator looks for its input. Again, the translator generally gets all files in the directory. Once it successfully translates a given file, it copies it to the following file: D:\inbound_flat_file\translator_input\archive:

D:\inbound_flat_file\translator_output:

This is where the translator writes the translated file. When the translation run is complete for all files in the translator_input directory, the files are copied into the following file.

D:\inbound_flat_file\Gateway_input:

This is where the Oracle e-Commerce Gateway looks for transaction interface files to process. It should be defined in UTL_FILE_DIR in the init.ora file. Once it processes a file, that file is copied into the final directory below.

D:\inbound_flat_file\Gateway_input\archive:

Obviously, mechanisms such as UNIX shell scripts or Windows batch files need to be defined to move these files between some of these directories. Execution in some cases can be set up in the translator; the movements from D:\outbound_flat_file\ to D:\outbound_flat_file\archive and D:\inbound_flat_file\Gateway_input to D:\inbound_flat_file\Gateway_input\archive will have to be set up to execute in Concurrent Processing as part of a Process Set running the Oracle e-Commerce processing.

A degree of operating system expertise will be required for successful implementation. For example, a UNIX cron job needs to be set up to run the communication process (ftp, or mail file processing) and then move the files to the other directories at certain times of the day.

If this process is followed, you will be able to examine the files created at each step. They will also be able to process without contention, however, there are eventually going to be a lot of files out there. Even if disk space is fairly cheap, eventually performance will force the removal of older files. You may want to consider removing the files after you make the operating system backup. Once they are preserved on a separate medium, they can always be recovered as needed.

5

Transaction Interface File Architecture

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

File Structure Overview

Oracle e-Commerce Gateway produces ASCII files for outbound transactions. For inbound transactions, Oracle e-Commerce Gateway processes ASCII file produced by a Translator.

Each file consists of several records that are uniquely identified by its record number. A set of record numbers are assigned to a level of data in the transaction, for example, the records in range 1000-1999 may contain data at the header level of the document. Records in range 2000-2999 may contain data at the item level of the document.

Each transaction consists of multiple levels of data. They are indicated by their level names show in the Interface File Definition window. Usually the data from a level is written to many records in the transaction interface file.

Each record may consist of a single set of data elements such as all the currency data on the same record, or it may consist of several groups of related data. The amount of data on any record is constrained only by a maximum record length of 1024.

The following table illustrates the architecture of the records such as 0010-3000 that define a transaction and the two portions of data that define a single record. The first portion is the data in record positions 1-100 and the second portion is the application data in positions 101-1024.

Content	Record Number	Record Position 1-100	Record Positions 101-1024
Control record	0010	Common Key	Base Application Data
Trading Partner Header Flexfields	0020-0050	Common Key	Base Application Data
Trading Partner Detail Flexfields	0060-0070	Common Key	Base Application Data
Base Application Data	1000 etc.	Common Key	Base Application Data
Base Application Data	2000 etc.	Common Key	Base Application Data
Base Application Data	3000 etc.	Common Key	Base Application Data

Refer to Modify Transaction Interface File, the Code Conversion chapter, and the *Oracle e-Commerce Gateway User's Guide* for detail on how to modify the records.

Control Record (Record 0010)

Each transaction must start with a control record that has key data to pass between Oracle e-Commerce Gateway and a Translator. The control record is identified by record number 0010. Key data includes the Translator code, a key EDI Location Code for that transaction, and a Document Code like POO for the outbound purchase order. For inbound transactions, batch control numbers from standard transactions may be written on the control record for tracking. The transaction data in the transaction detail records follow the control record.

Descriptive Flexfield Records (Records 0020-0070)

The Oracle e-Commerce Gateway has descriptive flexfields in records 0020-0070 in any outbound transaction interface file. This flexfield data is written to the outbound transaction interface file whenever the flexfields are defined. They are available for data mapping in the Translator.

Common Record Key

Each record has two sections, the record common key (positions 1-100) and the application data area (positions beyond 100). The common key is written on every record in the file. It is used as a visual reference on each record to facilitate browsing the file or extracting transaction from a file if needed.

The following key data is in the common key: (Not all the fields are mentioned here.)

- Translator Code is the code that identifies the Trading Partner in the Translator.

- Reference 1 is the document or transaction identifier from the header record of the transaction. For example, it may be the invoice number or the purchase order number.
- Reference 2 is an identifier from the next document level such as a line or detail level. For example, it may be a line number.
- Reference 3 is an identifier from the next document level such as a shipment level. For example, it may be a shipment number. (Note that only the first three levels are showing for this visual reference in the file.)
- The record number uniquely identified the set of data in the given transactions. This is the only required data in the first hundred bytes of each record.
- Record Layout and Record Qualifier are labels to identify the type of data on the record if someone must read the file. There are some Record Layouts like AD for address that you will see in all transactions. An address record may have a Record Qualifier like ST to indicate a ship-to address or BT for a bill-to address. See below for a list of common Record Layouts and Record Qualifier that may be seen in many transactions.

The following table illustrates the content of a common key:

Translator Code	Ref 1	Ref 2	Ref 3	Record Number	Record Layout	Record Qualifier
AB-01	101111	N/A	N/A	0010	N/A	N/A
AB-01	101111	N/A	N/A	1000	PO	PO1
AB-01	101111	00001	N/A	2000	IT	IT1
AB-01	101111	00001	00001	3000	SH	SH1
AB-01	101111	00001	00002	3000	SH	SH1
AB-01	101111	00002	N/A	2000	IT	IT1
AB-01	101111	00002	00001	3000	SH	SH1
AB-01	101111	00002	00002	3000	SH	SH1

Application Descriptive Flexfields Records

Many descriptive flexfields are found throughout the transaction. They are extracted from the application for outbound transactions. They may be loaded into the application open interface tables for inbound transaction. Most descriptive flexfields are defined to a shorter length on the transaction interface file than they are defined in the application due to realistic length on most business data. Any field may be increased up to its maximum length defined in the base Oracle application. You can assign a different record number to the flexfield if

the maximum length of the record is attained. See the Interface File Definition section in the *Oracle e-Commerce Gateway User's Guide* for details.

Interface Data File Structure

Each data file consists of several records. Each record has two sections, the common record key (positions 1-100) and the application data area (positions 101 to 1024).

The structure is shown in the following table:

Data	Position	Length	Data Section
Translator Code (short)	1-25	25	Common Key
Key 1 (Document identifier)	26-47	22	Common Key
Key 2	48-69	22	Common Key
Key 3	70-91	22	Common Key
Record Number	92-95	4	Common Key
Record Layout	96-97	2	Common Key
Record Layout Qualifier	98-100	3	Common Key
Application Data (101 - 1024)	101-1024	up to 924	Application Area

Table 5–1 Record Structure

Each record is referenced by a number that identifies the level and block of data in the data file. The numbering scheme for each level is usually in increments of 1000. The following table shows sample record numbers and levels:

Record Number	Content
0010	Control Record
0020-0070	Oracle e-Commerce Gateway Flexfields
1000-1999	Application Header Level
2000-2999	Application Detail Level
3000-3999	Application Next Detail Level
4000-4999	Application Next Detail Level

Table 5–2 Sample Record Numbers and Levels

The exact record number blocks varies by transaction due to variations in the data required. However, the hierarchy remains the same. Large transactions may have any level span over several blocks of 1000. For example, the header level may span from 1000 to 3999, and the item level may span from 4000 to 5999.

Sample File Structure

The following table illustrates the record number range and levels of data for a sample transaction.

Table 5–3 Sample File Structure

Data Type	Data Level	Record Number (Position 92-95)
Control Record	CONTROL	0010
Trading Partner Header Flexfields	TRADING PARTNER	0020-0050
Trading Partner Detail Flexfields	TRADING PARTNER	0060-0070
Bill To Address /Code	HEADER	1000
Bill to Misc. Data, Contacts	HEADER	1010
Bill to Customer Flexfields	HEADER	1020-1050
Bill to Site Flexfields	HEADER	1060-1090
Ship to Address/code	HEADER	1100
Ship to Misc. data, contacts	HEADER	1110
Ship From Codes	HEADER	1400
Basic Header Data	HEADER	2000
Amount Data	HEADER	2010
Currency Data, Misc. data	HEADER	2040
Payment Terms Data	HEADER	2050
Sales Representative, Comments	HEADER	2060
Header Flexfields	HEADER	3000-3030
Header Allowance/Charges	HEADER	3080-3090
Extension Tables: Header Data (custom)	HEADER	3900
Basic Item Data	ITEM	4000

Table 5–3 Sample File Structure (Continued)

Data Type	Data Level	Record Number (Position 92-95)
Sales Order Data	ITEM	4010
Part Descriptions, Sales Channel, Order Status	ITEM	4020
Transaction Reference Key	ITEM	4030
Line Flexfields	ITEM	5000-5030
Extension Tables: Item Data (custom)	ITEM	5900
Line Tax Data	ITEM DETAIL	6000-6010
Line Tax Flexfields	ITEM DETAIL	6020-6060
Extension Tables: Transaction Line Detail Data	ITEM DETAIL	(custom)

Special Records

Control Record (0010) Layout

Control Record 0010 is used by both the Oracle e-Commerce Gateway and the Translator for Trading Partner identification. It includes data identifying the document (transaction) type, transaction date and time, Trading Partner code, and whether it is a test or production transaction. This record is 1024 characters long. This record contains key data needed by the Oracle e-Commerce Gateway.

Control Record 0010 is the first record for every transaction.

The following table shows the record layout of the Control Record 0010. Included are the sequence number, data element, length, position, and sample data for inbound and outbound transactions

Table 5–4 Control Record Layout

Seq.	Data Element	Length	Position	Sample Inbound Transaction Data	Sample Outbound Transaction Data
01	Translator Code (short)	25	1-25	A1-ACME-2	A1-ACME-1
02	Key 1: (may be truncated)	22	26-47	1234567890123	64564522
03	Key 2:	22	48-69		
04	Key 3:	22	70-91		

Table 5–4 Control Record Layout (Continued)

Seq.	Data Element	Length	Position	Sample Inbound Transaction Data	Sample Outbound Transaction Data
05	Record Number	4	92-95	0010	0010
06	Record Layout	2	96-97	CT	CT
07	Record Qualifier	3	98-100	CTL	CTL
08	Communication Method	2	101-102	ED	ED
09	Test Flag	1	103	P	T
10	Document ID	6	104-109	POI	POO
11	Document Type	5	110-114	STAND	BLANK
12	Document Purpose Code	2	115-116	OR	CH
13	Document Code (full)	35	117-151	1234567890123	64564522
14	Translator Code (full)	30	152-181	A1-ACME-2	A1-ACME-1
15	TP Location Code, External	35	182-216	AC7654	AC9832
16	Trading Partner Description	74	217-290	ACME CORP	ACME INC
17	TP Reference 1	80	291-370	1234	
18	TP Reference 2	80	371-450	9875	
19	Transaction Date/Time	15	451-465	19970616 230723	19970626
20	Transmission Run ID	15	466-480	534342	
21	Organization ID	15	#		Not applicable
22	Document Standard	10	#		
23	Control Number 1	10	#	654	(not applicable)
24	Control Number 2	10	#	897	(not applicable)
25	Control Number 3	10	#	3423	(not applicable)

Check the Control Record 0010 layout using the Interface File Definition window for the position of this data if they are defined for the transaction.

Control Record Field Descriptions

The following table lists the data elements that comprise the Control Record 0010, along with the sequence of the element, its value, and any notes.

Table 5–5 Control Record Field Descriptions

Seq.	Data Element	Value	Note
1	Translator Code (short)	First 25 characters of the Translator Code	This is the Trading Partner identifier for this transaction as defined by the Translator.
2	Key 1: (short)		First 22 characters of Document Code. Do not use in the Translator data map, since it may be truncated.
3	Key 2:		Second level document identifier
4	Key 3:		Third level document identifier
5	Record Number	0010	Fixed value 0010.
6	Record Layout	CT	Fixed value CT.
7	Record Qualifier	CTL	Fixed value CTL.
8	Communication Method	E (EDI)	This code indicates if this transaction is to be faxed or sent via the EDI standard process.
9	Test Flag	T (test) P (production)	This code is the flag to indicate that the transaction is to be treated as test (T) or production (P) by the Translator. This code must remain synchronized with the Test flag defined in the Translator. Which code overrides the other if they are out of sync depends on the Translator. For inbound transactions, the EDI Trading Partner detail flag prevails.
10	Document ID	Depends on the transaction. Sample: POI = PO Inbound	This code identifies the transaction type and its direction, e.g., POI for purchase orders inbound.
11	Document Type	Depends on the transaction. Sample: BLANKET, STANDARD	This code identifies sub types of the given transactions, such as blanket order or standard orders to process.
12	Document Purpose Code	Depends on the transaction. Sample: OR (original), CH (change),	This code identifies the transaction as the original, change, replacement or other appropriate status for the given transaction.

Table 5–5 Control Record Field Descriptions (Continued)

Seq.	Data Element	Value	Note
13	Document Code (full)		This is the primary transaction code such as the purchase order or invoice number. The code is the key document identified for the specific transaction.
14	Translator Code (full)		This is the full length Translator Code defined in the Translator to identify this Trading Partner.
15	Trading Partner Location Code, external		This code is the EDI Location code as defined for the Trading Partner for the given transaction. This is usually found in the ASC X12 N104 ID code or the EDIFACT NAD segment. This code is maintained in the Oracle Application.
16	Trading Partner Description		This is the Trading Partner description as defined in Oracle e-Commerce Gateway for outbound transactions or by the Translator for inbound transactions.
17	TP Reference 1		This is the Trading Partner reference 1 code defined in Oracle e-Commerce Gateway for the primary Trading Partner location for outbound transactions.
18	TP Reference 2		This is the Trading Partner reference 2 code defined in Oracle e-Commerce Gateway for the primary Trading Partner location for outbound transactions.
19	Transaction Date/Time		This is the date and time that the transaction is created by Oracle e-Commerce Gateway or the Translator.
20	Transmission Run ID		Run ID from the Concurrent Manager which created the transaction.
21	Organization ID	from inbound transaction	This is the internal id associated with the organization. as defined in Oracle Applications.
22	Document Standard		This is the standard identified for the document enabled for the Trading Partner.

Table 5–5 Control Record Field Descriptions (Continued)

Seq.	Data Element	Value	Note
23	Control Number 1 (external)	from inbound transaction	This is the batch control number from the outer most electronic envelope for inbound transactions only. This is the ASC X12 ISA or EDIFACT UNB control number.
24	Control Number 2 (external)	from inbound transaction	This is the batch control number from the inner electronic envelope for inbound transactions only. This is the ASC X12 GS or EDIFACT UNG control number.
23	Control Number 3 (external)	from inbound transaction	This is the batch control number from the starting transactions segment for inbound transactions only. This is the ASC X12 ST or EDIFACT UNH control number.

Optional Outbound Trading Partner Flexfield Records (0020-0070)

For outbound transactions, you may enable descriptive flexfield data at the Trading Partner header level (Record Numbers 0020-0050) and at the Trading Partner Detail level (Record Numbers 0060-0070). The Trading Partner header level flexfields are written for every transaction type for the Trading Partner such as all their outbound purchase order transactions and all their outbound purchase order change transactions. The Trading Partner detail level flexfields are written for the transaction type enabled for the Trading Partner.

This flexfield data is written to the outbound transaction interface file whenever the flexfields are defined. They are available for data mapping by the Translator. The records may appear in the interface data file with no data if the columns are not enabled. Trading Partner flexfields are not applicable to inbound transactions.

You must enable the Trading Partner header flexfields and Trading Partner detail flexfields (system administration required) to use them.

Common Record Key (1-100)

The table below describes the Oracle transaction interface file record key which occupies the first 100 characters of *each record in every transaction.* This record area facilitates any visual audit and research into the file.

Note: The content of the first 100 characters on the control record (0010) is defined the same as every other record for a given transaction.

The record number allows the Translator to uniquely identify a record layout within the transaction. Do not rely on the record layout code and record layout qualifier to uniquely identify a record.

Some transaction data in the record key may be truncated so the Translator should refer to the full transaction data in the data area (positions 101-1024) of the record.

The data in Key 1 through Key 3 varies by the transaction and the record level within the transaction. The following table displays a summary of the Record Key (0-100) data elements:

Seq.	Data Element	Position	Length
1	Translator Code (short)	1-25	25
2	Key 1 (Primary Key)	26-47	22
3	Key 2	48-69	22
4	Key 3	70-91	22
5	Record Number	92-95	4
6	Record Layout Code	96-97	2
7	Record Layout Qualifier	98-100	3

Table 5–6 Record Key (1-100) Data Element Summary

Translator Code (1-25)

This code is the Trading Partner identifier as defined in the Translator. The code identifies the communications method, electronic mailbox, standard, and data maps for the specific transaction. This code is the link between the Oracle e-Commerce Gateway and the Translator.

This code is defined as the Translator code in Define Trading Partner window, Details tab.

Keys 1-3 (26-91)

Keys 1-3 represent key data from the first three levels of the given transaction. This data is for audit or research purposes to facilitate reading the file directly. The data may be truncated.

Key 1 is the Primary Key from the transaction. It may be the purchase order number, invoice number, or shipment number for corresponding transactions. Full primary document key is written in positions 117-151 of the control record 0010.

Keys 2-3 represents other data at the second and third level within the transaction. A transaction may have more than three levels of data which are not stored in the key area.

Record Number (92-95)

The record number is a unique number within a transaction to identify specific data in a transaction. Translators should rely on the record number to uniquely identify a record in the data file.

A sample of a simple numbering scheme and a larger range numbering scheme are displayed in the following table. Any transaction may use any range of numbers for a data level.

Record Number Sample-Simple Transaction	Record Number Sample-Longer Transaction	Content
0010	0010	Control Record
0020-0070	0020-0070	Oracle e-Commerce Gateway Flexfields
1000-1890	1000-4890	Application Header Level
1900-1990	4900-4990	Application Header Level Extension Table (Custom)
2000-2890	5000-5890	Application Detail Level 1
2900-2990	5900-5990	Application Detail Level 1 Extension Table (Custom)
3000-3890	6000-6890	Application Detail Level 2
3900-3990	6900-6990	Application Detail Level 2 Extension Table (Custom)
4000-4890	7000-7890	Application Detail Level 3
4900-4990	7900-7990	Application Detail Level 3 Extension Table (Custom)

Table 5–7 Sample Record Numbers

The numbering scheme per data level is in increments of 1000. The numbering scheme per record is in increments of 10 allowing for new data levels and records to be inserted.

The record numbers are not used consistently across transactions. For example, the record 1050 may contain different data depending upon the transaction.

The X900 series in any range is reserved for the Oracle e-Commerce Gateway extension tables for consistency.

Record Layout Code (96-97)

The record layout code is used to indicate the type of data in the record. These codes are particularly useful when reusable records such as addresses and flexfields are used in the file.

Except for reusable records defined by the Oracle e-Commerce Gateway, the record layout may have a different meaning across transactions. For example, the record layout IT may contain different data depending upon the transaction.

Record Layout Qualifiers (98-100)

Record qualifier codes qualify what type of data is on the reusable records or any other record in the transaction. For example, an AD address record must be qualified as a specific type of address record for visual purposes, such as a ship-to, bill-to, or remit-to.

Other record qualifiers are assigned to every record in the transaction to complete the record key, but they do not necessarily facilitate data mapping since only the record number uniquely identifies a record to the Translator. The following table illustrates a sample record number, record layout code, record qualifier code, and the contents.

Refer to the section on Common Records (based on record layout codes) for record layouts.

Table 5–8 Sample Record Number, Record Layout, and Record Qualifier

Record Number	Record Layout	Record Qualifier	Content
0010	CT	CTL	Control Record
1010	AD	ST1	Address Record with Ship to Location Data
1040	AD	BT1	Address Record with Bill to Location Data
1060	A1	HD1	Flexfield data with Reusable Record A1 Layout qualified by HD1
1070	A2	HD2	Flexfield data with Reusable Record A2 Layout qualified by HD2
2000	IT	ITM	IT for Item data qualified by ITM to distinguish the data from other IT records in this transaction.

Table 5–8 Sample Record Number, Record Layout, and Record Qualifier (Continued)

Record Number	Record Layout	Record Qualifier	Content
2100	A1	IT1	Flexfield data with Reusable Record A1 Layout qualified by IT1
2110	A2	IT2	Flexfield data with Reusable Record A2 Layout qualified by IT2

Common Records (Based on Record Layout Code)

Record Layout codes are indicated in positions 96-97 of the common record key.

Several data elements relate to each other and can be found in several standard transactions. These related elements, for example, include addresses, contact data, and flexfields. The actual content of any record is qualified by the record layout qualifier, for example, ST or ST1 for ship-to address, and BT or BT1 for bill-to address.

Verify the record layout for any record in a transaction including its data element, length of the field, and its position using the record in the Interface File Definition window.

> **Note**: You can modify these record layouts. However, any changes may affect the Translator data map you are using.

The following table contains record layout codes, their descriptions, and meanings. These record layouts may be seen in many transactions.

Table 5–9 Record Layout Codes

Record Layout Codes	Description	Meaning
A1	Flexfield Layout 1	Flexfields Layout 1 Layout 1 contains the *Flexfield Context* plus attributes each with length 80. The interface table has the flexfield with the full length of 150 characters if needed.
A2	Flexfield Layout 2	Flexfields Layout 2. Layout 2 contains attributes each with length 80. The interface table has the flexfield with the full length of 150 characters if needed.
A3	Flexfield Layout 3	Flexfields Layout 3 Layout 3 contains the *Flexfield Context* plus attributes each with length 100. The interface table has the attribute with the full length of 150 characters if needed.
A4	Flexfield Layout 4	Flexfields Layout 4. Layout 4 contains attributes each with length 100. The interface table has the flexfield with the full length of 150 characters if needed.
A5	Flexfield Layout 5	Flexfields Layout 5 Layout 5 contains four pairs of internal defined flexfields and its external converted codes plus the Flexfield Context. The interface table has the flexfield with the full length of 150 characters if needed.
A6	Flexfield Layout 6	Flexfields Layout 6 Layout 6 contains four pairs of internal defined flexfields and its external converted codes. The interface table has the flexfield with the full length of 150 characters if needed.
AD	Address Record	Full Name and Addresses and Codes for each business entity where State and county codes are explicit. This is usually data from RA-tables.

Table 5–9 Record Layout Codes (Continued)

Record Layout Codes	Description	Meaning
AX	Address Record	Full Name and Addresses and Codes for each business entity where REGION 1, REGION2, REGION3 contain the state and county. This is usually data from HR-tables.
CN	Contact Record-Format 1	Primary Personnel Contact, title and phones.
CM	Contact Record-Format	Primary Contact phone numbers

Record Layout Code A1 The following table shows the record layout for the record layout code A1, Descriptive Flexfields.

Seq.	Control Level Flexfields	Length
1	Common key including Record Number	100
2	Any Flexfield Context	30
3	Any Flexfield 1	80
4	Any Flexfield 2	80
5	Any Flexfield 3	80
6	Any Flexfield 4	80

Descriptive Flexfields (A2) Record Layout The following table shows the record layout for the record layout code A2, Descriptive Flexfields.

Seq.	Control Level Flexfields	Length
1	Common key including Record Number	100
2	Any Flexfield 1	80
3	Any Flexfield 2	80
4	Any Flexfield 3	80
5	Any Flexfield 4	80
6	Any Flexfield 5	80

Descriptive Flexfields (A3) Record Layout The following table shows the record layout for the record layout code A3, Descriptive Flexfields.

Seq.	Control Level Flexfields	Length
1	Common key including Record Number	100
2	Any Flexfield Context	30
3	Any Flexfield 1	100
4	Any Flexfield 2	100
5	Any Flexfield 3	100

Descriptive Flexfields (A4) Record Layout The following table shows the record layout for the record layout code A4, Descriptive Flexfields.

Seq.	Control Level Flexfields	Length
1	Common key including Record Number	100
2	Any Flexfield 1	100
3	Any Flexfield 2	100
4	Any Flexfield 3	100
5	Any Flexfield 4	100

Descriptive Flexfields (A5) Record Layout The following table shows the record layout for the record layout code A5, Descriptive Flexfields.

Seq.	Control Level Flexfields	Length
1	Common Key including Record Number	100
2	Shipment Allowance/Charge Flexfield Context	30
3	Shipment Allowance/Charge Flexfield 1-Internal	70
4	Shipment Allowance/Charge Flexfield 1-External (AC-Special Services_code)	25
5	Shipment Allowance/Charge Flexfield 2-Internal	70

Seq.	Control Level Flexfields	Length
6	Shipment Allowance/Charge Flexfield 2-External (AC_Special_Charges_code)	25
7	Shipment Allowance/Charge Flexfield 3-Internal (AETC_number)	70
8	Shipment Allowance/Charge Flexfield 3-External	25
9	Shipment Allowance/Charge Flexfield 4-Internal (AETC_Responsibility_Code)	70
10	Shipment Allowance/Charge Flexfield 4-External	25

Descriptive Flexfields (A6) Record Layout The following table shows the record layout for the record layout code A6, Descriptive Flexfields. This table has a similar layout to A5 for flexfields 5-8, 9-12, and 13-15:

Seq.	Flexfields	Length
1	Common Key including Record Number	100
2	Shipment Allowance/Charge Flexfield 5-Internal (AETC_Reason_Code)	70
3	Shipment Allowance/Charge Flexfield 5-External	25
4	Shipment Allowance/Charge Flexfield 6-Internal	70
5	Shipment Allowance/Charge Flexfield 6-External	25
6	Shipment Allowance/Charge Flexfield 7-Internal	70
7	Shipment Allowance/Charge Flexfield 7-External	25
8	Shipment Allowance/Charge Flexfield 8-Internal	70
9	Shipment Allowance/Charge Flexfield 8-External	25

Address (AD) Record Layout The following table shows the record layout of the AD, Address Record, record code type. All name and address records that have explicit state/province and county data have the following format. There may be cases where the interface process does not populate some of the data fields depending on data availability.

Seq.	Business Entity Data	Length	ASC X12
1	Common Key including Record Number	100	
2	Business Entity Site Code (internal)	60	Internal
3	Business Entity Site Code (external) EDI Location Code	35	N104
4	Business Entity Name	60	N102
5	Business Entity Address Line 1	35	N301
6	Business Entity Address Line 2	35	N302
7	Business Entity Address Line 3	35	N301
8	Business Entity Address Line 4	35	N302
9	Business Entity City	30	N401
10	Business Entity Postal Code	15	N403
11	Business Entity Country (Internal)	20	
12	Business Entity Country (ISO) (external)	03	N404
13	Business Entity State (internal)	20	
14	Business Entity State (External)	10	N402
15	Business Entity Province (internal)	20	
16	Business Entity Province (External)	10	N402
17	Business Entity County	25	

Address (AX) Record Layout The following table shows the record layout of the AX, Address Record, record code type. All name and address records that have REGION 1, REGION2, and REGION3 in place of explicit state/province and county data have the following format. This data is extracted from Human Resources tables. There may be cases where the interface process does not populate some data fields depending on data availability.

Seq.	Business Entity Data	Length	ASC X12
1	Common Key including Record Number	100	
2	Business Entity Site Code (Internal)	20	Internal
3	Business Entity Site Code (External) (EDI Location Code)	20	N104
4	Business Entity Name	60	N102
5	Business Entity Address Line 1	35	N301
6	Business Entity Address Line 2	35	N302
7	Business Entity Address Line 3	35	N301
8	Business Entity City	30	N401
9	Business Entity Postal Code	15	N403
10	Business Entity Country (Internal)	20	
11	Business Entity Country (ISO) (External)	03	N404
12	Business Entity REGION 1 (Internal)	25	
13	Business Entity REGION 1 (External)	10	N402
14	Business Entity REGION 2 (Internal)	25	
15	Business Entity REGION 2 (External)	10	N402
16	Business Entity REGION 3 (Internal)	25	
17	Business Entity REGION 3 (External)	10	

Contact Format 1 (CN) Record Layout

The following table shows the record layout of the record layout code CN, Contact-Record Format 1. You may add secondary contact data to this record.

Seq.	Business Entity Contact Data	Length	ASC X12
1	Common Key including Record Number	100	
2	Business Entity Primary Contact Last Name	35	PER02
3	Business Entity Primary Contact First Name	35	
4	Business Entity primary Contact Job Title	40	PER09
5	Business Entity Primary Area Code 1	10	PER04
6	Business Entity Primary Telephone 1	60	PER04
7	Business Entity Primary Area Code 2	10	PER04
8	Business Entity Primary Telephone 2	60	PER04
9	Business Entity Primary Area Code 3	10	PER04
10	Business Entity Primary Telephone 3	60	PER04

Contact Format 2 (CM) Record Layout

The following table shows the record layout of the record layout code CM, Contact-Record Format. These records can store phone numbers when contact personnel data is not available. Area Codes are not stored separately in the application.

Seq.	Business Entity Contact Data	Length	ASC X12
1	Common Key including Record Number	100	
2	Business Entity Primary Telephone 1	60	PER04
3	Business Entity Primary Telephone 2	60	PER04
4	Business Entity Primary Telephone 3	60	PER04

Code Conversion Internal and External Codes on the File

The transaction interface file may have one to five external fields activated for the file for a given internal code that is marked as a candidate for code conversion. Usually only the external 1 fields is activated by the seeded transaction. You may activate other external

fields using the Interface File Definition window. Reference the Modify Transaction Interface File section, the Code Conversion chapter, and the *Oracle e-Commerce Gateway User's Guide*.

6

Application Transaction Detail

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

Oracle Inventory

The implementation of any transaction requires some setup in Oracle Applications and Oracle e-Commerce Gateway. This section focuses on the application setups necessary to implement a transaction that integrates with Oracle Inventory. The Oracle Inventory transactions are listed in the following table:

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Movement Statistics	Outbound	MVSTO	N/A	CUSDEC

Note: For the summary layout see Appendix A.

The topics covered for outbound transactions include the following:

- Trading Partner Link to Oracle e-Commerce Gateway
- Relevant Oracle Application Profiles and Setups
- Extract Criteria
- Columns Updated Upon Extraction

Current Information

The transaction requirements may change when enhancements are made such as additional data added to the transaction. Current transaction details can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Layout Definition Report and the Interface File Data Report.

Outbound Movement Statistics (MVSTO/No X12/CUSDEC)

Trading Partner Link to Oracle e-Commerce Gateway

Legal entities are defined in Oracle Human Resources. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code, a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a legal entity in Oracle Human Resources and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the legal entity in Oracle Human Resources without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Human Resources is set up properly, verify that the legal entity and the EDI Location Code in Oracle Human Resources is the correct legal entity selected for the trading partner definition in Oracle e-Commerce Gateway. The selected legal entity and the EDI Location Code defined in Oracle Human Resources are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be extracted for the correct trading partner. This could involve either altering the legal entity in Oracle Human Resources, or assigning a different legal entity to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Extract Criteria

The outbound Movement Statistics transaction is controlled by four database views that are defined according to the Oracle Inventory data model for inventory movement statistics. The four views contain variables which are dynamically set based on your responses to the extract program parameters (refer to *Oracle e-Commerce Gateway User's Guide*, Outbound Transactions chapter for a list of the program parameters).

The four database views are as follows:

- ECE_MTL_MOV_STAT_V
- ECE_MVSTO_DETAILS_V
- ECE_MVSTO_HEADERS_V
- ECE_MVSTO_LOCATIONS_V

The ECE_MVSTO_DETAILS_V view is used to identify which movement statistics are eligible for extraction. The extract criteria are as follows:

- Trading partner is defined
- Transaction type enabled for the trading partner
- Material movement statistics have not been previously extracted
- Material movement statistics status is either FROZEN or VERIFIED
- Material movement type matches type selected when transaction was initiated

If necessary, you can use SQLPLUS to verify if there are any eligible documents to be extracted. To do so, you must first set the organization context and then issue the SQL count function as follows:

```
SQLPLUS> execute fnd_client_info.set_org_context('<Org number>');
SQLPLUS> select count(*) ECE_MVSTO_DETAILS_V;
```

Review all your set ups if the count value is 0 as this indicates there are no eligible documents to be extracted.

Columns Updated Upon Extraction

Once an eligible material movement statistic entry is successfully extracted and written to the transaction interface file, it is marked by Oracle e-Commerce Gateway to prevent it from

subsequent extraction. The following table is a list of fields updated based on an excerpt of code in the ECEMVSOB.pls file to update the MTL_MOVEMENT_STATISTICS table:

Column	Value
EDI_SENT_FLAG	Y
EDI_TRANSACTION_DATE	SYSDATE
EDI_TRANSACTION_ REFERENCE	see below

EDI_TRANSACTION_REFERENCE is the concatenation of the parameter values entered when the transaction was initiated:

- Legal entity
- Zone code
- Period Name
- Stat type - either INSTAT or EXSTAT
- Movement Type - either A for arrivals, D for Dispatch, AC for arrival adjustments or DC for dispatch adjustments

Oracle Order Management

The following table shows the transactions that are delivered with Release 11*i*.1:

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Purchase Order	Inbound	POI	850	ORDERS
Purchase Order Change	Inbound	POCI	860	ORDCHG
Purchase Order Acknowledgment	Outbound	POAO	855	ORDRSP
PO Change Acknowledgment	Outbound	PCAO	865	ORDRSP

The Release 11 inbound Purchase Order (POI) transaction is replaced in Release 11*i*.1 utilizing the new Order Management data model.

Note: For the summary layout see Appendix A.

Current Information

The transaction requirements may change when enhancements are made such as additional data added to the transaction. Current transaction details can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Layout Definition Report and the Interface File Data Report.

Oracle Payables

The implementation of any transaction requires some setup in Oracle Applications and Oracle e-Commerce Gateway. This section focuses on the application setups necessary to implement a transaction that integrates with Oracle Payables. The table below lists the Oracle Payables transactions:

Note: For the summary layout see Appendix A.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Invoice	Inbound	INI	810	INVOIC
Shipment and Billing Notice	Inbound	SBNI	857	N/A
Application Advice	Outbound	ADVO	824	APERAK
Payment Order/Remittance Advice	Outbound	PYO	820	PAYORD-REMADV PAYEXT-REMADV

The topics covered for inbound transactions include the following:

- Trading Partner Link to Oracle e-Commerce Gateway
- Oracle e-Commerce Gateway Required Fields
- Review Oracle e-Commerce Gateway Exceptions
- Resolve Oracle e-Commerce Gateway Exceptions
- Relevant Oracle Payables Profiles and Set Ups
- Payables Open Interface Required Fields
- Review Payables Open Interface Exceptions
- Return Application Advice to Trading Partner (if appropriate)

- Resolve Payables Open Interface Exceptions

The topics covered for outbound transactions include the following:

- Two forms of Electronic Funds Transfer (EFT)
- PAYORD, PAYEXT, PAYMUL
- Pre-note Payment
- Transaction Handling Options
- Trading Partner Link to Oracle e-Commerce Gateway
- Relevant Oracle Payables Profiles and Set-ups
- Extract Criteria
- Columns Updated Upon Extraction

Current Information

The transaction requirements may change when enhancements are made such as additional data added to the transaction. Current transaction details can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Layout Definition Report and the Interface File Data Report.

Inbound Invoice (INI/810/INVOIC)

Trading Partner Link to Oracle e-Commerce Gateway

Suppliers and supplier sites are defined in either Oracle Purchasing or Oracle Payables. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a supplier/supplier site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the supplier or supplier site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the supplier/supplier site and the EDI Location Code in Oracle Applications is the correct supplier/supplier site selected for the Trading

Partner definition in Oracle e-Commerce Gateway. The selected supplier/supplier site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be imported for the correct trading partner. This could involve either altering the supplier/supplier site in the base Oracle Application, or assigning a different supplier/supplier site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Oracle e-Commerce Gateway Required Fields

The following is a list of the Oracle e-Commerce Gateway required fields. These fields are required to authenticate the trading partner and transaction. If the required data is not provided in the transaction, the Oracle e-Commerce Gateway import process fails the transaction. Then an exception message is displayed in the View Staged Documents window.

If the trading partner is valid and the transaction is enabled, the import process proceeds to validate the transaction using the user-defined column rules. If no process or column rule exceptions are detected, the Oracle e-Commerce Gateway import program will write the transaction to the Payables Open Interface tables to be processed by the Payables Open Interface API.

Oracle e-Commerce Gateway Column Name for Required Fields	Record Number	Position Number	Note
TEST_INDICATOR	0010	20	"T" or "P"
TP_DOCUMENT_ID	0010	30	"ASNI" or "SBNI"
TP_TRANSLATOR_CODE	0010	70	Translator identifier for this trading partner
TP_LOCATION_CODE	0010	80	The EDI Location Code
INVOICE_NUM	1000	10	
INVOICE_AMOUNT	1000	40	
ITEM_LINE_TYPE_CODE	3000	10	
AMOUNT	3000	110	

Control Record 0010

TEST_INDICATOR

This column represents the test or production indicator from the Trading Partner. If this value does not match the test or production indicator associated with the trading partner defined in Oracle e-Commerce Gateway, a process rule exception is detected. Then an exception message is displayed in the View Staged Documents window.

The valid values are "T" for test and "P" for production.

TP_DOCUMENT_ID

This column identifies the type of document being sent by the Trading Partner. If this document type is not enabled for the trading partner defined in Oracle e-Commerce Gateway, a process rule exception is detected. Then an exception message is displayed in the View Staged Documents window.

The valid value is INI for standard invoice.

TP_TRANSLATOR_CODE, TP_LOCATION_CODE (EDI Location Code)

The two columns in combination uniquely identify a Trading Partner in Oracle e-Commerce Gateway. Once the trading partner definition is accessed, Oracle e-Commerce Gateway can verify whether the transaction is enabled for the Trading Partner.

If this trading partner is not defined in Oracle e-Commerce Gateway, a process rule exception is detected. Then an exception message is displayed in the View Staged Documents window.

Refer to the Trading Partner chapter for details on how to properly define your trading partners and get a better understanding of how these fields are used in the process.

Transaction Detail Records

AMOUNT

This column represents the invoice distribution amount.

If the Invoice Match Option indicated on the transaction interface file is Purchase Order, this column is the quantity invoiced multiplied by the unit price.

If the Invoice Match Option indicated on the transaction interface file is Receipt, this amount is distributed across the non-invoiced receipts beginning with the oldest. If the invoice amount exceeds the total amount for the non-invoiced receipts, the overage is applied to the newest non-invoiced receipt.

INVOICE_AMOUNT

This column represents the total amount for the invoice calculated as the sum of the invoice line amounts.

INVOICE_NUM

This column represents the invoice number for the supplier invoice being imported into Oracle Payables. The number must be unique for the supplier, as the Payables Open Interface Import program will reject duplicate invoice numbers.

ITEM_LINE_TYPE_CODE

This column identifies the invoice line type. The valid values are ITEM, TAX, FREIGHT or MISCELLANEOUS.

Review Oracle e-Commerce Gateway Exceptions

Use the Oracle e-Commerce Gateway View Staged Documents window to review the Oracle e-Commerce Gateway transaction exceptions. Once the exceptions are identified and resolved, you can submit the transaction for reprocessing, ignore the exception during reprocessing, or delete the transaction. Select the option in the View Staged Documents window.

Resolve Oracle e-Commerce Gateway Exceptions

To resolve Oracle e-Commerce Gateway exceptions, you can either correct the set-up data in Oracle e-Commerce Gateway or Oracle Applications, or ask the Trading Partner to send a corrected transaction.

If the Trading Partner sends a corrected transaction, be sure to delete the erroneous transaction from Oracle e-Commerce Gateway's staging tables using the View Staged Documents window. The duplicate transaction may cause confusion.

Relevant Oracle Payables Profiles and Setups

The following is a list of the Payables set ups related to the Receiving Open Interface.

Invoice Hold Reason

You can optionally set up an Invoice Hold Reason unique to this transaction. All invoices being imported into Oracle Payables may be placed on hold using the unique Invoice Hold Reason. This may be useful during implementation of a new trading partner so that you can review the electronically transmitted invoices before approving them for payment. Use the Invoice Approvals window to define an invoice hold reason.

Refer to the *Oracle Payables User's Guide* for the details.

Payables Open Interface Required Fields

The Payables Open Interface is used by the Inbound Invoice transaction. It is used to validate the incoming data entered into the Payables Open Interface tables by the Oracle e-Commerce Gateway import program.

The following is a list of the Payables Open Interface required fields. These fields are required for the Payables Open Interface Import program to successfully process and move the data from the Payables Open Interface tables into the Oracle Payables base application tables.

Required fields noted as derived or hardcoded do not require a value in the transaction on the transaction interface file since the values are determined by the Oracle e-Commerce Gateway process.

Refer to the *Oracle Payables User's Guide*, Payables Open Interface appendix for details on derived, defaulted and conditional fields (see Cond. items in the tables below).

AP_INVOICES_INTERFACE Table

The table below lists the required fields for the AP_INVOICES_INTERFACE table:

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
INVOICE_NUM		INVOICE_NUM		1000	10
PO_NUMBER	Yes	PO_NUMBER		1000	30
INVOICE_AMOUNT		INVOICE_AMOUNT		1000	40
TERMS_NAME	Yes	TERMS_NAME_INT		1000	70
INVOICE_CURRENCY_ CODE	Yes	INVOICE_CURRENCY_ CODE		1010	10
EXCHANGE_RATE	Yes	EXCHANGE_RATE		1010	30
EXCHANGE_DATE	Yes	EXCHANGE_DATE		1010	40
INVOICE_ID			Derived		
SOURCE			H:EDI_ GATEWAY		
EXCHANGE_RATE_TYPE*	Yes				

* Not mapped/referenced by Oracle e-Commerce Gateway because the data is not required by the transaction/message

INVOICE_AMOUNT

This column represents the total amount for the invoice calculated as the sum of the invoice line amounts.

INVOICE_CURRENCY_CODE, EXCHANGE_DATE, EXCHANGE_RATE

Currency code, exchange date and exchange rate are required for foreign currency invoices (where the currency code is different from the functional currency). The exchange date identifies the exchange rate to be used to compute the invoice amount.

INVOICE_NUM

This column represents the invoice number for the supplier invoice being imported into Oracle Payables. The number must be unique for the supplier, as the Payables Open Interface Import program will reject duplicate invoice numbers.

PO_NUMBER

This column represents the purchase order to match the invoice to. Purchase order numbers may be entered at the header or line item level.

TERMS_NAME

This column represents the payment terms and is required if you did not define payment terms for the supplier.

AP_INVOICE_LINES_INTERFACE Table

The following table lists the required fields for the AP_INVOICE_LINES_INTERFACE table:

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
LINE_TYPE_LOOKUP_CODE		LINE_TYPE_LOOKUP_ CODE		3000	10
AMOUNT		AMOUNT		3000	110
PO_NUMBER	Yes	PO_NUMBER		3010	10
INVOICE_ID			Derived		
LINE_NUMBER			Derived		

AMOUNT

This column represents the invoice distribution amount.

If the Invoice Match Option indicated on the transaction interface file is Purchase Order, this column is the quantity invoiced multiplied by the unit price.

If the Invoice Match Option indicated on the transaction interface file is Receipt, this amount is distributed across the non-invoiced receipts beginning with the oldest. If the invoice amount exceeds the total amount for the non-invoiced receipts, the overage is applied to the newest non-invoiced receipt.

LINE_TYPE_LOOKUP_CODE

This column identifies the invoice line type. The valid values are ITEM, TAX, FREIGHT or MISCELLANEOUS.

PO_NUMBER

This column represents the purchase order to match the invoice to. Purchase order numbers may be entered at the header or line item level.

Review Payables Open Interface Exceptions

At the completion of the Payables Open Interface Import program, the Payables Open Interface Report is automatically initiated to report the status of all supplier invoices processed. The report contains two sections as follows:

Payables Open Interface Audit Report

Payables Open Interface Rejections Report

The Audit section lists the invoices that were successfully imported while the Rejections section lists invoices that were not successfully imported and the reason for the rejection.

Refer to the *Oracle Payables User's Guide*, Payables Open Interface Import section for a detailed list of the rejection codes and their meaning.

Return Application Advice to Supplier

To return invoice acknowledgments to the supplier, execute the Payables Open Interface Outbound Advice program to populate the Oracle e-Commerce Gateway Application Advice tables (ECE_ADVO_HEADERS and ECE_ADVO_DETAILS) with the status of all supplier invoices processed. Once the Application Advice tables are populated, you can initiate the outbound Application Advice (ADVO/824/APERAK) transaction to acknowledge all invoices processed or just those containing exceptions.

Resolve Payables Open Interface Exceptions

There are three ways to resolve Payables Open Interface exceptions as follows:

Correct set up data in Oracle Applications

Correct erroneous entries in the Payables Open Interface table using Open Interface Invoices window

Request supplier to send a corrected transaction

If you chose to update Oracle Applications data or change the erroneous entries using the Open Interface Invoices window in Payables, you can resubmit the Payables Open Interface Import process to re-validate the transaction.

If you chose to have the supplier send a corrected transaction, you must first purge the rejected invoice data in the Payables Open Interface tables by submitting the Purge Payables Open Interface program and then re-import the updated transaction using Oracle e-Commerce Gateway.

Inbound Shipment and Billing Notice (SBNI/857/No EDIFACT)

Refer to the Oracle Purchasing section for details regarding this transaction.

Outbound Application Advice (ADVO/824/APERAK)

Trading Partner Link to Oracle e-Commerce Gateway

Suppliers and supplier sites are defined in either Oracle Purchasing or Oracle Payables. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a supplier/supplier site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the supplier or supplier site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the supplier/supplier site and the EDI Location Code in Oracle Applications is the correct supplier/supplier site selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected supplier/supplier site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be extracted for the correct trading partner. This could involve either altering the supplier/supplier site in the base Oracle Application, or assigning a different supplier/supplier site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Extract Criteria

The outbound Application Advice transaction is controlled by two database views that are defined according to the Oracle e-Commerce Gateway data model for application advice data. The two views contain variables which are dynamically set based on your responses to the extract program parameters (refer to *Oracle e-Commerce Gateway User's Guide*, Outbound Transactions chapter for a list of the program parameters).

The two database views are as follows:

- ECE_ADVO_DETAILS_V
- ECE_ADVO_HEADERS_V

The ECE_ADVO_HEADERS_V view is used to identify which application advice data is eligible for extraction. The extract criteria are as follows:

- Trading partner is defined
- Transaction type enabled for the trading partner
- Application advice has not been previously extracted
- Application advice provided by one of the following three inbound transactions:

  Ship Notice/Manifest (from Oracle Purchasing (Receivables))

  Shipment and Billing Notice (from Oracle Purchasing (Receivables)

  Invoice (from Oracle Payables)

Refer to the details for the relevant inbound transaction to determine how it populates the ECE_ADVO_HEADERS and ECE_ADVO_DETAILS tables.

If necessary, you can use SQLPLUS to verify if there are any eligible documents to be extracted. To do so, you must first set the organization context and then issue the SQL count function as follows:

SQLPLUS> execute fnd_client_info.set_org_context("<*Org number*>");

SQLPLUS> select count(*) ECE_ADVO_HEADERS_V;

Review all your set ups if the count value is 0 as this indicates there are no eligible documents to be extracted.

Columns Updated Upon Extraction

Once an eligible application advice is successfully extracted and written to the transaction interface file, it is marked by Oracle e-Commerce Gateway to prevent it from subsequent extraction. The following is a list of fields updated based on an excerpt of code in the ECADVOB.pls file to update the **ECE_ADVO_HEADERS** table:

Column	Value
EDI_PROCESSED_ FLAG	Y
EDI_PROCESS_DATE	SYSDATE

Outbound Payment Order/Remittance Advice (PYO/820/PAYORD-PAYEXT-REMADV)

Two Forms of Electronic Funds Transfer (EFT)

Oracle Applications supports two forms of Electronic Funds Transfer (EFT). The first is directly from Oracle Payables via a Payables created payment file that is sent to the bank for disbursement directly into the supplier's bank account.

Refer to the *Oracle Payables User's Guide*, Creating Electronic Funds Transfer Payments without the Oracle e-Commerce Gateway section for details.

The second form of EFT is via the Oracle e-Commerce Gateway outbound Payment Order/Remittance Advice (820/PAYORD-REMADV, 820/PAYEXT-REMADV) transaction. See below for details on how to set up this transaction.

PAYORD, PAYEXT, PAYMUL

The EDIFACT PAYORD message is for payments to a single supplier. The EDIFACT PAYEXT message is for payments to multiple suppliers.

The EDIFACT PAYMUL message is for multiple currency payment batches. Oracle Payables does not support this feature.

Pre-note Payment

You can set up a pre-note payment by creating a zero dollar invoice. Select Allow Zero Invoices when you create the payment batch to include this invoice. Your disbursement bank will process this pre-note payment to verify the accuracy of the payer and payee bank account data.

Transaction Handling Options

The outbound Payment Order/Remittance Advice transaction is designed to accommodate both the payment and associated invoice data. With a single transaction, you can instruct your disbursement bank to do one of the following:

- Disburse funds directly to the supplier's bank account and process the remittance advice
- Disburse funds directly to the supplier's bank account, do nothing with the remittance advice
- Send remittance advice electronically to the supplier, do nothing with the payment
- Disburse funds directly to the supplier's bank account and send remittance advice to the supplier electronically

You indicate your instructions to the disbursement bank by setting the Transaction Handling code when you define your supplier or supplier sites.

Regardless of how you set the Transaction Handling code, Oracle e-Commerce Gateway will construct the entire file so your disbursement bank has everything it needs.

If your supplier cannot receive an electronic remittance advice, a hard copy may be printed using Oracle Payables and sent to the supplier.

Trading Partner Link to Oracle e-Commerce Gateway

Bank branch data for the disbursement bank is defined in Oracle Payables. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a bank branch in Oracle Payables and the trading partner site (bank branch) definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the bank branch in the Oracle Payables without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Payables is set up properly, verify that the bank branch and the EDI Location Code in Oracle Payables is the correct bank branch selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected bank branch and the EDI Location Code defined in Oracle Payables are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be extracted for the correct bank branch. This could involve either altering the bank branch in the base Oracle Payables, or assigning a different bank branch to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Relevant Oracle Payables Profiles and Setups

The outbound Payment Order/Remittance Advice transaction is an event driven process initiated in Oracle Payables as a payment format after the invoices are selected and the payment batch is created. This transaction cannot be initiated from Oracle e-Commerce Gateway.

The following is a list of the Payables set ups related to the outbound Payment Order/Remittance Advice transaction. Refer to the *Oracle Payables User's Guide*, Creating Electronic Payments with Oracle e-Commerce Gateway section for the details.

1. Enter an EDI ID Number in the Banks window for your disbursement bank. Refer to *Oracle Payables User's Guide*, Defining Banks section for the details.
2. Define a payment document that uses the EDI Outbound Program as the payment format and assign this payment document to your disbursement bank account. Refer to *Oracle Payables User's Guide*, Defining and Maintaining Payables Payment Documents section for the details.
3. Enter bank data for each supplier site you want to pay. Refer to *Oracle Payables User's Guide*, Defining Supplier Bank Accounts section for the details.
4. Enter electronic payment data for each supplier site you want to pay. Refer to *Oracle Payables User's Guide*, Electronic Data Interchange Region of the Suppliers and Supplier Site Windows section for the details. This is where you specify the following:

- EDI Location - An identifier for the supplier that links to e-Commerce Gateway trading partner
- EDI ID Number - ID number used by Oracle Energy
- Payment Method - Indicates how the electronic payment will be made. Payment Method values and their descriptions are listed in the table below:

Payment Method	Description
ACH	Automatic Clearing House
BACS	Bankers Automatic Clearing System
BOP	Financial Institution Option
CWT	Clearing House Inter-bank Payment System (CHIPS) Funds/Wire Transfer
FEW	Federal Reserve Fund/Wire Transfer, Repetitive
FWT	Federal Reserve Fund/Wire Transfer, Non-repetitive
SWT	Society for World-wide Inter-bank Financial Telecommunications (SWIFT)

- Payment Format - Indicates type of data being transmitted and the format of the data. Payment Format values and their descriptions are listed in the table below:

Payment Format	Description
CCD	Cash Concentration/Disbursement (ACH, CCD)
CCP	Cash Concentration/Disbursement plus Addenda (ACH, CCP)
CTP	Corporate Trade Payment (ACH, CTP)
CTX	Corporate Trade Exchange (ACH, CTX)
PPD	Prearranged Payment and Deposit (ACH, PPD)
PPP	Prearranged Payment and Deposit plus Addenda (ACH, PPP)

- Remittance Method - Indicates which party is responsible for sending remittance advice to the payee. The valid options are as follows:
  - EDI to Payer's bank
  - EDI to Payee's bank
  - EDI to Payee
  - EDI to third party
  - Do not route
  - Remittance Instruction - Additional text instructions.

- Transaction Handling - Indicates how payment and remittance advice should be processed. The Transaction Handling codes and their descriptions are listed in the table below:

Handling Code	Description
C	Payment accompanies remittance advice
D	Payment only
I	Remittance advice only
U	Split payment and remittance advice
Z	Other types of handling

1. Verify that the invoices you wish to pay electronically are defined with "Electronic" as the payment method.
2. Verify that the invoices you wish to pay do not have active holds placed on them.
3. Approve the invoices you wish to pay.
4. Verify that you have confirmed the default remit-to bank account for each scheduled payment.
5. Create a Pay Group type lookup specifically for EDI payments to separate the non-EDI payments from the EDI payments. This is an optional set-up step.
6. Create the Payment Batch. Refer to *Oracle Payables User's Guide*, Initiating Payment Batches section for the details.
7. Refer to *Oracle Payables User's Guide*, Modifying Payment Batches section for details on how to modify a payment batch if necessary.
8. Format the Payment Batch. This process initiates the Oracle e-Commerce Gateway outbound Payment Order/Remittance Advice transaction that creates a transaction interface file.

Extract Criteria

The outbound Payment Order/Remittance Advice transaction is controlled by two database views that are defined according to the Oracle Payables data model for payments and their corresponding invoices. The two views contain variables which are dynamically set based on your responses to the extract program parameters (refer to *Oracle e-Commerce Gateway User's Guide*, Outbound Transactions chapter for a list of the program parameters).

The two database views are as follows:

- ECE_PYO_INVOICE_V
- ECE_PYO_PAYMENT_V

The ECE_PYO_PAYMENTS_V view used to identify which payments and associated invoices are eligible for extraction. The extract criteria are as follows:

- Trading partner is defined
- Transaction type enabled for the trading partner
- Payments have not been previously extracted
- Payments are flagged as OK to pay
- Payments have not been voided
- Bank account ID, bank name and bank branch ID assigned to the payment match those in the payment batch

If necessary, you can use SQLPLUS to verify if there are any eligible documents to be extracted. To do so, you must first set the organization context and then issue the SQL count function as follows:

```
SQLPLUS> execute fnd_client_info.set_org_context('<Org number>');
SQLPLUS> select count(*) ECE_PYO_PAYMENTS_V;
```

Review all your set ups if the count value is 0 as this indicates there are no eligible documents to be extracted.

Columns Updated Upon Extraction

Once the Translator sends the transactions to the bank and you have verified the bank has received the file, you can confirm the payment batch to indicate the invoices have been paid. This prevents the same invoice from being included in a future payment batch. Refer to *Oracle Payables User's Guide*, Confirming Payment Batches section for the details.

Oracle Process Manufacturing

The following table lists the transactions delivered with the Oracle Process Manufacturing product:

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
OPM: Purchase Order	Inbound	GPOI	850	ORDERS
OPM: Purchase Order Acknowledgment	Outbound	GPOAO	855	ORDRSP
OPM: Ship Notice/Manifest	Outbound	GASNO	856	DESADV

Refer to the product documentation for details on how to implement these transactions.

Note: For the summary layout see Appendix A.

Current Information

The transaction requirements may change when enhancements are made such as additional data added to the transaction. Current transaction details can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Layout Definition Report and the Interface File Data Report.

Oracle Purchasing

The implementation of any transaction requires some set up in Oracle Applications and Oracle e-Commerce Gateway. This chapter focuses on the application set-ups necessary to implement a transaction that integrates with Oracle Purchasing.

Note: For the summary layout see Appendix A.

The following table lists the transactions that integrate with Oracle Purchasing.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Price/Sales Catalogue	Inbound	CATI	832	PRICAT
Response to Request for Quotation	Inbound	RRQI	843	QUOTES
Ship Notice/Manifest	Inbound	ASNI	856	DESADV
Shipment and Billing Notice	Inbound	SBNI	857	N/A
Application Advice	Outbound	ADVO	824	APERAK
Purchase Order	Outbound	POO	850	ORDERS
Purchase Order Change	Outbound	POCO	860	ORDCHG

The topics covered for inbound transactions include the following:

- Trading Partner Link to Oracle e-Commerce Gateway
- Oracle e-Commerce Gateway Required Fields
- Review Oracle e-Commerce Gateway Exceptions
- Resolve Oracle e-Commerce Gateway Exceptions
- Relevant Oracle Application Profiles and Set-ups
- Oracle Application Open Interface Required Fields
- Review Application Open Interface Exceptions
- Return Application Advice to Trading Partner (if appropriate)
- Resolve Application Open Interface Exceptions

The topics covered for outbound transactions include the following:

- Trading Partner Link to Oracle e-Commerce Gateway
- Relevant Oracle Purchasing Set-ups
- Extract Criteria
- Columns Updated Upon Extraction

Current Information

The transaction requirements may change when enhancements are made such as additional data added to the transaction. Current transaction details can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Layout Definition Report and the Interface File Data Report.

Inbound Price/Sales Catalog (CATI/832/PRICAT) Inbound Response to Request for Quotation (RRQI/843/QUOTES)

Trading Partner Link to Oracle e-Commerce Gateway

Suppliers and supplier sites are defined in either Oracle Purchasing or Oracle Payables. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a supplier/supplier site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the supplier or supplier site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the supplier/supplier site and the EDI Location Code in Oracle Applications is the correct supplier/supplier site selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected supplier/supplier site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be imported for the correct trading partner. This could involve either altering the supplier/ supplier site in the base Oracle Application, or assigning a different supplier/supplier site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Oracle e-Commerce Gateway Required Fields

The following table lists the Oracle e-Commerce Gateway required fields. These fields are required to authenticate the trading partner and transaction. If the required data is not provided in the transaction, the Oracle e-Commerce Gateway import process fails the transaction. Then an exception message is displayed in the View Staged Documents window.

If the trading partner is valid and the transaction is enabled, the import process proceeds to validate the transaction using the user-defined column rules. If no process or column rule exceptions are detected, the Oracle e-Commerce Gateway import program will write the transaction to the Purchasing Documents Open Interface tables to be processed by the Purchasing Documents Open Interface API.

Oracle e-Commerce Gateway Column Name for Required Fields	Record Number	Position Number	Note
TEST_INDICATOR	0010	20	"T" or "P"
DOCUMENT_ID	0010	30	Constant "CATI" or "RRQI"
TP_TRANSLATOR_CODE	0010	70	Translator identifier for this Trading Partner
TP_LOCATION_CODE	0010	80	The EDI Location Code

Control Record 0010

DOCUMENT_ID

This column identifies the type of document being sent by the Trading Partner. If this document type is not enabled for the trading partner defined in Oracle e-Commerce Gateway, a process rule exception is detected. Then an exception message is displayed in the View Staged Documents window.

The valid values are "CATI" for prices/sales catalog or "RRQI" for response to Request for Quote (RFQ).

TEST_INDICATOR

This column represents the test or production indicator from the Trading Partner. If this value does not match the test or production indicator associated with the trading partner defined in Oracle e-Commerce Gateway, a process rule exception is detected. Then an exception message is displayed in the View Staged Documents window.

The valid values are "T" for test and "P" for production.

TP_TRANSLATOR_CODE, TP_LOCATION_CODE (EDI Location Code)

The two columns in combination uniquely identify a Trading Partner in Oracle e-Commerce Gateway. Once the trading partner definition is accessed, Oracle e-Commerce Gateway can verify whether the transaction is enabled for the Trading Partner.

If this trading partner is not defined in Oracle e-Commerce Gateway, a process rule exception is detected. Then an exception message is displayed in the View Staged Documents window.

Refer to the Trading Partner chapter for details on how to properly define your trading partners and get a better understanding of how these fields are used in the process.

Review Oracle e-Commerce Gateway Exceptions

Use the Oracle e-Commerce Gateway View Staged Documents window to review the Oracle e-Commerce Gateway transaction exceptions. Once the exceptions are identified and resolved, you can submit the transaction for reprocessing, ignore the exception during reprocessing, or delete the transaction. Select the option in the View Staged Documents window.

Resolve Oracle e-Commerce Gateway Exceptions

To resolve Oracle e-Commerce Gateway exceptions, you can either correct the set up data in Oracle e-Commerce Gateway or Oracle Applications, or ask the Trading Partner to send a corrected transaction.

If the Trading Partner sends a corrected transaction, be sure to delete the erroneous transaction from Oracle e-Commerce Gateway's staging tables using the View Staged Documents window. The duplicate transaction may cause confusion.

Relevant Oracle Purchasing, Inventory Profiles and Setups

The following is a list of the Purchasing setups related to the Purchasing Documents Open Interface. Refer to the *Oracle Purchasing User's Guide* and the *Oracle Manufacturing, Distribution, Sales and Service Open Interface Manual*, Purchasing Open Interfaces section for the details.

1. PO: Archive Catalog on Approval

- If the profile option is set to "Yes," Oracle Purchasing archives the price/sales catalog once it is approved.
- This profile option works in conjunction with the Approval Status parameter.
  - If the Approval Status was set to Incomplete, then the imported catalog must be approved before it is archived.
  - If the Approval Status was set to Approved, then the imported catalog is archived immediately after it is imported into Oracle Purchasing.
- If the profile option is set to "No," Oracle Purchasing will not archive the price/sales catalog.

2. Allow Updating of the Item Master

- Create or Update Item Master is one of the program parameters to indicate whether to allow creation of a new item or updating of an existing item in the item master.
- To ensure that item descriptions and item status codes may be updated, the following must be set up:
  - Allow Item Description Update is enabled in the Purchasing Options window, Control Options region.
  - INV: Default Item Status is set to Active

3. PO: Write Server Output to File

   To facilitate the debugging of the Purchasing Documents Open Interface, error logs normally written to the Concurrent Manager log screen may be written to the file system if this profile option is set to "Yes."

4. Set Up Price Tolerance

   Define price tolerances in Oracle Purchasing for price increases associated with a price/sales catalog update.

Purchasing Documents Open Interface Required Fields

The Purchasing Documents Open Interface is used by the Inbound Price/Sales Catalog and Inbound Response to Request for Quotation transactions. It is used to validate the incoming data entered into the Purchasing Documents Open Interface tables by the Oracle e-Commerce Gateway import program.

The following is a list of the Purchasing Documents Open Interface required fields. These fields are required for the Purchasing Documents Open Interface API to successfully process and move the data from the Purchasing Documents Open Interface tables into the Oracle Purchasing base application tables.

Required fields noted as derived or hardcoded do not require a value in the transaction on the transaction interface file since the values are determined by the Oracle e-Commerce Gateway process.

Refer to the *Oracle Manufacturing, Distribution, Sales and Service Open Interface Manual* for details on derived, defaulted and conditional fields (see Cond. items in the table below).

PO_HEADERS_INTERFACE Table

The following table lists the required fields for the PO_HEADERS_INTERFACE table:

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
VENDOR_DOC_NUM		VENDOR_DOC_NUMBER		1000	10
EFFECTIVE_DATE	Yes	EFFECTIVE_DATE		1000	20
EXPIRATION_DATE	Yes	EXPIRATION_DATE		1000	30
ACTION		ACTION_TYPE_CODE_INT		1030	10
VENDOR_SITE_CODE		SHIP_FROM_ADDRESS_ CODE		1120	10
VENDOR_ID		SHIP_FROM_CUSTOMER_ID		1120	170
VENDOR_SITE_ID		SHIP_FROM_ADDRESS_ID		1120	180
DOCUMENT_TYPE_CODE*					
INTERFACE_HEADER_ID		INTERFACE_HEADER_ID	Derived		

* Not mapped/referenced by Oracle e-Commerce Gateway because the data is not required by the transaction/message

ACTION_TYPE_CODE_INT

This column is the catalog type indicator. The valid values are as follows:

ORIGINAL: New catalog

REPLACE: Replacement catalog

UPDATE: Catalog change

The following types of data are supported with a catalog change:

Unit price

Item description

Unit of measure

Price breaks for blanket purchase agreements

Expiration date for blanket purchase agreements

Supplier URL to get additional item data

EFFECTIVE_DATE, EXPIRATION_DATE

These two columns are required if you are replacing an existing catalog or if sourcing rules (i.e. if you answered YES to "Create Sourcing Rules" parameter) are to be created. The values are used to locate the old price/sales catalog and retire it.

SHIP_FROM_ADDRESS_CODE

This column represents the supplier site code. The value is derived by the Purchasing Documents Open Interface based on the supplier site id.

SHIP_FROM_ADDRESS_ID

This column represents the vendor site id. The value is derived by Oracle e-Commerce Gateway based on the vendor id which itself is derived from the Translator Code (on record 0010, element 70) and EDI Location Code (on record 0010, element 80). The Purchasing Documents Open Interfaces uses the supplier site id to derive the supplier site code.

SHIP_FROM_CUSTOMER_ID

This column represents the supplier ID. Oracle e-Commerce Gateway derives this value based on the Translator Code (on record 0010, element 70) and EDI Location Code (on record 0010, element 80) combination. The Purchasing Documents Open Interface uses the supplier ID to derive the supplier name and number.

VENDOR_DOC_NUMBER

This column represents the supplier's catalog number as the supplier may not know your Oracle catalog number. The supplier's catalog number is used to locate an existing catalog for catalog replacement or update. If you are importing a new catalog, this column is used to verify that the catalog is not a duplicate.

PO_LINES_INTERFACE Table

The following table lists the required fields for the PO_LINES_INTERFACE table:

Oracle Application Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
LINE_NUM	Yes	LINE_NUM		2000	10
ITEM		ITEM		2000	20
QUANTITY	Yes	QUANTITY		2010	10
EFFECTIVE_DATE	Yes	EFFECTIVE_DATE		2010	60
EXPIRATION_DATE	Yes	EXPIRATION_DATE		2010	70
ITEM_DESCRIPTION	Yes	ITEM_DESCRIPTION		2010	80

Oracle Application Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
UNIT_PRICE	Yes	UNIT_PRICE		2020	10
SHIPMENT_NUM	Yes	SHIPMENT_NUM		2050	10
INTERFACE_LINE_ID		INTERFACE_LINE_ID	Derived		
INTERFACE_HEADER_ID		INTERFACE_HEADER_ID	Derived		

EFFECTIVE_DATE

This column is required if you want to create sourcing rules (i.e. if you answered YES to "Create Sourcing Rules" parameter) along with importing a catalog. Whether a new sourcing rule is created or an existing rule is updated depends on whether you are importing a new catalog, catalog changes or replacing an existing catalog.

Refer to the Oracle Purchasing Open Interfaces document, Sourcing section for a detail description of how this data is used.

EXPIRATION_DATE

This column is required if you want to create sourcing rules (i.e. if you answered YES to "Create Sourcing Rules" parameter) along with importing a new or replacement catalog. If you are importing catalog changes, the value is used to retire the old catalog item.

Refer to the Oracle Purchasing Open Interfaces document, Sourcing section for a detail description of how this data is used.

ITEM, ITEM_DESCRIPTION

These two columns are required if you want to create or update an item in the item master (i.e. if you answered YES to the "Create or Update Item" parameter). If you are creating new items, both ITEM and ITEM DESCRIPTION are required. If you are updating the item master, ITEM DESCRIPTION is required.

LINE_NUM, SHIPMENT_NUM, QUANTITY, UNIT_PRICE

To enter price break data, the supplier must provide line number, shipment number, quantity and unit price on the transaction interface file in the format shown in the following table to accommodate Oracle Purchasing’s data model.

Line Number (Rec 2000)	Shipment Number (Rec 2050)	Quantity (Rec 2010)	Unit Price (Rec 2020)
1	1	500	10.00
1	2	1000	7.00
1	3	5000	5.00

The price break data is loaded by Oracle e-Commerce Gateway into the PO_LINES_ INTERFACE (for PO lines and shipments) table. The Purchasing Documents Open Interface API validates this data and moves the valid data into the PO_LINES (for PO lines) and PO_LINE_LOCATIONS (for PO shipments) tables.

If your supplier offers fixed pricing, then they only need to supply a unit price.

Review Purchasing Documents Open Interface Exceptions

The processing strategy of the Purchasing Documents Open Interface is to process line by line. This means if the Purchasing Documents Open Interface detected an exception at the document header, it will not proceed to the document lines. At the document line level, the Purchasing Documents Open Interface will write valid document lines to the base application tables or write an exception message to the PO_INTERFACE_ERRORS table for each invalid document line thereby accepting partial transactions

You can use the Purchasing Interface Errors Report in Oracle Purchasing to review all exceptions detected by the Purchasing Documents Open Interface API.

Refer to the Oracle Manufacturing, Distribution, Sales & Service Open Interface manual, Oracle Purchasing Open Interfaces document for a detailed list of detectable errors and their meaning.

Resolve Purchasing Documents Open Interface Exceptions

To resolve Purchasing Documents Open Interface exceptions, you can either correct the set up data in Oracle Applications or ask the supplier to resend the transaction with the corrected values.

If you chose to update Oracle Applications data, you can resubmit the Purchasing Documents Open Interface process to re-validate the transaction.

If you chose to have the supplier send a corrected transaction, you must first purge the rejected data sitting in the Purchasing Documents Open Interface tables by submitting the Purge Purchasing Documents Open Interface Processed Data program and then re-import the updated transaction using Oracle e-Commerce Gateway.

Inbound Ship Notice/Manifest (ASNI/856/DESADV) Inbound Shipment and Billing Notice (SBNI/857/No EDIFACT)

Trading Partner Link to Oracle e-Commerce Gateway

Suppliers and supplier sites are defined in either Oracle Purchasing or Oracle Payables. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a supplier/supplier site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the supplier or supplier site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the supplier/supplier site and the EDI Location Code in Oracle Applications is the correct supplier site selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected supplier/supplier site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be imported for the correct trading partner. This could involve either altering the supplier/ supplier site in the base Oracle Application, or assigning a different supplier/supplier site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Oracle e-Commerce Gateway Required Fields

The following table lists the Oracle e-Commerce Gateway required fields. These fields are required to authenticate the trading partner and transaction. If the required data is not provided in the transaction, the Oracle e-Commerce Gateway import process fails the transaction. Then an exception message is displayed in the View Staged Documents window.

If the trading partner is valid and the transaction is enabled, the import process proceeds to validate the transaction using the user-defined column rules. If no process or column rule exceptions are detected, the Oracle e-Commerce Gateway import program will write the

transaction to the Receiving Open Interface tables to be processed by the Receiving Open Interface API.

Oracle e-Commerce Gateway Column Name for Required Fields	Record Number	Position Number	Note
TEST_INDICATOR	0010	20	"T" or "P"
ASN_TYPE (Document ID)	0010	30	"ASNI" or "SBNI"
TRAN_PURPOSE_EXT1	0010	50	"NEW" or "CANCEL"
TP_TRANSLATOR_CODE	0010	70	Translator identifier for this Trading Partner
TP_LOCATION_CODE	0010	80	The EDI Location Code
PICK_SLIP_NUMBER	1000	10	
TRAN_PURPOSE_APPLICATION	1000	110	"NEW" or "CANCEL"
PURCHASE_ORDER_NUM	2000	50	
ORIGINAL_SYSTEM_LINE_ REFERENCE	2000	70	
QUANTITY			Defaulted to ship quantity in record 2000, position 80
SHIPPED_UNIT_CODE_INT	2000	90	

Control Record 0010

ASN_TYPE (Document ID)

This column identifies the type of document being sent by the Trading Partner. If this document type is not enabled for the trading partner defined in Oracle e-Commerce Gateway, a process rule exception is detected. Then an exception message is displayed in the View Staged Documents window.

The valid values are "ASNI" for the ship notices and "SBNI" shipment and billing notice.

TEST_INDICATOR

This column represents the test or production indicator from the Trading Partner. If this value does not match the test or production indicator associated with the trading partner defined in Oracle e-Commerce Gateway, a process rule exception is detected. Then an exception message is displayed in the View Staged Documents window.

The valid values are "T" for test and "P" for production.

TP_TRANSLATOR_CODE, TP_LOCATION_CODE (EDI Location Code)

The two columns in combination uniquely identify a Trading Partner in Oracle e-Commerce Gateway. Once the trading partner definition is accessed, Oracle e-Commerce Gateway can verify whether the transaction is enabled for the Trading Partner.

If this trading partner is not defined in Oracle e-Commerce Gateway, a process rule exception is detected. Then an exception message is displayed in the View Staged Documents window.

Refer to the Trading Partner chapter for details on how to properly define your trading partners and get a better understanding of how these fields are used in the process.

TRAN_PURPOSE_EXT1

This column represents the transaction purpose code. The valid values are NEW or CANCEL. The default value is NEW if no value is provided on the inbound flat file. The value entered for TRAN_PURPOSE_EXT1 should be the same value entered for TRAN_PURPOSE_APPLICATION in record 1000, position 110.

Transaction Detail Records

ORIGINAL_SYSTEM_LINE_REFERENCE

This column represents the purchase order line number associated with the shipment.

PICK_SLIP_NUMBER

This column represents the packing slip number from the supplier. This number will be used during the PO receipt process to recall the shipment data related to the purchase orders and items in the shipment.

If no value is provided, the Receiving Open Interface tries to default a value from the PACKING_SLIP or INVOICE_NUM columns. The values in this column must be unique from the supplier for one year.

PURCHASE_ORDER_NUM

This column represents the purchase order number associated with the shipment.

SHIPPED_UNIT_CODE_INT

This column represents the shipment quantity unit of measure.

TRAN_PURPOSE_APPLICATION

This column represents the transaction purpose code. The valid values are NEW or CANCEL. Place the value in record 1000, position 110. The default value is NEW if no value is provided on the inbound flat file.

The value entered for TRAN_PURPOSE_APPLICATION should be the same value entered for TRAN_PURPOSE_EXT1 in record 0010, position 50.

Review Oracle e-Commerce Gateway Exceptions

Use the Oracle e-Commerce Gateway View Staged Documents window to review the Oracle e-Commerce Gateway transaction exceptions. Once the exceptions are identified and resolved, you can submit the transaction for reprocessing, ignore the exception during reprocessing, or delete the transaction. Select the option in the View Staged Documents window.

Resolve Oracle e-Commerce Gateway Exceptions

To resolve Oracle e-Commerce Gateway exceptions, you can either correct the set up data in Oracle e-Commerce Gateway or Oracle Applications, or ask the Trading Partner to send a corrected transaction.

If the Trading Partner sends a corrected transaction, be sure to delete the erroneous transaction from Oracle e-Commerce Gateway's staging tables using the View Staged Documents window. The duplicate transaction may cause confusion.

Relevant Oracle Purchasing Profiles and Setups

The following is a list of the Purchasing setups related to the Receiving Open Interface.

1. RCV: Fail All ASN Lines if One Line Fails

   If the profile option is set to "Yes" and any line failed validation, no further validation is performed for the ship notice.

   If the profile option is set to "No" and any line failed validation, the process continues with the next line.

2. ASN Control

   In the Receiving Options window in Purchasing, select Warning, Reject, or None in the ASN Control field to determine how Purchasing handles the receipt against a purchase order shipment for which a ship notice exists. Refer to the *Oracle Purchasing User's Guide*, Defining Receiving Options sections for details.

3. PO: Enable SQL Trace for Receiving Processor

   If the profile option is set to "Yes," more detailed error data is provided in the View Log screen of the Submit Request window when you run the Receiving Transaction Processor.

Refer to the *Oracle Purchasing User's Guide* and the Oracle Manufacturing, Distribution, Sales and Service Open Interface Manual, Purchasing Open Interfaces section for the details.

Receiving Open Interface Required Fields

The Inbound Ship Notice/Manifest and Inbound Shipment and Billing Notice transactions use the Receiving Open Interface. It is used to validate the incoming data entered into the Receiving Open Interface tables by the Oracle e-Commerce Gateway import program.

The following is a list of the Receiving Open Interface required fields. These fields are required for the Receiving Open Interface API to successfully process and move the data from the Receiving Open Interface tables into the Oracle Purchasing base application tables.

Required fields noted as derived or hardcoded do not require a value in the transaction on the transaction interface file since the values are determined by the Oracle e-Commerce Gateway process.

Refer to the Oracle Manufacturing, Distribution, Sales and Service Open Interface Manual for details on derived, defaulted and conditional fields (see Cond. items in the table below).

RCV_HEADERS_INTERFACE Table

The following table lists the required fields for the RCV_HEADERS_INTERFACE table. An asterisk (*) by the column name indicates that it is not mapped/referenced by Oracle e-Commerce Gateway because the data is not required by the transaction/message. The <field>_ID fields are derived by the Receiving Open Interface API.

Oracle Application Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
SHIPMENT_NUM	Yes	PICK_SLIP_NUMBER		1000	10
SHIPPED_DATE	Yes	SHIPPED_DATE		1000	70
AUTO_TRANSACT_CODE	Yes	AUTO_TRANSACT_CODE		1000	100/120
TRANSACTION_TYPE		TRAN_PURPOSE_ APPLICATION		1000	110
INVOICE_NUM	Yes	INVOICE_NUM		1030	10
INVOICE_DATE	Yes	INVOICE_DATE		1030	20
TOTAL_INVOICE_AMOUNT	Yes	INVOICE_AMOUNT		1030	30
VENDOR_ID		SHIP_FROM_CUSTOMER_ID		1100	170
SHIP_TO_ORGANIZATION_ CODE	Yes	SHIP_TO_INT_LOCATION_ ID		1120	10
CREATED_BY		CREATED_BY	Derived		
CREATION_DATE		CREATION_DATE	Derived		
GROUP_ID		GROUP_ID	Derived		
HEADER_INTERFACE_ID		HEADER_INTERFACE_ID	Derived		
LAST_UPDATE_DATE		LAST_UPDATE_DATE	Derived		
LAST_UPDATED_BY		LAST_UPDATED_BY	Derived		
PROCESSING_STATUS_ CODE			H: PENDING		
RECEIPT_SOURCE_CODE			H: VENDOR		
VALIDATION_FLAG			H:Y		
EMPLOYEE_NAME* EMPLOYEE_ID*					
RECEIPT_NUM*	Yes				
VENDOR_NAME* VENDOR_NUM*					

AUTO_TRANSACT_CODE

This column identifies the type of incoming data. The valid values are SHIP, RECEIVE or DELIVER.

The default value is RECEIVE if no value is provided in the transaction.

A value of SHIP tells the Receiving Open Interface to process the inbound ship notice as a ship notice only. You will need to execute the PO receipt process in Purchasing when the physical goods arrive at your dock.

Use this setting if the physical goods are scheduled to arrive after the ship notice.

A value of RECEIVE tells the Receiving Open Interface to process the inbound ship notice as a ship notice and a PO receipt. Use this setting if the physical goods are scheduled to arrive with the ship notice or this is a service PO that does not require a physical receipt.

A value of DELIVER tells the Receiving Open Interface to process the inbound ship notice as a ship notice, a PO receipt and delivery. Use this setting to receive and deliver the physical goods to the requester or to inventory. This option assumes you do not want to inspect the goods.

INVOICE_NUM, INVOICE_DATE, INVOICE_AMOUNT

Invoice number, date and amount are required for the Inbound Shipment and Billing Notice transaction to create an invoice. The invoice number must be unique for the supplier.

PICK_SLIP_NUMBER

This column represents the packing slip number from the supplier. This number will be used during the PO receipt process to recall the shipment data related to the purchase orders and items in the shipment.

If no value is provided, the Receiving Open Interface tries to default a value from the PACKING_SLIP or INVOICE_NUM columns. The values in this column must be unique from the supplier for one year.

SHIPPED_DATE

This column represents the date the shipment was shipped. The value must be earlier than or equal to the system date.

SHIP_FROM_CUSTOMER_ID

This column represents the vendor ID. Oracle e-Commerce Gateway derives this value based on the Translator Code (on record 0010, element 70) and EDI Location Code (on record 0010, element 80) combination. The Receiving Open Interface uses the vendor ID to derive the vendor name and number.

SHIP_TO_INT_LOCATION_ID

This column represents the destination organization for the shipment. A valid inventory organization code in Purchasing is required for the Inbound Ship Notice/Manifest or Inbound Shipment and Billing Notice transactions. The destination organization code may be specified at the header or line level. However, if it is specified at the header level, then the same value applies to all the shipment lines.

TRANS_PURPOSE_APPLICATION

This column represents the transaction purpose code. The valid values are NEW or CANCEL. Place the value in record 1000, position 110. The default value is NEW if no value is provided on the inbound flat file.

The value entered for TRAN_PURPOSE_APPLICATION should be the same value entered for TRAN_PURPOSE_EXT1 in record 0010, position 50.

RCV_TRANSACTIONS_INTERFACE Table

The following table lists the required fields for the RCV_TRANSACTIONS_INTERFACE table. An asterisk (*) by the column name indicates that it is not mapped/referenced by Oracle e-Commerce Gateway because the data is not required by the transaction/message. The <field>_ID fields are derived by the Receiving Open Interface API.

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
ITEM_NUM		ITEM_NUMBER		2000	10
VENDOR_ITEM_NUM	Yes	VENDOR_ITEM_NUM		2000	20
ITEM_REVISION	Yes	ITEM_REVISION		2000	30
DOCUMENT_NUM		PURCHASE_ORDER_NUM		2000	50
DOCUMENT_LINE_NUM		ORIGINAL_SYSTEM_LINE_ REFERENCE		2000	70
QUANTITY		SHIPPED_QUANTITY		2000	80
UNIT_OF_MEASURE		SHIPPED_UNIT_CODE_INT		2000	90
ITEM_DESCRIPTION		PRODUCT_DESCRIPTION		2000	140
AUTO_TRANSACT_CODE		AUTO_TRANSACT_CODE		2000	160
SHIP_TO_LOCATION_ID	Yes	SHIP_TO_INT_LOCATION_ID		3000	10

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
SHIP_TO_LOCATION_CODE		SHIP_TO_INT_LOCATION_ NAME		3000	30
DELIVER_TO_LOCATION_ CODE		DELIVER_TO_LOCATION_ CODE_ INT		3020	10
DELIVER_TO_PERSON_ NAME		DELIVER_TO_PERSON_ NAME		3020	70
CREATED_BY		CREATED_BY	Derived		
CREATION_DATE		CREATION_DATE	Derived		
GROUP_ID		GROUP_ID	Derived		
HEADER_INTERFACE_ID			Derived		
INTERFACE_TRANSACTION_ ID		INTERFACE_TRANSACTION_ ID	Derived		
LAST_UPDATE_DATE		LAST_UPDATE_DATE	Derived		
LAST_UPDATED_BY		LAST_UPDATED_BY	Derived		
PROCESSING_MODE_CODE			H: BATCH		
PROCESSING_STATUS_CODE			H: PENDING		
RECEIPT_SOURCE_CODE			H: VENDOR		
SOURCE_DOCUMENT_CODE			H: PO		
TRANSACTION_DATE			H: SYSDATE		
TRANSACTION_STATUS_ CODE			H: PENDING		
TRANSACTION_TYPE			H: SHIP		
VALIDATION_FLAG			H: Y		
CATEGORY_ID*	Yes				
CUSTOMER_ID*	Yes				
DELIVER_TO_LOCATION_ID*	Yes				
DELIVER_TO_PERSON_ID*	Yes				
EMPLOYEE_ID*	Yes				

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
EXPECTED_RECEIPT_DATE*	Yes				
ITEM_CATEGORY*	Yes				
ITEM_ID*	Yes				
LOCATOR*	Yes				
OE_ORDER_HEADER_ID*	Yes				
OE_ORDER_LINE_ID*	Yes				
PO_HEADER_ID*					
PO_LINE_ID*	Yes				
SUBINVENTORY*	Yes				
TO_ORGANIZATION_CODE*	Yes				
TO_ORGANIZATION_ID*	Yes				
VENDOR_ID*					
VENDOR_NUM*					
VENDOR_NAME*					

AUTO_TRANSACT_CODE

This column identifies the type of incoming data. The valid values are SHIP, RECEIVE or DELIVER.

The default value is RECEIVE if no value is provided on the inbound flat file.

A value of SHIP tells the Receiving Open Interface to process the inbound ship notice as a ship notice only. You will need to execute the PO receipt process in Purchasing when the physical goods arrive at your dock.

Use this setting if the physical goods are scheduled to arrive after the ship notice.

A value of RECEIVE tells the Receiving Open Interface to process the inbound ship notice as a ship notice and a PO receipt. Use this setting if the physical goods are scheduled to arrive with the ship notice or this is a service PO that does not require a physical receipt.

A value of DELIVER tells the Receiving Open Interface to process the inbound ship notice as a ship notice, a PO receipt and delivery. Use this setting to receive and deliver the physical goods to the requester or to inventory. This option assumes you do not want to inspect the goods.

DELIVER_TO_PERSON_NAME, DELIVER_TO_LOCATION_CODE_INT

These two columns are required by the Receiving Open Interface if AUTO_TRANSACT_CODE is set to DELIVER. It represents the deliver-to information associated with the requester.

ITEM_NUMBER, PRODUCT_DESCRIPTION

These two columns represents the buyers item number and item descriptions as defined in Oracle Purchasing.

ITEM_REVISION

This column represents the item's revision level. A value is required if this is an inventory item under revision control and you have distributions with an inventory destination.

ORIGINAL_SYSTEM_LINE_REFERENCE

This column represents the purchase order line number associated with the shipment.

PURCHASE_ORDER_NUM

This column represents the purchase order number associated with the shipment.

SHIP_TO_INT_LOCATION_ID, SHIP_TO_INT_LOCATION_NAME

These two columns represents the destination organization for the shipment. A valid inventory organization code in Purchasing is required for the Inbound Ship Notice/Manifest or Inbound Shipment and Billing Notice transactions. If no values are provided at the line level, the header values are used as the default for all lines.

SHIPPED_QUANTITY

This column represents the shipment quantity.

SHIPPED_UNIT_CODE_INT

This column represents the shipment quantity unit of measure.

VENDOR_ITEM_NUM

This column represents the supplier's item number for the buyer item defined in Oracle Purchasing. This must be specified if buyer item number is not available.

Review Receiving Open Interface Exceptions

All exceptions detected by the Receiving Open Interface are written to the PO_INTERFACE_ERRORS table to be reviewed using the Receiving Interface Errors Report (for 856/DESADV) or Purchasing Interface Errors Report (for 857).

Refer to the Oracle Manufacturing, Distribution, Sales & Service Open Interface manual, Oracle Purchasing Open Interfaces document for a detailed list of detectable errors and their meaning.

Return Application Advice to Supplier

In addition to writing error data to the PO_INTERFACE_ERRORS table, the Receiving Open Interface program writes an entry to Oracle e-Commerce Gateway's Application Advice tables (ECE_ADVO_HEADERS and ECE_ADVO_DETAILS) to be reported back to the supplier via the outbound Application Advice (824/APERAK) transaction.

Resolve Receiving Open Interface Exceptions

To resolve Receiving Open Interface exceptions, you can either correct the set up data in Oracle Applications or ask the supplier to resend the corrected transaction.

If you chose to update Oracle Applications data, you can resubmit the Receiving Open Interface process to revalidate the transaction.

If you chose to have the supplier send a corrected transaction, you must first purge the rejected data sitting in the Receiving Open Interface tables using the Transactions Status Summary window and then re-import the updated transaction using Oracle e-Commerce Gateway.

Outbound Application Advice (ADVO/824/APERAK)

Refer to the Oracle Payables section for details regarding this transaction.

Outbound Purchase Order (POO/850/ORDERS)

Trading Partner Link to Oracle e-Commerce Gateway

Suppliers and supplier sites are defined in either Oracle Purchasing or Oracle Payables. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a supplier/supplier site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the supplier or supplier site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the supplier/supplier site and the EDI Location Code in Oracle Applications is the correct supplier/supplier site selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected supplier/supplier site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be extracted for the correct trading partner. This could involve either altering the supplier/supplier site in the base Oracle Application, or assigning a different supplier/supplier site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Relevant Oracle Purchasing Profiles and Set Ups

The following is a list of the Purchasing set ups related to the outbound Purchase Order transaction.

1. Archive on <Attribute> for original orders:

In the Setup > Purchasing > Document Types window, set the following:

Set the "Archive on Approve" for ***each document type enabled.***

DO NOT set the attribute to "Archive on Print." This prevents the eligible purchase orders from being extracted since they will print and archive before the extract can happen.

Refer to the *Oracle Purchasing User's Guide* for the details.

Extract Criteria

The outbound Purchase Order transaction is controlled by three database views that are defined according to the Oracle Purchasing data model for purchase orders. The three views contain variables which are dynamically set based on your responses to the extract program parameters (refer to *Oracle e-Commerce Gateway User's Guide*, Outbound Transactions chapter for a list of the program parameters).

The three database views are as follows:

- ECE_POO_HEADERS_V
- ECE_POO_LINES_V
- ECE_POO_SHIPMENTS_V

The ECE_POO_HEADERS_V view is used to identify which purchase orders are eligible for extraction. The extract criteria are as follows:

- Trading partner is defined
- Transaction type enabled for the trading partner
- Purchase order has not been printed or previously extracted
- Purchase order status is Approved
- Purchase order has not been canceled
- Purchase order is not on hold

If necessary, you can use SQLPLUS to verify if there are any eligible documents to be extracted. To do so, you must first set the organization context and then issue the SQL count function as follows:

SQLPLUS> execute fnd_client_info.set_org_context("<*Org number*>");

SQLPLUS> select count(*) ECE_POO_HEADERS_V;

Review all your set ups if the count value is 0 as this indicates there are no eligible documents to be extracted.

Columns Updated Upon Extraction

Once an eligible purchase order is successfully extracted and written to the transaction interface file, it is marked by Oracle e-Commerce Gateway to prevent it from subsequent extraction. The following table lists the fields updated based on an excerpt of code in the UPDATE_PO procedure defined in the ECEPOOB.pls file:

Table	Column	Value
PO_HEADERS	EDI_PROCESSED_FLAG	Y
PO_HEADERS	LAST_UPDATE_DATE	SYSDATE
PO_HEADERS	PRINTED_DATE	SYSDATE
PO_HEADERS	PRINT_COUNT	Increment by 1
PO_HEADERS_ ARCHIVE	EDI_PROCESSED_FLAG	Y
PO_HEADERS_ARCHIVE	LAST_UPDATE_DATE	SYSDATE
PO_HEADERS_ARCHIVE	PRINTED_DATE	SYSDATE
PO_HEADERS_ARCHIVE	PRINT_COUNT	Increment by 1
PO_RELEASES	EDI_PROCESSED_FLAG	Y
PO_RELEASES	LAST_UPDATE_DATE	SYSDATE
PO_RELEASES	PRINTED_DATE	SYSDATE
PO_RELEASES	PRINT_COUNT	Increment by 1
PO_RELEASES_ ARCHIVE	EDI_PROCESSED_FLAG	Y
PO_RELEASES_ARCHIVE	LAST_UPDATE_DATE	SYSDATE
PO_RELEASES_ARCHIVE	PRINTED_DATE	SYSDATE
PO_RELEASES_ARCHIVE	PRINT_COUNT	Increment by 1

The PO_HEADERS and PO_HEADERS_ARCHIVE tables are used for standard, planned or blanket purchase orders. The PO_RELEASES and PO_RELEASES_ARCHIVE tables are used for blanket purchase order releases.

Outbound Purchase Order Change (POCO/860/ORDCHG)

Trading Partner Link to Oracle e-Commerce Gateway

Suppliers and supplier sites are defined in either Oracle Purchasing or Oracle Payables. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a supplier/supplier site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the supplier or supplier site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the supplier/supplier site and the EDI Location Code in Oracle Applications is the correct supplier/supplier site selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected supplier/supplier site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be extracted for the correct trading partner. This could involve either altering the supplier/supplier site in the base Oracle Application, or assigning a different supplier/supplier site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Relevant Oracle Purchasing Profiles and Set Ups

The following is a list of the Purchasing set ups related to the outbound Purchase Order Change transaction.

Archive on <Attribute> for change orders:

In the Setup > Purchasing > Document Types window, set the following:

Set the "Archive on Approve" for ***each document type enabled.***

DO NOT set the attribute to "Archive on Print." This prevents the eligible purchase orders from being extracted since they will print and archive before the extract can happen.

Refer to the *Oracle Purchasing User's Guide* for the details.

Extract Criteria

The outbound Purchase Order Change transaction is controlled by three database views that are defined according to the Oracle Purchasing data model for purchase orders. The three views contain variables which are dynamically set based on your responses to the extract program parameters (refer to *Oracle e-Commerce Gateway User's Guide*, Outbound Transactions chapter for a list of the program parameters).

The three database views are as follows:

- ECE_POCO_HEADERS_V
- ECE_POCO_LINES_V
- ECE_POCO_SHIPMENTS_V

The ECE_POCO_HEADERS_V view is used to identify which purchase order changes are eligible for extraction. The extract criteria are as follows:

- Trading partner is defined
- Transaction type enabled for the trading partner
- The original purchase order has been printed or previously extracted
- The current set of purchase order changes have not been printed or previously extracted
- Purchase order change status is Approved
- Purchase order is not on hold

If necessary, you can use SQLPLUS to verify if there are any eligible documents to be extracted. To do so, you must first set the organization context and then issue the SQL count function as follows:

SQLPLUS> execute fnd_client_info.set_org_context("<*Org number*>");

SQLPLUS> select count(*) ECE_POCO_HEADERS_V;

Review all your set ups if the count value is 0 as this indicates there are no eligible documents to be extracted.

Columns Updated Upon Extraction

Once an eligible purchase order change is successfully extracted and written to the transaction interface file, it is marked by Oracle e-Commerce Gateway to prevent it from subsequent extraction. The following table lists the fields updated based on an excerpt of code in the UPDATE_PO (the outbound purchase order and purchase order change share this procedure) procedure defined in the ECPOCOB.pls file:

Table	Column	Value
PO_HEADERS	EDI_PROCESSED_FLAG	Y
PO_HEADERS	LAST_UPDATE_DATE	SYSDATE
PO_HEADERS	PRINTED_DATE	SYSDATE
PO_HEADERS	PRINT_COUNT	Increment by 1
PO_HEADERS_ ARCHIVE	EDI_PROCESSED_FLAG	Y
PO_HEADERS_ARCHIVE	LAST_UPDATE_DATE	SYSDATE
PO_HEADERS_ARCHIVE	PRINTED_DATE	SYSDATE
PO_HEADERS_ARCHIVE	PRINT_COUNT	Increment by 1
PO_RELEASES	EDI_PROCESSED_FLAG	Y
PO_RELEASES	LAST_UPDATE_DATE	SYSDATE
PO_RELEASES	PRINTED_DATE	SYSDATE
PO_RELEASES	PRINT_COUNT	Increment by 1
PO_RELEASES_ ARCHIVE	EDI_PROCESSED_FLAG	Y
PO_RELEASES_ARCHIVE	LAST_UPDATE_DATE	SYSDATE
PO_RELEASES_ARCHIVE	PRINTED_DATE	SYSDATE
PO_RELEASES_ARCHIVE	PRINT_COUNT	Increment by 1

The PO_HEADERS and PO_HEADERS_ARCHIVE tables are used for standard, planned or blanket purchase orders. The PO_RELEASES and PO_RELEASES_ARCHIVE tables are used for blanket purchase order releases.

Oracle Receivables

The implementation of any transaction requires some setup in Oracle Applications and Oracle e-Commerce Gateway. This section focuses on the application setups necessary to implement a transaction that integrates with Oracle Receivables. The transactions included with Oracle Receivables are listed in the following table:

Note: For the summary layout see Appendix A.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Invoice	Outbound	INO	810	INVOIC
Credit Memo/Debit Memo	Outbound	CDMO	812	CREADV/DEBADV

The topics covered for outbound transactions include the following:

- Trading Partner Link to Oracle e-Commerce Gateway
- Relevant Oracle Application Profiles and Setups
- Extract Criteria
- Columns Updated Upon Extraction

Current Information

The transaction requirements may change when enhancements are made such as additional data added to the transaction. Current transaction details can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Layout Definition Report and the Interface File Data Report.

Outbound Invoice (INO/810/INVOIC)

Trading Partner Link to Oracle e-Commerce Gateway

Customer and customer sites are defined in either Oracle Receivables or Oracle Order Management. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a customer/customer site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the customer or customer site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the customer/customer site and the EDI Location Code in Oracle Applications is the correct customer/customer site selected for the Trading

Partner definition in Oracle e-Commerce Gateway. The selected customer/customer site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be extracted for the correct trading partner. This could involve either altering the customer/customer site in the base Oracle Application, or assigning a different customer/customer site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Two Methods of Sending Credit Memos/Debit Memos

The 810/INVOIC transaction supports invoices, credit memos and debit memos. In addition, you can use the 812/CREADV-DEBADV transaction to send just the credit memos and debit memos. The method you chose is dependent on your agreement with your supplier. Any credit memo/debit memo extracted using the 810/INVOIC transaction will not be eligible for extraction by the 812/CREADV-DEBADV transaction.

Extract Criteria

The outbound Invoice transaction is controlled by five database views which are defined according to the Oracle Receivable data model for supplier invoices. The five views contain variables which are dynamically set based on your responses to the extract program parameters (refer to *Oracle e-Commerce Gateway User's Guide*, Outbound Transactions chapter for a list of the program parameters).

The five database views are as follows:

- ECE_INO_ALLOWANCE_CHARGES_V
- ECE_INO_HEADERS_1_V
- ECE_INO_HEADER_V
- ECE_INO_LINE_TAX_V
- ECE_INO_LINE_V

The ECE_INO_HEADERS_V view is used to identify which supplier invoices are eligible for extraction. The extract criteria are as follows:

- Trading partner is defined
- Transaction type (invoice, credit memo or debit memo) enabled for the trading partner
- Transaction type is invoice, credit memo or debit memo

- Transaction type (invoice, credit memo or debit memo) has not been printed or previously extracted
- Transaction type (invoice, credit memo or debit memo) status is COMPLETE
- Transaction type (invoice, credit memo or debit memo) print option is "PRI"

If necessary, you can use SQLPLUS to verify if there are any eligible documents to be extracted. To do so, you must first set the organization context and then issue the SQL count function as follows:

SQLPLUS> execute fnd_client_info.set_org_context("<*Org number*>");

SQLPLUS> select count(*) ECE_INO_HEADERS_V;

Review all your set ups if the count value is 0 as this indicates there are no eligible documents to be extracted.

Columns Updated Upon Extraction

Once an eligible supplier invoice is successfully extracted and written to the transaction interface file, it is marked by Oracle e-Commerce Gateway to prevent it from subsequent extraction. The following table lists the fields updated in the **RA_CUSTOMER_TRX** table based on an excerpt of code in the UPDATE_AR procedure defined in the ECEINOB.pls file:

Column	Value
EDI_PROCESSED_FLAG	Y
EDI_PROCESSED_STATUS	ED
LAST_UPDATE_DATE	SYSDATE
PRINTING_COUNT	increment 1
PRINTING_LAST_PRINTED	SYSDATE
PRINTING_ORIGINAL_DATE	SYSDATE
PRINTING_PENDING	N

Outbound Credit Memo/Debit Memo (CDMO/812/CREADV-DEBADV)

Trading Partner Link to Oracle e-Commerce Gateway

Customer and customer sites are defined in either Oracle Receivables or Oracle Order Management. Included in the definition is the EDI Location Code that trading partners

agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a customer/customer site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the customer or customer site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the customer/customer site and the EDI Location Code in Oracle Applications is the correct customer/customer site selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected customer/customer site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be extracted for the correct trading partner. This could involve either altering the customer/customer site in the base Oracle Application, or assigning a different customer/customer site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Two Methods of Sending Credit Memos/Debit Memos

The 810/INVOIC transaction supports invoices, credit memos and debit memos. In addition, you can use the 812/CREADV-DEBADV transaction to send just the credit memos and debit memos. The method you chose is dependent on your agreement with your supplier. Any credit memo/debit memo extracted using the 812/CREADV-DEBADV transaction will not be eligible for extraction by the 810/INVOIC transaction.

Extract Criteria

The outbound credit memo/debit memo transaction is controlled by five database views which are defined according to the Oracle Receivable data model for credit and debit memos. The five views contain variables which are dynamically set based on your responses to the extract program parameters (refer to *Oracle e-Commerce Gateway User's Guide*, Outbound Transactions chapter for a list of the program parameters).

The five database views are as follows:

- ECE_CDMO_ALLOWANCE_CHARGES_V

- ECE_CDMO_HEADERS_1_V
- ECE_CDMO_HEADER_V
- ECE_CDMO_LINE_TAX_V
- ECE_CDMO_LINE_V

The ECE_CDMO_HEADERS_V view is used to identify which credit/debit memos are eligible for extraction. The extract criteria are as follows:

- Trading partner is defined
- Credit memo or debit memo enabled for the trading partner
- Transaction type is credit memo or debit memo
- Credit memo or debit memo has not been printed or previously extracted
- Credit memo or debit memo status is COMPLETE
- Credit memo or debit memo print option is "PRI"
- Print pending is "Y"

If necessary, you can use SQLPLUS to verify if there are any eligible documents to be extracted. To do so, you must first set the organization context and then issue the SQL count function as follows:

SQLPLUS> execute fnd_client_info.set_org_context("<*Org number*>");

SQLPLUS> select count(*) ECE_CDMO_HEADERS_V;

Review all your set ups if the count value is 0 as this indicates there are no eligible documents to be extracted.

Columns Updated Upon Extraction

Once an eligible credit memo or debit memo is successfully extracted and written to the transaction interface file, it is marked by Oracle e-Commerce Gateway to prevent it from subsequent extraction. The following table lists the fields updated in the **RA_ CUSTOMER_TRX** table based on an excerpt of code in the UPDATE_AR procedure defined in the ECECDMOB.pls file:

Column	Value
EDI_PROCESSED_FLAG	Y
EDI_PROCESSED_STATUS	ED
LAST_UPDATE_DATE	SYSDATE
PRINTING_COUNT	increment 1
PRINTING_LAST_PRINTED	SYSDATE
PRINTING_ORIGINAL_DATE	SYSDATE
PRINTING_PENDING	N

Oracle Release Management

The implementation of any transaction requires some set up in Oracle Applications and Oracle e-Commerce Gateway. This section focuses on the application setups necessary to implement a transaction that integrates with Oracle Release Management. The Oracle Release Management transactions are listed in the following table:

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT	ODETTE
Planning/Material Release	Inbound	SPSI	830	DELFOR	DELINS
Shipping Schedule	Inbound	SSSI	862	DELJIT	DELINS/ CALDEL/ KANBAN
Production Sequence Schedule	Inbound	PSQI	866	DELJIT	SYNCRO/ SYNPAC

The topics covered for inbound transactions include the following:

- Trading Partner Link to Oracle e-Commerce Gateway
- Oracle e-Commerce Gateway Required Fields
- Review Oracle e-Commerce Gateway Exceptions
- Resolve Oracle e-Commerce Gateway Exceptions
- Relevant Oracle Application Profiles and Setups
- Oracle Application Open Interface Required Fields

- Review Application Open Interface Exceptions
- Return Application Advice to Trading Partner (if appropriate)
- Resolve Application Open Interface Exceptions

Current Information

The transaction requirements may change when enhancements are made such as additional data added to the transaction. Current transaction details can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Layout Definition Report and the Interface File Data Report.

Refer to Oracle Shipping Execution Transaction Summaries on page A-96 for a diagram of the record hierarchy, record looping structure, and record summaries.

Planning/Material Release (SPSI/830/DELFOR/DELINS) Shipping Schedule (SSSI/862/DELJIT/DELINS/CALDEL/KANBAN)

The Planning/Material Release transactions can include both forecast and firm requirements. The planning schedule with release capability transaction may be used in various ways or in a combination of ways, such as

- a simple forecast
- a forecast with the buyer's authorization for the seller to commit resources, such as labor or material
- a forecast that is also used as an order release mechanism, containing such elements as resource authorizations, period-to-date cumulative quantities, and specific ship delivery patterns for requirements that have been represented in "buckets," such as weekly, monthly, or quarterly

The Shipping Schedule transaction contains firm delivery information and is intended by the customer to refine requirements already presented in the planning schedule. It facilitates the practice of Just-In-Time (JIT) manufacturing by providing the customer with a mechanism to issue precise shipping schedule requirements on a more frequent basis, such as daily shipping schedules versus weekly planning schedules.

Trading Partner Link to Oracle e-Commerce Gateway

Customers and customer sites are defined in Oracle Accounts Receivable and Oracle Order Management. Included in the definition is the EDI Location Code. The EDI Location Code is a code that represents a customer's full detailed address. Often the customer does not

send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a customer address in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the customer address in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the customer address and the EDI Location Code in Oracle Applications is the correct customer address selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected customer address and the EDI Location Code defined in Oracle Applications are displayed in the Assignment tab of the Define Trading Partners window. If the data is not correct, you must make the appropriate changes for the transaction to be imported for the correct trading partner. This could involve either altering the customer address in the base Oracle Application, or assigning a different customer address to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction.

> **Note:** On inbound EDI Demand Transactions, the customer also sends a Supplier Code. The Supplier Code identifies the Supplier to the customer. The Supplier Codes are defined in the Release Management Processing Rules Window. They are not defined in the e-Commerce Gateway to be used by this transaction process. Refer to the *Release Management Implementation Manual* and the *Release Management User's Guide* for additional information on setting up the Supplier Code.

Oracle e-Commerce Gateway Required Fields

The following table lists the Oracle e-Commerce Gateway required fields. These fields are required to authenticate the trading partner and transaction. If the required data is not provided in the transaction, the Oracle e-Commerce Gateway import process fails the transaction, and an exception message will display in the View Staged Documents window.

If the trading partner is valid and the transaction is enabled, the import process proceeds to validate the transaction using the user-defined column rules. If no process or column rule exceptions are detected, the Oracle e-Commerce Gateway import program will write the transaction to the Release Management Interface tables to be processed by the Release Management Demand Processor.

Oracle e-Commerce Gateway Column Name for Required Fields	Record Number	Position Number	Note
TEST_INDICATOR	0010	20	"T" or "P"
DOCUMENT_CODE	0010	60	Schedule Reference number
TP_TRANSLATOR_CODE	0010	70	Translator identifier for this trading partner
TP_LOCATION_CODE	0010	80	The EDI Location Code
TRANSACTION_DATE	0010	120	Schedule generation date
EDI_CONTROL_NUM_1	0010	160	Control number from the electronic envelope, such as the X12 (ISA) or EDIFACT (UNB), assigned by the customer EDI translator for auditing.
EDI_CONTROL_NUM_2	0010	170	The second level control number from the electronic transaction, such as the X12 (GS), assigned by the customer EDI translator for auditing.
EDI_CONTROL_NUM_3	0010	180	The third level control number from the electronic transaction, such as the X12 (ST), assigned by the customer EDI translator for auditing.
RLM_SCHEDULE_TYPE_INT	1000	10	Schedule types: Planning, Shipping, or Sequenced
SCHEDULE_PURPOSE_INT	1000	70	Transaction Purpose: Original, Replace, Cancel, etc.
SCHEDULE_SOURCE	1000	280	EDI or manual transaction for this schedule, such as 830, 862, 866, DELFOR, MANUAL, etc.
ITEM_DETAIL_TYPE_INT	4000	10	Past Due, Firm, Forecast, Authorization, Shipment/Receipt Data, or Other
ITEM_DETAIL_SUBTYPE_INT	4000	70	Bucket Type, Type of Authorization, or Cumulative or Last Shipment/Receipt
DATE_TYPE_CODE_INT	4000	130	Type of Start/End Date: SHIP, DELIVER, RECEIVED, FROM_TO
START_DATE_TIME_DET	4000	180	Customer specified date/time
QTY_TYPE_CODE_INT	4000	210	ACTUAL or CUMULATIVE
ITEM_DETAIL_QUANTITY	4000	270	Requested quantity
UOM_CODE_INT_D	4000	280	Abbreviated unit of measure code

DOCUMENT_CODE

This column represents the customer assigned schedule reference or release number.

TEST_INDICATOR

This column represents the test or production indicator from the Trading Partner. If this value does not match the test or production indicator associated with the trading partner defined in Oracle e-Commerce Gateway, a process rule exception is detected, and an exception message will display in the View Staged Documents window.

The valid values are "T" for test and "P" for production.

> **Note:** The TEST_INDICATOR is examined by the Demand Processor to determine how far the transaction can proceed through the application. Transactions with a TEST_INDICATOR value of "T" are validated and archived, but no further processing is done. In the Release Management Workbench, Test Transactions require the "Test" check box to be checked.
>
> This allows test transactions to be tested in a production environment for front-end data validation. To fully test a transaction through a test database environment, the transactions must be flagged as production to go beyond just the validation.
>
> This Demand Processor feature facilitates setup and implementation for inbound demand schedules with new trading partners.

TP_TRANSLATOR_CODE, TP_LOCATION_CODE (EDI Location Code)

The two columns in combination uniquely identify a Trading Partner in Oracle e-Commerce Gateway. Once the trading partner definition is accessed, Oracle e-Commerce Gateway can verify whether the transaction is enabled for the Trading Partner.

If this trading partner is not defined in Oracle e-Commerce Gateway, a process rule exception is detected, and an exception message will display in the View Staged Documents window.

Refer to the Trading Partner chapter for details on how to properly define your trading partners and get a better understanding of how these fields are used in the process.

TRANSACTION_DATE

This column is the schedule generation date that is sent in the transmission.

EDI_CONTROL_NUM_1

EDI control number 1 is the control number from the electronic envelope, such as the X12 (ISA) or EDIFACT (UNB). It is assigned by the customer EDI translator for auditing.

EDI_CONTROL_NUM_2

EDI control number 2 is the second level control number from the electronic transaction, such as the X12 (GS). It is assigned by the customer EDI translator for auditing

EDI_CONTROL_NUM_3

EDI control number 3 is the third level control number from the transaction, such as the X12 (ST). It is assigned by the customer EDI translator for auditing.

Record 1000

> **Note:** The fields with the suffix "_INT" are the internal codes that must be defined in the Oracle Release Management. One to five external codes from the transaction may be entered into their corresponding external code fields that have the suffixes "_EXT1" through "_EXT5" for the same column name. Either the e-Commerce Gateway's Code Conversion process can derive the internal codes to place them in the open interface tables, or the values may be placed in the internal code fields on the file if they are derived from another process. Refer to the Code Conversion chapter for details. Only the internal codes are referred to below for simplicity.

RLM_SCHEDULE_TYPE_INT

This column represents the Schedule type.

Valid Values: PLANNING, SHIPPING, SEQUENCED

SCHEDULE_PURPOSE_INT

This column represents the Schedule Purpose code.

Valid Values: ADD, ORIGINAL, REPLACE, CANCEL, CHANGE, DELETE, and CONFIRMATION.

SCHEDULE_SOURCE

This column represents the EDI or manual transaction source for this schedule, such as 830, 862, 866, DELFOR, MANUAL.

Refer to the *Release Management Implementation Manual* and the *Release Management User's Guide* for detailed descriptions of all codes and the impact on processing for each code value.

Record 4000

DATE_TYPE_CODE_INT

Date Type is used by the Demand Processor to determine how the start date and end date on each schedule line should be interpreted.

For Demand Detail Types (Past Due, Firm, and Forecast), the Date Type is critical, because it indicates whether the schedule demand is shipment-based or delivery-based.

For other Detail Types (Authorizations, Shipped/Received data, and Other), the Date Type is simply informational, and is not used in processing.

Valid Values:

- SHIP
- DELIVER
- RECEIVED
- FROM_TO

ITEM_DETAIL_TYPE_INT

Detail Type is used by the Demand Processor to determine how the schedule line itself should be interpreted.

Valid Values:

0 = Past Due Firm

1 = Firm Demand

2 = Forecast Demand

3 = Authorization

4 = Shipment/Receipt Data

5 = Other

ITEM_DETAIL_SUBTYPE_INT

Detail Subtype is used by the Demand Processor to determine how the schedule line itself should be interpreted in context of its corresponding Detail Type.

Each Item Detail Type has a corresponding list of valid Item Detail Subtypes, listed in the table below:

If ITEM_DETAIL_ TYPE Equals	then ITEM_DETAIL_SUBTYPE contains
0, 1, 2	1 = Day 2 = Week 3 = Flexible 4 = Month 5 = Quarter
3	FINISHED = Finished Goods MATERIAL = Raw Material LABOR_MATERIAL = Labor and Material LABOR = Labor PRIOR_CUM_REQ = Prior Cumulative Required
4	SHIPMENT = Shipment RECEIPT = Receipt CUM = Customer CUM CUM_REJECTED = CUM Rejected
5	AHEAD_BEHIND = Ahead/Behind INVENTORY_BALANCE = Inventory Balance HOLDOUT_QTY = In Holdout

START_DATE_TIME_DET

Customer specified date/time, as transmitted by the customer on the transaction. Format: YYYYMMDD HHMMSS

QTY_TYPE_CODE_INT

Quantity Type is used by the Demand Processor to determine how the quantity on schedule lines should be interpreted in context of its Detail Type and Detail Subtype.

Valid Values:

- ACTUAL
- CUMULATIVE

ITEM_DETAIL_QUANTITY

This column represents the requested quantity. The following table lists the ITEM_DETAIL_QUANTITY values for corresponding ITEM_DETAIL_TYPE:

If ITEM_DETAIL_TYPE Equals	then ITEM_DETAIL_QUANTITY contains
0, 1, 2	Demand Quantity
3	Authorization Quantity
4	Shipped, Received, or CUM Quantity
5	Miscellaneous Quantity, such as Ahead/Behind or Inventory Balance

UOM_CODE_INT_D

This is the abbreviated unit of measure codes defined in Oracle Inventory.

Code Conversion Categories

Oracle e-Commerce Gateway provides seeded Code Conversions for external values associated with the standards for values that are supported within the Demand Processor. The following Code Conversion Categories are applicable to any or all of the inbound demand schedule transactions.

Data	Demand Processor Column Name
Date Type	RLM_DATE_TYPE
Detail Type	RLM_DTL_TYPE
Detail Subtype	RLM_DTL_SUBTYP
Quantity Type	RLM_QTY_TYPE
Schedule Type	RLM_SCHED_TYPE
Purpose Code	RLM_TRX_PURP
Ship Delivery Pattern	RLM_SHP_DEL_CODE
Unit of Measure	UOM

Interface Tables

The e-Commerce Gateway transaction has four levels of data. The Demand Processor has two interface tables, one for the Header level data and one for the Line level data. The Line level interface table is loaded with both the item data, schedule detail, and schedule subdetail data from the e-Commerce Gateway transaction. This structure is shown in the table below.

For each 4000 record level data that is loaded into the Line level interface table, the corresponding 2000 record data will also be loaded.

Schedule subdetail data may also be in the transaction. For each 5000 record level data that is loaded into the Line level interface table, the corresponding 2000 record level data and 4000 record level data will also be loaded to create a single entry in the Line level interface table.

Record	Subrecord	Subrecord	e-Commerce Gateway File Data Content (Four Levels of Data)	Demand Processor Level (Two Levels of Data: HEADER and LINE)
1000			Schedule Header	HEADER
2000			Item1 data	(Copy data to all its Schedule Detail below)
2000	4000		Schedule1 data (for first schedule)	LINE (Item1/Schedule1)
2000	4000		Schedule2 data (for second schedule)	LINE (Item1/Schedule2)
2000	4000		Schedule3 data (for third schedule)	LINE (Item1/Schedule3)
2000			Item2 data	(Copy data to all its Schedule Detail below)
2000	4000		Schedule1 detail (for first schedule)	(Copy schedule for its subdetail data below)
2000	4000	5000	Schedule1 subdetail1	LINE (Item2+Schedule1+ subdetail1)
2000	4000	5000	Schedule1 subdetail2	LINE (Item2+Schedule1+ subdetail2)
2000	4000	5000	Schedule1 subdetail3	LINE (Item2+Schedule1+ subdetail3)
2000	4000		Schedule2 data (for second schedule)	(Copy schedule for its subdetail data)
2000	4000	5000	Schedule2 subdetail1	LINE (Item2+Schedule2+ subdetail1)
2000	4000	5000	Schedule2 subdetail2	LINE (Item2+Schedule2+ subdetail2)
2000	4000		Schedule3 data (for third schedule)	LINE (Item2/Schedule3)

Record	Subrecord	Subrecord	e-Commerce Gateway File Data Content (Four Levels of Data)	Demand Processor Level (Two Levels of Data: HEADER and LINE)
2000	4000		Schedule3 data (for fourth schedule)	LINE (Item2/Schedule4)

Demand Schedule Detail Records

Record 4000 contains the schedule detail as noted in the following table:

Case	Record Num	ITEM_DETAIL_TYPE_INT Pos. 10	ITEM_DETAIL_SUBTYPE_INT Pos. 70	DATE_TYPE_CODE_INT Pos. 130	START_DATE_TIME_DET Pos. 190	END_DATE_TIME_DET Pos. 200	QTY_TYPE_CODE_INT Pos. 210	ITEM_DETAIL_QUANTITY Pos. 270	UOM_INT_D Pos. 280
1	4000	0	1	SHIP	20000626 000000	20000626 000000	ACTUAL	90	EA
2	4000	1	1	DELIVER	20000724 000000	20000724 000000	CUMULATIVE	26000	EA
3	4000	2	2	DELIVER	20000814 000000	20000814 000000	ACTUAL	100	EA
4	4000	4	RECEIPT	RECEIVED	20000626 000000	20000626 000000	ACTUAL	25	EA
5	4000	4	CUM	RECEIVED	20000626 000000	20000626 000000	CUMULATIVE	40000	EA
6	4000	4	SHIPMENT	SHIP	20000626 000000	20000626 000000	ACTUAL	150	EA

Sample 4000 Demand Schedule Records

Case 1:

This is a past due demand record showing that a quantity of 90 was to be shipped on June 26, 2000.

Case 2:

This is firm demand record showing that a cumulative quantity of 26000 is to be delivered July 24, 2000. The discrete quantity is derived by the demand processor.

Case 3:

This is a forecast demand record showing that a weekly bucket quantity of 100 is forecast to be requested for delivery the week of August 14, 2000.

Case 4:

This is a Shipment/Receipt record showing that the customer received a shipment of 25 on June 26, 2000. (The Shipment/Receipt record can also have the Supplier's delivery number in the ITEM_DETAIL_REF_VALUE_1 field in Record 5010.)

Case 5:

This is a Cumulative Shipment/Receipt record showing that the customer has received a cumulative quantity of 40000 as of June 26, 2000.

Case 6:

This is a Shipment/Receipt record showing that the customer received notification of a shipment of 150 on June 26, 2000.

Demand Schedule Subdetail Records

Record 5000:

Record 5000 contains the schedule subdetail as noted in the following table:

Example Record 5000:

Case	Record 5000	START_DATE_TIME_DET_SD Pos. 10	CUST_SHIP_TO_EXT_SD Pos. 20	ITEM_DETAIL_QUANTITY_SD Pos. 30	UOM_CODE_INT_SD Pos. 40
	4000*				
1	5000	20000626 070000	NULL	100	NULL
2	5000	20000626 100000	NULL	50	NULL

* Record 4000 data precedes its related 5000 series records.

Cases 1 & 2 are examples of Just-In-Time (JIT) records.

Case 1:

This is a JIT record for a quantity of 100 to be delivered at 7:00 AM on June 26, 2000.

Case 2:

This is a JIT record for a quantity of 50 to be delivered at 10:00 AM on June 26, 2000.

Customer ship-to external codes and unit of measurement (UOM) codes on Record 5000 are required only if they are different than previously indicated at the item level on Record 4000. Usually they are not different. You may place the codes in these fields at any time.

Record 5010

Record 5010 contains the schedule subdetail that consists of three pairs of Item Detail Reference Values and its corresponding Item Detail Reference Codes. The Item Detail Reference Code is a qualifier to indicate the type of data in its corresponding Item Detail Reference Values. The qualifier may be the data qualifier defined in the EDI standard such as X12 or EDIFACT.

> You can have a Record 5010 without a Record 5000 and vice versa. They are independent of each other.

An example of a Record 5010 is shown in the table below:

Record 5010	ITEM_ DETAIL_ REF_CODE_ 1_SD Pos. 10	ITEM_ DETAIL_ REF_ VALUE_1_SD Pos. 20	ITEM_ DETAI_REF_ CODE_1_SD Pos. 30	ITEM_ DETAIL_ REF_VALUE_ 2_SD Pos. 40	ITEM_ DETAIL_ REF_CODE_ 2_SD Pos. 50	ITEM_ DETAIL_ REF_VALUE_ 3_SD Pos. 60
4000*						
5010	XX	29556				

*Record 4000 data precedes its related 5000 series records

Example Record 5010

One use of the Record 5010 is to state the supplier's shipper number (example 29556), when Record 4000 is used for a last shipment received record.

Review Oracle e-Commerce Gateway Exceptions

Use the Oracle e-Commerce Gateway View Staged Documents window to review the Oracle e-Commerce Gateway transaction exceptions. Once the exceptions are identified and resolved, you can submit the transaction for reprocessing, ignore the exception during reprocessing, or delete the transaction. Select the option in the View Staged Documents window.

Resolve Oracle e-Commerce Gateway Exceptions

To resolve Oracle e-Commerce Gateway exceptions, you can either correct the set up data in Oracle e-Commerce Gateway or Oracle Applications, or ask the Trading Partner to send a corrected transaction.

If the Trading Partner sends a corrected transaction, you must delete the erroneous transaction from Oracle e-Commerce Gateway's staging tables using the View Staged Documents window.

Relevant Oracle Release Management Profiles and Setup

The following is a list of the Release Management setups related to the Release Management Demand Processor. Refer to the *Oracle Release Management Implementation Manual* and *Oracle Release Management User's Guide* for details.

1. RLM: MRP Forecast Selection List
   - If defined, the MRP Forecast Selection List lists all the names of Forecasts to which inbound Release Management forecast demand can be assigned.
   - If set to "none," forecast data will not be imported into Planning.
2. RLM: CUM Management Enabled

   Determines whether or not CUM Management is enabled at the Site level. To use the CUM Management features of Oracle Release Management, this must be set to Yes.
3. RLM: Print CUM Data on Shipping Documents

   Determines whether or not CUM Data should be printed on shipping documents.
4. RLM: Debug Mode

   Determines if a debug file is written for running the Demand Processor.

   Valid Values are:

   0 = highest debug level

   Null = no debug file is generated (This is the default value)
5. RLM: Workflow Enabled

   Determines whether or not the Demand Processor is enabled to run in workflow mode.
6. ECE: SPSI-Enabled

   Determines whether or not inbound planning schedule transaction is enabled.
7. ECE: SSSI-Enabled

Determines whether or not inbound shipping schedule transaction is enabled.

8. ECE: PSQI-Enabled

   Determines whether or not inbound sequenced shipping schedule transaction is enabled.

9. Release Management Processing Rules

- There are five categories of Processing Rules attributes:
  - Demand Management
  - Demand Fences
  - Order Management
  - CUM Management
  - General
- These five categories are defined for each Ship-From/Ship-To business entity for which Release Management will process demand.
- If terms are not defined at the optional lower levels, they will default from higher levels. There are three levels where the Processing Rules can be defined:
  - Ship-From / Customer (mandatory)
  - Ship-From / Address (optional)
  - Ship-From / Customer Item (optional; can be linked to either of the other two levels)

Release Management Demand Processor Required Fields

The Release Management Demand Processor is used to process Planning/Material Release, Shipping Schedule, and Production Sequence Schedule transactions. It validates the incoming data entered into the Release Management Interface tables by the Oracle e-Commerce Gateway import program.

The following is a list of the Release Management Demand Processor required fields. These fields are required for the Release Management Demand Processor to successfully process and move the data from the Release Management Interface tables into the Oracle Order Management and Oracle Planning base application tables.

Required fields noted as derived or hardcoded do not require a value in the transaction on the transaction interface file since the values are determined by the Oracle e-Commerce Gateway process.

Refer to the *Oracle Manufacturing, Distribution, Sales and Service Open Interface Manual* for details on derived, defaulted and conditional fields (see Cond. items in the table below).

RLM_INTERFACE_HEADER Table

The following table lists the required fields for the RLM_INTERFACE_HEADER table:

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hard coded/ Derived	Record Number	Position Number
EDI_CONTROL_NUM_3				0010	180
RLM_SCHEDULE_TYPE_INT				1000	010
SCHEDULE_PURPOSE_INT				1000	070
SCHEDULE_SOURCE				1000	280
CREATED_BY			Derived		
CREATION_DATE			Derived		
HEADER_ID		HEADER_ID	Derived		
LAST_UPDATE_DATE			Derived		
LAST_UPDATED_BY			Derived		
PROCESS_STATUS			Derived		
REQUEST_ID			Derived		

EDI_CONTROL_NUM_3

EDI control number 3 is the third level control number from the transaction, such as the X12 (ST). It is assigned by the customer's EDI translator for auditing.

HEADER_ID

This column represents a sequence generated unique identifier. It is system generated when the interface table is loaded.

RLM_SCHEDULE_TYPE_INT

This column represents the Schedule type.

Valid Values: PLANNING, SHIPPING, SEQUENCED

SCHEDULE_PURPOSE_INT

This column represents the Schedule Purpose code.

Valid Values: ADD, ORIGINAL, REPLACE, CANCELLATION, CHANGE, DELETE, and CONFIRMATION.

SCHEDULE_SOURCE

This column represents the EDI or manual transaction source for this schedule, such as 830, 862, 866, DELFOR, MANUAL.

PROCESS_STATUS

Indicates the current processing status of a record.

Valid Values:

1 = Do not process

2 = Waiting to be processed

3 = In process

4 = Error

5 = Processed

6 = Processed with errors

REQUEST_ID

This column represents a sequence-generated unique identifier assigned to the concurrent request for the demand processor.

Update Columns:

CREATED_BY

This code identifies who loaded this transaction into the Demand Processor tables. The code is set to the Requester ID associated with the concurrent manager request that processed this transaction.

CREATION_DATE

This is the date that the e-Commerce Gateway loaded the transaction into the Demand Processor table entries. This date is set to the system date.

LAST_UPDATE_DATE

This date is equal to the CREATION_DATE for this transaction. This date is set to the system date.

LAST_UPDATED_BY

This code is equal to the CREATED_BY code for this transaction.

RLM_INTERFACE_LINES Table

The following table lists the required fields for the RLM_INTERFACE_LINES table:

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hard coded/ Derived	Record Number	Position Number
ITEM_DETAIL_TYPE_INT				4000	010
ITEM_DETAIL_SUBTYPE_ INT				4000	070
DATE_TYPE_CODE_INT				4000	130
START_DATE_TIME_DET				4000	180
QTY_TYPE_CODE_INT				4000	210
ITEM_DETAIL_QUANTITY				4000	270
UOM_CODE_INT_D				4000	280
CREATED_BY			Derived		
CREATION_DATE			Derived		
HEADER_ID			Derived		
LAST_UPDATE_BY			Derived		
LAST_UPDATE_DATE			Derived		
LINE_ID			Derived		
LINE_SOURCE			Derived		
PROCESS_STATUS			Derived		
REQUEST_ID			Derived		
SCHEDULE_ITEM_NUM			Derived		
SCHEDULE_LINE_NUM			Derived		

LINE_ID

This column represents a sequence-generated unique identifier. It is system-generated when the interface table is loaded.

HEADER_ID

This column represents a sequence-generated unique identifier. It is system-generated when the interface table is loaded.

DATE_TYPE_CODE_INT

Date Type is used by the Demand Processor to determine how the start date and end date on each schedule line should be interpreted.

For Demand Detail Types (Past Due, Firm and Forecast), the Date Type is critical, because it indicates whether the schedule demand is shipment-based or delivery-based.

For other Detail Types (Authorizations, Shipped/Received Information, and Other) the Date Type is simply informational, and is not used in processing.

Valid Values:

- SHIP
- DELIVER
- RECEIVED
- FROM_TO

ITEM_DETAIL_TYPE_INT

Detail Type is used by the Demand Processor to determine how the schedule line itself should be interpreted.

Valid Values:

0 = Past Due Firm

1 = Firm Demand

2 = Forecast Demand

3 = Authorization

4 = Shipment/Receipt Data

5 = Other

ITEM_DETAIL_SUBTYPE_INT

Detail Subtype is used by the Demand Processor to determine how the schedule line itself should be interpreted in context of its corresponding Detail Type.

Each Item Detail Type has a corresponding list of valid Item Detail Subtypes as shown in the following table:

If ITEM_DETAIL_TYPE_INT Equals	then ITEM_DETAIL_SUBTYPE_INT Contains
0, 1, 2	1 = Day 2 = Week 3 = Flexible 4 = Month 5 = Quarter
3	FINISHED = Finished Goods MATERIAL = Raw Material LABOR_MATERIAL = Labor & Material LABOR = Labor PRIOR_CUM_REQ = Prior Cumulative Required
4	SHIPMENT = Shipment RECEIPT = Receipt CUM = Customer CUM CUM_REJECTED = CUM Rejected
5	AHEAD_BEHIND = Ahead/Behind INVENTORY_BAL = Inventory Balance HOLDOUT_QTY = In Holdout

ITEM_DETAIL_QUANTITY

This column represents the requested quantity. The ITEM_DETAIL_QUANTITY value corresponds to the ITEM_DETAIL_TYPE_INT as shown in the following table:

If ITEM_DETAIL_TYPE_INT	then ITEM_DETAIL_QUANTITY
0, 1, 2	Demand Quantity
3	Authorization Quantity
4	Shipped, received or cum quantity
5	Miscellaneous quantity, such as ahead/behind, inventory balance

QTY_TYPE_CODE_INT

Quantity Type is used by the Demand Processor to determine how the quantity on schedule lines should be interpreted in context of its Detail Type and Detail Subtype.

Valid Values:

- ACTUAL
- CUMULATIVE

START_DATE_TIME_DET

Customer specified date/time, as transmitted by the customer on the transaction. Format: YYYYMMDD HHMMSS

UOM_CODE_INT_D

This is the abbreviated unit of measure code as defined in Oracle Inventory.

LINE_SOURCE

Schedule source at line level since lines can also be manually entered.

PROCESS_STATUS

Indicates the current processing status of a record.

1 = Do not process

2 = Waiting to be processed

3 = In process

4 = Error

5 = Processed

6 = Processed with errors

REQUEST_ID

This column represents a sequence-generated unique identifier assigned to the concurrent request for the demand processor.

Update Columns:

CREATED_BY

This code identifies who loaded this transaction into the Demand Processor tables. The code is set to the Requester ID associated with the concurrent manager request that processed this transaction.

CREATION_DATE

This is the date that the e-Commerce Gateway loaded the transaction into the Demand Processor table entries. This date is set to the system date.

LAST_UPDATE_DATE

This date is equal to the CREATION_DATE for this transaction. This date is set to the system date.

LAST_UPDATED_BY

This code is equal to the CREATED_BY code for this transaction.

Review Release Management Demand Processor Exceptions

The Oracle Release Management Demand Processor Exception Handling lets the supplier accomplish the following tasks:

- Receive error messages on problems that have halted demand processing
- Receive warning messages on potential demand processing problems
- Receive information messages on noteworthy situations detected by the Demand Processor
- Generate exceptions report automatically after demand processing completion
- Review real time report on inbound demand processing exceptions
- View exceptions generated for any schedule via the Release Management Workbench until purged
- Correct set-up data to allow successful demand processing
- Correct schedule data to allow successful demand processing

Validate customer demand for data that impacts demand processing

You can review all exceptions detected by the Release Management Demand Processor in the Release Management Demand Workbench or on the Demand Management Exception Report.

Refer to the *Oracle Release Management User's Guide* for more information on the Demand Management Exception Report.

Resolve Release Management Demand Processor Exceptions

To resolve Release Management Demand Processor exceptions, you can either correct the set-up data in Oracle Applications, make changes to the original schedule on the Release Management Demand Workbench, or ask the supplier to resend the transaction with the corrected values.

If you chose to update Oracle Applications data, you can resubmit the Release Management Demand Processor to revalidate the transaction.

Production Sequence Schedule (PSQI/866/DELJIT/SYNCRO/SYNPAC)

Customers, addresses and locations are defined in Oracle Accounts Receivable and Oracle Order Management. Included in the definition is the EDI Location Code. The EDI Location Code is a code that represents a customer's full detailed address. Often the customer does not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a customer address in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the customer address in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the customer address and the EDI Location Code in Oracle Applications is the correct customer address selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected customer address and the EDI Location Code defined in Oracle Applications are displayed in the Assignment tab of the Define Trading Partners window. If the data is not correct, you must make the appropriate changes for the transaction to be imported for the correct trading partner. This could involve either altering the customer address in the base Oracle Application, or assigning a different customer address to that EDI Location Code in Oracle e-Commerce Gateway.

> **Note:** On inbound EDI Demand Transactions, the customer also sends a Supplier Code. The Supplier Code identifies the Supplier to the customer. The Supplier Codes are defined in the Release Management Processing Rules Window. They are not defined in

the e-Commerce Gateway to be used by this transaction process. Refer to the *Release Management Implementation Manual* and the *Release Management User's Guide* for additional information on setting up the Supplier Code.

Oracle e-Commerce Gateway Required Fields

The following table lists the Oracle e-Commerce Gateway required fields. These fields are required to authenticate the trading partner and transaction. If the required data is not provided in the transaction, the Oracle e-Commerce Gateway import process fails the transaction, and an exception message will display in the View Staged Documents window.

If the trading partner is valid and the transaction is enabled, the import process proceeds to validate the transaction using the user-defined column rules. If no process or column rule exceptions are detected, the Oracle e-Commerce Gateway import program will write the transaction to the Receiving Open Interface tables to be processed by the Receiving Open Interface API.

Oracle e-Commerce Gateway Column Name for Required Fields	Record Number	Position Number	Note
TEST_INDICATOR	0010	20	"T" or "P"
DOCUMENT_CODE	0010	60	Schedule Reference Number
TP_TRANSLATOR_CODE	0010	70	Translator identifier for this Trading Partner
TP_LOCATION_CODE	0010	80	The EDI Location Code
TRANSACTION_DATE_ TIME	0010	120	Schedule Generation date
EDI_CONTROL_NUM_1	0010	160	Level 1 control number assigned by the customer's EDI translator for auditing.
EDI_CONTROL_NUM_2	0010	170	Level 2 control number assigned by the customer's EDI translator for auditing.
EDI_CONTROL_NUM_3	0010	180	Level 3 control number assigned by the customer's EDI translator for auditing.
RLM_SCHEDULE_TYPE_ INT	1000	10	Planning, Shipping, or Sequenced
SCHEDULE_PURPOSE_INT	1000	70	Original, Replace, Cancel, etc.
SCHEDULE_SOURCE	1000	150	EDI or manual transaction for this schedule, i.e. 830, 862, 866, DELFOR, MANUAL, etc.

Oracle e-Commerce Gateway Column Name for Required Fields	Record Number	Position Number	Note
ITEM_DETAIL_TYPE_INT	2000	10	Past Due, Firm, Forecast, Authorization, Shipment/Receipt Data, or Other
ITEM_DETAIL_SUBTYPE_ INT	2000	70	Bucket type, type of Authorization, or cumulative or last shipment/receipt
DATE_TYPE_CODE_INT	2000	130	Ship, Deliver, Received, From_To
START_DATE_TIME	2000	190	Customer specified date/time
QTY_TYPE_CODE_INT	2000	210	Actual or cumulative
ITEM_DETAIL_QUANTITY	2000	270	Requested quantity
UOM_CODE_INT	2040	10	Abbreviated unit of measure code
SCHEDULE_LINE_NUM		Derived	Unique identifier of a line within a schedule
CUSTOMER_ITEM_EXT	3100	20	The customer item as defined in their application. This code is consider an externally defined code, hence, the EXT suffix.

Control Record 0010

TEST_INDICATOR

This column represents the test or production indicator from the Trading Partner. If this value does not match the test or production indicator associated with the trading partner defined in Oracle e-Commerce Gateway, a process rule exception is detected, and an exception message will display in the View Staged Documents window.

The valid values are “T” for test and “P” for production.

> **Note:** The TEST_INDICATOR is examined by the Demand Processor to determine how far the transaction can proceed through the application. Transactions with a TEST_ INDICATOR value of “T” are validated and archived, but no further processing is done. In the Release Management Workbench, Test Transactions require that the “Test” check box is checked.

This allows test transactions to be tested in a production environment for front-end data validation. To fully test a transaction through a test database environment, the transactions must be flagged as production to go beyond just the validation.

This Demand Processor feature facilitates set up and implementation for inbound demand schedules with new trading partners.

DOCUMENT_CODE

This column represents the customer-assigned schedule reference or release number.

TP_TRANSLATOR_CODE, TP_LOCATION_CODE (EDI Location Code)

The two columns in combination uniquely identify a Trading Partner in Oracle e-Commerce Gateway. Once the trading partner definition is accessed, Oracle e-Commerce Gateway can verify whether the transaction is enabled for the Trading Partner.

If this trading partner is not defined in Oracle e-Commerce Gateway, a process rule exception is detected, and an exception message will display in the View Staged Documents window.

Refer to the Trading Partner chapter for details on how to properly define your trading partners and get a better understanding of how these fields are used in the process.

TRANSACTION_DATE_TIME

This column is the schedule generation date that is sent in the transmission

EDI_CONTROL_NUM_1

EDI control number 1 is the control number from the outer electronic envelope that is used for auditing purposes. This code, such as the X12 ISA segment or the EDIFACT UNB segment, is assigned by the customer's EDI translator.

EDI_CONTROL_NUM_2

EDI control number 2 is the second level control number from the electronic envelope that is used for auditing purposes. This code, such as the X12 GS segment, is assigned by the customer's EDI translator.

EDI_CONTROL_NUM_3

EDI control number 3 is the third level control number that is used for auditing purposes. Often the control number from the X12 Starting Transaction (ST) segment is used.

Transaction Detail Records

Note: The fields with the suffix "_INT" are the internal codes that must be defined in the Oracle Release Management. One to five external codes from the transaction may be entered into their corresponding external code fields that have the suffixes "_EXT1" through "_EXT5" for the same column name. Either the e-Commerce Gateway's Code Conversion process can derive the internal codes to place them in the open interface tables, or the values may be placed in the internal code fields on the file if they are derived from another process. Refer to the Code Conversion chapter for details. Only the internal codes are referred to below for simplicity.

RLM_SCHEDULE_TYPE_INT

This column represents the Schedule type.

Valid Values: PLANNING, SHIPPING, SEQUENCED

SCHEDULE_PURPOSE_INT

This column represents the Schedule Purpose code:

Valid Values: ADD, ORIGINAL, REPLACE, CANCEL, CHANGE, DELETE, and CONFIRMATION.

SCHEDULE_SOURCE

This column represents the EDI or manual transaction source for this schedule.

For example: 830, 862, 866, DELFOR, MANUAL

ITEM_DETAIL_TYPE_INT

Detail Type is used by the Demand Processor to determine how the schedule line itself should be interpreted.

Valid Values:

0 = Past Due Firm

1 = Firm Demand

2 = Forecast Demand

3 = Authorization

4 = Shipment/Receipt Data

5 = Other

ITEM_DETAIL_SUBTYPE_INT

Detail Subtype is used by the Demand Processor to determine how the schedule line itself should be interpreted in context of its corresponding Detail. Each Detail Type has a corresponding list of valid Detail Subtypes as shown in the following table:

If ITEM_DETAIL_TYPE_INT Equals	then ITEM_DETAIL_SUBTYPE_INT Contains
0, 1, 2	1 = Day 2 = Week 3 = Flexible 4 = Month 5 = Quarter
3	FINISHED = Finished Goods MATERIAL = Raw Material LABOR_MATERIAL = Labor and Material LABOR = Labor PRIOR_CUM_REQ = Prior Cumulative Required
4	SHIPMENT = Shipment RECEIPT = Receipt CUM = Customer CUM CUM_REJECTED = CUM Rejected
5	AHEAD_BEHIND = Ahead/Behind INVENTORY_BALANCE = Inventory Balance HOLDOUT_QTY = In Holdout

DATE_TYPE_CODE_INT

Date Type is used by the Demand Processor to determine how the start and end date on each schedule line should be interpreted.

For Demand Detail Types (Past Due, Firm, and Forecast), the Date Type is critical, because it indicates whether the schedule demand is shipment-based or delivery-based.

For other Detail Types (Authorizations, Shipped/Received Information, and Other) the Date Type is simply informational, and is not used in processing.

Valid Values:

- SHIP
- DELIVER

- RECEIVED
- FROM_TO

START_DATE_TIME

Customer specified date/time, as transmitted by the customer on the transaction. Format: YYYYMMDD HHMMSS

QTY_TYPE_CODE_INT

Quantity Type is used by the Demand Processor to determine how the quantity on schedule lines should be interpreted in context of its Detail Type and Detail Subtype.

Valid Values:

- ACTUAL
- CUMMULATIVE

ITEM_DETAIL_QUANTITY

This column represents the requested quantity. The ITEM_DETAIL_QUANTITY value corresponds to the ITEM_DETAIL_TYPE_INT as shown in the following table:

If	**then**
ITEM_DETAIL_TYPE_INT	**ITEM_DETAIL_QUANTITY**
Equals	**Contains**
0, 1, 2	Demand Quantity
3	Authorization Quantity
4	Shipped, received or cum quantity
5	Miscellaneous quantity, such as ahead/behind, inventory balance

UOM_CODE_INT

This is the abbreviated unit of measure code as defined in Oracle Inventory.

CUSTOMER_ITEM_EXT

This is the external Customer part number that is defined in Oracle Inventory and cross-referenced to an inventory item.

Review Oracle e-Commerce Gateway Exceptions

Use the Oracle e-Commerce Gateway View Staged Documents window to review the Oracle e-Commerce Gateway transaction exceptions. Once the exceptions are identified and resolved, you can submit the transaction for reprocessing, ignore the exception during reprocessing, or delete the transaction. Select the option in the View Staged Documents window.

Resolve Oracle e-Commerce Gateway Exceptions

To resolve Oracle e-Commerce Gateway exceptions, you can either correct the set-up data in Oracle e-Commerce Gateway, or Oracle Applications, or ask the Trading Partner to send a corrected transaction.

If the Trading Partner sends a corrected transaction, you must delete the erroneous transaction from Oracle e-Commerce Gateway's staging tables using the View Staged Documents window.

Relevant Oracle Release Management Profiles and Setup

The following is a list of the Release Management setups related to the Release Management Demand Processor. Refer to the *Oracle Release Management Implementation Manual* and *Oracle Release Management User's Guide* for the details.

1. RLM: MRP Forecast Selection List
   - If defined, the MRP Forecast Selection List lists all the names of Forecasts to which inbound Release Management forecast demand can be assigned.
   - If set to "none," forecast data will not be imported into Planning.
2. RLM: CUM Management Enabled

   Determines whether or not CUM Management is enabled at the Site level. To use the CUM Management features of Oracle Release Management, this must be set to Yes.
3. RLM: Print CUM Data on Shipping Documents

   Determines whether or not CUM Data should be printed on shipping documents.
4. RLM: Debug Mode

   Determines if debug file is written for running the Demand Processor.

   Valid Values:

   0 = Highest debug level

   Null = No debug file is generated (The default value is Null.)

5. RLM: Workflow Enabled

   Determines whether or not the Demand Processor is enabled to run in workflow mode.

6. ECE: SPSI-Enabled

   Determines whether or not inbound planning schedule transaction is enabled.

7. ECE: SSSI-Enabled

   Determines whether or not inbound shipping schedule transaction is enabled.

8. ECE: PSQI-Enabled

   Determines whether or not inbound sequenced shipping schedule transaction is enabled.

9. Release Management Processing Rules

   - There are five categories of Processing Rules attributes:

     Demand Management

     Demand Fences

     Order Management

     CUM Management

     General

   - These five categories are defined for each Ship-From/Ship-To business entity for which Release Management will process the demand.
   - If terms are not defined at the optional lower levels, they will default from higher levels. There are three levels where the Processing Rules can be defined:

     Ship-From / Customer (mandatory)

     Ship-From / Address (optional)

     Ship-From / Customer Item (optional; can be linked to either of the other two levels)

Release Management Demand Processor Required Fields

The Release Management Demand Processor is used to process Planning/Material Release, Shipping Schedule and Production Sequence Schedule transactions. It validates the incoming data entered into the Release Management interface tables by the Oracle e-Commerce Gateway import program.

The following is a list of the Release Management Demand Processor required fields. These fields are required for the Release Management Demand Processor to successfully process

and move the data from the Release Management interface tables into the Oracle Order Management and Oracle Planning base application tables.

Required fields noted as derived or hardcoded do not require a value in the transaction on the transaction interface file since the values are determined by the Oracle e-Commerce Gateway process.

Refer to the *Oracle Manufacturing, Distribution, Sales and Service Open Interface Manual* for details on derived, defaulted and conditional fields (see Cond. items in the table below).

RLM_INTERFACE_HEADER Table

The following table lists the required fields for the RLM_INTERFACE_HEADER table:

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
RLM_SCHEDULE_TYPE_INT				1000	10
SCHEDULE_PURPOSE_INT				1000	70
SCHEDULE_SOURCE				1000	150
CREATED_BY			Derived		
CREATION_DATE			Derived		
HEADER_ID		HEADER_ID	Derived		
LAST_UPDATE_DATE			Derived		
LAST_UPDATED_BY			Derived		
PROCESS_STATUS			Derived		
REQUEST_ID			Derived		

Most of the data was defined in the Oracle e-Commerce Gateway Required Fields section above. Data fields that were not defined in that section but are derived are defined below.

HEADER_ID

This column represents a sequence-generated unique identifier. It is system-generated when the interface table is loaded.

PROCESS_STATUS

Indicates the current processing status of a record.

Valid Values:

1 = Do not process

2 = Waiting to be processed

3 = In process

4 = Error

5 = Processed

6 = Processed with errors

REQUEST_ID

This column represents a sequence-generated unique identifier assigned to the concurrent request for the demand processor.

Update Columns:

CREATED_BY

This code identifies who loaded this transaction into the Demand Processor tables. The code is set to the Requester ID associated with the concurrent manager request that processed this transaction.

CREATION_DATE

This is the date that the e-Commerce Gateway loaded the transaction into the Demand Processor table entries. This date is set to the system date.

LAST_UPDATE_DATE

This date is equal to the CREATION_DATE for this transaction. This date is set to the system date.

LAST_UPDATED_BY

This code is equal to the CREATED_BY code for this transaction.

RLM_INTERFACE_LINES Table

The following table lists the required fields for the RLM_INTERFACE_LINES table:

Oracle Applications Column Name for Required Fields	Cond.	Oracle e-Commerce Gateway Column Name	Hardcoded/ Derived	Record Number	Position Number
ITEM_DETAIL_TYPE_INT				2000	010
ITEM_DETAIL_SUBTYPE_INT				2000	070
DATE_TYPE_CODE_INT				2000	130
START_DATE_TIME				2000	190
QTY_TYPE_CODE_INT				2000	210
ITEM_DETAIL_QUANTITY				2000	270
UOM_CODE_INT				2040	010
CUSTOMER_ITEM_EXT				3100	020
CREATED_BY			Derived		
CREATION_DATE			Derived		
HEADER_ID		HEADER_ID	Derived		
LAST_UPDATE_DATE			Derived		
LAST_UPDATED_BY			Derived		
LINE_ID		LINE_ID	Derived		
LINE_SOURCE			Derived		
PROCESS_STATUS			Derived		
REQUEST_ID			Derived		
SCHEDULE_LINE_NUM			Derived		

LINE_ID

This column represents a sequence-generated unique identifier.

HEADER_ID

This column represents a sequence-generated unique identifier. It is system-generated when the interface table is loaded.

LINE_ID

This column represents a sequence-generated unique identifier. It is system-generated when the interface table is loaded.

LINE_SOURCE

Schedule source at line level since lines can also be manually entered.

PROCESS_STATUS

Indicates the current processing status of a record.

Valid Values:

1 = Do not process

2 = Waiting to be processed

3 = In process

4 = Error

5 = Processed

6 = Processed with errors

REQUEST_ID

This column represents a sequence-generated unique identifier assigned to the concurrent request for the demand processor.

Update Columns:

CREATED_BY

This code identifies who loaded this transaction into the Demand Processor tables. The code is set to the Requester ID associated with the concurrent manager request that processed this transaction.

CREATION_DATE

This is the date that the e-Commerce Gateway loaded the transaction into the Demand Processor table entries. This date is set to the system date.

LAST_UPDATE_DATE

This date is equal to the CREATION_DATE for this transaction. This date is set to the system date.

LAST_UPDATED_BY

This code is equal to the CREATED_BY code for this transaction.

Review Release Management Demand Processor Exceptions

The Oracle Release Management Demand Processor Exception Handling lets the supplier accomplish the following tasks:

- Receive error messages on problems that have halted demand processing
- Receive warning messages on potential demand processing problems
- Receive information messages on noteworthy situations detected by the Demand Processor
- Generate exceptions report automatically after demand processing completion
- Review real time report on inbound demand processing exceptions
- View exceptions generated for any schedule via the Release Management Workbench until purged
- Correct set-up data to allow successful demand processing
- Correct schedule data to allow successful demand processing
- Validate customer demand for data that impacts demand processing

You can review all exceptions detected by the Release Management Demand Processor in the Release Management Demand Workbench or on the Demand Management Exception Report.

Refer to the *Oracle Release Management User's Guide* for more information on the Demand Management Exception Report.

Resolve Release Management Demand Processor Exceptions

To resolve Release Management Demand Processor exceptions, you can either correct the set-up data in Oracle Applications, make changes to the original schedule on the Release Management Demand Workbench, or ask the supplier to resend the transaction with the corrected values.

If you chose to update Oracle Applications data, you can resubmit the Release Management Demand Processor to revalidate the transaction.

Oracle Shipping Execution

The following table lists the transaction delivered with Release 11*i*.:

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Ship Notice/Manifest	Outbound	DSNO	856	DESADV

The Release 11 outbound Ship Notice/Manifest transaction is replaced in Release 11*i* utilizing the new Shipping Execution data model.

Note: For the summary layout see Appendix A.

Current Information

The transaction requirements may change when enhancements are made such as additional data added to the transaction. Current transaction details can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Layout Definition Report and the Interface File Data Report.

Oracle Supplier Scheduling

The implementation of any transaction requires some set up in Oracle Applications and Oracle e-Commerce Gateway. This chapter focuses on the application set-ups necessary to implement a transaction that integrates with Oracle Supplier Scheduling.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Planning Schedule	Outbound	SPSO	830	DELFOR
Shipping Schedule	Outbound	SSSO	862	DELJIT

The topics covered for outbound transactions include the following:

- Trading Partner Link to Oracle e-Commerce Gateway
- Relevant Oracle Application Profiles and Set Ups
- Planning/Shipping Schedule Extract Options
- Extract Criteria
- Columns Updated upon Extraction

Current Information

The transaction requirements may change when enhancements are made such as additional data added to the transaction. Current transaction details can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Layout Definition Report and the Interface File Data Report.

Note: For the summary layout see Appendix A.

Outbound Planning Schedule (SPSO/830/DELFOR)

Trading Partner Link to Oracle e-Commerce Gateway

Suppliers and supplier sites are defined in either Oracle Purchasing or Oracle Payables. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a supplier/supplier site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the supplier or supplier site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the supplier/supplier site and the EDI Location Code in Oracle Applications is the correct supplier/supplier site selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected supplier/supplier site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be extracted for the correct trading partner. This could involve either altering the supplier/supplier site in the base Oracle Application, or assigning a different supplier/supplier site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Relevant Oracle Application Profiles and Setups

Use Oracle Supplier Scheduling Scheduler's Workbench to create planning schedules. Oracle Supplier Scheduling will gather the supply and demand data from Oracle Purchasing and Oracle Planning.

Refer to the *Oracle Purchasing, Planning, and Supplier Scheduling User's Guide* for necessary profile set ups related to Purchasing, MRP, MPS and DRP.

There are no specific profile options that control how the planning schedules are extracted.

Planning Schedule Extract Options

The following table lists the planning schedule extract options. The table lists the Oracle Applications Product, the process, and the method.

Oracle Applications Product	Process	Method
Supplier Scheduling	Scheduler's Workbench for manually created schedules	Event Driven
Supplier Scheduling	AutoSchedule for automatically created schedules	Event Driven
Oracle e-Commerce Gateway	Outbound Planning Schedule Transaction	Concurrent Manager Request

Since the purpose of the Planning Schedule is to work closely with your suppliers to get the right materials to the right place at the right time, the most expeditious option is to transmit the planning schedules at the time the schedule is created in the Scheduler Workbench or via AutoSchedule.

All planning schedules must be confirmed before they are eligible for extraction. Schedules may be confirmed using the Scheduler Workbench or in AutoSchedule via the AutoConfirm process.

Extract Criteria

The outbound Planning Schedule transaction is controlled by two database views which are defined according to the Oracle Supplier Scheduling data model for planning schedules. The two views contain variables which are dynamically set based on your responses to the extract program parameters (refer to *Oracle e-Commerce Gateway User's Guide*, Outbound Transactions chapter for a list of the program parameters).

The two database views are as follows:

- ECE_SPSO_ITEMS_V
- ECE_SPSO_HEADERS_V

The ECE_SPSO_HEADERS_V view is used to identify which planning schedules are eligible for extraction. The extract criteria are as follows:

- Trading partner is defined
- Transaction type enabled for the trading partner

- Planning schedule has not been printed or previously extracted
- Planning schedule defined in Supplier Scheduling with communication code of EDI or BOTH
- Planning schedule has a status of CONFIRMED
- Planning schedule horizon start/end dates fall within the organization's period start/end dates

If necessary, you can use SQLPLUS to verify if there are any eligible documents to be extracted. To do so, you must first set the organization context and then issue the SQL count function as follows:

SQLPLUS> execute fnd_client_info.set_org_context("<*Org number*>");

SQLPLUS> select count(*) ECE_SPSO_HEADERS_V;

Review all your set ups if the count value is 0 as this indicates there are no eligible documents to be extracted.

Columns Updated Upon Extraction

Once an eligible planning schedule is successfully extracted and written to the transaction interface file, it is marked by Oracle e-Commerce Gateway to prevent it from subsequent extraction. The following tables lists the fields updated in the **CHV_SCHEDULE_ HEADERS** table based on an excerpt of code in the UPDATE_CHV_SCHEDULE_ HEADERS procedure defined in the ECSPSOB.pls file:

Column	Value
EDI_COUNT	Increment by 1
LAST_EDI_DATE	SYSDATE
LAST_UPDATED_BY	-1
LAST_UPDATE_DATE	SYSDATE
COMMUNICATION_CODE	see below

COMMUNICATION_CODE is set based on the original value as shown in the following table:

Original COMMUNICATION_CODE	Extract Successful	Set New COMMUNICATION_CODE
BOTH	Yes	PRINT
EDI	Yes	NONE

Outbound Shipping Schedule (SSSO/862/DELJIT)

Trading Partner Link to Oracle e-Commerce Gateway

Suppliers and supplier sites are defined in either Oracle Purchasing or Oracle Payables. Included in the definition is the EDI Location Code that trading partners agree to exchange to represent the full detailed address. Often they do not send the full address, but just the EDI Location Code. This is a critical data field to Oracle e-Commerce Gateway.

The EDI Location Code is the link between a supplier/supplier site in Oracle Applications and the trading partner site definition in Oracle e-Commerce Gateway. This enables Oracle e-Commerce Gateway to access the detailed data about the supplier or supplier site in the base Oracle Applications without maintaining the detail data in Oracle e-Commerce Gateway.

To ensure that the trading partner link between Oracle e-Commerce Gateway and Oracle Applications is set up properly, verify that the supplier/supplier site and the EDI Location Code in Oracle Applications is the correct supplier/supplier site selected for the Trading Partner definition in Oracle e-Commerce Gateway. The selected supplier/supplier site and the EDI Location Code defined in Oracle Applications are displayed in the Define Trading Partners window, Assignment tab. If the data is not what you intend it to be, you must make the appropriate changes for the transaction to be extracted for the correct trading partner. This could involve either altering the supplier/supplier site in the base Oracle Application, or assigning a different supplier/supplier site to that EDI Location Code in Oracle e-Commerce Gateway.

Refer to the Trading Partner chapter for recommendations on selecting the correct trading partner EDI Location Code for the control record 0010 for the transaction in the transaction interface file.

Relevant Oracle Application Profiles and Setups

Use Oracle Supplier Scheduling Scheduler's Workbench to create shipping schedules. Oracle Supplier Scheduling will gather the supply and demand data from Oracle Purchasing and Oracle Planning.

Refer to the *Oracle Purchasing, Planning, and Supplier Scheduling User's Guide* for necessary profile set ups related to Purchasing, MRP, MPS and DRP.

There are no specific profile options that control how the shipping schedules are extracted.

Shipping Schedule Extract Options

The following table lists the shipping schedule extract options. The table lists the Oracle Applications Product, the process, and the method.

Oracle Applications Product	Process	Method
Supplier Scheduling	Scheduler's Workbench for manually created schedules	Event Driven
Supplier Scheduling	AutoSchedule for automatically created schedules	Event Driven
Oracle e-Commerce Gateway	Outbound Shipping Schedule Transaction	Concurrent Manager Request

Since the purpose of the Shipping Schedule is to work closely with your suppliers to get the right materials to the right place at the right time, the most expeditious option is to transmit the shipping schedules at the time the schedule is created in the Scheduler Workbench or via AutoSchedule.

All shipping schedules must be confirmed before they are eligible for extraction. Schedules may be confirmed using the Scheduler Workbench or in AutoSchedule via the AutoConfirm process.

Extract Criteria

The outbound Shipping Schedule transaction is controlled by two database views which are defined according to the Oracle Supplier Scheduling data model for shipping schedules. The two views contain variables which are dynamically set based on your responses to the extract program parameters (refer to *Oracle e-Commerce Gateway User's Guide*, Outbound Transactions chapter for a list of the program parameters).

The two database views are as follows:

- ECE_SSSO_ITEMS_V
- ECE_SSSO_HEADERS_V

The ECE_SSSO_HEADERS_V view is used to identify which shipping schedules are eligible for extraction. The extract criteria are as follows:

- Trading partner is defined
- Transaction type enabled for the trading partner
- Shipping schedule has not been printed or previously extracted
- Shipping schedule defined in Supplier Scheduling with communication code of EDI or BOTH
- Shipping schedule has a status of CONFIRMED
- Shipping schedule horizon start/end dates fall within the organization's period start/end dates

If necessary, you can use SQLPLUS to verify if there are any eligible documents to be extracted. To do so, you must first set the organization context and then issue the SQL count function as follows:

SQLPLUS> execute fnd_client_info.set_org_context("<*Org number*>");

SQLPLUS> select count(*) ECE_SSSO_HEADERS_V;

Review all your set ups if the count value is 0 as this indicates there are no eligible documents to be extracted.

Columns Updated Upon Extraction

Once an eligible shipping schedule is successfully extracted and written to the transaction interface file, it is marked by Oracle e-Commerce Gateway to prevent it from subsequent extraction. The following table lists the fields updated in the **CHV_SCHEDULE_ HEADERS** table based on an excerpt of code in the UPDATE_CHV_SCHEDULE_ HEADERS procedure defined in the ECSPSOB.pls file. This file is shared by both the Planning and Shipping Schedule transaction with specific procedure calls to support each transaction.

Column	Value
EDI_COUNT	Increment by 1
LAST_EDI_DATE	SYSDATE
LAST_UPDATED_BY	-1
LAST_UPDATE_DATE	SYSDATE
COMMUNICATION_CODE	see below

COMMUNICATION_CODE is set based on the original value as shown in the following table:

Original COMMUNICATION_CODE	Extract Successful	Set New COMMUNICATION_CODE
BOTH	Yes	PRINT
EDI	Yes	NONE

7

Test Transactions

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

Testing Inbound Transactions

When implementing a new inbound transaction for an existing Trading Partner or a new Trading Partner/transaction combination, it is recommended that you test at several levels. You should first test with your internal systems, followed by your Translator, then finally with your Trading Partner. While you are in the test mode, you can set the trading partner/transaction combination in Oracle e-Commerce Gateway to test status that will alert all parties that this is a test transaction. Set your trading partner/transaction combination to production status when you are ready to receive a production transaction from your Trading Partner.

Oracle e-Commerce Gateway and Oracle Applications are designed to protect your system from receiving invalid data. Oracle e-Commerce Gateway validates the incoming data for syntactic accuracy and passes the valid data to the Oracle Application Open Interface tables to validate for semantic accuracy.

Optionally, Oracle e-Commerce Gateway may pass invalid data to the Application Open Interface tables for validation by the Application Open Interface API. This can happen if you did not define Oracle e-Commerce Gateway column rules or you chose to ignore (option in View Staged Documents window) the exception. Both Oracle e-Commerce Gateway and Oracle Applications provide Reports/windows for you to review detected exceptions.

Exceptions generally result from incorrect set ups in Oracle e-Commerce Gateway or Oracle Applications that may be corrected in the respective applications. Another form of exception is due to incorrect data sent by the Trading Partner. The Trading Partner may be asked to correct the transaction and transmit an updated transaction.

Since these business transactions represent legal documents, general data changes cannot be made on the transaction in the Oracle e-Commerce Gateway. However, if the transaction passes all Oracle e-Commerce Gateway validation and is passed to the Application Open Interface tables, some Oracle application modules provide tools for data correction.

The focus of this chapter is on testing inbound transactions. Crucial to the successful implementation of an inbound transaction are all the setups necessary in Oracle e-Commerce Gateway and Oracle Applications. So before you initiate the import process, you must verify all your set-ups. This chapter assumes that the inbound transaction interface file resides in the directory specified in the Oracle e-Commerce Gateway system profile ECE: Inbound File Path and is available for the Oracle e-Commerce Gateway import program to pick up and process.

Refer to Application Transaction Detail for details related to the following for the inbound transaction you are implementing:

- Transaction specific special considerations
- Trading partner link between Oracle e-Commerce Gateway and Oracle Applications
- Oracle e-Commerce Gateway Required Fields
- Review Oracle e-Commerce Gateway Exceptions
- Resolve Oracle e-Commerce Gateway Exceptions
- Relevant Application Profiles and set Ups
- Oracle Application Open Interface Required Fields
- Review Application Open Interface Exceptions
- Resolve Application Open Interface Exceptions

Verify Oracle e-Commerce Gateway Setups

Verify the following in the Oracle e-Commerce Gateway:

- System profiles are set
- Relevant transaction profiles are set
- Trading partner is defined and linked to Oracle Applications

- Transaction is enabled at the system profile level as well as at the trading partner detail level
- Relevant code conversions are defined
- Relevant process rule actions are defined
- Relevant column rules and associated actions are defined
- Structure of the transaction interface file received matches the definition reported using the Oracle e-Commerce Gateway Transaction Layout Definition Report
- Transaction interface file contains valid values for all Oracle e-Commerce Gateway required fields. Review this using the Oracle e-Commerce Gateway Interface File Data Report

Verify Oracle Applications Setups

Verify the following in the appropriate Oracle application:

- Relevant application profile and set ups are defined
- Transaction interface file contains valid values. Review this using the Oracle e-Commerce Gateway Interface File Data Report

Testing the Inbound Transaction

Perform the following for inbound transactions:

- Initiate the inbound transaction and enable run time execution log (debug parameter) to HIGH or MEDIUM to monitor the import process. Specify valid values for the program parameters (refer to *Oracle e-Commerce Gateway User's Guide* for the parameter list).
- When the import process completes, review the Concurrent Request Log and report for detected exceptions.
- If the import process failed Oracle e-Commerce Gateway validations, use the Oracle e-Commerce Gateway View Staged Documents window to review Oracle e-Commerce Gateway exceptions.
- If the import process failed Oracle Application Open Interface API validations, use the Oracle Applications report to review the exceptions
- If the exceptions are due to set up errors in Oracle e-Commerce Gateway or Oracle Applications, make the necessary corrections and submit the transaction for reprocessing

- If the exceptions are due to invalid data from the Trading Partner, request a new transaction interface file containing the corrected transactions. Delete the exceptions using Oracle e-Commerce Gateway View Staged Documents window and then re-import the new file.
- Continue to initiate the import process, review exceptions, resolve exceptions and re-process the transaction until the transaction completes successfully and the data is loaded into the base Oracle Applications tables

Inbound Transactions in a Multi-Organization Environment

A single inbound transaction interface file may contain data designated for different organizations defined in Oracle Applications. The Oracle e-Commerce Gateway import program will process all the data associated with the organization identified by the Responsibility of the person initiating the import process. All data designated for other organizations will be flagged as an exception. To import the remaining data, you must switch to the Responsibility associated with the other organization and then initiate the import process. You can continue this approach until all data for all organizations have been processed.

Testing Outbound Transactions

When implementing a new outbound transaction for an existing Trading Partner or a new Trading Partner/transaction combination, it is recommended that you test at several levels. You should first test with your internal systems, followed by your Translator, then finally with your Trading Partner. While you are in the test mode, you can set the trading partner/transaction combination in Oracle e-Commerce Gateway to test status that will alert all parties that this is a test transaction. Set your trading partner/transaction combination to production status when you are ready to transmit a production transaction to your Trading Partner.

The focus of this chapter is on testing outbound transactions. Crucial to the successful implementation of an outbound transaction are all the setups necessary in Oracle e-Commerce Gateway and Oracle Applications plus the application process to ensure that documents are eligible for extraction. So before you initiate the extract process, you must verify all your setups. This chapter assumes that the outbound transaction interface file will be placed in the directory specified in the Oracle e-Commerce Gateway system profile ECE: Output File Path and is available for the downstream processes, i.e., Translator or other process.

Refer to the Application Transaction Details for details related to the following for the outbound transaction you are implementing:

- Transaction specific special considerations
- Trading partner link between Oracle e-Commerce Gateway and Oracle Applications
- Extract Criteria
- Columns Updated Upon Extraction

Verify Oracle e-Commerce Gateway Setups

Verify the following in the Oracle e-Commerce Gateway:

- System profiles are set
- Relevant transaction profiles are set
- Trading partner is defined and linked to Oracle Applications
- Transaction is enabled at the system profile level as well as at the trading partner detail level
- Relevant code conversions are defined

Verify Oracle Applications Setups

Verify the following in the appropriate Oracle application:

- Relevant application profile and set ups are defined
- Execute the necessary application process to ensure that documents are eligible for extraction
- Run available application Reports to identify documents that are eligible for extraction. This can be used to compare the transaction interface file created by Oracle e-Commerce Gateway

Testing the Outbound Transaction

Perform the following for outbound transactions:

- Initiate the outbound transaction and enable run time execution log (debug parameter) to HIGH or MEDIUM to monitor the import process. Specify valid values for the program parameters (refer to *Oracle e-Commerce Gateway User's Guide* for the parameter list).
- When the extract process completes, review the Concurrent Request Log and Report for detected exceptions

- Make the necessary corrections in Oracle e-Commerce Gateway or Oracle Applications and re-initiate the outbound transaction
- Continue to initiate the extract process, review exceptions, resolve exceptions and re-initiate the outbound transaction until the transaction completes successfully and a transaction interface file is created
- Run the Interface File Data Report to review the contents of the transaction interface file.

Verify the following:

- Report output matches the data entered in Oracle Applications and is consistent with your selection criteria.
- Code conversion enabled columns are converted according to your conversion rules.
- Report output matches application report output (if application report is available)

Printing and Extract of Documents

Once the documents are extracted by Oracle e-Commerce Gateway, they are flagged to prevent them from being extracted again.

If you have a situation where some documents are printed and sent while others are electronically transmitted to the Trading Partner, you must first print the subset of documents before extracting the balance for electronic transmission. A given document can be delivered only once to the Trading Partner. Refer to Application Transaction Detail for the details regarding which fields are updated upon extraction.

Some Oracle Applications do allow re-printing of documents previously sent or electronically transmitted, refer to your application's User's Manual for the specifics related to the outbound transaction you are implementing.

Printing and electronically transmitting the same document to your Trading Partner is not recommended. Use this approach during the testing phase and initial implementation only. Using this approach as standard business practice could create confusion for your Trading Partner as they will not know which copy represents the legal document or worse they may process duplicate transactions.

8

Troubleshooting

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

Troubleshooting

This chapter provides useful information that aids the user in determining the solutions to common Oracle e-Commerce Gateway issues and error messages. It also provides tips that enable the implementation process to progress smoothly. The topics covered in this chapter include:

- Utilizing the enhanced run time execution log (or tracing) capabilities
- Common window and processing error messages
- Miscellaneous troubleshooting tips
- The purpose of and how to use the *View Staged Documents* window
- The use of Oracle e-Commerce Gateway reports as a troubleshooting tool

Run Time Execution Log

When a transaction fails, the information that is reported by the concurrent manager in the output file usually is not sufficient enough to allow the user to determine the possible cause of the error. Many times, the information that is reported has to be physically located in the program to figure out the point of failure. Since access to the program and an extensive

knowledge of SQL is required, the user has a difficult time diagnosing the cause of the problem.

The user has the ability to activate the run time execution log (or tracing) capabilities at run time to get additional data about the problem. This feature displays as much data as it can about the transaction and the program flow. The user has the option of specifying the level of information they need, i.e., **LOW**, **MEDIUM** or **HIGH**.

The amount of trace data that is generated varies depending on the level of trace chosen. The levels are:

LOW

This is the lowest level of tracing data. This level displays data like Customer/Supplier Name, purchase order number, name, etc., for a given transaction.

MEDIUM

In addition to the data displayed at the **LOW** level, this level displays data about the major processes being executed for the transaction. If a process is failing, the user can look at the output to determine which process is failing using this level.

HIGH

This is the highest level of tracing data. In addition to the data displayed at the **LOW** and **MEDIUM** levels, this level shows all the major processes, sub-processes, actual program variables, and their values. This level may not be suitable for most users. It is designed more for a developer to use in researching difficult to fix problems.

All output, regardless of the level, is written to the log file that is created by the concurrent manager and is indented for each sub-process performed to allow for ease of research.

Error Messages

The error messages listed in the tables below are divided into two categories. The first category is a list of common error messages that appear in the Oracle e-Commerce Gateway windows and are usually a result of an input error. The second category is a list of the common error messages that are a result of validating and processing transactions. These error messages can be viewed either in the concurrent manager log file or in the *View Staged Documents* window.

Table 8–1 Common Window Error Messages

Message	Description and Solution
Code Values are defined for this category code. You cannot delete it.	**Description**: The user attempted to delete a code conversion category from the *Define Code Conversion Category* window. The category has code conversion values assigned to it. This prevents the category from being deleted. **Solution**: All code conversion values assigned for this category to transactions must be removed before the code conversion category can be deleted. This can be accomplished by using *the Define Code Conversion Values* window.
The defined lookup table, lookup column, or condition is invalid.	**Description**: The user attempted to define a simple lookup column rule in the *Interface File Definition* window. **Solution**: Either the value specified for the table, lookup column or the lookup condition is invalid. Research which value is invalid and correct it.
This Category Code is assigned to a transaction. You cannot delete it.	**Description**: The user attempted to delete a code conversion category from the *Define Code Conversion Category* window. The category is assigned to a transaction. This prevents the category from being deleted. **Solution**: All assignments for this category to transactions must be removed before the code conversion category can be deleted. This can be accomplished by using the *Assign Code Conversion Categories* window.
This location already has a different Trading Partner value.	**Description**: The value selected in the Site field on the *Define Trading Partner* window, *Assignment* tab for either the Customer or the Supplier is already defined to a trading partner. **Solution**: You must be careful how you reply to this question. If you answer 'Yes', you may override a valid Trading Partner assignment made in the *Define Trading Partner* window, *Assignment* tab. To be on the safe side, 'No' should be the appropriate response and some research should be performed before continuing.
Trading Partner Group *tp_group_code* already exists. Enter a unique group code.	**Description**: The user has attempted to add a trading partner group that already exists. **Solution**: Either add your trading partner information to an existing trading partner group or create a new trading partner group.

Common Processing Error Messages:

Table 8–2 Common Processing Error Messages

Message	Description and Solution
INVALID_OPERATION error occurred while writing to output file.	**Description**: Read, write and execute permissions need to be established within Unix at both the file and directory levels **Solution**: Make the appropriate permission changes using the Unix chmod command.
Unable to derive a unique address due to ambiguous setup data.	**Description**: This message appears in the *View Staged Documents* window and is a result of an import process exception. The problem is due to a missing or incorrect data in the Oracle Application or the Oracle e-Commerce Gateway that was insufficient to derive a unique customer site or supplier site. This error occurred during address derivation that may have also used the name field from the transaction. Address Precedence profile in the Profile Set Up section. **Solution**: Resolve the trading partner set up or change the address derivation option, then resubmit the document from the *View Staged Documents* window.
Unable to derive the address ID for the given address.	**Description**: This message appears in the *View Staged Documents* window and is a result of an import process exception. The system was not able to determine the correct address based on address derivation process. Usually the Translator Code and EDI Location Code in the transaction were not assigned to a single customer site or supplier site across organizations. This may happen in a multi-org environment where the combined Translator Code and EDI Location Code are assigned in two organizations. **Solution**: The problem is due to missing or incorrect EDI Location Code in the Oracle Applications or the Translator Code in the Oracle e-Commerce Gateway in the *Define Trading Partner* window, *Assignment* tab. Resolve the address site and trading partner set ups, then the user should resubmit the document from the *View Staged Documents* window.

Table 8–2 Common Processing Error Messages (Continued)

Message	Description and Solution
Field *column_name* with value *value* does not match the defined datatype *datatype*.	**Description**: This message appears in the *View Staged Documents* window and is a result of an import process exception. The data that is assigned to the noted *column_name* does not match the datatype definition. For example, the datatype definition may be numeric and the data contained within *column_name* contains alphabetic characters or the datatype definition may be date and the data contained within *column_name* is not in the proper date format. **Solution**: Check the data map to determine if the transaction data is positioned correctly in the transaction interface file for the given transaction. If the problem exists in the incoming transaction, then the associated records with this document should be deleted from the *View Staged Documents* window. If the Trading Partner is sending invalid data, the Trading Partner needs to be notified that there was a problem with the transaction. They may need to send a corrected transactions.
The file *file_name* is empty for transaction *transaction_type*.	**Description**: This message appears in the concurrent manager log file. The filename that was entered on the Import Process parameters window contains no data. **Solution**: Confirm that the filename is correct or that the file is in the directory indicated in the *Profile Options* window and retransmit the data file.
Please use a valid organization ID.	**Description**: The Organization ID provided in the transaction is not defined in the HR_LOCATIONS_ALL table. Note that it is unusual for a transaction to contain the Organization ID. **Solution**: The associated records with this document should be deleted from the *View Staged Documents* window. The data cannot be corrected. If the Trading Partner provided the Organization ID in the transactions, inform them to correct the transaction and resend the data.

Table 8–2 Common Processing Error Messages (Continued)

Message	Description and Solution
The incoming test flag is different from that set up for the Trading Partner.	**Description**: This message appears in the *View Staged Documents* window and is a result of an import process exception. It indicates that the test flag in the transaction is different than the test/production indicator in the *Define Trading Partner* window, *Details* tab for the transaction being imported. For example, the test flag in the transaction may contain a value of 'P' (production) and the Test box may be checked in the *Details* tab for the transaction being imported. These values must correspond for the import process to work properly. **Solution**: If the problem exists in the incoming transaction, then the associated records with this document should be deleted from the *View Staged Documents* window and the Trading Partner needs to be notified that there was a problem with the transaction. The Trading Partner needs to be informed that this data needs to be corrected by them and the appropriate documents retransmitted. Also check the data map in the translator to review what it writes to the transaction interface file. If the problem is due to incorrect Trading Partner set up in Oracle e-Commerce Gateway, then the user should make the required correction and resubmit the document from the *View Staged Documents* window.

Table 8–2 Common Processing Error Messages (Continued)

Message	Description and Solution
A Trading Partner with Translator Code <*translator_code*>, EDI Location Code <*location_code*>, map <*map_code*> for the <*transaction_type*> transaction is not defined.	**Description**: This message appears in the *View Staged Documents* window and is a result of an import process exception. The combination of Translator Code, EDI Location Code, map and transaction type are not defined in the Oracle Applications. **Solution**: Set up the Translator Code in the Oracle Application and the EDI Location Code in the Oracle e-Commerce Gateway for the correct Trading Partner. Enable the document and document type in the *Define Trading Partner* window, *Details* tab. Obtain the full address for the given EDI Location Code from the Trading Partner if it is necessary to define the site and the EDI Location Code in Oracle Applications. After all set-ups are complete, the user should resubmit the document from the *View Staged Documents* window. If the problem exists in the incoming transaction, then the associated records with this document should be deleted from the *View Staged Documents* window and the Trading Partner needs to be notified that there was a problem with the transaction, if necessary. The Trading Partner needs to be informed that this data needs to be corrected by them and the appropriate documents retransmitted.
Unable to process the *xxxx* transaction because it is disabled.	**Description**: This message appears in the concurrent manager log file. The transaction that is being imported is disabled in the *Profile Options* window. **Solution**: If appropriate, activate the transaction in the *Profile Options* window and resubmit the document from the *View Staged Documents* window. Otherwise, delete the transaction in the *View Staged Documents* window. Research this transaction with the Trading Partner.
UTL_FILE. File location or file name was invalid.	**Description**: This message appears in the concurrent manager log file. This message usually indicates that the values specified for the inbound and outbound directories in the utl_file_dir parameter in the INIT.ORA file do not match the values indicated in the *Profile Options* window for the inbound and outbound directories. **Solution**: Make the appropriate corrections, restart the database (only if the INIT.ORA file was changed) and resubmit the process.

The following table contains miscellaneous troubleshooting tips.

Table 8–3 Miscellaneous Troubleshooting Tips

Symptom	Solution
The outbound Payment Order/Remittance Advice (820/PAYORD/REMADV) transaction does not appear on the list of transactions on the Oracle e-Commerce Gateway Export Process.	This transaction is event driven and is automatically submitted by the Oracle Payables' Payment Workbench process

Table 8–3 Miscellaneous Troubleshooting Tips (Continued)

Symptom	Solution
Trouble writing the output file to the specified directory or you cannot find the output file.	Check the following: **PROFILE OPTIONS:** Make sure the profile option for output directory is defined using the correct operating system syntax. Use physical directory name; do not use logical directory names. **DIRECTORY:** Make sure the utl_file_dir parameter for the outbound file directory is defined in the INIT.ORA file to match the profile option setting. Make sure to restart the database after making any changes. **ACCESS:** Make sure the defined directory is accessible and not write protected. If directory is protected, use "chmod 777" in UNIX to grant access.
The outbound Purchase Order (850/ORDERS) or Purchase Order Changes (860/ORDCHG) file is empty.	Check the setting of the appropriate Document Type under Setup/Purchasing Options for when archival is performed. The options are "Archive on Print" or "Archive on Approval". For Oracle Purchasing transactions to be extracted properly, the option must be set to "Archive on Approval". The "Archive on Print" causes the purchase order to be printed that in turn prohibits Oracle e-Commerce Gateway from extracting it. Not every purchase order change causes a purchase order revision that triggers a purchase order reprint or purchase order retransmit. Check the Oracle Purchasing User Guide for business rules to determine what type of changes create a purchase order revision.

Table 8–3 Miscellaneous Troubleshooting Tips (Continued)

Symptom	Solution
The outbound file is empty.	The Trading Partner (TP) primary site for the transaction must be set up through the *Trading Partner Assignment tab* and the transaction (and appropriate document types) must be enabled through the *Define Trading Partner* window, *Details* tab. The transaction must also be eligible to be extracted. If these set-ups are not done, the Trading Partner's transactions cannot be extracted. Check the following: **TP DEFINED:** Confirm that a Trading Partner is defined in Oracle e-Commerce Gateway and associated to a valid address entity in Oracle Applications. Trading Partner associations are set up using the *Trading Partner* window, ***Assignment*** tab. **TP ENABLED:** Confirm that the Trading Partner is enabled for the outbound EDI Document and Document Type. This is done using the *Trading Partner* window, ***Details*** tab. **TP DEFINE:** If an entity is both a supplier and a customer, make sure to identify two Trading Partners, one for each business relationship. **EXPORT PARAMETERS:** Confirm that the selection parameters provided for the export process are valid for the documents to be extracted. For the outbound Purchase Order (850/ORDERS) or Purchase Order Changes (860/ORDCHG), the date parameters are inclusive, so make sure the end date parameter is one day later than the actual desired date. The parameter must be one date later because time is included and you need to extract to the midnight hour. **FRESH TRANSACTIONS:** Make sure the selected group of documents have not been printed or previously extracted.

Inbound Transactions

Before an inbound transaction can be processed, the user needs to determine if the predefined transaction record definition meets his business requirements and if the predefined process rules and column rules that are assigned to the transactions meet his needs. If the user does not perform this step, the Oracle e-Commerce Gateway uses the seeded rules and actions for data validation.

Information concerning the *Interface File Definition* window and the establishing of process and column rules can be found in this manual. Refer to Determine Process and Column Rules and Actions and Modify Transaction Interface File for more details.

After an inbound transaction request is executed, users have the ability to view the documents with exceptions using the *View Staged Documents* window.

After processing any inbound transaction, the user should check the concurrent manager status. If it has a status of warning or error, the user can go to the *View Staged Documents* window to see the document details such as rule exceptions and column values. Users should also check the log file for other processing information.

View Staged Documents Window

The *View Staged Documents* window is used to view the results of inbound document processing. Users access this window to display the number of documents in the staging tables and to see if any failed the validation process. Users can drill down to view the document numbers such as PO Number or Invoice Number that have rule exceptions. From this window, users can select documents that have rule exceptions and resubmit (after the errors have been resolved) or delete the documents.

This window consists of two major components. The left side shows the transactions in a tree format and the right side shows the corresponding selected level summary. The Summary shows different information depending on the tree node that is selected. The tree data is only a snapshot of the staging table. Users need to Refresh the view to see any new/modified data in the staging table.

Two functions are available from this window. The Resubmit function allows the users to resubmit the given set of documents or a single document to be processed again through the inbound process after errors have been corrected. For example, users can select IN:Invoice (810/INVOIC) and use the resubmit function. In this case, the inbound process will revalidate all the Invoices that have a status of Skip Document. The status will be changed to Reprocess and a concurrent request is submitted to process the documents. Also, the tree is refreshed with new data.

The Delete function enables users to delete the given set of documents or a single document and the corresponding rule exceptions. For example, users can select Trading Partner Alpha and use the Delete function. In this case, it deletes all of the invoices that have a status of Skip Document for Trading Partner Alpha. After deleting the documents, the document tree is refreshed without the deleted documents.

Transaction Exception Summaries

There are four summary windows (on the right side) for different level tree nodes. The summary window for the Status options (All Status, Status with Errors) and Transaction options (All Transactions, Transactions with Errors) are very similar. The only difference is the order of the status and the transaction fields.

The status level 1 summary for the Status options shows the following information:

Status:	Status of selected documents currently in the staging table
Transaction:	List of transaction type name for given status
Number of Documents:	Number of documents for given status, transaction type
Total Violations:	Total number of exceptions (including all the processing and column exceptions) for given status, transaction type

The status level 2 summary for the Status options shows the following information:

Status:	Status of selected documents currently in the staging table
Transaction:	Identifies the transaction type name
Trading Partner:	List of trading partner names for the selected transaction
Number of Documents:	Number of documents for given status, transaction type, and trading partner
Total Violations:	Total number of exceptions (including all the processing and column exceptions) for given status, transaction type, and trading partner

The status level 3 summary for the Status options shows the following information:

Status:	Status of selected documents currently in the staging table
Transaction:	The transaction name
Trading Partner:	Trading Partner name for the selected transactions
Number of Documents:	Number of documents for given status, transaction type, and trading partner
Total Violations:	Total number of exceptions (including all the processing and column exceptions) for given status, transaction type, and trading partner

The status level 4 summary for the Status options shows the following information:

Status:	Status of selected documents currently in the staging table
Transaction:	The transaction name
Trading Partner:	Trading partner name for the selected transactions
Map:	The transaction map code
Document Number:	The primary identifier for the document in the staging table. The value depends on the transaction such as POI for PO Number, INI for Invoice Number.
Level:	The text description of the level
Process Violations:	Total number of process exceptions for the given document
Column Violations:	Total number of column exceptions for the given level of the document

Process Violation and Column Violation Buttons At the bottom of the status level window are two buttons labeled "Process Violations…" and "Columns…"

The Process Violations… button opens the Process Violations window and displays the process exceptions for the given document. The Columns… button opens the Column Violations window and displays the column exceptions for the given level of the document.

The Process Violations window displays the following data:

Transaction:	Transaction type and the translated transaction type name
Map:	The map code for the transaction
Document Number:	The primary identifier for the document in the staging table. The value depends on the transaction (i.e. POI has the PO Number, INI has the Invoice Number).
Message	The process exception text
Ignore Check Box	When this box is checked, it gives users the ability to ignore the violated rule when resubmitting the document. This is the only field that can be modified in this window.

The Column Violations window displays each column of the selected level in the given document and the number of exceptions for the column. The users have the ability to only show columns with exceptions or all columns by selecting the appropriate combination box. This window displays the following data:

Transaction:	Transaction type and the translated transaction type name
Map:	The transaction map code
Document Number:	The primary identifier for the document in the staging table. The value depends on the transaction such as POI has the PO Number, INI has the Invoice Number.
Level:	Text description of the level. These values are seeded in the FND_LOOKUP_VALUES table
Column Name:	Name of the column storing the transaction data in the View Staging tables.
Column Value:	Value stored in the Column Name. This data came directly from the transaction or was derived in the Oracle e-Commerce Gateway.
Violation:	Number of column violations for the selected column
Message	Column exception text for the selected column
Ignore Check Box	When this box is checked, the violation that was determined by the Column Rule will be ignored when resubmitting the document. This is the only field that can be modified in this window.

Reports

The Oracle e-Commerce Gateway provides two reports that allow the user to verify the transaction layout and contents of their data files.

Transaction Layout Report:

This report allows the user to produce an on-line report or a hard copy listing of the transaction interface file layouts for the any transaction within the Oracle e-Commerce Gateway.

Each transaction interface file consists of several records. Each record has two sections, the record key (positions 1-100) and the application data area (positions 101 & beyond). Every record is referenced by a record number that is unique to a set of data elements.

This report displays all the data elements in positions 101 and beyond. The record key (1-100) is not reported as these seeded values may not be changed by the user. The report parameters are shown in the following table.

Refer to the Reports section of the *Oracle e-Commerce Gateway User's Guide* for more detail.

Report Parameters	Valid Values	List of Values	Required?
Transaction Code	Enter <blank> to select all Transactions or enter a specific Transaction.	Yes	No
Include Data not Mapped	Enter 'Yes' or 'No' to include/exclude data not mapped. Default is 'No'.	Yes	Yes

Interface File Data Report:

This report allows the user to produce a hard copy listing of the data contained within a specific transaction data file. The report contains the transaction record layout and the actual data stored in each of the data fields. The report parameters are shown in the following table

Report Parameters	Valid Values	List of Values	Required?
Transaction Code	Enter specific Transaction Code.	Yes	Yes
Path to Data File	Enter the directory path where the data file resides. Default from profile option value for inbound/outbound based on transaction code.	No	Yes
Data File Name	Enter the name of the data file.	No	Yes

9

Trading Partner

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

Trading Partner

In the Oracle e-Commerce Gateway, the term "Trading Partner" refers to an entity such as a customer, supplier or bank - at a particular location or address - with which you exchanges routine commercial documents via EDI. Since a given entity may have several locations, you must define one Trading Partner for each customer address, supplier site, or bank branch as required for processing by the Oracle e-Commerce Gateway.

Trading Partner data must be set up both in your EDI translator software and in the Oracle e-Commerce Gateway. The set up parameters are quite different to satisfy their particular needs.

In the Oracle e-Commerce Gateway, Trading Partner data is used to:

- Link a particular address location in Oracle Applications to the Trading Partner definition in the Oracle e-Commerce Gateway

- Provide a means of telling the EDI Translator which Trading Partner data maps and mailbox are to be used (outbound transactions)
- Enable specific transactions for Trading Partners
- Determine if the EDI status of a Trading Partner is Test or Production

This section provides important detail about Trading Partner definitions, EDI Location Codes, Translator Codes, their importance on the transaction interface files, and multi-org considerations. The Trading Partner windows along with some recommendations are at the end of this chapter for your reference.

Trading Partner Group

The Oracle e-Commerce Gateway allows the Trading Partners to be listed in convenient groups to facilitate access to individual organization records as described below. For example a car manufacturer may group its Trading Partners by seat suppliers, tire manufacturers, windshield companies, engine parts suppliers, or each individual supplier. A publisher may group Trading Partners by printer, major outlet, distributor, exporter, bank, and their individual customers. The group may depend on whether the Trading Partners are customers or suppliers.

The Trading Partner group title is a free text field that is not used in any EDI processing. It may consist of any title that is meaningful to your organization.

EDI Location Codes

Site address data is used within EDI transactions, for instance as a ship-to address or a bill-to address. Each Trading Partner address site in Oracle Applications to be used in EDI transactions should have an EDI Location Code assigned to it in the base application. The EDI Location Code represents the customer address, supplier site, or bank branch full address. It is typically a code in the EDI transaction in the X12 N104 segment or in the EDIFACT NAD segment, it may also be a ‘made up’ code according to any existing or agreed naming conventions.

The EDI Location Code is part of the address entities set up in the Oracle Application. The Oracle e-Commerce Gateway derives the column ID for the full address stored in Oracle Receivables, Oracle Payables, or HR-Locations given the EDI Location Code and Translator Code found in the Oracle e-Commerce Gateway Trading Partner windows - see below. The EDI Location Code is displayed on the Trading Partner Assignment tab once the Trading Partner site is selected.

Although the EDI standards allow for full address details to be used, the Oracle e-Commerce Gateway only supports the use of Location Codes in the transaction interface file for most transactions.

For some inbound transactions, the application open interface may accept the full name and addresses into the tables for certain business functions. However, they are generally expecting the column ID to be predetermined.

Do not confuse the EDI Location Code with the other 'Location' Codes in base Oracle Applications where address sites are defined. The EDI Location Code exists to link the address site in the base Oracle Application to the Oracle e-Commerce Gateway process.

The following table summarizes the purpose of the EDI Location Codes as defined in the base Oracle Application and when used in the transaction interface file.

EDI Location	Purpose for Outbound Transactions	Purpose for Inbound Transactions
Define in base Oracle Application	Extract EDI Location Code retrieved with the full address for each address within transaction so they are available for data mapping in an EDI translation process.	The EDI Location (and Translator) code are used to find each address in the base application to retrieve the column ID if it is needed for the application open interface tables.
Found in the transaction's Control Record (0010)	The EDI Location Code for the primary site in the transaction is placed on the Control Record. Each transaction has a predefined site (e.g. a bill to site for payment transactions) that it will use to access the Oracle e-Commerce Gateway tables to check that it is enabled. The Primary site must have been defined as a Trading Partner in the Oracle e-Commerce Gateway so its transactions could be enabled for processing for the specific transaction.	The EDI Location (and Translator) code must be defined as a Trading Partner in the Oracle e-Commerce Gateway to verify that this transaction is enabled for this Trading Partner. If it is not enabled the transaction is rejected. If it is enabled, the column ID for the customer or supplier associated with the site on the Control Record is retrieved and passed to the Oracle Application open interface tables. All the address sites in the transaction will be associated to this derived customer or supplier.
Found in the transaction other than on Control Record (0010)	The EDI Location Code for the address site is retrieved along with the full address when the transaction was extracted then written to the transaction interface file. (Note: Only the primary site for the Control Record was checked in the Oracle e-Commerce Gateway.)	The EDI Location (and Translator) code are used to find each address in the base application to retrieve the column ID if it is needed for the application open interface tables.

Translator Codes

The Translator Code can be any arbitrary text value that you use to define the Trading Partner identifier in the EDI translator. The format or selection of the Translator Code might be dictated by the functionality of the EDI translator software. A naming convention for the identifier may have been used. Typical sources for the Translator Code include:

- Electronic post box number
- Interchange sender/receiver ID (ISA06/08 or EDIFACT equivalent)
- Customer or supplier code as used in Oracle Applications
- Customer name or Supplier name
- Dun & Bradstreet's DUNS or DUNS+4 number.

The Translator Code provides an additional identifier in the transaction interface file. It is assigned at the transaction type level in the Trading Partner Detail window. This allows Trading Partner sites to have different Translator Codes (hence, electronic mailboxes) for different transactions.

For outbound transactions, the Translator Code provides an identifier that the EDI translator software can use to identify the Trading Partner set up for the transaction. EDI translator software might use the Translator Code alone, or in conjunction with the EDI Location Code to identify its Trading Partner set up.

For inbound transactions, the Translator Code is used in conjunction with the EDI Location Code to uniquely identify the Trading Partner set up in the Oracle e-Commerce Gateway that the transaction refers to.

This also allows multiple Trading Partners to use the same EDI Location Codes since the actual Trading Partners can be distinguished by their Translator Code.

Since an Oracle e-Commerce Gateway Trading Partner represents an address site, multiple Trading Partners defined in the Oracle e-Commerce Gateway may share the same Translator Code in the EDI translator.

Since the Trading Partner definition is identified using both the Translator Code and the Location Code, then it is the *combination* of these two codes that must uniquely identify the Trading Partner setup. Both the Translator Code and the EDI Location Code can be shared by a number of Trading Partner setups, as long as there is only one Trading Partner setup for each combination of codes.

Multiple Translator Codes per Trading Partner

A given address site may use different Translator Codes for different transactions. One business entity may route their financial transactions to an electronic mailbox for their financial center, while their procurement center uses a different electronic mailbox; hence, different Translator Codes are associated with different transactions. The following table shows an example of multiple Translator Codes:

Transaction Type	Document (from Trading Partner Detail Tab)	Translator Code (from Trading Partner Detail Tab)	Address Site (from Trading Partner Assignment Tab)
POO	Outbound Purchase Orders	MAILBOX_ PROC	C-SJ EDI Location Code for Supplier Site*
INI	Inbound Invoices	MAILBOX_FIN	C-SJ EDI Location Code for Remit To Site*

*Same address site is used for the Supplier and Remit location

Shared Translator Codes

Note: Do Not Assume One Translator Code to One Trading Partner Definition in the Oracle e-Commerce Gateway.

Several organizations or divisions of a Trading Partner may use the same Translator Code (like the electronic mailbox that it is associated with), depending on how the Trading Partners are defined in the base Oracle Application.

For instance, one Trading Partner mailbox may be shared by a corporation’s east coast and west coast offices, though they may be defined as two Trading Partners (customers or suppliers) in the base Oracle Application. In the example in the following table, the Oracle Supplier is derived from the Supplier site associated with the EDI Location Code and Translator Code found on the Control Record (0010).

Translator Code (from e-Commerce Gateway)	EDI Location (from e-Commerce Gateway)	Supplier Site (from Oracle Purchasing)	Supplier Site ID (from Oracle Purchasing)	Supplier (from Oracle Purchasing)	Supplier ID (from Oracle Purchasing)
A1-ACME-10	AC-BOST	Boston	64354345	ACME-EAST	135678
A1-ACME-10	AC-DEN	Denver	12343221	ACME-WEST	654322

Oracle e-Commerce Gateway does not need to know how many real business entities are associated with a given Translator Code. There may be one business entity or dozens associated with that Translator Code. That determination is totally in the realm of Trading Partner definitions as you determine and set up within the EDI Translator.

Translator Code and EDI Location Code Across Applications

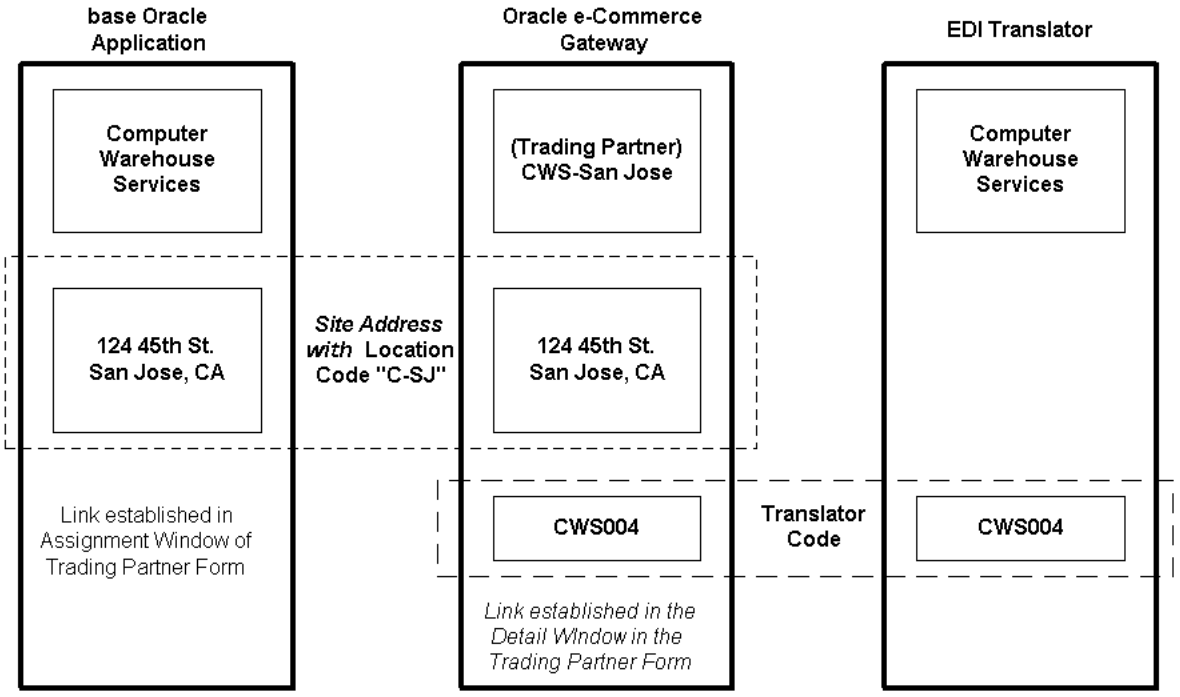
The relationship of the Translator Code and the EDI Location Code across the three applications is illustrated below.

The Oracle e-Commerce Gateway shares the following codes with the other applications for the following reasons:

- The EDI Location Code is shared with the base Oracle Application to identify an address site.
- The EDI Translator Code is shared with the Translator. It is used to identify the Trading Partner in the translation software. This code is first defined in the translator then copied to the Oracle e-Commerce Gateway

  For outbound transactions, this code is written on the Control Record 0010 so the translator can identify the Trading Partner.

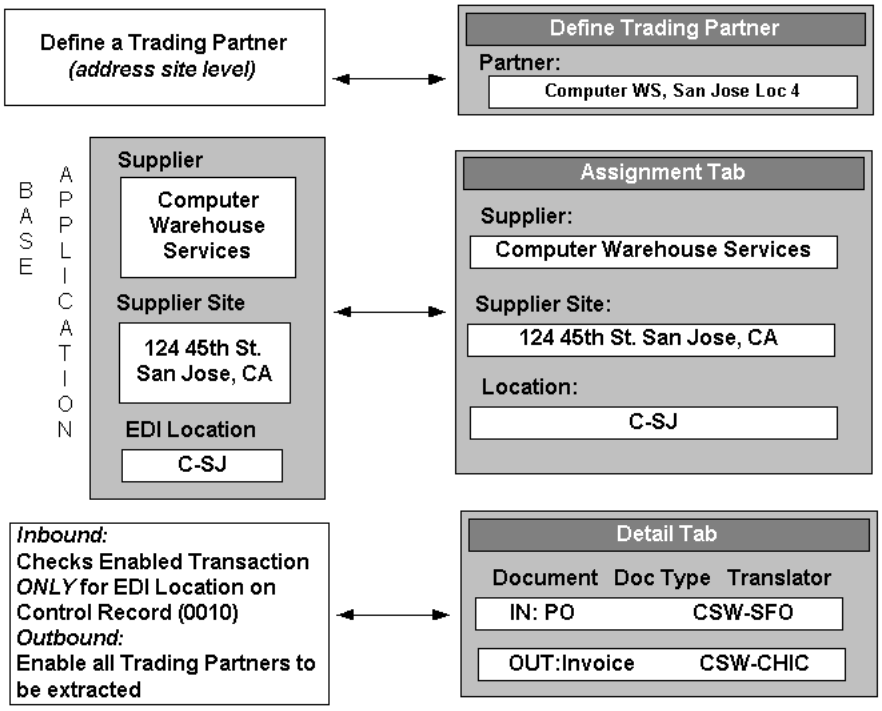
  For inbound transactions, the Translator Code is used to distinguish Trading Partners who may use the same set of EDI Location Codes.



The Translator Code CWS004, defined in the EDI Translator, is not limited to one Trading Partner address site using that code in the Oracle e-Commerce Gateway. Other sites may also use it for Computer Warehouse Services. (The Translator Code used between the Oracle e-Commerce Gateway and the EDI Translator may also consist of a concatenation of Translator Code and Location Code - for example, in this case, CWS004+C-SJ. You determine the naming convention.)

Linking Trading Partner Data to the Oracle Application Source

The following illustration relates the Trading Partner data in the Oracle e-Commerce Gateway windows to the address site in the Oracle Application.



The supplier illustration above highlights the following key items when assigning a Trading Partner to a suppler/supplier site in Oracle Payables:

- The Trading Partner area within the Trading Partner Group window establishes the following:

  A name and description for the Trading Partner definition. Both fields are free form text though a naming convention is recommended on the Trading Partner name and Trading Partner Group. (Note: Trading Partner Group is not linked to other Oracle Applications.)

- This Trading Partner name will be associated to a single suppler/supplier site in the Trading Partner Assignment tab.
- The Trading Partner Assignment tab establishes the following:
  - Links the Trading Partner definition to the appropriate suppler/supplier site in Oracle Payables.

  - The EDI Location Code from Oracle Payables is displayed for the selected address site.

- The Trading Partner Details tab establishes the following within the Oracle e-Commerce Gateway:
  - Enables a document (transaction) / document type for processing.
  - Defines the Translator Code for that transaction.
  - Flags the transaction as test or production.
  - Display the format of the transaction. Flat File (FF) in this case.

EDI Location Codes in the Transaction Interface Files

Inbound Transactions

Control Record (0010)

The Control Record is the first record in each transaction. It contains a field called the Trading Partner Location Code. For inbound transactions, this field must have one of the EDI Location Codes for the Trading Partner sending the transaction. The Trading Partner site represented by that EDI Location code must be fully defined in the Oracle e-Commerce Gateway and base Oracle Application.

Note: For inbound transactions, the only time that a Trading Partner must be fully defined in the Oracle e-Commerce Gateway and the base Oracle Application is when its EDI Location code is used in the Control Record.

A fully defined Trading Partner means the following:

- In the Trading Partner Group window, the Trading Partner group and Trading Partner name are defined.
- In the Trading Partner Details tab, the appropriate transaction and transaction types are enabled, the Test/Production flag is set to the correct code, the Translator Code is accurately entered, and the EDI box is enabled.
- In the Trading Partner Assignment tab, the Trading Partner is linked to the appropriate address site in the base Oracle Application.
- In the base Oracle Application, the Trading Partner and Trading Partner site is defined and the EDI Location Code for the site is entered.

The combination of the Translator Code and the EDI Location Code on the Control Record (0010) must lead to a single Trading Partner definition in the Oracle e-Commerce Gateway.

The Oracle e-Commerce Gateway uses the EDI Location Code in the Control Record for two reasons:

- To identify that the Trading Partner site is setup and enabled for the specific transaction.

  For example, EDI Location Code HC-CHIC is defined to Trading Partner Herbert-Chicago, where the specific outbound transaction is enabled for EDI processing.

- To derive the customer, supplier or bank in the Oracle Application to associate with all the address sites in the transaction detail.

  For example, the customer Herbert Corporation is derived from the base Oracle Application tables given that the EDI Location Code HC-CHIC for the Chicago site was found on the Control Record.

Either a constant EDI Location Code for the Trading Partner may be entered in the Control Record (see Default EDI Location section below), or the first appropriate site found in the detail of the transaction may be copied to the Control Record by the EDI Translator.

The recommended type of location code to copy from the transaction detail into the Control Record 0010 is listed in the following table. These types of location are likely to be in the transaction detail; however, any EDI Location Code for the Trading Partner will work as long as it is fully defined in the Oracle e-Commerce Gateway.

The following table shows examples of Type of Site Location Codes on the Control Record for Inbound Transactions

Transaction	Transaction Code	ASC X12	EDIFACT	Type of Site Location Code to Copy from the Transaction Detail into the Control Record 0010
Invoice	INI	810	INVOIC	Supplier Site
Planning Schedule	SPSI	830	DELFOR	Supplier Ship To Site
Price/Sales Catalog	CATI	832	PRICAT	Supplier Site
Production Sequence	PSQI	866		Supplier Ship To Site
Purchase Orders	POI	850	ORDERS	Customer Ship To Site
Response to Request for Quotation	RRQI	843	REQOTE	Supplier Site
Ship Notice and Billing	SBNI	857		Customer Ship To Site
Ship Notice/Manifest	ASNI	856	DESADV	Customer Ship To Site
Shipping Schedule	SSSI	862	DELJIT	Supplier Ship To Site

Transaction Detail Address Records

The transaction detail records contain address records, such as the ship-to address or bill-to address. The records usually have record types of AD to identify them as address records and a record qualifier like ST for ship- to or BT for bill-to to identify the type of address.

The Oracle e-Commerce Gateway does not examine address "site usage" such as bill-to usage or ship-to usage in the base Oracle Application trading partner tables. The site usage for an address in the file is defined by what record the address is found in the transaction interface file.

Each address record has an internal address Location Code and an external address Location Code. The EDI Location Code as defined in the base Oracle Application for that address must be placed in the Address Location external code field so the Oracle e-Commerce Gateway can use it to determine the address site in the base Oracle Application. Do not place it in the Address Location internal code field. Once the Oracle e-Commerce Gateway locates the address site in the base Oracle Application, the site's column ID can be passed to the Oracle Application open interface table.

The EDI Location Codes found in the address records in the transaction detail do not need to be defined as a Trading Partner in the Oracle e-Commerce Gateway unless that EDI Location Code may also appear on the Control Record 0010 for any transaction. (See Control Record section above.)

Any address site in the transaction detail such as the customer/customer site or supplier/supplier site must be defined in the base Oracle Application and the EDI Location Code for the site must be entered. If the EDI Location Code is not entered, the address cannot be determined by the Oracle e-Commerce Gateway.

Outbound Transactions

One transaction may contain several types of address sites in the transaction detail, but only one business address type, (such as bill to, ship to, or remit to) in the transaction is recognized by the Oracle e-Commerce Gateway as the key address site to examine for the Trading Partner setup.

The Oracle e-Commerce Gateway predetermines which Trading Partner site in an outbound transaction is reviewed to determine if the transaction should be extracted. A Trading Partner must be fully defined in the Oracle e-Commerce Gateway if that site's outbound transactions are to be extracted.

The following table shows sample Primary Address Site Types on the Control Record (0010) for Outbound Transactions.

Transaction	Transaction Code	ASC X12	EDIFACT	Site Address Type for the Control Record 0010
Application Advice (for 810)	ADVO	824	APERAK	Supplier Site
Invoice	INO	810	INVOIC	Customer Bill To Site
Movement Statistics	MVSTO		CUSDEC	Legal Entity
Payment/Remittance Advice	PYO	820	REMADV/ PAYORD-PAYEXT	Paying Bank Branch
Planning Schedule	SPSO	830	DELFOR	Supplier Site
Purchase Order Change	POCO	860	ORDCHG	Supplier Site
Purchase Orders	POO	850	ORDERS	Supplier Site
Ship Notice/Manifest	ASNO	856	DESADV	Customer Ship to Site
Shipping Schedule	SSSO	862	DELJIT	Supplier Site

Note: The Trading Partner site must be fully defined as a Trading Partner in the Oracle e-Commerce Gateway and the base Oracle Application to have the Trading Partner site's transaction extracted.

Like the inbound transaction, a fully defined Trading Partner means the following:

- In the Trading Partner Group window, the Trading Partner group and Trading Partner name are defined.
- In the Trading Partner Details tab, the appropriate transaction and transaction types are enabled, the Test/Production flag is set to the correct code, the Translator Code is accurately entered, and the EDI box is enabled.
- In the Trading Partner Assignment tab, the Trading Partner is linked to the appropriate address site in the base Oracle Application.
- In the base Oracle Application, the Trading Partner and Trading Partner site is defined and the EDI Location Code for the site is entered.

Control Record (0010)

The primary EDI Location Code for a transaction is written to the Control Record 0010 along with the Translator Code. These are critical for each process to identify the Trading Partner.

Transaction Detail Address Records

Like the inbound transaction, the outbound transaction detail records contain address records, such as the ship-to address or bill-to address. The records usually have record types of AD to identify them as address records and a record qualifier like ST for ship to or BT for bill-to to identify the type of address.

Each address record has an internal address Location Code and an external address Location Code. The Oracle e-Commerce Gateway populates both location fields in the transaction interface file. The EDI Location Code for that address is placed in the external address Location code. Usually the address column ID from the base Oracle Application is placed in the Location internal address EDI Location Code field. The full site address is also placed on the address record.

The EDI Location Codes found in the address records in the transaction detail do not need to be defined as a Trading Partner in the Oracle e-Commerce Gateway unless that EDI Location Code may also appear on the Control Record *for any transaction*. (See Control Record section above.)

Any address site in the transaction detail such as the customer/customer site or supplier/supplier site must still be defined in the base Oracle Application and the EDI

Location Code for the site must be entered. If the EDI Location Code is not entered in the base Oracle Application, it will not be written to the transaction interface file and not be available for data mapping in the Translator by the Oracle e-Commerce Gateway.

Default EDI Location Code (Inbound Transactions Only)

The EDI Translator may provide an EDI Location Code in the Control Record (0010) to identify a particular Trading Partner address site, even if that same EDI Location Code is not found in the transaction detail address records. This particular Trading Partner address site will be used to determine the Customer, Supplier, or Bank to be associated with all the address sites in the detail of that transaction, plus check that the transaction is enabled for that Trading Partner address site.

If an EDI Location Code is used exclusively in the Control Record as a default, it does not need to be a real location of the customer e.g. it need not be a real ship-to location for a customer for an inbound purchase order. The EDI Translator could assign a default EDI Location Code on the Control Record, which could be associated with the Translator Code so the Trading Partner determinations can be done in the Oracle e-Commerce Gateway. The address site still must be fully defined in Oracle e-Commerce Gateway (see Transaction Detail Address Records).

> **Note:** A constant or default EDI Location Code for a given Oracle Customer or Oracle Supplier may be used for any inbound transaction. The address site associated with that EDI Location Code is used to determine the Oracle Customer or Oracle Supplier to be associated with all the address sites in the detail of that transaction.

For example, the table below shows the three customer addresses defined in Oracle Order Entry/Oracle Receivables for the Customer "Acme Corp.", with Customer ID "123423." For this customer, the EDI Location Code "CHIC" could be used as a Default EDI Location Code in the Control Record (0010). Whatever is placed in the EDI Location Code in the Control Record, in this case "CHIC," it will be used to retrieve the customer level data (Acme Corp., with Customer ID 123423). The Trading Partner setup for the address associated with "CHIC" must be fully defined as a Trading Partner in the Oracle e-Commerce Gateway.

Address Table	Physical Address	EDI Location Code*	EDI Location Code Determines Address ID	Address is Linked to Customer ID	Use as a Default for EDI Location Code on the Control Record (0010)
Address 1	654 South Blvd., Indianapolis, IN	INDY	23245	123423	
Address 2	123 Main St., Chicago, IL	CHIC	74536	123423	CHIC
Address 3	876 North Ave., Atlanta GA	ATLA	45234	123423	

* All these EDI Location Codes point to the same Customer ID 123423

In this case, the Trading Partner site must still be fully defined as a Trading Partner in the Oracle e-Commerce Gateway and the base Oracle Application including entering the EDI Location code in order to process the transaction.

Multi Organizations

The Oracle e-Commerce Gateway process limits its address site table search to base Oracle Application address column IDs defined with the same organization specified in the Oracle e-Commerce Gateway responsibility for that execution.

The following example illustrates the same EDI Location Code coming from two Trading Partners defined in two organizations. Suppose both Trading Partners use the same code, AB123. In the base Oracle Application, the EDI locations are defined as two address sites.

Customer or Supplier	Address Site	Trading Partner's Translator Code		Trading Partner Location Code (on N1 or NAD segment)		base Oracle Application has two Address Site IDs *	Organization for the Address Site ID **
Acme Inc.	123 Main St. Chicago , IL	E1-ACME	+	AB123	=	12345678	A
Beta Inc.	123 Main St. Chicago , IL	E3-BETA	+	AB123	=	13567890	B

* The address Site column ID is assigned via the Trading Partner Assignment tab. It is retrieved by the Oracle e-Commerce Gateway during transaction processing.

** The Organization is defined in the base Oracle Application for this address site. It is not validated by the Oracle e-Commerce Gateway. It may be passed to the Application Open Interface table given the Address Site ID that is retrieved by the Oracle e-Commerce Gateway.

If the EDI responsibility has organization A and the Trading Partner sites in the transactions are defined to organization B in the base Oracle Application, then EDI Location Codes cross reference process will not successfully find the addresses in the base Oracle application tables. This happens because the Oracle e-Commerce Gateway reads only trading partner sites for the specified organization in the responsibility.

EDI Responsibility

The Oracle e-Commerce Gateway import and export process executes against a single organization in a Multi-Org environment. That single organization is defined in the *EDI Responsibility* setup for that particular execution of the Oracle e-Commerce Gateway.

All organizations in the Multi-Org environment share the same code conversion tables and Trading Partner definition tables in the Oracle e-Commerce Gateway. However, the process limits the Trading Partner EDI Location Code cross-referencing to the base Oracle Application address sites, which are assigned to the single organization specified in the EDI Responsibility.

For outbound transactions, the Oracle e-Commerce Gateway export process must run separately against each organization. (Use different output file names for each organization to differentiate them, if necessary.)

For inbound transactions, the EDI import process also has a single organization assigned in the EDI Responsibility for that particular execution.

If the transaction interface file contains transactions associated with several organizations, the transactions for the other organizations not defined in the current process's EDI Responsibility will not successfully find the Trading Partner's EDI Location Codes with the base Oracle Application customer, supplier, or bank site addresses. Only the address sites associate with the current organization are examined; the other address sites are not included in the process to examine the EDI Location Code to determine the address site in the base Oracle Application.

One of the following happens:

1. The transactions for each responsibility can be in separate transaction interface files then processed by each appropriate responsibility. The EDI Translator, another process, or the sending Trading Partner may separate the transactions by organization before the Oracle e-Commerce Gateway process is executed.

2. All transactions can be loaded from one file. However, only one organization will successfully find the Trading Partner definitions. Transactions that could not find the Trading Partners sites will remain in the View Staging tables.

   Log on with a responsibility of each of the Trading Partner exceptions then on-line resubmit the transaction for revalidation. Position the cursor at the desired level in the document tree on the left, then press the resubmit button. The transaction will be revalidated and search for Trading Partner locations defined to the new organization. Transactions for yet another organization will continue to reject. Continue changing the responsibility and resubmitting transactions until all locations are found. If any transactions cannot be processed, their Trading Partners must be set up in the base application for that organization (under the correct responsibility).

   Note: The EDI Location Code will encounter a Trading Partner (implying a Trading Partner with the current responsibly) not found condition, even though the Trading Partner is defined to another organization. This may cause confusion because the Trading Partner definition is seen in the Oracle e-Commerce Gateway and the customer/suppler/bank tables. The organizational relationship to the current responsibility is not indicated.

Separating Transactions in a File by Organization

Given the processing rules of the Oracle e-Commerce Gateway described above, inbound transactions separated into separate transaction interface files per organization may facilitate your processing.

Transactions may be separated by the following methods:

- Different electronic mailboxes.
- Different electronic envelope and/or functional group.
- Trading Partner has multiple Location Codes set up in the source application.
- Trading Partner can provide the organization code in the transaction.

EDI Translators can easily separate transactions into different files, if the transactions are segregated into different Trading Partner electronic mailboxes or envelopes, or at least separated by functional groups within the electronic envelope. For instance, for an X12 transaction the element Application Receiver's Code (GS03) is often used for this sort of routing.

Since Trading Partners do not want to incur the cost of additional electronic mailboxes, they may be willing to separate the transactions into different functional groups within an existing electronic envelope (provided they can isolate the transaction in their processes).

Another feasible solution to separate transactions by their organization code is to have the Trading Partner create the transactions in separate address locations that are in synchronization with your organization definitions. If you have a single physical address that you have defined to two or more organizations, you may request that your Trading Partner also distinguish the locations within their application. They can define a unique address site in their application so a different Location Code may be assigned to each location, even if it has the same physical address. This location set up will allow their EDI translator to separate the transactions to different electronic envelopes or functional groups within the electronic envelope. Consequently, transactions can be processed into different organizations.

The following table shows an example of transactions separated into different locations by the sending Trading Partner.

Sending Trading Partner (set up different Location Codes with the same physical address)	**Sending Trading Partner Assume Items must be booked to different Organizations**	**Sending Trading Partner Send to same EDI Mailbox but different Functional Group**	**Receiving Trading Partner (separate each location into separate files for processing in the Oracle e-Commerce Gateway)**	**Receiving Trading Partner Organization**	**Note on Process:**
Location Code 'ABC-A' for 11 State St., Chicago, IL	Enter orders for Items A, B, C	Mailbox 123456789; functional group 900	Location Code 'ABC-A' has table address site ID 97531	This address site ID has organization 'A'	The EDI Translator writes data from EDI mailbox 123456789 with functional group 900 to the file for Organization 'A' for the Oracle e-Commerce Gateway.
Location Code 'ABC-B' for 11 State St., Chicago, IL	Enter orders for Items X, Y, Z	Mailbox 123456789; functional group 911	Location Code 'ABC-B' has table address site ID 54321	This address site ID has organiza-tion 'B'	The EDI Translator writes data from EDI mailbox 123456789 with functional group 911 to the file for Organization 'B' for the Oracle e-Commerce Gateway.

The following table shows a sample of transactions separated into different electronic envelopes or functional groups by the sending Trading Partner.

Sending Trading Partner	Sending EDI Translator: Electronic Envelope (X12 ISA or UN/EDIFACT UNB)	Sending EDI Translator: Functional Group (X12 GS or UN/EDIFACT UNG)	Receiving EDI Translator
Transaction with Location 'ABC-A' code in their application	123456789	900	Writes the data from this functional group to file for Organization 'A' processing
Transaction with Location 'ABC-B' code in their application	123456789	911	Writes the data from this functional group to file for Organization 'B' processing

Organizations in Oracle Application Open Interface Tables

Even if transactions across all organizations could be loaded into the Application Open Interface tables by the Oracle e-Commerce Gateway during one execution, each application open interface has its own requirements about executing all organizations simultaneously or separately. Some Application Open Interfaces may only allow transactions from a single organization in its Application Open Interface tables at one time; while others may allow transactions across several organizations in the Application Open Interface tables. Even if transactions across organizations could simultaneity reside on the Application Open Interface tables, the Application Open Interface process may process each organization separately or all organizations at the same time.

Review the documentation on Application Open Interfaces for each Oracle product for their specific processing rules.

Trading Partner Windows

The Trading Partner windows are discussed below. Read the preceding section on Trading Partner detail.

Refer to the *Oracle e-Commerce Gateway User 's Guide* and Set Up Trading Partners for detail on using these windows.

Define Trading Partner Group and Trading Partner

A Trading Partner Group is a code that is assigned to a set of Trading Partners to allow them to appear in the Trading Partner list together. Trading Partner group may be a supplier or customer name, or any entity that you choose.

Under the Trading Partner Group name is the list of Trading Partner names associated with it.

Trading Partner Naming Convention

Using a naming convention for your Trading Partners is recommended for easy recognition. The three components in the following table are recommended. The combination of codes must be unique. Note that a delimiter between fields improves readability.

A naming convention also facilitates custom code to generate Partner names from the base Oracle Application for initialization of the Trading Partner tables or during updates after implementation.

Component	Description	Sample	Note
Organization	Organization Code	A	
Trading Partnership	Trading Partner	ACME	
Trading Partner Site	Address Site Code	INDY	This may be a site or more refined descriptor
Description	Free window text that describes the components above. Other descriptive data can be added	A, Acme, Indy, 45 Meridian	

Example: A-ACME-INDY for A, Acme, Indy, 45 Meridian

The following table lists examples of trading partner names using the prefix and suffix conventions, and shows how the lists would be sorted:

Prefix Organization on Partner Name	Suffix Organization on Partner Name
A-Acme-SJ	Acme-Atl-B
A-Beta-Chic	Acme-Bos-C
B-Acme-Atl	Acme-SJ-A
B-Beta-Indy	Beta-Atl-B
C-Acme-Bos	Beta-Chic-A
C-Beta-Atl	Beta-Indy-B
Result: Listed by Organization	Result: Listed by Partner name

Trading Partner Lists

All Trading Partners, regardless of organization (in a multi-org environment) are included, in the list of values of Partner names in the Define Trading Partner window. The Trading Partner names are not limited to the org context associated with the EDI Responsibility.

Multi-Org Note: The list of values for Partners in the Define Trading Partner (header) window lists Partner definitions from ALL organizations.

If the Trading Partner names need to be identified by organization, an organization indicator may be entered as a suffix or prefix in the Trading Partner Name.

The use of a suffix or prefix gives a different sort order of the Partner list. Implement the preference, which your organization finds helpful for sorting and viewing Trading Partner names on-line.

Define Trading Partner - Assignment Tab

The Assignment tab of the Define Trading Partner window links the Trading Partner definition to the appropriate Trading Partner and Trading Partner address site in the base Oracle Application. Select the correct Trading Partner and Trading Partner site to associate with this Trading Partner site.

The Oracle e-Commerce Gateway defines Trading Partner at the address level.

The base Oracle Application is likely to define many address sites for a single customer, supplier, or bank. Consequently, there will be many Oracle e-Commerce Gateway Trading Partners associated with a single customer, supplier, or bank as defined in the base Oracle Application.

In a multi-org environment, only those customer addresses defined to the organization for the current EDI responsibility are presented for selection.

Multi-Org Note: The list of values of Trading Partner addresses in the Assignment tab list only those addresses associated with the org context of EDI Responsibility.

Define Trading Partner - Contact Tab

The Contact tab of the Define Trading Partner window is optional. It contains contact data for the specified Trading Partner. It may be used by the EDI Coordinator for the Trading Partner's EDI Coordinator's contact data. This data is for reference only. It is not used by Oracle e-Commerce Gateway.

The Contact tab of the Define Trading Partner window is optional. It contains contact data for the specified Trading Partner. It may be used by the EDI Coordinator for the Trading Partner's EDI Coordinator's contact data. This data is for reference only. It is not used by Oracle e-Commerce Gateway.

Define Trading Partner - Details Tab

The Details tab of the Define Trading Partner window defines the transactions, the transaction types, the Translator Code and the document standard (for code conversion only) to the Trading Partner. It also enables a document (transaction) for processing, and flags the transaction as test or production.

The Trading Partner Details tab requires the following:

- A line for the each document/document type.
- For inbound transactions, there must be a 'Translator Code' entry that exactly matches the Translator Code in Control Record (0010) of the transaction interface file.
- For outbound transactions, the value of the 'Translator Code' must exactly match the Translator Code expected in the EDI Translator.
- The Enable box must be checked to enable the transaction for this Trading Partner site.

10

Code Conversion

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

Code Conversion

The Oracle e-Commerce Gateway code conversion function provides a method by which codes used by Trading Partners and electronic data standards can be converted from and to codes used in the Oracle applications. For example, assume that the ABC Corporation transmits a purchase order to the XYZ Corporation. The XYZ Corporation processes the incoming data using its own internal codes (i.e., unit of measure, currency, freight carriers, etc.), but XYZ is required to return ABC's original codes. In this way, the Trading Partner that created the original transaction receives response transactions containing their own internal codes.

Code conversion enables you to:

- Convert Trading Partner and electronic data standards external data to their equivalent internal Oracle application data and vice versa.
- Identify up to five levels of keys to uniquely associate codes to a specific Trading Partner or other entity. For example, a Trading Partner has multiple ship-to locations which each have unique carrier codes. Each set of carrier codes can be entered into the code conversion value table to be used only for the specific Trading Partner site.

Definitions

Code

The value of a data element, field, or database table column. For purposes of code conversion, a code is typically a freight carrier, a unit of measure. For example, the value of a carrier code may be FED.

Code Conversion Category

A label for a set of codes. For example, SHIP_VIA, UOM, ORDER_TYPE, PAY_TERMS are code conversion categories.

Data Element

The smallest unit of a record. Each record contains many data elements, including but not limited to carrier code, and unit of measure. Data elements correspond to fields in Oracle Applications windows or database tables.

External Code

A code in the transaction's transaction interface file, regardless if it is an inbound or outbound transaction, that represents data in the Trading Partner's perspective. Internal codes, in contrast, are found in Oracle Applications.

Internal Code

A code defined in the Oracle Applications, regardless if it is an inbound or outbound transaction. External codes, in contrast, are found in the transaction interface file.

Key *n* (1-5) Value

A value contained in a key column (also 1-5), that when concatenated with other keys, comprise a search key. Keys are concatenated beginning with 1 and continuing through all defined keys, up to a maximum of 5, during the code conversion table search.

Key *n* (1-5) Column

Table or view columns that contain values used as part of the search key.

Search Key

Accessing the code conversion table includes a concatenated search key consisting of the 1-5 user-defined search keys. If all five search keys have data then the table entries are very restricted to whom the codes apply. Data in Key 1 is less restricted on access and may apply to several Trading Partners. If all five search keys are blank, the table entries will be read for all Trading Partners' transactions for that code category.

The maximum number of search keys that you enabled in the *Assign Code Conversion Categories* window are concatenated for the first search. If a code conversion table entry is

not found, the highest order key is removed then a subsequent search of the code conversion table is made. Removing the highest order search key of the remaining search keys and accessing the table with the modified key continues until a table entry is found or no table entry is found. This modification of the key continues until the last access is made with all five search keys set to blanks. Table entries with the 1-5 search keys set to blanks means that the table entry is applicable to all Trading Partners.

Code Conversion Process

While the setup steps for code conversion are identical for inbound and outbound transactions, the specific process of code conversion differs.

Inbound Transactions

An inbound transaction arrives in a transaction interface file that is then processed by the Oracle e-Commerce Gateway. The import program reads the transaction interface file, stores the data in memory, and performs code conversion.

For each data element activated for code conversion, a search key, made up of up to five concatenated values defined in the code conversion windows, is searched for in the transaction columns specified in the *Assign Categories* window.

Any number of values from 1 to 5 can be specified when you define code conversion values in the *Code Conversion Values* window. These values are concatenated to form the search key. Multiple searches are performed, first using all defined values. If no match is found, the last value is dropped from the search key and the search is performed again using the remaining concatenated values. This process is performed again until either a match is found or until all values are exhausted.

If a match is found using the external value(s), an internal value from the Code Conversion value table is passed to the application open interface table, if no transaction exceptions are found by the Oracle e-Commerce Gateway .

If a match is not found, a null value is returned and the external-1 field is passed to the application open interface table, if no transaction exceptions are found by the Oracle e-Commerce Gateway.

Outbound Transactions

An outbound transaction begins when data is extracted from Oracle applications. The Oracle e-Commerce Gateway performs code conversion, where applicable.

For each data element activated for code conversion, a search key, made up of up to five concatenate values defined in the Code Conversion windows, is searched for in the transaction columns specified in the *Assign Categories* window.

Any number of values from 1 to 5 can be specified when you define code conversion values in the *Define Code Conversion Values* window. These values are concatenated to form the search key. Multiple searches are performed, first using all defined values. If no match is found, the last value is dropped from the search key and the search is performed again using the remaining concatenated values. This is performed until either a match is found or until all values are exhausted.

If a match is found using the external value(s), an internal value from the Code Conversion value table is written to the transaction interface file.

If a match is not found, a null value is returned and the internal value copied to the external-1 field then written to the transaction interface file.

Code Conversion Windows

There are three windows used in code conversion. The purpose of each is summarized in the following table.

Code Conversion Windows	Purpose
Define Code Conversion Category	Define a code conversion category that identifies a subset of code conversion values Indicates how many search keys will be examined during actual code conversion.
Assign Code Conversion Categories	Enable code conversion for a data element in a given transaction. Indicate the columns that have the code values to use in the search key.
Define Code Conversion Value	Lists the actual code conversion values to cross-reference the internal and 1-5 external codes

Code Conversion Categories Window

A code conversion category is a label for a set of entries in the code conversion table that contains the internal codes and external codes that you defined. During code conversion, only the code conversion table entries with the assigned category are accessed for the given data element.

The *Code Conversion Categories* window lists predefined categories or new categories that you created. The code categories are used to enable a data element for code conversion in the *Assign Categories* window.

You also indicate in this window how many search keys you will use in *Code Conversion Values* window for that category of data. A search key is a data element that limits the use of the code conversion table entry to a specific Trading Partner, Trading Partner site, or other

entity that you define. For example, customer ACME their Chicago site has its own list of carrier codes. The search keys would have the first key value to represent Acme Corporation, and the second search key value to represent their Chicago site.

Assign Categories Window

The *Assign Categories* window lists which data elements in the transaction are candidates for code conversion. These are the only data elements in a transaction that you can enable for code conversion. A data element is enabled for code conversion by entering a code category next to the data element in this window.

You will also indicate the 1-5 source column names from the transaction that contains the actual data that you want reviewed as the 1-5 search keys, if you use keys.

In the previous window, *Code Conversion Categories* window, you also enable the corresponding 1-5 search keys by checking the appropriate boxes to correspond to the number of column entries you made in this Assign Categories window. This tells the program the maximum number of keys to use for that category.

In the *Assign Categories* window, the Key 1-5 column names for the search keys are in a list of values. These column names presented are all the column names in the current level (table) being reviewed plus all the levels (tables) above it. For example, if a data element at the item level is activated, column names from both the header level and item level are in the list of values. Once you selected the source column of the data, the actual values that you would find in those columns for the given transaction are used as search key entries when the code conversion value table is read.

The source columns may be a customer name, customer ID, location code, site name, or whatever you choose. You just scroll through the columns in the List of Values that have been defined for that transaction.

Enabling Code Conversion

The code conversion table will be accessed only if the data element in the transaction is activated for code conversion. This is done by assigning a code conversion category to the specific data element in a transaction using the *Assign Categories* window.

Source of Data for Search Keys

Data to indicate a specific Trading Partner or Trading Partner site to be used, as the search keys may be data found in several places in the transaction.

For example, they may be one of the following:

- In the detail of the transaction,

- Derived Trading Partner data from the Trading Partner site on transaction's Control Record (0010), or
- Data found on the transaction's Control Record (0010).

Control Record Data as Search Keys

For inbound transactions, the Trading Partner reference 1 and reference 2 data does not have to match the Trading Partner reference 1 and reference 2 data defined in the Trading Partner window. You could move data from the electronic envelope or any data you choose into Trading Partner reference 1 or reference 2 so they can be used as search keys during code conversion if you desire. Use the *Assign Categories* window to assign the Trading Partner reference 1 or reference 2 column to be search keys like any other column assignment if you choose to use these fields.

Code Conversion Values Window

The *Code Conversion Values* window is where the actual internal codes and 1-5 external codes to be converted are entered plus any search keys that apply to the entries.

- Internal codes are the codes defined or recognized in the base Oracle application.
- External codes are the codes defined or recognized by external sources such as your Trading Partners or transaction standards.

When Not to Use Keys 1-5:

If the internal and external code entries apply universally to all Trading Partners, the codes in the code conversion tables do not have keys 1-5 for the entry.

When to Use Keys 1-5:

Besides the internal and external codes, you can limit the applicability of a table entry to a specific Trading Partner or any other entity that you chose by entering values in the search keys. The search key will be data of your choice that identifies that Trading Partner or other entity.

If internal and external code entries apply to specific Trading Partners or a group of Trading Partners, one to five limiting search keys plus the internal and external codes must be entered into the code conversion table.

To use Keys 1-5, set ups are required in the Code Conversion Categories window and the Assign Categories window previously discussed. Users must indicate what the full search key will be during code conversion set up. For example, it may be the sales channel, customer code, and customer site. Users select what columns to examine from columns in the specific transaction tables in the Oracle e-Commerce Gateway. These columns contain the actual code values examined during code conversion.

Relationship of the Code Conversion Windows

The following illustrations show the relationship of the five keys across the three code conversion windows.

1. Code Conversion Categories window:

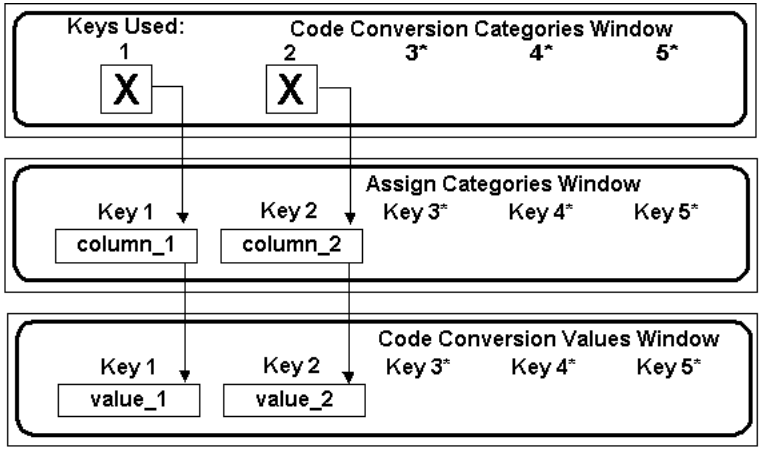
   In the example, only two keys are turned on, so a maximum of two search keys will be read during code conversion.

2. Assign Categories window:

   In the Assign Categories window the columns that contain the data in the transaction to be used as the search keys in the code conversion value table are identified. Because the example uses only two keys, only Key1 and Key2 are populated.

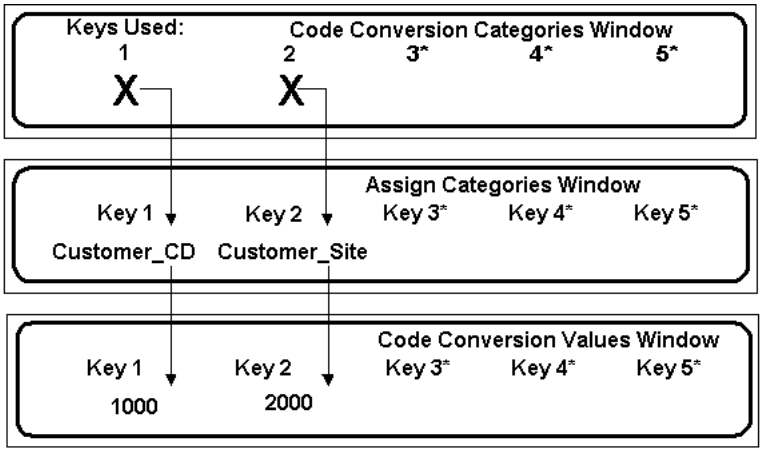
3. Code Conversion Values window:

   In the Code Conversions Values window the actual data values are entered. In the example, the value_1 of 1000 is the customer code, and the value_2 of 2000 is the customer site number to be used as part of the full search key during code conversion.



* Keys 3, 4, and 5 are not activated in this example

The following illustration shows the relationship of the five keys across the three code conversion windows with actual data.



* Keys 3, 4, and 5 are not activated in this example

Reading the Code Conversion Values Table

Outbound and inbound transactions use different full search keys to access data in the code conversion table. The following must be considered when creating the full search keys for successful code conversion in the code conversion table.

To create any full search key in the code conversion value window, the data elements that comprise it come from the sources shown in the following table:

Full Search Key Component	Source
Code Conversion Category	Defined in the *Code Conversion Categories* window. Then user assigned to a specific data element in a transaction in the *Assign Categories* window.
Direction	This is the transaction direction that is accessing the code conversion table entry. It is part of the full search key. It determines if the table entry will be read for the inbound or outbound transactions or transactions in both directions. The values are IN for inbound transactions; OUT for outbound transactions; and BOTH for both inbound and outbound transactions.
Keys 1-5	User determined data that limits to what the code conversion value applies. Usually it is limited to a Trading Partner site. No keys indicated means that the table entry applies to all Trading Partners.
Internal code (inbound transactions)	This is the data defined or recognized by the Oracle application. It is usually data found in the code conversion value table that will be written to the application open interface table.
Internal code (outbound transactions)	Data found on the base application document or derived by the Oracle e-Commerce Gateway. This data will be written to the transaction interface file.
External codes 1-5 (inbound transactions)	Data found on the transaction interface file or derived by the Oracle e-Commerce Gateway. This data is used to derive the Oracle internal code for the application open interface table.
External codes 1-5 (outbound transactions)	Data found in the code conversion table given the internal code then written to the transaction interface file.
External codes 1-5 (outbound transactions)	Data found in the code conversion table given the internal code then written to the transaction interface file.

The code conversion value table has a data element called "Direction" meaning transaction direction. The transaction direction determines if the table entry is accessed during the code conversion process. Direction is in the table to allow additional flexibility to code conversion values and eliminate repeating entries for multiple Trading Partners as search keys.

The transaction Direction field in the code conversion tables allows table entries to be entered with duplicate internal codes or duplicate external codes depending on the value of the Direction code.

For inbound transactions, duplicate external codes can be entered in the table, which converts to the same internal code.

For outbound transactions, duplicate internal codes can be entered in the table as long as the 1-5 external codes are unique.

If the Direction is BOTH, the entire search key including the internal and external codes are unique.

The Define Code Conversion Values window does not allow you to create duplicate table entries even across entries using the other directions: IN, OUT, and BOTH. You may need to remove an entry for another direction in order to accommodate a table entry that uses direction BOTH.

Transaction direction is discussed further after we understand how the code conversion value table is read in general for inbound and outbound transactions as illustrated in the following two tables.

Full Search Key for Outbound Transaction:

Goal: Create a key including the known internal code from the Oracle application to find all the external codes so they may be written to the transaction interface file.

Keys 1-5 are optional. Keys are used when the table entry does not apply to all Trading Partners.

The following table illustrates a full search key search performed for an outbound transaction. The columns **Category**, **Direction**, **Keys 1 thru 5**, and **Internal Code** represent the entire search key. The columns **External Code 1** through **External Code 5** represent data retrieved for the transaction interface file.

Category	Direction	Keys 1 thru 5	Internal Code	External Code 1	External Code 2	External Code 3	External Code 4	External Code 5
UOM	OUT		Each	EA	PC			
UOM	OUT		Box	BX	BX			

Full Search Key for Inbound Transaction:

Goal: Create a key including the known 1-5 external codes on the transaction interface file to find the internal code that is needed for the base Oracle application open interface table.

Keys 1-5 are optional. Keys are used when the table entry does not apply to all Trading Partners.

The following table illustrates a full search key search performed for an inbound transaction. The columns **Category**, **Direction**, **Keys 1 thru 5**, and **External Code 1** through **External Code 5** represent the entire search key. The columns **Internal Code** represents the data retrieved to write to the Application Open Interface Tables.

Category	Direction	Keys 1 thru 5	External Code 1	External Code 2	External Code 3	External Code 4	External Code 5	Internal Code
UOM	IN		EA					Each
UOM	IN		PC					Each

Understanding Code Conversion for Outbound Transaction using Direction OUT

For outbound transactions, the entire search key to access the table entries consists of the following.

- Category
- Direction
- Keys 1-5
- Internal Code

This full search key is used to find a table entry to return the external codes 1-5 that can be copied to the transaction interface files.

During code conversion for outbound transactions, code conversion table entries marked with the direction OUT and BOTH are read. See section below on the direction BOTH.

Entering the direction OUT allows you to enter the entire search key for outbound transactions, yet allow duplicate data to be entered for the external codes 1-5.

If code conversion is enabled and a table entry is not found, then internal code is also copied to the external 1 data element to be written on the transaction interface file.

The following tables have illustrations using only 2 of the 5 allowable keys and 2 of the 5 external codes for simplicity. Use as many keys and external codes, as necessary for your business needs. Though the illustrations have separate samples by the direction (IN, OUT, BOTH), all the table entries reside in one table.

The columns **Category**, **Direction**, **Key 1**, **Key 2**, and **Internal Code** are supplied by the outbound transaction. These five pieces of data comprise the entire search key and the key must be unique. Columns **External Code 1** and **External Code 2** are data that are retrieved for the transaction interface file.

note	Category	Direction	Key 1	Key 2	Internal Code	External Code 1	External Code 2
(1)	UOM	OUT			Each	EA	PC
(1)	UOM	OUT			Box	EA	PC
(2)	UOM	OUT	EDIFACT		Each	PC	
(2)	UOM	OUT	X12		Each	EA	
(3)	SHIP_VIA	OUT	1004	1110	Truck-air	TRUCK	A
(3)	SHIP_VIA	OUT	1004	1110	Truck-motor	TRUCK	J
(3)	SHIP_VIA	OUT	1004		Truck-air/motor	TRUCK	J
(3)	SHIP_VIA	OUT	2010	1005	Alpha-air	ALPHA	A
(3)	SHIP_VIA	OUT	2010	1005	Alpha-ground	ALPHA	J
(1)(4)	SHIP_VIA	OUT			Beta-Overnight	BETA	A
(1)(4)	SHIP_VIA	OUT			Beta-Ground	BETA	J

NOTES*:*

1. Since keys 1-5 are blank, these table entries may be retrieved for all data elements assigned code category UOM for inbound transactions whose internal codes are listed above. You may use external 1 for the X12 codes and external 2 for the EDIFACT codes. External 3-5 may contain alternative codes for one of those standards or other standards. Given the Trading Partner, the translation data map will choose the desired internal and external data elements to use.

Since key 1 has the Document Standard Code, only Trading Partners given the specific Document Standard Code showing in key 1 will access those records. The default Document Standard Code is assigned to a Trading Partner's transaction via the *Detail* tab in the *Define Trading Partner* .

2. Since keys 1-2 are entered in the code conversion table, those table entries are found only when the transaction has the values found in key 1 and 2.

What data elements are represented by keys 1-5 are specified in the *Assign Code Conversion Categories* window, for example, they may be customer number and customer site number. Select your column values based on the data elements that are available to you in that transaction. In the illustration, the customer number and customer site numbers were available in the transaction so they could be used in the code conversion value tables.

3. Since keys 1-5 are blank and the (3) table entries did not apply, all code conversion enabled data elements will find the (4) table entries given the external codes as part of the key.

   Not finding a value in the code conversion table is not an error. There may be cases where only select values for a data element need code conversion. To require all values to have a code conversion table entry may cause you to do an excessive number of code conversion entries that are not necessary or desired.

Understanding Code Conversion for Inbound Transactions using Direction IN

For inbound transactions, the entire search key to access the table consists of the following.

- Category
- Direction
- Keys 1-5
- External Codes 1-5

This full search key is used to find a table entry for the internal code that can be copied to the base Oracle Application's open interface table.

During code conversion for inbound transactions, code conversion table entries marked with the direction IN and BOTH are read. See section below on the direction BOTH.

Code conversion table entries, which are given the direction IN, are accessed during code conversion for inbound transactions only.

Entering the direction IN allows you to enter the entire search key for inbound transactions, yet allows duplicate data to be entered for the Internal codes.

- Inbound Transaction: Entire Search Key (Must be unique)
- Retrieved Data for the Application Open Interface Tables

Example Inbound Transaction: The Search Key Must Be Unique (Columns Category, Direction, Key 1, Key 2, and External Code 1 and External Code 2)

Note	Category	Direction	Key 1	Key 2	External Code 1	External Code 2	Internal Code
(1)	UOM	IN			EA		Each
(1)	UOM	IN			PC		Each
(2)	UOM	IN	EDIFACT		PC		Each
(2)	UOM	IN	X12		PC		Each
(2)	UOM	IN	X12		EA		Each
(3)	SHIP_VIA	IN	1004	1110	TRUCK	A	Truck-air
(3)	SHIP_VIA	IN	1004	1110	TRUCK	J	Truck-motor
(3)	SHIP_VIA	IN	1004		TRUCK	J	Truck-air/motor
(3)	SHIP_VIA	IN	2010	1005	ALPHA	A	Alpha-air
(3)	SHIP_VIA	IN	2010	1005	ALPHA	J	Alpha-ground
(1)(4)	SHIP_VIA	IN			BETA	A	Beta-Overnight
(1)(4)	SHIP_VIA	IN			BETA	J	Beta-Ground

Notes:

1. Since keys 1-5 are blank, these table entries may be retrieved for all data elements looking for code category UOM for inbound transactions whose external codes 1-2 are listed above. The external 1 may be a mixture of EDI standard codes expected from the transaction. For example, the EA may be the expected X12 code, while the PC may be the expected EDIFACT code.
2. Since key 1 has the document standard code, only Trading Partners given the specific document standard showing in key 1 will access those records. The default document standard, which is used for this code conversion value table, is assigned to a Trading Partner's transaction via the *Detail tab in the Define Trading Partner window.* Remember that the Document Standard Code applies to the entire transaction for the Trading Partner. It does not change per data element.
3. Since keys 1-2 are entered in the code conversion table, these entries apply only to the entities whose values are entered in keys 1-2.
4. Since keys 1-5 are blank and the (3) table entries did not apply, all code conversion enabled data elements will find the (4) table entries given the external codes as part of the key.

If code conversion is enabled and a table entry is not found, the external 1 code is written to the application open interface tables. They may fail data validation when the application open interface is executed if not entered properly in the code conversion tables. The data should be visible for the applications regular error handling procedures.

Understanding Code Conversion for Inbound and Outbound Transactions using Direction BOTH

Table entries that are given the direction BOTH are accessed during code conversion for both inbound and outbound transactions. All the rules specified above for inbound and outbound transactions apply to the entries with direction BOTH.

You should be able to enter the direction BOTH for most table entries, if there is a one-to-one correspondence between the Oracle internal code and its set of external 1-5 codes.

For an outbound transaction, the asterisked table entries in the table below cannot be entered into the tables. This is because the single internal code "Each" would access multiple table entries for the external codes, one with the external code EA and the other with the external code PC. To be a successful table search, only one table entry can be found. An error message is displayed when the entry is attempted.

Even creating table entries using the document standard in key 1 may still cause a conflict within a standard. For example, this may happen when EA and PC are values both within X12 and within EDIFACT. If separating the codes by standards still causes this problem, you can select document standard "Other" for the exceptions and assign "Other" to those Trading Partners to retrieve the proper code for their transactions.

In the table below, the columns **Category**, **Direction**, **Key 1**, and **Key 2** are part of the search key for both inbound and outbound transactions. The columns **External 1** and **External 2** are part of the key for inbound transactions to find the Internal code. The column **Internal** is part of the key for outbound transactions to find the external codes 1 - 5.

Example Inbound and Outbound Transactions Code Conversion:

note	Category	Direction	Key 1	Key 2	External 1 (Inbound transaction key)	External 2 (Inbound transaction key)	Internal (Outbound transaction key)
(1)	UOM	BOTH			EA		Each
(2)	UOM	BOTH			PC		Each*
(1)	UOM	BOTH	EDIFACT		PC		Each
(1)	UOM	BOTH	X12		EA		Each
(2)	UOM	BOTH	X12		PC		Each*
(1)	SHIP_VIA	BOTH	1004	1110	TRUCK	A	Truck-air
(1)	SHIP_VIA	BOTH	1004	1110	TRUCK	J	Truck-motor
(1)	SHIP_VIA	BOTH	1004		TRUCK	J	Truck-air/motor
(1)	SHIP_VIA	BOTH	2010	1005	ALPHA	A	Alpha-air
(1)	SHIP_VIA	BOTH	2010	1005	ALPHA	J	Alpha-ground
(1)	SHIP_VIA	BOTH			BETA	A	Beta-Overnight
(1)	SHIP_VIA	BOTH			BETA	J	Beta-Ground

* There would not be a unique search key for outbound transaction if the table entry were allowed. An alternate code conversion scheme must be chosen.

Notes:

1. Simple table entry exists.
2. Items marked (2) will not be allowed as table entries since the full search key for outbound transactions will not be unique.

Document Standard as Part of the Search Key

Document standard is a code to represent the common EDI standards such as X12 and EDIFACT. Its purpose is to use the selected code as a search key in the code conversion value table.

The document standard may be set for a Trading Partner for a specific transaction in the *Define Trading Partner Detail tab*. Follow the usual code conversion set up through the three code conversion windows.

The following table shows examples of Document Standards used in the search key:

note	Category	Direction	Key 1	Key 2	Internal Code	External Code 1	External Code 2
(1)	UOM	OUT			Each	EA	PC
(2)	UOM	BOTH	X12		Each	EA	
(2)	UOM	BOTH	X12		Piece	PC	
(2)	UOM	BOTH	EDIFACT		Each	EA	
(2)	UOM	BOTH	EDIFACT		Piece	PC	

1. Assume that you entered X12 codes in external code 1 and EDIFACT in external code 2.

This method allows you to enter just one table entry to have the internal code set to 'Each' then return the external codes 'EA' and 'PC' for outbound transactions. This entry cannot be used for inbound transactions, since only the X12 or only the EDIFACT code is in the transaction or message, but not both codes in a given transaction. You need a separate set up for the inbound transactions.

2. Enter separate table entries by document standard if it is an alternate method for (1). Since key 1 is the document standard, only the table entries with key 1 set to one of the standards (X12, EDIFACT, etc.) are retrieved for a given Trading Partner if they are assigned a document standard for that transaction. If a Trading Partner's transaction is not given a document standard, then the entry (1) will be read for the outbound transactions.

Planning the Use of Direction in Code Conversion

Review your code conversion needs and develop a plan for your code conversion value table entries.

The values that you enter in the table are case sensitive.

Not all scenarios of code conversion table entries can be documented. This information illustrates how the code conversion value table is accessed. Use it to develop your code conversion strategy.

The following tables provide some considerations to help you develop that strategy.

Planning for Direction OUT for Outbound Transactions

The following table shows an example in which all entries are not feasible for the direction OUT. Columns External Code 1 and External Code 2 are retrieved for the transaction interface file.

entry	Category	Direction	Key 1	Key 2	Internal Code	External Code 1	External Code 2	Note
(1)	UOM	OUT			Each	EA	PC	
(2)	UOM	OUT			Each	PC	EA	Entire Search Key is duplicate to (1)
(3)	UOM	OUT	EDIFACT		Each	PC		
(4)	UOM	OUT	X12		Each	EA		

Entry items (1) (2): Internal code is part of the entire search key. For direction OUT, both these entries (1) and (2) are not feasible, because the entire search key is not unique. One entry can be made where you define the external 1 code to have X12 and external 2 code to have EDIFACT. Your EDI translator data map will determine which field to use for the Trading Partner. If needed alternative entries may be where external 1 and 2 may both have X12 codes and external 3 and 4 may both have EDIFACT codes since each standard has multiple codes meaning each to the Oracle application. Again you will rely on the EDI translator data map to choose the correct external field for the transaction.

Entry items (3) (4): If a document standard is entered for the Trading Partner (in the Trading Partner Detail tab) and the a data element is assigned the column DOCUMENT_ STANDARD (in the Code Conversion Assignment tab), these table entries will be accessed in the code conversion process before the global entries (1) are accessed.

Planning for Direction IN for Inbound Transactions

The following table shows an example in which all entries are feasible for the direction in. The column Internal Code is retrieved for the Application Open Interface tables, the rest of the columns represent the search key. For the direction in, the external code is part of the entire search key. The search key must be unique.

Item	Category	Direction	Key 1	Key 2	External Code 1	External Code 2	Internal Code
(1)	UOM	IN			EA		Each
(1)	UOM	IN			PC		Each
(2)	UOM	IN	EDIFACT		EA		Each
(2)	UOM	IN	EDIFACT		PC		Each
(2)	UOM	IN	X12		EA		Each
(2)	UOM	IN	X12		PC		Each

In the example above, external codes are part of the entire search key. For direction IN, all the entries in the table are feasible, even without the document standard, because the entire search key is unique. It does not matter what the internal codes are since they are not part of the entire search key.

Items (2): If a document standard is entered for the Trading Partner (in the Trading Partner Detail tab) and the a data element is assigned the column DOCUMENT_STANDARD (in the Code Conversion Assignment tab), these table entries will be accessed in the code conversion process before the entries (1) are accessed by all Trading Partners.

Planning for Direction BOTH for Inbound and Outbound Transactions

The following table illustrates an example in which all entries are not feasible for the direction BOTH.

	Category	Direction	Key 1	Key 2	External Code 1 (Part Key for Inbound)	External Code 2 (Part Key for Inbound)	Internal (Part Key for Outbound)
1	UOM	BOTH			EA		Each
2	UOM	BOTH			PC		Each
3	UOM	BOTH	X12		EA		Each
4	UOM	BOTH	X12		PC		Each
5	UOM	BOTH	EDIFACT		EA		Each
6	UOM	BOTH	EDIFACT		PC		Each

All Entries Not Feasible for Direction BOTH

Though you may wish to use the data in the code conversion value for both inbound and outbound transactions, the entry in (2) will not be accepted into the code conversion value table after (1) is entered. The reason that entries (1) and (2) are not feasible at the same time is that outbound transactions are using the Internal codes as part of the entire search key. When the value Each is found in the transaction, (even if the Trading Partner was given a default standard to use for code conversion), the internal code Each cannot determine whether EA or PC should be written to the transaction interface file. Similar reasoning applies to (3)/(4), and (5)/(6) when items (4) and (6) are attempted to be entered.

Multiple Standard Codes Convert to a Single Internal Code

There may be code conversion entries needed where multiple codes in a single standard may need to be converted to a single code in the Oracle application. The following table illustrates this case. In the table, columns **Category**, **Direction**, **Key 1**, **Key 2**, **Key 3**, and **Internal Code** comprise the outbound transaction's entire search key. This search key must be unique. The columns External Code 1 and External Code 2 are data retrieved for the Transaction Interface File.

	Category (search key)	**Direction** (search key)	**Key 1** (search key	**Key 2** (search key)	**Key 3** (search key)	**Internal Code** (search key)	**External Code 1** (retrieved data)	**External Code 2** (retrieved data)	**Note:**
(1)	UOM	OUT	X12	Acme	Denver	Each	EA		Trading Partner site specified will have EA on the file.
(2)	UOM	OUT	X12	Acme	Chicago	Each	BX		Trading Partner site specified will have BX on the file.
(3)	UOM	OUT	X12	Acme		Each	PC		Trading Partner site specified will have PC on the file.
(4)	UOM	OUT	X12			Each	EA		Majority of Trading Partners want EA. They were assigned the Document Standard X12.
(5)	UOM	OUT	OTHER			Each	PC		Other Trading Partners want PC. They were assigned the Document Standard OTHER to allow this entry in the table.
(6)	UOM	OUT				Each	EA	PC	Default: write two codes to the file; EDI translator will choose one based on the data mapping rule for the given Trading Partner. This avoids making entries for each Trading Partner needing the PC on the file.

In table above, items (1)-(5): The exact code for the data map is in external code 1 on the file given the Trading Partner data in the search key. You chose not to have the translator choose between EA or PC by accessing item (5).

Items (1) through (3) is Trading Partner specific. If there are many Trading Partners needing separate entries, it may be desirable to assign another document standard to group set of Trading Partners though it is not really their true document standard. Recall that Document Standard Code exist to facilitate the code conversion table entries.

If you choose the strategy in the table below, you need a set of code conversion value codes with the direction IN for inbound transactions since direction BOTH could not be used because of duplicate internal codes. In the table below the columns Category, Direction, Key 1, Key 2, External Code 1, and External Code 2 comprise the search key for the inbound transaction. This search key must be unique. The column Internal Code is the data retrieved for the Application Open Interface Tables.

	Category (search key)	**Direction** (search key)	**Key 1** (search key)	**Key 2** (search key)	**External Code 1** (search key)	**External Code 2** (search key)	**Internal Code** (retrieved data)
(1)	UOM	IN			EA		Each
(2)	UOM	IN			PC		Each
(3)	UOM	IN	X12		EA		Each
(4)	UOM	IN	X12		PC		Each

For direction IN, the External code is part of the entire search key.

Multiple Codes within a Standard converting to the Same External Code

In the table above, there is no need for table entries with OTHER in search key 1. For the inbound transactions, the actual document standard X12 suffices since the external codes are unique.

Both Internal Code and External Codes on the Transaction Interface File

You could set up Column Rules on the internal column in the transaction though the internal value is not found on the transaction interface file. This may occur when the Application Open Interface file may require a value in certain columns, but the values are derived by the Oracle e-Commerce Gateway. This assumes that code conversion is performed on the data element using the internal and external values on the files that are associated with that data element.

Code conversion is performed before any column rule validation is performed on a column (data element) defined in the transaction. The code conversion process associates (in memory) the internal code found in the code conversion table to the internal field that has the assigned Column Rule. The value of that internal field is validated against all the Column Rules enabled for that field.

Code Conversion is performed before Column Rules are applied.

Consider the example shown in the following table to satisfy the data requirement if code conversion is performed on a field.

Application Open Interface Column	Oracle e-Commerce Gateway Columns	Sample Record Number	Sample Position Number	Code Conversion Performed	No Code Conversion Performed
UOM_CODE (Some value must be moved here by one of the following methods: (1) Determined in the Oracle e-Commerce Gateway through code conversion (2) Directly from the file if it is present.)	UOM_CODE_INT (If data is in this field on the file, code conversion is not performed. In this case, the value is moved directly into the Application Open Interface tables.)	2010	100	The Internal code is derived in code conversion given the codes in the External 1-5 fields. The internal code is moved to the Open Interface Table if found during code conversion. if no code conversion value is found, external 1 is copied to the Application open Interface Table. Note that the derived Internal value is not written to the inbound file.	If placed in the UOM_CODE_INT field by a translator and there is no code conversion performed, this value is copied to the Application Open Interface Table.
	UOM_CODE_ EXT1	2010	110	Place on the file by a translator to be used for code conversion.	If data is placed in the External codes by a translator and there is no code conversion performed, this code is copied to the Application Open Interface Table.
	UOM_CODE_ EXT2	not activated	not activated	Used as part of a code conversion if properly enabled	
	UOM_CODE_ EXT3	not activated	not activated		
	UOM_CODE_ EXT4	not activated	not activated		
	UOM_CODE_ EXT5	not activated	not activated		

Activated External Data Fields on the Transaction Interface File

Though there may be data in all five external codes in the code conversion tables, the only external codes to actually be copied to the transaction interface file are the ones that are activated for the file. They are activated if the data element shows a record number, position and width on the data element in the *Interface File Definition* window or the *Transaction Layout Definition* report. If data elements are not activated but you wish to use them in the transaction interface file, activate them by entering a record number, position, and width using the *Interface File Definition* window.

For outbound transactions, both the internal code and external codes are written to the transaction interface file. They are available on the file for mapping to the EDI standard transaction by an EDI translator.

For inbound transactions, the external codes are expected in the file for code conversion or to be passed directly to the application open interface table if an internal code is not derived by code conversion. If another process determines the internal code and writes it to the transaction interface file, that internal code is passed to the application open interface table.

Note: Code conversion is not performed on the data element by the Oracle e-Commerce Gateway if data is already found in the internal field for that data element.

Concatenated Search Key for Inbound Transactions

The following example illustrates the use of the concatenated search key in several attempts to find code conversion table entries for an *inbound transaction*.

The Oracle e-Commerce Gateway moves data from the transaction interface file into its transaction tables for processing. The data may come directly in the transaction from your Trading Partner or be derived by the Oracle e-Commerce Gateway. Some date elements need code conversion on 1-5 external codes to the internal code defined in the base Oracle application. The external codes are defined by Trading Partners or standard transactions.

You may activate code conversion only on the data elements (columns) listed in the Assign Categories window. By entering search keys, the table entry does not apply to all Trading Partners. Trading Partner codes and Trading Partner site codes are often search keys in the code conversion value tables since Trading Partners often have site specific codes.

This example steps through a code conversion table searching for a table entry where the value ‘AIR’ in the CARRIER_EXT1 (external 1) column along with its search keys with the value GAMMA in CUSTOMER_NAME in Key 1 and value 9999 in CUSTOMER_SITE in Key 2 are in the transaction. The intent is to find the corresponding internal code given the 1-5 external CARRIER_EXT1 through CARRIER_EXT5 codes so they may be written to Oracle application open interface tables.

The code conversion value table is read with the following parameters and conditions:

- Access code conversion values table entries with the SHIP_VIA Category, since SHIP_VIA was assigned to the CARRIER_INT column via the Assign Code Conversion window.
- The Oracle e-Commerce Gateway moves the transaction values GAMMA into the CUSTOMER NAME column, and the value 9999 into the CUSTOMER_SITE column, which are the column names for the search keys. In this sample, only Key 1 and Key 2 were enabled for the customer name and customer site respectively. (The Oracle e-Commerce Gateway derived the customer name given the customer site 9999 in the transaction.)
- The external code is part of the full search key for inbound transactions.
- Since this is an inbound transaction, the process accesses table entries only with transaction direction IN and BOTH.

Code Conversion Setups

The following code conversion table setups were done for this example.

The Code Conversion Categories window has two of the potential five search keys enabled for Category SHIP_VIA to accommodate the customer name and customer site search keys in the other code conversion windows.

The Assign Code Conversion window enables code conversion on a column and specifies which columns to examine for the actual search key values. You decide which columns are used as the Key1 through Key5. The following were set up for this transaction:

- Column is CARRIER_INT.
- The Category SHIP_VIA is assigned to CARRIER_INT to enable code conversion.
- Key 1 is assigned the CUSTOMER_NAME column in the transaction table.
- Key 2 is assigned the CUSTOMER_SITE column in the transaction table. You selected the keys from a list of values.

The full search key to access the code conversion value table for inbound transactions include the code category, direction, Key 1, Key 2, and the 1-5 external code. For example, the first entry in the table includes the following search key values: (See the sample Code Conversion Value Table for all entries.)

Key 1 has value ‘ALPHA’ for the CUSTOMER_NAME.

Key 2 has value ‘1006’ for the CUSTOMER_SITE.

The Code Conversion Value window includes the search key values applicable to the internal and external codes for all the Trading Partners and all transactions. The Category that you assign to a column limits the access to just those table entries that have been assigned that Category.

Creating the Search Key

The table below has data found in the transaction or derived by the Oracle e-Commerce Gateway. The data was moved to the transaction columns in the Oracle e-Commerce Gateway for processing.

	Data	Data	Transaction Data
Description	Customer	Customer Site	Carrier Code
Transaction Data	GAMMA	9999	AIR
Transaction Column	CUSTOMER_NAME	CUSTOMER_SITE	CARRIER_EXT1

Specific Transaction Data

Listed below are the full search key parameters given the data found in the transaction or data derived by the Oracle e-Commerce Gateway. Use this data to find a code conversion value table entry to retrieve the external code.

Code Category: SHIP_VIA

This code category was assigned to a data element in the transaction via the Assign Category window.

Direction: IN and BOTH

Determined by the inbound transaction to be processed

Key 1 (Customer): GAMMA

Source column for this key 1 is CUSTOMER_NAME. The value GAMMA was derived by the Oracle e-Commerce Gateway given the Trading Partner for this transaction.

Key 2 (Customer Site) 9999

Source column for this ke 2 is CUSTOMER_SITE. The value 9999 was derived by the Oracle e-Commerce Gateway given the Trading Partner for this transaction.

Key 3 not used

Key 4 not used

Key 5 not used

External 1 Code: AIR

"AIR" is the value in CARRIER_EXT1 in the transaction interface file.

The table below shows the three attempts to access the code conversion value table using each search key. The number of attempts is always one more than the number of Key boxes that you enabled in the Code Conversion Categories window. In the example, the source column for Key 1 "Customer" is CUSTOMER_NAME and the source column for Key 2 "Customer Site" is CUSTOMER_SITE.

Search Order	Code Category	Direction	Key 1 (Customer)	Key 2 (Customer Site)	Key 3	Key 4	Key 5	External 1 Code
First Search	SHIP_VIA	OUT	GAMMA	9999				AIR
Second Search	SHIP_VIA	BOTH	GAMMA					AIR
Third Search	SHIP_VIA	OUT						AIR
Source Column			CUSTOMER_ NAME	CUSTOMER_SITE				

Searching the Code Conversion Value Table

The code conversion value table is read using the search keys in the table above. Three accesses to the code conversion value table may be attempted. The order of the search and the constructed keys are shown in the table.

The three search keys will now be used to search the following example code conversion values table:

Table Entry	Code Category	Direction	Key 1	Key 2	Key 3-5	External 1 Code	Internal Code
			Customer	Customer Site			
1	SHIP_VIA	IN	ALPHA	1006		Alpha-Air	Alpha-Air
2	SHIP_VIA	IN	ALPHA	1099		Alpha-Air	Alpha-Fast
3	SHIP_VIA	IN	ALPHA			Alpha-Air	Alpha-Quick
4	SHIP_VIA	IN	BETA	1099		Beta-Air	Beta-Travel
5	SHIP_VIA	IN	BETA	1100		Beta-Air	Beta-Faster
6	SHIP_VIA	IN	BETA			Beta-Air	Beta-Quicker
7 *	SHIP_VIA	IN				AIR	Over Night
Source Column			CUSTOMER_ NAME	CUSTOMER_SITE			

In the example above, the first search has the full key including the external 1 code "AIR". Since there was no table entry for CUSTOMER_NAME with value GAMMA and CUSTOMER_SITE with value 9999, the highest order key is removed for the second search attempt. In this case, the customer site 9999 was removed from the search key parameters. KEY2 with CUSTOMER_SITE was the highest number search key at this time.

The second search with just CUSTOMER_NAME with value GAMMA and the external 1 code AIR also did not find a table entry. So the current highest order key is removed for the next search attempt. In this case, the customer GAMMA was removed from the search key parameter. KEY1 with CUSTOMER_NAME was the highest number search key at this time.

The third search is made with all blank search keys. The internal code is code AIR. This search found a table entry. It is shown in sample code converstion table entry 7.

Consequently, the internal value "Over Night" from the code conversion value table is copied to CARRIER_INT column in the transaction table. If no table entry is found, then the CARRIER_EXT1 (external 1) value is moved into the column CARRIER_INT field in the transaction table. Over Night is the valid value for the Oracle Application open interface. erface.

Concatenated Search Key for Outbound Transactions

The following example illustrates the use of the concatenated search key in several attempts to find code conversion table entries for an *outbound transaction*.

The Oracle e-Commerce Gateway extracts data from Oracle Application tables and optional extension tables then ultimately writes the data to the transaction interface file. Some date elements need code conversion from the internal code defined in the base Oracle application to external codes that are required by the Trading Partners or standard transactions.

You may activate code conversion only on the data elements (columns) listed in the Assign Categories window. By entering search keys, the table entry does not apply to all Trading Partners. Trading Partner codes and Trading Partner site codes are often search keys in the code conversion value tables since Trading Partners often have site specific codes.

This example steps through a code conversion table searching for a table entry where the value "Over Night" in the CARRIER_INT (internal) column along with its search keys with the value GAMMA in CUSTOMER_NAME in Key 1 and value 9999 in CUSTOMER_ SITE in Key 2 are set up for the transaction. The intent is to find its corresponding 1-5 external CARRIER_EXT1 through CARRIER_EXT5 codes so they may be written to the transaction interface file.

The code conversion value table is read with the following parameters and conditions. It is used to derive the 1-5 external codes desired for the transaction interface file.

- Access code conversion values table entries with the SHIP_VIA Category, since SHIP_ VIA was assigned to the CARRIER_INT column via the Assign Code Conversion window.
- The Oracle e-Commerce Gateway moves the transaction values GAMMA into the CUSTOMER NAME column, and the value 9999 into the CUSTOMER_SITE column, which are the column names for the search keys. In this sample, only Key 1 and Key 2 were enabled for the customer name and customer site respectively. (The Oracle e-Commerce Gateway derived the customer name given the customer site 9999 in the transaction.)
- The internal code is part of the full search key for outbound transactions.
- ‘Over Night’ is moved into the CARRIER_INT (internal field) on the transaction interface file. Any one of the CARRIER_EXT1 through CARRIER_EXT5 external codes is written to the transaction interface file if a record number, record position, and field length are assigned to the particular field.
- Since this is an outbound transaction, the process accesses table entries only with transaction direction OUT and BOTH.

Code Conversion Set Ups

The following code conversion table setups were done for this example.

The Code Conversion Categories window has two of the potential five search keys enabled for Category SHIP_VIA to accommodate the customer name and customer site search keys in the other code conversion windows.

The Assign Code Conversion window enables code conversion on a column and specifies which columns to examine for the actual search key values. You decide which columns are used as the Key1 through Key5. The following were set up for this transaction:

Column is CARRIER_INT.

The Category SHIP_VIA is assigned to CARRIER_INT to enable code conversion.

Key 1 is assigned the CUSTOMER_NAME column in the transaction table.

Key 2 is assigned the CUSTOMER_SITE column in the transaction table. You selected the keys from a list of values.

The full search key to access the code conversion value table for outbound transactions include the code category, direction, Key 1, Key 2, and the internal code. For example, the first entry in the table includes the following search key values: (See the sample Code Conversion Value Table below for all entries.)

Key 1 has value ‘ALPHA’ for the CUSTOMER_NAME.

Key 2 has value ‘1006’ for the CUSTOMER_SITE.

The Code Conversion Value window includes the search key values applicable to the internal and external codes for all the Trading Partners and all transactions. The Category that you assign to a column limits the access to just those table entries that have been assigned that Category.

Creating the Search Key

The table below has data found in the transaction or derived by the Oracle e-Commerce Gateway. The data was moved to the transaction columns in the Oracle e-Commerce Gateway process.

	Data	**Data**	**Transaction Data**
Description	Customer	Customer Site	Carrier Code
Transaction Data	GAMMA	9999	Over Night
Transaction Column	CUSTOMER_NAME	CUSTOMER_SITE	CARRIER_INT

Listed below are the full search key parameters given the data found in the transaction or data derived by the Oracle e-Commerce Gateway. Use this data to find a code conversion value table entry to retrieve the internal code.

Code Category:	SHIP_VIA This code category was assigned to a data element in the transaction via the Assign Category window.
Direction:	OUT and BOTH Determined by the inbound transaction to be processed.
Key 1 (Customer):	GAMMA Sourece column for this key 1 is CUSTOMER_NAME. The value GAMMA was derived by the Oracle e-Commerce Gateway given the Trading Partner for the transaction.
Key 2 (Customer Site):	999 Source Column for this key 2 is CUSTOMER_SITE. The value 9999 was derived by the Oracle e-Commerce Gateway given the Trading Partner site for this transaction.
Key 3	not used
Key 4	not used
Key 5	not used
Internal Code:	Over Night "Over Night" was the value in CARRIER_INT from the base Oracle Application.

The table below shows the three sets of full search keys to access the code conversion value table for the three attempts to read the table. The number of attempts is always one more than the number of Key boxes that you enabled in the Code Conversion Categories window. The source column for Key 1, Customer, is CUSTOMER_NAME. The source column for Key 2, Customer Site, is CUSTOMER_SITE.

Search Order	Code Category	Direction	Key 1 (Customer)	Key 2 (Customer Site)	Key 3	Key 4	Key 5	Internal Code
First Search	SHIP_VIA	OUT	GAMMA	9999				Over Night
Second Search	SHIP_VIA	BOTH	GAMMA					Over Night
Third Search	SHIP_VIA	OUT						Over Night

Searching the Code Conversion Value Table

The code conversion value table is read using the search keys shown above. Three accesses to the code conversion value table may be attempted. The order of the search and the constructed keys are shown in the table. These keys will be used to search the following example of a code conversion values table:

Table Entry	Code Category	Direction	Key 1	Key 2	Key 3-5	Internal Code	External 1 Code
			Customer	Customer Site			
1	SHIP_VIA	IN	ALPHA	1006		Alpha-Air	Alpha-Air
2	SHIP_VIA	IN	ALPHA	1099		Alpha-Fast	Alpha-Air
3	SHIP_VIA	IN	ALPHA			Alpha-Quick	Alpha-Air
4	SHIP_VIA	IN	BETA	1099		Beta-Travel	Beta-Air
5	SHIP_VIA	IN	BETA	1100		Beta-Faster	Beta-Air
6	SHIP_VIA	IN	BETA			Beta-Quicker	Beta-Air
7 *	SHIP_VIA	IN				Over Night	AIR

1. In the search key algorithm table, the first search has the full key including the internal code Over Night. Since there was no table entry for CUSTOMER_NAME with value GAMMA and CUSTOMER_SITE with value 9999 in the code converstion values table, the highest order key is removed for the second search attempt. In this case, the customer site 9999 was removed from the search key parameters. KEY2 with CUSTOMER_SITE was the highest number search key at this time.
2. The second search with just CUSTOMER_NAME with value GAMMA and the internal code Over Night also did not find a table entry. So the current highest

order key is removed for the next search attempt. In this case, the customer GAMMA was removed from the search key parameter. KEY1 with CUSTOMER_NAME was the highest number search key at this time.

3. The third search is made with all blank search keys. The internal code is code Over Night. This search found a table entry. It is shown in entry 7.

   Consequently, the External-1 value AIR from the code conversion value table is copied to CARRIER_EXT1 column in the transaction table. If no table entry is found, then the CARRIER_INT value is copied to the CARRIER_EXT1 column in the transaction table. Ultimately, the data in CARRIER_INT and CARRIER_EXT1 appears in the transaction interface file, if they are assigned a record number, record position, and length respectively. These record assignments are displayed in the Transaction Interface Definition window. window.

11

Extensible Architecture

This chapter contains the following information about Oracle e-Commerce Gateway implementation:

Customizing EDI Transactions

The Oracle e-Commerce Gateway provides two methods to add data elements to transactions that are not defined in the Oracle Applications data model. The two methods are:

Descriptive Flexfields

Extensible Architecture

Either method may be used separately or both methods may be used to customize a specific transaction to meet the business needs. Descriptive flexfields may be used for both inbound and outbound transactions, while the Extensible Architecture feature applies only to outbound transactions.

The transactions in the following table use the Extensible Architecture described below. Refer to Oracle Support's website for documentation for the other outbound transactions using another method of Extensible Architecture, which does not use transaction-specific ECE_ tables.

Oracle Product	Transaction Code	ASCX 12	EDIFACT	Description
Oracle Payables	PYO	820	PAYORD/ REMADV	Payment/Remittance Advice
Oracle Receivables	INO	810	INVOIC	Invoice
Oracle Purchasing	POO	850	ORDERS	Purchase Orders
Oracle Purchasing	POCO	860	ORDCHG	Purchase Order Changes
Oracle Supplier Scheduling	SPSO	830	DELFOR	Planning Schedule
Oracle Supplier Scheduling	SSSO	862	DELJIT	Shipping Schedule
Oracle Receivables and Purchasing	ADVO	824	APERAK	Application Advice

Descriptive Flexfields

The Descriptive Flexfields feature of the Oracle Applications provides a flexible method for adding implementation-specific data elements to any of the applications *without* programming. These data elements are stored in the ATTRIBUTE* columns in the base applications tables. All of the ATTRIBUTE* columns associated with the relevant application base tables for a specific transaction are included in the Oracle e-Commerce Gateway interface tables for outbound transactions and in the Application open interface tables for inbound transactions.

Like all Application base tables, the Oracle e-Commerce Gateway table ECE_TP_ HEADERS and ECE_TP_DETAILS contains ATTRIBUTE* columns. The ATTRIBUTE* columns in ECE_TP_HEADERS and ECE_TP_DETAILS may be used to include additional Trading Partner-specific data in the interface file given the trading partner definition used with the transaction.

Use of the Descriptive Flexfields feature in the Oracle Applications requires no additional setup for inclusion in Oracle e-Commerce Gateway transactions. Once the desired flexfields are set up and defined in the Applications, any data stored in them is automatically included in the relevant Oracle e-Commerce Gateway transaction.

Reference the *Oracle Application Flexfields Guide* for details.

Extensible Architecture

The Extensible Architecture feature of the Oracle e-Commerce Gateway provides a powerful and flexible method to include additional data for outbound transactions. While most business needs for additional data can be accommodated by the use of the Descriptive Flexfields feature in the Oracle Applications, the Extensible Architecture feature is useful when:

More data elements are required than are allowed by the use of Descriptive Flexfields

Data elements need to be extracted from custom Oracle application tables

Data elements need to be extracted from outside the Oracle Applications

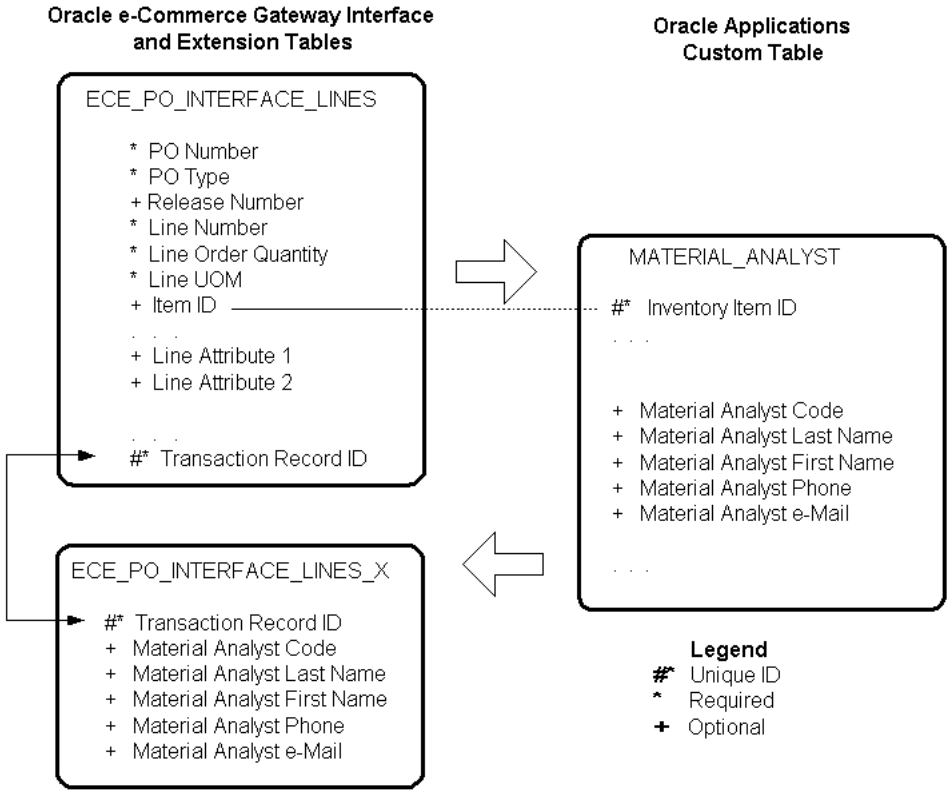
Each outbound transaction in the Oracle e-Commerce Gateway contains a series of interface tables to hold the data that is extracted and denormalized from the relevant Oracle application base tables before being written to the outbound interface file.

Every interface table in the Oracle e-Commerce Gateway also has an associated *extension* table, which may be customized to fit the business needs. Each record in an interface table is linked to the corresponding record in the associated extension table. Consequently, when the interface table record is written to the outbound transaction interface file, the corresponding extension table record is written as well.

The source data to be copied to the extension tables may come from a standard or custom Oracle database table, an external (non-Oracle) relational database or a file. Collectively call these tables and files external tables or external source data in this chapter. The external table must contain the unique key, which is a data element also found in the Oracle e-Commerce Gateway interface table. If the data is not already in the Oracle e-Commerce Gateway transaction interface table, the code needs customization to add that unique identifier to the interface tables in order to become a key to the records in the external source data.

The illustration below shows the ECE_PO_INTERFACE_LINES interface table and its corresponding extension table, ECE_PO_INTERFACE_LINES_X. The ECE_PO_ INTERFACE_LINES table contains the element Item ID which is used as the unique key for a custom Oracle Applications table called MATERIAL_ANALYST. The data from the

MATERIAL_ANALYST table is used to populate the ECE_PO_INTERFACE_LINES_X table.

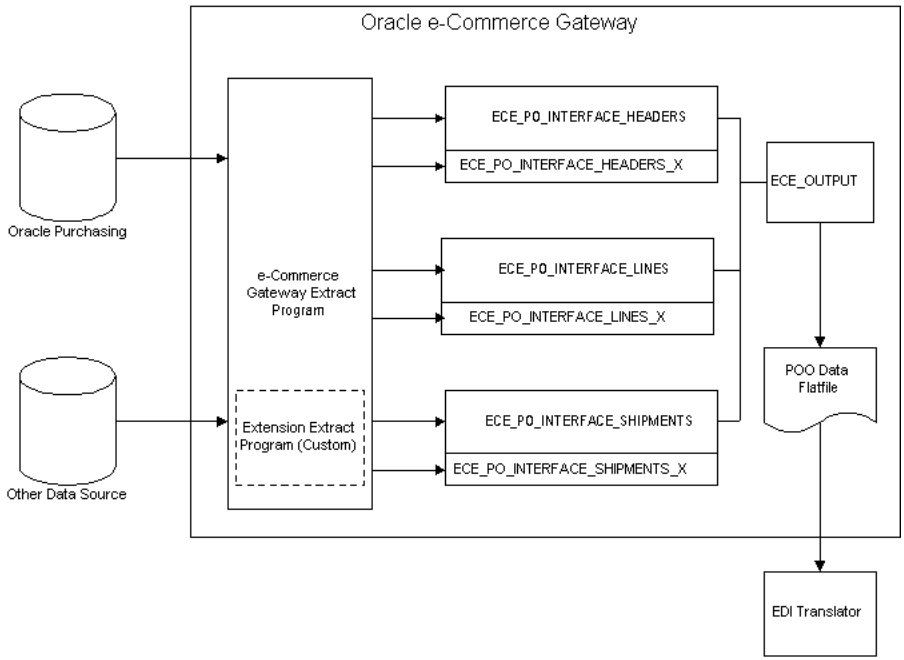


The following process is performed to bring all the data together into the common interface tables before writing the records to the output file.

1. The Oracle e-Commerce Gateway extracts and denormalizes all the relevant Oracle base application data (including Trading Partner data) into the transaction-specific interface tables.
2. Any enabled code conversions are performed after the data is extracted from the base application tables but before the data is written to the interface tables.
3. Using a unique identifier from the interface tables as search keys, data elements are selected from the appropriate external source and written to the extension tables.

4. All data elements from both the interface tables and their corresponding extension tables are formatted into 1024-byte (or less) records, sequenced and written to the transaction-common ECE_OUTPUT table.
5. The formatted records in the ECE_OUTPUT table are written in the proper sequence to the output file.
6. The transaction records are deleted from the interface tables, extension tables and the output table.

Using the outbound Purchase Order transaction as an example, the process flow described above is illustrated as follows:



Steps for Extensible Architecture

The Oracle e-Commerce Gateway uses interface tables, extension tables, packaged procedures and setup tables to create interface data files for outbound EDI transactions. The

setup process to use the Extensible Architecture in the Oracle e-Commerce Gateway is a three-step process, as follows:

1. Define the columns in the extension table.

   Task: Add the desired new column(s) to the appropriate extension table.

2. Define data positions in the outbound interface file.

   Task: For each new column added to the extension table (step 1 above), insert a record into ECE_INTERFACE_COLUMNS to position the data element in the interface file.

3. Modify procedures to move the external source data to the extension tables.

   Task: Modify the appropriate procedure in the extension package body to populate the new column(s) with data.

   Check the Oracle Support web site for updates in these procedures.

Define Columns in the Extension Table

Task: Add columns to the appropriate extension table.

When the Oracle e-Commerce Gateway is installed, all extension tables are created. There is one extension table for each interface table and each extension table has only column: TRANSACTION_RECORD_ID. This column corresponds to the TRANSACTION_ RECORD_ID column in the associated interface table. It is used to maintain the link between the two tables. Simple SQL DDL statements like the ALTER TABLE command may be used to add columns to the desired extension table.

For example, suppose a business assigns a material analyst to each purchased item to determine data like item specifications, tolerances and quality standards. Further suppose that the business has created a custom database table to hold the data about the material analyst, calling it: MATERIAL_ANALYSTS. The business wishes to send contact data from this custom table with each Purchase Order line in the event that the vendor has any item-related questions; specifically, data from the following columns in the custom table:

MATERIAL_ANALYST_CODE

MATERIAL_ANALYST_LAST_NAME

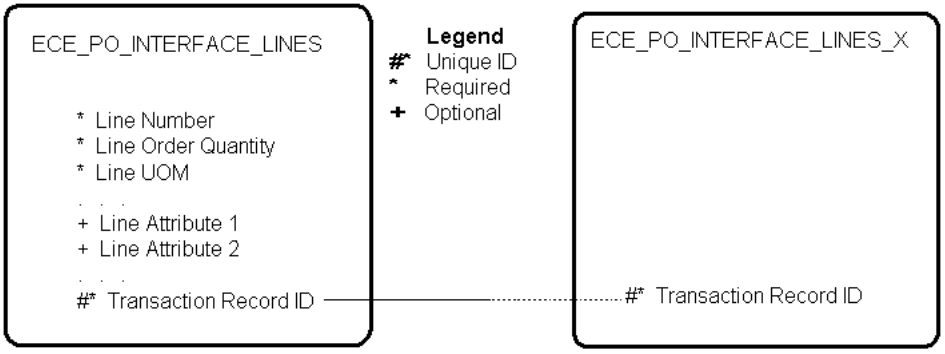
MATERIAL_ANALYST_FIRST_NAME

MATERIAL_ANALYST_PHONE

MATERIAL_ANALYST_EMAIL

First, locate the proper extension table in the database. The Oracle e-Commerce Gateway interface table that holds Purchase Order line data is ECE_PO_INTERFACE_LINES, and

the corresponding extension table is ECE_PO_INTERFACE_LINES_X. As installed, the interface and extension tables may be illustrated as shown below. The ECE_PO_INTERFACE_LINES_X table has only the Transaction Record ID column.



Determine Table Ownership:

Since database tables may only be altered either by their owner or by a user that has been granted this privilege, it is necessary to determine the owner (or schema) for the extension table. By default, all Oracle e-Commerce Gateway tables are owned by the user "EC" when the Oracle Applications are installed, while the "APPS" user is usually created as a privileged account. To verify the owner of the extension table, type the following from any SQL*Plus session:

```
SQL> select owner
     from   all_tables
     where  table_name = 'ECE_PO_INTERFACE_LINES_X';
OWNER
______
EC
1 row selected
```

Add Columns to Extension Table:

To add the desired columns to the extension table, log into SQL*Plus either as the owner (in this case, the user "EC") or as a privileged user (such as "APPS") and type the following:

```
SQL> alter table EC.ECE_PO_INTERFACE_LINES_X
     add   ( Material_Analyst_Code        VARCHAR2(30),
             Material_Analyst_Last_Name   VARCHAR2(40),
```

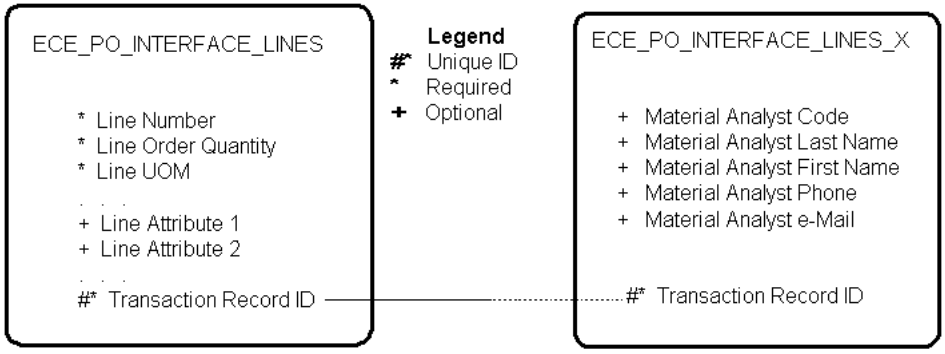
```
                Material_Analyst_First_Name  VARCHAR2(20),
                Material_Analyst_Phone       VARCHAR2(30),
                Material_Analyst_Email       VARCHAR2(30) );
```

Table altered

The new extension table structure can be verified by typing the following:

```
SQL> describe EC.ECE_PO_INTERFACE_LINES_X;
     ECE_PO_INTERFACE_LINES_X
     ________________________________________________________
TRANSACTION_RECORD_ID          NOT NULL   NUMBER
MATERIAL_ANALYST_CODE                     VARCHAR2(30)
MATERIAL_ANALYST_LAST_NAME                VARCHAR2(40)
MATERIAL_ANALYST_FIRST_NAME               VARCHAR2(20)
MATERIAL_ANALYST_PHONE                    VARCHAR2(30)
MATERIAL_ANALYST_EMAIL                    VARCHAR2(30)
```

The extension table has now been modified to fit the business requirements, and the modifications described above are shown below:



Define Data Positions in the Outbound Interface File.

Task: Add records to the ECE_INTERFACE_COLUMNS table

The Oracle e-Commerce Gateway employs a series of tables that function as a data dictionary. When the Oracle e-Commerce Gateway is installed, these tables are seeded with all the data necessary to support the standard transactions. For outbound transactions, the table ECE_INTERFACE_COLUMNS contains the data that informs the extract process

which data elements to write to the interface file, as well as where in the output file to position them. *Only the data elements that appear in this table will be written to the interface file* for a given outbound transaction. Consequently, records for the user-defined data in the extension tables must be added to ECE_INTERFACE_COLUMNS.

Continuing the earlier example, for each column that was added to ECE_PO_INTERFACE_LINES_X, a record must be inserted into ECE_INTERFACE_COLUMNS for the new data to appear in the output file.

Log into a SQL*Plus session either as the owner of ECE_INTERFACE_COLUMNS (typically “EC”) or as a privileged user (such as “APPS”), and type the following command to insert the first column of the new extension table data. Do this for each column that was previously defined.

INSERT Statement follows:

```
INSERT INTO ece_interface_columns(
  interface_column_id,
  interface_table_id,
  interface_column_name,
  base_table_name,
  base_column_name,
  record_number,
  position,
  width,
  data_type,
  conversion_sequence,
  record_layout_code,
  record_layout_qualifier,
  conversion_group_id,
  xref_category_allowed,
  element_tag_name,
  external_level,
  map_id,
  staging_column,
  creation_date,
  created_by,
  last_update_date,
  last_updated_by,
  last_update_login)
  SELECT
     ece_interface_column_id_s.NEXTVAL,
     (SELECT eit.interface_table_id
      FROM   ece_interface_tbls_upg eit,
             ece_mappings_upg         em
```

```
 WHERE  em.map_code         = 'EC_POO_FF' AND
        eit.output_level    = '5' AND
        em.map_id           = eit.map_id),
NULL,
NULL,
'MATERIAL_ANALYST_CODE',
NULL,
NULL,
NULL,
NULL,
NULL,
NULL,
NULL,
NULL,
'N',
NULL,
5,
ece_map_id_s.CURRVAL,
'FIELD500',
SYSDATE,
1,
SYSDATE,
1,
1
FROM DUAL;
```

One INSERT statement is required for **each** column that was added to the extension table.

FIELDnnn Numbers:

In the INSERT statement above you define your specific field to a generic FIELDnnn column in the Oracle e-Commerce Gateway. Five hundred generic FIELD names (FIELD1 through FIELD500) are predefined for any table within a transaction.

It is recommended that you start using FIELD500 then decrease the field number by one for each of your fields. The highest number fields are not likely to be used by the provided transaction. There is a potential problem if you need more columns than are available for the given table. You will lose data if you reuse FIELDnnn columns already used by the Oracle e-Commerce Gateway provided transaction. The method for assigning field numbers to your fields is illustrated in the following table:

Transaction: Purchase Order Outbound Interface Table Name	Starting FIELD number	Ending FIELD number
Oracle e-Commerce Gateway Transaction	1	n
Available fields for transaction changes	N+1	500
Your new fields	Use numbers moving backwards from 500.	500

Record Numbers:

The value for *Record_Number* may be any value within the range of the corresponding interface table values. For example, the Purchase Order Outbound (POO) transaction has the typical Header-Line-Line Detail output structure, with the ranges shown in the following table:

Transaction: Purchase Order Outbound Interface Table Name	Record Number Range
ECE_PO_INTERFACE_HEADERS	1000 - 1999
ECE_PO_INTERFACE_LINES	2000 - 2999
ECE_PO_INTERFACE_SHIPMENTS	3000 - 3999

Although extension table data elements may be interwoven with data elements from the corresponding interface table (provided the total number of bytes for any record does not exceed 1024), it is customary to begin the extension table data with the "x900" record. The value for *Position* determines the relative output order of data elements **within** the specified **Record_Number.**

Attention: Extension table data elements may **only** be mapped within the range of the corresponding interface table, and no single record number may contain more than 1024 bytes of data.

Modify Procedures to Move Data to the Extension Tables.

Task: Modify the package body code

Just as the Extensible Architecture of the Oracle e-Commerce Gateway provides extension tables that may be customized to fit the business needs, it also provides packaged procedures that may be customized to populate the extension tables with data. There is one extension package for each outbound transaction, and each extension package contains one procedure

for every extension table in that transaction. Extension packages consist of two source code files, a package *specification*, and a package *body*, with file names in the respective window:

ECExxxxXS.pls

ECExxxxXB.pls

where *xxxx* denotes the unique three or four letter identifier for a given transaction. These source code files are usually found in the directory:

$APPL_TOP/ec/admin/sql

and may be modified with any text editor. Only the package *body* requires modification; the package *specification* file should **not** be altered.

For example, the Purchase Order Outbound (POO) transaction has the corresponding extension package body “ECEPOOXB.pls” containing the following procedures:

Populate_Ext_Header

Populate_Ext_Line

Populate_Ext_Shipment

To populate the new columns added to ECE_PO_INTERFACE_LINES_X in the earlier example, the procedure “Populate_Ext_Line” requires modification. As installed, the entire procedure reads as follows:

Procedure follows:

```
PROCEDURE Populate_Ext_Line
             (l_fkey        IN NUMBER,
              l_plsql_table IN ece_flatfile_pvt.interface_tbl_type)
IS
BEGIN
  NULL;
END PROCEDURE Populate_Ext_Line;
```

which does absolutely nothing, although the procedure is called each time a record is inserted into ECE_PO_INTERFACE_LINES. The procedure takes two parameters: a 'key' value, and a PL/SQL table. The 'key' value is the TRANSACTION_RECORD_ID value, which is the primary key for both the interface table and the extension table.

'interface_tbl_type' is a PL/SQL table typedef with the following structure:

```
base_table_name         VARCHAR2(50)  -- Application table name
base_column_name        VARCHAR2(50)  -- Application column name
interface_table_name    VARCHAR2(50)  -- Interface table name
interface_column_name   VARCHAR2(50)  -- Interface column name
record_num      NUMBER        -- Interface File Record Num
```

```
position      NUMBER        -- Interface File Position
data_type                VARCHAR2(50)  -- Data type
data_length              NUMBER        -- Data length
value                    VARCHAR2(400) -- Interface table value
layout_code              VARCHAR2(2)   -- Layout Code
layout_qualifier         VARCHAR2(3)   -- Layout Qualifier
interface_column_id      NUMBER        -- Interface Column Id
conversion_sequence      NUMBER        -- Conversion Sequence
xref_category_id         NUMBER        -- Cross-reference category
conversion_group_id      NUMBER        -- Conversion Group Id
xref_key1_source_column VARCHAR2(50)  -- Cross-reference source 1
xref_key2_source_column VARCHAR2(50)  -- Cross-reference source 2
xref_key3_source_column VARCHAR2(50)  -- Cross-reference source 3
xref_key4_source_column VARCHAR2(50)  -- Cross-reference source 4
xref_key5_source_column VARCHAR2(50)  -- Cross-reference source 5
ext_val1                 VARCHAR2(80)  -- Cross-reference value 1
ext_val2                 VARCHAR2(80)  -- Cross-reference value 2
ext_val3                 VARCHAR2(80)  -- Cross-reference value 3
ext_val4                 VARCHAR2(80)  -- Cross-reference value 4
ext_val5                 VARCHAR2(80)  -- Cross-reference value 5
```

Each record in the PL/SQL table represents a single column in the interface table, and there is one record in the PL/SQL table for every column in the interface table. (In other words, the PL/SQL table can be viewed as an array of records, with each record having the above structure.) The 'int_val' attribute holds the value stored in the interface table column (converted to VARCHAR2).

Attention: It is important to note that the PL/SQL table is built using the COLUMN_NAMEs from the associated outbound transaction *view*, and **not** from the associated outbound interface *table*. Therefore, when using the **ece_flatfile_pvt** package procedures and functions, make sure that the COLUMN_NAME value that is passed matches the column name in the associated *view*.

To complete the earlier example, suppose that the custom table MATERIAL_ANALYSTS contains the column INVENTORY_ITEM_ID to associate the material analyst contact data with a specific purchasable item. The following modifications to the "Populate_Ext_Lines" procedure will extract the necessary data from the custom database table and insert it into the extension table.

The Procedure:

```
PROCEDURE Populate_Ext_Line
             (l_fkey        IN NUMBER,
              l_plsql_table IN ece_flatfile_PVT.interface_tbl_type)
```

```
IS

  /*
  **
  **  Variable definitions.
  **
  */

  v_ItemID          INTEGER;
  v_ItemIDPosition  INTEGER;

BEGIN

  /*
  **  Find the position of the ITEM_ID in the PL/SQL table.  Then
  **  use the value stored in that position to select the necessary
  **  contact data from the MATERIAL_ANALYSTS custom table.
  **
  */

 ece_flatfile_PVT.find_pos ( l_plsql_table,
                                 'ITEM_ID',
                                 v_ItemIDPosition );

  /*
  **  Every value in the PL/SQL table is stored as VARCHAR2,
  **  so convert the value to a number.
  **
  */

  v_ItemID := TO_NUMBER(l_plsql_table(v_ItemIDPosition).value);

  /*
  **  Get the necessary data from MATERIAL_ANALYSTS and insert it
  **  into ECE_PO_INTERFACE_LINES_X.
  */

  INSERT INTO ece_po_interface_lines_x( Transaction_Record_ID,
                                        Material_Analyst_Code,
                                        Material_Analyst_Last_Name,
                                        Material_Analyst_First_Name,
                                        Material_Analyst_Phone,
                                        Material_Analyst_Email )
                                 SELECT l_fkey,
                                        material_analyst_code,
```

```
                                        material_analyst_last_name,
                                        material_analyst_first_name,
                                        material_analyst_phone,
                                        material_analyst_email
                                FROM    material_analysts
                                WHERE   inventory_item_id = v_ItemID;
    END PROCEDURE Populate_Ext_Line;
```

Once the procedure has been modified, it must be recompiled for the changes to take effect. Log into SQL*Plus as the “APPS” user, and issue the following command:

```
SQL> @ECEPOOXB.pls
Package body created.
```

The customization process is complete; each subsequent execution of the outbund Purchase Order transaction will include the new extension table data elements in the output transaction interface file.

A

Transaction Summary Layouts

This appendix contains the following information about Oracle e-Commerce Gateway implementation:

Oracle Inventory Transaction Summaries

The following Oracle Inventory transaction is summarized in this appendix.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Movement Statistics	Outbound	MVSTO	N/A	CUSDEC

Current Information

The transaction file may change when enhancements are made such as additional data added to the transaction.

Current transaction summaries can be found on Oracle Support's web site.

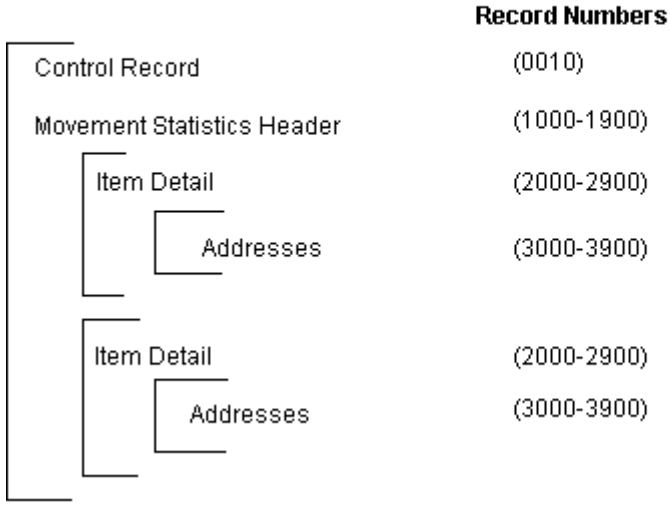
Current detail record layouts are reported via the Transaction Definition Layout Report and the Interface File Data Report.

Outbound Movement Statistics (INTRASTAT)

(MVSTO/No X12/CUSDEC) Record Structure

A single transaction has the following data hierarchy and data looping.

(MVSTO) Outbound Movement Statistics Structure



An outbound movement statistics transaction contains a single Control Record and Movement Statistics Header Record. The header record may have multiple Item Detail Records, which may have multiple Address Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Outbound Movement Statistics transaction:

Table A–1 Record occurrences within the MVSTO transaction:

Records	Content	Occurrences
0010-0050	e-Commerce Gateway Control Records	Only one record occurrence per transaction
1000-1020	Movement Header Records	Only one record occurrence per transaction
2000-2230	Movement Detail Records	One set of records per item within the movement header
3000-3020	Movement Location Records	One set of records per item within the movement detail

The following table is a summary list of the records that comprise the Outbound Movement Statistics transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–2 MVSTO Transaction Record Summary:

	Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Trading Partner Header Flexfields	HEADER	0020-0050	Custom
3	Movement Type, Status, Period	HEADER	1000	
4	Legal Entity Address	HEADER	1010	
5	Total Units, Records & Weight	HEADER	1020	
6	Nature of Transaction/Movement	DETAIL	2000	
7	Post, Area, Zone Code	DETAIL	2010	
8	Currency, Cost, Price	DETAIL	2020	
9	Transaction Qty, UOM, Weight	DETAIL	2030	
10	Commodity Code/Description	DETAIL	2040	
11	Item Description, Comments	DETAIL	2050	
12	Document Source/Reference	DETAIL	2060	
13	Shipment/Receipt Reference, Container	DETAIL	2070	
14	Invoice Date/Reference/Qty	DETAIL	2080	
15	Bill to Address	DETAIL	2090	
16	Vendor Name/Site	DETAIL	2100	
17	Movement Flexfields	DETAIL	2200-2230	Flexfields
18	Bill to Address	LOCATION	3000	
19	Ship to Address	LOCATION	3010	
20	Vendor Address	LOCATION	3020	

The following table shows the Common Key (positions 1-100) for the Outbound Movement Statistics transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–3 Transaction-specific Data in the Common Key of the MVSTO transaction:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	HEADER	Movement Header
48-69	22	DETAIL	Movement Detail
70-91	22	LOCATION	Move Detail Location
92-95	4	(Varies)	Record Number
96-97	2	(Varies)	Record Layout
98-100	3	(Varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Movement Statistics transaction.

Table A–4 Transaction-specific Data in the Common Key of the MVSTO transaction, per record:

	Data	Trading Partner	Ref 1 (Header)	Ref 2 (Detail)	Ref 3 (Location)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	HEADER			0010	CT	CTL
2	Trading Partner Hdr Flexfields 1-4	TP_CD	HEADER			0020	A1	TH1
3	Trading Partner Hdr Flexfields 4-9	TP_CD	HEADER			0030	A2	TH2
4	Trading Partner Hdr Flexfields 10-14	TP_CD	HEADER			0040	A2	TH3
5	Trading Partner Hdr Flexfield 15	TP_CD	HEADER			0050	A2	TH4
6	Movement Type, Status, Period	TP_CD	HEADER			1000	RP	RPT
7	Legal Entity Address	TP_CD	HEADER			1010	AX	LE1
8	Total Units, Records & Weight	TP_CD	HEADER			1020	RP	TOT
9	Nature of Transaction/Movement	TP_CD	HEADER	DETAIL		2000	MV	MOV
10	Post, Area, Zone Code	TP_CD	HEADER	DETAIL		2010	MV	MV1
11	Currency, Cost, Price	TP_CD	HEADER	DETAIL		2020	MV	CUR
12	Transaction Qty, UOM, Weight	TP_CD	HEADER	DETAIL		2030	MV	AMT
13	Commodity Code/Description	TP_CD	HEADER	DETAIL		2040	MV	COM

Table A–4 Transaction-specific Data in the Common Key of the MVSTO transaction, per record: (Continued)

	Data	Trading Partner	Ref 1 (Header)	Ref 2 (Detail)	Ref 3 (Location)	Record Number	Record Layout	Record Layout Qualifier
14	Item Description, Comments	TP_CD	HEADER	DETAIL		2050	MV	CMT
15	Document Source/Reference	TP_CD	HEADER	DETAIL		2060	MV	DOC
16	Shipment/Receipt Reference, Container	TP_CD	HEADER	DETAIL		2070	MV	MSC
17	Invoice Date/Reference/Qty	TP_CD	HEADER	DETAIL		2080	MV	INV
18	Bill to Address	TP_CD	HEADER	DETAIL		2090	LC	CUS
19	Vendor Name/Site	TP_CD	HEADER	DETAIL		2100	LC	VEN
20	Movement Flexfields 1-4	TP_CD	HEADER	DETAIL		2200	A1	MV1
21	Movement Flexfields 5-9	TP_CD	HEADER	DETAIL		2210	A2	MV2
22	Movement Flexfields 10-14	TP_CD	HEADER	DETAIL		2220	A2	MV3
23	Movement Flexfield 15	TP_CD	HEADER	DETAIL		2230	A2	MV4
24	Bill to Address	TP_CD	HEADER	DETAIL	LOCATION	3000	AD	BT1
25	Ship to Address	TP_CD	HEADER	DETAIL	LOCATION	3010	AD	ST1
26	Vendor Address	TP_CD	HEADER	DETAIL	LOCATION	3020	AD	VN1

Oracle Order Management Transaction Summaries

Table A–5 The following Oracle Release Management transactions are available in Release 11.5.1.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Purchase Order	Inbound	POI	850	ORDERS
Purchase Order Change	Inbound	POCI	860	ORDCHG
Purchase Order Acknowledgment	Outbound	POAO	855	ORDRSP
Purchase Order Acknowledgment	Outbound	PCAO	865	ORDRSP

Current Information

The transaction file may change when enhancements are made such as additional data added to the transaction.

Current transaction summaries can be found on Oracle Support's web site when they are released.

Current detail record layouts are reported via the Transaction Definition Layout Report and the Interface File Data Report.

Oracle Payables Transaction Summaries

Table A–6 The following Oracle Payables transactions are summarized in this appendix.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Invoice	Inbound	INI	810	INVOIC
Shipment and Billing Notice	Inbound	SBNI	857	N/A
Application Advice	Outbound	ADVO	824	APERAK
Payment Order/Remittance Advice	Outbound	PYO	820	PAYORD/ PAYEXT/ REMADV

Current Information

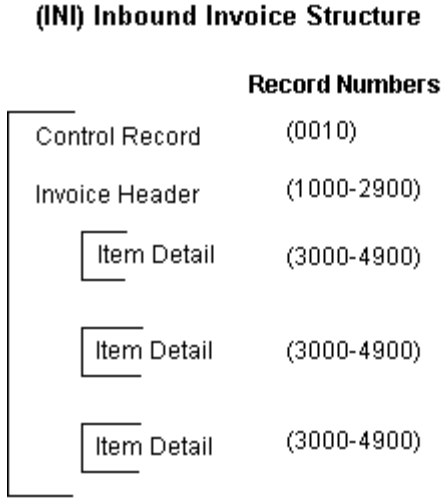
The transaction file may change when enhancements are made such as additional data added to the transaction.

Current transaction summaries can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Definition Layout Report and the Interface File Data Report.

Inbound Invoice

(INI/810/INVOIC)
A single transaction has the following data hierarchy and data looping.



An inbound invoice transaction contains a single Control Record and Invoice Header Record. The header record may have multiple Item Detail Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Inbound Invoice transaction:

Table A–7 Record occurrences within the INI transaction:

Records	Content	Occurrences
0010	Control Records	Only one record occurrence per transaction
0020-0070	Gateway Flexfields	One set of records per transaction.
1000-2999	Invoice Header Records	Only one record occurrence per transaction
3000-4999	Invoice Item Records	One set of records per item within the invoice header

The following table is a summary list of the records that comprise the Inbound Invoice transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–8 INI Transaction Record Summary:

	Data	Data Level	Record Number	Note
1	Control Record	INVOICE HEADER	0010	
2	Basic Invoice Header	INVOICE HEADER	1000	
3	Currency	INVOICE HEADER	1010	
4	Bill From Address	INVOICE HEADER	1020	
5	Invoice Header Flexfields	INVOICE HEADER	2000-2030	Flexfields
6	Invoice Header Global Flexfields	INVOICE HEADER	2100-2140	Flexfields
7	Extension Tables: Invoice Header	INVOICE HEADER	2900	(Custom)
8	Basic Item	INVOICE LINE	3000	
9	Basic Item (Description, Tax)	INVOICE LINE	3010	
10	Invoice Line Flexfields	INVOICE LINE	3020	Misc. Description
11	Invoice Line Flexfields	INVOICE LINE	4000-4030	Flexfields
12	Invoice Line Global Flexfields	INVOICE LINE	4100-4140	Flexfields
13	Extension Tables: Invoice Item Data	INVOICE LINE	4900	(Custom)

Inbound Invoice Common Key The following table shows the Common Key (positions 1-100) for the Inbound Invoice transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–9 Transaction-specific data in the INI transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	INVOICE	Invoice number
48-69	22	ITEM	Purchase Order Line Item Number
70-91	22	(blank)	(blank)
92-95	4	(Varies)	Record Number
96-97	2	(Varies)	Record Layout
98-100	3	(Varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Inbound Invoice transaction.

Table A–10 Transaction-specific data in the Common Key positions per record of the INI transaction

	Data	Trading Partner	Ref. 1 (Invoice)	Ref. 2 (Item)	Ref. 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	INVOICE			0010	CT	CTL
2	Basic Invoice Header	TP_CD	INVOICE			1000	IV	IV1
3	Basic Invoice Header	TP_CD	INVOICE			1010	IV	IV2
4	Vendor Site	TP_CD	INVOICE			1020	AD	BF
5	Invoice Header Flexfields 1-4	TP_CD	INVOICE			2000	A1	IV1
6	Invoice Header Flexfields 5-9	TP_CD	INVOICE			2010	A2	IV2
7	Invoice Header Flexfields 10-14	TP_CD	INVOICE			2020	A2	IV3
8	Invoice Header Flexfield 15	TP_CD	INVOICE			2030	A2	IV4
9	Invoice Header Global Flexfields1-4	TP_CD	INVOICE			2100	A1	HG1

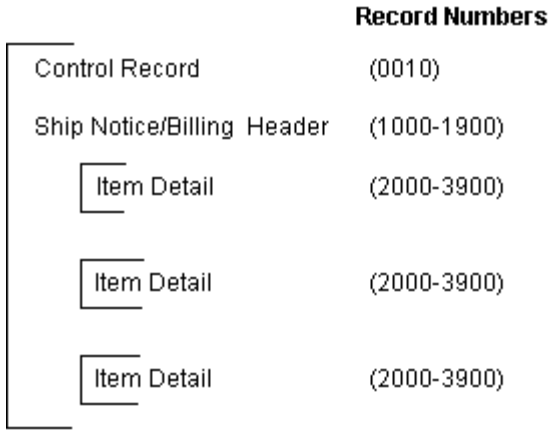
Table A–10 Transaction-specific data in the Common Key positions per record of the INI transaction (Continued)

	Data	Trading Partner	Ref. 1 (Invoice)	Ref. 2 (Item)	Ref. 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
10	Invoice Header Global Flexfields 5-9	TP_CD	INVOICE			2110	A2	HG2
11	Invoice Header Global Flexfields 10-14	TP_CD	INVOICE			2120	A2	HG3
12	Invoice Header Global Flexfields 15-19	TP_CD	INVOICE			2130	A2	HG4
13	Invoice Header Global Flexfield 20	TP_CD	INVOICE			2140	A2	HG5
14	Extension Tables: Invoice Header	TP_CD	INVOICE			2900		(Custom)
15	Basic Item Data	TP_CD	INVOICE	ITEM		3000	IT	IT1
16	Basic Item Data (description)	TP_CD	INVOICE	ITEM		3010	IT	IT2
17	Misc. Description	TP_CD	INVOICE	ITEM		3020	IT	IT3
18	Invoice Line Flexfields 1-4	TP_CD	INVOICE	ITEM		4000	A1	IT1
19	Invoice Line Flexfields 5-9	TP_CD	INVOICE	ITEM		4010	A2	IT2
20	Invoice Line Flexfields 10-14	TP_CD	INVOICE	ITEM		4020	A2	IT3
21	Invoice Line Flexfield 15	TP_CD	INVOICE	ITEM		4030	A2	IT4
22	Invoice Line Global Flexfields 1-4	TP_CD	INVOICE	ITEM		4100	A1	IG1
23	Invoice Line Global Flexfields 5-9	TP_CD	INVOICE	ITEM		4110	A2	IG2
24	Invoice Line Global Flexfields 10-14	TP_CD	INVOICE	ITEM		4120	A2	IG3
25	Invoice Line Global Flexfields 15-19	TP_CD	INVOICE	ITEM		4130	A2	IG4
26	Invoice Line Global Flexfield 20	TP_CD	INVOICE	ITEM		4140	A2	IG5
27	Extension Tables: Item	TP_CD	INVOICE	ITEM		4900		(Custom)

Inbound Shipment and Billing Notice

(SBNI/857/No EDIFACT)
A single transaction has the following data hierarchy and data looping.

(SBNI) Inbound Ship Notice/Billing Structure



An Inbound Shipment and Billing Notice transaction contains a single Control Record and Ship Notice/Billing Header. The header record may have multiple Item Detail Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Inbound Shipment and Billing Notice transaction.

Table A–11 Record occurrences within the transaction:

Records	Content	Occurrences
0010	Control Records	Only one record occurrence per transaction
1000-1900	Shipment Notice Header Records	Only one record occurrence per transaction
2000-3900	Shipment Notice Item Records	One set of records per item within the Shipment Notice header

The following table is a summary list of the records that comprise the Inbound Shipment and Billing Notice transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–12 SBNI Transaction Record Summary

Seq	Type of Data	Data Level	Record	Note
1	Control Record	HEADER	0010	
2	Shipment Notice Basic Header	HEADER	1000	
3	Carrier, Weights, Packaging	HEADER	1010	
4	Shipment Method of Payment	HEADER	1020	
5	Currency, Tax, Payment Terms	HEADER	1030	
6	Allowances/Charges (Freight)	HEADER	1040	
7	Hazardous Material, Special Handling	HEADER	1050	
8	Header Note	HEADER	1090	
9	Vendor Address/Code	HEADER	1100	
10	Destination Address/Code	HEADER	1120	
11	Destination Contact	HEADER	1130	
12	Shipment Header Flexfields	HEADER	1200-1230	Flexfields
13	Basic Item Data	LINE	2000	
14	Hazardous Material Codes	LINE	2010	
15	Currency, Tax (Item Level)	LINE	2020	
16	Notes	LINE	2030	
17	Shipment Line Flexfields	LINE	2100-2130	Flexfields

Table A–12 SBNI Transaction Record Summary (Continued)

Seq	Type of Data	Data Level	Record	Note
18	Transaction Flexfields	LINE	2140-2170	Flexfields
19	Destination Address	LINE	3000	
20	Destination Location	LINE	3020	

Inbound Shipment and Billing Notice Common Key The following table shows the Common Key (positions 1-100) for the Inbound Shipment and Billing Notice transaction. The table shows the position, code, length, and content of the Common Key elements.

Table A–13 Transaction-specific data in the SBNI transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	SHIPMENT	Shipment Number
48-69	22	LINE	Item Number
70-91	22	(blank)	N/A
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Inbound Shipment and Billing Notice transaction.

Table A–14 Transaction-specific data in the Common Key per record of the SBNI transaction

	Record	TP_CD	Ref 1 (Shipment)	Ref 2 (Line)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	SHIPMENT			0010	CT	CTL
2	Shipment Notice Basic Header	TP_CD	SHIPMENT			1000	L1	DL1
3	Carrier, Weights, Packaging	TP_CD	SHIPMENT			1010	L2	DL2

Table A–14 Transaction-specific data in the Common Key per record of the SBNI transaction (Continued)

	Record	TP_CD	Ref 1 (Shipment)	Ref 2 (Line)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
4	Shipment Method of Payment	TP_CD	SHIPMENT			1020	L3	DL3
5	Currency, Tax, Payment Terms	TP_CD	SHIPMENT			1030	L4	DL4
6	Allowances/Charges (Freight)	TP_CD	SHIPMENT			1040	L5	DL5
7	Hazardous Material, Special Handling	TP_CD	SHIPMENT			1050	HZ	HZ1
8	Header Note	TP_CD	SHIPMENT			1090	N1	NH1
9	Vendor Address/Code	TP_CD	SHIPMENT			1100	AD	SF
10	Destination Address/Code	TP_CD	SHIPMENT			1120	AX	ST
11	Destination Contact	TP_CD	SHIPMENT			1130	CN	ST
12	Shipment Header Flexfields 1-4	TP_CD	SHIPMENT			1200	A1	SH1
13	Shipment Header Flexfields 5-9	TP_CD	SHIPMENT			1210	A2	SH2
14	Shipment Header Flexfields 10-14	TP_CD	SHIPMENT			1220	A2	SH3
15	Shipment Header Flexfield 15	TP_CD	SHIPMENT			1230	A2	SH4
16	Basic Item Data	TP_CD	SHIPMENT	LINE		2000	L1	IT1
17	Hazardous Material Codes	TP_CD	SHIPMENT	LINE		2010	L2	IT2
18	Currency, Tax (Item Level)	TP_CD	SHIPMENT	LINE		2020	L3	IT3
19	Notes	TP_CD	SHIPMENT	LINE		2030	N1	ND1
20	Shipment Line Flexfields1-4	TP_CD	SHIPMENT	LINE		2100	A1	SL1
21	Shipment Line Flexfields 5-9	TP_CD	SHIPMENT	LINE		2110	A2	SL2
22	Shipment Line Flexfields 10-14	TP_CD	SHIPMENT	LINE		2120	A2	SL3
23	Shipment Line Flexfield 15	TP_CD	SHIPMENT	LINE		2130	A2	SL4
24	Order Line Flexfields 1-4	TP_CD	SHIPMENT	LINE		2140	A1	RC1
25	Order Line Flexfields 5-9	TP_CD	SHIPMENT	LINE		2150	A2	RC2
26	Order Line Flexfields 10-14	TP_CD	SHIPMENT	LINE		2160	A2	RC3

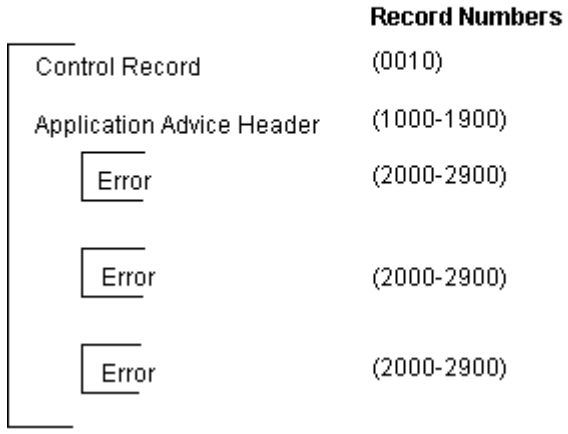
Table A–14 Transaction-specific data in the Common Key per record of the SBNI transaction (Continued)

	Record	TP_CD	Ref 1 (Shipment)	Ref 2 (Line)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
27	Order Line Flexfield 15	TP_CD	SHIPMENT	LINE		2170	A2	RC4
28	Destination Address/Code	TP_CD	SHIPMENT	LINE		3000	AX	ST
29	Destination Location	TP_CD	SHIPMENT	LINE		3020	CO	ST

Outbound Application Advice

(ADVO/824/APERAK)
A single transaction has the following data hierarchy and data looping.

(ADVO) Outbound Application Advice Structure



An Outbound Application Advice transaction contains a single Control Record and Application Advice Header. The header record may have multiple Error records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Outbound Application Advice transaction.

Table A–15 Record occurrences within the ADVO transaction:

Records	Content	Occurrences
0010	Control Record	Only one record occurrence per transaction
0020-0070	Gateway Flexfields	One set of records per transaction.
1000-1999	Application Advice Header Records	Only one record occurrence per transaction
2000-2999	Application Advice Detail Records	One set of detail records per error within the transaction.

The following table is a summary list of the records that comprise the Outbound Application Advice transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–16 ADVO Transaction Record Summary

	Type of Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Trading Partner Header Attributes	HEADER	0020-050	Custom
3	Trading Partner Detail Attributes	HEADER	0060-0070	Custom
4	Advice Header External References	HEADER	1000-1010	Flexfields
6	Advice Header Internal References	HEADER	1020-1030	Flexfields
8	Trading Partner Address	HEADER	1040	
9	Extension Table: Header Level	HEADER	1900	(Custom)
10	Advice Detail External References	DETAIL	2000-2010	Flexfields
12	Advice Detail Internal References	DETAIL	2020-2030	Flexfields
14	Advice Detail Data (Error)	DETAIL	2040	
15	Advice Detail Data (Accepted)	DETAIL	2050	
16	Extension Table: Detail Level	DETAIL	2900	(Custom)

Outbound Application Advice Common Key The following table shows the Common Key (positions 1-100) for the Outbound Application Advice transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–17 Transaction specific data in the ADVO transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	DOC	Related Document ID
48-69	22	ERR_CNT	Error Counter
70-91	22	(blank)	Not Used
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Application Advice transaction.

Table A–18 Transaction-specific data in the Common Key of the ADVO transaction, per record:

	Record	TP_CD	Ref 1 (DOC)	Ref 2 (ERR_ CNT)	Ref 3 (blank)	Record Number	Record Layout	Record Qualifier
1	Control Record	TP_CD				0010	CT	CTL
2	Trading Partner Header Attributes	TP_CD				0020	A1	TH1
3	Trading Partner Header Attributes	TP_CD				0030	A2	TH2
4	Trading Partner Header Attributes	TP_CD				0040	A2	TH3
5	Trading Partner Header Attributes	TP_CD				0050	A2	TH4
6	Trading Partner Detail Attributes	TP_CD				0060	A1	TD1
7	Trading Partner Detail Attributes	TP_CD				0070	A2	TD2
8	Advice Header External References 1-4	TP_CD	DOC			1000	HD	EX1

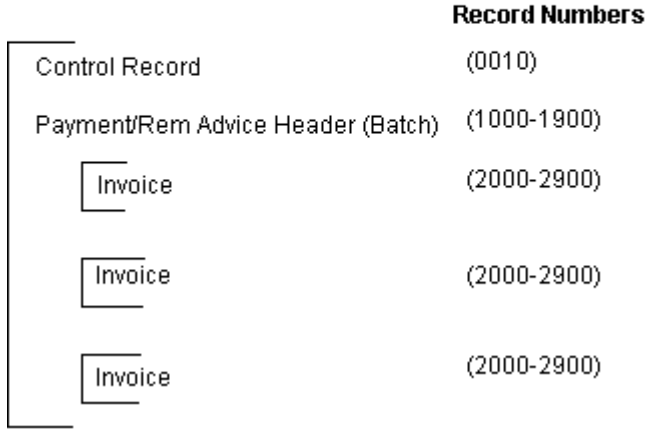
Table A–18 Transaction-specific data in the Common Key of the ADVO transaction, per record: (Continued)

	Record	TP_CD	Ref 1 (DOC)	Ref 2 (ERR_ CNT)	Ref 3 (blank)	Record Number	Record Layout	Record Qualifier
9	Advice Header External References 5-6	TP_CD	DOC			1010	HD	EX2
10	Advice Header Internal References 1-5	TP_CD	DOC			1020	HD	IN1
11	Advice Header Internal Reference 6	TP_CD	DOC			1030	HD	IN2
12	Trading Partner Address	TP_CD	DOC			1040	AD	TP1
13	Extension Table: Header Level	TP_CD	DOC			1900	(custom)	(custom)
14	Advice Detail External References 1-4	TP_CD	DOC	ERR_CNT		2000	DT	EX1
15	Advice Detail External References 5-6	TP_CD	DOC	ERR_CNT		2010	DT	EX2
16	Advice Detail Internal References 1-5	TP_CD	DOC	ERR_CNT		2020	DT	IN1
17	Advice Detail Internal Reference 6	TP_CD	DOC	ERR_CNT		2030	DT	IN2
18	Advice Detail Data (Error)	TP_CD	DOC	ERR_CNT		2040	ER	ER1
19	Advice Detail Data (Accepted)	TP_CD	DOC	ERR_CNT		2050	AC	AC1
20	Extension Table: Detail Level	TP_CD	DOC	ERR_CNT		2900	(custom)	(custom)

Outbound Payment Order/Remittance Advice

(PYO/820/PAYORD/REMADV)
A single transaction has the following data hierarchy and data looping.

(PYO) Outbound Payment Order/ Remittance Advice Structure



An Outbound Payment Order/Remittance Advice transaction contains a single Control Record and Payment/Remittance Advice Header. The header record may contain have Invoice Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Outbound Payment Order/Remittance Advice transaction.

Table A–19 Record occurrences within the PYO transaction:

Records	Content	Occurrences
0010	Control Record	Only one record occurrence per transaction
0020-0070	Gateway Flexfields	One set of records per transaction.
1000-1250	Payment Header Records	Only one record occurrence per transaction
2000-2090	Remittance/Invoice Records	One set of records per invoice within the Payment Header

The following table is a summary list of the records that comprise the Outbound Payment Order/Remittance Advice transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–20 PYO Transaction Record Summary

	Type of Data	Data Level	Record Number	
1	Control Record	CHECK	0010	
2	Trading Partner Header Attributes	CHECK	0020-0050	Custom
3	Trading Partner Detail Attributes	CHECK	0060-0070	Custom
4	Account Data	CHECK	1000	
5	Payment Data	CHECK	1010	
6	Vendor Flexfields	CHECK	1020	
7	Bank Address/Code	CHECK	1030	
8	Bank Contacts	CHECK	1040	
9	Supplier Bank	CHECK	1050	
10	Vendor Site Address/Code	CHECK	1080	
11	Global ABA Attribute Flexfields	CHECK	1090-1130	Flexfields
12	Global ABAS Attribute Flexfields	CHECK	1140-1180	Flexfields
13	Global PVS Attribute Flexfields	CHECK	1190-1230	Flexfields
14	Bill To Internal Address	CHECK	1240	
15	VAT Registration	CHECK	1250	
16	Extension Tables: Payment Data	CHECK	1900	(custom)
17	Remittance/Invoice Details	INVOICE	2000	
18	Remittance Advice Flexfields	INVOICE	2010-2040	Flexfields
19	Global INV Attribute Flexfields	INVOICE	2050-2090	Flexfields

Outbound Payment Order/Remittance Advice Common Key The following table shows the Common Key (positions 1-100) for the Outbound Payment Order/Remittance Advice transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–21 Transaction-specific data in the PYO transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	BATCH	Payment Batch Number
48-69	22	INVOICE	Invoice Number
70-91	22	(blank)	Not Used
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Payment Order/Remittance Advice transaction.

Table A–22 Transaction-specific data in the Common Key of the PYO transaction, per record.

	Record	TP_CD	Ref 1 (BATCH)	Ref 2 (INVOICE)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD				0010	CT	CTL
2	Trading Partner Header Attributes	TP_CD				0020	A1	TH1
3	Trading Partner Header Attributes	TP_CD				0030	A2	TH2
4	Trading Partner Header Attributes	TP_CD				0040	A2	TH3
5	Trading Partner Header Attributes	TP_CD				0050	A2	TH4
6	Trading Partner Detail Attributes	TP_CD				0060	A1	TD1
7	Trading Partner Detail Attributes	TP_CD				0070	A2	TD2
8	Account Data	TP_CD	BATCH			1000	BK	BK1
9	Payment Data	TP_CD	BATCH			1010	PY	PAY
10	Vendor Flexfields	TP_CD	BATCH			1020	VN	VN1

Table A–22 Transaction-specific data in the Common Key of the PYO transaction, per record. (Continued)

	Record	TP_CD	Ref 1 (BATCH)	Ref 2 (INVOICE)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
11	Bank Address/Code	TP_CD	BATCH			1030	AD	BK1
12	Bank Contacts	TP_CD	BATCH			1040	CN	BK1
13	Supplier Bank	TP_CD	BATCH			1050	AD	SB1
14	Vendor Site Address/Code	TP_CD	BATCH			1080	AD	VS1
15	Global ABA Flexfields 1-4	TP_CD	BATCH			1090	GA	BK1
16	Global ABA Flexfields 5-9	TP_CD	BATCH			1100	GA	BK2
17	Global ABA Flexfields 10-14	TP_CD	BATCH			1110	GA	BK3
18	Global ABA Flexfields 15-19	TP_CD	BATCH			1120	GA	BK4
19	Global ABA Flexfield 20	TP_CD	BATCH			1130	GA	BK5
20	Global ABAS Flexfields 1-4	TP_CD	BATCH			1140	GA	SK1
21	Global ABAS Flexfields 5-9	TP_CD	BATCH			1150	GA	SK2
22	Global ABAS Flexfields 10-14	TP_CD	BATCH			1160	GA	SK3
23	Global ABAS Flexfields 15-19	TP_CD	BATCH			1170	GA	SK4
24	Global ABAS Flexfield 20	TP_CD	BATCH			1180	GA	SK5
25	Global PVS Flexfields 1-4	TP_CD	BATCH			1190	GA	VS1
26	Global PVS Flexfields 5-9	TP_CD	BATCH			1200	GA	VS2
27	Global PVS Flexfields 10-14	TP_CD	BATCH			1210	GA	VS3
28	Global PVS Flexfields 15-19	TP_CD	BATCH			1220	GA	VS4
29	Global PVS Flexfield 20	TP_CD	BATCH			1230	GA	VS5
30	Bill To Internal Address	TP_CD	BATCH			1240	AX	PY
31	VAT Registration	TP_CD	BATCH			1250	VA	TAX
32	Extension Tables: Payment Data	TP_CD	BATCH			1900	(custom)	(custom)
33	Remittance/Invoice Details	TP_CD	BATCH	INVOICE		2000	IV	INV
34	Remittance Advice Flexfields 1-4	TP_CD	BATCH	INVOICE		2010	A1	RE1

Table A–22 Transaction-specific data in the Common Key of the PYO transaction, per record. (Continued)

	Record	TP_CD	Ref 1 (BATCH)	Ref 2 (INVOICE)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
35	Remittance Advice Flexfields 5-9	TP_CD	BATCH	INVOICE		2020	A1	RE2
36	Remittance Advice Flexfields 10-14	TP_CD	BATCH	INVOICE		2030	A1	RE3
37	Remittance Advice Flexfield 15	TP_CD	BATCH	INVOICE		2040	A1	RE4
38	Global INV Flexfields 1-4	TP_CD	BATCH	INVOICE		2050	GA	IN1
39	Global INV Flexfields 5-9	TP_CD	BATCH	INVOICE		2060	GA	IN2
40	Global INV Flexfields 10-14	TP_CD	BATCH	INVOICE		2070	GA	IN3
41	Global INV Flexfields 15-19	TP_CD	BATCH	INVOICE		2080	GA	IN4
42	Global INV Flexfield 20	TP_CD	BATCH	INVOICE		2090	GA	IN5

Oracle Process Manufacturing Transaction Summaries

Table A–23 The following Oracle Process Manufacturing transactions are available.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
OPM: Purchase Order	Inbound	GPOI	850	ORDERS
OPM: Purchase Order Acknowledgment	Outbound	GPOAO	855	ORDRSP
OPM: Ship Notice/Manifest	Outbound	GASNO	856	ORDADV

Current Information

Refer to the *Oracle Process Manufacturing User's Guide* for transaction details.

Current detail record layouts are reported via the Transaction Definition Layout Report and the Interface File Data Report.

Oracle Purchasing Transaction Summaries

Table A–24 The following Oracle Purchasing transactions are summarized in this appendix.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Price/Sales Catalog	Inbound	CATI	832	PRICAT
Response to Request for Quotation	Inbound	RRQI	843	QUOTES
Ship Notice/Manifest	Inbound	ASNI	856	DESADV
Shipment and Billing Notice	Inbound	SBNI	857	N/A
Application Advice	Outbound	ADVO	824	APERAK
Purchase Order	Outbound	POO	850	ORDERS
Purchase Order Change	Outbound	POCO	860	ORDCHG

Current Information

The transaction file may change when enhancements are made such as additional data added to the transaction.

Current transaction summaries can be found on Oracle Support's web site.

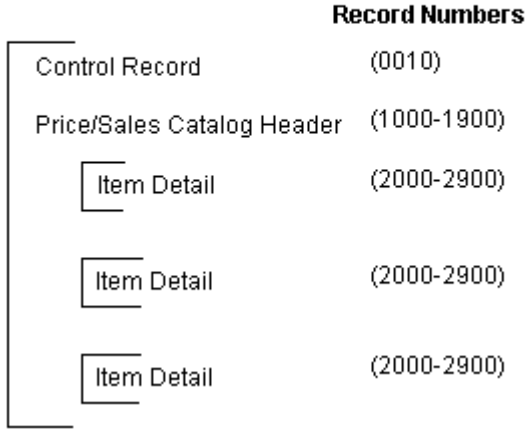
Current detail record layouts are reported via the Transaction Definition Layout Report and the Interface File Data Report.

Inbound Price/Sales Catalog

(CATI/832/PRICAT)

A single transaction has the following data hierarchy and data looping.

(CATI) Inbound Price/Sales Catalog Structure



An Inbound Price/Sales Catalog transaction contains a single Control Record and Price/Sales Catalog Header Record. The header record may have multiple Item Detail Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Inbound Price/Sales Catalog transaction.

Table A–25 Record occurrences within the CATI transaction:

Records	Content	Occurrences
0010	Control Record	Only one record occurrence per transaction
1000-1999	Transaction Header	Only one set of records per price/sales catalog
2000-2999	Transaction Item	One set of item records per item within the transaction.

The following table is a summary list of the records comprising the Inbound Price/Sales Catalog transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–26 CATI Transaction Record Summary:

	Type of Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Transaction Identification	HEADER	1000	
3	Currency, Payment Terms	HEADER	1010	
4	FOB, Carrier, Freight Terms	HEADER	1020	
5	Action Type, Group Code	HEADER	1030	
6	Comments	HEADER	1040	
7	Ship to Address	HEADER	1100	
8	Bill to Address	HEADER	1110	
9	Ship From Address	HEADER	1120	
10	Header Flexfields	HEADER	1200-1230	Flexfields
11	Item Identification	LINE	2000	
12	Quantity, Description	LINE	2010	
13	Prices, Dates	LINE	2020	
14	Payment Terms (Item Level)	LINE	2030	
15	FOB, Carrier, Freight Terms (Item Level)	LINE	2040	
16	Hazardous data, Weight, Volume, Lead Time	LINE	2050	
17	Ship To Data (Item Level)	LINE	2100	
18	Line Level Flexfields	LINE	2200-2230	Flexfields
19	Shipment Flexfields	LINE	2240-2270	Flexfields
20	Item Level Flexfields	LINE	2280-2310	Flexfields
21	Item Level Flexfields	LINE	2280-2310	Flexfields
22	Item Level Flexfields	LINE	2280-2310	Flexfields

Inbound Price/Sales Catalog Common Key The following table shows the Common Key (positions 1-100) for the Inbound Price/Sales Catalog transaction. The table shows the position, length, code and content of the Common Key elements.

Table A–27 Transaction-specific data in the CATI transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	DOC	Transaction Identification from trading partner
48-69	22	ITEM	Supplier Item Number
70-91	22	(blank)	Not Used
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Inbound Price/Sales Catalog transaction.

Table A–28 Transaction-specific data in the Common Key of the CATI transaction, per record.

	Record	TP_CD	Ref 1 (DOC)	Ref 2 (ITEM)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	DOC			0010	CT	CTL
2	Transaction Identification	TP_CD	DOC			1000	HA	HD1
3	Currency, Payment Terms	TP_CD	DOC			1010	HB	HD2
4	FOB, Carrier, Freight Terms	TP_CD	DOC			1020	HC	HD3
5	Action Type	TP_CD	DOC			1030	HE	HD5
6	Comments	TP_CD	DOC			1040	NT	HCM
7	Ship to Address	TP_CD	DOC			1100	AX	ST
8	Bill to Address	TP_CD	DOC			1110	AX	BT
9	Ship From Address	TP_CD	DOC			1120	AD	SF
10	Header Flexfields 1-4	TP_CD	DOC			1200	A1	HD1

Table A–28 Transaction-specific data in the Common Key of the CATI transaction, per record. (Continued)

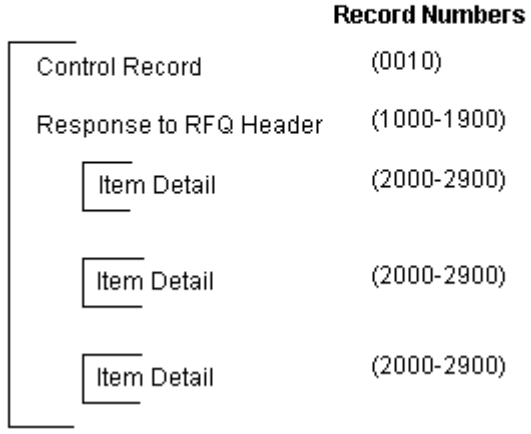
	Record	TP_CD	Ref 1 (DOC)	Ref 2 (ITEM)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
11	Header Flexfields 5-9	TP_CD	DOC			1210	A2	HD2
12	Header Flexfields 10-14	TP_CD	DOC			1220	A2	HD3
13	Header Flexfields 15	TP_CD	DOC			1230	A2	HD4
14	Item Identification	TP_CD	DOC	LINE		2000	IA	IT1
15	Quantity, Description	TP_CD	DOC	LINE		2010	IB	IT2
16	Prices, Dates	TP_CD	DOC	LINE		2020	IC	IT3
17	Payment Terms (Item Level)	TP_CD	DOC	LINE		2030	ID	IT4
18	FOB, Carrier, Freight Terms (Item Level)	TP_CD	DOC	LINE		2040	IE	IT5
19	Hazardous data, Weight, Volume, Lead Time	TP_CD	DOC	LINE		2050	IF	IT6
21	Ship To Data (Item Level)	TP_CD	DOC	LINE		2100	AX	ST
22	Line Level Flexfield 1-4	TP_CD	DOC	LINE		2200	A1	LN1
23	Line Level Flexfield 5-9	TP_CD	DOC	LINE		2210	A2	LN2
24	Line Level Flexfield 10-14	TP_CD	DOC	LINE		2220	A2	LN3
25	Line Level Flexfield 15	TP_CD	DOC	LINE		2230	A2	LN4
26	Shipment Flexfield 1-4	TP_CD	DOC	LINE		2240	A1	SH1
27	Shipment Flexfield 5-9	TP_CD	DOC	LINE		2250	A2	SH2
28	Shipment Flexfield 10-14	TP_CD	DOC	LINE		2260	A2	SH3
29	Shipment Flexfield 15	TP_CD	DOC	LINE		2270	A2	SH4
30	Item Level Flexfield 1-4	TP_CD	DOC	LINE		2280	A1	IT1
31	Item Level Flexfield 5-9	TP_CD	DOC	LINE		2290	A2	IT2
32	Item Level Flexfield 10-14	TP_CD	DOC	LINE		2300	A2	IT3
33	Item Level Flexfield 15	TP_CD	DOC	LINE		2310	A2	IT4

Inbound Response to Request for Quotation

(RRQI/843/QUOTES)

A single transaction has the following data hierarchy and data looping.

(RRQI) Inbound Response to Request for Quotation Structure



An Inbound Response to Request for Quotation transaction contains a single Control Record and Response to RFQ Header Record. The header record may have multiple Item Detail Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Inbound Response to Request for Quotation transaction.

Table A–29 Record occurrences within the RRQI transaction:

Records	Content	Occurrences
0010	Control Record	Only one record occurrence per transaction
1000-1999	Transaction Header	Only one set of records per request quote
2000-2999	Transaction Item	One set of item records per item within the transaction.

The following table is a summary list of the records comprising the Inbound Response to Request for Quotation transaction. The table shows the functional grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–30 RRQI Transaction Record Summary:

	Type of Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Transaction Identification	HEADER	1000	
3	Currency, Payment Terms	HEADER	1010	
4	FOB, Carrier, Freight Terms	HEADER	1020	
5	Action Type, Group Code	HEADER	1030	
6	Comments	HEADER	1040	
7	Ship to Address	HEADER	1100	
8	Bill to Address	HEADER	1110	
9	Ship From Address	HEADER	1120	
10	Header Flexfields	HEADER	1200-1230	Flexfields
11	Item Identification	LINE	2000	
12	Quantity, Description	LINE	2010	
13	Prices, Dates	LINE	2020	
14	Payment Terms (Item Level)	LINE	2030	
15	FOB, Carrier, Freight Terms (Item Level)	LINE	2040	
16	Hazardous data, Weight, Volume, Lead Time	LINE	2050	
17	Ship To Data (Item Level)	LINE	2100	
18	Line Level Flexfields	LINE	2200-2230	Flexfields
19	Shipment Flexfields	LINE	2240-2270	Flexfields
20	Item Level Flexfields	LINE	2280-2310	Flexfields

Inbound Response to Request for Quotation Common Key The following table shows the Common Key (positions 1-100) for the Inbound Response to Request for Quotation

transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–31 Transaction-specific data in the RRQI Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the Translator
26-47	22	DOC	Transaction Identification from trading partner
48-69	22	ITEM	Supplier Item Number
70-91	22	(blank)	Not Used
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Inbound Response to Request for Quotation transaction.

Table A–32 Transaction-specific data in the Common Key of the RRQI transaction, per record

	Record	TP_CD	Ref 1 (DOC)	Ref 2 (ITEM)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	DOC			0010	CT	CTL
2	Transaction Identification	TP_CD	DOC			1000	HA	HD1
3	Currency, Payment Terms	TP_CD	DOC			1010	HB	HD2
4	FOB, Carrier, Freight Terms	TP_CD	DOC			1020	HC	HD3
5	Action Type	TP_CD	DOC			1030	HE	HD5
6	Comments	TP_CD	DOC			1040	NT	HCM
7	Ship to Address	TP_CD	DOC			1100	AX	ST
8	Bill to Address	TP_CD	DOC			1110	AX	BT
9	Ship From Address	TP_CD	DOC			1120	AD	SF
10	Header Flexfields 1-4	TP_CD	DOC			1200	A1	HD1

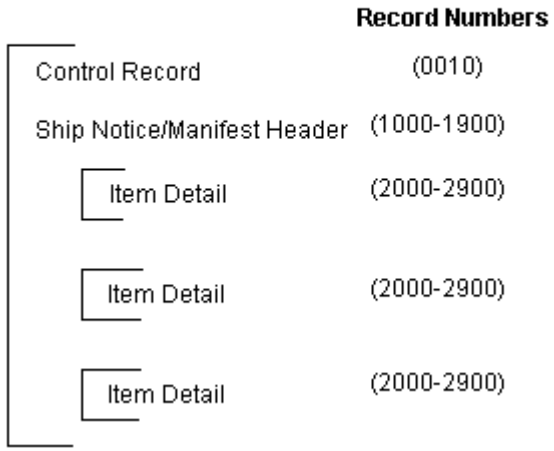
Table A–32 Transaction-specific data in the Common Key of the RRQI transaction, per record (Continued)

	Record	TP_CD	Ref 1 (DOC)	Ref 2 (ITEM)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
11	Header Flexfields 5-9	TP_CD	DOC			1210	A2	HD2
12	Header Flexfields 10-14	TP_CD	DOC			1220	A2	HD3
13	Header Flexfield 15	TP_CD	DOC			1230	A2	HD4
14	Item Identification	TP_CD	DOC	LINE		2000	IA	IT1
15	Quantity, Description	TP_CD	DOC	LINE		2010	IB	IT2
16	Prices, Dates	TP_CD	DOC	LINE		2020	IC	IT3
17	Payment Terms (Item Level)	TP_CD	DOC	LINE		2030	ID	IT4
18	FOB, Carrier, Freight Terms (Item Level)	TP_CD	DOC	LINE		2040	IE	IT5
19	Hazardous data, Weight, Volume, Lead Time	TP_CD	DOC	LINE		2050	IF	IT6
21	Ship To Data (Item Level)	TP_CD	DOC	LINE		2100	AX	ST
22	Line Level Flexfields 1-4	TP_CD	DOC	LINE		2200	A1	LN1
23	Line Level Flexfields 5-9	TP_CD	DOC	LINE		2210	A2	LN2
24	Line Level Flexfields 10-14	TP_CD	DOC	LINE		2220	A2	LN3
25	Line Level Flexfield 15	TP_CD	DOC	LINE		2230	A2	LN4
26	Shipment Flexfields 1-4	TP_CD	DOC	LINE		2240	A1	SH1
27	Shipment Flexfields 5-9	TP_CD	DOC	LINE		2250	A2	SH2
28	Shipment Flexfields 10-14	TP_CD	DOC	LINE		2260	A2	SH3
29	Shipment Flexfield 15	TP_CD	DOC	LINE		2270	A2	SH4
30	Item Level Flexfields 1-4	TP_CD	DOC	LINE		2280	A1	IT1
31	Item Level Flexfields 5-9	TP_CD	DOC	LINE		2290	A2	IT2
32	Item Level Flexfields 10-14	TP_CD	DOC	LINE		2300	A2	IT3
33	Item Level Flexfield 15	TP_CD	DOC	LINE		2310	A2	IT4

Inbound Ship Notice/Manifest

(ASNI/856/DESADV)
A single transaction has the following data hierarchy and data looping.

(ASNI) Inbound Ship Notice/Manifest Structure



An Inbound Ship Notice/Manifest transaction contains a single Control Record and Ship Notice/Manifest Header Record. The header record may have multiple Item Detail Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Inbound Ship Notice/Manifest transaction:

Table A–33 Record occurrences within the ASNI transaction:

Records	Content	Occurrences
0010	Control Record	Only one record occurrence per transaction
1000-1900	Shipment Notice Header Records	Only one record occurrence per transaction
2000-3900	Shipment Notice Item Records	One set of records per item within the Shipment Notice header

The following table is a summary list of the records that comprise the Inbound Ship Notice/Manifest transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–34 ASNI Transaction Record Summary:

	Type of Data	Data Level	RECORD	Note
1	Control Record	HEADER	0010	
2	Shipment Notice Basic Header	HEADER	1000	
3	Carrier, Weights, Packaging	HEADER	1010	
4	Shipment Method of Payment	HEADER	1020	
5	Currency, Tax, Payment Terms	HEADER	1030	
6	Allowances/Charges (Freight)	HEADER	1040	
7	Hazardous Material, Special Handling	HEADER	1050	
8	Header Note	HEADER	1090	
9	Vendor Address/Code	HEADER	1100	
10	Destination Address/Code	HEADER	1120	
11	Destination Contact	HEADER	1130	
12	Shipment Header Flexfields	HEADER	1200-1230	Flexfields
13	Basic Item Data	LINE	2000	
14	Hazardous Material Codes	LINE	2010	
15	Currency, Tax (Item Level)	LINE	2020	
16	Notes, Shipping Instructions	LINE	2030	
17	Shipment Line Flexfields	LINE	2100-2130	Flexfields
18	Transaction Flexfields	LINE	2140-2170	Flexfields
19	Destination Address	LINE	3000	
20	Destination Location	LINE	3020	

Inbound Ship Notice/Manifest Common Key The following table shows the Common Key (positions 1-100) for the Inbound Ship Notice/Manifest transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–35 Transaction-specific data in the ASNI transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	SHIPMENT	Shipment Number
48-69	22	LINE	Item Number
70-91	22	(blank)	N/A
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Inbound Ship Notice/Manifest transaction.

Table A–36 Transaction-specific data in the Common Key of the ASNI transaction, per record

	Record	TP_CD	Ref 1 (SHIPMENT)	Ref 2 (LINE)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	SHIPMENT			0010	CT	CTL
2	Shipment Notice Basic Header	TP_CD	SHIPMENT			1000	L1	DL1
3	Carrier, Weights, Packaging	TP_CD	SHIPMENT			1010	L2	DL2
4	Shipment Method of Payment	TP_CD	SHIPMENT			1020	L3	DL3
5	Currency, Tax, Payment Terms	TP_CD	SHIPMENT			1030	L4	DL4
6	Allowances/Charges (Freight)	TP_CD	SHIPMENT			1040	L5	DL5
7	Hazardous Material, Special Handling	TP_CD	SHIPMENT			1050	HZ	HZ1
8	Header Note	TP_CD	SHIPMENT			1090	N1	NH1
9	Vendor Address/Code	TP_CD	SHIPMENT			1100	AD	SF
10	Destination Address/Code	TP_CD	SHIPMENT			1120	AX	ST
11	Destination Contact	TP_CD	SHIPMENT			1130	CN	ST
12	Shipment Header Flexfields 1-4	TP_CD	SHIPMENT			1200	A1	SH1

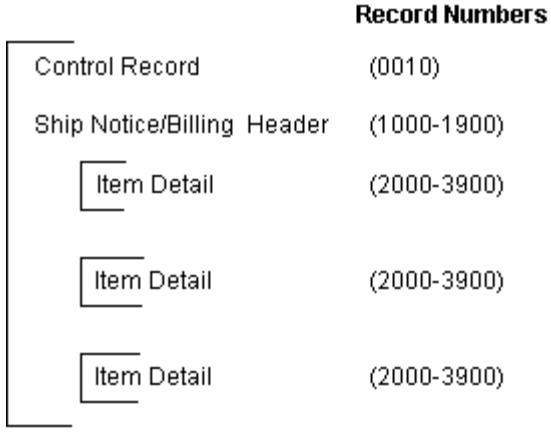
Table A–36 Transaction-specific data in the Common Key of the ASNI transaction, per record (Continued)

	Record	TP_CD	Ref 1 (SHIPMENT)	Ref 2 (LINE)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
13	Shipment Header Flexfields 5-9	TP_CD	SHIPMENT			1210	A2	SH2
14	Shipment Header Flexfields 10-14	TP_CD	SHIPMENT			1220	A2	SH3
15	Shipment Header Flexfield 15	TP_CD	SHIPMENT			1230	A2	SH4
16	Basic Item Data	TP_CD	SHIPMENT	LINE		2000	L1	IT1
17	Hazardous Material Codes	TP_CD	SHIPMENT	LINE		2010	L2	IT2
18	Currency, Tax (Item Level)	TP_CD	SHIPMENT	LINE		2020	L3	IT3
19	Notes	TP_CD	SHIPMENT	LINE		2030	N1	ND1
20	Shipment Line Flexfields 1-4	TP_CD	SHIPMENT	LINE		2100	A1	SL1
21	Shipment Line Flexfields 5-9	TP_CD	SHIPMENT	LINE		2110	A2	SL2
22	Shipment Line Flexfields 10-14	TP_CD	SHIPMENT	LINE		2120	A2	SL3
23	Shipment Line Flexfield 15	TP_CD	SHIPMENT	LINE		2130	A2	SL4
24	Order Line Flexfields 1-4	TP_CD	SHIPMENT	LINE		2140	A1	RC1
25	Order Line Flexfields 5-9	TP_CD	SHIPMENT	LINE		2150	A2	RC2
26	Order Line Flexfields 10-14	TP_CD	SHIPMENT	LINE		2160	A2	RC3
27	Order Line Flexfield 15	TP_CD	SHIPMENT	LINE		2170	A2	RC4
28	Destination Address/Code	TP_CD	SHIPMENT	LINE		3000	AX	ST
29	Destination Location	TP_CD	SHIPMENT	LINE		3020	CO	ST

Inbound Shipping and Billing Notice

(SBNI/857/No EDIFACT)
A single transaction has the following data hierarchy and data looping.

(SBNI) Inbound Ship Notice/Billing Structure



An Inbound Shipping and Billing Notice transaction contains a single Control Record and Ship Notice/Billing Header Record. The header record may have multiple Item Detail records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Inbound Shipping and Billing Notice transaction.

Table A–37 Record occurrences within the SBNI transaction:

Records	Content	Occurrences
0010	Control Record	Only one record occurrence per transaction
1000-1900	Shipment Notice Header Records	Only one record occurrence per transaction
2000-3900	Shipment Notice Item Records	One set of records per item within the Shipment Notice header

The following table is a summary list of the records that comprise the Inbound Shipping and Billing Notice transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–38 SBNI Transaction Record Summary:

Seq.	Type of Data	Data Level	RECORD	Note
1	Control Record	HEADER	0010	
2	Shipment Notice Basic Header	HEADER	1000	
3	Carrier, Weights, Packaging	HEADER	1010	
4	Shipment Method of Payment	HEADER	1020	
5	Currency, Tax, Payment Terms	HEADER	1030	
6	Allowances/Charges (Freight)	HEADER	1040	
7	Hazardous Material, Special Handling	HEADER	1050	
8	Header Note	HEADER	1090	
9	Vendor Address/Code	HEADER	1100	
10	Destination Address/Code	HEADER	1120	
11	Destination Contact	HEADER	1130	
12	Shipment Header Flexfields	HEADER	1200-1230	Flexfields
13	Basic Item Data	LINE	2000	
14	Hazardous Material Codes	LINE	2010	
15	Currency, Tax (Item Level)	LINE	2020	
16	Notes	LINE	2030	
17	Shipment Line Flexfields	LINE	2100-2130	Flexfields
18	Transaction Flexfields	LINE	2140-2170	Flexfields
19	Destination Address	LINE	3000	
20	Destination Location	LINE	3020	

Inbound Shipping and Billing Notice Common Key The following table shows the Common Key (positions 1-100) for the Inbound Shipping and Billing Notice transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–39 Transaction specific data in the SBNI transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	SHIPMENT	Shipment Number
48-69	22	LINE	Item Number
70-91	22	(blank)	N/A
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Inbound Shipping and Billing Notice transaction.

Table A–40 Transaction-specific data in the Common Key of the SBNI transaction, per record

	Record	TP_CD	Ref 1 (SHIPMENT)	Ref 2 (LINE)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	SHIPMENT			0010	CT	CTL
2	Shipment Notice Basic Header	TP_CD	SHIPMENT			1000	L1	DL1
3	Carrier, Weights, Packaging	TP_CD	SHIPMENT			1010	L2	DL2
4	Shipment Method of Payment	TP_CD	SHIPMENT			1020	L3	DL3
5	Currency, Tax, Payment Terms	TP_CD	SHIPMENT			1030	L4	DL4
6	Allowances/Charges (Freight)	TP_CD	SHIPMENT			1040	L5	DL5
7	Hazardous Material, Special Handling	TP_CD	SHIPMENT			1050	HZ	HZ1
8	Header Note	TP_CD	SHIPMENT			1090	N1	NH1
9	Vendor Address/Code	TP_CD	SHIPMENT			1100	AD	SF
10	Destination Address/Code	TP_CD	SHIPMENT			1120	AX	ST
11	Destination Contact	TP_CD	SHIPMENT			1130	CN	ST
12	Shipment Header Flexfields 1-4	TP_CD	SHIPMENT			1200	A1	SH1

Table A–40 Transaction-specific data in the Common Key of the SBNI transaction, per record (Continued)

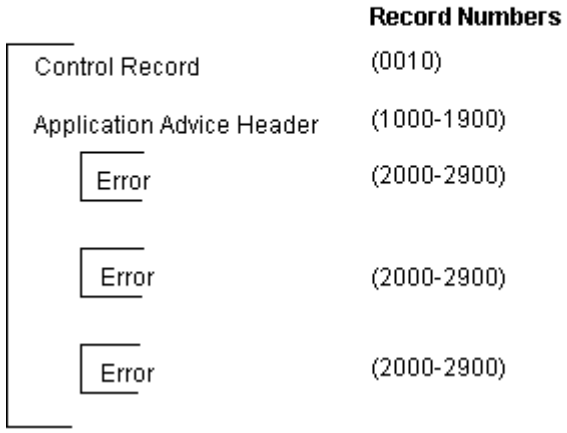
	Record	TP_CD	Ref 1 (SHIPMENT)	Ref 2 (LINE)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
13	Shipment Header Flexfields 5-9	TP_CD	SHIPMENT			1210	A2	SH2
14	Shipment Header Flexfields 10-14	TP_CD	SHIPMENT			1220	A2	SH3
15	Shipment Header Flexfield 15	TP_CD	SHIPMENT			1230	A2	SH4
16	Basic Item Data	TP_CD	SHIPMENT	LINE		2000	L1	IT1
17	Hazardous Material Codes	TP_CD	SHIPMENT	LINE		2010	L2	IT2
18	Currency, Tax (Item Level)	TP_CD	SHIPMENT	LINE		2020	L3	IT3
19	Notes	TP_CD	SHIPMENT	LINE		2030	N1	ND1
20	Shipment Line Flexfields1-4	TP_CD	SHIPMENT	LINE		2100	A1	SL1
21	Shipment Line Flexfields 5-9	TP_CD	SHIPMENT	LINE		2110	A2	SL2
22	Shipment Line Flexfields 10-14	TP_CD	SHIPMENT	LINE		2120	A2	SL3
23	Shipment Line Flexfield 15	TP_CD	SHIPMENT	LINE		2130	A2	SL4
24	Order Line Flexfields 1-4	TP_CD	SHIPMENT	LINE		2140	A1	RC1
25	Order Line Flexfields 5-9	TP_CD	SHIPMENT	LINE		2150	A2	RC2
26	Order Line Flexfields 10-14	TP_CD	SHIPMENT	LINE		2160	A2	RC3
27	Order Line Flexfield 15	TP_CD	SHIPMENT	LINE		2170	A2	RC4
28	Destination Address/Code	TP_CD	SHIPMENT	LINE		3000	AX	ST
29	Destination Location	TP_CD	SHIPMENT	LINE		3020	CO	ST

Outbound Application Advice

(ADVO/824/APERAK)

A single transaction has the following data hierarchy and data looping.

(ADVO) Outbound Application Advice Structure



An Outbound Application Advice transaction contains a single Control Record and Application Advice Header Record. The header record may have multiple Error Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Outbound Application Advice transaction.

Table A–41 Record occurrences within the ADVO transaction:

Records	Content	Occurrences
0010	Control Record	Only one record occurrence per transaction
0020-0070	Gateway Flexfields	One set of records per transaction.
1000-1999	Application Advice Header Records	Only one record occurrence per transaction
2000-2999	Application Advice Detail Records	One set of detail records per error within the transaction.

The following table is a summary list of the records that comprise the Outbound Application Advice transaction. The table shows the functional data grouping, the data level, the record number, and relevant notes about the data grouping.

Table A–42 ADVO Transaction Record Summary:

	Type of Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Trading Partner Header Attributes	HEADER	0020-0050	Custom
3	Trading Partner Detail Attributes	HEADER	0060-0070	Custom
4	Advice Header External References	HEADER	1000-1010	Flexfields
6	Advice Header Internal References	HEADER	1020-1030	Flexfields
8	Trading Partner Address	HEADER	1040	
9	Extension Table: Header Level	HEADER	1900	(Custom)
10	Advice Detail External References	DETAIL	2000-2010	Flexfields
12	Advice Detail Internal References	DETAIL	2020--2030	Flexfields
14	Advice Detail Data (Error)	DETAIL	2040	
15	Advice Detail Data (Accepted)	DETAIL	2050	
16	Extension Table: Detail Level	DETAIL	2900	(Custom)

Outbound Application Advice Common Key The following table shows the Common Key (positions 1-100) for the Outbound Application Advice transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–43 Transaction-specific data in the ADVO Common Key

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	DOC	Related Document ID
48-69	22	ERR_CNT	Error Counter
70-91	22	(blank)	Not Used
92-95	4	(varies)	Record Number

96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Application Advice transaction.

Table A–44 Transaction-specific data in the Common Key of the ADVO transaction, per record

	Record	TP_CD	Ref 1 (DOC)	Ref 2 (ERR_ CNT)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD				0010	CT	CTL
2	Trading Partner Header Attributes	TP_CD				0020	A1	TH1
3	Trading Partner Header Attributes	TP_CD				0030	A2	TH2
4	Trading Partner Header Attributes	TP_CD				0040	A2	TH3
5	Trading Partner Header Attributes	TP_CD				0050	A2	TH4
6	Trading Partner Detail; Attributes	TP_CD				0060	A1	TD1
7	Trading Partner Detail Attributes	TP_CD				0070	A2	TD2
8	Advice Header External References 1-4	TP_CD	DOC			1000	HD	EX1
9	Advice Header External References 5-6	TP_CD	DOC			1010	HD	EX2
10	Advice Header Internal References 1-5	TP_CD	DOC			1020	HD	IN1
11	Advice Header Internal Reference 6	TP_CD	DOC			1030	HD	IN2
12	Trading Partner Address	TP_CD	DOC			1040	AD	TP1
13	Extension Table: Header Level	TP_CD	DOC			1900	(custom)	(custom)
14	Advice Detail External References 1-4	TP_CD	DOC	ERR_CNT		2000	DT	EX1

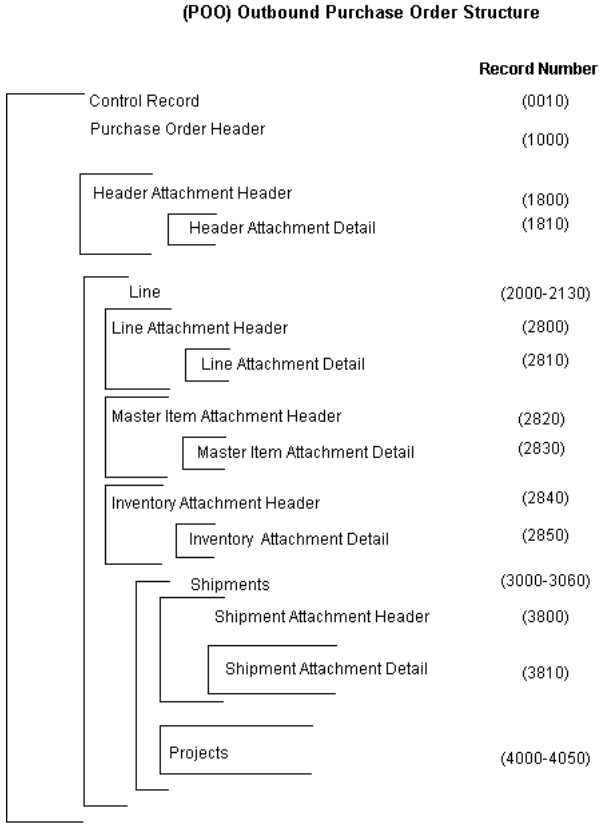
Table A–44 Transaction-specific data in the Common Key of the ADVO transaction, per record (Continued)

	Record	TP_CD	Ref 1 (DOC)	Ref 2 (ERR_ CNT)	Ref 3 (blank)	Record Number	Record Layout	Record Layout Qualifier
15	Advice Detail External References 5-6	TP_CD	DOC	ERR_CNT		2010	DT	EX2
16	Advice Detail Internal References 1-5	TP_CD	DOC	ERR_CNT		2020	DT	IN1
17	Advice Detail Internal Reference 6	TP_CD	DOC	ERR_CNT		2030	DT	IN2
18	Advice Detail Data (Error)	TP_CD	DOC	ERR_CNT		2040	ER	ER1
19	Advice Detail Data (Accepted)	TP_CD	DOC	ERR_CNT		2050	AC	AC1
20	Extension Table: Detail Level	TP_CD	DOC	ERR_CNT		2900	(custom)	(custom)

Outbound Purchase Orders

(POO/850/ORDERS)

A single transaction has the following data hierarchy and data looping.



An Outbound Purchase Order transaction contains a single Control Record and Purchase Order Header Record. The header record may have multiple Header Attachment Detail Records and Line Records. The Line Record may have multiple Line Attachment Header Records, Master Item Attachment Header Records, and Inventory Item Attachment Header Records. The Line Attachment Header Record may have multiple Line Attachment Detail Records. The Master Item Attachment Header Record may have multiple Master Item Attachment Detail Records. The Inventory Attachment Header Record may have multiple

Inventory Attachment Detail Records and multiple Shipment Records. The Shipment Records may have multiple Shipment Attachment Header Records and Projects Records. The Shipment Attachment Header Record may have multiple Shipment Attachment Detail Records.

The following table shows the content and occurrences of the records comprising the Outbound Purchase Order transaction.

Table A–45 Record occurrences within the POO transaction:

Records	Content	Occurrences
0010	Control Record	Only one record occurrence per transaction
0020-0070	Gateway Flexfields	One set of records per transaction.
1000-1900	PO Header Records	Only one record occurrence per transaction
2000-2900	PO Line Records	One set of records per line within the PO header
3000-3900	PO Shipment Records	One set of records per schedule within the PO line

The following table is a summary list of the records that comprise the Outbound Purchase Order transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–46 POO Transaction Record Summary

Seq.	Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Trading Partner Header Flexfields	HEADER	0020-0050	Custom
3	Trading Partner Detail Flexfields	HEADER	0060-0070	Custom
4	Purchase Order Basic Header	HEADER	1000	
5	Payment Terms	HEADER	1010	
6	Purchase Order Basic Header	HEADER	1020	
7	Purchase Order Notes to Supplier	HEADER	1030	
8	Purchase Order Flexfields	HEADER	1040-1070	Flexfields
9	Supplier Flexfields	HEADER	1080-1110	Flexfields
10	Supplier Site Flexfields	HEADER	1120-1150	Flexfields

Table A–46 POO Transaction Record Summary (Continued)

Seq.	Data	Data Level	Record Number	Note
11	Supplier Site Address/Code	HEADER	1160	
12	Supplier Site Contacts	HEADER	1170-1180	
13	Ship to Address/code	HEADER	1190	
14	Ship to Contacts	HEADER	1200	
15	Bill to Address/Code	HEADER	1210	
16	Bill to Contact	HEADER	1220	
17	Buyer Name	HEADER	1230	
18	Buyer Communications	HEADER	1240	
19	Procurement Card	HEADER	1250	
20	Header Attachment Master	HEADER ATTACHMENT HEADER	1800	
21	Header Attachment Detail	HEADER ATTACHMENT DETAIL	1810	
22	Basic Item Data	LINE	2000	
23	Basic Item Data	LINE	2010	
24	Basic Item Data, Hazardous Material Codes	LINE	2020	
25	Item Note to Supplier	LINE	2030	
26	Line Flexfields	LINE	2040-2070	Flexfields
27	Line Part Flexfields	LINE	2080-2110	Flexfields
28	Line Part Segments	LINE	2120	
29	Line Part Segments	LINE	2130	
30	Line Attachment Master	LINE ATTACHMENT HEADER	2800	
31	Line Attachment Detail	LINE ATTACHMENT DETAIL	2810	
32	Master Item Attachment Master	MASTER ITEM ATTACHMENT HEADER	2820	
33	Master Item Attachment Detail	MASTER ITEM ATTACHMENT DETAIL	2830	
34	Inventory Item Attachment Master	INVENTORY ITEM ATTACHMENT HEADER	2840	
35	Inventory Item Attachment Detail	INVENTORY ITEM ATTACHMENT DETAIL	2850	

Table A–46 POO Transaction Record Summary (Continued)

Seq.	Data	Data Level	Record Number	Note
36	Basic Shipment Data	SHIPMENT	3000	
37	Shipment Flexfields	SHIPMENT	3010-3040	
38	Ship To Address/Code	SHIPMENT	3050	Flexfields
39	Ship To Contact	SHIPMENT	3060	
40	Shipment Attachment Master	SHIPMENT ATTACHMENT HEADER	3800	
41	Shipment Attachment Detail	SHIPMENT ATTACHMENT DETAIL	3810	
42	Projects Data	PROJECT	4000	
43	Projects Flexfields	PROJECT	4010-4050	

Outbound Purchase Orders The following table shows the Common Key (positions 1-100) for the Outbound Purchase Order transaction. The table shows the position, code, length, and content of the Common Key elements.

Table A–47 Transaction-specific data in the POO Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	PO	Purchase order number
48-69	22	LINE	Purchase order line number
70-91	22	SHIPMENT	Shipment number
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Purchase Order transaction.

Table A–48 Transaction-specific data in the Common Key of the POO transaction, per record

	Data	Trading Partner	Ref 1 (PO)	Ref 2 (LINE)	Ref 3 (SHIPMENT)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	PO			0010	CT	CTL
2	Trading Partner Header Flexfields	TP_CD	PO			0020	A1	TH1
3	Trading Partner Header Flexfields	TP_CD	PO			0030	A2	TH2
4	Trading Partner Header Flexfields	TP_CD	PO			0040	A2	TH3
5	Trading Partner Header Flexfields	TP_CD	PO			0050	A2	TH4
6	Trading Partner Detail Flexfields	TP_CD	PO			0060	A1	TD1
7	Trading Partner Detail Flexfields	TP_CD	PO			0070	A2	TD2
8	Purchase Order Basic Header	TP_CD	PO			1000	PO	PO1
9	Payment Terms	TP_CD	PO			1010	PO	PO2
10	Purchase Order Basic Header	TP_CD	PO			1020	PO	PO3
11	Purchase Order Notes to Supplier	TP_CD	PO			1030	PO	PO3
12	Purchase Order Flexfields	TP_CD	PO			1040	A1	PO1
13	Purchase Order Flexfields	TP_CD	PO			1050	A2	PO2
14	Purchase Order Flexfields	TP_CD	PO			1060	A2	PO3
15	Purchase Order Flexfields	TP_CD	PO			1070	A2	PO4
16	Supplier Flexfields	TP_CD	PO			1080	A1	SU1
17	Supplier Flexfields	TP_CD	PO			1090	A2	SU2
18	Supplier Flexfields	TP_CD	PO			1100	A2	SU3
19	Supplier Flexfields	TP_CD	PO			1110	A2	SU4
20	Supplier Site Flexfields	TP_CD	PO			1120	A1	SS1
21	Supplier Site Flexfields	TP_CD	PO			1130	A2	SS2

Table A–48 Transaction-specific data in the Common Key of the POO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (PO)	Ref 2 (LINE)	Ref 3 (SHIPMENT)	Record Number	Record Layout	Record Layout Qualifier
22	Supplier Site Flexfields	TP_CD	PO			1140	A2	SS3
23	Supplier Site Flexfields	TP_CD	PO			1150	A2	SS4
24	Supplier Site Address	TP_CD	PO			1160	AD	SU1
25	Supplier Site Contact	TP_CD	PO			1170	CN	SS1
26	Supplier Site Contact	TP_CD	PO			1180	CN	SS2
27	Ship to Address/Code	TP_CD	PO			1190	AX	ST1
28	Ship to Contacts	TP_CD	PO			1200	CN	ST1
29	Bill to Address/Code	TP_CD	PO			1210	AX	BT1
30	Bill to Contact	TP_CD	PO			1220	CN	BT1
31	Buyer Name	TP_CD	PO			1230	PO	PO4
32	Buyer Communications	TP_CD	PO			1240	PO	PO5
33	Procurement Card	TP_CD	PO			1250	PR	CRD
34	Header Attachment Master	TP_CD	PO			1800	AT	HAH
35	Header Attachment Detail	TP_CD	PO			1810	AT	HAD
36	Basic Item Data	TP_CD	PO	LINE		2000	IT	IT1
37	Basic Item Data	TP_CD	PO	LINE		2010	IT	IT2
38	Basic Item Data, Hazardous Material Codes	TP_CD	PO	LINE		2020	IT	IT3
39	Item Note to Supplier	TP_CD	PO	LINE		2030	IT	IT4
40	Line Flexfields	TP_CD	PO	LINE		2040	A1	LN1
41	Line Flexfields	TP_CD	PO	LINE		2050	A2	LN2
42	Line Flexfields	TP_CD	PO	LINE		2060	A2	LN3
43	Line Flexfields	TP_CD	PO	LINE		2070	A2	LN4
44	Line Part Flexfields	TP_CD	PO	LINE		2080	A1	LP1
45	Line Part Flexfields	TP_CD	PO	LINE		2090	A2	LP2
46	Line Part Flexfields	TP_CD	PO	LINE		2100	A2	LP3

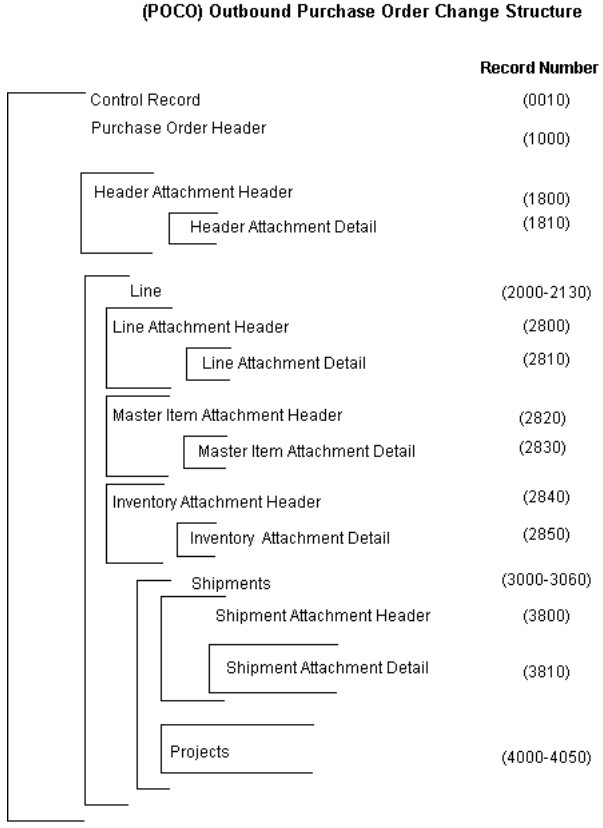
Table A–48 Transaction-specific data in the Common Key of the POO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (PO)	Ref 2 (LINE)	Ref 3 (SHIPMENT)	Record Number	Record Layout	Record Layout Qualifier
47	Line Part Flexfields	TP_CD	PO	LINE		2110	A2	LP4
48	Line Part Segments	TP_CD	PO	LINE		2120	PS	PS1
49	Line Part Segments	TP_CD	PO	LINE		2130	PS	PS2
50	Line Attachment Master	TP_CD	PO	LINE		2800	AT	LAH
51	Line Attachment Detail	TP_CD	PO	LINE		2810	AT	LAD
52	Master Item Attachment Master	TP_CD	PO	LINE		2820	AT	MAH
53	Master Item Attachment Detail	TP_CD	PO	LINE		2830	AT	MAD
54	Inventory Item Attachment Master	TP_CD	PO	LINE		2840	AT	IAH
55	Inventory Item Attachment Detail	TP_CD	PO	LINE		2850	AT	IAD
56	Basic Shipment Data	TP_CD	PO	LINE	SHIPMENT	3000	SH	SH1
57	Shipment Flexfields	TP_CD	PO	LINE	SHIPMENT	3010	A1	SH1
58	Shipment Flexfields	TP_CD	PO	LINE	SHIPMENT	3020	A2	SH2
59	Shipment Flexfields	TP_CD	PO	LINE	SHIPMENT	3030	A2	SH3
60	Shipment Flexfields	TP_CD	PO	LINE	SHIPMENT	3040	A2	SH4
61	Ship To Address/Code	TP_CD	PO	LINE	SHIPMENT	3050	AX	SL1
62	Ship To Contact	TP_CD	PO	LINE	SHIPMENT	3060	CN	SL1
63	Shipment Attachment Master	TP_CD	PO	LINE	SHIPMENT	3800	AT	SAH
64	Shipment Attachment Detail	TP_CD	PO	LINE	SHIPMENT	3810	AT	SAD
65	Projects Data	TP_CD	PO	LINE	SHIPMENT	4000	PR	PR1
66	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4010	PR	PR2
67	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4020	PR	PR3
68	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4030	PR	PR4
69	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4040	PR	PR5
70	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4050	PR	PR6

Outbound Purchase Order Changes

(POCO/860/ORDCHG)

A single transaction has the following data hierarchy and data looping.



An Outbound Purchase Order transaction contains a single Control Record and Purchase Order Header Record. The header record may have multiple Header Attachment Detail Records and Line Records. The Line Record may have multiple Line Attachment Header Records, Master Item Attachment Header Records, and Inventory Item Attachment Header Records. The Line Attachment Header Record may have multiple Line Attachment Detail Records. The Master Item Attachment Header Record may have multiple Master Item Attachment Detail Records. The Inventory Attachment Header Record may have multiple Inventory Attachment Detail Records and multiple Shipment Records. The Shipment

Records may have multiple Shipment Attachment Header Records and Projects Records. The Shipment Attachment Header Record may have multiple Shipment Attachment Detail Records.

The following table shows the content and occurrences of the records comprising the Outbound Purchase Order Change transaction.

Table A–49 Record occurrences within the POCO transaction:

Records	Contents	Occurrences
0010	Control Record	Only one record occurrence per transaction
0020-0070	Gateway Flexfields	One set of records per transaction.
1000-1900	PO Header Records	Only one record occurrence per transaction
2000-2900	PO Line Records	One set of records per line within the PO header
3000-3900	PO Shipment Records	One set of records per schedule within the PO line

The following table is a summary list of the records comprising the Outbound Purchase Order Change transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–50 POCO Transaction Record Summary

Seq	Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Trading Partner Header Flexfields	HEADER	0020-0050	Custom
3	Trading Partner Detail Flexfields	HEADER	0060-0070	Custom
4	Purchase Order Basic Header	HEADER	1000	
5	Payment Terms	HEADER	1010	
6	Purchase Order Basic Header	HEADER	1020	
7	Purchase Order Notes to Supplier	HEADER	1030	
8	Purchase Order Flexfields	HEADER	1040-1070	Flexfields
9	Supplier Flexfields	HEADER	1080-1110	Flexfields
10	Supplier Site Flexfields	HEADER	1120-1150	Flexfields

Table A–50 POCO Transaction Record Summary (Continued)

Seq	Data	Data Level	Record Number	Note
11	Supplier Site Address/Code	HEADER	1160	
12	Supplier Site Contacts	HEADER	1170-1180	
13	Ship to Address/Code	HEADER	1190	
14	Ship to Contacts	HEADER	1200	
15	Bill to Address/Code	HEADER	1210	
16	Bill to Contact	HEADER	1220	
17	Buyer Name	HEADER	1230	
18	Buyer Communications	HEADER	1240	
19	Procurement Card Data	HEADER	1250	
20	Header Attachment Data	HEADER ATTACHMENT HEADER	1800	
21	Header Attachment Data	HEADER ATTACHMENT DETAIL	1810	
22	Basic Item Data	LINE	2000	
23	Basic Item Data	LINE	2010	
24	Basic Item Data, Hazardous Material Codes	LINE	2020	
25	Item Note to Supplier	LINE	2030	
26	Line Flexfields	LINE	2040-2070	Flexfields
27	Line Part Flexfields	LINE	2080-2110	Flexfields
28	Line Part Segments	LINE	2120	
29	Line Part Segments	LINE	2130	
30	Line Attachment Header	LINE ATTACHMENT HEADER	2800	
31	Line Attachment Detail	LINE ATTACHMENT DETAIL	2810	
32	Master Item Attachment Header	MASTER ITEM ATTACHMENT HEADER	2820	
33	Master Item Attachment Detail	MASTER ITEM ATTACHMENT DETAIL	2830	
34	Inventory Item Attachment Master	INVENTORY ITEM ATTACHMENT HEADER	2840	

Table A–50 POCO Transaction Record Summary (Continued)

Seq	Data	Data Level	Record Number	Note
35	Inventory Item Attachment Detail	INVENTORY ITEM ATTACHMENT DETAIL	2850	
36	Basic Shipment Data	SHIPMENT	3000	
37	Shipment Flexfields	SHIPMENT	3010-3040	Flexfields
38	Ship To Address/Code	SHIPMENT	3050	
39	Ship To Contact	SHIPMENT	3060	
40	Shipment Attachment Master	SHIPMENT ATTACHMENT HEADER	3800	
41	Shipment Attachment Detail	SHIPMENT ATTACHMENT DETAIL	3810	
42	Project Data	PROJECT	4000	
43	Project Flexfields	PROJECT	4010-4050	Flexfields

Outbound Purchase Order Changes The following table shows the Common Key (positions 1-100) for the Outbound Purchase Order Change transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–51 Transaction specific data in the POCO transaction Common Key:

Position	Length	Code	Contents
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	PO	Purchase order number
48-69	22	ITEM	Purchase order line number
70-91	22	SHIPMENT	Shipment Number
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Purchase Order Change transaction.

Table A–52 Transaction-specific data in the Common Key of the POCO transaction, per record

	Data	Trading Partner	Ref 1 (PO)	Ref 2 (ITEM)	Ref 3 (SHIPMENT)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	PO			0010	CT	CTL
2	Trading Partner Header Flexfields	TP_CD	PO			0020	A1	TH1
3	Trading Partner Header Flexfields	TP_CD	PO			0030	A2	TH2
4	Trading Partner Header Flexfields	TP_CD	PO			0040	A3	TH3
5	Trading Partner Header Flexfields	TP_CD	PO			0050	A4	TH4
6	Trading Partner Detail Flexfields	TP_CD	PO			0060	A1	TD1
7	Trading Partner Detail Flexfields	TP_CD	PO			0070	A2	TD2
8	Purchase Order Basic Header	TP_CD	PO			1000	PO	PO1
9	Payment Terms	TP_CD	PO			1010	PO	PO2
10	Purchase Order Basic Header	TP_CD	PO			1020	PO	PO3
11	Purchase Order Notes to Supplier	TP_CD	PO			1030	PO	PO4
12	Purchase Order Flexfields	TP_CD	PO			1040	A1	PO1
13	Purchase Order Flexfields	TP_CD	PO			1050	A2	PO2
14	Purchase Order Flexfields	TP_CD	PO			1060	A3	PO3
15	Purchase Order Flexfields	TP_CD	PO			1070	A4	PO4
16	Supplier Flexfields	TP_CD	PO			1080	A1	SU1
17	Supplier Flexfields	TP_CD	PO			1090	A2	SU2
18	Supplier Flexfields	TP_CD	PO			1100	A3	SU3
19	Supplier Flexfields	TP_CD	PO			1110	A4	SU4
20	Supplier Site Flexfields	TP_CD	PO			1120	A1	SS1
21	Supplier Site Flexfields	TP_CD	PO			1130	A2	SS2

Table A–52 Transaction-specific data in the Common Key of the POCO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (PO)	Ref 2 (ITEM)	Ref 3 (SHIPMENT)	Record Number	Record Layout	Record Layout Qualifier
22	Supplier Site Flexfields	TP_CD	PO			1140	A3	SS3
23	Supplier Site Flexfields	TP_CD	PO			1150	A4	SS4
24	Supplier Site Address	TP_CD	PO			1160	AD	SU1
25	Supplier Site Contact	TP_CD	PO			1170	CN	SS1
26	Supplier Site Contact	TP_CD	PO			1180	CN	SS2
27	Ship to Address/Code	TP_CD	PO			1190	AX	ST1
28	Ship to Contacts	TP_CD	PO			1200	CN	ST1
29	Bill to Address/Code	TP_CD	PO			1210	AX	BT1
30	Bill to Contact	TP_CD	PO			1220	CN	BT1
31	Buyer Name	TP_CD	PO			1230	PO	PO5
32	Buyer Communications	TP_CD	PO			1240	PO	PO6
33	Procurement Card	TP_CD	PO			1250	PR	CRD
34	Header Attachment Master	TP_CD	PO			1800	AT	HAH
35	Header Attachment Detail	TP_CD	PO			1810	AT	HAD
36	Basic Item Data	TP_CD	PO	LINE		2000	IT	IT1
37	Basic Item Data	TP_CD	PO	LINE		2010	IT	IT2
38	Basic Item Data, Hazardous Material Codes	TP_CD	PO	LINE		2020	IT	IT3
39	Item Note to Supplier	TP_CD	PO	LINE		2030	IT	IT4
40	Line Flexfields	TP_CD	PO	LINE		2040	A1	LN1
41	Line Flexfields	TP_CD	PO	LINE		2050	A2	LN2
42	Line Flexfields	TP_CD	PO	LINE		2060	A3	LN3
43	Line Flexfields	TP_CD	PO	LINE		2070	A4	LN4
44	Line Part Flexfields	TP_CD	PO	LINE		2080	A1	LP1
45	Line Part Flexfields	TP_CD	PO	LINE		2090	A2	LP2
46	Line Part Flexfields	TP_CD	PO	LINE		2100	A3	LP3

Table A–52 Transaction-specific data in the Common Key of the POCO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (PO)	Ref 2 (ITEM)	Ref 3 (SHIPMENT)	Record Number	Record Layout	Record Layout Qualifier
47	Line Part Flexfields	TP_CD	PO	LINE		2110	A4	LP4
48	Line Part Segments	TP_CD	PO	LINE		2120	PS	PS1
49	Line Part Segments	TP_CD	PO	LINE		2130	PS	PS2
50	Line Attachment Header	TP_CD	PO	LINE		2800	AT	LAH
51	Line Attachment Detail	TP_CD	PO	LINE		2810	AT	LAD
52	Master Item Attachment Header	TP_CD	PO	LINE		2820	AT	MAH
53	Master Item Attachment Detail	TP_CD	PO	LINE		2830	AT	MAD
54	Inventory Item Attachment Header	TP_CD	PO	LINE		2840	AT	IAH
55	Inventory Item Attachment Detail	TP_CD	PO	LINE		2850	AT	IAD
56	Basic Shipment Data	TP_CD	PO	LINE	SHIPMENT	3000	SH	SH1
57	Shipment Flexfields	TP_CD	PO	LINE	SHIPMENT	3010	A1	SH1
58	Shipment Flexfields	TP_CD	PO	LINE	SHIPMENT	3020	A2	SH2
59	Shipment Flexfields	TP_CD	PO	LINE	SHIPMENT	3030	A3	SH3
60	Shipment Flexfields	TP_CD	PO	LINE	SHIPMENT	3040	A4	SH4
61	Ship To Address/Code	TP_CD	PO	LINE	SHIPMENT	3050	AX	SL1
62	Ship To Contact	TP_CD	PO	LINE	SHIPMENT	3060	CN	SL1
63	Shipment Attachment Header	TP_CD	PO	LINE	SHIPMENT	3800	AT	SAH
64	Shipment Attachment Detail	TP_CD	PO	LINE	SHIPMENT	3810	AT	SAD
65	Projects Data	TP_CD	PO	LINE	SHIPMENT	4000	PR	PR1
66	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4010	PR	PR2
68	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4020	PR	PR3
69	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4030	PR	PR4
70	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4040	PR	PR5
71	Projects Flexfields	TP_CD	PO	LINE	SHIPMENT	4050	PR	PR6

Oracle Receivables Transaction Summaries

Table A–53 The following Oracle Purchasing transactions are summarized in this appendix.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Credit Memo/Debit Memo	Outbound	CDMO	812	CREADV/DEBADV
Invoice	Outbound	INO	810	INVOIC

Current Information

The transaction file may change when enhancements are made such as additional data added to the transaction.

Current transaction summaries can be found on Oracle Support's web site.

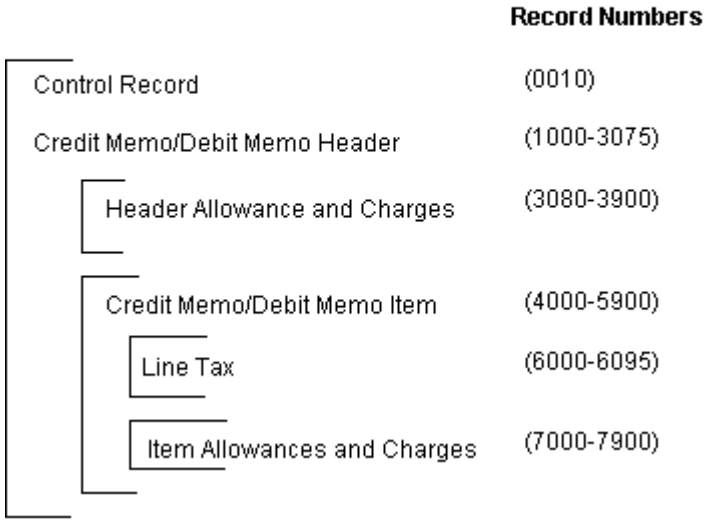
Current detail record layouts are reported via the Transaction Definition Layout Report and the Interface File Data Report.

Outbound Credit Memo/Debit Memo

(CDMO/812/CREADV/DEBADV)

A single transaction has the following data hierarchy and data looping.

(CDMO) Outbound Credit Memo/Debit Memo Structure



An Outbound Credit Memo/Debit Memo transaction contains a single Control Record and Credit Memo/Debit Memo Header Record. The header record may have multiple Header Allowance and Charges Records and Credit Memo/Debit Memo Item Records. The item record may have multiple Line Tax Records and Item Allowances and Charges Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Outbound Credit Memo/Debit Memo transaction.

Table A–54 Record occurrences within the CDMO transaction:

Records	Contents	Occurrences
0010-0070	e-Commerce Gateway Control Records	Only one record occurrence per transaction
1000-3900	Memo Header Records	Only one record occurrence per transaction
4000-5900	Memo Line Records	One set of records per line within the memo header
6000-7900	Memo Line Detail Records	One set of records per item within the memo line

The following table is a summary list of the records that comprise the Outbound Credit Memo/Debit Memo transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–55 CDMO Transaction Record Summary

	Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Trading Partner Header Flexfields	HEADER	0020-0050	Custom
3	Trading Partner Detail Flexfields	HEADER	0060-0070	Custom
4	Bill To Address /Code	HEADER	1000	
5	Bill to Misc. Data, Contacts	HEADER	1010-1015	
6	Bill to Customer Flexfields	HEADER	1020-1050	Flexfields
7	Bill to Site Flexfields	HEADER	1060-1090	Flexfields
8	Ship to Address/Code	HEADER	1100	
9	Ship to Misc. Data, Contacts	HEADER	1110-1115	
10	Sold to Address/Code	HEADER	1200	
11	Sold to Misc. data, Contact	HEADER	1210-1215	
12	Remit to Address/Code	HEADER	1300-1315	
13	Ship From Codes	HEADER	1400	
14	Basic Memo Header Data	HEADER	2000	
15	Memo Misc. Data	HEADER	2010-2020	
16	Shipment Data	HEADER	2030	

Table A–55 CDMO Transaction Record Summary (Continued)

	Data	Data Level	Record Number	Note
17	Currency Data, Misc. Data,	HEADER	2040	
18	Payment Terms Data	HEADER	2050	
19	Sales Representative, Comments	HEADER	2060	
20	Transaction Flexfields	HEADER1	3000-3030	Flexfields
21	Interface Flexfields	HEADER1	3040-3070	Flexfields
22	Equipment Data	HEADER1	3075	
23	Header Allowance/Charges	ALLOWANCE CHARGES HEADER	3080-3090	
24	Header Allowance/Charges Flexfields	ALLOWANCE CHARGES HEADER	3091-3094	Flexfields
25	Extension Tables: Memo Header Data	ALLOWANCE CHARGES HEADER	3900	(Custom)
26	Basic Line Data	LINE	4000	
27	Sales Order Data, Part Descriptions	LINE	4010	
28	Sales Channel	LINE	4020	
29	Order Status, Transaction Reference Key	LINE	4030	
30	Interface Line Flexfields	LINE	5000-5030	Flexfields
31	Line Flexfields	LINE	5040-5070	Flexfields
32	Line Part Flexfields	LINE	5100-5130	Flexfields
34	TP Header Flexfields	LINE	5140-5160	Flexfields
34	TP Line Flexfields	LINE	5170-5190	Flexfields
35	Industry Flexfields	LINE	5200-5220	Flexfields
36	Extension Tables: Item Data	LINE	5900	(Custom)
37	Line Tax Data	LINE TAX	6000-6020	
38	VAT Tax Data	LINE TAX	6025	
39	Line Tax Flexfields	LINE TAX	6030-6060	Flexfields
40	VAT Tax Flexfields	LINE TAX	6070--6095	Flexfields

Table A–55 CDMO Transaction Record Summary (Continued)

	Data	Data Level	Record Number	Note
41	Detail Allowance/Charges	ALLOWANCE CHARGES LINE	7000-7010	
42	Detail Allowance/Charges Flexfields	ALLOWANCE CHARGES LINE	7100-7130	Flexfields
	Extension Tables: Transaction Line Detail Data	ALLOWANCE CHARGES LINE	7900	(Custom)

The following table shows the Common Key (positions 1-100) for the Outbound Credit Memo/Debit Memo transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–56 Transaction-specific Data in the CDMO transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	MEMO	Credit/Debit Memo number
48-69	22	ITEM	Item sequence number
70-91	22	TAX	Tax sequence number
92-95	4	(Varies)	Record Number
96-97	2	(Varies)	Record Layout
98-100	3	(Varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Credit Memo/Debit Memo transaction.

Table A–57 Transaction-specific data in the Common Key of the CDMO transaction, per record

	Data	Trading Partner	Ref 1 (MEMO)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	MEMO			0010	CT	CTL
2	Trading Partner Header Flexfields	TP_CD	MEMO			0020	A3	TH1
3	Trading Partner Header Flexfields	TP_CD	MEMO			0030	A4	TH2
4	Trading Partner Header Flexfields	TP_CD	MEMO			0040	A4	TH3
5	Trading Partner Header Flexfields	TP_CD	MEMO			0050	A4	TH4
6	Bill To Address /Code	TP_CD	MEMO			1000	AD	BT1
7	Bill to Misc. Data, Contacts	TP_CD	MEMO			1010	CM	BT1
8	Bill to TP Reference Codes	TP_CD	MEMO			1015	RF	BT1
9	Bill to Customer Flexfields 1-4	TP_CD	MEMO			1020	A1	BT1
10	Bill to Customer Flexfields 5-9	TP_CD	MEMO			1030	A2	BT2
11	Bill to Customer Flexfields 10-14	TP_CD	MEMO			1040	A2	BT3
12	Bill to Customer Flexfield 15	TP_CD	MEMO			1050	A2	BT4
13	Bill to Site Flexfields 1-4	TP_CD	MEMO			1060	A1	BS1
14	Bill to Site Flexfields 5-9	TP_CD	MEMO			1070	A2	BS2
15	Bill to Site Flexfields 10-14	TP_CD	MEMO			1080	A2	BS3
16	Bill to Site Flexfield 15	TP_CD	MEMO			1090	A2	BS4
17	Ship to Address/Code	TP_CD	MEMO			1100	AD	ST1
18	Ship to Misc. Data, Contacts	TP_CD	MEMO			1110	CM	ST1
19	Ship to Misc. Data, Contacts	TP_CD	MEMO			1115	RF	ST1
20	Sold to Address/Code	TP_CD	MEMO			1200	AD	SO1
21	Sold to Misc. Data, Contact	TP_CD	MEMO			1210	CM	SO1
22	Sold to TP Reference	TP_CD	MEMO			1215	RF	SO1

Table A–57 Transaction-specific data in the Common Key of the CDMO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (MEMO)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
22	Remit to Address/Code	TP_CD	MEMO			1300	AD	RE1
23	Remit to TP Reference	TP_CD	MEMO			1315	RF	RE1
24	Ship From Codes	TP_CD	MEMO			1400	SF	SF1
25	Basic Invoice Header Data	TP_CD	MEMO			2000	IV	IV1
26	Memo Amount Data	TP_CD	MEMO			2010	IV	IV2
27	Memo Misc. Data	TP_CD	MEMO			2020	IV	IV3
28	Shipment Data	TP_CD	MEMO			2030	IV	IV4
29	Currency Data, Shipping Data, Miscellaneous Data	TP_CD	MEMO			2040	IV	IV5
30	Payment Terms Data	TP_CD	MEMO			2050	IV	IV6
31	Sales Representative, Comments	TP_CD	MEMO			2060	IV	IV7
32	Transaction Flexfields 1-4	TP_CD	MEMO			3000	A1	IH1
33	Transaction Flexfields 5-9	TP_CD	MEMO			3010	A2	IH2
34	Transaction Flexfields 10-14	TP_CD	MEMO			3020	A2	IH3
35	Transaction Flexfield 15	TP_CD	MEMO			3030	A2	IH4
36	Interface Flexfields 1-4	TP_CD	MEMO			3040	A1	IH5
37	Interface Flexfields 5-9	TP_CD	MEMO			3050	A2	IH6
38	Interface Flexfields 10-14	TP_CD	MEMO			3060	A2	IH7
39	Interface Flexfield 15	TP_CD	MEMO			3070	A2	IH8
40	Memo Header Shipping Instructions	TP_CD	MEMO			3075	IV	IV8
41	Header Allowance/Charges	TP_CD	MEMO			3080	AH	AH1
42	Header Allowance/Charges	TP_CD	MEMO			3090	AH	AH2
43	Header Allowance/Charges Flexfields 1-4	TP_CD	MEMO			3091	AH	IH1
44	Header Allowance/Charges Flexfields 5-9	TP_CD	MEMO			3092	AH	IH2

Table A–57 Transaction-specific data in the Common Key of the CDMO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (MEMO)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
45	Header Allowance/Charges Flexfields 10-14	TP_CD	MEMO			3093	AH	IH3
46	Header Allowance/Charges Flexfield 15	TP_CD	MEMO			3094	AH	IH4
47	Extension Tables: Memo Header Data	TP_CD	MEMO			3900		(Custom)
48	Basic Line Data	TP_CD	MEMO	LINE		4000	IT	IT1
49	Sales Order Data, Part, Customer Item Description	TP_CD	MEMO	LINE		4010	IT	IT2
50	Sales Channel, Order Status	TP_CD	MEMO	LINE		4020	IT	IT3
51	Transaction Reference Key, Order Status	TP_CD	MEMO	LINE		4030	IT	IT4
52	Interface Line Flexfields 1-4	TP_CD	MEMO	LINE		5000	A1	IL1
53	Interface Line Flexfields 5-9	TP_CD	MEMO	LINE		5010	A2	IL2
54	Interface Line Flexfields 10-14	TP_CD	MEMO	LINE		5020	A2	IL3
55	Interface Line Flexfield 15	TP_CD	MEMO	LINE		5030	A2	IL4
56	Line Flexfields 1-4	TP_CD	MEMO	LINE		5040	A1	LN1
57	Line Flexfields 5-9	TP_CD	MEMO	LINE		5050	A2	LN2
58	Line Flexfields 10-14	TP_CD	MEMO	LINE		5060	A2	LN3
59	Line Flexfield 15	TP_CD	MEMO	LINE		5070	A2	LN4
60	Line Part Flexfields 1-4	TP_CD	MEMO	LINE		5100	A1	LP1
61	Line Part Flexfields 5-9	TP_CD	MEMO	LINE		5110	A2	LP2
62	Line Part Flexfields 10-14	TP_CD	MEMO	LINE		5120	A2	LP3
63	Line Part Flexfield 15	TP_CD	MEMO	LINE		5130	A2	LP4
64	TP Header Flexfields 1-5	TP_CD	MEMO	LINE		5140	A2	HT1
65	TP Header Flexfields 6-10	TP_CD	MEMO	LINE		5150	A2	HT2
66	TP Header Flexfields 11-15	TP_CD	MEMO	LINE		5160	A2	HT3
67	TP Line Flexfields 1-5	TP_CD	MEMO	LINE		5170	A2	LT1

Table A–57 Transaction-specific data in the Common Key of the CDMO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (MEMO)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
68	TP Line Flexfields 6-10	TP_CD	MEMO	LINE		5180	A2	LT2
69	TP Line Flexfields 11-15	TP_CD	MEMO	LINE		5190	A2	LT3
70	Industry Flexfields 1-5	TP_CD	MEMO	LINE		5200	A2	IA1
71	Industry Flexfields 6-10	TP_CD	MEMO	LINE		5210	A2	IA2
72	Industry Flexfields 11-15	TP_CD	MEMO	LINE		5220	A2	IA3
73	Extension Tables: Item Data	TP_CD	MEMO	LINE		5900		(Custom)
74	Line Tax Data	TP_CD	MEMO	LINE	TAX	6000	TX	TX1
75	Line Tax Type	TP_CD	MEMO	LINE	TAX	6005	TX	TX2
76	Line Tax Classification	TP_CD	MEMO	LINE	TAX	6010	TX	TX3
77	Line Tax Code	TP_CD	MEMO	LINE	TAX	6020	TX	TX4
78	VAT Tax Data	TP_CD	MEMO	LINE	TAX	6025	TX	TX5
79	Line Tax Flexfields 1-4	TP_CD	MEMO	LINE	TAX	6030	A1	TX1
80	Line Tax Flexfields 5-9	TP_CD	MEMO	LINE	TAX	6040	A2	TX2
81	Line Tax Flexfields 10-14	TP_CD	MEMO	LINE	TAX	6050	A2	TX3
82	Line Tax Flexfield 15	TP_CD	MEMO	LINE	TAX	6060	A2	TX4
83	Line VAT Tax Flexfields 1-4	TP_CD	MEMO	LINE	TAX	6070	A1	VT1
84	Line VAT Tax Flexfields 5-9	TP_CD	MEMO	LINE	TAX	6080	A2	VT2
85	Line VAT Tax Flexfields 10-14	TP_CD	MEMO	LINE	TAX	6090	A2	VT3
86	Line VAT Tax Flexfield 15	TP_CD	MEMO	LINE	TAX	6095	A2	VT4
87	Detail Allowance/Charges	TP_CD	MEMO	LINE	TAX	7000	AL	AD1
88	Detail Allowance/Charges	TP_CD	MEMO	LINE	TAX	7010	AL	AD2
89	Detail Allowance/Charges Flexfields 1-4	TP_CD	MEMO	LINE	TAX	7100	AL	IL1
90	Detail Allowance/Charges Flexfields 5-9	TP_CD	MEMO	LINE	TAX	7110	AL	IL2

Table A–57 Transaction-specific data in the Common Key of the CDMO transaction, per record (Continued)

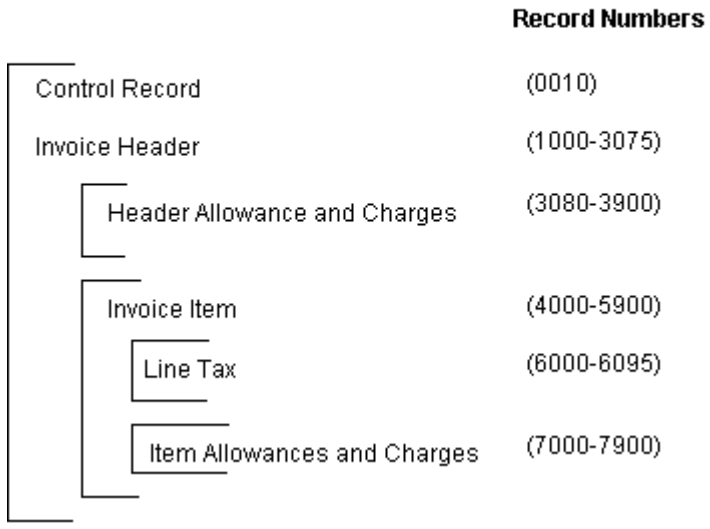
	Data	Trading Partner	Ref 1 (MEMO)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
91	Detail Allowance/Charges Flexfields 10-14	TP_CD	MEMO	LINE	TAX	7120	AL	IL3
92	Detail Allowance/Charges Flexfield 15	TP_CD	MEMO	LINE	TAX	7130	AL	IL4
93	Extension Tables: Transaction Line Detail Data	TP_CD	MEMO	LINE	TAX	7900		(Custom)

Outbound Invoice

(INO/810/INVOIC)

A single transaction has the following data hierarchy and data looping.

(INO) Outbound Invoice Structure



An Outbound Invoice transaction contains a single Control Record and Invoice Header Record. The header record may have multiple Header Allowance and Charges Records and Invoice Item Records. The item records may have multiple Line Tax and Item Allowances and Charges Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Outbound Invoice transaction.

Table A–58 Record occurrences within the INO transaction:

Records	Contents	Occurrences
0010	Control Records	Only one record occurrence per transaction
0020-0070	Gateway Flexfields	One set of records per transaction
1000-3900	Invoice Header Records	Only one record occurrence per transaction
4000-5900	Invoice Line Records	One set of records per line within the invoice header
6000-7900	Invoice Line Detail Records	One set of records per item within the invoice line

The following table is a summary list of the records that comprise the Outbound Invoice transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–59 INO Transaction Record Summary

	Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Trading Partner Header Flexfields	HEADER	0020-0050	Custom
3	Trading Partner Detail Flexfields	HEADER	0060-0070	Custom
4	Bill To Address /Code	HEADER	1000	
5	Bill to Misc. Data, Contacts	HEADER	1010-1015	
6	Bill to Customer Flexfields	HEADER	1020-1050	Flexfields
7	Bill to Site Flexfields	HEADER	1060-1090	Flexfields
8	Ship to Address/Code	HEADER	1100	
9	Ship to Misc. Data, Contacts	HEADER	1110-1115	
10	Sold to Address/Code	HEADER	1200	
11	Sold to Misc. data, Contact	HEADER	1210-1215	
12	Remit to Address/Code	HEADER	1300-1315	
13	Ship From Codes	HEADER	1400	
14	Basic Invoice Header Data	HEADER	2000	
15	Invoice Misc. Data	HEADER	2010-2020	

Table A–59 INO Transaction Record Summary (Continued)

	Data	Data Level	Record Number	Note
16	Shipment Data	HEADER	2030	
17	Currency Data, Misc. Data,	HEADER	2040	
18	Payment Terms Data	HEADER	2050	
19	Sales Representative, Comments	HEADER	2060	
20	Invoice Header Flexfields	HEADER1	3000-3030	Flexfields
21	Invoice Header Interface Flexfields	HEADER1	3040-3070	Flexfields
22	Equipment Data	HEADER1	3075	
23	Header Allowance/Charges	ALLOWANCE CHARGES HEADER	3080-3090	
24	Header Allowance/Charges Flexfields	ALLOWANCE CHARGES HEADER	3091-3094	Flexfields
25	Extension Tables: Invoice Header Data	ALLOWANCE CHARGES HEADER	3900	(Custom)
26	Basic Line Data	LINE	4000	
27	Sales Order Data, Part Descriptions	LINE	4010	
28	Sales Channel	LINE	4020	
29	Order Status, Transaction Reference Key	LINE	4030	
30	Interface Line Flexfields	LINE	5000-5030	Flexfields
31	Line Flexfields	LINE	5040-5070	Flexfields
32	Line Part Flexfields	LINE	5100-5130	Flexfields
34	TP Header Flexfields	LINE	5140-5160	Flexfields
34	TP Line Flexfields	LINE	5170-5190	Flexfields
35	Industry Flexfields	LINE	5200-5220	Flexfields
36	Extension Tables: Item Data	LINE	5900	(Custom)
37	Line Tax Data	LINE TAX	6000-6020	
38	VAT Tax Data	LINE TAX	6025	
39	Line Tax Flexfields	LINE TAX	6030-6060	Flexfields
40	VAT Tax Flexfields	LINE TAX	6070--6095	Flexfields

Table A–59 INO Transaction Record Summary (Continued)

	Data	Data Level	Record Number	Note
41	Detail Allowance/Charges	ALLOWANCE CHARGES LINE	7000-7010	
42	Detail Allowance/Charges Flexfields	ALLOWANCE CHARGES LINE	7100-7130	Flexfields
43	Extension Tables: Transaction Line Detail Data	ALLOWANCE CHARGES LINE	7900	(Custom)

The following table shows the Common Key (positions 1-100) for the Outbound Invoice transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–60 Transaction specific data in the Common Key positions 1-100:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	INVOICE	Invoice number
48-69	22	ITEM	Item sequence number
70-91	22	TAX	Tax sequence number
92-95	4	(Varies)	Record Number
96-97	2	(Varies)	Record Layout
98-100	3	(Varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Invoice transaction.

Table A–61 Transaction-specific data in the Common Key of the INO transaction, per record

	Data	Trading Partner	Ref 1 (INVOICE)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	INVOICE			0010	CT	CTL
2	Trading Partner Header Flexfields	TP_CD	INVOICE			0020	A3	TH1
3	Trading Partner Header Flexfields	TP_CD	INVOICE			0030	A4	TH2

Table A–61 Transaction-specific data in the Common Key of the INO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (INVOICE)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
4	Trading Partner Header Flexfields	TP_CD	INVOICE			0040	A4	TH3
5	Trading Partner Header Flexfields	TP_CD	INVOICE			0050	A4	TH4
6	Trading Partner Detail Flexfields	TP_CD	INVOICE			0060	A3	TD1
7	Trading Partner Detail Flexfields	TP_CD	INVOICE			0070	A4	TD2
8	Bill To Address /Code	TP_CD	INVOICE			1000	AD	BT1
9	Bill to Misc. Data, Contacts	TP_CD	INVOICE			1010	CM	BT1
10	Bill to TP Reference Codes	TP_CD	INVOICE			1015	RF	BT1
11	Bill to Customer Flexfields 1-4	TP_CD	INVOICE			1020	A1	BT1
12	Bill to Customer Flexfields 5-9	TP_CD	INVOICE			1030	A2	BT2
13	Bill to Customer Flexfields 10-14	TP_CD	INVOICE			1040	A2	BT3
14	Bill to Customer Flexfield 15	TP_CD	INVOICE			1050	A2	BT4
15	Bill to Site Flexfields 1-4	TP_CD	INVOICE			1060	A1	BS1
16	Bill to Site Flexfields 5-9	TP_CD	INVOICE			1070	A2	BS2
17	Bill to Site Flexfields 10-14	TP_CD	INVOICE			1080	A2	BS3
18	Bill to Site Flexfield 15	TP_CD	INVOICE			1090	A2	BS4
19	Ship to Address/Code	TP_CD	INVOICE			1100	AD	ST1
20	Ship to Misc. Data, Contacts	TP_CD	INVOICE			1110	CM	ST1
21	Ship to Misc. Data, Contacts	TP_CD	INVOICE			1115	RF	ST1
22	Sold to Address/Code	TP_CD	INVOICE			1200	AD	SO1
22	Sold to Misc. Data, Contact	TP_CD	INVOICE			1210	CM	SO1
23	Sold to TP Reference	TP_CD	INVOICE			1215	RF	SO1
24	Remit to Address/Code	TP_CD	INVOICE			1300	AD	RE1
25	Remit to TP Reference	TP_CD	INVOICE			1315	RF	RE1
26	Ship From Codes	TP_CD	INVOICE			1400	SF	SF1
27	Basic Invoice Header Data	TP_CD	INVOICE			2000	IV	IV1
28	Invoice Amount Data	TP_CD	INVOICE			2010	IV	IV2

Table A–61 Transaction-specific data in the Common Key of the INO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (INVOICE)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
29	Invoice Misc. Data	TP_CD	INVOICE			2020	IV	IV3
30	Shipment Data	TP_CD	INVOICE			2030	IV	IV4
31	Currency Data, Shipping Data, Miscellaneous Data	TP_CD	INVOICE			2040	IV	IV5
32	Payment Terms Data	TP_CD	INVOICE			2050	IV	IV6
33	Sales Representative, Comments	TP_CD	INVOICE			2060	IV	IV7
34	Invoice Header Flexfields 1-4	TP_CD	INVOICE			3000	A1	IH1
35	Invoice Header Flexfields 5-9	TP_CD	INVOICE			3010	A2	IH2
36	Invoice Header Flexfields 10-14	TP_CD	INVOICE			3020	A2	IH3
37	Invoice Header Flexfield 15	TP_CD	INVOICE			3030	A2	IH4
38	Invoice Header Interface Flexfields 1-4	TP_CD	INVOICE			3040	A1	IH5
39	Invoice Header Interface Flexfields 5-9	TP_CD	INVOICE			3050	A2	IH6
40	Invoice Header Interface Flexfields 10-14	TP_CD	INVOICE			3060	A2	IH7
41	Invoice Header Interface Flexfield 15	TP_CD	INVOICE			3070	A2	IH8
42	Invoice Header Shipping Instructions	TP_CD	INVOICE			3075	IV	IV8
43	Header Allowance/Charges	TP_CD	INVOICE			3080	AH	AH1
44	Header Allowance/Charges	TP_CD	INVOICE			3090	AH	AH2
45	Header Allowance/Charges Flexfields 1-4	TP_CD	INVOICE			3091	AH	IH1
46	Header Allowance/Charges Flexfields 5-9	TP_CD	INVOICE			3092	AH	IH2
47	Header Allowance/Charges Flexfields 10-14	TP_CD	INVOICE			3093	AH	IH3
48	Header Allowance/Charges Flexfield 15	TP_CD	INVOICE			3094	AH	IH4

Table A–61 Transaction-specific data in the Common Key of the INO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (INVOICE)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
49	Extension Tables: Invoice Header Data	TP_CD	INVOICE			3900		(Custom)
50	Basic Line Data	TP_CD	INVOICE	LINE		4000	IT	IT1
51	Sales Order Data, Part, Customer Item Description	TP_CD	INVOICE	LINE		4010	IT	IT2
52	Sales Channel, Order Status	TP_CD	INVOICE	LINE		4020	IT	IT3
53	Transaction Reference Key, Order Status	TP_CD	INVOICE	LINE		4030	IT	IT4
54	Interface Line Flexfields 1-4	TP_CD	INVOICE	LINE		5000	A1	IL1
55	Interface Line Flexfields 5-9	TP_CD	INVOICE	LINE		5010	A2	IL2
56	Interface Line Flexfields 10-14	TP_CD	INVOICE	LINE		5020	A2	IL3
57	Interface Line Flexfield 15	TP_CD	INVOICE	LINE		5030	A2	IL4
58	Line Flexfields 1-4	TP_CD	INVOICE	LINE		5040	A1	LN1
59	Line Flexfields 5-9	TP_CD	INVOICE	LINE		5050	A2	LN2
60	Line Flexfields 10-14	TP_CD	INVOICE	LINE		5060	A2	LN3
61	Line Flexfield 15	TP_CD	INVOICE	LINE		5070	A2	LN4
62	Line Part Flexfields 1-4	TP_CD	INVOICE	LINE		5100	A1	LP1
63	Line Part Flexfields 5-9	TP_CD	INVOICE	LINE		5110	A2	LP2
64	Line Part Flexfields 10-14	TP_CD	INVOICE	LINE		5120	A2	LP3
65	Line Part Flexfield 15	TP_CD	INVOICE	LINE		5130	A2	LP4
66	TP Header Flexfields 1-5	TP_CD	INVOICE	LINE		5140	A2	HT1
67	TP Header Flexfields 6-10	TP_CD	INVOICE	LINE		5150	A2	HT2
68	TP Header Flexfields 11-15	TP_CD	INVOICE	LINE		5160	A2	HT3
69	TP Line Flexfields 1-5	TP_CD	INVOICE	LINE		5170	A2	LT1
70	TP Line Flexfields 6-10	TP_CD	INVOICE	LINE		5180	A2	LT2
71	TP Line Flexfields 11-15	TP_CD	INVOICE	LINE		5190	A2	LT3
72	Industry Flexfields 1-5	TP_CD	INVOICE	LINE		5200	A2	IA1

Table A–61 Transaction-specific data in the Common Key of the INO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (INVOICE)	Ref 2 (ITEM)	Ref 3 (TAX)	Record Number	Record Layout	Record Layout Qualifier
73	Industry Flexfields 6-10	TP_CD	INVOICE	LINE		5210	A2	IA2
74	Industry Flexfields 11-15	TP_CD	INVOICE	LINE		5220	A2	IA3
75	Extension Tables: Item Data	TP_CD	INVOICE	LINE		5900		(Custom)
76	Line Tax Data	TP_CD	INVOICE	LINE	TAX	6000	TX	TX1
77	Line Tax Type	TP_CD	INVOICE	LINE	TAX	6005	TX	TX2
78	Line Tax Classification	TP_CD	INVOICE	LINE	TAX	6010	TX	TX3
79	Line Tax Code	TP_CD	INVOICE	LINE	TAX	6020	TX	TX4
80	VAT Tax Data	TP_CD	INVOICE	LINE	TAX	6025	TX	TX5
81	Line Tax Flexfields 1-4	TP_CD	INVOICE	LINE	TAX	6030	A1	TX1
82	Line Tax Flexfields 5-9	TP_CD	INVOICE	LINE	TAX	6040	A2	TX2
83	Line Tax Flexfields 10-14	TP_CD	INVOICE	LINE	TAX	6050	A2	TX3
84	Line Tax Flexfield 15	TP_CD	INVOICE	LINE	TAX	6060	A2	TX4
85	Line VAT Tax Flexfields 1-4	TP_CD	INVOICE	LINE	TAX	6070	A1	VT1
86	Line VAT Tax Flexfields 5-9	TP_CD	INVOICE	LINE	TAX	6080	A2	VT2
87	Line VAT Tax Flexfields 10-14	TP_CD	INVOICE	LINE	TAX	6090	A2	VT3
88	Line VAT Tax Flexfield 15	TP_CD	INVOICE	LINE	TAX	6095	A2	VT4
89	Detail Allowance/Charges	TP_CD	INVOICE	LINE	TAX	7000	AL	AD1
90	Detail Allowance/Charges	TP_CD	INVOICE	LINE	TAX	7010	AL	AD2
91	Detail Allowance/Charges Flexfields 1-4	TP_CD	INVOICE	LINE	TAX	7100	AL	IL1
92	Detail Allowance/Charges Flexfields 5-9	TP_CD	INVOICE	LINE	TAX	7110	AL	IL2
93	Detail Allowance/Charges Flexfields 10-14	TP_CD	INVOICE	LINE	TAX	7120	AL	IL3
94	Detail Allowance/Charges Flexfield 15	TP_CD	INVOICE	LINE	TAX	7130	AL	IL4
95	Extension Tables: Transaction Line Detail Data	TP_CD	INVOICE	LINE	TAX	7900		(Custom)

Oracle Release Management Transaction Summaries

Table A–62 The following Oracle Release Management transactions are summarized in this appendix.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Planning Schedule	Inbound	SPSI	830	DELFOR
Production Sequence	Inbound	PSQI	866	N/A
Shipping Schedule	Inbound	SSSI	862	DELJIT

Current Information

The transaction file may change when enhancements are made such as additional data added to the transaction.

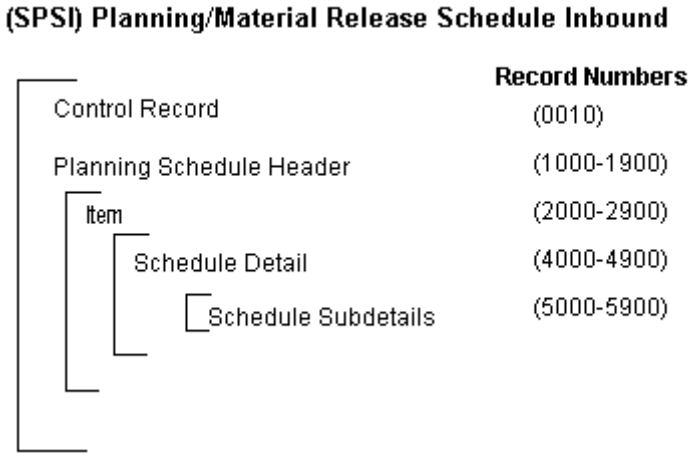
Current transaction summaries can be found on Oracle Support's web site when they are released.

Current detail record layouts are reported via the Transaction Definition Layout Report and the Interface File Data Report.

Planning Schedule

(SPSI/830/DELFOR)

A single transaction has the following data hierarchy and looping:



An Inbound Planning/Material Release Schedule transaction contains one Control Record and Planning Schedule Header. The Planning Schedule Header record can have multiple Item Records, which can have multiple Schedule Detail Records, which can have multiple Schedule Subdetail Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Inbound Planning/Material Release transaction.

Table A–63 Record occurrences within the SPSI transaction:

Records	Content	Occurrences
0010-0070	Control Records	Only one record occurrence per transaction
1000-1900	Header Records	Only one record occurrence per transaction
2000-2900	Item Records	One set of records per item within the Planning or Shipping Schedule header
4000-4900	Item Detail Records	Multiple detail records per item: requirements, authorizations, receipt data, etc.
5000-5900	Subdivide Requirements Records	Optional splitting of requirements by time or destination

The following table is a summary list of the records that comprise the Inbound Planning/Material Release Schedule transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–64 SPSI Transaction Record Summary

	Data	Data Level	Record Number	Note
1	Common Control Record	CONTROL	0010	
2	Basic Schedule Header	SCHEDULE HEADER	1000	
3	Schedule Header Note Text	SCHEDULE HEADER	1010	
4	Schedule Issuer Address Code	SCHEDULE HEADER	1020	
5	Schedule Header Misc. Contacts	SCHEDULE HEADER	1030	
6	Schedule Header Misc. References	SCHEDULE HEADER	1040	
7	Schedule Header Flexfields	SCHEDULE HEADER	1100-1130	Flexfields
8	Trading Partner Header Flexfields	SCHEDULE HEADER	1200-1230	Flexfields
9	Ship To Address Code	SCHEDULE HEADER	1300	
10	Bill To Address Code	SCHEDULE HEADER	1310	
11	Intermediate Ship To Address Code	SCHEDULE HEADER	1320	
12	Supplier / Ship From Address Code	SCHEDULE HEADER	1330	
13	Miscellaneous Name Codes and Values	SCHEDULE HEADER	1340	

Table A–64 SPSI Transaction Record Summary (Continued)

	Data	Data Level	Record Number	Note
14	Extension Tables: Schedule Header Data	SCHEDULE HEADER	1900	Custom
15	Basic Item Data	SCHEDULE ITEM	2000	
16	Product Description Data	SCHEDULE ITEM	2010	
17	Additional Item Data	SCHEDULE ITEM	2020-2030	
18	Unit of Measure	SCHEDULE ITEM	2040	
19	Item Measurements & Physical Qualities	SCHEDULE ITEM	2050	
20	Item Misc. References Codes and Values	SCHEDULE ITEM	2060	
21	Item Contact Names	SCHEDULE ITEM	2070	
22	Bar-code Shipping Label data	SCHEDULE ITEM	2080-2090	
23	Ship To Address Code	SCHEDULE ITEM	2100	
24	Bill To Address Code	SCHEDULE ITEM	2110	
25	Intermediate Ship To Address Code	SCHEDULE ITEM	2120	
26	Ship From Address Code	SCHEDULE ITEM	2130	
27	Miscellaneous Name Codes and Values	SCHEDULE ITEM	2140	
28	Carrier Details	SCHEDULE ITEM	2150	
29	Item Note Text	SCHEDULE ITEM	2160	
30	Hazardous Material data	SCHEDULE ITEM	2170	
31	Ship/Delivery Pattern Codes	SCHEDULE ITEM	2180	
32	Schedule Line Flexfields	SCHEDULE ITEM	2300-2330	Flexfields
33	Industry Flexfields	SCHEDULE ITEM	2340-2400	Flexfields
34	Trading Partner Flexfields	SCHEDULE ITEM	2500-2530	Flexfields
35	Extension Tables: Item Data	SCHEDULE ITEM	2900	Custom
36	Schedule Item Detail Data (Requirements, Authorizations, Shipped/Received data, etc.)	SCHEDULE ITEM	4000	
37	Item Detail Misc. References	SCHEDULE ITEM	4010	
38	Item Detail Note Text	SCHEDULE ITEM	4020	
39	Schedule Line Flexfields	SCHEDULE ITEM	4100-4130	Flexfields

Table A–64 SPSI Transaction Record Summary (Continued)

	Data	Data Level	Record Number	Note
40	Industry Flexfields	SCHEDULE ITEM	4200-4260	Flexfields
41	Trading Partner Flexfields	SCHEDULE ITEM	4300-4330	Flexfields
42	Subline Requirements	SCHEDULE ITEM	5000	
43	Item Detail Misc. References Codes and Values	SCHEDULE ITEM	5010	
44	Schedule Line Flexfields	SCHEDULE ITEM	5100-5130	Flexfields
45	Industry Flexfields	SCHEDULE ITEM	5200-5260	Flexfields
46	Trading Partner Flexfields	SCHEDULE ITEM	5300-5330	Flexfields
47	Extension Tables: Schedule Item Detail Data	SCHEDULE ITEM	5900	Custom

The following table shows the Common Key (positions 1-100) for the Inbound Planning/Material Release Schedule transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–65 Transaction-specific data in the SPSI Common Key:

Position	Length	CODE	CONTENT
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	SCH_REF	Schedule Reference number
48-69	22	ITEM	Schedule line number OR Sequence Counter of the Record 2000
70-91	22	SCHEDULE	Schedule detail number within schedule line OR Sequence Counter of Record 4000 within the given Record 2000
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Inbound Planning/Material Release Schedule transaction.

Table A–66 Transaction-specific data in the Common Key of the SPSI transaction, per record

	Data	Trading Partner	Ref 1 (SCH_REF)	Ref 2 (ITEM)	Ref (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	SCH_REF			0010	CT	CTL
2	Schedule Header	TP_CD	SCH_REF			1000	HD	HDR
3	Schedule Header Note Text	TP_CD	SCH_REF			1010	NT	HDR
4	Schedule Issuer Address Code	TP_CD	SCH_REF			1020	AD	SIH
5	Header Miscellaneous Contacts	TP_CD	SCH_REF			1030	CO	HDR
6	Header Miscellaneous References	TP_CD	SCH_REF			1040	RF	HDR
7	Schedule Header Flexfields/Context	TP_CD	SCH_REF			1100	A1	SH1
8	Schedule Header Flexfields	TP_CD	SCH_REF			1110-1130	A2	SH2-SH4
9	Trading Partner Flexfields/Context	TP_CD	SCH_REF			1200	A1	TH1
10	Trading Partner Flexfields	TP_CD	SCH_REF			1210-1230	A2	TH2-TH4
11	Ship To Address Code	TP_CD	SCH_REF			1300	AD	STH
12	Bill To Address Code	TP_CD	SCH_REF			1310	AD	BTH
13	Intermediate Ship To Address Code	TP_CD	SCH_REF			1320	AD	ICH
14	Supplier / Ship From Address Code	TP_CD	SCH_REF			1330	AD	SFH
15	Miscellaneous Name Codes and Values	TP_CD	SCH_REF			1340	MN	MNH
16	Extension Tables: Schedule Level					1900	Custom	Custom
17	Basic Item Data	TP_CD	SCH_REF	ITEM		2000	I1	IT1
18	Product Description Data	TP_CD	SCH_REF	ITEM		2010	I2	IT2
19	Additional Item Data	TP_CD	SCH_REF	ITEM		2020	I3	IT3
20	Additional Item Data	TP_CD	SCH_REF	ITEM		2030	I4	IT4
21	Unit of Measure	TP_CD	SCH_REF	ITEM		2040	UM	UOM

Table A–66 Transaction-specific data in the Common Key of the SPSI transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (SCH_REF)	Ref 2 (ITEM)	Ref (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
22	Item Measurements & Physical Qualities	TP_CD	SCH_REF	ITEM		2050	ME	MEA
23	Item Miscellaneous References	TP_CD	SCH_REF	ITEM		2060	RF	ITM
24	Item Contact Names	TP_CD	SCH_REF	ITEM		2070	CO	ITM
25	Bar-code Shipping Label data	TP_CD	SCH_REF	ITEM		2080-2090	LB	LB1-LB2
26	Ship To Address Code	TP_CD	SCH_REF	ITEM		2100	AD	STI
27	Bill To Address Code	TP_CD	SCH_REF	ITEM		2110	AD	BTI
28	Intermediate Ship To Address Code	TP_CD	SCH_REF	ITEM		2120	AD	ICI
29	Ship From Address Code	TP_CD	SCH_REF	ITEM		2130	AD	SFI
30	Miscellaneous Name Codes and Values	TP_CD	SCH_REF	ITEM		2140	MN	MNI
31	Carrier Details	TP_CD	SCH_REF	ITEM		2150	TD	QER
32	Item Note Text	TP_CD	SCH_REF	ITEM		2160	NT	ITM
33	Hazardous Material data	TP_CD	SCH_REF	ITEM		2170	HZ	HZ1
34	Ship/Delivery Pattern Codes	TP_CD	SCH_REF	ITEM		2180	SD	SDR
35	Schedule Line Flexfields/Context	TP_CD	SCH_REF	ITEM		2300	A1	SI1
36	Schedule Line Flexfields	TP_CD	SCH_REF	ITEM		2310-2330	A2	SI2-SI4
37	Industry Flexfields/Context	TP_CD	SCH_REF	ITEM		2340	A1	IN1
38	Industry Flexfields	TP_CD	SCH_REF	ITEM		2350-2400	A2	IN2-IN7
39	Trading Partner Flexfields/Context	TP_CD	SCH_REF	ITEM		2500	A1	TL1
40	Trading Partner Flexfields	TP_CD	SCH_REF	ITEM		2510-2530	A2	TL2-TL4
41	Extension Tables: Schedule Item Level					2900	Custom	Custom
42	Schedule Item Detail Data (Requirements, Authorizations, Shipped/Received data, etc.)	TP_CD	SCH_REF	ITEM	SCHEDULE	4000	SC	SCH

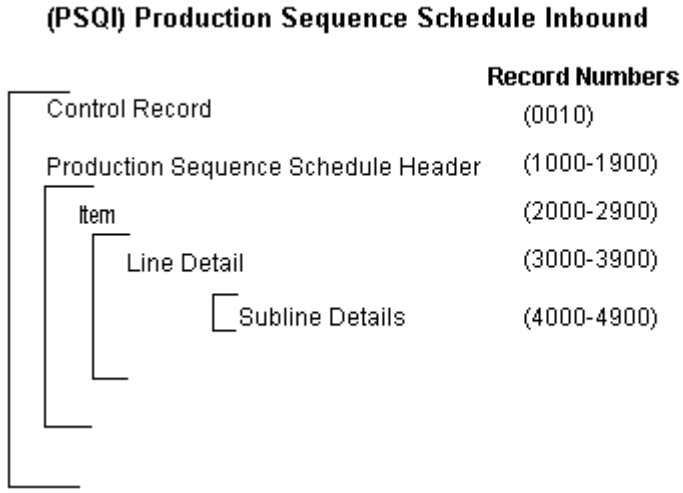
Table A–66 Transaction-specific data in the Common Key of the SPSI transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (SCH_REF)	Ref 2 (ITEM)	Ref (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
43	Item Detail Miscellaneous References	TP_CD	SCH_REF	ITEM	SCHEDULE	4010	RF	SCH
44	Item Detail Note Text	TP_CD	SCH_REF	ITEM	SCHEDULE	4020	NT	SCH
45	Schedule Line Flexfields/Context	TP_CD	SCH_REF	ITEM	SCHEDULE	4100	A1	SD1
46	Schedule Line Flexfields	TP_CD	SCH_REF	ITEM	SCHEDULE	4110-4130	A2	SD2-SD4
47	Industry Flexfields/Context	TP_CD	SCH_REF	ITEM	SCHEDULE	4200	A1	ID1
48	Industry Flexfields	TP_CD	SCH_REF	ITEM	SCHEDULE	4210-4260	A2	ID2-ID7
49	Trading Partner Flexfields/Context	TP_CD	SCH_REF	ITEM	SCHEDULE	4300	A1	TD1
50	Trading Partner Flexfields	TP_CD	SCH_REF	ITEM	SCHEDULE	4310-4330	A2	TD2-TD4
51	Subline Requirements	TP_CD	SCH_REF	ITEM	SCHEDULE	5000	QT	DIV
52	Item Detail Miscellaneous References Codes and Values	TP_CD	SCH_REF	ITEM	SCHEDULE	5010	RF	DIV
53	Schedule Line Flexfields/Context	TP_CD	SCH_REF	ITEM	SCHEDULE	5100	A1	SS1
54	Schedule Line Flexfields	TP_CD	SCH_REF	ITEM	SCHEDULE	5110-5130	A2	SS2-SS4
55	Industry Flexfields/Context	TP_CD	SCH_REF	ITEM	SCHEDULE	5200	A1	IS1
56	Industry Flexfields	TP_CD	SCH_REF	ITEM	SCHEDULE	5210-5260	A2	IS2-IS7
57	Trading Partner Flexfields/Context	TP_CD	SCH_REF	ITEM	SCHEDULE	5300	A1	TS1
58	Trading Partner Flexfields	TP_CD	SCH_REF	ITEM	SCHEDULE	5310-5330	A2	TS2-TS4
59	Extension Tables: Item Detail Level					5900	Custom	Custom

Production Sequence

(PSQI/866/NA)

A single transaction has the following data hierarchy and data looping:



An Inbound Production Sequence Schedule transaction contains a single Control Record and Production Sequence Schedule Header. The header record can have multiple Item Records, which can have multiple Line Detail Records, which can have multiple Subline Detail Records. This structure is further described in the table below.

The following table shows the content and occurrences of the records comprising the Inbound Production Sequence Schedule.

Table A–67 Record occurrences within the PSQI transaction:

Records	CONTENT	OCCURRENCES
0010-0070	Control Record	Only one record occurrence per transaction
1000-1900	Header Records	Only one record occurrence per transaction
2000-2900	Date and Defaults	Date and defaults applicable to subsequent details
3000-3900	Item Records within Date	One set of items and related data per date
4000-4900	Subline Item Records within Item	One optional set of subline records within configuration details

The following table is a summary list of the records that comprise the Inbound Production Sequence Schedule transaction. The table shows the functional data grouping of records, the data level, the record numbers. and relevant notes about the data grouping.

Table A–68 PSQI Transaction Record Summary

	Data	Data Level	Record Number	Note
1	Control Record	SCHEDULE HEADER	0010	
2	Basic Schedule Header	SCHEDULE HEADER	1000	
3	Schedule Header Note Text	SCHEDULE HEADER	1010	
4	Customer Address	SCHEDULE HEADER	1020	
5	Schedule Header Misc. Contacts	SCHEDULE HEADER	1080	
6	Schedule Header Misc. References	SCHEDULE HEADER	1090	
7	Schedule Header Flexfields	SCHEDULE HEADER	1500-1530	
9	Trading Partner Header Flexfields	SCHEDULE HEADER	1600-1630	
10	Ship To Address and Code	SCHEDULE HEADER	1700	
11	Bill To Address and Code	SCHEDULE HEADER	1710	
12	Intermediate Ship To Address and Code	SCHEDULE HEADER	1720	
13	Ship From Address and Code	SCHEDULE HEADER	1730	
14	Other Name Codes and Values	SCHEDULE HEADER	1740	
15	Item Data: Date and Quantity Data	SCHEDULE ITEM	2000	
16	Unit of Measurement	SCHEDULE ITEM	2040	

Table A–68 PSQI Transaction Record Summary (Continued)

	Data	Data Level	Record Number	Note
17	Item Reference	SCHEDULE ITEM	2200	
18	Ship To Address and Code	SCHEDULE ITEM	3000	
19	Bill To Address and Code	SCHEDULE ITEM	3010	
20	Intermediate Ship To Address and Code	SCHEDULE ITEM	3020	
21	Ship From Address and Code	SCHEDULE ITEM	3030	
22	Customer Reference Data	SCHEDULE ITEM	3100	
23	More Customer Reference Data	SCHEDULE ITEM	3110	
24	More Customer Reference Data including Dock, FBO Configuration Key	SCHEDULE ITEM	3120	
25	Item Detail Reference Codes and Values	SCHEDULE ITEM	3140	
26	Customer's item description	SCHEDULE ITEM	3180	
27	Customer transportation data	SCHEDULE ITEM	3200	
28	Item Note Text	SCHEDULE ITEM	3220	
29	Handling and Hazardous data	SCHEDULE ITEM	3240	
30	Ship-Delivery Pattern	SCHEDULE ITEM	3260	
31	Line Flexfields	SCHEDULE ITEM	3300-3340	Flexfields
32	Industry Flexfields	SCHEDULE ITEM	3380-3440	Flexfields
33	Trading Partner Flexfields	SCHEDULE ITEM	3460-3520	Flexfields
34	Subline detail	SCHEDULE ITEM	4000	
35	Other Name Codes and Values	SCHEDULE ITEM	4010	
36	Item Note Text	SCHEDULE ITEM	4030	
37	Item Measurement External	SCHEDULE ITEM	4050	

The following table shows the Common Key (positions 1-100) for the Inbound Production Sequence Schedule transaction. The table shows the position, length, code, and contents of the Common Key elements.

Table A–69 Transaction-specific data in the Common Key of the PSQI transaction:

Position	Length	CODE	CONTENT
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	SCH_REF	Schedule Reference Number
48-69	22	SEQ	Sequence Counter of the Record 2000
70-91	22	SEQ_SUBLINE	Sequence Counter of Record 4000 within the given Record 2000
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Inbound Production Sequence Schedule transaction.

Table A–70 Transaction-specific data in the Common Key of the PSQI transaction, per record

	Data	Trading Partner	Ref 1 (SCH_REF)	Ref 2 (SEQ)	Ref 3 (SEQ_ SUBLINE)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	SCH_REF			0010	CT	CTL
2	Basic Schedule Header	TP_CD	SCH_REF			1000	HD	HDR
3	Schedule Header Note Text	TP_CD	SCH_REF			1010	NT	HDR
4	Customer Address	TP_CD	SCH_REF			1020	A1	SIH
5	Schedule Header Misc. Contacts	TP_CD	SCH_REF			1080	CO	HDR
6	Schedule Header Misc. References	TP_CD	SCH_REF			1090	RF	HDR
7	Schedule Header Flexfields	TP_CD	SCH_REF			1500	A1	SH1
9	Schedule Header Flexfields	TP_CD	SCH_REF			1510	A2	SH2
10	Schedule Header Flexfields	TP_CD	SCH_REF			1520	A2	SH3
11	Schedule Header Flexfields	TP_CD	SCH_REF			1530	A2	SH4
12	Trading Partner Header Flexfields	TP_CD	SCH_REF			1600	A1	1H1

Table A–70 Transaction-specific data in the Common Key of the PSQI transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (SCH_REF)	Ref 2 (SEQ)	Ref 3 (SEQ_SUBLINE)	Record Number	Record Layout	Record Layout Qualifier
13	Trading Partner Header Flexfields	TP_CD	SCH_REF			1610	A2	TH2
14	Trading Partner Header Flexfields	TP_CD	SCH_REF			1620	A2	TH3
15	Trading Partner Header Flexfields	TP_CD	SCH_REF			1630	A2	TH4
16	Ship To Address and Code	TP_CD	SCH_REF			1700	AD	STH
17	Bill To Address and Code	TP_CD	SCH_REF			1710	AD	BTH
18	Intermediate Ship To Address and Code	TP_CD	SCH_REF			1720	AD	ICH
19	Ship From Address and Code	TP_CD	SCH_REF			1730	AD	SFH
20	Other Name Codes and Values	TP_CD	SCH_REF			1740	MN	MNH
21	Item Data: Date and Quantity Data	TP_CD	SCH_REF	SEQ		2000	SC	DT
22	Unit of Measurement	TP_CD	SCH_REF	SEQ		2040	UM	UOM
23	Item Reference	TP_CD	SCH_REF	SEQ		2200	RF	DTM
24	Ship To Address and Code	TP_CD	SCH_REF	SEQ		3000	AD	STI
25	Bill To Address and Code	TP_CD	SCH_REF	SEQ		3010	AD	BTI
26	Intermediate Ship To Address and Code	TP_CD	SCH_REF	SEQ		3020	AD	ICI
27	Ship From Address and Code	TP_CD	SCH_REF	SEQ		3030	AD	SFI
28	Customer Reference Data	TP_CD	SCH_REF	SEQ		3100	I1	IT1
29	More Customer Reference Data	TP_CD	SCH_REF	SEQ		3110	I2	IT2
30	More Customer Reference Data including Dock, FBO Configuration Key	TP_CD	SCH_REF	SEQ		3120	I3	IT3

Table A–70 Transaction-specific data in the Common Key of the PSQI transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (SCH_REF)	Ref 2 (SEQ)	Ref 3 (SEQ_SUBLINE)	Record Number	Record Layout	Record Layout Qualifier
31	Item Detail Reference Codes and Values	TP_CD	SCH_REF	SEQ		3140	RF	LIN
32	Customer's item description	TP_CD	SCH_REF	SEQ		3180	PD	LIN
33	Customer transportation data	TP_CD	SCH_REF	SEQ		3200	TD	QER
34	Item Note Text	TP_CD	SCH_REF	SEQ		3220	NT	ITM
35	Handling and Hazardous data	TP_CD	SCH_REF	SEQ		3240	HZ	HZ1
36	Ship-Delivery Pattern	TP_CD	SCH_REF	SEQ		3260	SD	SDR
37	Line Flexfields	TP_CD	SCH_REF	SEQ		3300	A1	SI1
38	Line Flexfields	TP_CD	SCH_REF	SEQ		3320	A2	SI2
39	Line Flexfields	TP_CD	SCH_REF	SEQ		3340	A2	SI3
40	Line Flexfields	TP_CD	SCH_REF	SEQ		3360	A2	SI4
41	Industry Flexfields	TP_CD	SCH_REF	SEQ		3380	A1	IN1
42	Industry Flexfields	TP_CD	SCH_REF	SEQ		3400	A2	IN2
43	Industry Flexfields	TP_CD	SCH_REF	SEQ		3420	A2	IN3
44	Industry Flexfields	TP_CD	SCH_REF	SEQ		3440	A2	IN4
45	Trading Partner Flexfields	TP_CD	SCH_REF	SEQ		3460	A1	TL1
46	Trading Partner Flexfields	TP_CD	SCH_REF	SEQ		3480	A2	TL2
47	Trading Partner Flexfields	TP_CD	SCH_REF	SEQ		3500	A2	TL3
48	Trading Partner Flexfields	TP_CD	SCH_REF	SEQ		3520	A2	TL4
49	Subline detail	TP_CD	SCH_REF	SEQ	SEQ-SUBLINE	4000	SL	SLN
50	Other Name Codes and Values	TP_CD	SCH_REF	SEQ	SEQ-SUBLINE	4010	MN	MNI
51	Item Note Text	TP_CD	SCH_REF	SEQ	SEQ-SUBLINE	4030	NT	PIC
52	Item Measurement External	TP_CD	SCH_REF	SEQ	SEQ-SUBLINE	4050	ME	MEA

Shipping Schedule

(SSSI/862/DELJIT)

See the Inbound Planning/Material Release Schedule (SPSI/830/DELFOR) on page A-82 above. These transactions have the same record layout.

Oracle Shipping Execution Transaction Summaries

Table A–71 The following Oracle Shipping Execution transaction is available in Release 11i.1.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Ship Notice/Manifest	Outbound	DSNO	856	DESADV

Current Information

The transaction file may change when enhancements are made such as additional data added to the transaction.

Current transaction summaries can be found on Oracle Support's web site when they are released.

Current detail record layouts are reported via the Transaction Definition Layout Report and the Interface File Data Report.

Oracle Supplier Scheduling Transaction Summaries

Table A–72 The following Oracle Supplier Scheduling transactions are summarized in this appendix.

Transaction Name	Direction	Transaction Code	ASC X12	EDIFACT
Planning Schedule	Outbound	SPSO	830	DELFOR
Shipping Schedule	Outbound	SSSO	862	DELJIT

Current Information

The transaction file may change when enhancements are made such as additional data added to the transaction.

Current transaction summaries can be found on Oracle Support's web site.

Current detail record layouts are reported via the Transaction Definition Layout Report and the Interface File Data Report.

Outbound Planning Schedule

(SPSO/830/DELFOR) The following table shows the content and occurrences of the records comprising the Outbound Planning Schedule transaction.

Table A–73 Record occurrences within the SPSO transaction:

Records	Content	Occurrences
0010	Control Record	Only one record occurrence per transaction
0020-0070	Gateway Flexfields	One set of records per transaction
1000-1900	Header Records	Only one record occurrence per transaction
2000-2900	Item Records	One set of records per item within the Planning Schedule header
4000-4900	Authorization/Forecast Schedule	One records per forecast schedule, authorization or receipt data per item

The following table is a summary list of the records that comprise the Outbound Planning Schedule transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–74 SPSO Transaction Record Summary

	Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Trading Partner Header Flexfields	HEADER	0020-0050	Flexfields
3	Trading Partner Detail Flexfields	HEADER	0060-0070	Flexfields
4	Basic Planning Schedule Header	HEADER	1000	
5	Supplier Numbers	HEADER	1010	
6	Supplier Site Address/Code	HEADER	1020	
7	Supplier Site Phone	HEADER	1030	
8	Ship to Address/Code	HEADER	1050	
9	Ship to Miscellaneous Data	HEADER	1060	
10	Schedule Header Flexfields	HEADER	1500-1530	Flexfields

Table A–74 SPSO Transaction Record Summary (Continued)

	Data	Data Level	Record Number	Note
11	Vendor Flexfields	HEADER	1600-1630	Flexfields
12	Vendor Site Flexfields	HEADER	1650-1680	Flexfields
13	Shipping Organization Flexfields	HEADER	1700-1730	Flexfields
14	Ship To Options Flexfields	HEADER	1750-1780	Flexfields
15	Extension Tables: Purchase Order Header Data	HEADER	1900	(Custom)
16	Basic Item Data	ITEM	2000	
17	Product Description	ITEM	2010	
18	Hazardous Material Codes	ITEM	2020	
19	Contact Names	ITEM	2030	
20	Last Receipt Data	ITEM	2040	
21	Ship To Organization Address/Code	ITEM	2050	
22	Ship To Organization Data	ITEM	2060	
23	Approved Supplier List Flexfields	ITEM	2100-2130	Flexfields
24	Item Flexfields	ITEM	2150-2180	Flexfields
25	Ship To Organization Flexfields	ITEM	2200-2230	Flexfields
26	Organization Option Flexfields	ITEM	2250-2280	Flexfields
27	Schedule Item Flexfields	ITEM	2300-2330	Flexfields
28	Extension Tables: Item Data	ITEM	2900	(Custom)
29	Forecast and Authorization Data	ITEM DETAILS	(See updates)	
30	Extension Tables: Forecast and Authorization Data	ITEM DETAILS		(Custom)

The following table shows the Common Key (positions 1-100) for the Outbound Planning Schedule transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–75 Transaction-specific data in the SPSO transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	PS	Planning Schedule number
48-69	22	ITEM	Planning Schedule line number
70-91	22	SCHEDULE	Schedule Bucket Number
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Planning Schedule transaction.

Table A–76 Transaction-specific data in the Common Key of the SPSO transaction, per record

	Data	Trading Partner	Ref 1 (PS)	Ref 2 (ITEM)	Ref 3 (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	PS			0010	CT	CTL
2	Trading Partner Header Flexfields	TP_CD	PS			0020	A1	TH1
3	Trading Partner Header Flexfields	TP_CD	PS			0030	A2	TH2
4	Trading Partner Header Flexfields	TP_CD	PS			0040	A2	TH3
5	Trading Partner Header Flexfields	TP_CD	PS			0050	A2	TH4
6	Trading Partner Detail Flexfields	TP_CD	PS			0060	A1	TD1
7	Trading Partner Detail Flexfields	TP_CD	PS			0070	A2	TD2
8	Planning Schedule Header	TP_CD	PS			1000	HD	FRC
9	Planning Schedule Header	TP_CD	PS			1010	SP	SU
10	Planning Schedule Header	TP_CD	PS			1020	AD	SS
11	Planning Schedule Header	TP_CD	PS			1030	CN	SS
12	Planning Schedule Header	TP_CD	PS			1050	AX	ST1
13	Planning Schedule Header	TP_CD	PS			1060	ST	ST2
14	Schedule Header Flexfields 1-4	TP_CD	PS			1500	A1	SH1

Table A–76 Transaction-specific data in the Common Key of the SPSO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (PS)	Ref 2 (ITEM)	Ref 3 (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
15	Schedule Header Flexfields 5-9	TP_CD	PS			1510	A2	SH2
16	Schedule Header Flexfields 10-14	TP_CD	PS			1520	A2	SH3
17	Schedule Header Flexfield 15	TP_CD	PS			1530	A2	SH4
18	Vendor Flexfields 1-4	TP_CD	PS			1600	A1	VN1
19	Vendor Flexfields 5-9	TP_CD	PS			1610	A2	VN2
20	Vendor Flexfields 10-14	TP_CD	PS			1620	A2	VN3
21	Vendor Flexfield 15	TP_CD	PS			1630	A2	VN4
22	Vendor Site Flexfields 1-4	TP_CD	PS			1650	A1	VS1
23	Vendor Site Flexfields 5-9	TP_CD	PS			1660	A2	VS2
24	Vendor Site Flexfields 10-14	TP_CD	PS			1670	A2	VS3
25	Vendor Site Flexfield 5	TP_CD	PS			1680	A2	VS4
26	Shipping Organization Flexfields 1-4	TP_CD	PS			1700	A1	ST1
27	Shipping Organization Flexfields 5-9	TP_CD	PS			1710	A2	ST2
28	Shipping Organization Flexfields 10-14	TP_CD	PS			1720	A2	ST3
29	Shipping Organization Flexfield 15	TP_CD	PS			1730	A2	ST4
30	Ship To Options Flexfields 1-4	TP_CD	PS			1750	A1	OP1
31	Ship To Options Flexfields 5-9	TP_CD	PS			1760	A2	OP2
32	Ship To Options Flexfields 10-14	TP_CD	PS			1770	A2	OP3
33	Ship To Options Flexfield 15	TP_CD	PS			1780	A2	OP4
34	Extension Tables: Schedule Level	TP_CD	PS			1900	(Custom)	(Custom)
35	Basic Item Data	TP_CD	PS	ITEM		2000	IT	IT1
36	Product Description	TP_CD	PS	ITEM		2010	IT	IT2
37	Hazardous Material Data	TP_CD	PS	ITEM		2020	HZ	HZ1

Table A–76 Transaction-specific data in the Common Key of the SPSO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (PS)	Ref 2 (ITEM)	Ref 3 (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
38	Contact Names	TP_CD	PS	ITEM		2030	CN	IT1
39	Last Receipt Data	TP_CD	PS	ITEM		2040	LS	LS1
40	Ship to Organization Address/Code	TP_CD	PS	ITEM		2050	AX	SI2
41	Ship to Organization Data	TP_CD	PS	ITEM		2060	ST	SI3
42	Approved Supplier List Flexfields 1-4	TP_CD	PS	ITEM		2100	A1	AS1
43	Approved Supplier List Flexfields 5-9	TP_CD	PS	ITEM		2110	A2	AS2
44	Approved Supplier List Flexfields 10-14	TP_CD	PS	ITEM		2120	A2	AS3
45	Approved Supplier List Flexfield 15	TP_CD	PS	ITEM		2130	A2	AS4
46	Item Flexfields 1-4	TP_CD	PS	ITEM		2150	A1	IT1
47	Item Flexfields 5-9	TP_CD	PS	ITEM		2160	A2	IT2
48	Item Flexfields 10-14	TP_CD	PS	ITEM		2170	A2	IT3
49	Item Flexfield 15	TP_CD	PS	ITEM		2180	A2	IT4
50	Ship to Organization Flexfields (item) 1-4	TP_CD	PS	ITEM		2200	A1	DI1
51	Ship to Organization Flexfields (item) 5-9	TP_CD	PS	ITEM		2210	A2	DI2
52	Ship to Organization Flexfields (item) 10-14	TP_CD	PS	ITEM		2220	A2	DI3
53	Ship to Organization Flexfield (item) 15	TP_CD	PS	ITEM		2230	A2	DI4
54	Organization Option Flexfields 1-4	TP_CD	PS	ITEM		2250	A1	SO1
55	Organization Option Flexfields 5-9	TP_CD	PS	ITEM		2260	A2	SO2
56	Organization Option Flexfields 10-14	TP_CD	PS	ITEM		2270	A2	SO3

Table A–76 Transaction-specific data in the Common Key of the SPSO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (PS)	Ref 2 (ITEM)	Ref 3 (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
57	Organization Option Flexfield 15	TP_CD	PS	ITEM		2280	A2	SO4
58	Schedule Item Flexfields 1-4	TP_CD	PS	ITEM		2300	A1	SI1
59	Schedule Item Flexfields 5-9	TP_CD	PS	ITEM		2310	A2	SI2
60	Schedule Item Flexfields 10-14	TP_CD	PS	ITEM		2320	A2	SI3
61	Schedule Item Flexfield 15	TP_CD	PS	ITEM		2330	A2	SI4
62	Extension Tables: Item Level	TP_CD	PS	ITEM		2900	(Custom)	(Custom)
63	Forecast Dates, Authorization, Receipt Data	TP_CD	PS	ITEM	SCHEDULE	4000	SC	SCH
64	Extension Tables: Forecast Level	TP_CD	PS	ITEM	SCHEDULE	4900	(Custom)	(Custom)

Outbound Shipping Schedule

(SSSO/862/DELJIT) The following table shows the content and occurrences of the records comprising the Outbound Shipping Schedule transaction.

Table A–77 Record occurrences within the SSSO transaction:

Records	Content	Occurrences
0010	Control Records	Only one record occurrence per transaction
0020-0070	Gateway Flexfields	One set of records per transaction
1000-1900	Header Records	Only one record occurrence per transaction
2000-2900	Item Records	One set of records per item within the Shipping Schedule header
4000-4900	Authorization/Forecast Schedule	One records per forecast schedule, authorization or receipt data per item

The following table is a summary list of the records that comprise the Outbound Shipping Schedule transaction. The table shows the functional data grouping of records, the data level, the record numbers, and relevant notes about the data grouping.

Table A–78 SSSO Transaction Record Summary

	Data	Data Level	Record Number	Note
1	Control Record	HEADER	0010	
2	Trading Partner Header Flexfields	HEADER	0020-0050	Flexfields
3	Trading Partner Detail Flexfields	HEADER	0060-0070	Flexfields
4	Basic Planning Schedule Header	HEADER	1000	
5	Supplier Numbers	HEADER	1010	
6	Supplier Site Address/Code	HEADER	1020	
7	Supplier Site Phone	HEADER	1030	
8	Ship to Address/Code	HEADER	1050	
9	Ship to Miscellaneous Data	HEADER	1060	
10	Schedule Header Flexfields	HEADER	1500-1530	Flexfields

Table A–78 SSSO Transaction Record Summary (Continued)

	Data	Data Level	Record Number	Note
11	Vendor Flexfields	HEADER	1600-1630	Flexfields
12	Vendor Site Flexfields	HEADER	1650-1680	Flexfields
13	Shipping Organization Flexfields	HEADER	1700-1730	Flexfields
14	Ship To Options Flexfields	HEADER	1750-1780	Flexfields
15	Extension Tables: Purchase Order Header Data	HEADER	1900	(Custom)
16	Basic Item Data	ITEM	2000	
17	Product Description	ITEM	2010	
18	Hazardous Material Codes	ITEM	2020	
19	Contact Names	ITEM	2030	
20	Last Receipt Data	ITEM	2040	
21	Ship To Organization Address/Code	ITEM	2050	
22	Ship To Organization Data	ITEM	2060	
23	Approved Supplier List Flexfields	ITEM	2100-2130	Flexfields
24	Item Flexfields	ITEM	2150-2180	Flexfields
25	Ship To Organization Flexfields	ITEM	2200-2230	Flexfields
26	Organization Option Flexfields	ITEM	2250-2280	Flexfields
27	Schedule Item Flexfields	ITEM	2300-2330	Flexfields
28	Extension Tables: Item Data	ITEM	2900	(Custom)
29	Forecast and Authorization Data	ITEM DETAILS	4000	
30	Extension Tables: Forecast and Authorization Data	ITEM DETAILS	4900	(Custom)

Outbound Shipping Schedule The following table shows the Common Key (positions 1-100) for the Outbound Shipping Schedule transaction. The table shows the position, length, code, and content of the Common Key elements.

Table A–79 Transaction-specific data in the SSSO transaction Common Key:

Position	Length	Code	Content
1-25	25	TP_CD	Trading Partner Code as defined in the EDI Translator
26-47	22	SS	Shipping Schedule number
48-69	22	ITEM	Shipping Schedule line number
70-91	22	SCHEDULE	Schedule Bucket Number
92-95	4	(varies)	Record Number
96-97	2	(varies)	Record Layout
98-100	3	(varies)	Record Layout Qualifier

The following table shows the Common Key (positions 1-100) for the records of the Outbound Shipping Schedule transaction.

Table A–80 Transaction-specific data in the Common Key of the SSSO transaction, per record

	Data	Trading Partner	Ref 1 (SS)	Ref 2 (ITEM)	Ref 3 (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
1	Control Record	TP_CD	SS			0010	CT	CTL
2	Trading Partner Header Flexfields	TP_CD	SS			0020	A1	TH1
3	Trading Partner Header Flexfields	TP_CD	SS			0030	A2	TH2
4	Trading Partner Header Flexfields	TP_CD	SS			0040	A2	TH3
5	Trading Partner Header Flexfields	TP_CD	SS			0050	A2	TH4
6	Trading Partner Detail Flexfields	TP_CD	SS			0060	A1	TD1
7	Trading Partner Detail Flexfields	TP_CD	SS			0070	A2	TD2
8	Planning Schedule Header	TP_CD	SS			1000	HD	FRC
9	Planning Schedule Header	TP_CD	SS			1010	SP	SU
10	Planning Schedule Header	TP_CD	SS			1020	AD	SS
11	Planning Schedule Header	TP_CD	SS			1030	CN	SS
12	Planning Schedule Header	TP_CD	SS			1050	AX	ST1
13	Planning Schedule Header	TP_CD	SS			1060	ST	ST2

Table A–80 Transaction-specific data in the Common Key of the SSSO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (SS)	Ref 2 (ITEM)	Ref 3 (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
14	Schedule Header Flexfields 1-4	TP_CD	SS			1500	A1	SH1
15	Schedule Header Flexfields 5-9	TP_CD	SS			1510	A2	SH2
16	Schedule Header Flexfields 10-15	TP_CD	SS			1520	A2	SH3
17	Schedule Header Flexfield 15	TP_CD	SS			1530	A2	SH4
18	Vendor Flexfields 1-4	TP_CD	SS			1600	A1	VN1
19	Vendor Flexfields 5-9	TP_CD	SS			1610	A2	VN2
20	Vendor Flexfields 10-14	TP_CD	SS			1620	A2	VN3
21	Vendor Flexfield 15	TP_CD	SS			1630	A2	VN4
22	Vendor Site Flexfields 1-4	TP_CD	SS			1650	A1	VS1
23	Vendor Site Flexfields 5-9	TP_CD	SS			1660	A2	VS2
24	Vendor Site Flexfields 10-14	TP_CD	SS			1670	A2	VS3
25	Vendor Site Flexfield 15	TP_CD	SS			1680	A2	VS4
26	Shipping Organization Flexfields 1-4	TP_CD	SS			1700	A1	ST1
27	Shipping Organization Flexfields 5-9	TP_CD	SS			1710	A2	ST2
28	Shipping Organization Flexfields 10-14	TP_CD	SS			1720	A2	ST3
29	Shipping Organization Flexfield 15	TP_CD	SS			1730	A2	ST4
30	Ship To Options Flexfields 1-4	TP_CD	SS			1750	A1	OP1
31	Ship To Options Flexfields 5-9	TP_CD	SS			1760	A2	OP2
32	Ship To Options Flexfields 10-14	TP_CD	SS			1770	A2	OP3
33	Ship To Options Flexfield15	TP_CD	SS			1780	A2	OP4
34	Extension Tables: Schedule Level	TP_CD	SS			1900	(Custom)	(Custom)
35	Basic Item Data	TP_CD	SS	ITEM		2000	IT	IT1
36	Product Description	TP_CD	SS	ITEM		2010	IT	IT2

Table A–80 Transaction-specific data in the Common Key of the SSSO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (SS)	Ref 2 (ITEM)	Ref 3 (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
37	Hazardous Material Data	TP_CD	SS	ITEM		2020	HZ	HZ1
38	Contact Names	TP_CD	SS	ITEM		2030	CN	IT1
39	Last Receipt Data	TP_CD	SS	ITEM		2040	LS	LS1
40	Ship to Organization Address/Code	TP_CD	SS	ITEM		2050	AX	SI2
41	Ship to Organization Data	TP_CD	SS	ITEM		2060	ST	SI3
42	Approved Supplier List Flexfields 1-4	TP_CD	SS	ITEM		2100	A1	AS1
43	Approved Supplier List Flexfields 5-9	TP_CD	SS	ITEM		2110	A2	AS2
44	Approved Supplier List Flexfields 10-14	TP_CD	SS	ITEM		2120	A2	AS3
45	Approved Supplier List Flexfield15	TP_CD	SS	ITEM		2130	A2	AS4
46	Item Flexfields 1-4	TP_CD	SS	ITEM		2150	A1	IT1
47	Item Flexfields 5-9	TP_CD	SS	ITEM		2160	A2	IT2
48	Item Flexfields 10-14	TP_CD	SS	ITEM		2170	A2	IT3
49	Item Flexfield 15	TP_CD	SS	ITEM		2180	A2	IT4
50	Ship to Organization Flexfields (item) 1-4	TP_CD	SS	ITEM		2200	A1	DI1
51	Ship to Organization Flexfields (item) 5-9	TP_CD	SS	ITEM		2210	A2	DI2
52	Ship to Organization Flexfields (item) 10-14	TP_CD	SS	ITEM		2220	A2	DI3
53	Ship to Organization Flexfield (item) 15	TP_CD	SS	ITEM		2230	A2	DI4
54	Organization Option Flexfields 1-4	TP_CD	SS	ITEM		2250	A1	SO1
55	Organization Option Flexfields 5-9	TP_CD	SS	ITEM		2260	A2	SO2

Table A–80 Transaction-specific data in the Common Key of the SSSO transaction, per record (Continued)

	Data	Trading Partner	Ref 1 (SS)	Ref 2 (ITEM)	Ref 3 (SCHEDULE)	Record Number	Record Layout	Record Layout Qualifier
56	Organization Option Flexfields 10-14	TP_CD	SS	ITEM		2270	A2	SO3
57	Organization Option Flexfield 15	TP_CD	SS	ITEM		2280	A2	SO4
58	Schedule Item Flexfields 1-4	TP_CD	SS	ITEM		2300	A1	SI1
59	Schedule Item Flexfields 5-9	TP_CD	SS	ITEM		2310	A2	SI2
60	Schedule Item Flexfields 10-14	TP_CD	SS	ITEM		2320	A2	SI3
61	Schedule Item Flexfield 15	TP_CD	SS	ITEM		2330	A2	SI4
62	Extension Tables: Item Level	TP_CD	SS	ITEM		2900	(Custom)	(Custom)
63	Forecast Dates, Authorization, Receipt Data	TP_CD	SS	ITEM	SCHEDULE	4000	SC	SCH
64	Extension Tables: Forecast Level	TP_CD	SS	ITEM	SCHEDULE	4900	(Custom)	(Custom)