BaanERP 5.0c

EDI User Guide

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About this document

This document explains the issues involved with the implementation of
Electronic Data Interchange (EDI). This document is designed for members of an
EDI implementation team and end-users.

This guide covers the following topics:

- Preliminary setup steps
- Setting up a purchasing company
- Setting up a selling company
- Running EDI
- Review of the standard EDI procedure
- Using internal (multisite) EDI

Also included are detailed lists of the EDI conversion setups and a glossary.

1 Introduction

In today's business environment, companies face increasing order volumes and higher demands on the speed of communication. The electronic transfer of data (referred to as EDI, for Electronic Data Interchange) has become an important part of day-to-day business. EDI can process standard messages between two trading partners, usually through an external translator. The translator is typically another company that provides translation services and, possibly, other network services.
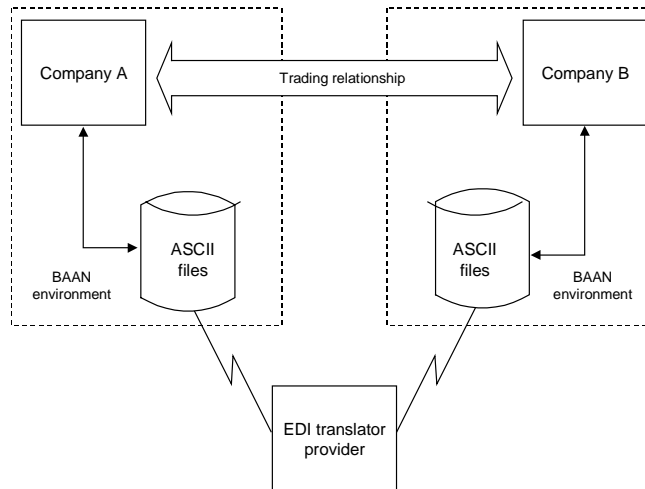
Figure 1 Electronic data interchange (EDI)

The Baan EDI module can generate and read ASCII files with a flexible format. When you use Baan EDI to exchange documents, these ASCII files are translated, or reformatted, using standard EDI message formats, such as ANSI X12, UN/EDIFACT, ODETTE, and VDA by a third-party translator, to provide a format supported by your trading relation.

The data files are typically transferred between external trading partners over commercial (a value added network) or noncommercial (for example, Internet) networks. Third-party translation and communication software handles the translation of the ASCII files that are created or received by Baan EDI. This third-party software may additionally provide encryption for transferring data over unsecured networks. Baan EDI software does not provide this translation and communication functionality. This environment is referred to as external EDI throughout this document.

The transfer of internal EDI messages is similar to the external EDI situation except for the translation and communication requirements. Internal EDI is also referred to as multicompany or multisite. In multisite EDI implementations, the ASCII files are usually transferred over an internal company network (LAN or WAN) which means that encryption is not required. Also, because all companies (or sites) in the multisite structure use the same format for the ASCII files, translation to a different external EDI standard generally is not required.

Overview

This guide will help you understand the steps involved in implementing and using the Baan EDI solution. This application provides several tools to help you with this, including:

- Default conversion setups for the supported transaction sets
- Mechanisms for identifying the business partners and supported messages
- Conversion tables to help with specific conversion information
- Code tables for code identification purposes
- Message generation management
- Message audit and correction management

Baan provides default data that you can import into Baan EDI. The default data includes the following:

- The X12 and EDI organizations which represent the ANSI X12 and UN/EDIFACT Standards, by which you can group other EDI elements

- Supported messages that follow the ANSI X12 and UN/EDIFACT Standards naming conventions, grouped by organization (EDI messages and the supported messages defined in EDI Master Data)

- Supported Conversion setups for each supported message that define the ASCII file layouts and supported fields for each message

- Default values from select EDI codes (for example, order types, item code IDs, address/partner code IDs, address/partner types and shipment status codes) that you can use in code conversions

- Outgoing messages by session, which link all supported outgoing messages to the session that prepares the EDI message for generation

Supported messages

The BaanERP release supports the following messages. The table includes the transaction set, or message, codes to which these messages correspond for the indicated EDI standards.

EDI standard/message description	X12	EDIFACT	Direction
Invoice	810	INVOIC	in/out
Remittance Advice	820	REMADV	in only
Error Notification	824	APERAK	in/out
Purchase Schedules	830	DELFOR	in/out
Purchase Order	850	ORDERS	in/out
Purchase Order Acknowledgment	855	ORDRSP	in/out
Advance Ship Notice	856	DESADV	in/out
Purchase Schedules	862	DELFOR	in/out
Purchase Schedules	866	DELJIT	in/out
Receipt Discrepancy Notification	861	RECADV	in/out
Purchase Order Change	860	ORDCHG	in/out
Purchase Order Change Acknowledgement	865	ORDRSP	in/out
Functional Acknowledgment	997		in only

Each message has a code that relates to a particular standard. For example, ORDERS is the code used for the UN/EDIFACT purchase order and 850 is the code used for the ANSI X12 purchase order. Each standard has its own identification method for defining the name of the message.

The Baan EDI default data maintains this naming convention. You can easily identify the Baan message with the EDI standard name for X12 and EDIFACT. You can also customize the message names.

The message data provided in the Baan EDI default data conversion setups include the ASCII file layouts that you can map to your EDI standard. To maintain simplicity, the examples will use ANSI X12 terminology throughout this document when referring to the messages.

The next few chapters cover the actual setup of EDI data, and the usage of EDI from a procedural point of view.

The setup of data is structured as follows:

- General data setup of EDI company

- Setup of purchasing company: setup specific to defining your trading partner as the seller, you as the buyer

- Setup of selling company: setup specific to defining your trading partner as the buyer, you as the seller

The appendix reviews the currently supported EDI conversion setups provided in the default data.

2 General setup for EDI

EDI-specific data setup includes the following steps (in order of execution):

1 Maintain EDI parameters
2 Export default EDI data
3 Import EDI data
4 Maintain networks
5 Maintain business partner data by network
6 Maintain code tables
7 Maintain conversion tables
8 Maintain EDI messages by business partner

Figure 2 shows the relationships between the setup steps and the databases involved.
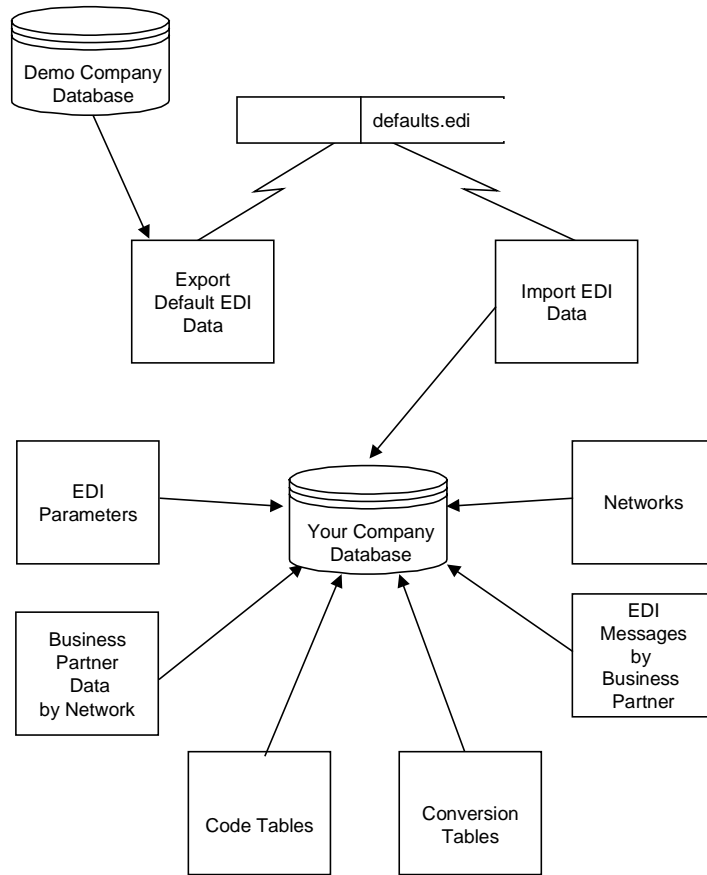
Figure 2 EDI setup

Parameters

The next two forms show how to set your EDI parameters.

Figure 3 EDI Parameters (ecedi0100s000) session, defaults

Explanation of parameters	
Parameter	**Explanation**
EDI Implemented	A check box that indicates if EDI is implemented in this company.
Standard Path	Select the directory in which all EDI-related data is located. The actual messages for your company are stored in a series of subdirectories, which will be defined at a later stage. The directory defined here is the directory in which the import utility will search for the Defaults.edi file as explained in the pervious section and to which the export utility will write files.
Our Identification	The communication address that is used by your trading business partner to identify you. For internal EDI, using the company number, as an address is a good choice. For external EDI, the translation/communication software uses the communication address to identify you as the sender of the message
Reference Number	The reference number that is used for outgoing messages and is created when an EDI message is generated. This number uniquely identifies the message. Because the actual data belonging to the message is distributed over multiple ASCII levels, this number is also used to identify which parts of the message belong together. The number is built up of three concatenated parts:
	1 A string of characters defined in the Fixed Part field
	2 The system date in one of several formats (Date Format field)
	3 An incrementing number
Fixed Part	The fixed part of the reference number.
Date Format	The date format of the reference number.
First Free Number	The next available sequence number.
Action on New Date	Because the date is included in the reference number, the number will be unique on a new date, even if the incrementing number is repeated with 0 or 1 each new day. Alternatively, you can keep incrementing the number. In that case, that number tells you how many messages have been generated so far.
Store All Received and Sent Messages	Check boxes that indicate if a copy of every received or sent message is kept. See the Networks section in Chapter 2 for directory structure information.

Explanation of parameters

Parameter	Explanation
Suppress Blank Text Lines	If this check box is selected, empty text lines in text blocks are suppressed in outgoing messages, limiting the text content to significant information.
Suppress Blank Text Fields	If this check box is selected, blank text lines received in incoming messages are suppressed when creating text on internal documents limiting the message content to significant information.
Make Use of Tracefile	A check box that indicates if a Trace file is used. See the Networks section in Chapter 2 for directory structure information.
Name of Tracefile	The name of the trace file.

Figure 4 EDI Parameters (ecedi0100s000) session, Series/Other

Explanation of fields

Field	Explanation
Number Series for Address Codes	The order series that is used for address codes that are automatically generated by EDI when specific address information is received on incoming EDI messages.
Sales Schedule Series	The user-defined series that will be used when generating incoming sales schedules for incoming EDI schedule-related messages.
Interchange Message	The name of the dummy message used in various organizations to describe the layout of the interchange header and the joint message overhead.
Interchange Conversion Setup	The name of the conversion setup in which the interchange header layout is described.
Message Overhead Conversion Setup	The name of the conversion setup that contains the layout of the joint message overhead. The default conversion setups assume that this is blank.

Once you begin transmitting messages, do not change the standard path identification or the way you create the reference number.

EDI default data

Although much of the setup data in the EDI module is user-definable, Baan provides all the necessary EDI data as default data in demo company 812. To avoid entering or changing this data in each of your companies, you can export the setup data to an ASCII file and import them into other companies.

You can export the setup data from this company using the Export EDI Data (ecedi6221m000) session. This session creates a file called *Defaults.edi* in the EDI directory that is specified in the Standard Path field in the EDI parameters of company 812. Before you run the Export EDI Data (ecedi6221m000) session, you must create an EDI directory in $BSE and make sure that the full path of this directory is specified in the Standard Path field of the EDI parameters of company 812. If you did not defined a valid default text group for your user in the User Data (ttaad2500m000) session, text is not exported.

In principle, you only need to export the EDI data once. However, you can make changes to the default data (organizations, networks, code or conversion tables, or conversion setups) in any company and use the export/import sessions to transfer that data to other companies. Once exported, the *Defaults.edi* file contains the default EDI setup data for import into your normal Baan company database, as explained in the following sections.

You should export the data for organization X12 or for organization EDI if you want the correct default data for external and internal EDI.
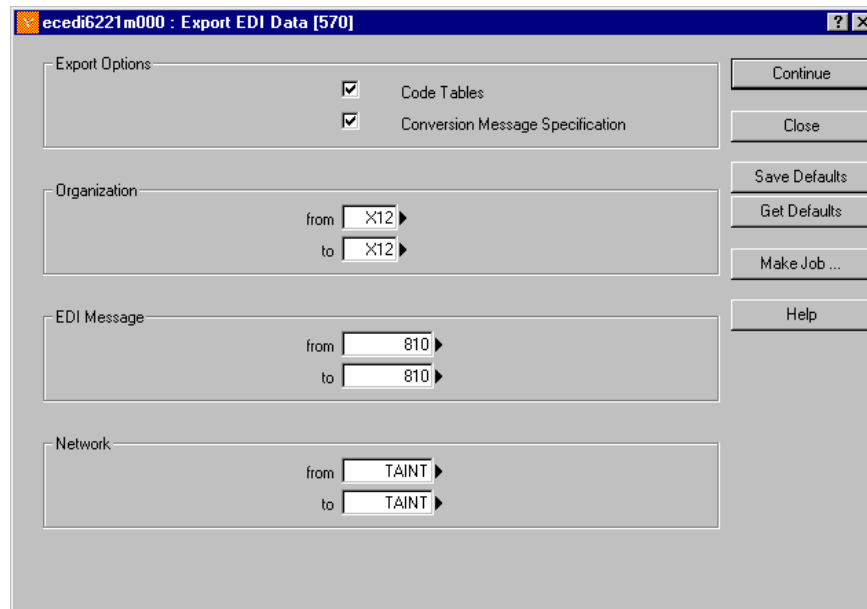
Figure 5 Export EDI Data (ecedi6221m000) session

You can import the exported default data into the EDI modules of the individual companies.

NOTE   Contact a Baan Support Center to find out if your default data is up to date.

Once you have exported the Defaults.edi file from the Demo Company 812 you can import the data back into other companies.

You must assign a default text group to the user who executes the import before running the Import EDI Data (ecedi6220m000) session because the import will read a number of evaluation expressions, which are stored as text blocks. You can complete this task in the User Data (ttams1100s000) session.

To import the Defaults.edi file into your new company, run the Import EDI Data (ecedi6220m000) session shown in Figure 6.
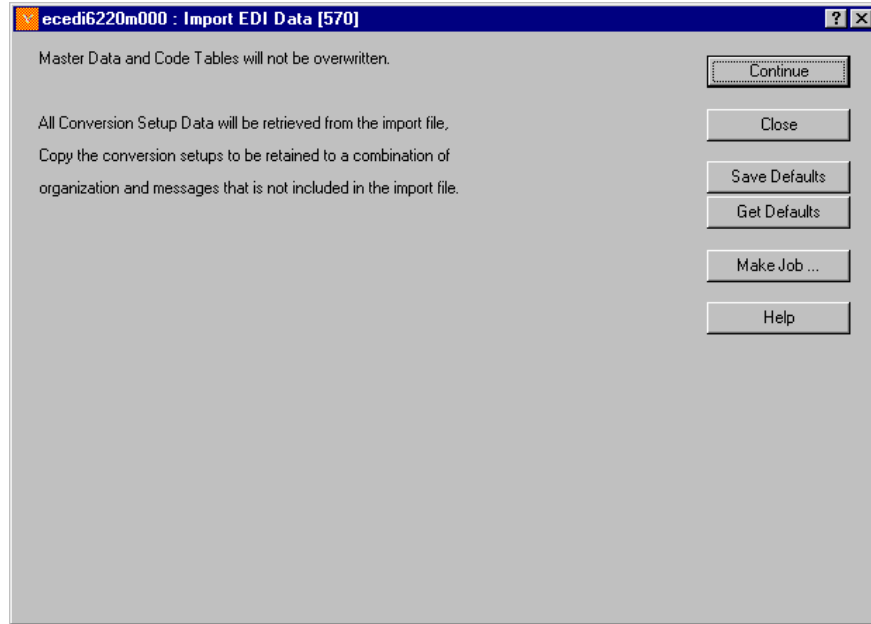
Figure 6 Import EDI Data (ecedi6220m000) session

Networks

Networks are used to specify the directory that Baan EDI uses to store and retrieve messages (ASCII files). Because data for multisite business partners does not need to be translated into actual EDI messages, internal EDI data must be separated from external EDI data.

In most cases, you will need two networks.

- One network represents the directory for internal (multisite) EDI.

- The other network represents the directory where you will exchange files with the translation/communication software that handles the transmission of messages to external trading partners.

Figure 7 shows how to define a network for external trade business partners.
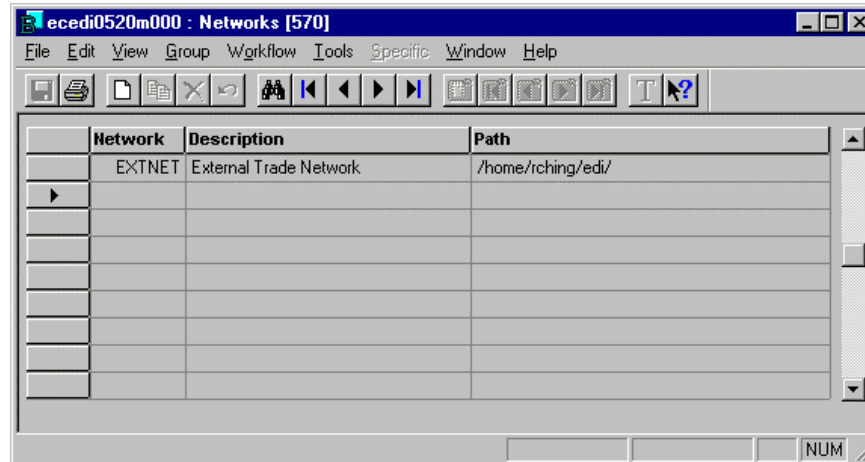
Figure 7 Networks (ecedi0520m000) session
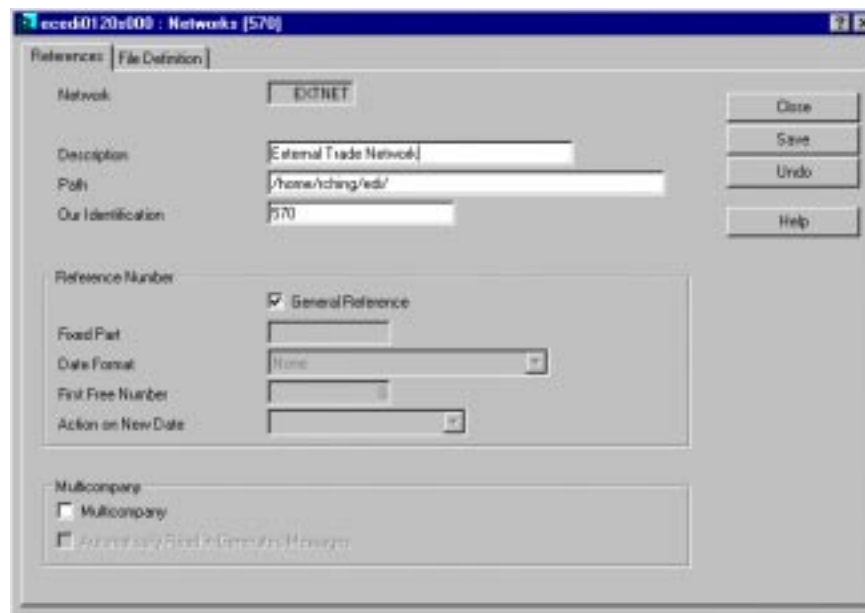
Figure 8 Networks (ecedi0120s000) session, References

Explanation of fields

Field	Explanation
Network	Your name for the network.
Description	Free form description of the network that is being defined.
Path	The directory where all EDI data related to this network will be stored. This is usually is a subdirectory of the EDI directory defined in the EDI parameters.
	If you have more than one Baan company that will be used for external EDI, you should create unique directories for each company. An easy way to accommodate this is to create a subdirectory under your EDI path for each company and assign that directory to each company's network.
	For example, if companies 420 and 422 are both used for external trade, company 422 can have the path: /Home/Edi/422 assigned to its network; company 420 can have the path: /Home/Edi/420.
Our Identification	Your network address for this particular network. This may be the unique code you use to represent yourself to your EDI trading partners (internal and external).
General Reference	If this check box is selected, unique message numbers are created for messages sent through this network based on EDI parameter settings.
	If this check box is not selected, you can create different settings for each network.
Fixed Part	Identifies the fixed part of the reference number created in this network if the General Reference field is No.
Date Format	Identifies the date format of the reference number created in this network if the General Reference field is No.
First Free Number	The next available sequence number if the General Reference field is No.
Action on New Date	If the General Reference field is No:
	- Start with 0: the first outgoing message has sequence number 0.
	- Start with 1: first outgoing message has sequence number 1.
	- Last Number +1: the first outgoing message has number of the last message to have been sent plus 1 as the sequence number.

Explanation of fields

Field	Explanation
Multicompany	For external EDI, this field is No; for multisite (internal) EDI, this field is Yes
Automatic Read in Generated Messages	This field pertains only to internal EDI. It is used to allow automatic processing of data without requiring user intervention to start the process.

Figure 9 shows how to define a file for your external business partners.
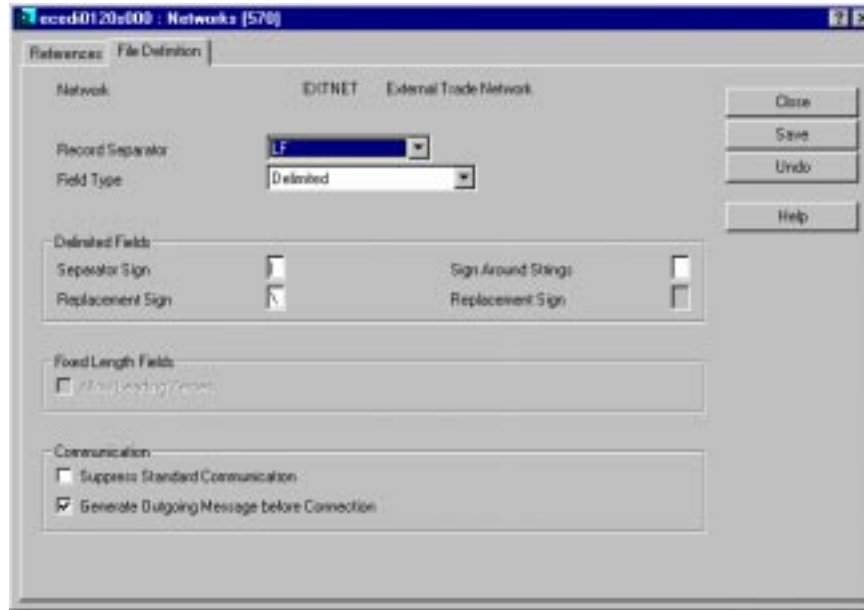
Figure 9 Networks (ecedi0120s000) session, File definition

Explanation of fields

Field	Explanation
Record Separator	Each line (record) in the ASCII file ends with an LF (Linefeed) and CR (Carriage Return) character, or only the LF (use this when the CR is automatically added by the system).
Field Type	If this field is Delimited, a special separator sign separates the fields in the ASCII files. If this field is Fixed Length, each field has a specific, absolute start position and length.
Separator Sign	The character that is used to delimit fields in the ASCII files if the Field Type field is Delimited.
Replacement Sign	If the separator sign is used in a field content, this character will replace it (otherwise it would be interpreted as a separator).
Sign Around Strings	This character will be used to enclose fields that contain alphanumeric characters. This field is optional.
Replacement Sign	If the sign around strings is used in a string field, this character will replace it (otherwise it would be interpreted at the end of the string). This field is optional.

NOTE When creating any of the special signs, do not use any common punctuation characters. This could cause problems when a message is translated. For example, never use a comma as a separator or the sign around a string because this character is used in the Address field.

Explanation of fields

Field	Explanation
Allow Leading Zeros	When using the Fixed Length field type, the unused positions for numbers can be filled with leading zeros instead of spaces.
Suppress Standard Communication	A check box that indicates whether you want to suppress the standard communication procedure with the external EDI network.
	If the box is blank, the standard procedure of the external EDI communication software is used (referred to as semaphore logic). See the External EDI network communication section in Chapter 4.
	If the box is checked, the standard communication procedure is not executed.
Generate Outgoing Messages before Connection	If the box is checked, the Direct Network Communication (ecedi7205m000) session will first generate all pending outgoing messages (equivalent to running Generate EDI Messages (ecedi7201m000) session) before reading incoming messages.

When you save the network definition the system creates the following subdirectories for external EDI under the path specified for the network:

Subdirectory	Description
appl_from	This is where all EDI messages generated by Baan EDI are stored. This is the directory from which your translation/communication software will retrieve files for exporting.
appl_to	This is where all EDI messages to be received into the Baan application are stored. This is the directory to which the translation/communication software will write files that must be processed and imported by Baan EDI.
appl_text	If a message contains any text fields, this directory contains temporary files that are used to build up the text blocks.
appl_trace	This directory contains the created log (trace) files.
command	This directory is used by the system for semaphores. The semaphore, or flagging, mechanism is used to communicate with third-party translation/communication software to ensure that the third-party software and Baan EDI are not attempting to access files at the same time. This semaphore mechanism uses the creation and deletion of empty files in this command subdirectory to indicate when certain processes are active, or can be activated. See External EDI network communication in Chapter 4, for a more detailed explanation of semaphores.
store_send	This is where sent messages are archived based on EDI parameter settings.
store_recv	This is where received messages are archived based on EDI parameter settings.

Business partner data by network

Because you will communicate with your trading business partner over a specified network(s), you must define the network address of the trading business partner for the specified network(s). This address is the technical address that is used in the envelope information (message overhead) of any EDI message sent to or received from that business partner.

For messages exported from the Baan application for external EDI, the translation/communication software can use this network address to determine where to route the message. For messages imported into the Baan application, the network address identifies the sender of the received message. For example, in the default data provided for the conversion setups (the default message file layouts/mappings), the network address, in conjunction with the network code, determines the business partner on incoming messages.

In any case, this network address identifies a business partner by network. You may choose to have the network address match the business partner code or you can use this field to specify the actual technical address of your business partner. Your choice depends on the functionality of your translation/communication software.
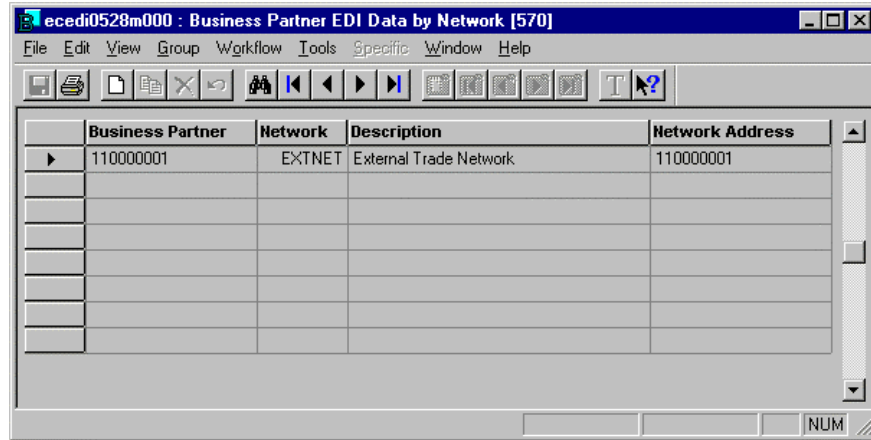
Figure 10 Business Partner EDI Data by Network (ecedi0528m000) session
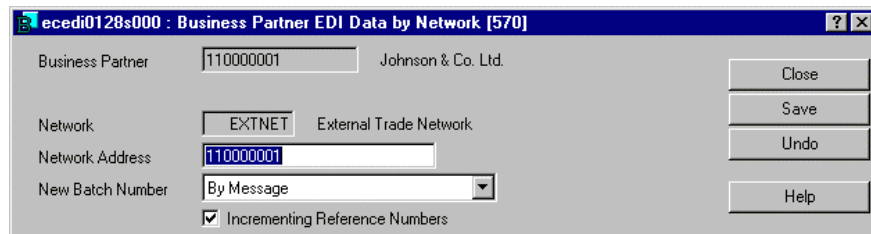
Figure 11 Business Partner EDI Data by Network (ecedi0128s000) session
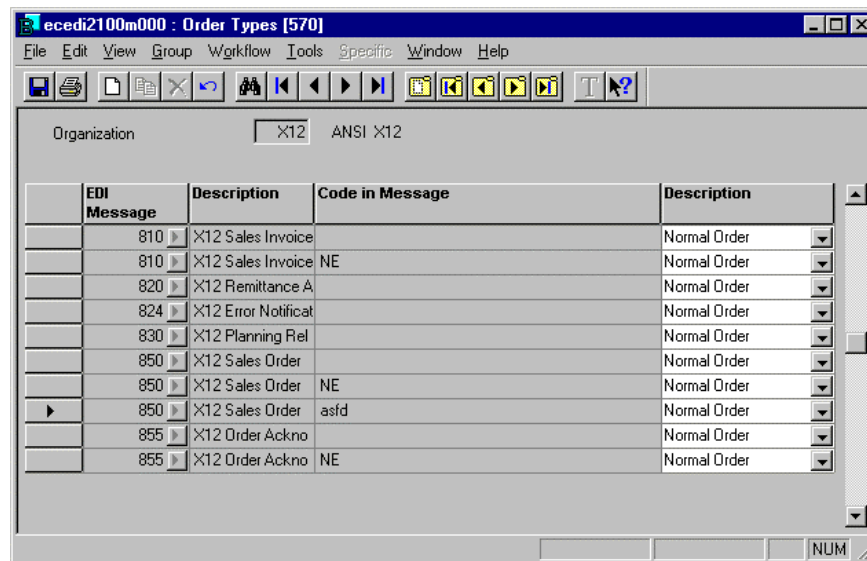
Explanation of fields

Field	Explanation
Business Partner	The name of a valid business partner.
Network	The network used when communicating with this business partner. Because it is possible to communicate with a business partner through more than one network, you can define network address information for multiple networks per business partner.
Network Address	The network address used in the message envelope. In EDI it identifies a business partner/network correspondence.
	For incoming messages, the network address derives the business partner who sent the message.
	For outgoing messages in external EDI, you can include the network address in the exported ASCII file to uniquely identify the business partner and network to the translation/communication software. This allows the translation/communication software to determine where to route a message exported from Baan EDI.
New Batch Number	Messages can either be grouped By Message (a unique message reference for each message) or By Recipient (a unique message reference for a grouping of messages).
	The default conversion setups provided by Baan EDI require that you set this field to By Message so that a unique message reference is assigned for each message/relation combination.
Incrementing Reference Numbers	This check box applies to incoming messages.
	If this check box is selected, the application checks if the received message has a higher reference number than previously received messages (and is therefore newer). If not, a warning is displayed and the message is rejected.
	If this check box is left blank, a received message is rejected if the reference number has already been received; however, if the reference number of the new message is lower than the previously received numbers, and that lower number has not received before, the message is rejected.

Code and conversion tables

Code tables contain the definitions of the different codes that may be present in generated or received EDI messages. Some of the code tables (for example, those found under the Codes and Conversions menu) are used with conversion tables to provide a cross-reference between values internal to the Baan application (Code in Application) and external values defined by your trading partner or by an EDI standard (Code in Message). The Text Codes menu contains other code tables. You can use these to enter descriptions corresponding to selected codes that you can use in a message instead of the code itself for outgoing messages, or in text fields for incoming messages.

One mandatory code is the order type code. For incoming messages, the defined order type codes represent valid order type codes that Baan EDI can receive and process by Baan EDI. For all incoming messages, the application validates the order type value passed in the message overhead against the data defined in this session (note that a blank value is valid as long as it is defined here). This serves as another mechanism for controlling which type of documents you wish to receive. For outgoing messages, the codes defined are used to maintain the conversion of order types (out) for messages pertaining to a single order (order, order change, acknowledgment, and invoice messages). Figure 13 in Chapter 3, Setting up your company, provides an example.

Figure 12 Order Types (ecedi2100m000) session

Explanation of fields

Field	Explanation
Organization	The organization in which the order type is valid.
EDI Message	Supported EDI Messages.
Description	The description of the selected code.
Code in Message	A standard code used in a specific EDI message that represents the external value of the order or document type.
Description	The description of the selected code.

Some sample data is included in the Defaults.edi file that you imported. Chapters 3, Setting up your company, and 4, Running EDI, explain how these codes are used by Baan EDI. These two chapters discuss the additional setup steps to establish you as the buyer or the seller in the trading partner relationship.

3   Setting up your company

Each company that you create is a purchasing company, a sales company, or both. A purchasing company procures materials or services from other companies (both internal and external). A sales company sells goods or services to other companies (internal or external).

Depending on how a particular company is used, you need to set up the purchasing profile, the sales profile, or both.

Purchasing company

Your company is defined as a purchasing entity. This means that purchasing activities are pursued within this company. The purchasing activities may be classified as internal only (multisite), external only, or both.

This section describes the specific setup requirements for EDI documents exchanged with the supplying business partners (buy-from, ship-from, invoice-from, pay-to) from whom your company procures goods and services.

Code conversions

Conversion tables allow you to define the relationship between codes in an EDI message and the codes used in the Baan application.

For example, unit of measure codes are usually unique to a company. However, you may need to conform to a specific unit of measure convention based on your trading relationship. If you must translate your internal pcs unit of measure code to a standard unit each, you will use the conversion code table for units to handle the automatic conversion of this data.

Remember that conversion tables only need to be filled when a particular code must be converted from an internal value maintained within the Baan application to one that is used externally. If both parties use the same codes for unit codes or warehouses, for example, the conversion of the codes is not necessary.

NOTE   The conversion table for order types (out) must be filled for outgoing EDI messages pertaining to a single order. This includes order and order change messages for purchasing companies, and order acknowledgment and invoice messages for selling companies. The outgoing conversion of order types not only specifies the correct conversion of codes, but also determines which order types can be sent through EDI. For example, purchase orders of the type PN3 can only be sent through EDI when the code PN3 is present in the conversion table (although it may be converted to a blank code).

When you create the conversion table for order types (out), be sure to list all valid order types you wish to send through EDI, along with the corresponding code in the message as specified in the code tables.
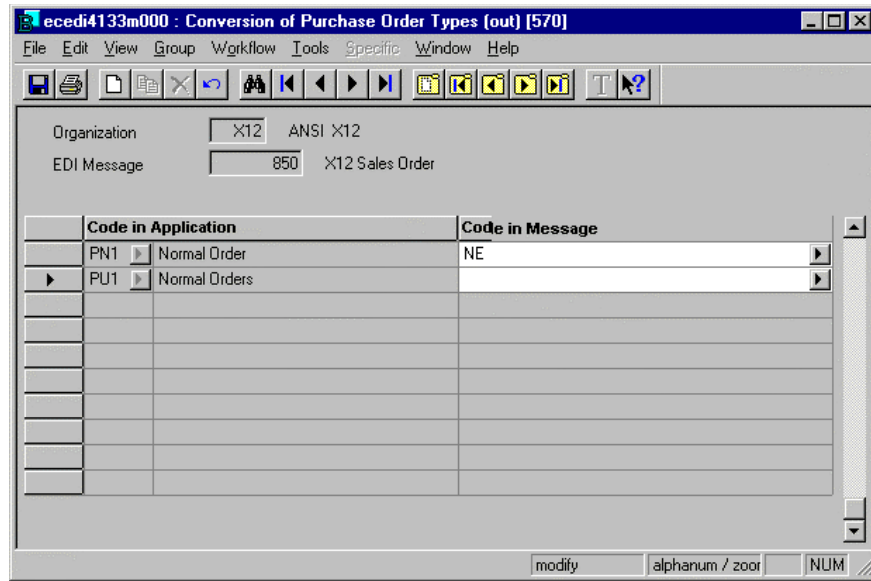
Figure 13 Order Purchase Types (Out) (ecedi4133m000) session

Explanation of fields

Field	Explanation
EDI Message	A valid EDI message code in the selected organization.
Code in Application	Order type on the Baan order.
Code in Message	This field represents the external value. The code in application will be converted to the code in message value, which resides in the exported message when the purchase order is exported through Baan EDI. You must define the code in message first as an order type in the code tables.
	You can use the code in message to represent the order types used by the EDI standard you are using (for example, the ANSI X12 purchase order type code).
	Note: This corresponds to the Order Type value specified in EDI Messages Supported by Business Partner (ecedi4132m000) session.

NOTE   There is no conversion table for incoming order types. The cross-reference (conversion) of the external order type received to a valid internal order type is handled in the EDI Messages Supported by Business Partner (ecedi4132m000) session.

In addition to defining the outgoing conversion of order types for the 850/ORDERS message, you also must define the outgoing information for the 860/ORDCHG, purchase order change, message as shown in Figure 14. Enter the valid order types for which you will allow purchase order changes to be processed.
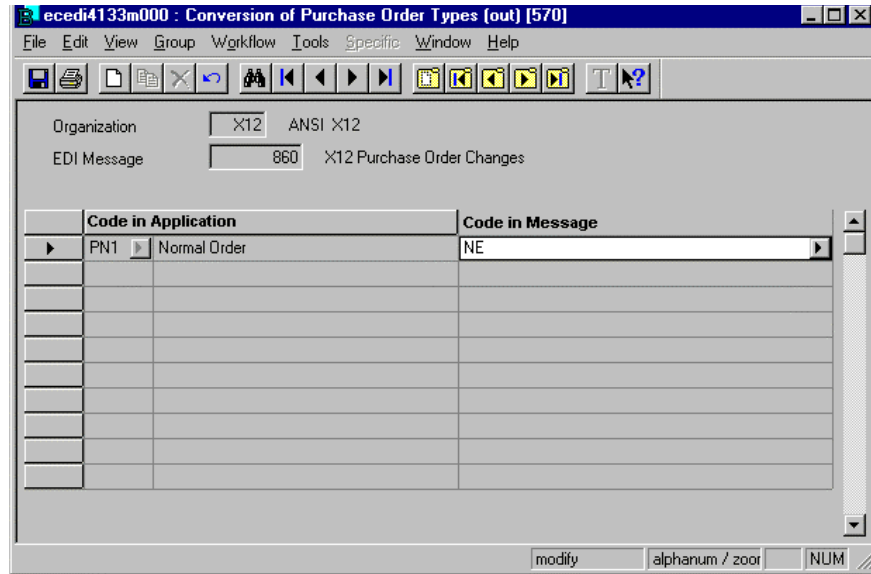
Figure 14 Conversion of Purchase Order Types (Out) (ecedi4133m000) session

Additional code conversions that you may want to consider as the purchasing company include the following:

- Conversion of Schedule Type (Out) (ecedi4113m000): Used in the outgoing schedule release message (for example, 830/DELFOR) to indicate if the schedule is delivery-based or shipment-based.

- Conversion of Schedule Quantity Type (Out) (ecedi4115m000): Used to indicate if the schedule release quantities are actual or cumulative values.

- Conversion of Shipment Status Codes (in) (ecedi3146m000): Used in the incoming Shipment Notice (856/DESADV) message to indicate the type of Shipment Notice received. The shipment status code included in the Shipment Status message is checked against the codes defined in this session when a Shipment Notice message is received. A code conversion for the original value is required to receive a Shipment Notice message.

- Application Errors (ecedi2191m000): Code used in the Error Notification message (824/APERAK) to indicate the type of error that occurred when processing an incoming Shipment Notice message (856/DESADV).

- Conversion of Receipt Discrepancy Codes (out) (ecedi4147m000): Used in the outgoing Receipt Discrepancy to indicate the type of discrepancy found in the quantity of goods received and the quantity of goods indicated on the received Shipment Notice.

See the procedures for specific messages in The purchasing company section, in Chapter 6, for more information on the above additional conversions.

Under the Code and Conversions menu, code conversions are organized by organization, allowing you to organize these code conversions by EDI standard. Under the Conversions by Business Partner menu, code conversions are organized by business partner, allowing you to define different sets of conversions for each business partner. Here you may define the conversions using the business partner with whom you will be exchanging the EDI messages, or you may define the conversions by the parent of the business partner with whom you will be exchanging EDI messages. When processing the EDI message, Baan EDI will first check if the code conversion exists for the business partner with whom the EDI message is traded; if that does not exist, Baan EDI will then check to see if the conversion has been defined for the parent business partner. This feature saves you having to define the code conversions multiple times (for each business partner) if all associated business partners linked to the same parent business partner use the same codes.

EDI messages supported by business partner

In this example, you are the customer and you want to send various purchasing documents such as purchase orders, purchase changes and purchase schedule releases (planning release, shipping release, sequenced shipping release) to your supplier.

After completing the general setup steps, determine what individual EDI messages you want to exchange with your supplier(s). Not every business partner will necessarily support each implemented message type. Use the EDI Messages Supported by Business Partner (ecedi0111s000) session to identify the valid messages you can transmit to or receive from a specific business partner. You can also define additional information that could vary by business partner.

For example, there can be slight differences in the structure (field mapping or conversion setup) of a message between business partners; and you may want to use different conversion setups (file layouts) for different order types.

Figure 15 EDI Messages Supported by Business Partner (ecedi0511m000)

Figure 16 EDI Messages Supported by Business Partner (ecedi0111s000)

Explanation of Fields

Field	Explanation
Business Partner	Enter the business partner code for defining this EDI message. This is the business partner with whom you will exchange the indicated EDI message.
	The business partners must have the following roles based on the type of document being exchanged:

	Order /Out	: Buy-From Business Partner
	Order Change /Out	: Buy-From Business Partner
	Planning Release /Out	: Buy-From Business Partner
	Shipping Release / Out	: Buy-From Business Partner
	Sequenced Ship. Release/Out	: Buy-From Business Partner
	Order Acknowledgment /In	: Buy-From Business Partner
	Change Acknowledgment /In	: Buy-From Business Partner
	Shipment Notice /In	: Ship-From Business Partner
	Error Notification /Out	: Ship-From Business Partner
	Receipt Discrepancy /Out	: Ship-From Business Partner
	Invoice /In	: Invoice-From Business Partner

Field	Explanation
Organization	The organization identifier for the set of messages you are using.
EDI Message	A valid EDI message code in the selected organization.
Direction	Choice of In or Out.
Order Type	Standard external order type (if specified, must be a valid code defined in the Order Type Code table).
	Note: For outgoing messages that pertain to single order, the order type field here must be defined in the Conversion of Order Types Out. Messages that pertain to single order include orders, order changes, acknowledgments, and invoices.
	For outgoing messages that do not pertain to a single order, the order type field must be blank, since there is no order type conversion.
Network	This specifies the directory where the ASCII files containing the message data are read or written. Messages can be exchanged over different networks, based on the business partner, configuration, direction, message type, and order type combination.

Conversion Setup	This indicates which conversion setup to use. The conversion setup defines the layout of the ASCII file containing the message data. It contains information on the mapping of data elements between the Baan application tables and the ASCII files. Although predefined conversion setups are available and may be imported from the Defaults.edi file, you can create your own custom conversion setups.
Person Responsible	The person responsible for this business partner/message type/order type combination. This is for information and reporting purposes only.
Number Group	Displayed on reports for information, and used to validate the series entered for incoming orders, schedule releases and shipment notices.
	Note: The number group entered here for incoming orders, schedule releases and shipment notices must be consistent with the number group specified for these documents in their respective parameter sessions (Sales Order Parameters, Sales Contract Parameters and Inventory Handling Parameters, respectively).
Print	For outgoing messages, mark this check box to create a hard copy of the document at the time the messages is prepared for EDI.
	For incoming messages, set this field to Yes to create a remarks report that a message of this type has been received.
Processing Type	Identifies whether the incoming message is processed automatically or interactively. If this field is:
	Automatic – the message is read and processed during direct network communication.
	Interactive – the message is read and stored in Saved Message to be Received without any validation during direct network communication. Then, these messages can be modified, approved, and processed. See Chapter 5 for additional information.
Block	Upon receipt of a purchase order through EDI, the resulting sales order can optionally be blocked for further processing
Check Duplicate Order Number	Check this box if you want to check for duplicate order numbers on incoming documents.
	If this box is checked and a customer purchase order is received which is already referenced on another Baan sales order, the message will be rejected. For incoming change orders, the combination of the customer order number and change order sequence number is checked for uniqueness. For incoming purchase schedule releases, the customer release number combined with the revision number is checked for uniqueness.

Automatically Prepare Error Notification	Check this box if you want an error notification automatically prepared.
	If this box is checked and an incoming message cannot be processed due to errors, an outgoing error notification message (for example, ANSI X12 824) is prepared for EDI generation. This is particularly useful in supply chain environments for incoming shipment notices processed with errors.

Figure 17 EDI Messages Supported by Business Partners (ecedi0111s000), Series/Conversions

Explanation of fields

Field	Explanation
SLS Order Type	This field determines what sales order type is assigned to the order when an incoming purchase order is received.
	This field is only used for incoming orders.
	Note: When selecting an order type, you should use an order type in which the Print Acknowledgments session (tdsls4401m000) as an activity, and ensure that this activity may be re-executed at subsequent steps, if you wish to exchange order acknowledgments through EDI for received EDI orders.

Series	This field determines what first free number series is assigned to documents generated from incoming messages. The number series is used for the sales order when an incoming purchase order is received, the sales release (planning release, shipping release or sequenced shipping release) when a purchase release is received, and the Shipment Notice (ASN) when a shipment notice (ASN) is received.
	This field is only used for incoming messages.
	When you define the series with the First Free Numbers (tcmcs0150m000) session, you may wish to set the Blocked for Input field to Yes to prevent this series from being used for non-EDI documents.
Item Code System	This is the item code system used to convert item codes in outgoing messages. The item code may be converted to its alternative item, based on this item code system and the data defined in the Items by Item Code System (tcibd0504m000) session.
	If no value is specified here for the Item Code System, the default value of the Qualifier 1 field for the item code in the conversion setups will be used to derive the item code system used to convert the item. In this case, the default value for the qualifier is checked against the Item Code ID's (ecedi2132m000) to derive the item code system.
Character Conversion	For outgoing messages you can define how to convert certain characters (for example, all characters to upper case). Multiple conversions of characters can be defined; each stored with a different identifier (character conversion code).

The information in this section focused on the message 850/ORDERS, Purchase Order (direction out). Other supported messages used for a Purchasing company that may be defined include:

- Order Acknowledgment (855/ORDRSP), direction in
- Purchase Order Change (860/ORDCHG), direction out
- Order Change Acknowledgment (865/ORDRSP), direction in
- Shipment Notice (856/DESADV), direction in
- Error Notification (824/APERAK), direction out
- Receipt Discrepancy Notification (861/RECADV), direction out
- Planning Release (830/DELFOR), direction out
- Shipping Release (862/DELFOR), direction out
- Sequenced Shipping Release (866/DELJIT), direction out
- Invoice (810/INVOIC), direction in

Figure 18 though Figure 28 show examples of the EDI Messages Supported by Business Partners (ecedi0111s000) session for each of these messages.
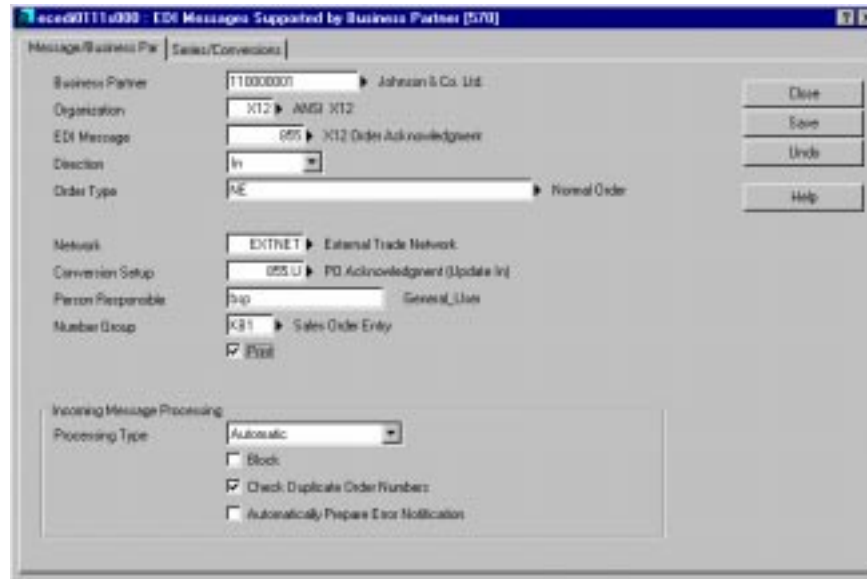
Figure 18 855/ORDRSP, X12 Order Acknowledgment, direction in
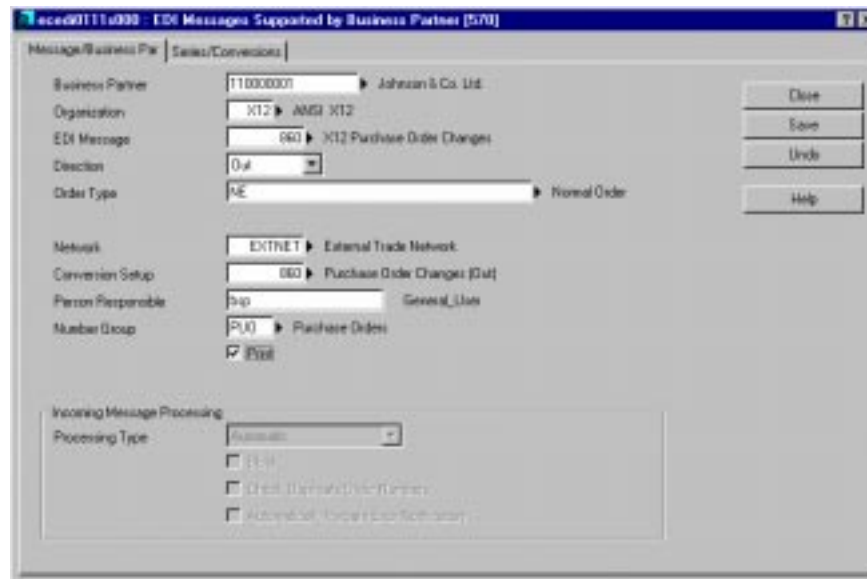
Figure 19 860/ORDCHG, X12 Purchase Order Changes, direction out
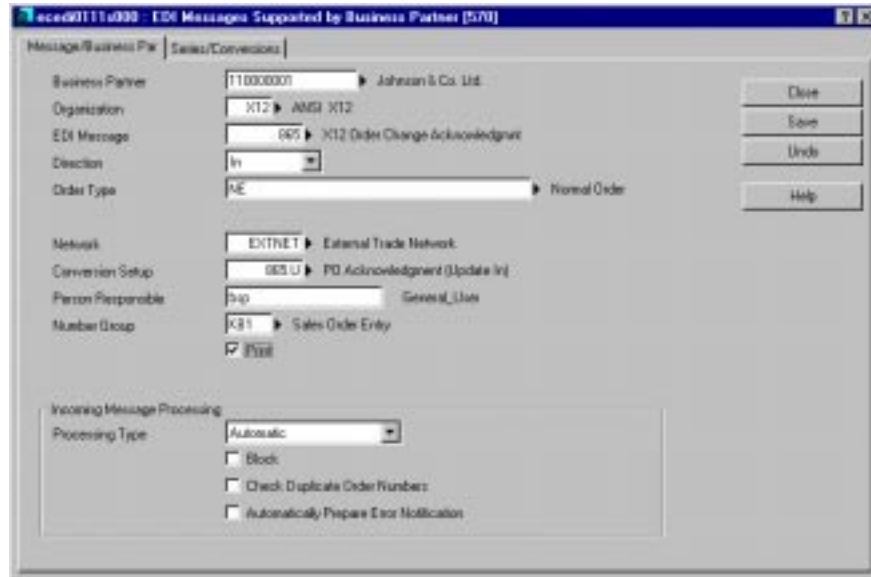
Figure 20 865, X12 Order Change Acknowledgment, direction in
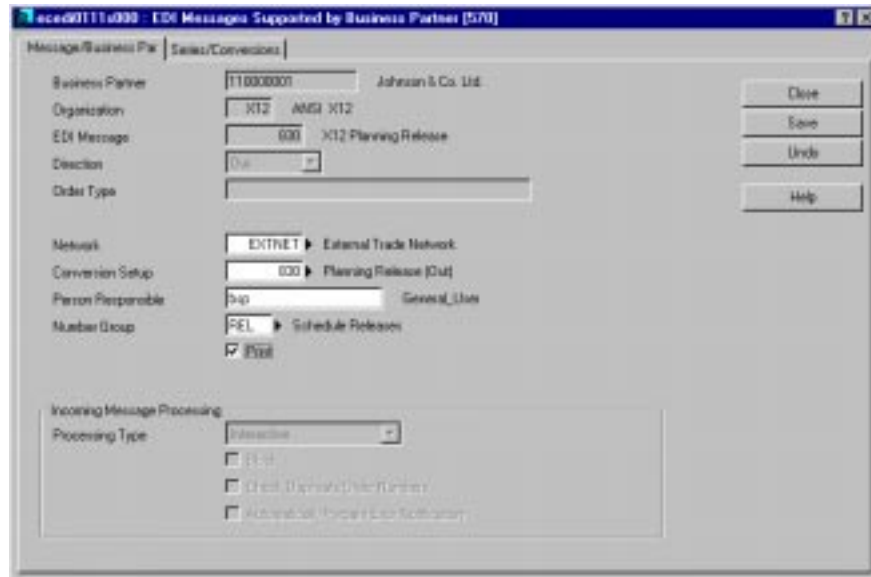
Figure 21 830, X12 Planning Release, direction out
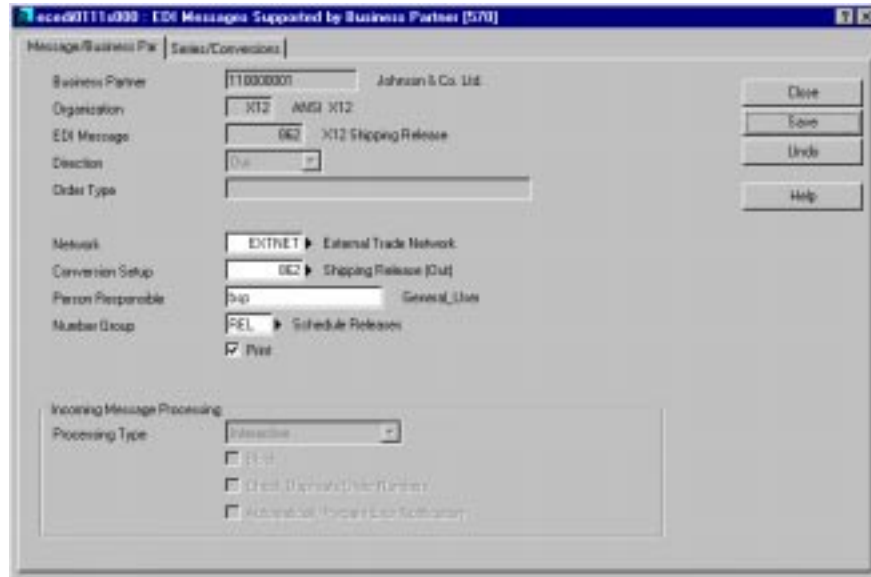
Figure 22 862, X12 Shipping Release, direction out
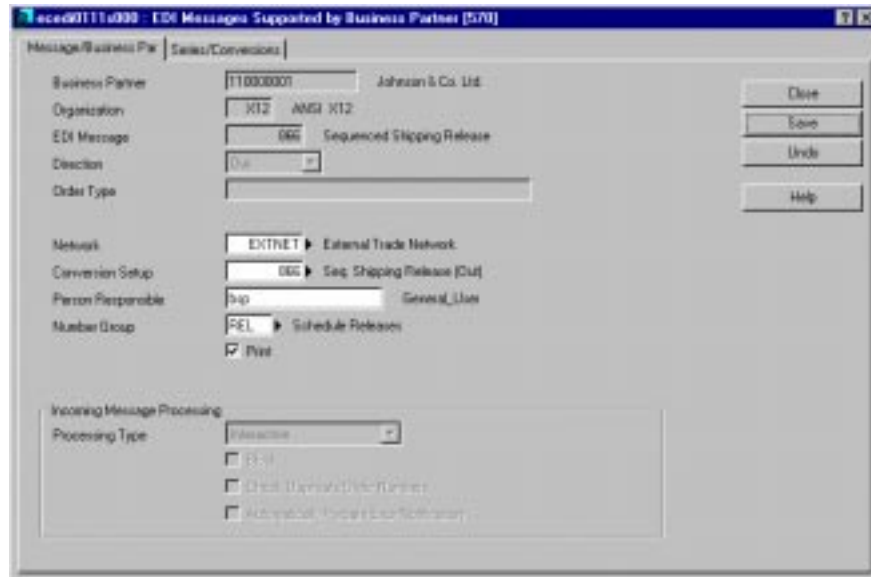
Figure 23 Sequenced Shipping Release, direction out
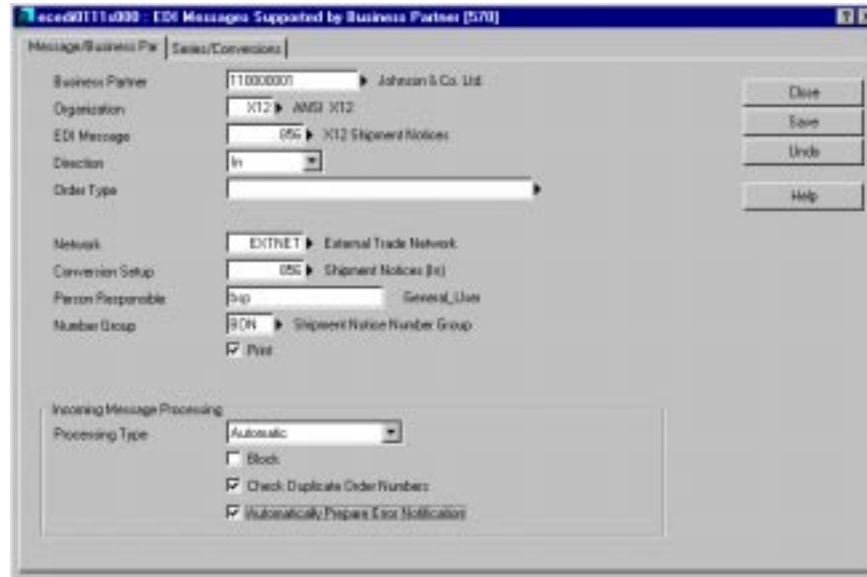
Figure 24 856 X12 Shipment Notice, direction in

Figure 25 856, Shipment Notice, direction in
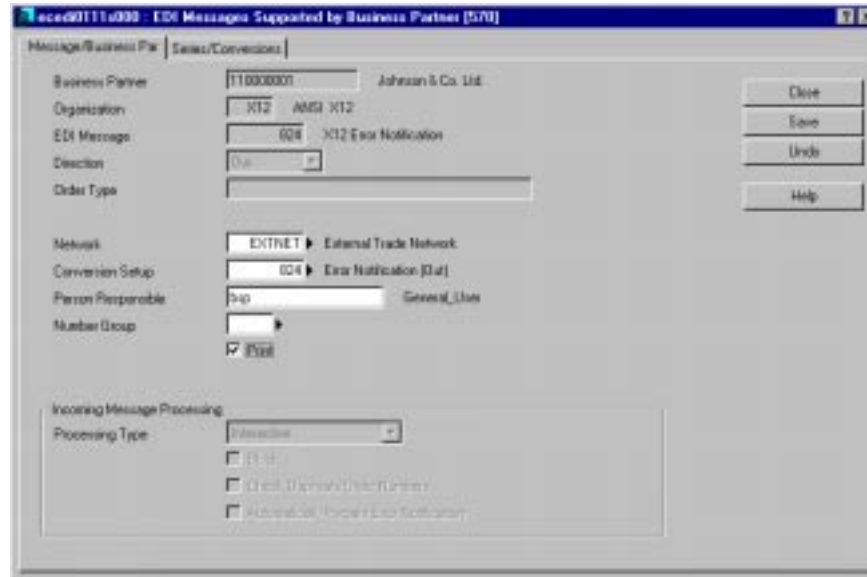
Figure 26 824, X12 Error Notification, direction out
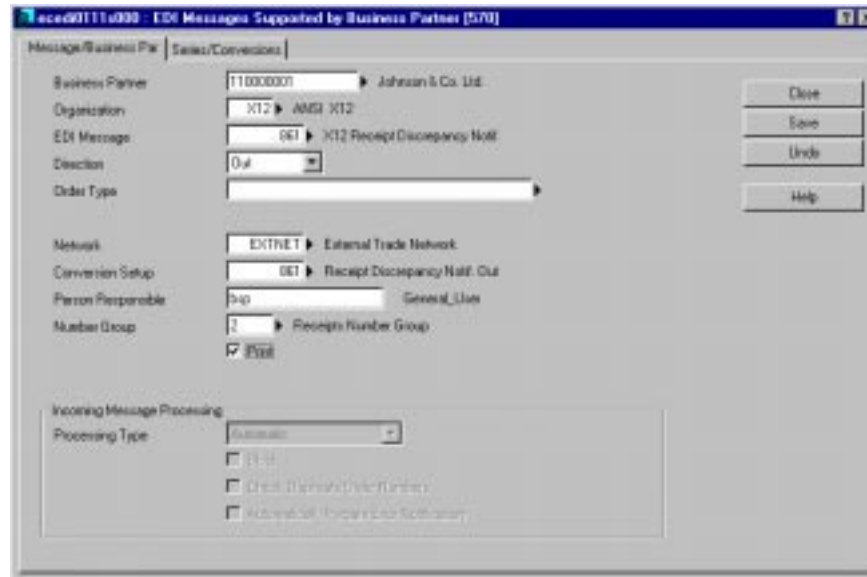
Figure 27 861, X12 Receipt Discrepancy Notification, direction out
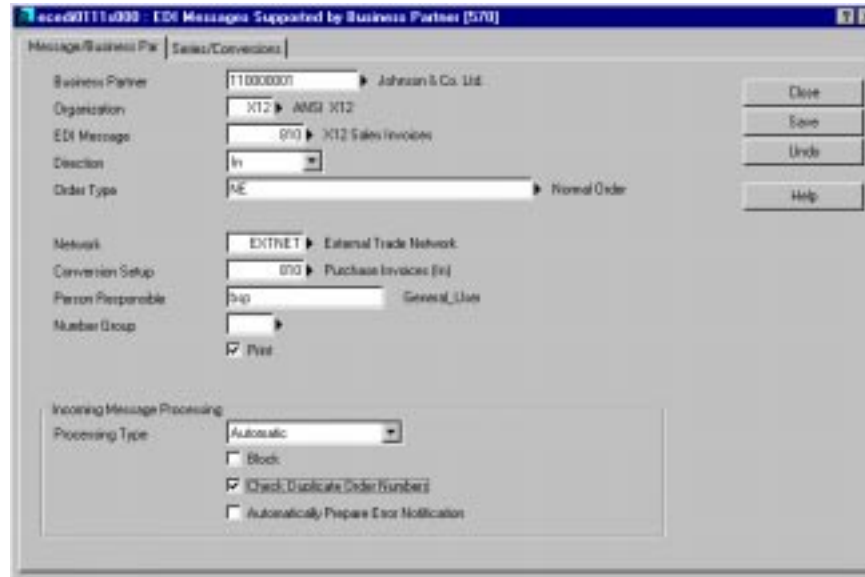
Figure 28 810, X12 Purchase Invoice, direction in

Additional parameters

Additional parameters that exist in products other than EDI are available to determine how the EDI data within these products may be processed. These include the following:

- **Prompt for Change Codes (within Purchase Control)**: This field is maintained in the Purchase Order Parameters (tdpur0100s400) governs whether or not change codes (change type code, change reason codes and acknowledgement codes) may be maintained on a purchase order. It is required that this be enabled if you wish to process the EDI Order Change (860/ORDCHG) message.

- **Release EDI Message Directly**: This field maintained in the Item/Supplier Information session (tdipu0510m000) indicates whether outgoing schedule releases should be automatically prepared for EDI when schedules are generated, or whether they should be manually prepared using the Generate Schedule Releases (tdpur3208m000) session.

- **EDI Parameters for Purchase Invoice and Credit notes**: You can define a Transaction Type and a Batch Reference for EDI Purchase Invoices in the ACP Parameters (tfacp0500m000) session. You can also indicate if you want a separate Transaction Type for Credit Notes. If so, can also specify the Transaction Type and Batch Reference for Credit Notes.

  See The purchasing company section in Chapter 6 for additional information about these parameter settings.

Sales company

If your company is defined as a selling entity, selling activities are pursued within this company. The selling activities may be classified as internal only (multisite), external only, or both.

This section describes the specific setup requirements for EDI documents exchanged with the business partners (sold-to, ship-to, invoice-to, pay-by) that represent customers in your company.

Code conversions

Code Conversions allow you to define the relationship between codes in an EDI message and the codes used in the Baan application. For example, unit of measure codes are usually unique to a company. However, you may need to conform to a specific unit of measure convention based on your trading relationship. If you must translate your internal pcs unit of measure code to a standard unit *each*, use the conversion code table for units to handle the automatic conversion for you.

You only need to fill conversion tables when you need to convert a particular code from an internal value maintained within the Baan application to a code that is used externally. If both parties use the same codes for unit codes and warehouses, for example, you do not need to convert the codes.

The conversion of order types is required for all outgoing messages pertaining to a single order; this includes orders, order changes, order acknowledgments and invoices. In the previous section for the purchasing company, you ensured that all purchase order types (for example, PN1 and PN2) were converted to a corresponding code in the EDI message that enables these purchase order types to be sent through EDI. As the selling company, you will define how to exchange documents with a buyer and how to handle outgoing conversions of order types for order acknowledgments, and invoices.

These are the current outgoing messages supported by Baan EDI for which conversion of order types (out) must be defined with the Conversion of Sales Order Types (Out) (ecedi4132m000) session.
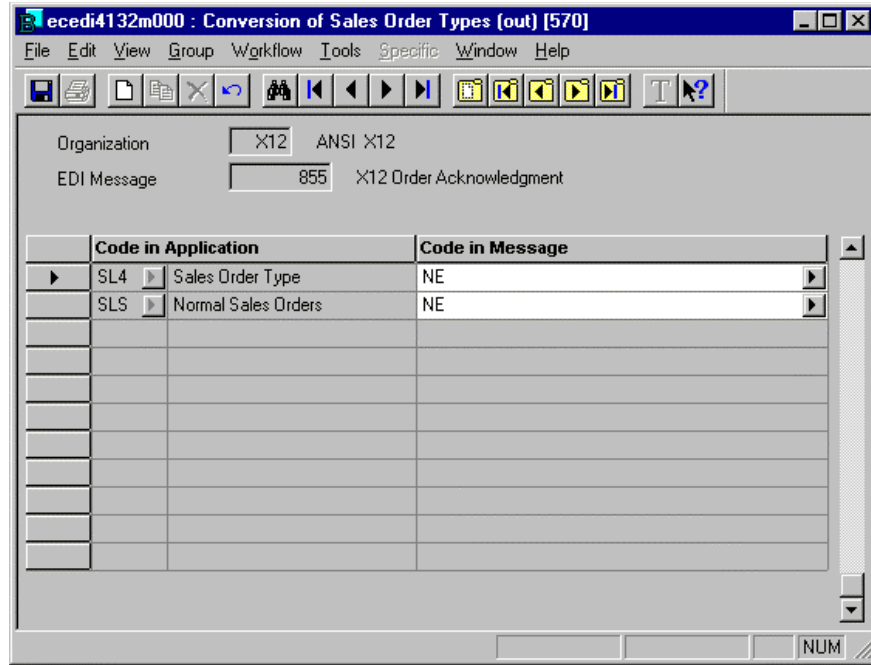
Figure 29 Conversion of Sales Order Types (out) (ecedi4132m000) session

NOTE The Conversion Table for Order Types (Out) must be filled for outgoing EDI messages pertaining to a single order because it specifies the correct conversion of codes and determines which Baan sales order types can be sent through EDI for order acknowledgments and invoices.

When you create the conversion table for order types (out), be sure to list all valid order types you wish to send through EDI along with the corresponding code in the message as specified in the code tables.
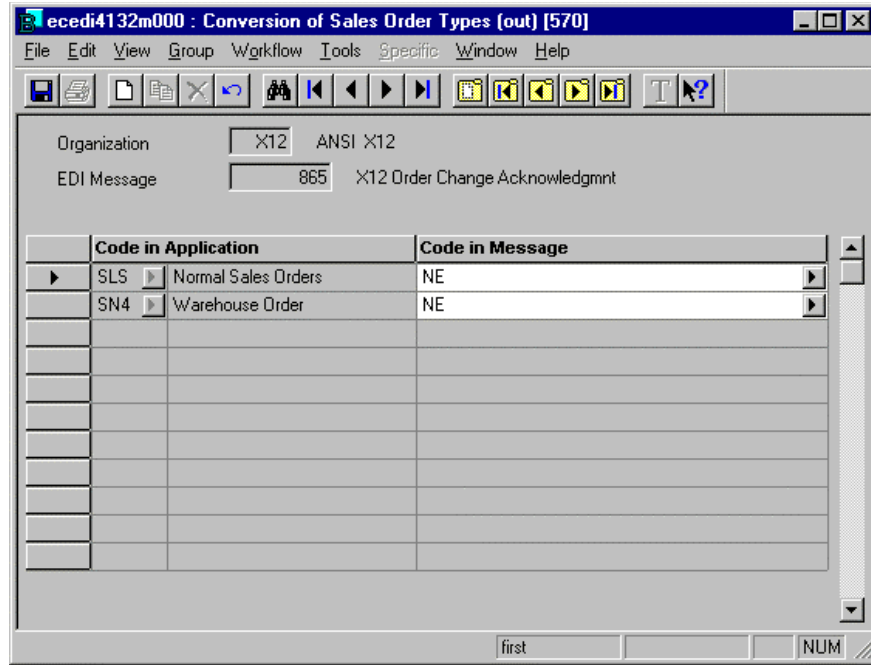
Figure 30 Conversion of Sales Order Types for 865 (ecedi4132m000)
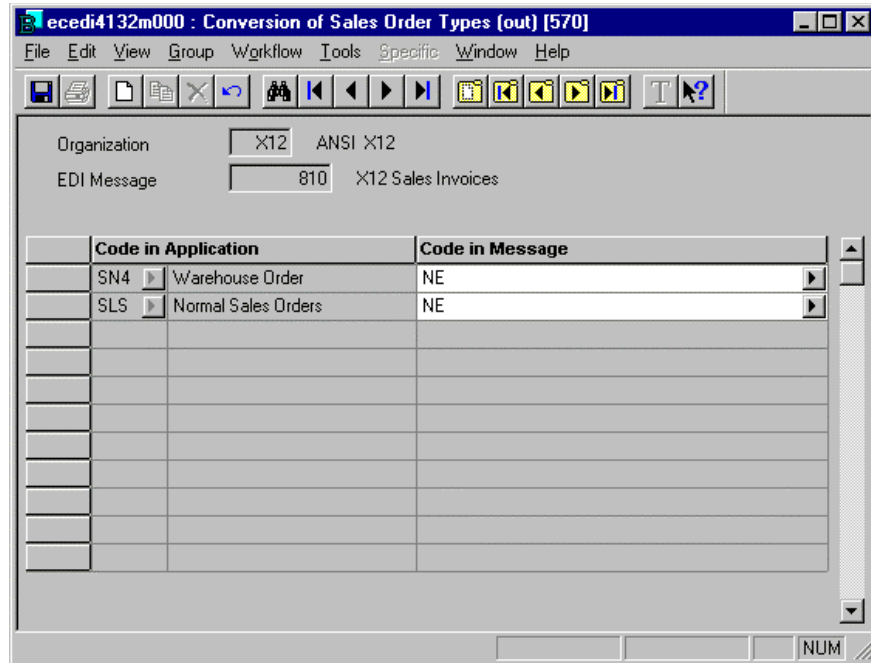
Figure 31 Conversion of Sales Order Types for 810/INVOIC (ecedi4132m000)

NOTE   There is no conversion table for incoming order types. The cross-reference (conversion) of the external order type received to a valid internal order type is handled in the EDI Messages Supported by Business Partner (ecedi0111s000) session. When a customer purchase order is received as a sales order, the specified sales order type code in the EDI Messages Supported by Business Partner (ecedi0111m000) session determines the sales order type assigned to the order. Theoretically, this could be any of the existing sales order types.

Additional code conversions that you may want to consider as the selling company include the following:

- Conversion of Schedule Type (in) (ecedi3151m000): Used in the incoming schedule release message (for example, 830/DELFOR) to indicate if the schedule is delivery-based or shipment-based.

- Conversion of Schedule Quantity Type (in) (ecedi3152m000): Used in the incoming schedule release message (for example, 830/DELFOR) to indicate if the schedule release quantities included in the message are actual or cumulative values.

- Conversion of Shipment Status Codes (out) (ecedi4180m000): Used in the outgoing Shipment Notice (856/DESADV) message to indicate the type of Shipment Notice sent (original or canceling). A code conversion for the original value should be defined.

See the procedures for specific messages in The selling company section, in Chapter 6, for more information on the above additional conversions.

Under the Code and Conversions menu, code conversions are organized by organization, allowing you to organize these code conversions by EDI standard. Under the Conversions by Business Partner menu, code conversions are organized by business partner, allowing you to define different sets of conversions for each business partner. Here you may define the conversions using the business partner with whom you will be exchanging the EDI messages, or you may define the conversions by the parent of the business partner with whom you will be exchanging EDI messages. When processing the EDI message, Baan EDI will first check if the code conversion exists for the business partner with whom the EDI message is traded; if that does not exist, Baan EDI will then check to see if the conversion has been defined for the parent business partner. This feature saves you having to define the conversions multiple times (for each business partner) if all associated business partners linked to the same parent business partner use the same codes.

EDI messages supported by business partner

After completing the general setup steps, your next step in the setup of your company is to determine what individual EDI messages you will exchange with your customer. Not every business partner will necessarily support each implemented message type. Use the EDI Messages Supported by Business Partners (ecedi0511m000) session to identify the valid messages you can transmit to or receive from a specific business partner. You can also define additional information that could vary by business partner. For example, there can be slight differences in the structure (field mapping or conversion setup) of a message between business partners; and you might want to use different conversion setups (file layouts) for different order types.

Figure 32 EDI Messages Supported by Business Partners (ecedi0511m000)

Figure 33 EDI Messages Supported by Business Partners (ecedi0111s000), Message/Business Partner

Explanation of fields

Field	Explanation
Business Partner	Enter the business partner code for defining this EDI message. This is the business partner with whom you will exchange the indicated EDI message. The business partners must have the following roles based on the type of document being exchanged:

Order /In	: Sold-To Business Partner
Order Change /In	: Sold-To Business Partner
Planning Release /In	: Sold-To Business Partner
Shipping Release / In	: Sold-To Business Partner
Sequenced Ship. Release/In	: Sold-To Business Partner
Order Acknowledgment /Out	: Sold-To Business Partner
Change Acknowledgment/Out	: Sold-To Business Partner
Shipment Notice /Out	: Ship-To Business Partner
Error Notification /In:	: Ship-To Business Partner
Receipt Discrepancy /In	: Ship-To Business Partner
Invoice /Out	: Invoice-To Business Partner
Remittance Advice /In	: Pay-By Business Partner

Field	Explanation
Organization	The organization identifier for the set of messages you are using.
EDI Message	A valid EDI message code in the selected organization.
Direction	Choice of In or Out.
Order Type	Standard external order type (must be a valid code defined in the Order Type Code table). Note: For outgoing messages that pertain to single order, the order type field here must be defined in the Conversion of Order Types Out. Messages that pertain to single order include orders, order changes, acknowledgments, and invoices. For outgoing messages that do not pertain to a single order, the order type field must be blank, since there is no order type conversion.
Network	This specifies the directory where the ASCII files containing the message data are read or written. Messages can be exchanged over different networks, based on the business partner, organization, direction, message type, and order type combination.

Explanation of fields

Field	Explanation
Conversion Setup	The conversion setup defines the layout of the ASCII file containing the message data. It contains information on the mapping of data elements between the Baan application tables and the ASCII files. Although predefined conversion setups are available and may be imported from the Defaults.edi file, it is possible to create your own custom conversion setups.
Person Responsible	The person responsible for this business partner/message type/order type combination. This is for information and reporting purposes only.
Number Group	Displayed on reports for information, and used to validate the series entered for incoming orders, schedule releases and shipment notices.
	Note: The number group entered here for incoming orders, schedule releases and shipment notices must be consistent with the number group specified for these documents in their respective parameter sessions (Sales Order Parameters, Sales Contract Parameters and Inventory Handling Parameters, respectively).
Print	For outgoing messages, check this box to indicate that you want to create a hard copy of the document at the time the outgoing message is prepared for EDI.
	For incoming messages, check this box to create a remarks report that a message of this type has been received.
Incoming Message Processing Type	Identifies whether the incoming message is processed automatically or interactively. If this field is:
	Automatic - the message is read and processed during direct network communication.
	Interactive - the message is read and stored in Saved Message to be Received without any validation during direct network communication. Then, these messages can be modified, approved, and processed. See Chapter 5.
Block	Upon receipt of a purchase order through EDI, the resulting sales order can optionally be blocked for further processing.

Explanation of fields

Field	Explanation
Check Duplicate Order Number	Check this box if you want to check for duplicate order numbers on incoming documents.
	If this box is checked and a customer purchase order is received which is already referenced on another Baan sales order, the message will be rejected. For incoming change orders, the combination of the customer order number and change order sequence number is checked for uniqueness. For incoming purchase schedule releases, the customer release number combined with the revision number is checked for uniqueness.
Automatically Prepare Error Notification	Check this box if you want an error notification automatically prepared.
	If this box is checked and an incoming message cannot be processed due to errors, an outgoing error notification message (for example, ANSI X12 824) is prepared for EDI generation. This is particularly useful in supply chain environments for incoming shipment notices processed with errors.

Figure 34 EDI Messages Supported by Business Partners (ecedi0111s000), Series/Conversions

Explanation of fields

Field	Explanation
SLS Order Type	This field determines what sales order type is assigned to the order when an incoming purchase order is received.
	This field is only used for incoming orders.
	Note: When selecting an order type, you should use an order type in which the Print Acknowledgments session (tdsls4401m000) as an activity, and ensure that this activity may be re-executed at subsequent steps, if you wish to exchange order acknowledgments through EDI for received EDI orders.
Series	This field determines what first free number series is assigned to documents generated from incoming messages. The number series is used for the sales order when an incoming purchase order is received, the sales release (planning release, shipping release or sequenced shipping release) when a purchase release is received, and the Shipment Notice (ASN) when a shipment notice (ASN) is received.
	This field is only used for incoming messages.
	When you define the series with the First Free Numbers (tcmcs0150m000) session, set the Blocked for Input field to Yes to prevent this series from being used for non-EDI sales orders.
Item Code System	This is the item code system used to convert item codes in outgoing messages. The item code may be converted to its alternative item, based on this item code system and the data defined in the Items by Item Code System (tcibd0504m000) session.
	If no value is specified here for the Item Code System, the default value of the Qualifier 1 field for the item code in the conversion setups will be used to derive the item code system used to convert the item. In this case, the default value for the qualifier is checked against the Item Code IDs (ecedi2132m000) to derive the item code system.
Character Conversion	For outgoing messages you can define how to convert certain characters (for example, all characters to upper case). Multiple conversions of characters can be defined; each stored with a different identifier (character conversion code).

The information in this section focused on the message 850/ORDERS, Order (direction in). Other conversion setups used for a selling company that may be defined include:

- Purchase Order Change (860/ORDCHG), direction in
- Order Acknowledgment (855/ORDSP), direction out
- Order Change (860/ORDCHG), direction in
- Order Change Acknowledgment (865,ORDCHG). direction out
- Shipment Notice (856/DESADV) direction out
- Error Notification (824,APERAK) direction in
- Receipt Discrepancy Notification (861/RECADV), direction in
- Planning Release (830/DELFOR), direction in
- Shipping Release (862/DELFOR), direction in
- Sequenced Shipping Release (866/DELJIT), direction in
- Invoice (810/INVOIC), direction out
- Remittance Advice (820/REMADV), direction in
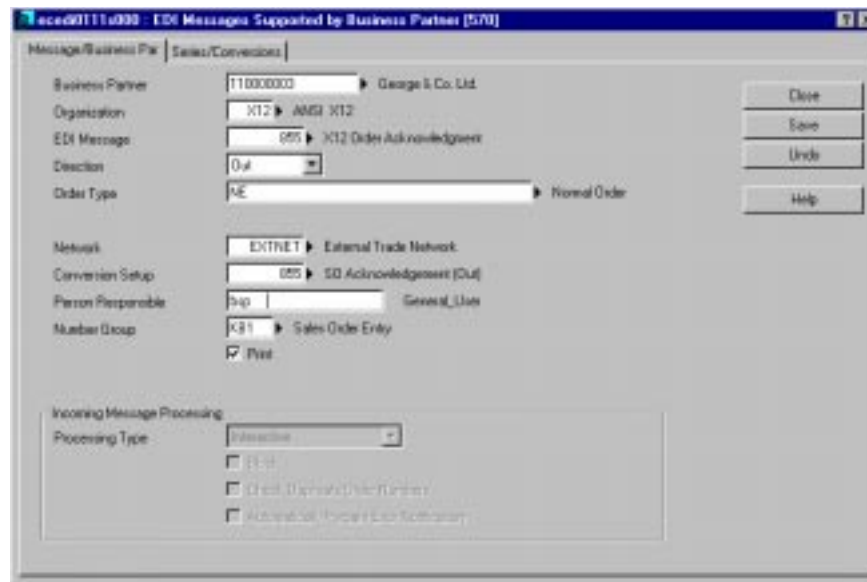
Figure 35 855/ORDRSP, X12 Order Acknowledgment (ecedi0111s000), direction out
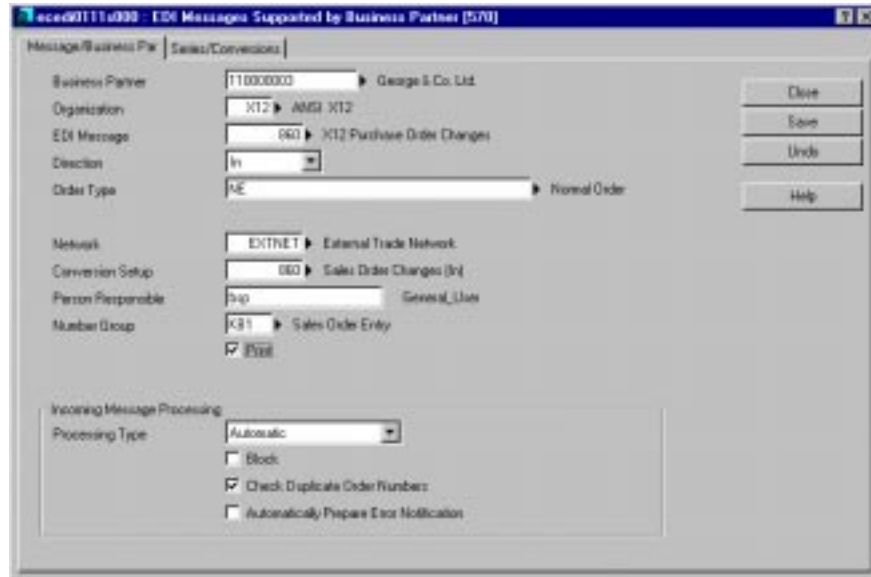
Figure 36 860/ORDCHG, X12 Purchase Order Changes, direction in, Message/Business

Figure 37 860, X12 Purchase Order Changes, direction in
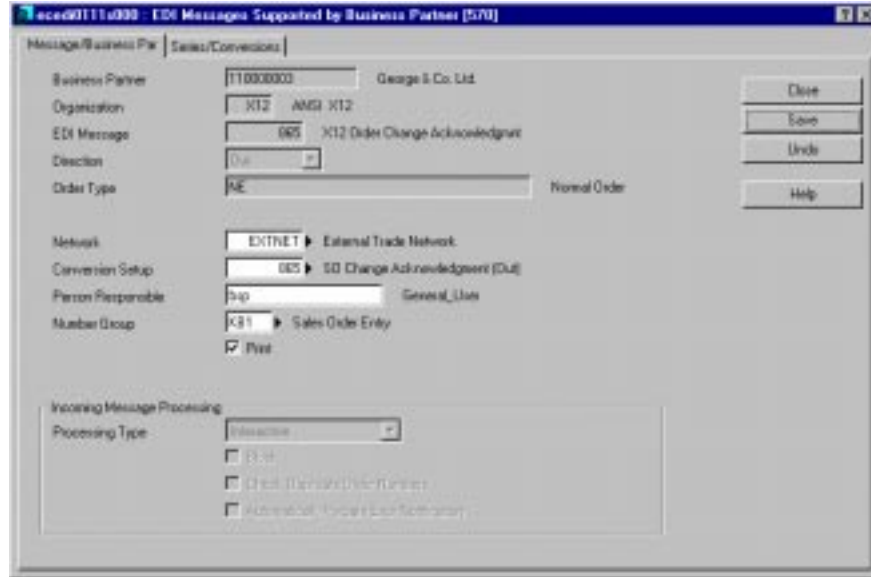
Figure 38 865, X12 Purchase Order Change Acknowledgment, direction out
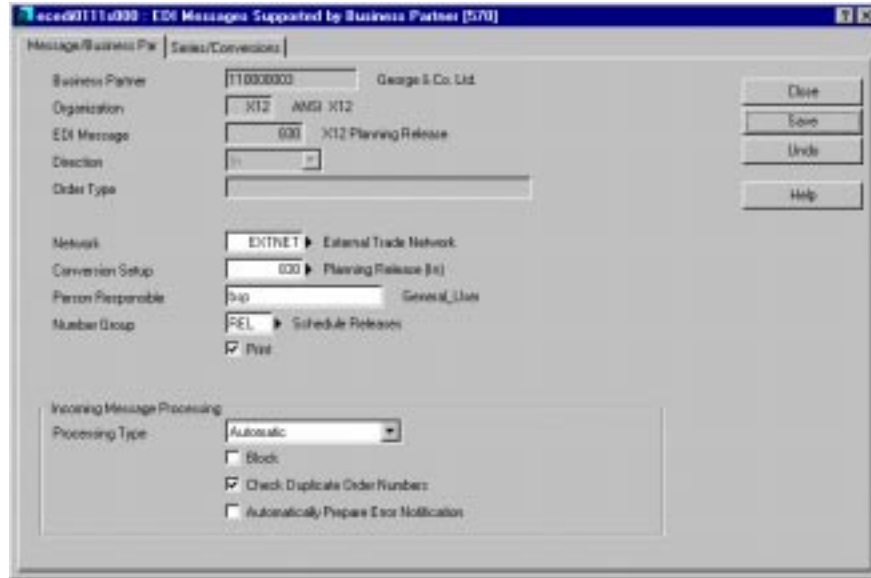
Figure 39 830, X12 Panning Release, direction in
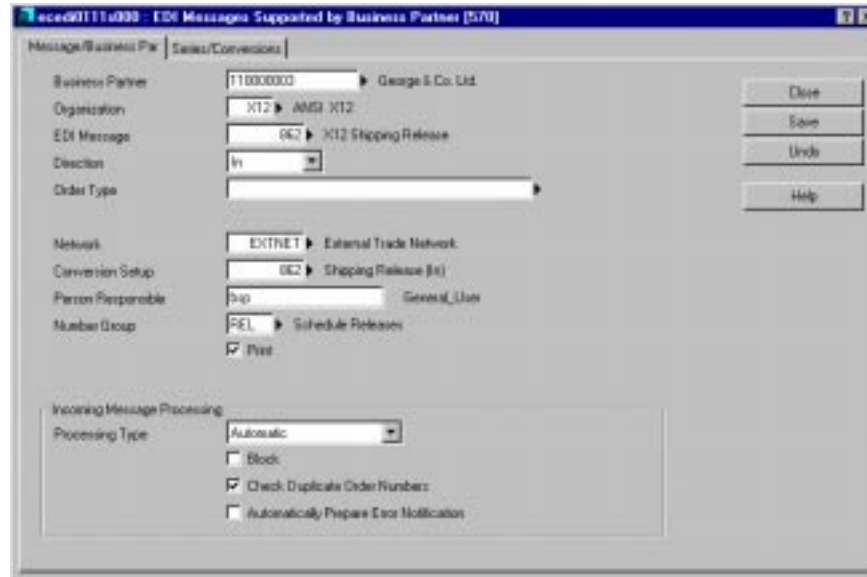
Figure 40 862, X12 Shipping Release, direction in
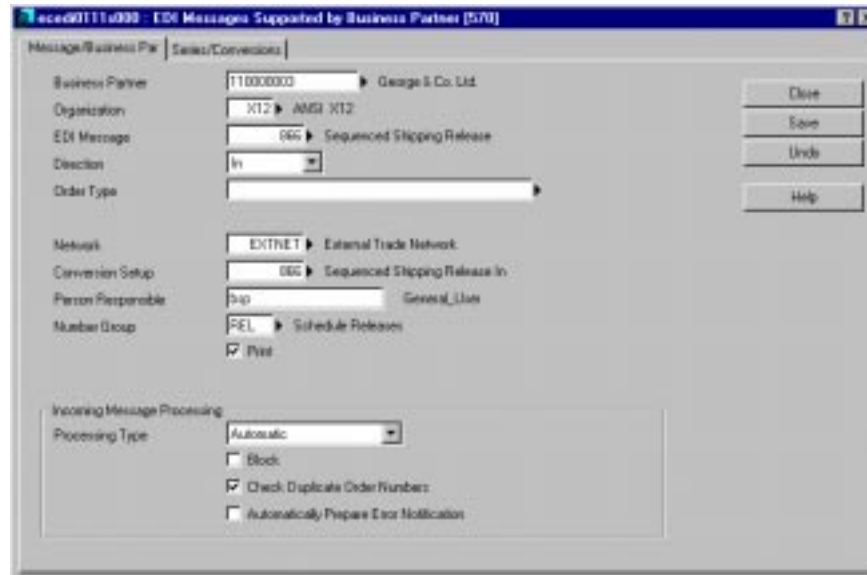
Figure 41 866, Sequenced Shipping Release, direction in
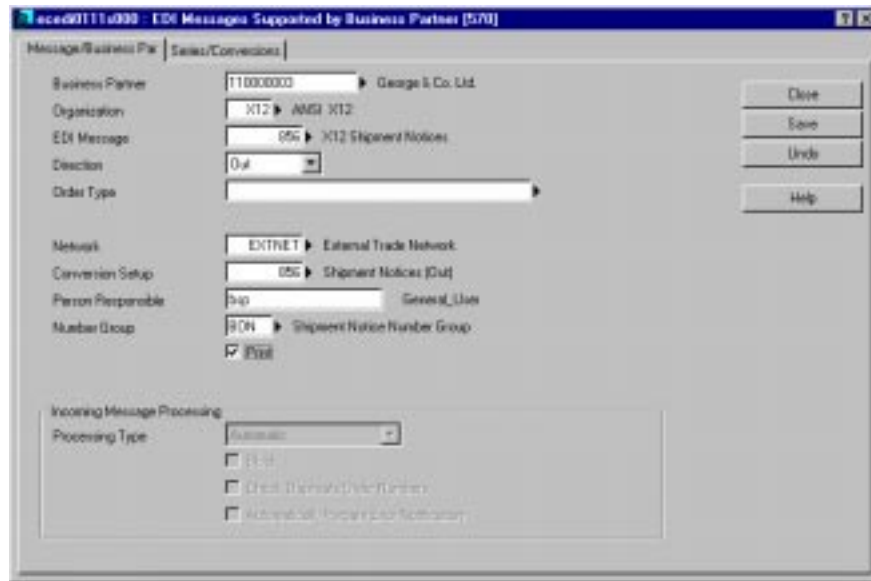
Figure 42 856/DESADV, X12 Shipping Notices, direction out

Figure 43 824, X12 Error Notification, direction in
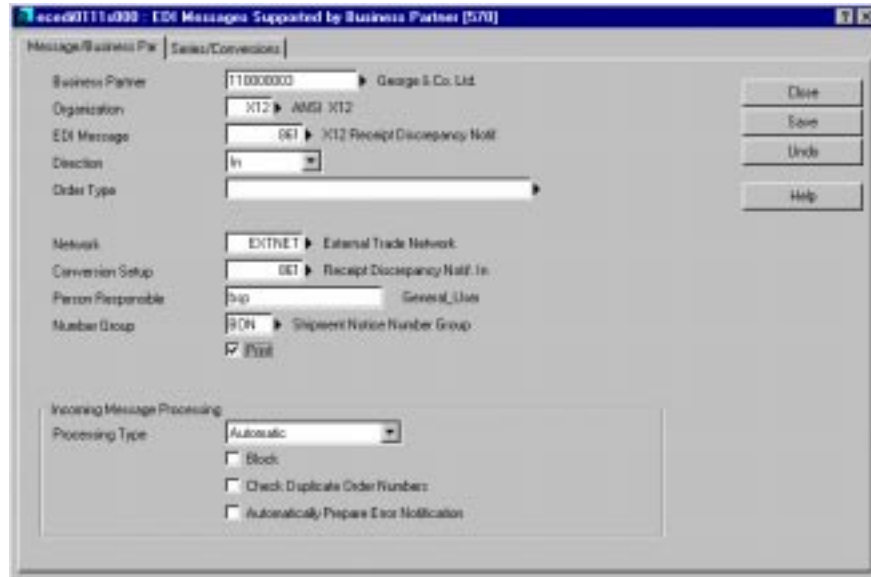
Figure 44 861, X12 Receipt Discrepancy Notification, direction in

Figure 45 810/INVOIC, X12 Sales Invoice, direction out
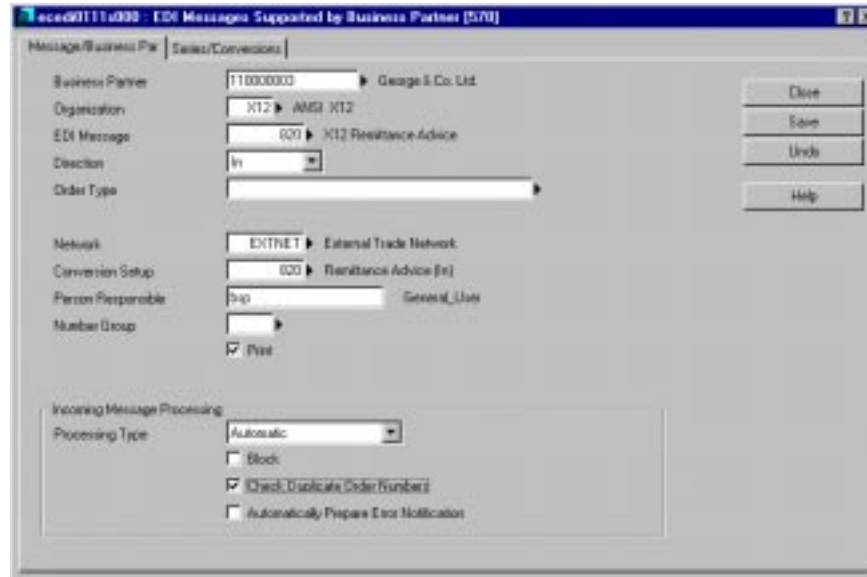
Figure 46 820/REMADV, X12 Remittance Advice, direction in

Additional parameters

Additional parameters that exist in products other than EDI are available to determine how the EDI data within these products may be processed. These include the following:

- **Automatically Prepare ASN**: This field is maintained within the Inventory Handling Parameters (whinh0100s000) and indicates whether the outgoing Shipment Notice message (856/DESADV) should be automatically prepared for EDI when the shipment gets confirmed, or whether it should be manually prepared using the Confirm ASN (whinh4532m000) session.

- **Prompt for Change Codes (within Sales Control)**: This field is maintained in the Sales Order Parameters (tdsls0100s400) governs whether or not change codes (change type code, change reason codes and acknowledgement codes) may be maintained on a sales order. It is required that this be enabled if you wish to process the EDI Order Change (860/ORDCHG) message.

- **Modifying EDI Orders Allowed**: This field is maintained in the Sales Order Parameters (tdsls0100s400) governs whether or not sales order created customer orders received through EDI may be updated manually using the sales order sessions (tdsls4500m000/tdsls4501m000).

- **Use Number Group for Addresses**: This field maintained in the COM Parameters session (tccom0000m000) indicates whether or your company uses address codes, and whether addresses may be created on-the-fly. This must be enabled if you wish to process specific address information on incoming orders and schedule releases. If not, the default address defined for the business partners will always be used.

- **EDI Change Order Response**: This field maintained in the Sold-To Business Partner session (tdsls4110s000) indicates if your business partner is to received order acknowledgements (855/ORDRSP) or order change acknowledgements (865) in response to sales order changes after the original order acknowledgement has been sent.

See the selling company section in Chapter 6 for additional information about these parameter settings.

4   Running EDI

Now that you have completed the basic setup of Baan EDI, you want to get Baan EDI up and running. This section describes how to receive and generate the ASCII files exchanged with your communication/translation software using the sessions found on the Communication menu in the EDI module. Chapter 5, Incoming message data, describes message handling and error processing. Chapter 6, EDI procedure, explains the procedural steps required to exchange specific messages.

Processing files

You can use the Direct Network Communication (ecedi7205m000) session to receive incoming EDI messages (to read the ASCII files received from your trading partner through your translation/communication software or directly from another internal Baan company).
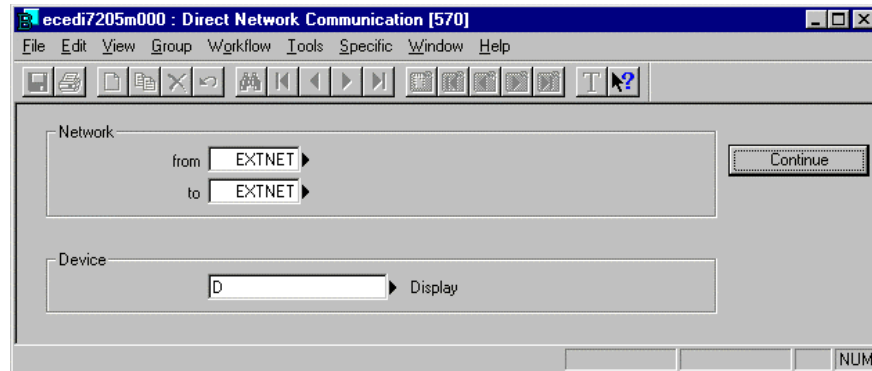
Figure 47 Direct Network Communication (ecedi7205m000) session

You can use the Generate EDI Messages (ecedi7201m000) session to generate outgoing EDI messages. This session creates the ASCII files for all documents that have been prepared for EDI. These ASCII files are read by your translation/communication software and transmitted to your trading partner(s). (Chapter 6 provides a full explanation of the steps required to prepare documents).

Figure 48 Generate EDI Messages (ecedi7201s000) session

Alternatively, you can use the Direct Network Communication (ecedi7205m000) session to both receive and generate EDI messages. Selecting the Generate Outgoing Messages before Connection check box at the network (see Figure 8) will result in the Direct Network Communication (ecedi7205m000) session generating all outgoing messages (equivalent to running the Generate EDI Messages (ecedi7201m000) session) prior to reading incoming messages.

Although you can run these sessions to manually initiate the receipt or generation of EDI messages, you can also automate the process by using the EDI Interchange controller to initiate direct network communication via a schedule that you define.

EDI interchange controller

The Job Management module in BaanERP Tools handles the automation of EDI processing by creating a job that runs the Direct Network Communication (ecedi7205m000) session at a regular interval. However, this means that you must start several of these jobs when EDI messages for different networks must be generated at different intervals. So the status of the individual jobs cannot be displayed in one single screen which leads to the loss of job manageability.

To provide a more flexible way of determining intervals and provide a better overview of the communication status of the individual networks, the EDI module offers an Interchange controller. The rest of this section describes how to setup and use this controller.

Controller setup

The first step is to determine which networks should have automated communication and at what time interval.

Figure 49 shows how to record these connect frequencies (communication intervals). You can define as many frequencies as required. Each column represents a different frequency.

In this example, a single frequency is recorded for the External Trade Network. The active frequency runs on each workday of the year 1998 (5 days a week) through the end of December. The Direct Network Communication (ecedi7205m000) session is started multiple times each day beginning at 6:00 A.M. A new session is launched every 30 minutes (time interval) until 5:30 P.M. (17:30).

Figure 49 Connect Frequencies by Network (ecedi0522m000) session

Figure 50, Connect Frequencies by Network (ecedi0122s000) session

You can generate a list of individual connect times (the moments that communication must be activated) per network that is based on the frequencies. Instead of having to maintain the next connect time with the Connect Times by Network (ecedi0125s000) session, Baan can calculate the connect times for you by using the data defined in the Connect Frequencies by Network (ecedi0122s000) session.

The individual connect times are generated with the Generate Connect Times by Network (ecedi0225m000) session.
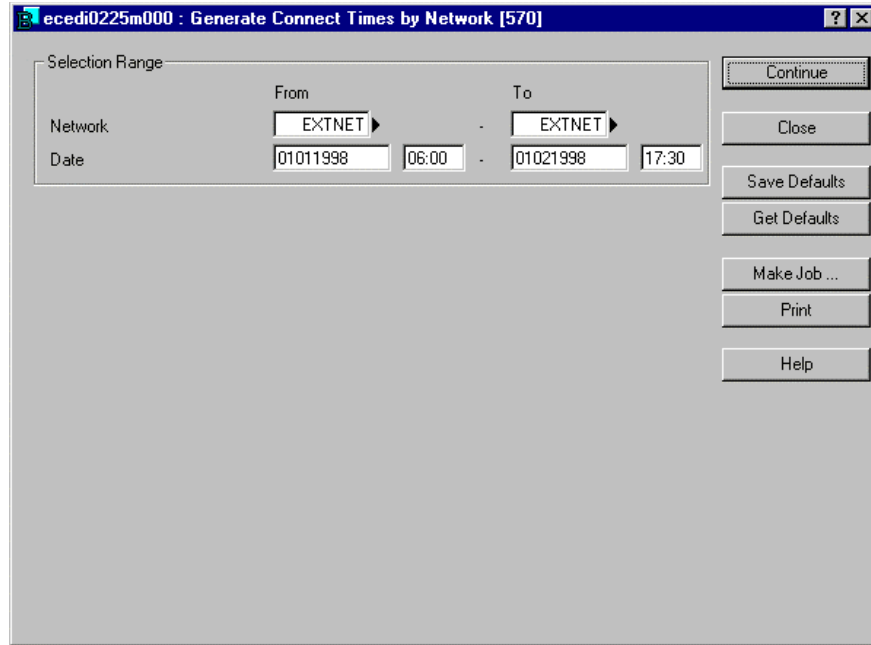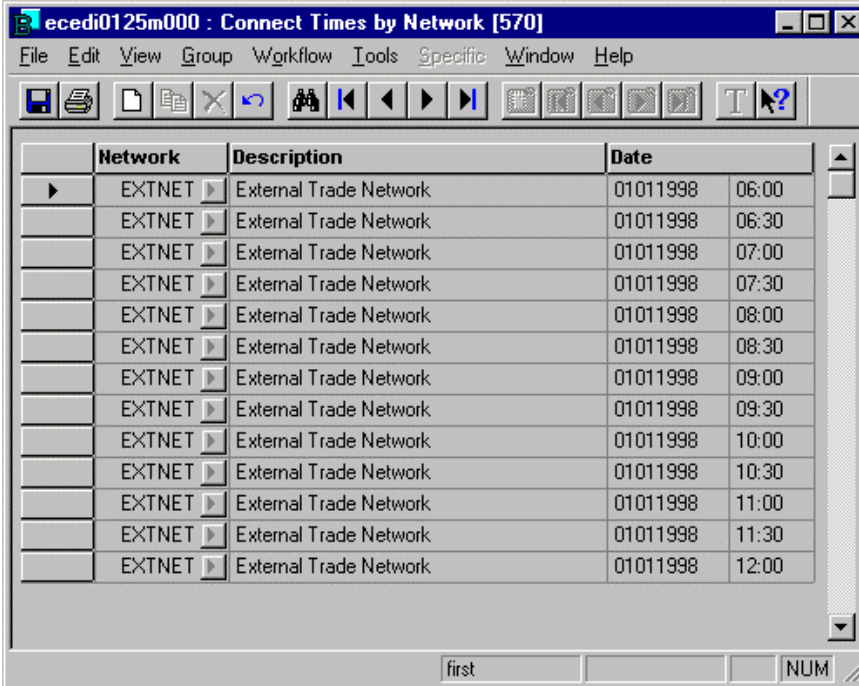
Figure 51 Generate Connect Times by Network (ecedi0225m000) session

The Connect Times by Network (ecedi0125m000) session can display or modify the result. Notice that the specified frequency indeed results in connect times each 30 minutes beginning at 6:00 A.M.

Figure 52 Generate Connect Times by Network (ecedi0125m000) session

Using the interchange controller

Based on the generated or manually entered connect times, the interchange controller will start the Direct Network Communication (ecedi7205m000) session for the appropriate network at regular intervals. Baan EDI activates the interchange controller as a background process. After making the desired selections, click Continue and let the session run in the background.

Figure 53 EDI Interchange Controller (ecedi7210m000) session

You can activate the interchange controller for all networks, or exclude individual networks. To deactivate the controller, press cancel button in the processing popup.
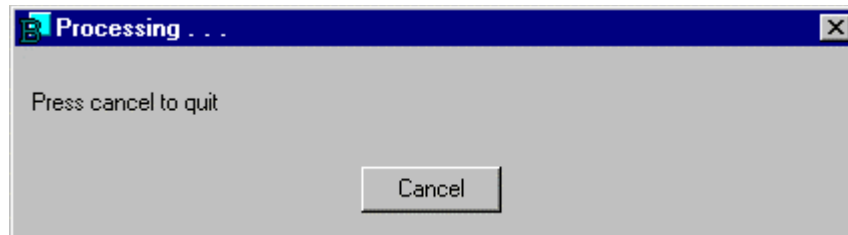
Figure 54 Processing Popup Window

With the active controller running in the background, the interchange monitor can check the communication status of the individual networks. Unlike Job Management in BaanERP Tools, Baan EDI displays the pending jobs (connect times) of all networks in a single screen. The interchange monitor will only show the pending jobs for the current day. After a job is finished, Baan EDI removes it from the list.
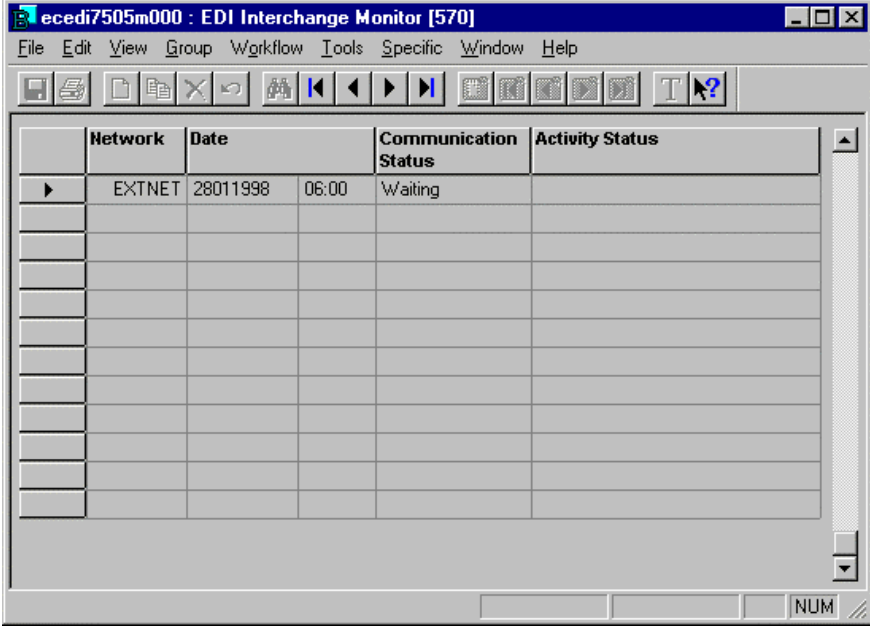
Figure 55 EDI Interchange Monitor (ecedi7505m000) session

When Baan EDI reaches a connect time for one of the networks, it starts the Direct Network Communication (ecedi7205m000) session for that network. The interchange monitor will show the following:

- Which networks are active when the monitor is started (the Communication Status will be Active).

- What activity the network is currently performing (displayed under the Activity Status).

External EDI network communication

Whenever the interchange controller initiates the Direct Network Communication (ecedi7205m000) session, it uses semaphores to indicate to the external translation/communication software that it is currently processing messages. The semaphore mechanism uses empty files in the command directory of the network to indicate that a certain process is active or is ready for activation. This mechanism ensures that Baan EDI and the communication/translation software do not try to simultaneously access the same files in the same directory. Figure 56 shows the use of semaphores during a direct network communication if you are not suppressing standard communication for the network.
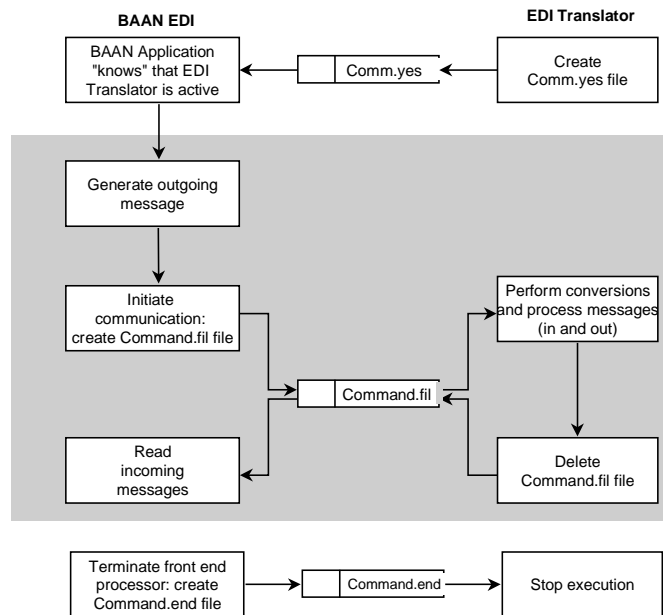
Figure 56 Semaphores

When the translation/communication software (translator) becomes active, it creates a file called Comm.yes in the command directory. This lets Baan EDI know that a translator is active (but not necessarily processing).

The shaded area in Figure 56 represents the Direct Network Communication process each time it is initiated.

If the external EDI network is set up to generate EDI messages in addition to importing messages during direct network communication (the Generate outgoing Messages Before Connection check box at the network is checked):

- Baan EDI will generate outgoing messages first, then create a file called Command.fil in the command directory when it has completed generating the outgoing messages.

If the process is not generating outgoing messages (the Generate outgoing Messages Before Connection check box at the network is not checked):

- It will create the Command.fil file upon activation of direct network communication.

The Command.fil file lets the translation/communication software know that Baan EDI is finished processing and that the translation/communication software is free to begin processing.

The translation/communication software performs the following tasks:

- Reads any messages created by Baan EDI
- Generates any messages received from external trading partners.
- Once it has completed processing, it deletes the Command.fil file from the command directory.

The lack of the Command.fil file lets Baan EDI know that the translation/communication software has completed its processing, and that Baan EDI is free to begin reading incoming messages.

Finally, you may run the Terminate Front-End EDI Processor (ecedi0249m000) session within the EDI module, to terminate communication to your translation/communication software. This session creates a file called Command.end in the command directory. You can use this file to terminate the translation/communication software.

To use this semaphore mechanism provided by Baan EDI, your translation/communication software must create/delete/check these semaphore files as indicated.

To avoid unnecessary allocation of CPU resources during the create/delete/check process before semaphores have been removed, you must activate the interchange controller within Baan EDI and the scheduling mechanism within the translation/communication software at sequenced, staggered intervals, such as the following:

	Baan application company	**Translation/communication software**
Connect times	06:00	08:00
	12:00	14:00
	18:00	20:00

5 Incoming message data

Processing interactive messages

Baan EDI can process inbound messages interactively or automatically (see the EDI messages supported by business partner section in Chapter 3).

If you set up messages as interactive, when you run the Direct Network Communication (ecedi7205m000) session the message will be stored directly in the Saved Messages to Be Received (ecedi750) table, without validation. This allows you to preview incoming messages before they are validated and before they update the Baan application. Use the Messages to be Received (ecedi7150m000) session to view, modify, approve, and process these messages.

Reprocessing messages with errors

When processing incoming messages, Baan sometimes finds validation errors that prevent the message from being updated in the Baan application. In this case, it stores the entire message in the Saved Messages to be Received table. Use the Messages to be Received (ecedi7150m000) session to view and correct data errors, approve, and reprocess the message.

The session flow for incoming messages processed with errors or processed interactively is shown in Figure 57.

```
            ┌──────────────────┐
            │  Direct Network  │
            │  Communication   │
            │  (ecedi7205m000) │
            └──────────────────┘
                     │
                     ▼
            ┌──────────────────┐
            │    Received      │
            │ Batch Reference  │
            │  (ecedi7560m000) │
            └──────────────────┘
                     │                  ┌──────────────────┐
                     │                  │    Received      │
                     │                  │  Message Errors  │┄┄┄┐
                    or                  │  (ecedi7551m000) │   ┊
                     │                  └──────────────────┘   ┊
                     ▼                     ▲                    ▼
┌──────────────┐  ┌──────────────────┐    ┊          ┌──────────────────┐
│ Print Saved  │  │     Saved        │    ┊          │ Print Received   │
│ Messages to be│◄┄│ Messages to be  │┄┄┄┘          │  Message Errors  │
│  Received    │  │   Received       │               │  ecedi7551m000)  │
│(ecedi7450m000)│ │  (ecedi7150m000) │               └──────────────────┘
└──────────────┘  └──────────────────┘
                           │
                           ▼
                  ┌──────────────────┐
                  │     Saved        │
                  │Message Data to be│
                  │   Received       │
                  │  (ecedi7151s000) │
                  └──────────────────┘
                           │
                           ▼
                  ┌──────────────────┐      ┌──────────────────┐
                  │  Approve Saved   │      │  Delete Saved    │
                  │  Messages to be  │      │  Messages to be  │
                  │   Received       │      │   Received       │
                  │  (ecedi7250m000) │      │  (ecedi7251m000) │
                  └──────────────────┘      └──────────────────┘
                           │
                           ▼
                  ┌──────────────────┐
                  │  Process Saved   │
                  │  Messages to be  │
                  │   Received       │
                  │  (ecedi7252m000) │
                  └──────────────────┘
```

Figure 57 Message processing session flow

For each processing occurrence, a unique batch number is assigned for each network. The following session records all processed (successful or unsuccessful) incoming messages.
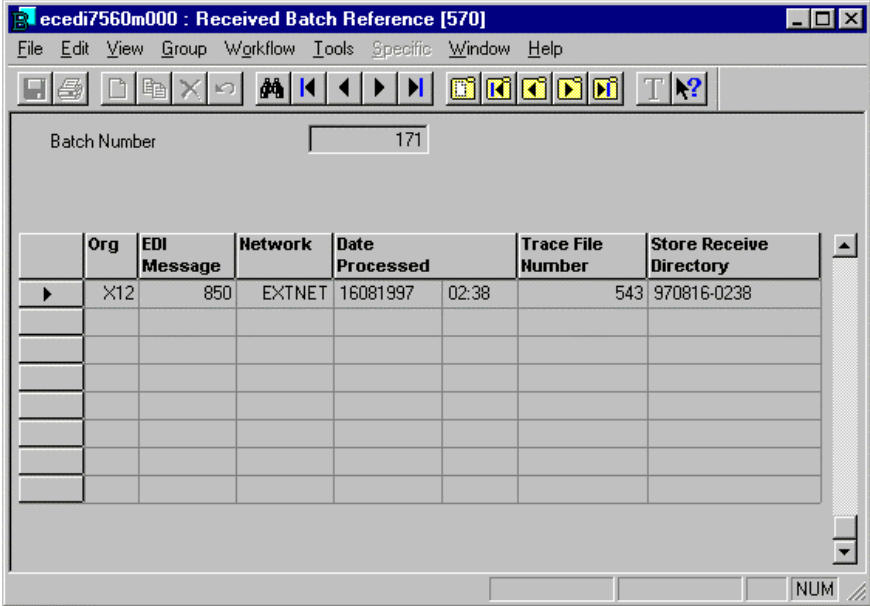
Figure 58 Received Batch Reference (ecedi7560m000) session

Use the following session to view and/or correct data for reprocessing. You can view interactive data or validation data.

Figure 59 Saved Messages to be Received (ecedi7150m000) session

After selecting a record, use the following form to correct the message data in the selected record. The number of forms used depends on the number of fields in the record.

Figure 60 shows the first error/warning message. If additional error/warning messages exist for this record, the More Messages check box will be checked; you can zoom from this form to view all corresponding error/warning messages using the Display Errors button.

Figure 60 Saved Message Data to be Received (ecedi7151s000) session

After approving the messages with the Approve Saved Messages to be Received (ecedi7250m000) session, use the following session to reprocess them.
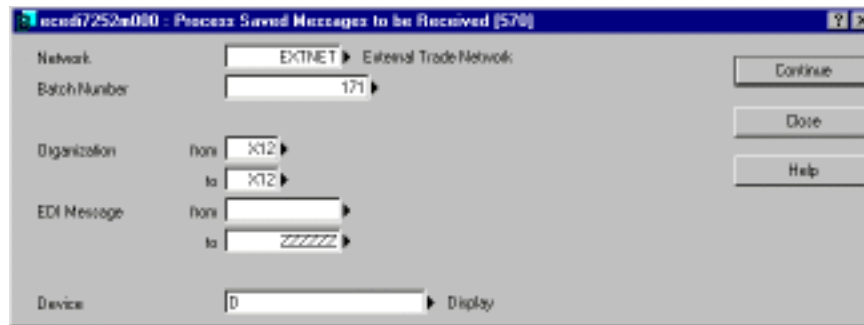
Figure 61 Process Saved Messages to be Received (ecedi7252m000) session

6 EDI procedure

After approving the messages with the Approve Saved Messages to be Received (ecedi7250m000) session, use the following session to reprocess them.

This section explains the procedural steps that should be completed for a full order cycle, using all supported EDI messages. Note that this example assumes manually initiating direct network communication to both receive and generate messages, instead of using the interchange controller to automate this step.

General procedures: purchasing company

If you are the purchasing company exchanging documents with your supplier, the following diagram and list summarizes the procedural steps that you may be completed for a full purchasing cycle.
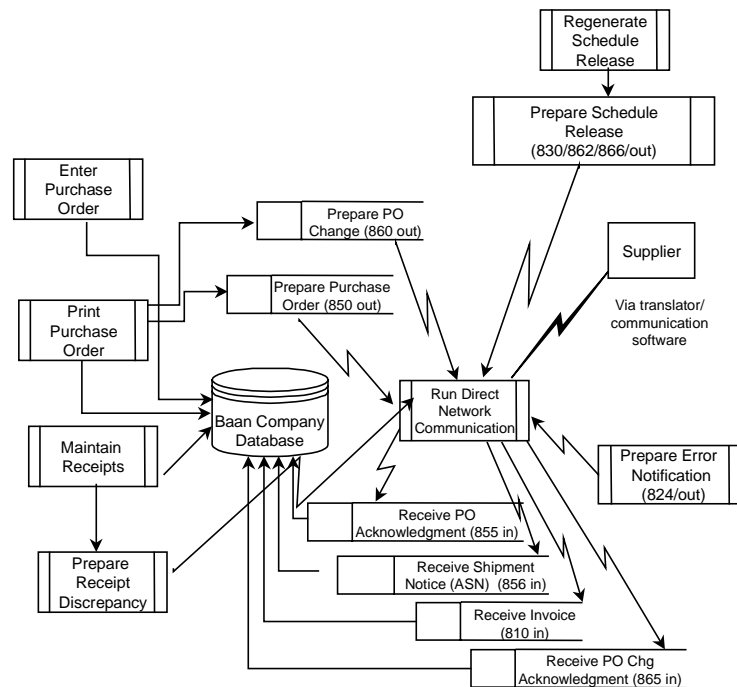
Figure 62 Purchasing EDI procedure

Purchase requirements may be communicated to your supplier via purchase orders or purchase schedule releases.

Using Orders:

- Create and print a purchase order. Printing the purchase order will prepare the EDI message (850/ORDERS out) for transmission. After printing the purchase order, use the Messages to be Generated (ecedi7100m000) session to verify that the message was prepared.

- Run the Direct Network Communication (ecedi7205m000) session to send the purchase order (850/ORDERS out) to your supplier.

- Optionally, maintain the purchase order and print changed lines. Printing the purchase order (for new and changed lines) will prepare the EDI message (860/ORDCHG out) for transmission. Run the Direct Network Communication (ecedi7205m000) session to send a Purchase Order Change to your supplier.

- Run direct network communication to receive either a Purchase Order Acknowledgement (855/ORDRSP in) or a Purchase Order Change Acknowledgement (865/ORDRSP in). This will generate a report if there are any differences between the acknowledgement and the order; the purchase order may also be optionally updated, depending on the conversion setups that you choose (see Appendix A for more information).

Using Schedule Releases:

- Generate (Purchase) Schedule Releases. If the Generate EDI Releases Directly check box is checked in the Item/Supplier Information (tdipu0110s000) session, generating the schedule release using the Regenerate Schedules (tdpur3207m000) will prepare the EDI message (830/DGELFOR, 862/DELFOR, 866/DELJIT) for transmission. If the Generate EDI Releases Directly check box is not checked, running Generate Schedule Releases (tdpur3208m000) will prepare the EDI messages for transmission, if elected. (Note that the 862/DELFOR and 866/DELJIT messages follow an 830/DELFOR message).

- Run the Direct Network Communication (ecedi7205m000) session to send the purchase schedule release (830/DELFOR, 862/DELFOR, 866/DELJIT out) to your supplier.

Using either Orders or Schedule Releases:

- Run the Direct Network Communication to receive the Shipment Notice (ASN) (856/DESADV in). This will create a Shipment Notice in the Baan application.

  If there is an error in the received shipment notice, the erroneous data and corresponding errors will be stored in Saved Messages to be Received and Saved Error Messages respectively, in EDI, as is the case with all erroneous messages received. If the Automatically Prepare Error Notifications check box is checked in EDI Messages Supported by Business Partner, an outgoing Error Notification (824/APERAK out) message is prepared. Alternatively, Print Received Message Errors (ecedi7451m000) can prepare outbound Error Notifications (824/APERAK) for erroneous messages received.

NOTE: The error notification may be prepared for any erroneous message, but is of particular use for the erroneous shipment notice in supply chain environments. Erroneous shipment notices received store additional error information within the Baan EDI, based on the data defined in the Application Errors (ecedi2191m000) session.

- Run the Direct Network Communication (ecedi7205m000) session to send the Error Notification (824/APERAK out) to your supplier if applicable.

- Upon receiving the goods, use the Receipts (whinh3520m000) session to enter the receipt data. If you select a shipment notice against which to receive the goods, any discrepancies between the received quantity and the shipment notice quantity will be stored, and a Receipt Discrepancy Notification (861/RECADV) will be prepared for EDI.

- Run the Direct Network Communication (ecedi7205m000) session to send the Receipt Discrepancy Notification (861/RECADV out) to your supplier

- Run the Direct Network Communication (ecedi7205m000) to receive the Invoice (810/INVOIC in). This will create a purchase invoice in your Baan company.

General procedures: selling company

If you are the selling company, the following diagram (Figure 63) and list summarizes the procedural steps that you must complete for a full sales cycle.
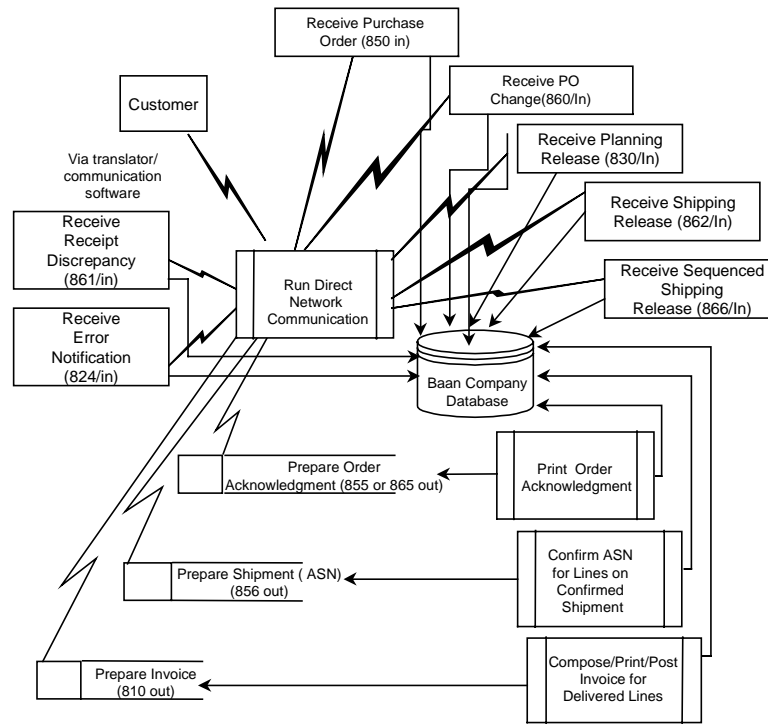
Figure 63 Selling EDI procedure

Customer purchase requirements may be communicated via purchase orders or purchase schedule releases.

Using Orders:

- Run the Direct Network Communication (ecedi7205m000) session to receive the customer purchase order (850/ORDERS in). This will create a sales order in your Baan company.

- Evaluate the sales order and print the order acknowledgement. This will prepare the outgoing Order Acknowledgement (855/ORDRSP out) for transmission.

- Run direct network communication to send the order acknowledgement (855/ORDRSP out) to your customer.

- Run direct network communication to receive a Purchase Order Change (860/ORDCHG in)

- Optionally, if any information is subsequently changed on the sales order which was created from the customer purchase order, print the order acknowledgement (for changed and new lines) to prepare the order acknowledgement or order change acknowledgement. Run the Direct Network Communication to send either the Order Change Acknowledgement (865/ORDRSP out) or the Order Acknowledgement (855/ORDRSP out) for those changed or new lines you want to convey to your customer.

Using Schedule Releases:

- Run the Direct Network Communication (ecedi7205m000) session to receive the customer schedule release (830/DELFOR, 862/DELFOR, or 866/DELJIT in). This will create a sales release (planning release, shipping release or sequenced shipping release, respectively) and corresponding sales schedule(s) in your Baan company. If the sales release and schedules already exist, the updates may be reflected as new revisions to the existing release and schedule(s).

Using either Orders or Schedule Releases:

- Confirm a Shipment against the order and/or schedule release. If the Generate ASN's Automatically check box in the Warehousing parameters is checked, the Shipment Notice (856/DESADV out) is prepared for transmission once the shipment is confirmed. If the Generate ASN's Automatically check box in the Warehousing parameters is not checked, run the Confirm ASN session to prepare the message for transmission.

- Run the Direct Network Communication to send the Shipment Notice (ASN) (856/DESADV out) to your customer.

- Run the Direct Network Communication session to receive any Error Notifications (824/APERAK), indicating that a previously transmitted Shipment Notice (856/DESADV) included erroneous information. Because the Error Notification refers to a previously generated Shipment Notice (856/DESADV), the EDI Status field on the shipment is Disapproved, and a (canceling) Shipment Notice (856/DESADV) is prepared. Run the Direct Network Communication to send the (canceling) Shipment Notice (856/DESADV) to your customer. The EDI Status on the shipment is changed to Modify.

- If the EDI Status on the shipment is Modify, you may modify the date/time, quantity or weight, and any EDI data included on the shipment notice to correct the erroneous shipment notice data. Run the Confirm ASN (whinh4532m000) session to prepare the corrected Shipment Notice (856/DESADV out) for EDI transmission; the EDI Status on the shipment is Confirmed. Run the Direct Network Communication to send the corrected Shipment Notice (856/DESADV out) to your customer.

- Run the Direct Network Communication to receive any Receipt Discrepancy Notifications (861/RECADV in), indicating that the customer found a discrepancy between the quantity of goods received and the quantity indicated on the Shipment Notice. The discrepancies are reported, and the shipment's text fields and EDI Information fields may be updated.

- Run the Compose/Print/Post Invoices (cisli2200m000) session. This will prepare the Invoice (810/INVOIC out) for transmission.

- Run Direct Network Communication to send the Invoice (810/INVOIC out) to your customer (invoice-to business partner).

- Run the Direct Network Communication to receive the Remittance Advice from your customer (pay-by business partner).

General message processing requirements

For all outgoing messages:

For messages to be prepared, the following conditions must be met:

- The business partner is linked to a network

- The EDI Messages Supported by Business Partner (ecedi011) table is filled for the combination: business partner, message, converted order type (if it applies), and direction for the organization. The record in this table must specify the same network as the one linked to the business partner and must specify a conversion setup.

For all incoming messages:

The following conditions must be met (as explained in the setup sections of this document):

- The network address specified in the incoming file is valid for the network and is linked to a valid business partner.

- The order type specified in the file is present in the Order Types table (note that blank order types must be specified for the case when no order type value is passed).

- The EDI Messages Supported by Business Partner (ecedi011) table is filled for the combination: business partner, message, specified order type and the direction, for the specified organization.

- The ASCII files must reside in the Appl_to subdirectory in the directory specified for the Network in the EDI Messages Supported by Business Partner (ecedi011) table for this message type and business partner.

- The record in EDI Messages Supported by Business Partner (ecedi011) table must specify a conversion setup.

- The ASCII file Command.fil must be removed from the command directory if you are not suppressing standard communication and if the business partner is an external EDI trading partner.

- All incoming messages generate a Remarks in Copied Message report. This report indicates the type of document received, the internal document number generated or updated, the line number(s) created or updated, and any remarks pertaining to the document.

The next sections walk you through an example in which each step is explained in more detail, first for the purchasing company, then for the selling company.

The purchasing company

This section demonstrates the steps required to exchange EDI documents with your supplier. In this example you are the purchasing company.

Purchase requirements may be communicated to your supplier via purchase orders or purchase schedule releases. Examples of both document types are included in this section.

Enter and print purchase order

Figure 64 shows the Print Purchase Order (tdpur4401m000) session. This session prepares the outgoing Purchase Order EDI message (850/ORDERS out). When you run this session the system verifies that the order or orders are prepared for EDI transmission and are stored in the Messages to be Generated (ecedi700) table.

Figure 64 Print Purchase Orders (tdpur4401m000) session

All of the conditions previously listed in the General message processing requirements section must be met before a message can be prepared for EDI. However, if any of the conditions are not met, the hard copy of the purchase order will still be printed. This hard copy can also be printed when the previous conditions are met if the Print check box in the EDI Messages Supported by Business Partner (ecedi0111m000) session is checked. If a hard copy of the purchase order is printed for an order which has also been prepared for EDI, the words EDI Copy will appear on the upper left-hand corner of the printed purchase order document.

NOTE   The order type of the purchase order must be defined in the Conversion of
Purchase Order Types Out (ecedi4133m000) session in order for the order to be
prepared for EDI. The Code in Message for the order type conversion must
match the order type specified in the EDI Messages Supported by Business
Partner (ecedi0111s000) session for this message and business partner.

NOTE   In order for new and changed purchase order lines to be recognized by the Print
Purchase Order (tdpur4401m000) session, the purchase order type used on the
order should include the Print Purchase Order (tdpur4401m000) session as an
activity, and should allow this activity to be re-executed at subsequent steps as
defined in Purchase Order Type – Re-execute Activities (tdpur0561m000)
session. In addition, the order lines must have an Approved status. You can
verify that the outgoing message was prepared for EDI, using the Messages to be
Generated (ecedi7100m000) session. If you do not want the message to be
generated the next time the Direct Network Communication session is run, you
can delete the message from this session.

Figure 65 Messages to be Generated (ecedi7100m000) session

Sending the purchase order (850/ORDERS)

Once the document is prepared for EDI by purchasing, the EDI module can generate the outgoing EDI order message.

If you are not using the interchange controller to automate the process, you can manually generate the outgoing message using one of the following sessions:

- Generate EDI Messages (ecedi7201m000) session
  Constructs the outgoing messages that are eligible for transmission (present in Messages to be Generated, ecedi700, table) and within the specified selection range. For external EDI business partners, Baan EDI puts the outgoing messages in the Appl_from directory in the directory defined for the network specified for the Message by Business Partner. For additional information, see the Processing files section in Chapter 4.

- Direct Network Communication (ecedi7205m000) session
  Generates any outgoing messages (if the network is set up to do so) and then reads in any incoming messages. For additional information, see the Processing files section in Chapter 4.

Both sessions display the reference number, message and order number of the order that is currently processed. Notice that the reference number is constructed as defined in the Networks (ecedi0520m000) session.

Both sessions also generate a report to show which messages have been generated. This is the Remarks in Generated Messages (ecedi7601m000) report.

Receiving the order acknowledgment (855/ORDRSP)

Your supplier can send order acknowledgments after receiving your purchase order. You may receive order acknowledgments as 855/ORDRSP incoming transactions. Once the order acknowledgment is received, the ASCII files are translated from their standard format into the file format defined by your conversion setups, if external EDI. The resulting ASCII file is placed in the appropriate appl_to directory by the translation/communication software. You must run the Direct Network Communication (ecedi7205m000) session to receive the order acknowledgment.

You can set up the incoming order acknowledgment message to:

- Update the purchase order with any values specified on the acknowledgement that do not agree with the purchase order, and report the differences found.

- Report the differences only

This is defined within the conversion setups, on a field by field basis. In BaanERP, there are two separate conversion setups for the incoming order acknowledgment (855/ORDRSP): for example, 855.C is for comparison while 855.U is for update. See Appendix A for more detailed information about the conversion setups. When the Direct Network Communication receives the order acknowledgment, you will receive the Differences between Purchase Order and Order Acknowledgment report which show the differences between the purchase order and the order acknowledgment.

Changing the purchase order (860/ORDCHG)

You have the option of transmitting a Purchase Order Change transaction to your supplier to reflect any changes you have made to your purchase order.

To use this function, you must use change type codes in Purchase Control. In order to apply change codes to purchase orders, the Prompt for Change Codes check box in the Purchase Order Parameters (tdpur0100s400) session must be checked. Change type codes and change reason codes can then be assigned to a purchase order when changes are made to the order. Change Type Codes must be present on all lines that you wish to include on an EDI change order (860/ORDCHG) message; they are used to indicate the type of change last made to the order or order line.

The change type codes provide you with some flexibility because you can select the types of changes you transmit to your supplier.

NOTE

There is no way to directly transmit the cancellation or deletion of an individual purchase order line. To do this, you must change the order line quantity to zero, or assign a change type code representing a deleted or canceled line, and process the line as a change. When the order acknowledgment is received back from your supplier, you can delete this line.

Before you print purchases orders to prepare the outgoing messages, you can run the Print Purchase Orders to be Printed (tdpur7403m000) session, which shows the purchase order lines that will be included and prepared for EDI the next time you run the Print Purchase Order (tdpur4401m000) session. Use this report to ensure that change type codes have been assigned to all appropriate lines.

When you run the Print Purchase Order (tdpur4401m000) session for EDI purchase order changes, it is recommended that you set the Order Line Types to Print field to New and Changed Lines, to include only changed and new lines that have been changed or added since the order's last generation. Alternatively, you can set the Order Line Types to Print field to Only Changed Lines, to include changed lines only, or Exclude Printed Lines, to include only new lines added since the order's last generation.

Any of these three setting results in this session preparing the outgoing Purchase Order Change EDI message for only those new and changed order lines that were assigned a change type code. This ensures that only those new or changed lines, and their corresponding change type codes, are included in the message.

When you run this session the system verifies that the order or orders are prepared for EDI and are stored in the Messages to be Generated (ecedi700 and ecedi708) table.

Figure 66 Print Purchase Orders (tdpur4401m000) session

NOTE   In order for new and changed purchase order lines to be recognized by the Print Purchase Order (tdpur4401m000) session, the purchase order type on the order should include the Print Purchase Order (tdpur4401m000) session as an activity, and should also allow this activity to be re-executed at subsequent steps, as defined in Purchase Order Type – Re-execute Activities (tdpur0561m000) session. In addition, the order lines must have an Approved status.

You can verify that the outgoing message was prepared for EDI, using the Messages to be Generated (ecedi7100m000) session. If you do want the message to be generated the next time the Direct Network Communication session is run, you can delete the message from this session.

Sending the purchase order change (860/ORDCHG)

Once the document is prepared for EDI by purchasing, the EDI module can generate the outgoing EDI order message.

If you are not using the interchange controller to automate the process, you can manually generate the outgoing message using one of the following sessions:

▪ Generate EDI Messages (ecedi7201m000) session
  Constructs the outgoing messages that are eligible for transmission (present in Messages to be Generated, ecedi700, table) and within the specified selection range. For external EDI business partners, Baan EDI puts the messages in the Appl_from directory in the directory defined for the network specified for the Message by Business Partner. For additional information, see the Processing files section in Chapter 4.

▪ Direct Network Communication (ecedi7205m000) session
  Generates any outgoing messages (if the network is set up to do so) and then reads in any incoming messages. For additional information, see the Processing files section in Chapter 4.

Both sessions display the reference number, message and order number of the order that is currently processed. Notice that the reference number is constructed as defined in the Networks (ecedi0520m000) session.

Both sessions also generate a report to show which messages have been generated. This is the Remarks in Generated Messages (ecedi7601m000) report.

Receiving the purchase order change acknowledgment (865)

You may receive order change acknowledgments from your supplier after he receives your purchase order change. Such order acknowledgments can take the form of an Order acknowledgment (855/ORDRSP) or an Order change acknowledgment (865) incoming message.

You can set up the incoming order acknowledgment message to do one of the following:

▪ Update the purchase order with any values specified on the acknowledgement that do not agree with the purchase order, and report the differences found

▪ Report the differences only

This is defined within the conversion setups, on a field by field basis. In BaanERP, there are two separate conversion setups for the incoming order change acknowledgment (865):

- 865.C - for comparison only
- 865.U - for update only

See Appendix A for detailed information about conversion setups.

Run the Direct Network Communication (ecedi7205m000) session to receive in the order (change) acknowledgment, once the ASCII files have been placed in the appropriate appl_to directory by your translation/communication software.

When the Direct Network Communication receives the order acknowledgment, the Differences between Purchase Order and Order Acknowledgment report is generated, which shows the differences between the purchase order and the order acknowledgment.

Generating and Sending the Purchase Schedule Release (830/DELFOR, 862/DELFOR, 866/DELJIT)

If you choose to convey your purchase requirements to your supplier (buy-from business partner) using purchase releases, the following three types of releases are available to you:

- Planning Release (830/DELFOR) which conveys material requirement information to your supplier. This is typically a long-range schedule.

- Shipping Release (862/DELFOR) which may contain precise shipping release requirements sent on a more frequent basis than with the issuance of the Planning Release. This is typically a mid-range schedule.

- Sequenced Shipping Release, which specifies precise information pertaining to the delivery of goods, which includes the order in which goods are to arrive at their destination (s), or are to be unloaded from the conveyance method when received at their destination(s). This is typically a short-range schedule.

All three of the purchase releases may be prepared for EDI as follows.

Use the Regenerate Schedules (tdpur3207m000) session to generate your Purchase Schedule Releases (planning release, shipping release or sequenced shipping release). If the Generate EDI Releases Directly check box defined in the Item/Supplier Information (tdipu0110s000) session is checked, this session also prepares the outgoing Purchase Release (830/DELFOR out, 862/DELFOR out or 866/DELJIT out) for EDI transmission.
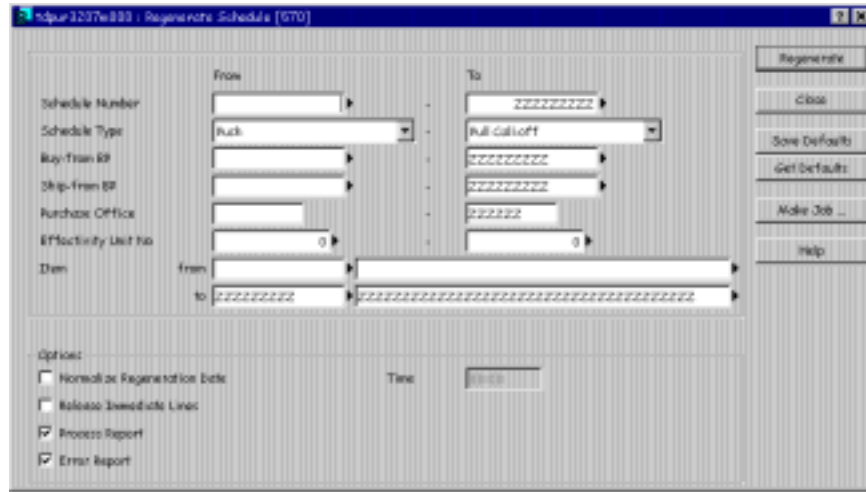
Figure 67 Regenerate Schedule (tdpur3207m000) session

If the Generate EDI Releases Directly check box defined in the Item/Supplier Information (tdipu0110s000) session is not checked, then you must additionally run the Generate Schedule Releases (tdpur3208m000) session to prepare the outgoing Purchase Release (830/DELFOR out, 862/DELFOR out or 866/DELJIT out) for EDI transmission.
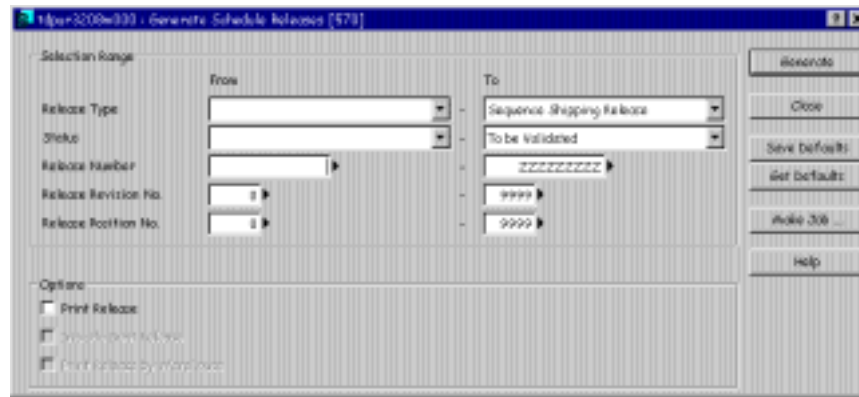
Figure 68 Generate Schedule Releases (tdpur3208m000) session

All of the conditions previously listed in the General message processing requirements section must be met in before a message can be prepared for EDI. You can verify that the outgoing message was prepared for EDI, using the Messages to be Generated (ecedi7100m000) session. If you do not want the message to be generated the next time the Direct Network Communication session is run, you can delete the message from this session.

As with all outgoing EDI message, you may manually generate the outgoing message using the Direct Network Communication (ecedi7205m000) session, if the network is setup to generate outgoing messages during Direct Network Connection, or the Generate EDI Messages (ecedi7201m000) session. A report is generated listing the messages that were generated. For external EDI, the outgoing message (ASCII) files are placed in the appl_from directory, under the network's directory, from which the translation/communication software will retrieve them.

Receiving the Shipment Notice (856/DESADV)

Run the Direct Network Communication (ecedi7205m000) session to receive in the Shipment Notice message (856/DESADV) from your supplier (ship-from business partner), once the ASCII files have been placed in the appropriate appl_to directory by your translation/communication software.

When the Direct Network Communication receives the Shipment Notice message (856/DESADV), a Shipment Notice is created in your Baan company, and the Remarks in Copied Messages report is generated, showing the shipment notice number and line number(s) generated, along with any pertinent remarks.

When the shipped goods are subsequently received at your site, you can use the Shipping Notice to facilitate the receiving process. In the Receipts (whinh3520m000) session you can select a Shipment Notice to automatically populate the receipt data with the data from the Shipment Notice. (See the Sending the Receipt Discrepancy Notification (861/RECADV) section in this chapter for more information).

The shipment status code included in the Shipment Notice message is validated against the Conversion of Shipment Status Codes/In (ecedi3146m000) when a Shipment Notice is received. In order to support the requirements of some EDI standards, Baan EDI supports the receipt of two kinds of Shipment Notices, a canceling Shipment Notice, and an original Shipment Notice. A received Shipment Notice with an original shipment status is processed as indicated above. A received Shipment Notice with a canceling shipment status is intended to cancel a previously sent erroneous Shipment Notice, and will delete the invalid Shipment Notice message from the Saved Messages to be Received in EDI, where erroneous messages are stored.

Sending the error notification

If there is an error in the received Shipment Notice, EDI automatically prepares an outgoing Error Notification message (824/APERAK) if the following conditions are met:

- The Automatically Prepare Error Notification check box in the EDI Messages Supported by Business Partner (ecedi0111s000) session is checked, for the business partner and incoming Shipment Notice message.

- The Ship-from Business Partner from whom the Shipment Notice was received is setup to receive the Error Notification message (824/APERAK) in the EDI Messages Supported by Business Partner (ecedi0111s000) session.

The Error Notification message may also be manually prepared by running the Print Received Errors (ecedi7451m000) session, and selecting the check box to Prepare Error Notification.

You can verify that the outgoing message was prepared for EDI, using the Messages to be Generated (ecedi7100m000) session. If you do not want the message to be generated the next time the Direct Network Communication session is run, you can delete the message from this session.

NOTE The error notification may be prepared for any erroneous message received, but is of particular use for the erroneous shipment notice in some supply chain environments. Baan EDI logs the additional application error data from the Application Errors (ecedi2191m000) session only for erroneous shipment notices received. As with all erroneous messages received, when the erroneous Shipment

Notice is received, the message data and corresponding errors are stored in Saved Messages to be Received and Saved Error Messages, within Baan EDI Message Data. When the erroneous message received is a Shipment Notice (856/REVADV), additional information may be logged based on the information defined in the Application Errors (ecedi2191m000) session. This information may be included on the outgoing error notification message.

As with all outgoing EDI message, you may manually generate the outgoing message using the Direct Network Communication (ecedi7205m000) session, if the network is setup to generate outgoing messages during direct network connection, or the Generate EDI Messages (ecedi7201m000) session. A report is generated listing the messages that were generated. For external EDI, the outgoing message (ASCII) files are placed in the appl_from directory, under the network's directory, from which the translation/communication software will retrieve them.

Sending the Receipt Discrepancy Notification (861/RECADV)

Upon receiving a shipment, use the Receipts (whinh3520m000) session to enter the receipt information. Using the Special menu, select a shipment notice against which to receive the goods by zooming to the Expected Shipments (whinh3820m100) session, selecting the appropriate shipment notice record and clicking Add to Receipt, as shown in Figures 69 and 70. This will populate the receipt data with the shipment notice data. Then, you can make any necessary corrections to the receipt data, using the Receipt Lines (whinh3120s000) session.
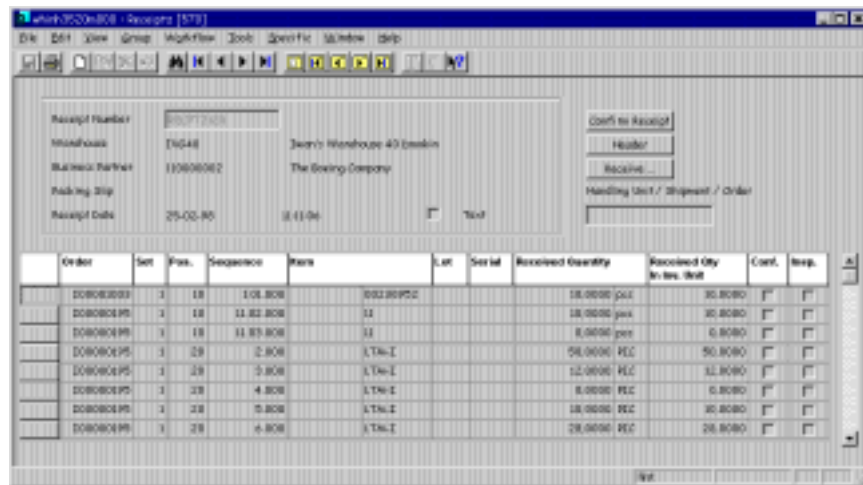
Figure 69 Receipts (whinh3520m000) session
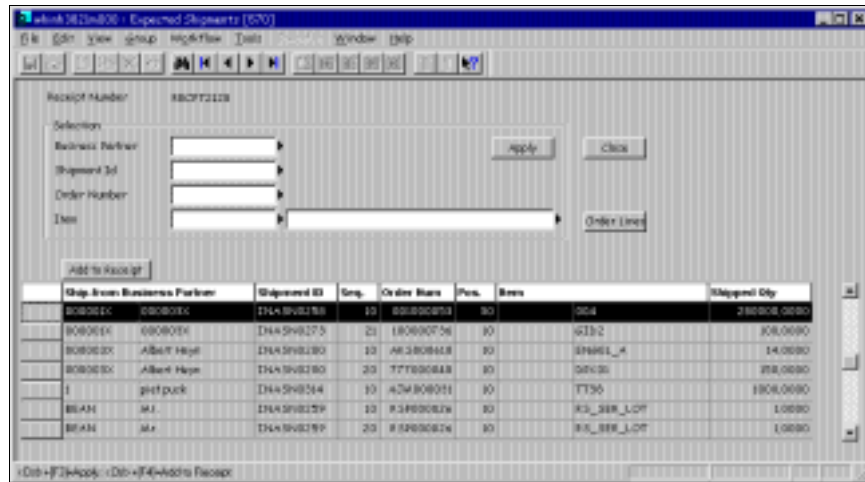
Figure 70 Expected Shipments (whinh3821m000) session

If there is any discrepancy between the shipped quantity on the Shipment Notice and the actual receipt quantity recorded, the discrepancy is logged, and a Receipt Discrepancy Notification message (861/RECADV) is prepared for EDI once the receipt is confirmed.

NOTE The default conversion setup definition (file layout) of the outgoing Receipt Discrepancy message includes the Receipt Discrepancy Code defined in the Receipt Discrepancy Code Out (ecedi4147m000) session. This is used to convey the type of discrepancy encountered during the receipt process, which can be one of the following:

- The quantity received was greater then the quantity indicated on the shipment notice (quantity over)

- The quantity received was less then the quantity indicated on the shipment notice (quantity short)

- No Shipment Notice was received prior to the receipt of the goods (No ASN). If you wish to indicate that no Shipment Notice was received at the time of receipt, you must manually enter a Shipment Notice with zero quantities, using the Shipment Notices (whinh3500m000) session, prior to processing the receipt.

As with all outgoing EDI message, you may manually generate the outgoing message using the Direct Network Communication (ecedi7205m000) session, if the network is setup to generate outgoing messages during Direct Network Connection, or the Generate EDI Messages (ecedi7201m000) session.

A report is generated listing the messages that were generated. For external EDI, the outgoing message (ASCII) files are placed in the appl_from directory, under the network's directory, from which the translation/communication software will retrieve them.

Receiving the sales invoice (810/INVOIC)

Run the Direct Network Communication (ecedi7205m000) session to receive in the Invoice message (810/INVOIC) from your supplier (invoice-from business partner), once the ASCII files have been placed in the appropriate appl_to directory by your translation/communication software.

When the Direct Network Communication receives the Invoice message (810/INVOIC), a purchase invoice is created in your Baan company, and two reports are generated. The first report is the Remarks in Copied Messages report is generated, showing the invoice number(s) generated, along with any pertinent remarks. The second report is the Incoming EDI Purchase Invoice report, which lists the invoiced quantity and amounts at the line level and the tax amounts by tax code ID, if applicable.

If the ordered goods were received before receiving the invoice, the invoice will automatically be matched. If the ordered goods have not yet been received, the invoice will remain unmatched, and may be manually matched when the goods are subsequently received.

The invoice matching can occur at either the invoice header or the invoice line depending on the data received in the incoming purchase invoice message:

- Invoice Matching at the Invoice Header: In order to do invoice matching at the header, the Automatic Matching check box in the ACP Parameters (tfacp0100s000) session must be checked. If the received purchase invoice message includes a valid customer purchase order number in the invoice header, and no invoice order line information, the entire order is matched for all order lines for which goods have been received. If the tolerance is not met, the entire purchase invoice remains unmatched.

- Invoice Matching at the Invoice Line: If the received purchase invoice message includes order line information, each invoice line is matched to the included customer order lines for which goods have been received. The invoice lines for which the ordered goods have not yet been received remain unmatched.

You can review the received invoice data with the Match/Approve Purchase Invoices (tfacp2507m000) session.

This concludes an example of a normal order cycle, using the EDI messages supported by Baan EDI, when you are exchanging EDI documents with a supplier. However, the orders still need to be closed.

To automate the execution of the Direct Network Communication (ecedi7205m000) session, see the EDI interchange controller section in Chapter 4.

The selling company

This example explains the steps required to exchange EDI documents with a buyer (customer) when you are the supplier.

Receiving the customer order (850/ORDERS)

To receive in the order, use the Direct Network Communication (ecedi7205m000) session. You cannot start this process until the following has occurred:

- You receive the customer purchase order (850/ORDERS) from your customer.

- The translation/communication software has translated the files from their standard format into the file format defined by your conversion setups and placed the files in the appropriate Appl_to directory, if an external EDI business partner.

All conditions listed previously in the General message processing requirements section in this chapter must be met before the message can be read.

When the Direct Network Communication (ecedi7205m000) session receives in the customer order, it creates a sales order in your Baan company, and generates the Remarks in Copied Messages report showing the customer order number received, the sales order number and lines generated, and any related and pertinent remarks.

Printing and sending the order acknowledgment (855/ORDRSP)

Figure 71 shows the Print Order Acknowledgments/RMAs (tdsls4401m000) session. This session prepares the outgoing Order Acknowledgment EDI message. When you run this session the system verifies that the order(s) is prepared for EDI and is stored in the Messages to be Generated (ecedi700) table.
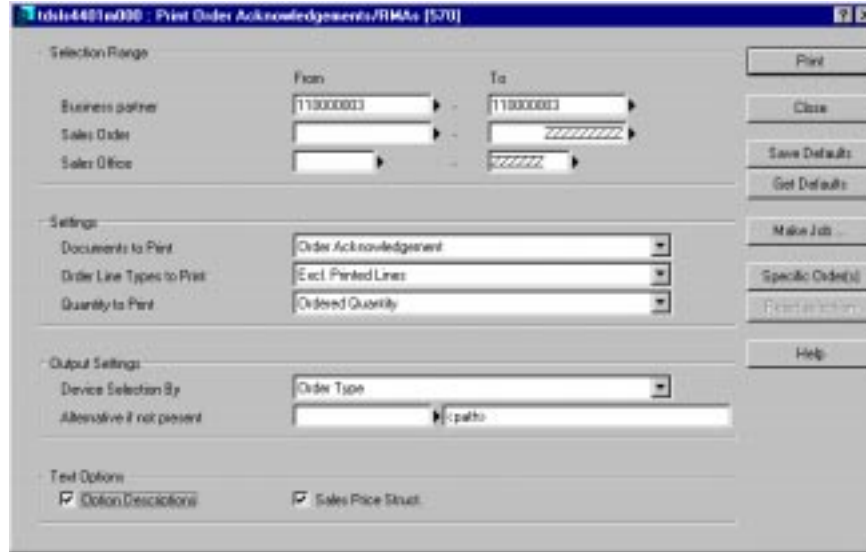
Figure 71 Print Order Acknowledgment/RMAs (tdsls4401m000) session

All of the conditions previously listed in the General message processing requirements section in this chapter must be met in before a message can be prepared for EDI. However, if any of the conditions are not met, the hard copy of the order acknowledgment will still be printed. This hard copy can also be printed when the previous conditions are met if the Print check box in the EDI Messages Supported by Business Partner (ecedi0111m000) session is checked. If a hard copy of the order acknowledgment is printed for an order which has also been prepared for EDI, the words EDI Copy will appear on the upper left-hand corner of the printed order acknowledgment document.

NOTE   The order type of the sales order must be defined in the Conversion of Sales Order Types Out (ecedi4132m000) session in order for the acknowledgment to be prepared for EDI; and, the Code in Message for the order type conversion must match the order type specified in the EDI Messages Supported by Business Partner (ecedi0111s000) session for this message and business partner.

Using Acknowledgment Codes

Optionally, you may choose to include acknowledgment codes on your sales order to indicate to your customer your reaction to the received order or order change. Once assigned to the sales order, the acknowledgement code may be included in the outgoing order acknowledgment message. To use acknowledgment codes within sales control, you must select the Prompt for Change Codes check box in the Sales Order Parameters (tdsls0100s400) session.

Acknowledgment Codes may be manually assigned to the sales order when changes are made to the order. Alternatively, acknowledgment codes may be automatically assigned to the sales order whenever sales order lines are changed or added based on the data defined in the Sales Acknowledgment Code Assignments (tdsls0155m000) session.

Acknowledging by Exception

In some cases, your customer may wish to receive an acknowledgment only if you have made specific changes to the customer's order. For example, the customer may only wish to be notified with an acknowledgment if the item, price, quantity or delivery date are changed, and is disinterested in receiving notification of any other changes. If this is the case, you should set up your customer (sold-to business partner) to be Acknowledged by Exception. You can accomplish this by checking the Acknowledge By Exception check box in the Sold-To Business Partner (tccom4110s000) session. If your customer is set up to be Acknowledged by Exception, only those order lines with an assigned acknowledgment code will be recognized as changed or new. This allows you to use the acknowledgment codes to identify those changes that you wish to convey to your business partner. If an acknowledgment code is assigned to a changed or new line, the line is recognized as new or changed, respectively.

If no acknowledgment code is assigned to the sales order lines when changes are made to the order, the lines are not recognized as new or changed.

In this case, when running the Print Order Acknowledgments (tdsls4401m000) session, set the Order Line Types to Print field to one of the following to ensure that only those lines with assigned acknowledgment codes are included in the message:

- *New and Changed Lines*, to pick up only changed and new lines (only those lines with assigned acknowledgement codes)

- *Only Changed Lines*, to include changed lines only

- *Exclude Printed Lines*, to include new lines only

You can verify that the outgoing message was prepared for EDI, using the Messages to be Generated (ecedi7100m000) session. If you do not want the message to be generated the next time the Direct Network Communication session is run, you can delete the message from this session.

Once prepared, and if not using the interchange controller to automate the EDI processing of files, you can manually generate the outgoing message using one of the following methods (see the Sending the purchase order (850/ORDERS) section in Chapter 6):

- Run the Generate EDI Messages (ecedi7201m000) session.

- Run the Direct Network Communication (ecedi7205m000), if the network is designated to generate messages during direct network communication.

As with all outgoing messages, a report is generated showing which EDI messages have been generated. If an external EDI business partner, the outgoing messages (ASCII files) are placed in the Appl_from directory under the directory specified for the network, from which the translation/communication software will retrieve them. See Chapter 7 for information about generating messages for internal EDI business partners.

Receiving the sales order change (860/ORDCHG)

To receive in the customer's purchase order change, use the Direct Network Communication (ecedi7205m000) session. You cannot start this process until the following has occurred:

- You receive the customer purchase order change (860/ORDCHG) from your customer.

- The translation/communication software has translated the ASCII files from their standard format into the file format defined by your conversion setups and has placed the file(s) in the appropriate appl_to directory.

The received order change updates the sales order.

All received order lines in an incoming order change message must include a change type code. The change type codes, passed in the incoming message, are validated against the change type codes defined in the Change Types (tdsls0198m000) session in Sales Control. These change type codes govern the type of change action that will be processed against the sales order (for example: add line, change line, delete line, replace line, cancel line, cancel order, change order header).

In order to receive sales order changes through EDI, you must be using change codes within Sales Control.

In order to use change codes within Sales Control, the Prompt for Change Codes check box in the Sales Order Parameters (tdsls1000s400) session must be checked.

If one of the conditions listed in General procedures: purchasing company in Chapter 6, is not met, the message will not be read.

As with all incoming messages, the Direct Network Communication (ecedi7205m000) session generates the Remarks in Copied Messages report to show which order and order lines were updated, along with any related and pertinent remarks, if the order change is successfully processed.

Printing and sending the order change acknowledgment (865)

Use the Print Order Acknowledgment (tdsls4401m000) session to prepare the outgoing Order Change Acknowledgment EDI message. Acknowledgments sent in response to sales order changes (changes received or made internally), may take the form of an order acknowledgment (855/ORDRSP) or an order change acknowledgment (865).

The EDI Order Change Response field defined in the Sold-To Business Partner (tccom4110s000) session determines whether the order acknowledgment (855/ORDRSP) or the order change acknowledgment (865) is generated in response to sales order changes made after the original order acknowledgment is sent.
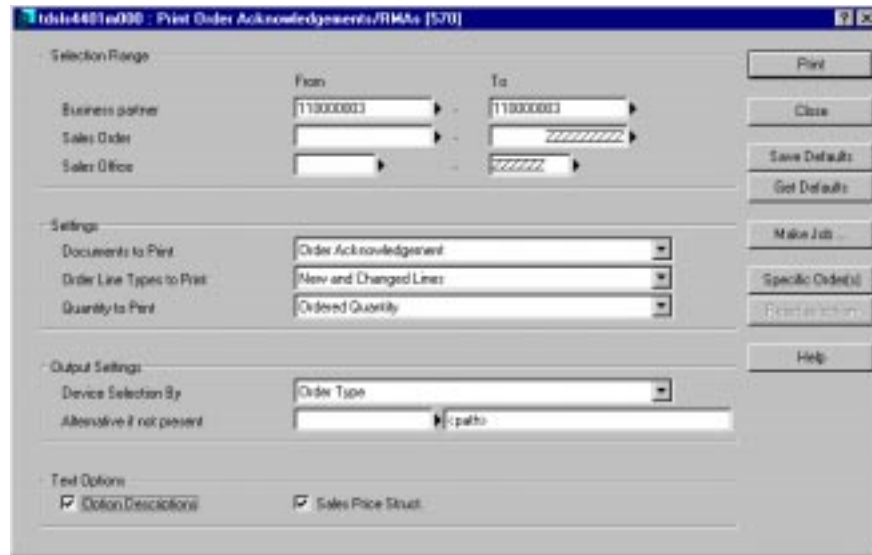
Figure 72 Print Order Acknowledgments/RMAs (tdsls4401m000) session

If you want to include only new and changed lines that have been added or modified since the last order acknowledgment generation, set the Order Line Types to Print field to one of the following three values when running the Print Order Acknowledgments (tdsls4401m000) session:

- *New and Changed Lines*, to include changed and new lines only
- *Only Changed Lines*, to include changed lines only
- *Exclude Printed Lines*, to include new lines only

NOTE   If your customer is set up to be Acknowledged by Exception, only those order lines with an assigned acknowledgment code will be recognized as changed or new. See the printing and sending the order acknowledgement (855/ORDRSP) section in Chapter 6, for more information regarding the use of acknowledgment codes and acknowledging by exception.

All of the conditions previously listed in the General message processing requirements section in this chapter must be met in before a message can be prepared for EDI. However, if any of the conditions are not met, the hard copy of the order acknowledgment will still be printed. This hard copy can also be printed when the previous conditions are met if the Print check box in the EDI Messages Supported by Business Partner (ecedi0111m000) session is checked. If a hard copy of the order acknowledgment is printed for an order which has also been prepared for EDI, the words EDI Copy will appear on the upper left-hand corner of the printed order acknowledgment document.

NOTE   The order type of the sales order must be defined in the Conversion of Sales Order Types Out (ecedi4132m000) session in order for the acknowledgment to be prepared for EDI; and, the Code in Message for the order type conversion must match the order type specified in the EDI Messages Supported by Business Partner (ecedi0111s000) session for this message and business partner.

Once prepared, and if not using the interchange controller to automate the EDI processing of files, you can generate the outgoing EDI message using one of the following methods (see the Sending the purchase order (850/ORDERS) section in Chapter 6):

- Use the Generate EDI Messages (ecedi7201m000) session.

- Run direct network communication, if the network is designated to generate messages during direct network communication.

As with all outgoing messages, a report is generated showing which EDI messages have been generated; If an external EDI business partner, the outgoing EDI messages (ASCII files) are placed in the Appl_from directory under the directory specified for the network, from which the translation/communication software will retrieve them.

See Chapter 7 for information about generating messages for internal EDI business partners.

Receiving the Customer Schedule Release (830/DELFOR, 862/DELFOR, 866/DELJIT)

If your customer (sold-to business partner) chooses to convey his purchase requirements to you using schedule releases, the following three types of schedule releases may be received:

- Planning Release (830/DELFOR) which conveys material requirement information.

- Shipping Release (862/DELFOR) which may contain precise shipping release requirements sent on a more frequent basis than the Planning Release.

- Sequenced Shipping Release, which specifies precise information pertaining to the delivery of goods, which includes the order in which goods are to arrive at their destination(s), or are to be unloaded from the conveyance method when received at their destination(s).

Receiving the Planning Release (830/DELFOR):
Run the Direct Network Communication (ecedi7205m000) session to receive the customer Planning Release (830/DELFOR in). You may receive a new Planning Release or an update to an existing Planning Release. Updates are indicated by a new revision. If a new Planning Release is received, a Planning Release and corresponding schedule(s) are created within Sales Control in your Baan company; if an update to an existing Planning Release is received, the sales Planning Release is updated with a new revision, and the corresponding schedules are updated with a new revision as well. If the update includes a new item, a new sales schedule may be created and linked to the updated Planning Release.

As with all incoming EDI messages, the Remarks in Copied Messages report is generated, indicating the sales release number and corresponding lines added, along with any related and pertinent remarks.

Receiving the Shipping Release (862/DELFOR):
Run the Direct Network Communication (ecedi7205m000) session to receive the customer Shipping Release (862/DELFOR in). You may receive a new Shipping Release or an update to an existing Shipping Release. Updates are indicated by a new revision. If a new Shipping Release is received, a sales Shipping Release and corresponding sales schedule(s) are created in your Baan company. If an update to an existing Shipping Release is received, the sales Shipping Release is updated with a new revision, and the corresponding sales schedules are updated with a new revision as well.

As with all incoming EDI messages, the Remarks in Copied Messages report is generated, indicating the sales release number and corresponding line added, along with any related and pertinent remarks.

Receiving the Sequenced Shipping Release (866/DELJIT):
Run the Direct Network Communication (ecedi7205m000) session to receive the customer Sequenced Shipping Release (866/DELJIT in). You may receive a new Sequenced Shipping Release or an update to an existing Sequenced Shipping Release. Updates are indicated by a new revision. If a new Sequenced Shipping Release is received, a sales Sequenced Shipping is created in your Baan company, and the production sequence information is stored as Production Sequence Information (whinh420) within the Warehousing package. If an update to an existing Shipping Release is received, the sales Shipping Release is updated with a new revision.

The production sequence information is printed on the packing slip using the Print Packing Slip (whinh4475m000) session.

As with all incoming EDI messages, the Remarks in Copied Messages report is generated, indicating the sales release number and corresponding line added, along with any related and pertinent remarks.

NOTE   Prior to receiving any of the Sales Schedule Release messages (planning release, shipping release or sequenced shipping release), the following data must be defined within your Baan company:

- A Segment Set and Period Table Code must be defined using the Items - Sold-to BPs (tdisa0510m000) session.

- Because the Schedule Quantity Type and Schedule Type fields are required on the Sales Releases, and must be specified in the incoming Sales Planning Release (830/DELFOR), you should set up conversion codes for these enumerated values using the Conversion of Schedule Quantity Types/In (ecedi3152m000) and Conversion of Schedule Types/In (ecedi3151m000) sessions, respectively.

Sending the Shipment Notice (856/DESADV)

The Confirm Shipments (whinh4275m000) session (see Figure 73) prepares the outgoing Shipment Notice (856/DESADV) and sets the shipment's EDI Status to Confirmed if the Generate ASN's Automatically check box defined in the Warehouse Parameters (whinh0100s000) session is checked. This session represents only one of the ways by which a shipment can become confirmed. The exact means by which a shipment becomes confirmed depends on the procedures of your company and the procedure steps associated with the shipment. Confirmed Shipments that are not intended for EDI transmission have a status of Scheduled.

Figure 73 Confirm Shipments Loads (whinh4275m000) session

On the other hand, if the Generate ASN's Automatically check box defined in the Warehouse Parameters (whinh0100s000) session is not selected, the shipment's EDI Status is Prepare when the shipment is confirmed. In this case, you must run the Confirm ASN (whinh4532m000) session to prepare the outgoing Shipment Notice (856/DESADV) EDI message. The shipment's EDI Status is Confirmed when the EDI message is prepared.

Figure 74 Confirm ASN (whinh4532m000) session

Figure 75 Shipments (whinh4130m000) session

You can verify that the outgoing message was prepared for EDI, using the Messages to be Generated (ecedi7100m000) session. If you do not want the message to be generated during the next Direct Network Communication, you can delete the message from this session.

As with all outgoing EDI message, you may manually generate the outgoing message using the Direct Network Communication (ecedi7205m000) session, if the network is setup to generate outgoing messages during Direct Network Connection, or the Generate EDI Messages (ecedi7201m000) session. A report is generated listing the messages that were generated. For external EDI, the outgoing message (ASCII) files are placed in the appl_from directory, under the network's directory, from which the translation/communication software will retrieve them.

NOTE

In order to support the requirements of some EDI standards, Baan EDI supports the transmission of two kinds of Shipment Notices, a canceling Shipment Notice, and an original Shipment Notice. A canceling Shipment Notice is intended to cancel a previously sent erroneous Shipment Notice. The shipment's EDI Status field may be used to indicate to the recipient of the message which type of Shipment Notice is intended. To utilize this feature, use the Conversion of Shipment Status Codes Out (ecedi4180m000) session to define codes to include in the message indicating if the Shipment Notice is an original or a canceling message. If the shipment's EDI status is Confirmed, the Shipment Notice is considered to be an original message; therefore, if the shipment's EDI Status field is Confirmed at the time the outgoing message is generated, the conversion code associated with the original value in the Conversion of Shipment Status Codes Out will be included the outgoing Shipment Notice message. If the shipment's EDI Status is Disapproved, the Shipment Notice is considered to be a canceling message, and the conversion code associated with the canceled value is included in the outgoing message. See the Receiving the Error Notification (824/APERAK) in Chapter 6 for more information on the shipment's disapproved status.

Receiving the Error Notification (824/APERAK)

Once you have received the Error Notification (824/APERAK) from your customer (ship-to business partner), and the message (ASCII) files have been placed in the appropriate appl_to directory by the translation/communication software, use the Direct Network Communication (ecedi7205m000) session to receive in the Error Notification message. An incoming Error Notification is associated with a shipment for which an invalid Shipment Notice was originally sent, and reports application errors that occurred when your business partner tried to process the previously sent Shipment Notice.

When the Error Notification is received, the following occurs:

- The shipment for which the Error Notification was received is Disapproved.

- The Remarks in Copied Message report is generated, showing the shipment notice number against which the Error Notification message was received, and any related and pertinent remarks.

- Optionally, the EDI Information field on the shipment header may be updated with the contents of the Error Notification message.

- The Shipment Notice referenced in the received Error Notification message, is automatically prepared for EDI transmission (856/DESADV out).

As with all prepared outgoing messages, you can verify that the outgoing message was prepared for EDI using the Messages to be Generated (ecedi7100m000) session. If you do not want the message to be generated the next time the Direct Network Communication session is run, you can delete the message from this session.

Resending Canceling and Corrected Shipment Notices in Response to received Error Notifications
If you wish to send a canceling Shipment Notice to your customer, use the Direct Network Communication (ecedi7205m000), if the network is setup to generate messages upon Direct Network Communication, or the Generate EDI Messages (ecedi7201m000) to manually generate the outgoing message. When the outgoing canceling Shipment Notice is generated, the shipment's EDI Status field is Modify, indicating that the shipment should be modified to correct the erroneous data, and resent to your business partner.

NOTE   In order to support the requirements of some EDI standards, Baan EDI supports the transmission of two kinds of Shipment Notices, a canceling Shipment Notice, and an original Shipment Notice. A canceling Shipment Notice is intended to cancel a previously sent erroneous Shipment Notice. To utilize this feature, use the Conversion of Shipment Status Codes Out (ecedi4180m000) session to define codes to include in the message indicating if the Shipment Notice is an original or a canceling message. If the shipment's EDI status is Confirmed, the Shipment Notice is considered to be an original message; if the shipment's EDI Status is Disapproved, the Shipment Notice is considered to be a canceling message.

Optionally, if the shipment's EDI status is Modify, you may correct the reported errors by correcting the shipment's date/time, quantity or weight and any other EDI data included on the original Shipment Notice, and resend the corrected Shipment Notice to your business partner. To resend the corrected Shipment Notice, use the Confirm ASN (whinh4532m000) session to prepare the corrected Shipment Notice (856/DESADV) for transmission; preparing the outgoing Shipment Notice sets the shipment's EDI Status to Confirmed. Run the Direct Network Communication (ecedi7205m000), if the network is setup to generate messages upon Direct Network Communication, or the Generate EDI Messages (ecedi7201m000) to manually generate the outgoing message. For external EDI, the outgoing message (ASCII) files are placed in the appl_from directory, under the network's directory, from which the translation/communication software will retrieve them.

Receiving the Receipt Discrepancy Notification (861/RECADV)

Once you have received the Receipt Discrepancy Notification (861/RECADV) from your customer (ship-to business partner), and the message (ASCII) files have been placed in the appropriate appl_to directory by the translation/communication software, use the Direct Network Communication (ecedi7205m000) session to manually receive the Receipt Discrepancy Notification message. This message indicates that your business partner may have found a discrepancy between the quantity of goods indicated on the Shipment Notice that you previously sent him, and the quantity of goods actually received.

When the Direct Network Communication receives the Receipt Discrepancy Notification message, the EDI Information field at the shipment header and the shipment line's text field are updated with the received discrepancy data (see Appendix A for more information on the conversion setup definitions), and the following report is generated.

- Discrepancies Between Shipments and Business Partner Receipts
  This report compares the values included in the Receipt Discrepancy message to the shipment data and reports any discrepancies the differences between the values, and any text that is included.

Sending the sales invoice (810/INVOIC)

After shipping the ordered goods, run the Compose/Print/Post Invoices (cisli2200m000) session. This session prepares the Invoice (810/INVOIC out) for EDI transmission when the invoice is composed.

All of the conditions previously listed in the General message processing requirements section in this chapter must be met in before a message can be prepared for EDI. However, if any of the conditions are not met, the hard copy of the invoice will still be printed if the print option is selected. This hard copy can also be printed when the previous conditions are met if the Print check box in the EDI Messages Supported by Business Partner (ecedi0111m000) session is checked. If a hard copy of the invoice is printed for an invoice, which has also been prepared for EDI, the words EDI Copy will appear on the upper left-hand corner of the printed invoice document. You can verify that the outgoing message was prepared for EDI, using the Messages to be Generated (ecedi7100m000) session.

NOTE   The order type of the sales order for which the invoice is generated must be defined in the Conversion of Sales Order Types Out (ecedi4132m000) session in order for the invoice to be prepared for EDI; and, the Code in Message for the order type conversion must match the order type specified in the EDI Messages Supported by Business Partner (ecedi0111s000) session for this message and business partner.

Run the Direct Network Communication (ecedi7205m000), if the network is setup to generate messages upon Direct Network Communication, or the Generate EDI Messages (ecedi7201m000) session to manually generate the outgoing message. As with all outgoing messages, a report is generated showing which EDI messages have been generated; for external EDI, messages (ASCII files) are placed in the Appl_from directory in the directory specified for the network, from which the translation/communication software will retrieve them.

Receiving the Remittance Advice (820/REMADV)

Run the Direct Network Communication (ecedi7205m000) session to receive in the Remittance Advice message (820/REMADV) from your customer (pay-by business partner), once the ASCII files have been placed in the appropriate appl_to directory by your translation/communication software.

When the Direct Network Communication receives the Remittance Advice message (820/REMADV), a remittance advice message (receipt) is created in your Baan company, and the Remarks in Copied Messages report is generated, showing the document number(s) generated, along with any pertinent remarks.

You can use the Remittance Advice Messages (Receipts) (tfcmg5501m000) session to review the received information.

This concludes an example of a normal order cycle, using the EDI messages supported by Baan EDI, when you are exchanging EDI documents with a customer. However, the orders still need to be closed.

To automate the execution of the Direct Network Communication (ecedi7205m000) session, see the EDI interchange controller section in Chapter 4.

The sales or purchasing company

Receiving Functional Acknowledgments (997) / Outgoing Message Status Updates (STATUS)

There is one final EDI message that may be used by both the selling and purchasing companies using external EDI. It allows the translation/communication application to communicate to your Baan company the processing status of outgoing messages, which may then be visible in Baan EDI's History of Outgoing (Generated) Messages.

This incoming message may be an incoming functional acknowledgment (for example, ANSI X12 997) received from your business partner's translation/communication software, indicating the acceptance or rejection of a previously sent EDI message; or, it may be used as a mechanism for your translation/communication software application to communicate to your Baan company, the translation and transmission status of a previously generated, outgoing message. In either case, the status of the outgoing message is visible in the Send Status field of the History of Generated Messages session and report (ecedi7501m000 and ecedi7401m000, respectively).

NOTE   This applies to external EDI only. For internal EDI (multisite), Baan EDI handles the setting of the processing status of outgoing messages.

When Baan EDI generates an outgoing message for external EDI and creates the message ASCII files in the appropriate directory, the Send Status is Generated. Following are the additional values of the Send Status of the outgoing messages that may be updated with the receipt of this message:

▪ Translated, (Indicates that the outgoing EDI message has been read by your translation/communication application and translated into the standard EDI format)

▪ Translation Failed, (Indicates that your translation/communication software application has attempted to read and translate the outgoing EDI message into the standard EDI format, and the translation has failed)

▪ Sent, (Indicates that the outgoing EDI message has been translated and transmitted across the network)

▪ Send Failed (Indicates that the outgoing EDI message has been translated, but that the transmission of the message across the network has failed)

▪ Read by B. P. (Indicates that the outgoing EDI message has been translated and transmitted across the network, and that a functional acknowledgement has been received from the recipient of the message, indicating that the message has been successfully received and translated at your business partner's site)

▪ Rejected by B. P. (Indicates that the outgoing EDI message has been translated and transmitted across the network, and that a functional acknowledgement has been received from the recipient of the message, indicating that the message has been successfully received at your business partner's site but was not able to be successfully read and translated)

For simplicity, two Baan EDI messages have been provided to update the processing status of outgoing messages: the STATUS message, and the 997 message. The STATUS message may be used to update the Send Status of the outgoing message in all cases, in which case you need only this message. Alternatively, you may use the 997 message when a functional acknowledgement (997) is received (at which time the Send Status can be Read by B. P. or Rejected by B. P) and the STATUS message to update the Send Status with the translation and transmission status maintained by your translation/communication software application. See Appendix A for more information.

You may use the Message Status Codes (ecedi2185m000) session to define codes that correspond to the various EDI Send Status values; some codes have been provided in your default data (see the EDI default data section in Chapter 2 for more information on EDI default data). Your translation/communication application may use these codes in the message to indicate the appropriate status. You may also have additional information written to the EDI Information field (such as specific error codes or descriptions) stored in the EDI history, and reported in the History of Generated Message (ecedi7401m000) report.

7   Internal (multisite) EDI

Introduction

As stated in earlier chapters, the Baan EDI module can generate and read ASCII files with a flexible format. In external EDI, these ASCII files must be transferred over commercial or noncommercial networks. This requires translation of the ASCII files to and from standardized encrypted messages, to ensure high data integrity and security, and to provide a universal format supported by all parties.

However, in multisite EDI implementations (also referred to as internal EDI), the ASCII files are transferred over the internal company network (LAN or WAN), which means that encryption is not required. Also, because all companies in the multisite structure use the same format for the ASCII files, translation to an external EDI standard, such as EDIFACT or ANSI X12, is not required.

Internal EDI can only be accomplished between sites (companies) that share a common directory on the company network (either by using the same data server, or through NFS). In addition, all sites must use the same application server, to allow site A (company **570**) to start a background process in site B (**575**) that reads messages just sent from A to B, for example. If this real-time transfer of messages is not required, the transfer of internal EDI messages is similar to an external EDI situation, with the exception of the translation and communication software.
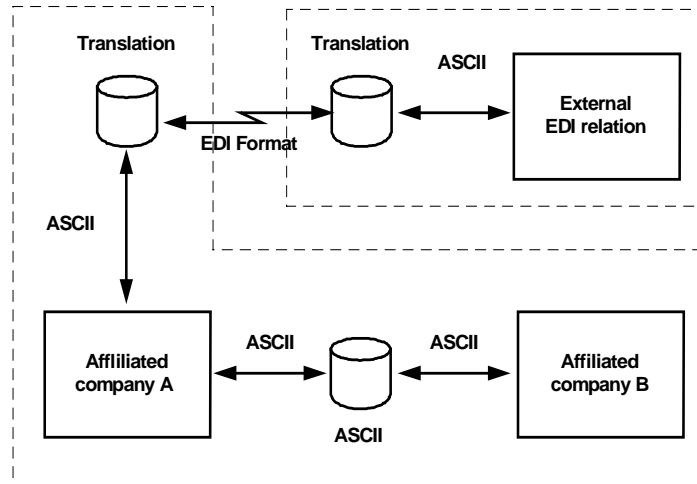
Figure 76 External and internal EDI

All messages explained in previous chapters, except for the Status Update of Outgoing Messages message (997/STATUS) and the Remittance Advice message (820/REMADV) are available for use in a multisite environment:

For the purchasing company:

- Sales Order (850/ORDERS), direction out
- Sales Order Acknowledgment (855/ORDRSP) direction in
- Purchase Order Change (860/ORDCHG), direction out
- Purchase Order Change Acknowledgment (865), direction in
- Planning Release (830/DELFOR), direction out
- Shipping Release (862/DELFOR), direction out
- Sequenced Shipping Release (866/DELJIT), direction out
- Shipping Notice (856/DESADV), direction in
- Error Notification (824/APERAK), direction out
- Receipt Discrepancy Notification (861/RECADV), direction out
- Invoice (810/INVOIC), direction in

For the sales company:

- Sales Order (850/ORDERS), direction in
- Sales Order Acknowledgment (855/ORDRSP), direction out
- Purchase Order Change (860/ORDCHG), direction in
- Purchase Order Change Acknowledgment (865) direction out
- Planning Release (830/DELFOR), direction in
- Shipping Release (862/DELFOR), direction in
- Sequenced Shipping Release (866/DELJIT), direction in
- Shipping Notice (856/DESADV), direction out
- Error Notification (824/APERAK), direction in
- Receipt Discrepancy Notification (861/RECADV), direction in
- Sales Invoice (810/INVOIC), direction out

This chapter provides setup and procedures for the purchasing and sales companies. When setup or procedure is the same as external EDI, you will be referred to the appropriate section.

General setup

In this chapter, two companies, 570 and 575, will be referred to in examples. Company 570 purchases from 575.

Company data

In company 570, 575 must be defined as a business partner (for example, buy-from, ship-from, invoice-from); in 575, company 570 must be defined as a business partner (for example, sold-to, ship-to, invoice-to). In addition, the business partners must be defined as affiliated companies. This requires the presence of both company numbers in the Companies (tccom000) table of each company. This can be accomplished in one of two ways:

1   Add the missing company and related data in the tccom000 table of both companies with the Table Manager. The Company Data (tccom0500m000) session only allows you to edit the data of the current company.

2   Share tccom000 between the two companies, with the data of both companies present in the table.

   Use the Logical Tables (ttaad4120m000) session to share the data between the two companies. This can be done in either company.

Business Partner data

In order to transfer goods using purchase orders and sales orders, both companies must identify each other as the appropriate business partners. Although you can use any business partner code, using the company number is recommended.

In the purchasing company (company 570), set up the business partner data for company 575 from whom you wish to purchase goods.

Figure 77 Business Partners (tccom4500m000) session
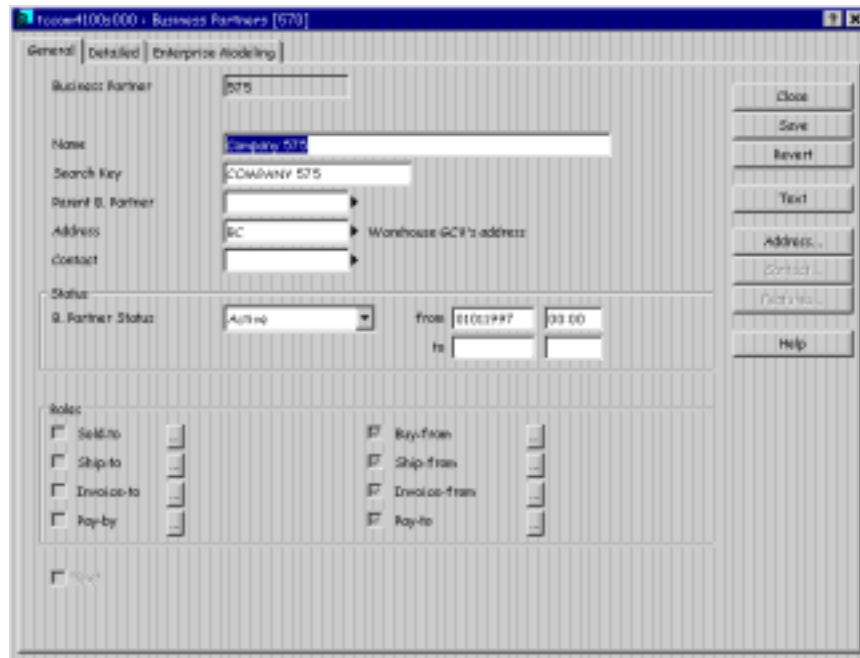
Figure 78 Business Partners - General (tccom4100s000) session

Figure 79 Business Partners - Enterprise Modeling (tccom4100s000) session

The Affiliated Company No. field determines whether the business partner is a multisite-related company.

In the selling company (company 575), you need to define the business partner representing the purchasing company 570, to whom you wish to sell goods. This Business Partner needs to be affiliated with company 570, just as Business Partner 575 is affiliated to company 575 as shown in Figure 79.
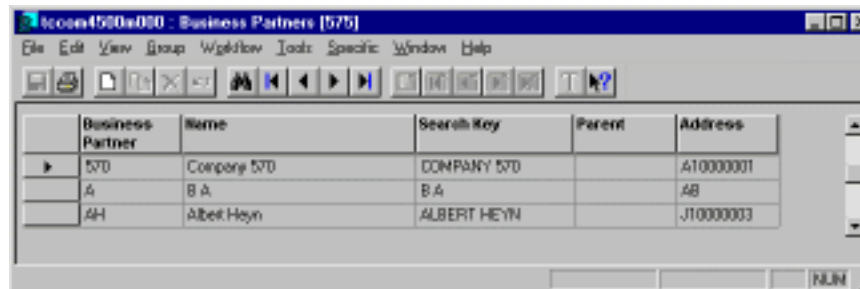
Figure 80 Business Partner (tccom4500m000)

NOTE   If the purchasing company is solely a logistical company that differs from the financial company that you will invoice, define an invoice-to Business Partner for the financial company that you wish to invoice. The logistical company may represent the sold-to and ship-to business partner roles.

Parameters

See the Parameters section in Chapter 2, for information on setting the EDI parameters.

Default EDI data

See the EDI default data section in Chapter 2, for information on exporting and importing default EDI data.

Networks

Because data for internal business partners does not need to be translated into actual EDI messages, internal EDI data should be separated from external EDI data by defining a separate network. All multisite companies, among which EDI messages are to be traded, must share the same network path (directory).
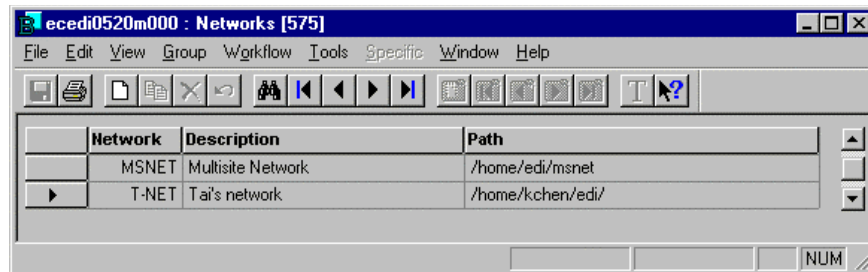
Figure 81 Networks (ecedi0520m000) session

Figure 82 Networks (ecedi0120s000) session

See the Networks section in Chapter 2, for information on networks for external
EDI data. The following fields relate directly to a multisite environment:

Explanation of fields	
Field	**Explanation**
Multicompany	Indicates if this company is used for internal (multisite) EDI. If this field is Yes, the system will create the appropriate subdirectories.
Automatically Read In Generated Message	Indicate if you want the system to automatically start the Direct Network Communication in the receiving company to read in and process the message after sending a message to that company.

When you save the network definition, the subdirectories are created under the specified path. However, for internal EDI the subdirectories are not the same as those created for external EDI.

Subdirectory	Description
appl_comm	The directory where all generated and received EDI messages are stored.
appl_text	If a message contains any text fields, this directory contains temporary files that are used to build up the text blocks.
appl_trace	This directory contains the created log (trace) files.
command	This directory is used by the system for semaphores. The semaphore, or flagging, mechanism is used to indicate whether a process is active or can be activated. For example, when messages are read in company 570, a semaphore named multicmp.570 will be placed in the command directory. This indicates to other companies that they cannot place any new messages in the appl_comm/c570 directory for the duration of the process. See the External EDI network communication section in Chapter 4, for additional information about semaphores.
store_send	This is where sent messages are archived based on EDI parameter settings.
store_recv	This is where received messages are archived based on EDI parameter settings.

For each company in which you define the same network with the same path, a subdirectory is created under the Appl directories with the name *cXXX* (where XXX is the company number). For example, purchase orders sent from any company to 575 are placed in the directory Appl_comm/c575. Therefore, with internal EDI/multisite networks, you do not have to use the company number when specifying the directory path for the network, because Baan creates the appropriate company numbers. For more detailed information, see Chapter 2.

Business partner data by network

See the Business partner data by network section in Chapter 2, for information on defining Business partner data by network.

Code and conversion tables

For detailed information on code and conversion tables, see the Code and conversion tables section in Chapter 2.

Purchasing company setup

For additional information, see the Code conversions and Additional parameters sections in Chapter 3.

You need to determine which purchasing documents you want to exchange with your supplier. In this case, your supplier is another company in your multisite environment. The available purchasing documents include:

- Sales Order (850/ORDERS), direction out
- Sales Order Acknowledgment (855/ORDRSP) direction in
- Purchase Order Change (860/ORDCHG), direction out
- Purchase Order Change Acknowledgment (865), direction in
- Planning Release (830/DELFOR), direction out
- Shipping Release (862/DELFOR), direction out
- Sequenced Shipping Release (866/DELJIT), direction out
- Shipping Notice (856/DESADV), direction in
- Error Notification (824/APERAK), direction out
- Receipt Discrepancy Notification (861/RECADV), direction out
- Invoice (810/INVOIC), direction in

In your purchasing company (company 570), you can set up each of the messages above for the business partner representing your selling company, business partner 575, using the EDI Message Supported by Business Partner (ecedi0511m000) session, as shown in Figure 83. In each case, you need to specify your multisite network, MSNET as defined in this example.

Figure 83 EDI Messages Supported by Business Partner (ecedi0511m000) session

Figure 84 EDI Messages Supported by Business Partner (ecedi0111s000) session

For more information and examples of how to set up each message type, see the EDI messages supported by business partner section in Chapter 3.

Sales company setup

For more detailed information on Sales company setup, see the Code conversions and Additional parameters sections in the Sales company section in Chapter 3.

You need to determine which selling documents you want to exchange with your customer. In this case, your customer is another company in your multisite environment. The available selling documents include:

- Sales Orders (850/ORDERS),direction in
- Purchase Order Acknowledgment (855/ORDRSP), direction out
- Purchase Order Change (860/ORDCHG), direction in
- Purchase Order Change Acknowledgment (865), direction out
- Planning Release (830/DELFOR), direction in
- Shipping Release (862/DELFOR), direction in
- Sequenced Shipping Release (866/DELJIT), direction in
- Shipping Notice (Standard) (856/DESADV), direction out
- Error Notification (824/APERAK), direction in
- Receipt Discrepancy Notification (861,RECADV), direction in
- Sales Invoice (810/INVOIC), direction out

In your selling company (company 575), you can set up each of the messages above for the business partner representing your purchasing company, business partner 570, using the EDI Message Supported by Business Partner (ecedi0511m000) session, as shown in Figure 85. In each case, you need to specify your multisite network, MSNET as defined in this example.

Figure 85 EDI Messages Supported by Business Partner (ecedi0511m000) session

Figure 86 EDI Messages Supported by Business Partner (ecedi0111s000) session

Figure 87 EDI Messages Supported by Business Partner, Series/Conversions (ecedi0111s000) session

For more information and examples of how to set up each message type, see the EDI messages supported by business partner section in Chapter 3.

Setup summary

If the two companies supply each other, the following applies:

- In each company, the company with whom documents are to be exchanged must be defined as a business partner affiliated to that company.

- In both companies, the Order Types table must be filled for all message types that will be received in that company.

- In both companies, the Conversion of Order Types (Out) table must be filled for the message types pertaining to a single order. This includes outgoing purchase orders (850/ORDERS out), purchase order changes (860/ORDCHG out), sales order acknowledgements (855/ORDRSP out), sales order change acknowledgements (865 out), and invoices (810/INVOIC out).

- In both companies, all appropriate EDI messages supported by business partner must be defined for directions in and out.

Running EDI

For additional information about processing files and the EDI interchange controller, see the Processing files and EDI interchange controller sections in Chapter 4.

Multisite network communication

When implementing the interchange controller in multisite situations, make sure that the connect times of the intercompany network in the individual companies are not simultaneous.

Whenever the interchange controller initiates the Direct Network Communication (ecedi7205m000) session, it uses a semaphore to indicate to other sites that it is currently processing messages.

Figure 88 shows the use of semaphores during direct network communication initiated by 575 for internal EDI. The second row indicates where the messages for 575 and 570 are stored, and the location of the command directory, where the semaphores are stored.

Company 654	Network	Company 653
../msnet/appl_com/c654	../msnet/command	../msnet/appl_comm/c653
Generate Messages ⟶	multicmp.653 ⟶	ASCII files
Direct Network Communication		
- Generate Messages ⟶	multicmp.653 ⟶	ASCII files
- Activate Read Batch	multicmp.653 ⟵	Read messages
- Read Messages ⟶	multicmp.654	
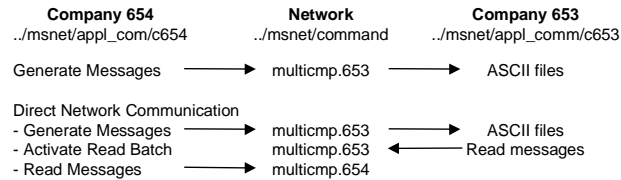
Figure 88 Semaphores

You can send messages from 570 to 575 in either of the two ways described below:

1 Use the Generate EDI Messages (ecedi7201m000) session.

– This session checks for the presence of the multicmp.575 semaphore in the command directory. If this semaphore is present, 575 is currently reading messages.

– Company 570 will wait until 575 removes the semaphore and, then, generate the messages.

– Company 570 places the multicmp.575 semaphore in the command directory for the duration of message generation, to ensure that other companies do not write to the same files at the same time and that 575 does not read partially finished files.

2 Use the Direct Network Communication (ecedi7205m000) session.

– First, company 570 performs the activities described for the Generate EDI Messages session.

– Then it activates the Read Messages process in 575. This process places the multicmp.575 semaphore in the command directory to ensure that other sites do not modify the ASCII files.

– When 575 is finished reading the ASCII files, the semaphore is removed.

– Next, company 570 continues to read its own messages, which places the multicmp.570 semaphore in the command directory for the duration of the read process.

The interaction between the two companies explains the importance of activating the interchange controllers in the individual companies at sequenced intervals.

For example:

	Company 570	Company 575
Connect Times	06:00 AM	07:00 AM
	12:00 PM	13:00 PM
	18:00 PM	19:00 PM

EDI procedure

Based on the network definition, messages generated from the sending company may be automatically read by the receiving company with no action to activate the reading of the message on the receiving side. If the Automatically Read in Generated Messages check box is checked on the sender's network definition, the receiving side does not need to run the Direct Network Communication (ecedi7205m000) session to read in the messages generated by the sender.

For a comprehensive explanation about the procedures for purchasing companies and sales companies, see Chapter 6.

8   Appendix A: Conversion setups

Overview

Conversion setups define the file layout of the ASCII files received into and generated from Baan EDI for your EDI messages. They define the mapping relationship between the ASCII file fields and the Baan application fields, and the rules for each field's validation and translation (conversion).

The fields of the conversion setups are grouped into levels. Levels represent different records within the conversion setup structure. These levels may be distributed over multiple ASCII files (a multifile format) or to a single file (a single file format). For the multifile format, each level is written to a unique ASCII file. For the single file format, all levels for a specific conversion setup are written to a single file where each level is identified with a unique level identifier. In addition, conversion setup fields may have a delimited or a fixed length. The default conversion setups supplied by Baan use a delimited structure.

Figure 89 shows a simplified example of the structure of a Baan EDI message. In this example, the various segments (for example, message header and body) are distributed over several ASCII files. This is known as a multifile format.

File 1: Message Envelope

19980224000001|570|GCV000355|GCV|X12|850|NE||980224|0126

File 2: Order Header

19980224000001|570|GCV000355|971201234900|971202050000|971202050000||||F.O.B.|
Free on Board|||||NORMAL|Jan's Term of Payment |30|10|10|Dutch|Nether||||0|JOHAN|testid||
TINA|testid|BuyFm|ship|testid|ShpFm|inv|testid|InvFm|pay|testid|PayTo|CWAR|testid|ShpTo|2

File 3: Order Header Address

19980224000001|570|GCV000355|ShpTo|U.S.A|Ship-To Business Partner||2350
Mission College Blvd||Santa Clara||95054|CA||||95054|Suite 1200|P.O. 1200|123-45-6789

File 4: Order Header Text

19980224000001|570|GCV000355|Special Order for Baan

File 5: Order Line Detail

19980224000001|570|GCV000355|10|0||BP|vinod| GCV10|Product Description||11|
971201234900|971202050000|971202050000|PCS|1.11|PCS|0|0|0|0|0|||||||gross|gross|gross|
gross|gross|0|0|0|0|0|Any Lot|||||0|0|0||||ship|testid|ShpFm|CWAR|testid|ShpTo|

Figure 89 Sample Message Structure

The decoding of the message structure is fairly straightforward. Each field has a definition that is contained in the appropriate conversion setup. For example, to decode the envelope level (file 1 in Figure 89), you can see that there are a total of 10 fields within the record. A vertical bar delimits each field [|]. Of the ten possible fields, only 9 are actually populated (field 8 is empty).

The actual field definitions are as follows:

- The envelope or overhead level identifies the transaction being transmitted. The envelope contains a unique reference number that identifies the message (field 1). This code is generated at the time the message is created, based on EDI parameter settings. The transmitting business partner identifier is next. This identifies the internal representation of the sending entity (company).

- The order number is the next field in the envelope level. This represents the transmitting company's internal order number. The fourth field contains the receiving business partner's code based on the transmitting organization's identification structure for business partners.

- The organization code that is used to determine what coding technique and message structure is applied comes next. It is a mechanism within Baan EDI that allows grouping by standards such as ANSI X12 or EDIFACT. The next field is the message code that is used to determine the structure of the data file exported from or imported into Baan EDI.

- In the example shown, the field 8 is empty. Field 9 contains the transmission date (including time, depending on the date format defined for your organization) and the last field represents the transmission time, if you wish to report this separately.

Each one of the files shown in Figure 89 could be similarly decoded.

Default conversion setups are provided for each supported message in the Defaults.edi file which you imported earlier (see the EDI default data section in Chapter 2). This takes care of the general mapping between the ASCII file and the Baan application. This appendix includes the field definitions and the relationship between the records of the messages provided as default data.

For external EDI, you will be exchanging EDI documents with your business partners using an EDI standard such as the ANSI X12 standard. If you are exchanging messages with external trading partners, your next step is to define the mapping between the ASCII file and the EDI standard format in which you will transmit or receive the message information with external trading partners. This mapping to the EDI standard is usually handled in your EDI translation/communication software. Use this appendix along with the Print Mapping Information (ecedi5415m000) session to view the file layouts provided for your EDI messages. This will report the file layout that you can use to map to your translation/communication software for the corresponding message.

Conversion setups are provided for each supported message as part of the Defaults.edi data for Baan ERP. This default data provides both a single file layout and a multiple file layout (referred to as multifile) for each message. A unique message code is created for each, where the single file version is suffixed with an S. This way you may choose which file type (single file or multifile) you wish to use for your EDI messages. The single file and multifile conversion setups definitions are identical except that each record (level) of the single file version is preceded by the Level Identifier, and thus all fields are offset by one from the multifile definition; the definitions for the single and multifile are otherwise identical.

The following table shows an example of the envelope or overhead level of the multifile version of a message.

Conversion setup: Global overhead					Level: 1 Envelope – mandatory	
Field name	**Description**	**Pos**	**Length**	**Conv.**	**EDI expr.**	**Comments**
ecedi701.bano	Our Reference	1	14			Baan unique message ID number.
ecedi020.neta	Our Identification	2	17			External reference (VAN ID) of the Baan company's identification over this network (from Our Identification field defined for Network).
tdpur400.orno	Purchase Order	3	9			
ecedi028.neta	Network Address	4	17			External reference of trading partner (business partner's network address).
ecedi003.code	Code in Message	5	6			Organization (X12).
ecedi001.code	Code in Message	6	6			External reference of message identifier (e.g. 850).
ecedi011.koor	Order Type	7	35			External reference of order type.
" "	Constant	8	0			May be used to pass a constant for test indicator.
Date()	Today's Date	9	0			Date message extracted from BAAN. May include time, based in the date format defined for the organization.
Time()	Current Time	10	0			Time message extracted from BAAN.

The following table shows an example of the envelope or overhead level of the single file version for the same message

Conversion setup: Global overhead				Level: 1 Envelope – mandatory		
Field name	Description	Pos	Length	Conv.	EDI expr.	Comments
"ENV"	Level Identifier	1				Identifies the record.
ecedi701.bano	Our Reference	2	14			Baan unique message ID number.
ecedi020.neta	Our Identification	3	17			External reference (VAN ID) of the Baan company's identification over this network (from Our Identification field defined for Network).
tdpur400.orno	Purchase Order	4	9			
ecedi028.neta	Network Address	5	17			External reference of trading partner (business partner's network address).
ecedi003.code	Code in Message	6	6			Organization (X12).
ecedi001.code	Code in Message	7	6			External reference of message identifier (e.g. 850S).
ecedi011.koor	Order Type	8	35			External reference of order type.
" "	Constant	9	0			May be used to pass a constant for test indicator.
Date()	Today's Date	10	0			Date message extracted from BAAN. May include time, based in the date format defined for the organization.
Time()	Current Time	11	0			Time message extracted from BAAN.

In addition, the default data provides the message codes using both the ANSI X12 and UN/EDIFACT nomenclature. The file structure of the ANSI X12 and the UN/EDIFACT versions are the same within the Baan EDI default data. Which message code you choose to use for a given message is up to you. In any case, the functionality and fields provided are the same for a given message regardless of the default message code that you choose.

The following table lists the message codes provided in the defaults.edi data.

Organization: X12 ANSI X12		
Baan EDI Message Code	**EDI Standard Description**	**Baan Functional Description**
810	Invoice	Invoice (Multifile)
820	Payment Order/Remittance Advice	Remittance Advice (Multifile)
824	Application Advice	Error Notification (Multifile)
830	Planning Schedule with Release Capability	Planning Release (Multifile)
850	Purchase Order	Order (Multifile)
855	Purchase Order Acknowledgment	Order Acknowledgment (Multifile)
856	Ship Notice/Manifest	Shipment Notice (Multifile)
860	Purchase Order Change Request – Buyer Initiated	Order Change (Multifile)
861	Receiving Advice/Acceptance Certificate	Receipt Discrepancy Notification (Multifile)
862	Shipping Schedule	Shipping Release (Multifile)
865	Purchase Order Change Request/ Acknowledgment – Seller Initiated	Order Change Acknowledgment (Multifile)
866	Production Sequence	Sequenced Shipping Release (Multifile)
997	Functional Acknowledgment	Functional Acknowledgment (Multifile) (Outgoing Message Status Update)

Organization: X12 ANSI X12

Baan EDI Message Code	EDI Standard Description	Baan Functional Description
810S	Invoice	Invoice (Single file)
820S	Payment Order/ Remittance Advice	Remittance Advice (Single file)
824S	Application Advice	Error Notification (Single file)
830S	Planning Schedule with Release Capability	Planning Release (Single file)
850S	Purchase Order	Order (Single file)
855S	Purchase Order Acknowledgment	Order Acknowledgment (Single file)
856S	Ship Notice/Manifest	Shipment Notice (Single file)
860S	Purchase Order Change Request – Buyer Initiated	Order Change (Single file)
861S	Receiving Advice/Acceptance Certificate	Receipt Discrepancy Notification (Single file)
862S	Shipping Schedule	Shipping Release (Single file)
865S	Purchase Order Change Request/ Acknowledgment – Seller Initiated	Order Change Acknowledgment (Single file)
866S	Production Sequence	Sequenced Shipping Release (Single file)
997S	Functional Acknowledgment	Functional Acknowledgment (Multifile) (Outgoing Message Status Update)
STATUS	N/A	Outgoing Message Status (Multifile)

Organization: EDI UN/EDIFACT

Baan EDI Message Code	EDI Standard Description	Baan Functional Description
APERAK	Application Error and Acknowledgment	Error Notification (Multifile)
APERAS	Application Error and Acknowledgment	Error Notification (Single file)
DELF1S	Delivery Schedule	Planning Release (Single file)
DELF2S	Delivery Schedule	Shipping Release (Single file)
DELFR1	Delivery Schedule	Planning Release (Multifile)
DELFR2	Delivery Schedule	Shipping Release (Multifile)
DELJIS	Delivery Just-in-Time	Sequenced Shipping Release (Single file)
DELJIT	Delivery Just-in-Time	Sequenced Shipping Release (Multifile)
DESADS	Despatch Advice	Shipment Notice (Single file)
DESADV	Despatch Advice	Shipment Notice (Multifile)
INVOIC	Invoice	Invoice (Multifile)
INVOIS	Invoice	Invoice (Single file)
ORDCHG	Purchase Order Change Request	Order Change (Multifile)
ORDCHS	Purchase Order Change Request	Order Change (Single File)
ORDERS	Purchase Order	Order (Multifile)
ORDESS	Purchase Order	Order (Single File)
ORDRSP	Purchase Order Response	Order Acknowledgment (Multifile)
ORDRSS	Purchase Order Response	Order Acknowledgment (Single file)
RECADS	Receiving Advice	Receipt Discrepancy Notification (Single file)
RECADV	Receiving Advice	Receipt Discrepancy Notification (Multifile)
REMADS	Remittance Advice	Remittance Advice (Single file)
REMADV	Remittance Advice	Remittance Advice (Multifile)

General notes

This appendix provides you with an overview of the file structure of each of the EDI message conversion setup definitions that are provided as part of the Baan EDI default data. For a complete listing of the fields included in each of these EDI message conversion setup definitions, use the Print Mapping Information (ecedi5415m000) session. Select the Print EDI Expressions checkbox to report the EDI Evaluation and Assignment Expressions assigned to each field. Select the Print Field Information Text checkbox to include comments on the use of each field, provided as part of the default conversion setup data.

Figure 90 Print Mapping Information (ecedi5415m000) session

Field Information Text

As part of the Baan EDI default data provided, Field Information Text, which can be added to any and all fields in the conversion setup definitions, has been added to the multiple file (mutlifile) conversion setup definitions (that is, EDI messages 810 through 997) under the X12 organization. This text provides an explanation on the use and handling of certain fields included within the default data.

Code Conversions

All fields in which a conversion is indicated are defined within the conversion setups to use the unconverted value without issuing an error if the conversion does not exist.

Processing Address Information on Incoming Orders

The conversion setup definitions support processing specific address information for the appropriate business partners, purchase and sales offices, and warehouses. For incoming messages, the default address information associated with these entities is used unless specific address information is received, in which case a new address code is created for the specific address information and is assigned to the internal document.

A note on incoming order addresses and outgoing shipment notices. If you receive specific address information for the ship-to address on your order lines (verses using the default address code for the ship-to business partner), a new ship-to address code will be created and assigned to each order line. In this case, when the outgoing Shipment Notice is created for the order, a unique shipment notice will be created for each order line even if the ship-to business partner is the same for each line. This is because shipment notices are grouped by the ship-to address for which they are destined; and in this case, the ship-to address code is unique per order line. On the other hand, if you use the ship-to business partner's default address code, the shipment notice will group the order lines and create a unique shipment notice for each ship-to business partner. It is up to you and your business partner to determine whether it is necessary to exchange the specific address information or to use the default address information defined within Baan for the ship-to business partner.

Processing Specific Address Information on Outgoing Messages
The evaluation expressions assigned to the specific address information fields of the outgoing messages result in the following: In general, the specific address information is always included in the outgoing message if the message is for an external business partner (a business partner that is not set up to be a multisite, or intercompany, business partner); on the other hand, if the business partner is a multisite business partner, the specific address information is included in the outgoing message only if the address code specified on the outgoing document differs from the default address code for the corresponding business partner or warehouse.

If you do not want to include the specific address information in an outgoing message, you can modify the EDI Expression assigned to the address fields to an expression that will evaluate to false (for example, add *and 1 = 2* to the expression).

See the field definition sections of the following messages and the EDI expressions section in this chapter, for more information specific to individual messages.

Date Fields
The Date Format field defined for the Organization governs the format that is used to process date fields within Baan EDI.

Mapping Information for Single File Messages
When you use the Print Mapping Information (ecedi5415m000) session, you want print EDI messages 810 through 997 under organization X12 because these are the messages to which the Field Information Text has been added, and because these are the multifile versions of the messages which are easier to read:

The Print Mapping Information (ecedi5415m000) report for the outgoing single file message definitions is misleading. Therefore, if you are interested in the single file definitions, print the multifile versions of the outgoing EDI messages, noting that they are identical to the single file versions except that each record (level) of the single file version has the Level Identifier as the first field, and all other fields are thus offset by one from the multifile definitions. For the incoming EDI messages, you may print the single file versions. In addition, if you want to include the Field Information Text on the report for comments on the use of the fields, print EDI messages 810 through 997 under organization X12 because these are the messages to which the Field Information Text has been added. This range includes all of the default multifile EDI messages under the X12 organization.

Conversion setup: 810/INVOIC, Invoices

Record Relationships

Figure 91 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.

```
                        ┌─────────────────────────┐
                        │ Message Envelope        │
                        │ Level 1                 │
                        │ Mandatory               │
                        │ Key: F1, F2, F3, F4, F5 │
                        └─────────────────────────┘
                                    │
                        ┌─────────────────────────┐
                        │ Invoice Header          │
                        │ Level 2                 │
                        │ Mandatory               │
                        │ Key: F1, F2, F3, F4, F5 │
                        └─────────────────────────┘
          ┌──────────────────┬──────────────────┬──────────────────┐
┌───────────────────┐ ┌───────────────────┐ ┌───────────────────┐ ┌──────────────────────────┐
│ Specific Address  │ │ Order Header Text │ │ Tax Lines         │ │ Order Lines              │
│ Level 3           │ │ Level 4           │ │ Level 5           │ │ Level 6                  │
│ Optional/Repetitive│ │ Optional/Repetitive│ │ Optional/Repetitive│ │ Optional/Repetitive     │
│ Key: F1,F2,F3,F4,F5│ │ Key: F1,F2,F3,F4,F5│ │ Key: F1,F2,F3,F4,F5│ │ Key: F1,F2,F3,F4,F5,F6,F7│
└───────────────────┘ └───────────────────┘ └───────────────────┘ └──────────────────────────┘
┌───────────────────┐                                    ┌──────────────────┬──────────────────┐
│ Specific Address  │                          ┌────────────────────────┐ ┌──────────────────────────┐
│ Level 3           │                          │ Order Line Text        │ │ Specific Delivery Address│
│ Optional/Repetitive│                          │ Level 7                │ │ Level 8                  │
│ Key: F1,F2,F3,F4,5 │                          │ Optional/Repetitive    │ │ Optional                 │
└───────────────────┘                          │ Key: F1,F2,F3,F4,F5,F6,F7│ │ Key: F1,F2,F3,F4,F5,F6,F7│
                                               └────────────────────────┘ └──────────────────────────┘
```
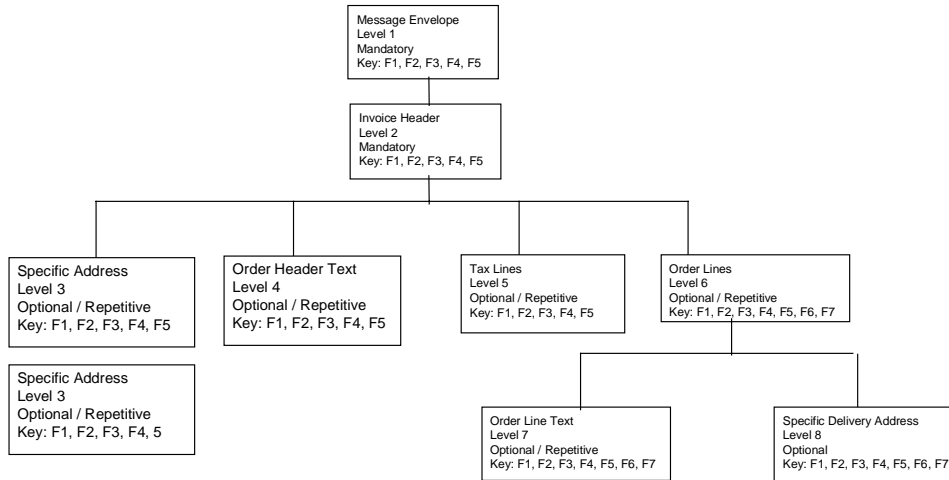
Legend:

Outgoing Key Fields:
F1: Message Reference
F2: Our Identification (Sender's ID)
F3: Invoice Transaction Type
F4: Invoice Number
F5: Supplier's Order Number
F6: Order Line (Position) Number
F7: Order Line Sequence Number

Incoming Key Fields:
F1: Message Reference
F2: Business Partner's Network Address
F3:
F4: Supplier's Invoice Number
F5: Supplier's Order Number
F6: Order Line (Position) Number
F7: Order Line Sequence Number

Figure 91 Record relationships, 810 / INVOIC

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and a Level Identifier identifies the level. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	**Single File:** **Filename**	**Single file:** **Level Identifier**	**Multifile:** **Filename**
1	810S	ENV	810.1
2	810S	HDR	810.2
3	810S	HAD	810.3
4	810S	HTX	810.4
5	810S	TAX	810.5
6	810S	LIN	810.6
7	810S	LTX	810.7
8	810S	LAD	810.8

Conversion setup: 820/REMADV, Remittance Advice

Record Relationships

Figure 92 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.

```
┌─────────────────────────┐
│ Message Envelope        │
│ Level 1                 │
│ Mandatory               │
│ Key: F1, F2, F3         │
└─────────────────────────┘
            │
┌─────────────────────────┐
│ Header                  │
│ Level 2                 │
│ Mandatory               │
│ Key: F1, F2, F3         │
└─────────────────────────┘
            │
┌─────────────────────────┐
│ Line Data               │
│ Level 3                 │
│ Mandatory / Repetitive  │
│ Key: F1, F2, F3         │
└─────────────────────────┘
```

Legend:

Incoming Key Fields:
F1: Message Reference
F2: Business Partner's Network Address
F3: Document Reference Number

Figure 92 Record relationships, 820/REMADV

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	Single File: Filename	Single file: Level Identifier	Multifile: Filename
1	820S	ENV	820.1
2	820S	HDR	820.2
3	820S	LIN	820.3

Conversion setup: 824/APERAK, Error Notification

Record Relationships

Figure 93 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.

```
┌─────────────────────────┐
│ Message Envelope        │
│ Level 1                 │
│ Mandatory               │
│ Key: F1, F2, F3, F4     │
└─────────────────────────┘
            │
┌─────────────────────────┐
│ Error Header            │
│ Level 2                 │
│ Mandatory               │
│ Key: F1, F2, F3, F4     │
└─────────────────────────┘
            │
┌─────────────────────────┐
│ Error Line Detail       │
│ Level 3                 │
│ Mandatory / Repetitive  │
│ Key: F1, F2, F3, F4     │
└─────────────────────────┘
```

Legend:

Outgoing Key Fields:
F1: Message Reference
F2: Our Identification (Sender's ID)
F3: Reference Message Code
   (of erroneous message)
F4: Document Reference Number

Incoming Key Fields:
F1: Message Reference
F2: Business Partner's Network Address
F3:
F4: Document Reference Number

Figure 93 Record relationships, 824/APERAK

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	**Single File: Filename**	**Single file: Level Identifier**	**Multifile: Filename**
1	824S	ENV	824.1
2	824S	HDR	824.2
3	824S	LIN	824.3

Conversion setup: 830/DELFR1, Planning Release

Record relationships

Figure 94 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.

```
                        ┌──────────────────────┐
                        │ Message Envelope      │
                        │ Level 1               │
                        │ Mandatory             │
                        │ Key: F1, F2, F3, F4   │
                        └──────────┬───────────┘
                        ┌──────────────────────┐
                        │ Release Header        │
                        │ Level 2               │
                        │ Mandatory             │
                        │ Key: F1, F2, F3, F4   │
                        └──────────┬───────────┘
          ┌──────────────────────┼──────────────────────┐
┌──────────────────┐  ┌──────────────────┐  ┌──────────────────────┐
│ Specific Address  │  │ Release Header Text│  │ Release Lines         │
│ Level 3           │  │ Level 4            │  │ Level 5               │
│ Optional /        │  │ Optional /         │  │ Mandatory / Repetitive│
│ Repetitive        │  │ Repetitive         │  │ Key: F1, F2, F3, F4,  │
│ Key: F1, F2, F3,  │  │ Key: F1, F2, F3, F4│  │ F5                    │
│ F4                │  │                    │  │                       │
└──────────────────┘  └──────────────────┘  └──────────┬───────────┘
                  ┌──────────────────────┼──────────────────────┐
        ┌──────────────────┐  ┌──────────────────┐  ┌──────────────────────────┐
        │ Release Line Text │  │ Specific Address  │  │ Tax Exemption Certificate │
        │ Level 6           │  │ Level 7           │  │ Level 8                   │
        │ Optional /        │  │ Optional /        │  │ Optional / Repetitive     │
        │ Repetitive        │  │ Repetitive        │  │ Key: F1, F2, F3, F4, F5   │
        │ Key: F1, F2, F3,  │  │ Key: F1, F2, F3,  │  │                           │
        │ F4, F5            │  │ F4, F5            │  │                           │
        └──────────────────┘  └──────────────────┘  └──────────────────────────┘
```

Legend:

Outgoing Key Fields:
F1: Message Reference
F2: Our Identification (Sender's ID)
F3: Release Number
F4: Release Revision
F5: Release Line (Position) Number

Incoming Key Fields:
F1: Message Reference
F2: Business Partner's Network Address
F3: Customer Release Number
F4: Customer Release Revision
F5: Customer Release Line (Position) Number

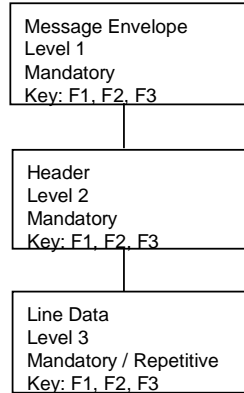*Figure 94 Record relationships, 830/DELFR1*

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	Single File: Filename	Single file: Level Identifier	Multifile: Filename
1	830S	ENV	830.1
2	830S	HDR	830.2
3	830S	HAD	830.3
4	830S	HTX	830.4
5	830S	LIN	830.5
6	830S	LTX	830.6
7	830S	LAD	830.7
8	830S	CTX	830.8

Conversion setup: 850/ORDERS, Sales Order

Record Relationships

Figure 95 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.

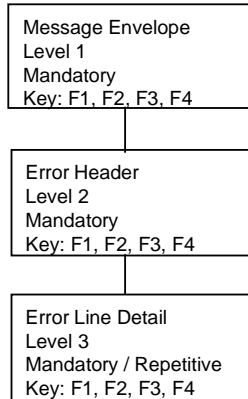*Figure 95 Record relationship, 850/ORDERS*

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	**Single File: Filename**	**Single file: Level Identifier**	**Multifile: Filename**
1	850S	ENV	850.1
2	850S	HDR	850.2
3	850S	HAD	850.3
4	850S	HTX	850.4
5	850S	LIN	850.5
6	850S	LTX	850.6
7	850S	LAD	850.7
8	850S	FTX	850.8
9	850S	CTX	850.9
10	850S	FEA	850.10
11	850S	FET	850.11
12	850S	OPT	850.12

Conversion setup: 855/ORDRSP, Purchase Order Acknowledgment

Record Relationships

Figure 96 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number.

Figure 96 Record relationship, 855/ORDRSP

NOTE   There are two conversion setups for the incoming order acknowledgment message. The 855.U/ORSP.U updates the purchase order with any changes indicated in the purchase order acknowledgment. The 855.C/ORSP.C uses the data on the purchase order and purchase order acknowledgment to generate a report of the changes; it does not update the purchase order.

Figure 96 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels

Level	Single File: Filename	Single file: Level Identifier	Multifile: Filename
1	855S	ENV	855.1
2	850S	HDR	855.2
3	855S	HAD	855.3
4	855S	HTX	855.4
5	855S	LIN	855.5
6	855S	LTX	855.6
7	855S	LAD	855.7
8	855S	CTX	855.8

Conversion setup: 856/DESADV, Shipment Notice

Record Relationships

Figure 97 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.
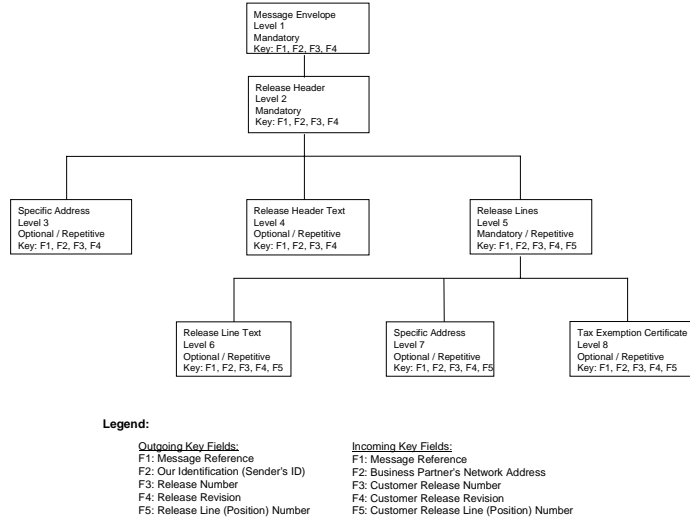

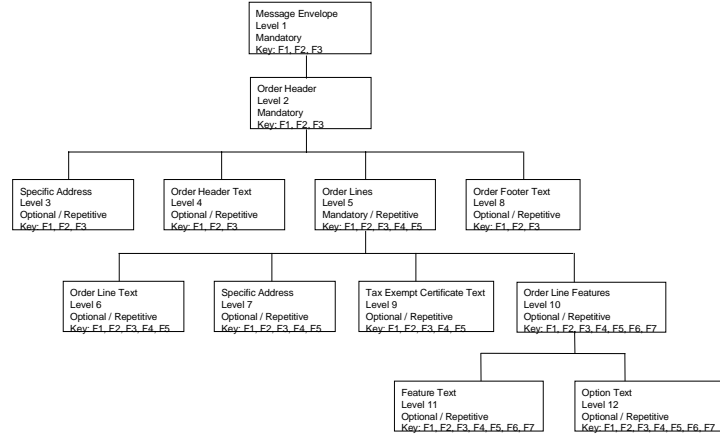*Figure 97 Record relationships, 856/DESADV*

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	**Single File: Filename**	**Single file: Level Identifier**	**Multifile: Filename**
1	856S	ENV	856.1
2	856S	HDR	856.2
3	856S	HAD	856.3
4	856S	HTX	856.4
5	856S	SNR	856.5
6	856S	SNP	856.6
7	856S	LIN	856.7
8	856S	LTX	856.8
9	856S	ILS	856.9
10	856S	ATX	856.10

Conversion setup: 860/ORDCHG, Purchase Order Change

Record Relationships

Figure 98 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.

Legend:

Outgoing Key Fields:
F1: Message Reference
F2: Our Identification (Sender's ID)
F3: Order Number
F4: Order Line (Position) Number
F5: Order Line Sequence Number
F6: Feature
F7: Feature Option

Incoming Key Fields:
F1: Message Reference
F2: Business Partner's Network Address
F3: Customer Order Number
F4: Customer Order Line (Position) Number
F5: Customer Order Line Sequence Number
F6: Feature Description
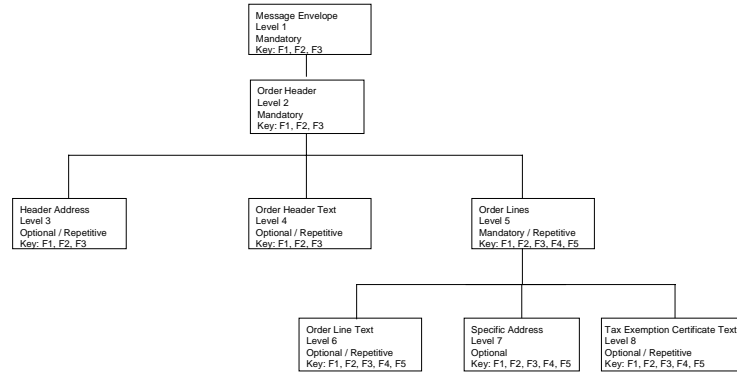F7: Feature Option

Figure 98 Record relationship, 860/ORDCHG

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	**Single File:** **Filename**	**Single file:** **Level Identifier**	**Multifile:** **Filename**
1	860S	ENV	860.1
2	860S	HDR	860.2
3	860S	HAD	860.3
4	860S	HTX	860.4
5	860S	LIN	860.5
6	860S	LTX	860.6
7	860S	LAD	860.7
8	860S	FTX	860.8
9	860S	CTX	860.9
10	860S	FEA	860.10
11	860S	FET	860.11
12	860S	OPT	860.12

Conversion setup: 861RECADV, Receipt Discrepancy Notification

Record Relationships

Figure 99 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.

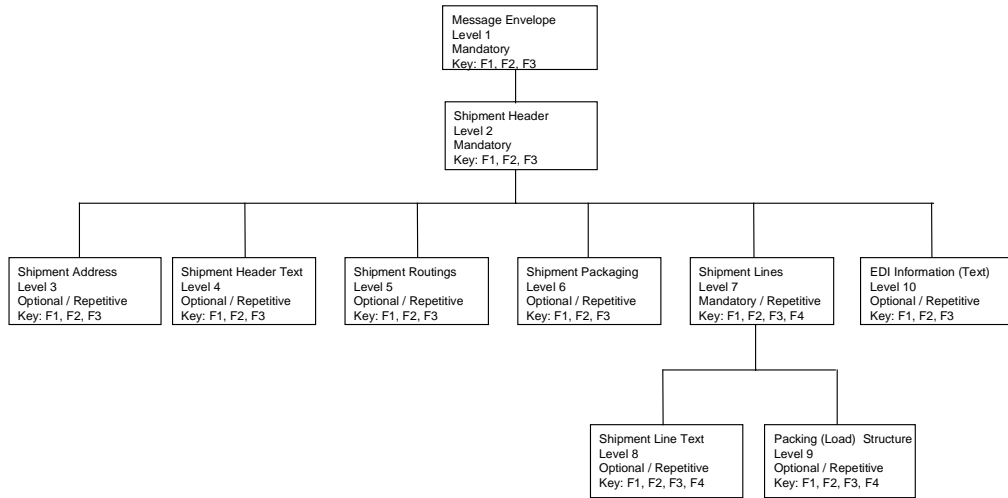*Figure 99 Record relationships, 861RECADV*

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	**Single File:** **Filename**	**Single file:** **Level Identifier**	**Multifile:** **Filename**
1	861S	ENV	861.1
2	861S	HDR	861.2
3	861S	HAD	861.3
4	861S	HTX	861.4
5	861S	LIN	861.5
6	861S	SNR	861.6
7	861S	SNP	861.7
8	861S	LIN	861.8
9	861S	LTX	861.9
10	861S	ILS	861.10

Conversion setup: 862/DELFR2, Shipping Release

Record Relationships

Figure 100 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.
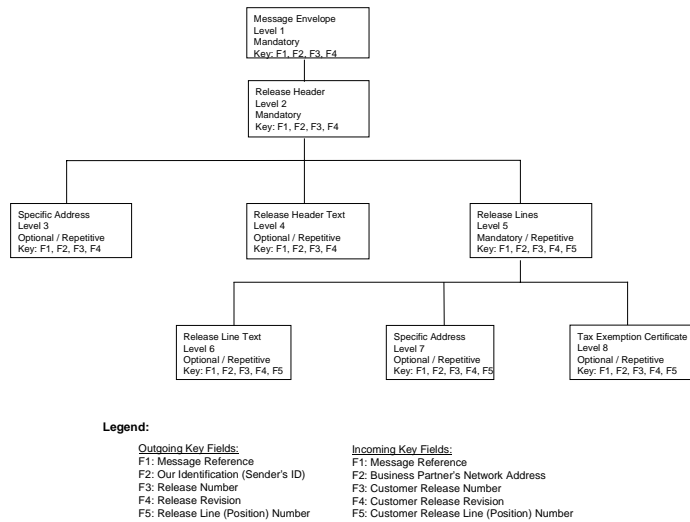
Figure 100 Record relationship, 862/DELFR2

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	Single File: Filename	Single file: Level Identifier	Multifile: Filename
1	862S	ENV	862.1
2	862S	HDR	862.2
3	862S	HAD	862.3
4	862S	HTX	862.4
5	862S	LIN	862.5
6	862S	LTX	862.6
7	862S	LAD	862.7
8	862S	CTX	862.8

Conversion setup: 865, Purchase Order Change Acknowledgment

Record Relationships

Figure 101 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.
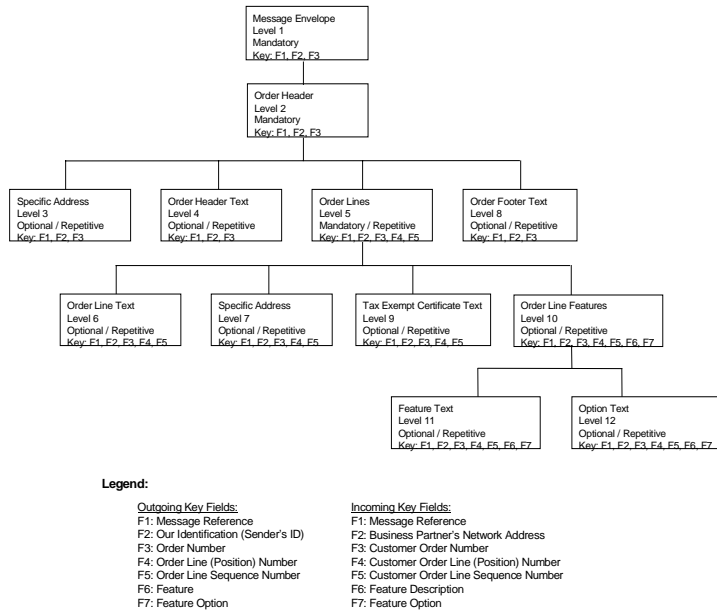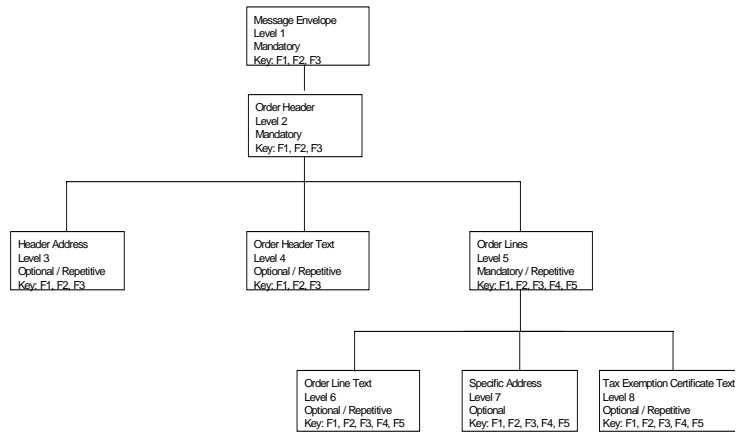

Legend:

Outgoing Key Fields:
F1: Message Reference
F2: Our Identification (Sender's ID)
F3: Supplier's Order Number
F4: Supplier's Order Line (Position) Number
F5: Supplier's Order Line Sequence Number

Incoming Key Fields:
F1: Message Reference
F2: Business Partner's Network Address
F3: Supplier's Order Number
F4: Supplier's Order Line (Position) Number
F5: Supplier's Order Line Sequence Number

Figure 101 Record relationship, 865

NOTE   There are two conversion setups for 865. The 865.U updates the purchase order with any changes indicated in the purchase order acknowledgment. The 865.C uses the data on the purchase order and purchase order acknowledgment to generate a report of the changes; it does not update the purchase order.
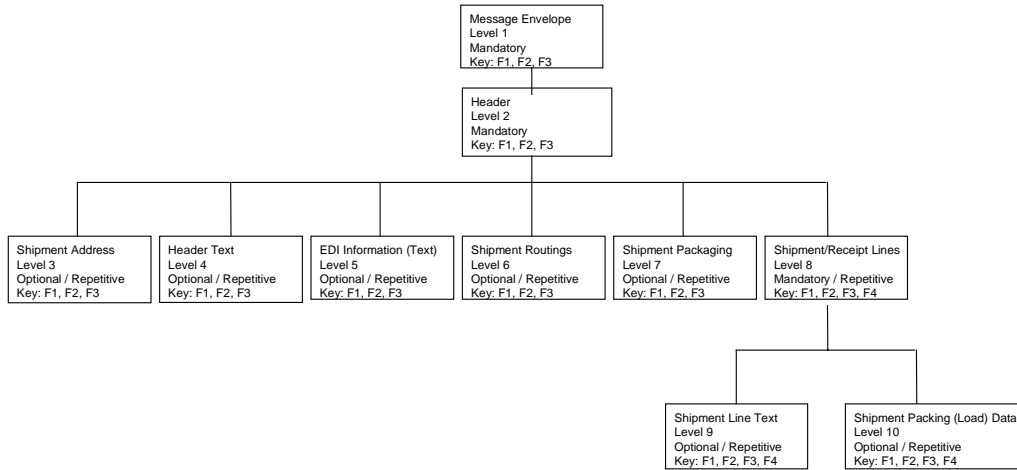
In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	**Single File:** **Filename**	**Single file:** **Level Identifier**	**Multifile:** **Filename**
1	865S	ENV	865.1
2	860S	HDR	865.2
3	865S	HAD	865.3
4	865S	HTX	865.4
5	865S	LIN	865.5
6	865S	LTX	865.6
7	865S	LAD	865.7
8	865S	CTX	865.8

Conversion setup: 866/DELJIT Sequenced Shipping Release

Record Relationships

Figure 102 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.
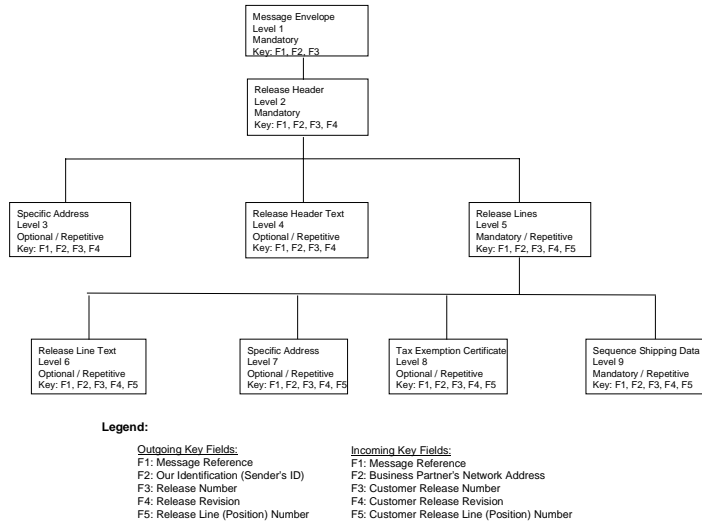
Figure 102 Record relationship, 866/DELJIT

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	**Single File:** **Filename**	**Single file:** **Level Identifier**	**Multifile:** **Filename**
1	866S	ENV	866.1
2	866S	HDR	866.2
3	866S	HAD	866.3
4	866S	HTX	866.4
5	866S	LIN	866.5
6	866S	LTX	866.6
7	866S	LAD	866.7
8	866S	CTX	866.8
9	866S	SEQ	866.9

Conversion setup: 977 Message Status

Record Relationships

Figure 103 shows the relationship of the records in this message and the key fields used to link the records. Each record of the message is identified by a level number. This record relationship applies to the multifile and single file versions of the message.

```
┌─────────────────────────┐
│ Message Envelope        │
│ Level 1                 │
│ Mandatory               │
│ Key: F1, F2, F3         │
└─────────────────────────┘
            │
    ┌─────────────────────────┐
    │ Message Status          │
    │ Level 2                 │
    │ Mandatory               │
    │ Key: F1, F2, F3         │
    └─────────────────────────┘
```
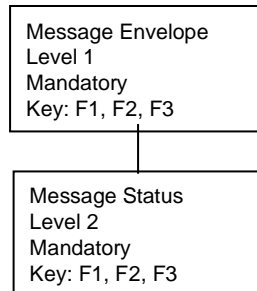
Legend:

Incoming Key Fields:
F1: Message Reference
F2: Business Partner's Network Address
F3: Document Reference

*Figure 103 Record relationships, 977*

In the case of the multifile version of the message, each level is written to a unique file. In the case of the single file version of the message, all levels are written to one file, and the level is identified by a Level Identifier. The following table lists the default file names and level identifiers for each level.

Message Levels			
Level	Single File: Filename	Single file: Level Identifier	Multifile: Filename
1	997S	ENV	997.1
2	997S	HDR	997.2

EDI expressions

EDI expressions may be one of two varieties. They may be Evaluation Expressions, or Assignment Expressions. Evaluation expressions determine which lines of a conversion setup definition are executed and which are not; that is, for outgoing messages, which fields in the ASCII file are filled and which are not, and for incoming messages, which incoming ASCII file fields get assigned to Baan ERP application fields. Assignment Expressions perform calculations that may be written to the file for outgoing messages, or to the application table field for incoming messages.

The following table lists the evaluation expressions used within the default conversion setups, and includes the expression code referenced in the conversion setup, along with the description, the expression (in mathematical terms), and an explanation as to what the expression does.

EDI Expressions

Expression Code	Description	Expression
	Explanation	
CDH	Confirmed Delivery Date – Hdr	tdpur400.ddtc <> 0
	Evaluation: True if a delivery date is specified at the order header	
CDL	Confirmed Delivery Date – Line	tdpur401.ddtc <> 0
	Evaluation: True if a delivery date is specified at the order line	
CWAD	Warehouse Address	tccom100.inrl = tcyesno.no or (strip(tcmcs003.cadr) <> "")
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner), or an address code has been assigned to the warehouse	
HDRDEL	P.O. Specific Delivery Address	tccom100.inrl = tcyesno.no or (strip(tdpur400.cadr) <> "" and tdpur400.cadr <> tcmcs003.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR business partner is a multisite business partner and the delivery address code specified on the purchase order differs from the warehouse's default address code	
IFAD	Invoice-from Specific Address	tccom100.inrl = tcyesno.no or (strip(tdpur400.ifad) <> "" and tdpur400.ifad <> tccom122.cadr)
	Evaluation: True if business partner is an external trading partner (affiliated company field of business partner is set No, implying not a multisite business partner); OR if business partner is a multisite business partner and the invoice-from address code specified on the purchase order differs from the invoice-from business partner's default address code	
INVIT	Invoice Spec. Invoice-to Address	tccom100.inrl = tcyesno.no or (strip(cisli205.itoa) <> "" and cisli205.itoa <> tccom112.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the invoice-to address code specified on the invoice differs from the invoice-to business partner's default address code	

EDI Expressions

Expression Code	Description	Expression
INVLND	Inv. Order line sped. Delivery	tccom100.inrl = tcyesno.no or (strip(cisli245.stoa) <> "" and cisli245.stoa <> tccom111.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the ship-to address code specified on the invoice differs from the ship-to business partner's default address code	
INVOF	Invoice-from Specific Address	tccom100.inrl = tcyesno.no or (strip(tdpur400.ifad) <> "" and tdpur400.ifad <> tccom122.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the invoice-from address code specified on the purchase order differs from the invoice-from business partner's default address code	
INVPF	Inv. Spec. Pay-from Address	tccom100.inrl = tcyesno.no or (strip(cisli205.pfad) <> "" and cisli205.pfad <> tccom114.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the pay-from address code specified on the invoice differs from the pay-from business partner's default address code	
INVST	Inv. Spec. Ship-to Address	tccom100.inrl = tcyesno.no or (strip(cisli205.stoa) <> "" and cisli205.stoa <> tccom111.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the ship-to address code specified on the invoice differs from the ship-to business partner's default address code	

EDI Expressions

Expression Code	Description	Expression
ITAD	Invoice-to Specific Address	tccom100.inrl = tcyesno.no or (strip(tdsls400.itad) <> "" and tdsls400.itad <> tccom112.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the invoice-to address code specified on the sales order differs from the invoice-to business partner's default address code	
LNDEL	P.O. Line Specific Del Address	tccom100.inrl = tcyesno.no or (strip(tdpur401.cadr) <> "" and tdpur401.cadr <> tcmcs003.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the delivery address code specified on the purchase order line differs from the default address code of the order line's warehouse	
LNSFAD	P.O line Specific Ship-from	tccom100.inrl = tcyesno.no or (strip(tdpur401.sfad) <> "" and tdpur401.sfad <> tccom121.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the ship-from address code specified on the purchase order line differs from the ship-from business partner's default address code	

EDI Expressions

Expression Code	Description	Expression
	Explanation	
LNSTAD	Line Ship-to Specific Address	tccom100.inrl = tcyesno.no or (strip(tdsls401.stad) <> "" and tdsls401.stad <> tccom111.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the ship-to address code specified on the sales order line differs from the ship-to business partner's default address code	
OFAD	Sold-to Specific Address	tccom100.inrl = tcyesno.no or (strip(tdsls400.ofad) <> "" and tdsls400.ofad <> tccom120.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the sold-to address code specified on the sales order differs from the sold-to business partner's default address code	
ORGSHD	Warehouse order - Schedule	strip(tdsls308.pchn) <> ""
	Evaluation: True if the customer release number is specified.	
OTAD	Buy-from Specific Address	tccom100.inrl = tcyesno.no or (strip(tdpur400.otad) <> "" and tdpur400.otad <> tccom120.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the buy-from address code specified on the purchase order differs from the buy-from business partner's default address code	
ORGSLS	Warehouse Order – Sales	Strip(tdsls401.corn) <> ""
	Evaluation: True if the Customer Order Number on the Sales Order line is filled.	
OFBP	Sold-to Specific Address	tdsls400.ofad <> tccom110.cadr
	Evaluation: True if the sold-to address code on the sales order header differs from the sold-to business partner's default address code.	

EDI Expressions

Expression Code	Description	Expression
PFAD	Pay-by Specific Address	tccom100.inrl = tcyesno.no or (strip(tdsls400.pfad) <> "" and tdsls400.pfad <> tccom114.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the pay-by address code specified on the sales order differs from the pay-by business partner's default address code	
PRBF	Pur. Rel. Buy-From B. P.	(strip(tccom120.cadr) <> "") and tccom120.cadr = tccom130.cadr
	Evaluation: True if a default address code has been defined for the buy-from business partner.	
PRSF	Pur. Rel. Ship-From B. P.	(strip(tccom121.cadr) <> "") and tccom121.cadr = tccom130.cadr
	Evaluation: True if a default address code has been defined for the buy-from business partner.	
PRSTW	Pur. Rel. Ship-To Warehouse	strip(tdpur307.cadr) <> "" or strip(tdpur307.cwar) <> ""
	Evaluation: True if a delivery address code or the warehouse code specified on the schedule line differs from the default address code has been defined for the buy-from business partner.	
PTAD	Pay-to Specific Address	tccom100.inrl = tcyesno.no or (strip(tdpur400.ptad) <> "" and tdpur400.ptad <> tccom124.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the pay-to address code specified on the purchase order differs from the pay-to business partner's default address code	
PURSHD	Purchase Schedule	(whinh301.oorg = whinh.oorg.purchase.sched)
	Evaluation: True if the order related to the ASN line is a schedule; that is, the order origin field on the ASN line is 'schedule'.	

EDI Expressions

Expression Code	Description	Expression
SFAD	Ship-from Specific Address	tccom100.inrl = tcyesno.no or (strip(tdpur400.sfad) <> "" and tdpur400.sfad <> tccom121.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the ship-from address code specified on the purchase order differs from the ship-from business partner's default address code	
STAD	Ship-to Specific Address	tccom100.inrl = tcyesno.no or (strip(tdsls400.stad) <> "" and tdsls400.stad <> tccom111.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the ship-to address code specified on the sales order differs from the ship-to business partner's default address code	
WHSTAD	ASN Ship-to Specific Address	tccom100.inrl = tcyesno.no or (strip(whinh430.stad) <> "" and whinh430.stad <> tccom111.cadr)
	Evaluation: True if business partner is an external trading partner (the business partner's Affiliated Company check box is selected, implying not a multisite business partner); OR if business partner is a multisite business partner and the ship-to address code specified on the shipment notice differs from the ship-to business partner's default address code	
WUOM	Weight Unit of Measure	(whinh431.grwt <> 0 or whinh431.ntwt <> 0)
	Evaluation: True if a gross weight or a net weight has been specified on the shipment line.	
ADSQTY	Discrepant Qty (Assignment)	Abs(whinh301.squa – whinh210.astk)
	Assignment: Calculates the difference between the quantity shipped as indicated on the shipment notice (ASN) line, and the actual quantity received as recorded when entering the receipt.	
STBP	Ship-to Specific Address	tdsls400.stad <> tccom111.cadr
	Evaluation: True if the ship-to address code on the sales order header differs from the ship-to business partner's default address code.	

NOTE   Because the EDI Expressions are subject to change, the Print EDI Expressions (ecedi5405m000) session or the Print Mapping Information (ecedi5415m000) session with the option to include EDI Expressions selected will provide you with the most current information

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9 Appendix B: Glossary

American National Standards Institute
Central body responsible for the identification of a single consistent set of
voluntary standards called American National Standards. ANSI is also the US
representative to nontreaty standards organizations.

Code in application
A code used within the Baan application that needs to be translated before
sending the message. An example of a code in application is the order type or the
trading partner (customer or supplier) code.

Code in message
The code in message refers to a standard code that is used within a specific EDI
message and must be translated to or from to a value within your system. A code
in message might be the standard code for unit of measure. This unit of measure
may or may not be the same as your internal unit of measure and must be
translated in order to transmit the correct unit.

Conversion setups
Conversion setups define the file layout of the ASCII files received into and
generated from Baan EDI for your EDI messages.

Conversion table
A Baan application table that holds the different code conversion values
identifying the relationship between an external code (code in message) and the
code in the Baan application (code in application).

EDI
See Electronic Data Interchange.

EDIFACT
Electronic Data Interchange for Administration, Commerce and Transport.
International Standard defined by ISO.

Electronic Data Interchange (EDI)
The computer to computer transmission of a standard business document in a
standard format. Internal EDI refers the transmission of data between companies
on the same internal company network (also referred to as multisite or
multicompany). External EDI refers to the transmission of data between your
company and external trading partners.

Payment order/Remittance advice
Information furnished to the supplier by the customer, detailing the transactions being settled by a payment. Refer to ANSI X12 820 for additional information and the standard specification for electronic communication of such data. The corresponding European transactions are: REMADV (ODETTE and UN/EDIFACT).

Purchase order
A purchase agreement for goods/services between trading partners. See ANSI X12 850 for additional information. The corresponding European transactions are: ORDERR for ODETTE and ORDERS for UN/EDIFACT.

Ship notice (ASN or SN)
An electronic notification to the customer that lists the contents of a shipment of goods and additional information relating to the shipment prior to receipt. See ANSI X12 856 for additional information. The corresponding European transactions are: AVIEXP for ODETTE and DESADV for UN/EDIFACT. Also referred to as dispatch notes or packing slips.

Trading partner
The sending and/or receiving party involved in the exchange of electronic business documents.

Transaction set
A complete business document such as a Purchase Order, Invoice, or Sales Order. Synonym for document or message.

Translation
Commonly used to refer to the conversion of a company's internal data formats to and from any of the standard data formats, for example: X12, EDIFACT, ODETTE.

VAN
Value Added Network. A company that provides communications services for EDI such as line speed conversion and protocol matching.

VDA
Another standard for automotive electronic interchange of business transactions within Germany. This particular standard uses a fixed length field/record format.

X12
ANSI standard for interindustry electronic interchange of business transactions within the US.

The accredited subcommittee of American National Standards Institute whose mandate is to develop standard data formats for business transactions with cross-industry application.

10 Appendix C: Business Partners and Destinations

This appendix discusses issues related to the processing of "destination fields". These are the fields which represent the trading partners, offices or physical locations with which or with whom goods are sold, bought, shipped, received, or invoiced, and include the business partner, sales and purchasing office and warehouse fields.

Intercompany mappings of destination fields

If you are exchanging EDI messages between two Baan companies you will need to closely examine and compare the Mapping Information of the incoming and outgoing EDI messages so that you understand which fields on the outgoing messages map to the fields on the incoming messages.

The figures below give examples illustrating some of these mappings provided in the Baan EDI default data, namely the mapping of the "destination" fields which include the warehouse, business partner and sales/purchase office codes. These represent some of the pertinent fields for which you may need to set up EDI code conversions within either the sending or the receiving company. It is important to keep in mind however that if no data is passed for these fields indicated below, default values are derived. These mappings give you and your trading partner more control by providing the option to override the default values if you wish.
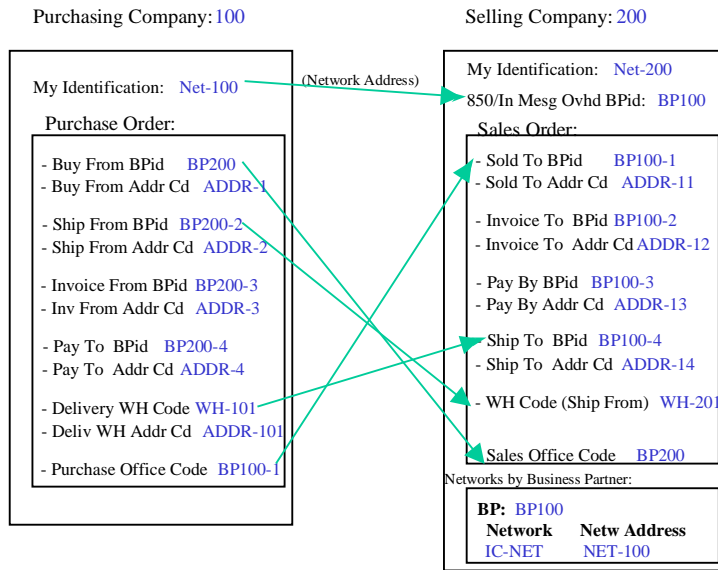
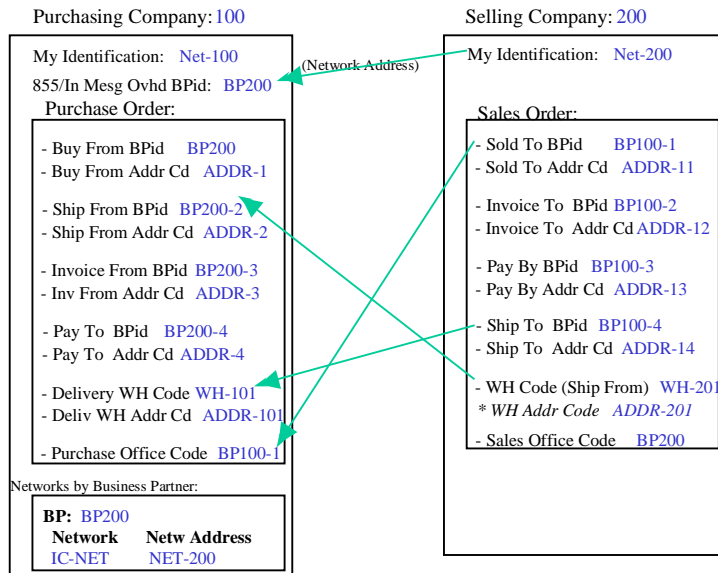*Figure 104 Intercompany Mapping, 850/ORDERS*

Figure 105 Intercompany Mapping, 855/ORDRSP

The mapping of these fields, illustrated in the above figures, applies to all EDI messages in which these fields reside, where appropriate.

Processing business partner codes

BaanERP EDI allows the conversion of business partner codes. For each message, there is a "primary business partner" that is derived from the sender of the EDI message. The "primary business partner" for each message is derived from the business partner who sent the message. The sender of the message is identified in the incoming EDI message by the network address which is passed in the envelope (that is, overhead) level of each message. This applies to both internally and externally traded EDI messages. The following table gives the "primary" business partner for each of the supported EDI messages:

Primary Business Partner Per Message

EDI Message	Business Partner Role
Orders (850/ORDERS) /In	Sold To Business Partner
Orders (850/ORDERS) /Out	Buy From Business Partner
Acknowledgment (855/ORDRSP) /In	Buy From Business Partner
Acknowledgment (855/ORDRSP)/Out	Sold to Business Partner
Invoice (810/INVOIC) /In	Invoice From Business Partner
Invoice (810/INVOIC) /Out	Invoice To Business Partner
Remittance Advice (820/REMADV) /In	Pay By Business Partner
Order Change (ORDCHG/860) /In	Sold To Business Partner
Order Change (ORDCHG/860) /out	Buy From Business Partner
Change Acknowledgment (865) /In	Buy From Business Partner
Change Acknowledgment (865) /Out	Sold to Business Partner
Planning Release (830/DELFR1) /In	Sold To Business Partner
Planning Release (830/DELFR1) /Out	Buy From Business Partner
Shipping Release (830/DELFR1) /In	Sold To Business Partner
Shipping Release (830/DELFR1) /Out	Buy From Business Partner
Error Notification (824/APERAK) /In	Ship To Business Partner
Error Notification (824/APERAK) /Out	Ship From Business Partner
Receiving Advice (861RECADV) /In	Ship To Business Partner
Receiving Advice (861RECADV) /Out	Ship From Business Partner

For example, in the case of a sales order received through EDI, the sold-to business partner is derived from the sender of the message, unless a sold-to business partner is specifically indicated within the message.

Other, non-primary, business partner codes may also be included in the EDI messages as defined in the default conversion setup definitions. When no data is included in the incoming EDI messages for these business partner codes, the default information defined for the primary business partner is used. The default mappings provide you with the option of overriding the default values. If you do not wish to override the values derived, then no value should be passed for these fields. Figure 104 illustrates the data values that are used to override the default values in the intercompany scenario based on the mappings provided in the EDI defaults.edi data.

Code conversions by business partner

Within the EDI Code and Conversion tables, there Conversions by Business Partner (for example, the conversion of discount methods, and forwarding agent codes). These code conversions use the "primary" business partner as the business partner by which to perform the conversion. Alternatively, the parent business partner of the primary business partner may be used. Therefore, when setting up your Conversions by Business Partner, you may set up code conversions for each business partner with whom you wish to exchange messages, or you may set up conversions for the *parent* business partner of the primary business partners with whom you wish to exchange messages. The latter option reduces the number of conversions you need to define if you have a number of business partners grouped under one parent business partner.

NOTE   For incoming EDI messages, if the primary business partner differs from the sending business partner (that is, the business partner derived from the sender of the message as determined by the network address), the sending business partner is used.

Processing specific address information

Specific address information is included in the EDI messages provided in the EDI defaults.edi data. For outgoing messages, specific address information is provided for all appropriate warehouse and business partner fields included in the message, based on the associated address code. For incoming messages, if specific address information is received in the message, a new address code is generated and assigned to the order, schedule or other document received in the EDI message. Please refer to the Field Information Text, reported in the Print Mapping Information (ecedi5415m000) session, for more information on the specific address information that may be included in each EDI message.

11 Appendix D: Change and Acknowledgment Codes

This appendix discusses the use of Change Codes and Acknowledgment Codes within the context of Baan EDI. Change Codes and Acknowledgment Codes may be assigned to purchase orders and sales orders within Baan Order Management, and allow a business partners to communicate additional information to each other regarding order changes and the acceptance of order changes via the use of codes. While Change Codes and Acknowledgment Codes may be used for informational purposes regardless of whether you use EDI, this document addresses the use and relevance of these codes within the context of Baan EDI.

In summary, the Change Code information is included in the EDI Change Order message (the ANSI X12 860, or the UN/EDIFACT ORDCHG), and the Acknowledgment Code information is included in the EDI Order Acknowledgment messages (the ANSI X12 855 and 865, or the UN/EDIFACT ORDRSP).

Change Codes

Overview

Change Codes are exchanged in the EDI Change Order message (the ANSI X12 860, or the UN/EDIFACT ORDCHG), and are used by the customer to inform the supplier of the types of and reasons for changes to the order. The Change Codes included on the EDI Change Order message consist of the following fields:

- Change Order Sequence Number
- Change Type Code
- Change Reason Code

Change Order Sequence Number
The Change Order Sequence Number is exchanged in the change order header and represents a series of changes made to an order at a particular point in time. For example, one day you may communicate to your trading partner the first series of changes made to an order, and denote this with a Change Order Sequence Number of "1". The following day, you may communicate a second series of changes to your business partner, and denote this with a Change Order Sequence Number of "2". This field is informational and optional.

Change Type Code

The Change Type Code may be associated to the order header and/or order lines, and indicates the type of change made to the order. Within Baan EDI, the Change Type Code is a *required* field for the EDI Change Order message (the ANSI X12 860, or the UN/EDIFACT ORDCHG).

Within the Baan purchasing module, order lines on an EDI order[1] will be recognized as changed or as new *only if* a Change Type Code has been assigned to them. This will govern which lines are recognized to be included on the outgoing EDI Change Order message.

On the other hand, for the incoming EDI Change Order message received, Baan EDI uses the change type code to drive how the EDI Change Order message is processed when it is received. Therefore, the Change Type Code is required for each line or header record that contains a change. The Change Type associated with the Change Type Code tells EDI how to process the received data. If no Change Type Code is received in the EDI Change Order message, no changes will be processed.

Change Type Codes can have the following Change Types:

- Change type = Delete Line:
  If included on a received change order message, Baan EDI will delete the sales order line.

- Change Type = Add Line:
  If included on a received change order message, Baan EDI will add a new line.

- Change type = Change line:
  If included on a received change order message, Baan EDI will change the data based on the received data for the line. The received information will replace the previous information. If no data is indicated for a particular field, it is assumed that no change is required for that field.

- Change type = Replace line:
  If included on a received change order message, Baan EDI will replace the old line item information with the new line information included in the message.

  Note that this differs from the 'Change Line' change type in that the 'Change Line' only applies changes for information included in the message; blank

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[1] A purchase order for which an EDI order message (e.g. ANSI X12 850 or UN/EDIFACT ORDERS) has been previously generated via Baan EDI.

values included in the message are ignored. On the other hand, the 'Replace Line' change type replaces all of the old values with the new values included in the message; blank values are considered and will be applied, overwriting any prior values.

- Change type = Cancel line:
  If included on a received change order message, Baan EDI will cancel the order line.

- Change Type = Change Header:
  If included on a received change order message, Baan EDI will change the order header data with the received message data.

- Change type = Cancel Header:
  If included on a received change order message, Baan EDI will cancel the order.

Change Reason Code

The Change Reason Code may be associated to the order header and/or order lines, and used to indicate the reason for the change. The Change Reason Code is optional and is for informational purposes only. Baan EDI does not require a Change Reason Code.

Mapping to EDI Standard Segments

The Baan Change Codes described here may map to the EDI standard segments of the ANSI X12 or UN/EDIFACT standards as illustrated in Figure 106. This figure illustrates the mapping of the Change Code information assigned to the purchase using the Purchase Order sessions.
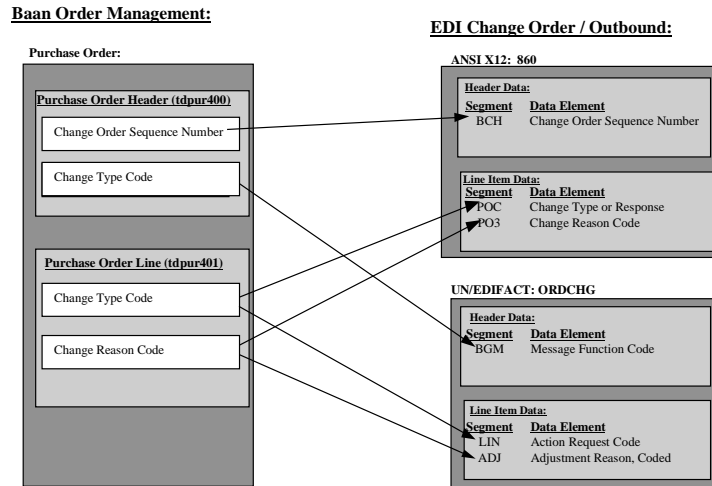
Figure 106 Mapping of Change Code Information

The outgoing EDI Change Order message may include any or all of the purchase order change code information maintained on the purchase order. The default conversion setups provided by Baan as part of your EDI default data include the following fields:

ANSI X12 860 & UN/EDIFACT ORDCHG:

- Header
  - Change Order Sequence Number
  - Change Type Code
  - Change Reason Code

- Line
  - Change Type Code
  - Change Reason Code

Baan Setup and Sessions

Defining your Change Codes

The change codes are defined within your Purchasing and Sales Master Data.

Use the Change Type Code (tdpur0198m000) session under Purchase Master Data to define your Change Type Codes used within Purchasing, and the Change Type Code (tdsls0198m000) session under Sales Master data to define your Change Type Codes used within Sales. Create atleast one code for each change type (e.g. add line, change line, delete line, etc) that you wish to process in your EDI Change Order messages.

Use the Change Reason Code (tdpur0197m000) session under Purchase Master Data to define your Change Reason Codes used within Purchasing, and the Change Reason Code (tdsls0197m000) session under Sales Master data to define your Change Reason Codes used within Sales.

Order Type Activities

The Order Type specified on the purchase order for which you want to generate EDI Orders and Order Change messages must include the Print Purchase Order (tdpur4401m000) session as one of its activities. Use the Activities by Order Type (tdpur0560m000) session to define your activities.

In addition, the Print Purchase Order (tdpur4401m000) session must be defined as an *allowed activity* for all subsequent activities at which you may wish to Print the Purchase Order again to prepare the outgoing EDI Change Order message. Use the Purchase Order Type - Re-execute Activities (tdpur0561m000) session to accomplish this.

For example, if your Purchase Order Type has the activities indicated below, and you wish to be able to process EDI Change Order messages up to the point at which you release the order to warehousing, you must define the Print Purchase Order session as an allowed activity for the Release to Warehousing activity, using the Purchase Order Type - Re-execute Activities (tdpur0561m000) session. This defines the print Purchase Order session as a session which may re-executed when the next activity to be executed on the order is Release to Warehousing. If the Print Purchase Order session is not defined as an allowed activity to be re-executed, the Print Purchase Order session will not properly recognize changed and new lines for the EDI Change Order message (see the section entitled *Printing and Sending the Purchase Order Changes* for more information).

- Print Purchase Orders
- Release to Warehousing
  (Print Purchase Orders must be an allowed activity to be re-executed).
- Purchase Order Receipt
- Process Delivered Purchase Orders

Assigning Change Codes to the Purchase Order
In this case, you are the customer wishing to communicate order changes to your supplier (buy-from business partner). The Change Codes that you wish to include on an outgoing EDI Change Order message must be assigned to the purchase order. The Change Codes may be specified on the Changes form of the Purchase Order Header and the Purchase Order Line sessions. In order for the Changes form to be available on the Purchase Order Header and the Purchase Order Line sessions you must check the *Prompt for Change Codes* checkbox in the Purchase Order Parameters (tdpur0100s400) session.

When assigning the Change Codes to your purchase order, be sure to assign a Change Type code that has the appropriate Change Type to your order line or order header if you wish to communicate the change to your business partner in an EDI Change Order message. You may also optionally assign a Change Reason Code, if you wish, to indicate the reason for the change.

Again, Change Type codes are required if you wish to communicate the changes to your business partner in an EDI Change Order message. A Change Type Code must be assigned to each changed and new line that you wish to include on an outgoing EDI Change Order message.

The Change Codes assigned to the purchase order remain assigned to the purchase order until the changes are communicated to your business partner via Baan EDI. (See the following section, entitled Printing and Sending the Purchase Order Changes, for more information on the clearing of the assigned Change Code information).

Printing and Sending the Purchase Order Changes
Printing the Purchase Order Changes:

Whenever new lines are added to a purchase order or existing lines are changed after an order has initially been printed, the system flags the order line as new or changed, respectively. However, for EDI purchase orders[2], new lines added to the purchase order or existing lines that have been changed are flagged as new or changed, respectively, *only if* a Change Type Code is assigned to the order line; if a Change Type Code is not assigned to an order line of an EDI order, the line will not be flagged as changed or new. This allows you to govern which new or changed lines you wish to include in your EDI Change Order message.

When using the Print Purchase Order (tdpur4401m000) session to prepare your outgoing EDI Change Order message, it is important that you select the

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[2] A purchase order for which an EDI order message (e.g. ANSI X12 850 or UN/EDIFACT ORDERS) has been previously generated via Baan EDI.

appropriate option in the *Order Line Types to Print* field in order to include only those lines which are flagged as new or changed. Selecting only new lines and changed lines ensures that you include only those lines which have Change Type Codes assigned to them. Select one of the following options for the *Order Line Types to Print* field:

- Exclude Printed Lines: Choose this option to include only new lines in the Change Order message.

- Only Changed Lines: Choose this option to include only those existing lines that have been changed since the last time the purchase order was printed.

- New and Changed Lines: Choose this option to include in the Change Order message both new lines that have been added and existing lines that have been changed since the last time the purchase order was printed.

Prior to printing the purchase order, you may wish to review the Change Code information assigned to your order. You may use the Print List of Purchase Orders to be Sent (tdpur4401m100) session to review the change code information assigned to the purchase order header and lines that will be included in your EDI Change Order message. This session allows you to choose the same selection criteria that you may choose when you print the purchase order later in the Print Purchase Orders (tdpur4401m000) session. Use this report to review the assigned change code information and to verify that all lines to be included in the EDI Change Order message have an assigned Change Type code.

Generating the EDI Change Order Message and Clearing the Assigned Change Codes:

The assigned Purchase Order Change Codes remain assigned to the purchase order until the change order is sent to your business partner. Therefore, when the EDI Change Order message is generated by Baan EDI, the assigned Change Codes are cleared from the Purchase Order.

Please see chapter 6 of the BaanERP EDI User Guide for a further explanation of the procedure for processing an outgoing EDI Change Order message.

Reviewing Purchase Order Changes (History):

If you track purchase order history, you may review the change codes that have been assigned to your purchase order using the Display Purchase Order Header Change Code History (tdpur5506m000) and the Display Purchase Order Line Change Code History (tdpur5507m000) sessions, available as zoom sessions from the purchase order and purchase order line sessions, as well as from the Purchase Order History menu under Purchase Control.

Receiving EDI Order Changes
Processing the incoming EDI Change Order

When an EDI Change Order message is received from your customer and processed through Baan EDI, the change codes received in the message are validated against the codes defined in the Change Type Codes (tdsls0198m000) session and the Change Reason Codes (tdsls0197m000) session, under your Sales Master Data. As indicated in the overview section of this document, Change Type Codes are required for each order line received in the EDI Change Order message; therefore, if an order line received in the EDI Change Order message does not include a Change Type Code, this will result in an error since EDI does not know how to process the line, and the EDI message will not be processed.

If your business partner is setup to check for duplicate order numbers for the Order Change message, as indicated by the Check Duplicate Order Numbers checkbox in the EDI Messages Supported by Business Partner (ecedi0511m000/ ecedi0111s000) session, EDI will check the combination of the customer order number and the Change Order Sequence Number for uniqueness. If the combination has already been received, EDI will issue an error and will not process the duplicate Order Number/Change Order Sequence combination.

Reviewing EDI Change Order History

If you track your Sales Order History, then the Change Code information (Change Order Sequence Number, Change Type Code and Change Reason Code) received in the EDI Change Order message is written to your Sales Order History. You may review the history of the changes received from your business partner, as well as the history of any changes you may have recorded yourselves, using the Sales Order Change Code History (Header) (tdsls5506m000) or the Sales Order Change Code History (Lines) (tdsls5507m000) sessions available from the sales order and sales order lines sessions, as well as from the Sales Order History menu under Sales Control.

Acknowledgment Codes

Overview

The Acknowledgment Code is exchanged in the EDI Order Acknowledgement and Change Order Acknowledgment messages (the ANSI X12 855 and 865, or the UN/EDIFACT ORDRSP). The intent of the acknowledgment code is to allow the supplier to communicate to the buyer his reaction to a received order or Change Order (e.g. accepted, or accepted but delivery date is changed, etc). The Acknowledgment Code is informational only and is optional within Baan EDI.

In addition to the Acknowledgment Code, the EDI Change Order Acknowledgment message (the ANSI X12 865) may additionally reference Change Codes (specifically, the Change Order Sequence Number, Change Type Code, and Change Reason Code). Because an EDI Change Order Acknowledgment message may be used to acknowledge the receipt of a Change Order Message received from your business partner, referencing the Change Code information allows you to communicate which change order series you are acknowledging.   Alternatively, the Change Code information included on the EDI Change Order Acknowledgment message may be additional change code information assigned by you to the sales order to communicate additional change information to your business partner. This Change Code information referenced in the Acknowledgment Code information assigned the sales order is informational and optional.

Mapping to EDI Standard Segments

The Baan Acknowledgment Codes described here may map to the EDI standard segments of the ANSI X12 or UN/EDIFACT standards as illustrated in Figure 107. This figure illustrates the possible mappings of the Acknowledgment Code information assigned to the Sales Order using the sales order session, or assigned automatically by the system.
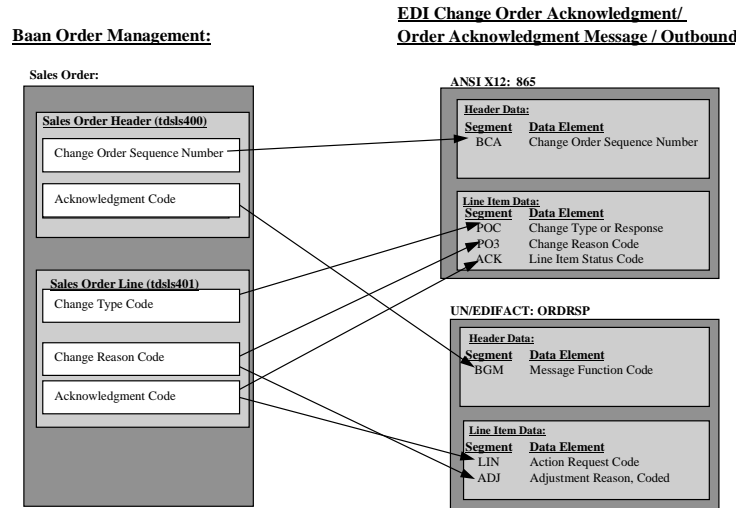
Figure 107 Mapping of Acknowledgment Information

The outgoing EDI Order Acknowledgment and Change Order Acknowledgment messages may include any or all of the sales order acknowledgment information maintained on the Sales Order. The default conversion setups provided by Baan as part of your EDI default data include the following fields per EDI message:

ANSI X12 855:

- Header:
  - Acknowledgment Code

- Line
  - Acknowledgment Code

ANSI X12 865:

- Order Header
    - Change Order Sequence Number
    - Change Type Code
    - Change Reason Code

- Acknowledgment Code

- Order Line
    - Change Type Code
    - Change Reason Code

- Acknowledgment Code

Baan Setup and Sessions

Defining your Acknowledgment Codes
Acknowledgment Codes are defined in your Purchase Master Data and your
Sales Master data. Use the Sales Acknowledgment Codes (tdsls015m000)
session under Sales Master Data to define the acknowledgment codes to be used
within Sales, and the Purchase Acknowledgment Codes (tdpur015m000) session
under Purchase Master Data to define the acknowledgment codes to be used
within Purchasing.

Assigning Acknowledgment Codes to the Sales Order
Assignment of Acknowledgment Codes:

The Acknowledgment Codes, and optionally the associated referenced Change
Codes, that you wish to include on an outgoing Change Order Acknowledgment
EDI message must be assigned to the sales order. They may be assigned to the
sales order header and lines using the Changes form on the Sales Order and Sales
Order Lines sessions.   In order for the Changes form is available in the Sales
Order and Sales Order Lines sessions, you must check the Prompt for Change
Codes checkbox in the Sales Order Parameters (tdsls0100s400) session.

Automatic Assignment of Acknowledgment Codes:

Alternatively, instead of manually assigning Acknowledgment Codes each time
you make changes to the sales order, you can have the system automatically
assign Acknowledgment Codes to the sales order lines each time changes are
made to the order lines.   In order to have the system automatically assign
Acknowledgment Codes to sales order lines when changes are made or new lines
are added, use the Sales Order Acknowledgment Code Assignments
(tdsls0155m000) session to predefine the acknowledgment codes that you wish
the system to assign based on the criteria that you specify.

Based on the criteria defined in this session, the system will assign
Acknowledgment Codes when changes are manually made to the sales order
using the Sales Order maintenance sessions, or when changes are received to a
Sales Order through EDI, during the receipt of an EDI Change Order message.
Acknowledgment Codes may be assigned when changes are made to a specified
field or when new lines are added the order.

Use of Acknowledgment Codes:

Keep in mind that the Acknowledgment Code information (specifically, the
acknowledgment code, and any change code information) assigned to the sales
order may be included on the outgoing EDI Order Acknowledgment messages,
and is optional and informational only.   Baan EDI does not require these fields
for the EDI Order Acknowledgment (and Change Order Acknowledgment)
messages.

Sending the Acknowledgment
The assigned Sales Order Acknowledgment Codes remain assigned to the sales
order until the order acknowledgment is sent to your business partner. Therefore,
when the EDI Order Acknowledgment message is generated by Baan EDI, the
assigned Acknowledgment Codes are removed from the Sales Order. (Note that
for non-EDI orders, the assigned acknowledgment codes are cleared from the
order when the Sales Order Acknowledgment is printed using the Print Order
Acknowledgments/RMAs, tdsls4401m000, session). Note only the
acknowledgment code is cleared; the change codes are not cleared.

See the BaanERP EDI User Guide for more information on the procedure for
sending the EDI Order Acknowledgment messages.

Receiving the Order Acknowledgment
When an EDI Order Acknowledgment message (the ANSI X12 855 or 865; or
UN/EDIFACT ORDRSP) is received from your business partner and processed
through Baan EDI, the Acknowledgment Code information received in the
message is assigned to the purchase order.

Special Case: Acknowledge by Exception

Overview

It is possible to designate a customer (a sold-to business partner) as one who is to be "acknowledged by exception". In this case, the Acknowledgment Code assigned to the sales order line serves the additional function of flagging the order line as an exception to be acknowledged.

As a supplier, you may have certain business partners who do not want to be notified with an Order Acknowledgment each time you receive an order request, Change Order request or each time you change information on the sales order line. Rather, they only wish for you to send them Order Acknowledgments when certain information has changed. For example, a business partner may only wish to receive an Order Acknowledgment when you, the supplier, change the delivery date or quantity; otherwise, they do not wish to receive an acknowledgment when any of the other less significant information on the order changes. This is referred to as "Acknowledging by Exception", since you wish to generate Order Acknowledgments for your business partner on an exceptional basis, instead of for every change applied to the order. Baan Order Management allows you to determine which order lines are the exceptions to be acknowledged.

You can designate individual business partners to be acknowledged by exception by checking the *Acknowledge by Exception* checkbox in the Sold-To Business Partner (tccom4110s000) session. When making changes to a sales order for such sold-to business partners, you must assign an Acknowledgment Code to all order lines that you wish to include on the Order Acknowledgment. In this way, you are in control of which order lines are to be considered the exceptions to be acknowledged. As previously described, the Acknowledgment Codes may be either manually assigned to the sales order in the sales order and sales order lines sessions, or may be automatically assigned by the system based on the criteria you predefine in the Sales Order Acknowledgment Code Assignments (tdsls0155m000) session.

For sales orders which are for (sold-to) business partners *not* set up to be acknowledged by exception, whenever new lines are added to the order or existing lines are changed after an Order Acknowledgment has initially been printed, the system flags the order line as new or changed, respectively.

However, in the case of sales orders for (sold-to) business partners who *are* set up to be acknowledged by exception, new lines added to the sales order or existing lines that have been changed are flagged as new or changed, respectively, *only if* an Acknowledgment Code is assigned to the order line; if an Acknowledgment Code is not assigned to an order line, the line will not be flagged as changed or new. This allows you to control which new or changed lines to include in your EDI Order Acknowledgment messages.

Order Type Activities

The Order Type specified on the sales order for which you want to generate EDI Order and Change Order Acknowledgments must include the Print Sales Acknowledgments/RMAs (tdsls4401m000) session as one of its activities. Use the Activities by Order Type (tdsls0560m000) session to define your activities.

In addition, the Print Sales Acknowledgments/RMAs (tdsls4401m000)session must be defined as an *allowed activity* for all subsequent activities at which you may wish to Print the Sales Order Acknowledgment again to prepare the outgoing EDI Order or Order Change Acknowledgment message. Use the Re-execute Activities by Order Type and Activity (tdsls0561m000) session to accomplish this.

For example, if your Sales Order Type has the activities indicated below, and you want to be able to process EDI Order and Change Order Acknowledgment messages up to the point at which you release the order to warehousing, you must define the Print Sales Acknowledgments/RMAs session as an allowed activity for the Release to Warehousing activity, using the Sales Order Type - Re-execute Activities (tdsls0561m000) session. This defines the Print Sales Acknowledgments/RMAs session as a session that may be re-executed when the next activity to be executed on the order is Release to Warehousing. If the Print Sales Acknowledgments/RMAs session is not defined as an allowed activity to be re-executed, the Print Sales Acknowledgments/RMAs session will not recognize the changed and new lines for the EDI Order and Change Order Acknowledgment messages (see the section entitled *Printing and Sending the Exceptional Acknowledgment* for more information).

- Print Purchase Orders
- Release to Warehousing
  (Print Sales Acknowledgments/RMAs must be an allowed activity to be re-executed).
- Release to Invoicing
- Process Delivered Sales Order

Printing and Sending the Exceptional Acknowledgment
When using the Print Sales Order Acknowledgments/RMAs (tdsls4401m000) session to prepare your outgoing EDI Order Acknowledgment message for your "acknowledge by exception" business partners, it is important that you select the appropriate option in the *Order Line Types to Print* field in order to include only the new and changed lines that you have designated. Selecting only new lines and changed lines ensures that you include only those lines which have Acknowledgment Codes assigned to them.   Select one of the following options for the *Order Line Types to Print* field:

- Exclude Printed Lines: Choose this option to include only new lines in the order acknowledgment message.

- Only Changed Lines: Choose this option to include only those existing lines that have been changed since the last time the sales order acknowledgment was printed.

- New and Changed Lines: Choose this option to include in the Change Order message both new lines that have been added and existing lines that have been changed since the last time the purchase order was printed.

Prior to printing the Order Acknowledgment, you may wish to review the Acknowledgment Code information assigned to your order. You may use the Print Sales Orders to be Acknowledged (tdsls4401m100) session to review the acknowledgment code information assigned to the sales order header and lines that will be included on your EDI Order Acknowledgment message when you print the sales order later in the Print Order Acknowledgments/RMAs (tdsls4401m000) session.   Use this report to review the assigned acknowledgment code information

Note that this Acknowledge By Exception feature is independent of EDI, and is available for both EDI and non-EDI orders.

At a Glance (Summary)

This section summarizes the contents of this document, providing a high level summary of the key points of interest regarding the Change and Acknowledgment Code functionality within the context of Baan EDI.

Setup:

Defining Codes:
- Sales Master Data:
    - Change Types (tdsls0198m000)
    - Change Reason Codes (tdsls0197m000)
    - Sales Acknowledgment Codes (tdsls0154m000)

- Purchase Master Data:
    - Change Types (tdpur0198m000)
    - Change Reason Codes (tdpur0197m000)
    - Purchase Acknowledgment Codes (tdpur0154m000)

Relevant Parameters:
- Sales Order Parameters (tdsls0100s400)
    - Prompt for Change Codes
    - Log Sales Order History

- Purchase Order Parameters (tdpur0100s400)
    - Log Purchase Order History
    - Prompt for Change Codes

Change Code Information:

- Change Codes assigned to the purchase order using the purchase order and purchase order lines sessions, are included in the EDI Change Order message:
    - Order Header includes Change Order Sequence Number, Change Type Code, Change Reason Code

    - Order Line includes Change Type Code and Change Reason Code

    - Change Type Code is required for each order header and order line for which you wish to convey an order change. The Change Order Sequence Number and the Change Reason code are optional.

    - The Change Codes assigned to the purchase order are cleared when the EDI Change Order message is generated within Baan EDI if the order is an EDI order. (Change codes are not systematically cleared for non-EDI orders).

- Incoming EDI Change Order messages received update the sales order.

Acknowledgment Code Information:

- Acknowledgment Code information assigned to the sales order may be included in the outgoing EDI Change Order Acknowledgment messages (ANSI X12 855, 865 or UN/EDIFACT ORDRSP). This information is informational only, and optional.
  - Acknowledgment Code information is assigned to the sales in the sales order and sales order line sessions.

  - The acknowledgment code information includes the acknowledgment code, and may also include change code information.

  - Acknowledgment Codes may be automatically assigned to sales order lines by the system when new lines are added or existing lines are changed, if you predefine the criteria under which acknowledgment codes should be assigned using the Sales Order Acknowledgment Code Assignments (tdsls0155m000) session.

  - If a (sold-to) business partner is set up to be "acknowledged by exception", an acknowledgment code must be assigned to the order lines if the lines are to be recognized as new or changed lines to be included on the outgoing acknowledgment.

  - The Acknowledgment Code assigned to the sales order is cleared when the sales order acknowledgment is printed if the order is not an EDI order, or when the EDI Order Acknowledgment (or Change Order Acknowledgment) message is generated within Baan EDI if the order is an EDI order.
- EDI Order Acknowledgment messages received update the Purchase Order.

EDI Code Conversions:

- Baan EDI provides code conversion sessions to convert the change type codes, change reason codes and acknowledgment codes.