Infor LN Electronic Commerce User Guide for EDI Business Documents

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Table of Contents

About this document

Chapter 1 Introduction.......7

An overview of EDI business documents.......7

Chapter 2 Business Document Order.......9

EDI business document Order.......9

Order (ORD).......10

Order Acknowledgement/Response (ORS).......11

Order Change (ORC).......11

Order Change Acknowledgement/Response (OCA).......12

Chapter 3 Business Document Schedule.......13

EDI business document Schedule.......13

Purchase schedules.......13

Purchase releases.......14

EDI messages and purchase schedules.......15

Preparing EDI messages for push schedules in a purchase release.......15

Preparing EDI messages for pull forecast schedules.......16

Preparing EDI messages for pull call-off schedules.......16

Processing EDI messages.......17

Chapter 4 Business Document Delivery.......19

EDI business document Delivery.......19

Advance Shipment Notification (ASN).......20

Reprocessing messages with errors.......20

Receipt Discrepancy Notification (RDN).......21

Chapter 5 Business Document Freight.......23

EDI business document Freight.......23

Load Information to Carrier (FML).......23

Carrier Status Information (FMS).......24

Chapter 6 Business Document Invoice..........25

EDI business document Invoice..........25

Invoice (INV)..........25

Self Billed Invoice (SBI)..........26

Remittance Advice (RAD)..........26

Chapter 7 Business Document Error Handling..........29

EDI business document Error Handling..........29

Sending Error Notification (824/APERAK) to supplier..........29

Receiving Error Notification (824/APERAK) from customer..........29

Resending canceled and corrected shipment notices in response to received Error Notifications..........30

Appendix A Glossary..........31

Index

About this document

This document explains the types of EDI business documents and the associated EDI messages, as supported by BEMIS.

Intended audience

- Users who develop business documents/EDI messages.
- Users who want to understand what they can expect from a BEMIS business document and its related EDI messages, as developed by LN.

References

Use this guide as the primary reference for EDI business documents. Use the current editions of these related references to research information that is not covered in this guide:

- *User Guide for BEMIS U8912 US*
- *Document Definitions* at Infor EDI

How to read this document

This document is assembled from online Help topics. Text in italics followed by a page number represents a hyperlink to another section in this document.

Underlined terms indicate a link to a glossary definition. If you view this document online, clicking the underlined term takes you to the glossary definition at the end of the document.

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Chapter 1
Introduction

1

An overview of EDI business documents

Electronic data interchange (EDI) is used to exchange business documents between two systems. Users can specify business documents of various external EDI standards, such as VDA, UN/ EDIFACT, Odette, and ANSI. With the Baan Electronic Message Interchange System (BEMIS) standard, external standards are converted to an internal LN standard. Conversion of the internal standard to an external standard and vice versa is performed by an EDI translator.

A business document describes a business process between trading partners.

BEMIS supports the following business documents:

- *Order (p. 9)*
- *Schedule (p. 13)*
- *Delivery (p. 19)*
- *Freight (p. 23)*
- *Invoice (p. 25)*
- *Error Handling (p. 29)*

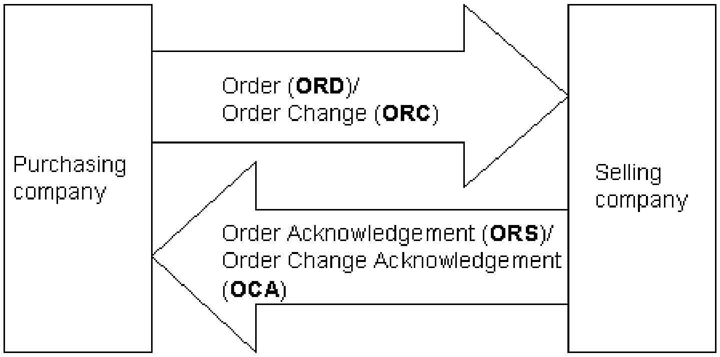
Chapter 2
Business Document Order

2

EDI business document Order

The business document Order describes the order cycle between trading partners and includes these EDI messages:

- **ORD**
  Order
- **ORS**
  Order Acknowledgement/Response
- **ORC**
  Order Change
- **OCA**
  Order Change Acknowledgement/Response


Purchasing company
Order (ORD)/
Order Change (ORC)
Selling company
Order Acknowledgement (ORS)/
Order Change Acknowledgement
(OCA)

Complete these steps to process a simple order cycle:

1. **ORD**
   In the Purchase Order (tdpur4100m900) session, create a purchase order that can be sent electronically. Approve the purchase order and prepare an EDI message using the Print Purchase Orders (tdpur4401m000) session.

2. **ORS**
   In the Sales Order (tdsls4100m900) session, review the order. Approve the order and generate the acknowledgement EDI message in the Print Sales Order Acknowledgements/RMAs (tdsls4401m000) session.
3. **ORC**
   If required, change and re-approve the purchase order in the Purchase Order (tdpur4100m900) session. Again, prepare the EDI message using the Print Purchase Orders (tdpur4401m000) session.
4. **OCA**
   Review the changed order in the Sales Order (tdsls4100m900) session, re-approve the order, and print the acknowledgement EDI message in the Print Sales Order Acknowledgements/RMAs (tdsls4401m000) session.

Order (ORD)

The order cycle is initiated when you do either of the following:

- Specify a purchase order in the Purchase Order (tdpur4100m900) session for a selling company that is set up as a trading partner.
- Use an order type that has a link to an EDI message and that has the Print Purchase Orders (tdpur4401m000) activity linked. When you print the purchase order, the **New EDI Messages Have Been Prepared** message appears. The EDI process begins after you create and print the purchase order.

After you prepare a purchase order for EDI in Procurement, the outgoing EDI Order message (ORD) is generated by Electronic Data Interchange. The Messages to be Generated (ecedi7100m000) session verifies whether a message is prepared that must be sent to the purchasing company’s supplier, which is the selling company.

In the Direct Network Communication (ecedi7205m000) session, you can receive and generate EDI messages. If you select the **Generate Outgoing Message before Connection** check box in the Networks (ecedi0120s000) session, you can generate all outgoing messages prior to reading incoming messages. Running the session creates the ASCII files for the prepared EDI messages. EDI messages generated by LN for external EDI are stored in the appl_from subdirectory. For internal EDI, all generated and received messages are stored in the appl_comm subdirectory, because each company has the same network path.

If you do not use the option to generate outgoing messages before connection in the Networks (ecedi0120s000) session, you can use the Generate EDI Messages (ecedi7201m000) session to create the ASCII files for outgoing messages.

Translation software translates files received from an external trading partner into the file format defined by the BEMIS conversion setups. The translated ASCII files are placed into the appropriate appl_to directory. Internal EDI does not require translation of the files.

Use the Direct Network Communication (ecedi7205m000) session to receive the purchase order. When the customer’s order is received, a sales order is created in Sales. The **Remarks in Copied Messages** report is generated, which shows the customer order data, the newly created sales order number, sales order lines, and any related remarks.

Order Acknowledgement/Response (ORS)

Sales orders can be reviewed in the Sales Order (tdsls4100m900) session. If necessary, you can make changes to the order. If you print the order acknowledgement in the Print Sales Order Acknowledgements/RMAs (tdsls4401m000) session, the outgoing EDI Order Acknowledgment/Response (ORS) message is prepared.

To send an acknowledgment to the customer, which is the purchasing company, use the Direct Network Communication (ecedi7205m000) session. A report is created that shows which EDI messages are generated. External EDI business partner messages are placed in the appl_from subdirectory under the directory specified for the network. Translation software retrieves the message. Internal EDI business partner messages are stored in the appl_comm subdirectory.

Order Change (ORC)

To change a purchase order that has been sent to the supplier, you can send the supplier an Order Change (ORC) message. Maintain the purchase order in the Purchase Order (tdpur4100m900) session.

To notify the supplier that you want to:

- Cancel an order line, cancel the order line in Procurement and assign a change type code representing a canceled line.
- Delete an order line, assign a change type code representing a deleted line. After the Order Change Acknowledgment/Response (OCA) is received from the supplier, you can delete the order line.

Print the changed purchase order lines. Select the lines you want to print in the Print Purchase Orders (tdpur4401m000) session. When the session is run, LN verifies whether the order(s) is prepared for EDI and stored in the Messages to be Generated (ecedi7100m000) session.

If the **Generate Outgoing Message before Connection** check box is selected in the Networks (ecedi0120s000) session, you can use the Direct Network Communication (ecedi7205m000) session to generate the Order Change (ORC) message. If the **Generate Outgoing Message before Connection** check box is cleared, you can use the Generate EDI Messages (ecedi7201m000) session to create the ASCII files for outgoing messages. Both sessions generate a report that shows which messages were generated, and both display the reference number, message, and order number.

Use the Direct Network Communication (ecedi7205m000) session to receive the changed purchase order (OCA). When the session receives the customer’s changes to an order, the sales order is updated. A **Remarks in Copied Messages** report is generated, which shows the order and order lines that were updated, as well as any related remarks.

Note

Change type and change reason information is automatically defaulted from the Purchase Order Parameters (tdpur0100m400) or the Sales Order Parameters (tdsls0100s400) session, when:

- An order line is manually changed or canceled.
- An order line is added to an existing order.
- An order line detail is split.
- Backorder lines are generated. If the sales order line is already completely delivered after a change backorder message comes in from Procurement, a new sales order line is created with a **Default Change Type for Add Order Line**. If a backorder line is confirmed as a result of partial delivery, the incoming change message of **Default Change Type for Change Order Line** is processed at the selling company for the open backorder line.

Order Change Acknowledgement/Response (OCA)

You can review updates to the order in the Sales Order (tdsls4100m900) session. To acknowledge the changes, use the Order Acknowledgment/Response (ORS) or the Order Change Acknowledgment/Response (OCA) message. You can define which message must be sent in the **EDI Order Change Response** field of the Sold-to Business Partner (tccom4110s000) session.

When printing the acknowledgement, select the lines you want to print in the Print Purchase Orders (tdpur4401m000) session. The outgoing EDI Order Acknowledgment/Response (ORS) message, or the Order Change Acknowledgment/Response (OCA) message is prepared.

Use the Direct Network Communication (ecedi7205m000) session to send the acknowledgement to the customer/purchasing company. A report is created that shows which EDI messages are generated. External EDI business partner messages are placed in the appl_from subdirectory under the directory specified for the network. Translation software retrieves the message. Internal EDI business partner messages are stored in the appl_comm subdirectory.

Chapter 3
Business Document Schedule

3

EDI business document Schedule

The business document Schedule describes the processing of EDI messages that are used in a supply chain environment, which makes use of purchase schedules to communicate requirements to the selling company.

Purchase schedules represent a timetable of planned requirements, and support long-term purchasing practices that have frequent deliveries. Purchase schedules are used in place of standard purchase orders when a more detailed way of specifying delivery dates/times for material requirements is needed. Purchase schedules are unique for an item and are sent to the purchase business partner in a purchase release.

Purchase schedules

LN supports the following types of purchase schedules:

- **Push schedules**
  A push schedule is a list of time-phased requirements, generated by a central planning system, such as LN Enterprise Planning or LN Project that are sent to the purchase business partner. Push schedules contain both a forecast for the longer term and actual orders for the short term. A push schedule is also called a non-referenced schedule. A non-referenced schedule is a schedule that contains lines without a reference number. Because no specific requirement exists for the schedule line, non-referenced schedule lines can first be clustered (grouped to send the lines in one purchase release) and then ordered, shipped, and received together.
- **Pull forecast schedules**
  A pull forecast schedule is a list of time-phased planned requirements, generated by LN Enterprise Planning, that are sent to the purchase business partner. Pull forecast schedules are only used for forecasting purposes. To actually order the items, a pull call-off schedule must be generated with the same schedule number as the pull forecast schedule. Like a push schedule, a pull forecast schedule is also a *non-referenced schedule*.
- **Pull call-off schedules**
  A pull call-off schedule is a list of time-phased specific requirements of purchased items, triggered from Assembly Control, Job Shop Control, or LN Warehousing (Kanban, time-phased

order point). A pull call-off schedule is a referenced schedule. A referenced schedule contains lines with reference numbers. When goods are shipped, received, and invoiced, the reference numbers are used to communicate with suppliers and other LN packages. Because a specific requirement exists for the schedule line, each single schedule line is ordered, shipped, and received separately.

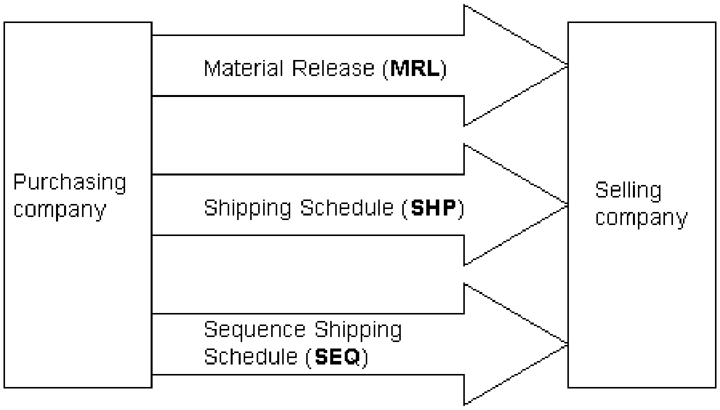
Purchase releases

The purchase schedule can be sent using these purchase releases:

- **Material release**
  A schedule on which forecast information is provided about shipping times, delivery times, and quantities. In general, a material release can be considered as a planning release. For push schedules, however, the material release can also contain the actual order. In this case the release is called a material release with shipping capabilities. A material release can contain push schedules or pull forecast schedules.
- **Shipping schedule**
  A schedule on which detailed information is given about shipping times or delivery times and quantities. A shipping schedule facilitates just-in-time (JIT) management. A shipping schedule can contain push schedules or pull call-off schedules.
- **Sequence shipping schedule**
  A supplement to the material release or the shipping schedule with precise information about the production or deliveries of the requirements. This schedule can include the production or delivery sequence, and the order, the place, and the time of unloading after shipment. A sequence shipping schedule can only contain pull call-of schedules.

As a result, the business document Schedule includes these EDI messages:

- **MRL**
  Material Release
- **SHP**
  Shipping Schedule
- **SEQ**
  Sequence Shipping Schedule



EDI messages and purchase schedules

If the **Release EDI Message Directly** check box is selected in the Purchase Contract Line Logistic Data (tdpur3102m000) session or the Items - Purchase Business Partner (tdipu0110m000) session, LN automatically prepares the EDI messages when a purchase release receives the status **Scheduled** in the Purchase Releases (tdpur3120m000) session.

Use the Direct Network Communication (ecedi7205m000) session to generate the outgoing message. A report will list the messages that were generated. The outgoing messages for an external EDI business partner are stored in the appl_from directory for retrieval by translation software.

For information about release types, requirement types and corresponding EDI messages, refer to Purchase schedule release types.

Preparing EDI messages for push schedules in a purchase release

1. Create a purchase schedule header in the Purchase Schedules (tdpur3110m000) session and purchase schedule lines in the Purchase Schedule Lines (tdpur3111m000) session.
2. Create a purchase release line in the Generate Release Lines (tdpur3222m000) session.
3. Approve the purchase release line in the Approve Release Lines (tdpur3222m100) session.
4. Print the purchase release in the Print Purchase Releases (tdpur3422m000) session with the **Final Report** and the **Prepare EDI messages** check boxes selected.

Preparing EDI messages for pull forecast schedules

A pull forecast schedule can only be generated from the Generate Order Planning (cprrp1210m000) session in Enterprise Planning and cannot be created manually. Based on the parameters and triggers, these steps are completed automatically to prepare EDI messages for pull forecast schedules:

1. A purchase schedule header is generated in the Purchase Schedules (tdpur3110m000) session and purchase schedule lines are generated in the Purchase Schedule Lines (tdpur3111m000) session.
2. A purchase release is generated in the Generate Release Lines (tdpur3222m000) session.
3. The purchase release is approved in the Approve Release Lines (tdpur3222m100) session.
4. The purchase release is printed in the Print Purchase Releases (tdpur3422m000) session.

Preparing EDI messages for pull call-off schedules

A pull call-off schedule can only be generated from Assembly Control using the Transfer Assembly Part Supply Messages (tiasc8220m000) session, or from Warehousing using the Generate Orders (KANBAN) (whinh2200m000) and the Generate Orders (TPOP) (whinh2201m000) sessions. A pull call-off schedule cannot be created manually. Based on the parameters and triggers, these steps are completed automatically to prepare EDI messages for pull call-off schedules:

1. A purchase schedule (header) is generated in the Purchase Schedules (tdpur3110m000) session. If the pull call-off schedule is preceded by a pull forecast schedule, LN searches for the corresponding pull forecast schedule in the Purchase Schedules (tdpur3110m000) session. Once found, LN creates a pull call-off schedule with the same schedule number as the pull forecast schedule. If no forecasting data is generated, the pull call-off schedule, as generated in the Purchase Schedules (tdpur3110m000) session, has no corresponding pull forecast schedule.
2. Schedule lines are generated in the Purchase Schedule Lines (tdpur3111m000) session. If the release type that is linked to the pull call-off schedule is **Sequence Shipping Schedule**, a schedule line for each call-off is generated in the Purchase Schedule Lines (tdpur3111m000) session, but the sequence details for the call off, such as VIN number and line station are stored in the Sequence Shipping data (tdpur3517m000) session.
3. A purchase release is generated with the status **Scheduled** in the Purchase Releases (tdpur3120m000) session. With every generation of a schedule line, LN generates a release line detail record in the Purchase Release Line - Details (tdpur3522m000) session. This record has a one-to-one relationship with the schedule line.
   If the schedule is a sequence shipping schedule, however, the following applies:
   - Only a purchase release header is created. No purchase release lines and purchase release line detail records are created. The reason for this is that items in a sequence shipping schedule are required for a combination of vehicle number (VIN), line station, and assembly kit. For this reason, a link exists between the release header in the Purchase Releases (tdpur3120m000) session and the release lines in the Purchase Release Lines - Sequence Shipping Data (tdpur3523m000) session.

  - Depending on the setting of the **Generate Release per Vehicle** check box in the Purchase Releases (tdpur3120m000) session, the release is either created per item or per vehicle.

4. The purchase release is printed in the Print Purchase Releases (tdpur3422m000) session.

Processing EDI messages

You can use the Direct Network Communication (ecedi7205m000) session to receive the customer's new release or to update an existing release.

When you receive a new Material Release (MRL), Shipping Schedule (SHP), Sequence Shipping Schedule (SEQ), or Pick-up Sheet (PUS), a sales release and corresponding schedule(s) are created in Sales. Depending on the release type, an update to an existing sales release results in a new revision for the sales release and the corresponding schedule(s), or in updated sales release/sales schedule(s).

As a result, this information is automatically generated when EDI messages are processed:

- A sales release with revision number one in the Sales Releases Overview (tdsls3512m000) session. If a new EDI message is received for an existing sales release, a sales release revision is created with revision number two, etc.
- Sales release lines in the Sales Release Lines (tdsls3508m000) session.
- Sales release position details in the Sales Release Line Details (tdsls3515m000) session, for referenced schedules of the **Shipping Schedule** type. If you receive an update of a referenced shipping schedule, LN does not create a new sales schedule revision number. Instead, the sales schedule is updated. If an update arrives for a sales schedule line, also the sales schedule line is updated. To keep track of the updates, LN files the sales schedule line updates as revisions in the Sales Release Line Details (tdsls3515m000) session. As a result, a sales release position detail refers to a sales schedule line.
- Sales release lines for pick-up sheets in the Sales Release Lines - Pick-up Sheet (tdsls3109m000) session, if the schedule is of the **Pick-up Sheet** type.
- Sales release line details for pick-up sheets in the Sales Release Line Details - Pick-up Sheet (tdsls3116m100) session, if the schedule is of the **Pick-up Sheet** type.
- A sales schedule with a sales schedule revision number of one in the Sales Schedules (tdsls3111m000) session. If new requirements are received for an existing sales schedule, and sales schedule revisions are used, a revision is created with revision number two, etc. The previous sales schedule revision and its requirements are no longer valid if the new sales schedule revision is approved.
- Sales schedule lines in the Sales Schedule Lines (tdsls3107m000) session.
- Sequence shipping information in the Shipping Sequence (whinh4520m000) session, and shipping sequence detail revisions in the Sequence Shipping Information (tdsls3517m000) session, provided the schedule is referenced and of the **Sequence Shipping Schedule** type.

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

Note

Pick-up Sheet (PUS) messages are supported only on the incoming side (selling company), not on the outgoing side (purchasing company). When the purchasing company publishes a Shipping Schedule, the selling company can identify that the incoming Shipping Schedule must be received as a Pick-up Sheet (PUS). Consequently, the EDI Shipping Schedule (for example X12 862) is translated into a PUS message.

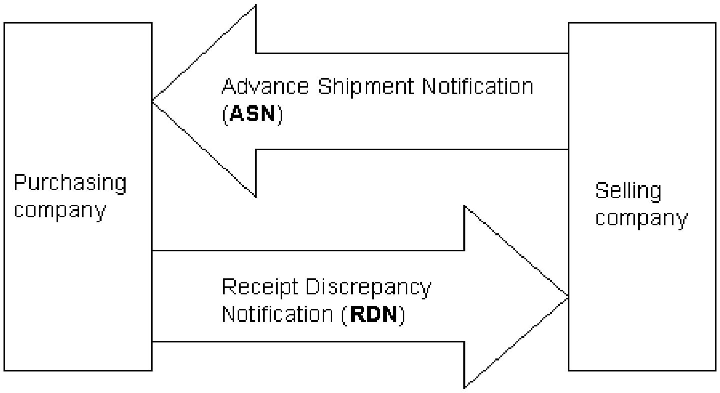
Chapter 4
Business Document Delivery

4

EDI business document Delivery

The business document Delivery describes the shipment and receipt of ordered goods and includes these EDI messages:

- **ASN**
  Advance Shipment Notification
- **RDN**
  Receipt Discrepancy Notification


Purchasing company
Advance Shipment Notification (ASN)
Receipt Discrepancy Notification (RDN)
Selling company

To ship and receive ordered goods:

1. After a sales order is released to Warehousing in the Release Sales Orders to Warehousing (tdsls4246m000) session, prepare the order for shipment to the purchasing company using the Generate Outbound Advice (whinh4201m000) and the Release Outbound Advice (whinh4202m000) sessions. Outbound advice includes information for moving goods from a warehouse storage location to a loading dock for shipment.
2. Use the Freeze/Confirm Shipments/Loads (whinh4275m000) session, or the Confirm Outbound ASN (whinh4230m100) session to confirm shipments that will prepare Advance Shipment Notification (ASN) messages.
3. Use the Shipment Notices (whinh3100m000) session to receive the advance shipment notice that is sent by the selling company.

4. Use the Warehouse Receipt (whinh3512m000) session to record the quantity of goods received from the selling company.
5. Confirm the receipt in the Warehouse Receipt (whinh3512m000) session. After you confirm a receipt or receipt line, LN sends a Receipt Discrepancy Notice (RDN) message to the selling company if the received quantity differs from the shipment notice line quantity. A discrepancy notice is sent only if advanced shipment notices are used.

Advance Shipment Notification (ASN)

The delivery process is initiated when you do either of the following:

- Prepare the warehousing order for shipment to the purchasing company using the Generate Outbound Advice (whinh4201m000) and the Release Outbound Advice (whinh4202m000) sessions.
- Confirm the shipment in the Freeze/Confirm Shipments/Loads (whinh4275m000) session or the Confirm Outbound ASN (whinh4230m100) session to prepare Advance Shipment Notification (ASN) EDI messages.

If the **Generate ASNs Automatically** check box is selected in the Inventory Handling Parameters (whinh0100m000) session, the Freeze/Confirm Shipments/Loads (whinh4275m000) session prepares the outgoing Advance Shipment Notification (ASN) message. If the **Generate ASNs Automatically** check box is cleared, you must use the Confirm Outbound ASN (whinh4230m100) session to prepare the outgoing Advance Shipment Notification (ASN) message.

An Advance Shipment Notification (ASN) message can be sent using the Direct Network Communication (ecedi7205m000) session. The generated EDI messages are displayed on a report. External EDI business partner messages are placed in the appl_from subdirectory under the directory specified for the network. Translation software will retrieve the message. Internal EDI business partner messages are stored in the appl_comm subdirectory.

An advance shipment notice (ASN) is an unconfirmed receipt. If the ASN correctly reflects the contents of the shipment, it can be confirmed, after which the ASN becomes a receipt. The receipt process is faster if ASNs are received electronically: data entry time is reduced and also the risk of errors. In the Warehouse Receipt (whinh3512m000) session, a selected shipment notice automatically populates the receipt data with the data from the shipment notice.

Reprocessing messages with errors

Validation errors can appear when incoming messages are processed. These errors prevent the message from being updated in the LN application. The entire message is stored in the Saved Messages to be Received table and you can view and correct the message using the Saved Messages to be Received (ecedi7150m000) session.

A unique batch number is assigned to each processing occurrence for each network. The Saved Messages to be Received (ecedi7150m000) session records processed incoming messages. Use this session to display received batch references created when incoming EDI messages are processed successfully or unsuccessfully.

Use the Saved Messages to be Received (ecedi7150m000) session to view and correct data. If you choose to review the messages interactively, or if errors are encountered when message data is validated, an EDI message will not be processed. The unprocessed message is referred to as Saved Messages to Be Received. When you select a record, the saved message data details are displayed in the Saved Message Data to be Received (ecedi7151s000) session.

After the message data is corrected, the message must be approved before it can be reprocessed. Use the Approve Saved Messages to be Received (ecedi7250m000) session and the Process Saved Messages to be Received (ecedi7252m000) session to complete the steps required for reprocessing a message.

After the saved message is successfully processed and updated in the LN application with the Process Saved Messages to be Received (ecedi7252m000) session, the saved message is automatically deleted from saved messages to be received.

If you decide not to process the message, you can delete the message with the Print Saved Messages to be Received (ecedi7450m000) and/or Delete Saved Messages to be Received (ecedi7251m000) sessions. You can access both sessions from the appropriate menu in the Saved Messages to be Received (ecedi7150m000) session.

Receipt Discrepancy Notification (RDN)

Advance shipment notices can be used to fill receipt data in the Warehouse Receipt (whinh3512m000) session. If a discrepancy exists between the shipment notice quantity and the actual quantity received and recorded, the discrepancy is logged. After the receipt is confirmed, a Receipt Discrepancy Notification message (RDN) is prepared for EDI.

The default conversion setup definition of the outgoing receipt discrepancy message includes the receipt discrepancy code. The code defines the type of discrepancy as follows:

- Quantity received greater than the quantity indicated on the shipment notice (quantity over).
- Quantity received less than the quantity indicated on the shipment notice (quantity short).
- Shipment notice not received prior to receipt of goods (No ASN).

To indicate that the shipment notice was not received prior to the arrival of the goods, use the Shipment Notices (whinh3100m000) session to manually specify a shipment notice with zero quantities.

The Direct Network Communication (ecedi7205m000) session will generate the outgoing Receipt Discrepancy Notification (RDN) message. A report lists the messages that were generated, and for external EDI, the outgoing message (ASCII) files are stored in the appl_from directory for the translation software.

To receive the Receipt Discrepancy Notification (RDN) message, use the Direct Network Communication (ecedi7205m000) session. This session retrieves the RDN message from the appl_to directory, after the ASCII file is placed in the directory by translation software. The message indicates that a discrepancy was found between the quantity indicated on the Advance Shipment Notice (ASN) and the quantity actually received.

The **EDI Information** fields at the shipment header, and the shipment line’s text field are updated with the information in the discrepancy message.

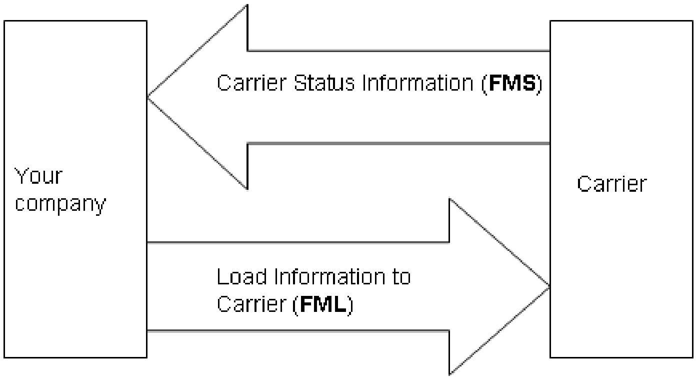
Chapter 5
Business Document Freight

5

EDI business document Freight

The business document Freight describes shipment and tracking of loads and shipments; it includes the following EDI messages:

- **FML**
  Load Information to Carrier
- **FMS**
  Carrier Status Information


Your company
Carrier Status Information (FMS)
Carrier
Load Information to Carrier (FML)

Load Information to Carrier (FML)

Load Information to carrier (FML) messages notify business partners of forthcoming subcontracting instructions. The messages are prepared when you print subcontracting instructions using either of the following sessions:

- **Actualize Freight Order Clusters (fmfoc3210m000)**
  In this session, select the **Print Subcontracting Instructions** check box, and then select **Final**.
- **Print Subcontracting Instructions (fmfoc3410m000)**
  In this session, select **Final**.

Note

To generate the EDI messages prepared, use the Generate EDI Messages (ecedi7201m000) session.

Use the Direct Network Communication (ecedi7205m000) session to generate the outgoing message. A report will list the messages that were generated. The outgoing messages for an external EDI trading partner are stored in the appl_from directory for retrieval by translation software.

Carrier Status Information (FMS)

Carrier status (FMS) messages are sent by business partners to facilitate tracking of freight order clusters, freight order cluster lines, loads, and shipments. The carrier status information is displayed in the **Status** field of the following sessions:

- Load/Shipment Tracking (fmlbd4150m000)
- Load (fmlbd4100m100), **Tracking** tab.
- Shipment (fmlbd3100m100), **Tracking** tab.

To access carrier status and other tracking information from other sessions:

1. Click **Tracking** on the appropriate menu of any of the following sessions:
    - Freight Order Clusters (fmfoc3100m000)
    - Freight Order Cluster Lines (fmfoc3101m000)
    - Loads (fmlbd4100m000)
    - Shipments (fmlbd3100m000)
    - Shipment Lines (fmlbd3150m000)

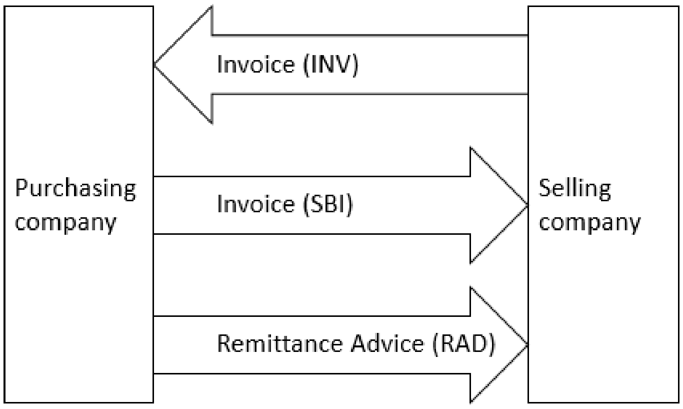
   The Load/Shipment Tracking (fmlbd4150m000) session appears.
2. If required, on the **Filter by Status** menu, point to **Sort By...**, and then click the appropriate option:
    - **Freight Order Cluster**
    - **Freight Order Cluster Line**
    - **Load**
    - **Shipment**
3. Double-click a line to view tracking details.

Chapter 6
Business Document Invoice

6

EDI business document Invoice

The business document Invoice describes the invoicing and payment of goods and includes the EDI messages Invoice (INV), Self Billed Invoice (SBI), and Remittance Advice (RAD).



Invoice (INV)

To generate the Invoice (INV) message:

1. After invoicing data is released to Invoicing, create an invoicing batch in the Invoicing Batches (cisli2100m000) session.
2. Use the Compose/Print/Post Invoices (cisli2200m000) session to process the invoicing batch, which includes composing the invoice for the released data and printing the original invoice. You can also use the Print Invoices (cisli2400m000) session to print the invoice. Printing the original invoice prepares the Invoice (INV) for EDI transmission.

If the **Generate Outgoing Message before Connection** check box is selected in the Networks (ecedi0120s000) session, use the Direct Network Communication (ecedi7205m000) session to generate the outgoing message and to provide a report that displays the generated messages. If you do not use the option to generate outgoing messages before connection in the Networks (ecedi0120s000) session, you can use the Generate EDI Messages (ecedi7201m000) session to create the ASCII files for outgoing messages.

External EDI messages are placed in the appl_from subdirectory specified for the network and the translation software retrieves the messages. Internal EDI messages need not be translated and are stored in the appl_comm subdirectory, which is used for outgoing and incoming messages.

To receive the Invoice (INV) message from a supplier (selling company), use the Direct Network Communication (ecedi7205m000) session. A purchase invoice is created and two reports are generated. The **Remarks in Copied Messages** report shows the invoice number(s) generated, along with some pertinent remarks. The **Incoming EDI Purchase Invoice** report lists the invoiced quantity and amounts at the line level, and the tax amounts by tax code ID, if applicable.

If goods are received before the Invoice (INV) message is received, automatic invoice matching occurs. If the invoice message arrives before the order is received, the purchase invoice remains unmatched and can be manually matched when the goods are received.

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

- **Invoice Matching at the Invoice Header**
  To perform invoice matching at the header, the **Automatic Matching** check box must be selected in the ACP Parameters (tfacp0100m000) session. If the received 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 that have goods received. If the tolerance is not met, the entire purchase invoice remains unmatched.
- **Invoice Matching at the Invoice Line**
  If the received message includes order line information, each invoice line is matched to the customer order lines for which goods were received. The invoice lines for which no goods are received remain unmatched.

You can view the received invoice data in the Process Purchase Invoices (tfacp2107m000) session.

Self Billed Invoice (SBI)

After you ship goods to the customer (purchasing company) and the goods are received, the customer decides what to pay and when. Usually, the payment is based on the shipment and a self-billed is sent tot the supplier (selling company). To receive the SBI message from the customer, use the Direct Network Communication (ecedi7205m000) session. Consequently, a self-billed invoice is created, which you can view in the Self-Billing Workbench (cisli5620m000) session.

Remittance Advice (RAD)

Payments from the customer to the supplier are based on the deliveries.

The payments are issued against this combination of delivery data:

- Ship-to business partner

- Shipment ID
- Customer part number
- Call-off reference, such as KANBAN Number

The payment is announced by a remittance advice message (RAM), which is sent to the supplier (selling company). To receive the RAD message from the customer (purchasing company), use the Direct Network Communication (ecedi7205m000) session. Consequently, a remittance advice is created, which you can view in the Remittance Advices (tfcmg2150m000) session.

Chapter 7
Business Document Error Handling

7

EDI business document Error Handling

The business document Error Handling describes sending, receiving, and processing Error Notification messages.

Sending Error Notification (824/APERAK) to supplier

The EDI Messages Supported by Business Partner (ecedi0511m000) session includes the **Automatically Prepare Error Notification** check box. If both trading partners select this check box, and an error exists in the received Shipment Notice (856), an outgoing Error Notification (824) message will be prepared.

To manually prepare the Error Notification message, you must run the Print Received Message Errors (ecedi7451m000) session with the **Prepare Error Notification** check box selected. The error notification can be prepared for any erroneous message received, but is of particular use for shipment notices with errors that are received in supply chain environments.

Use the Direct Network Communication (ecedi7205m000) session to generate the outgoing message. A report will be created that lists the generated messages.

Receiving Error Notification (824/APERAK) from customer

After you receive an Error Notification (824/APERAK) from your customer (ship-to business partner), and the message (ASCII) files are placed in the appropriate appl_to directory by the translation/communication software, use the Direct Network Communication (ecedi7205m000) session to receive 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 status of the shipment for which the Error Notification was received, is set to **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 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 whether 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 (ecedi7205m000) session is run, you can delete the message from this session.

Resending canceled and corrected shipment notices in response to received Error Notifications

If you wish to send a canceled shipment notice to your customer, and if the network is set up to generate messages upon Direct Network Communication, run the Direct Network Communication (ecedi7205m000) session. Otherwise, run the Generate EDI Messages (ecedi7201m000) session to manually generate the outgoing message. When the outgoing canceled shipment notice is generated, the shipment's EDI status is **Modify**, indicating that the shipment should be modified to correct the erroneous data, and resent to your business partner.

Note

These shipment notices are supported:

- **A canceled shipment notice**
  A *canceled* shipment notice is intended to cancel a previously sent erroneous shipment notice. In the Conversion of Shipment Status Codes (out) (ecedi4180m000) session, you can specify original or canceled message codes, which are included in the message.
- **An original shipment notice**
  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 *canceled* message.

If the shipment's EDI status is **Modify**, you can 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, after which you can resend the corrected shipment notice to your business partner. To resend the corrected shipment notice, use the Confirm Outbound ASN (whinh4230m100) session to prepare the corrected shipment notice (856/DESADV) for transmission; preparing the outgoing shipment notice sets the shipment's EDI status to **Confirmed.** If the network is set up to generate messages upon Direct Network Communication, run the Direct Network Communication (ecedi7205m000) session. Otherwise, run the Generate EDI Messages (ecedi7201m000) session 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.

Appendix A
Glossary

A

advance shipment notice

A notification that a shipment has been sent. Advanced shipment notices are sent and received by means of EDI. You can receive advance shipment notices from your supplier informing you that goods are to arrive at your warehouse, and/or you can send advance shipment notices to your customers that the goods they ordered are about to be delivered.

Synonym: shipment notice

Abbreviation: ASN

ANSI

This acronym stands for American National Standards Institute. ANSI is the 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.

appropriate menu

Commands are distributed across the **Views**, **References**, and **Actions** menus, or displayed as buttons. In previous LN and Web UI releases, these commands are located in the *Specific* menu.

ASN

See: *advance shipment notice (p. 31)*

call-off

To call up goods from a business partner based on a purchase schedule. Call-off involves sending a message (EDI) to notify a business partner that the scheduled items must be delivered. The message contains the item quantity and the date and time they must be delivered.

change reason

A means used to identify the reason for a change to a sales or purchase order, for example, a contract limitation, feasibility issue, or transportation limitation. A change reason is identified by a code.

change type

A user-defined code that can be used to identify types of changes made to orders, such as a price change or quantity increase.

EDIFACT

This acronym stands for Electronic Data Interchange for Administration, Commerce, and Transport. A worldwide organization developing standards for electronic data interchange.

There are other similar organizations (for example, Odette), each using its own subset of standard EDIFACT messages.

When you define messages, you can use the naming convention that coincides with the standard naming conventions to which you are accustomed.

EDI standard

A protocol defined at national and international levels to define the process, procedures, and format of electronically transmitted data (messages) between two business partners.

electronic data interchange (EDI)

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

invoicing batch

Selects the order types and orders to be invoiced. If you process an invoicing batch, LN selects the invoicing data and generates the invoices for the order types and orders selected through the invoicing batch.

kanban

A demand-pull system of just-in-time production that regulates the supply of items to shop floor warehouses.

Kanban uses standard containers or lot sizes (also called bins) to deliver items to shop floor warehouses. In the shop floor warehouse, two or more bins are available with the same items. Items are only taken from one bin. Typically, if a bin is empty, a new bin is ordered and the items are taken from the (second) full bin. To each bin a label is attached. The line stations use the label to order a full bin with the required items.

Sometimes, not every bin is provided with a label. For example, a label is attached to every second bin. When both bins are empty, the user scans the label of the second empty bin to generate a supply order for both empty bins.

nonreferenced schedule

A schedule that contains lines without a reference number. Because no specific requirement exists for the schedule line, nonreferenced schedule lines can first be clustered and then ordered, shipped, and received together.

pick-up sheet

A list of items to be picked-up at the supplier’s location by a specific carrier for transport to the customer on a specific day.

purchase release

A purchase release is used to send out, under one release number, those schedules that share the following common characteristics:

- Buy-from business partner
- Ship-from business partner
- Ship-to address
- Release type (material release/ shipping schedule/ sequence shipping schedule)
- Shipment based schedule/ receipt based schedule
- Communication method
- Warehouse

purchase schedule

A timetable of planned supply of materials. Purchase schedules support long-term purchasing with frequent deliveries and are usually backed by a purchase contract. All requirements for the same item, buy-from business partner, ship-from business partner, purchase office, and warehouse are stored in one schedule.

RAM

See: *remittance advice message (RAM) (p. 34)*

referenced schedule

A schedule that contains lines with reference numbers. When goods are shipped, received, and invoiced, the reference numbers are used to communicate with suppliers and other LN packages.

release type

A classification used to specify the type of the release based on which schedule requirements are grouped and EDI messages can be generated. These messages are indicated by the used schedule.

remittance advice message (RAM)

A notification in which a business partner states the amounts he has transferred per bank. These notifications can be received electronically through EDI or diskette, in standard EDI format.

Synonym: RAM

requirement type

Three requirement types exist that represent a requirement in time, used for scheduling.

The available requirement types are:

- **Immediate**
- **Firm**
- **Planned**

For non-referenced schedules, requirement types are linked to segments.

For pull forecast schedules, the requirement type is always **Planned** or **Immediate**. For pull call-off schedules, the requirement type is always **Firm**.

sales release

Identifies, by one release number, those sales schedules that share the following common characteristics:

- Sold-to business partner
- Ship-to business partner
- Ship-to address
- Release type (material release/ shipping schedule/ sequence shipping schedule/ pick-up sheet)
- Shipment based schedule/ receipt based schedule
- Schedule quantity qualifier
- Forecast horizon start and end
- Sales release origin
- Customer release
- (Customer order)
- Customer contract reference

sales schedule

A timetable of planned supply of materials. Sales schedules support long-term sales with frequent deliveries. All requirements for the same item, sold-to business partner, ship-to business partner, and delivery parameter are stored in the same sales schedule.

sales schedule revision number

A number that uniquely identifies the revision of the sales schedule. The sales schedule revision number indicates the sales schedule updates that are sent by your business partner.

self-billing

The periodic creation, matching, and approval of invoices based on receipts or consumption of goods by an agreement between business partners. The sold-to business partner pays for the goods without having to wait for an invoice from the buy-from business partner.

sequence shipping schedule

A shipping schedule with precise information about the production or deliveries of the requirements. This schedule can include the production or delivery sequence, and the order, the place, and the time of unloading after shipment.

shipment notice

See: *advance shipment notice (p. 31)*

subcontracting instructions

Subcontracting instructions constitute the subcontracting order for a carrier. The subcontracting instructions list the goods for which the carrier is to carry out the transportation.

time-phased order point (TPOP)

A push system that regulates the time-phased supply of items to warehouses.

The quantity of items that is supplied to the warehouse depends on:

- The available inventory in the warehouse.
- The inventory that is planned to be delivered to the warehouse within the specified order horizon.
- The specified safety stock, optionally adjusted to the seasonal factor for the current period, for the item and warehouse.

If the available inventory plus the planned inventory are below the reorder point, the inventory in the warehouse is replenished.

Abbreviation: TPOP

See: safety stock

TPOP

See: *time-phased order point (TPOP) (p. 35)*

VDA

Acronym for Verband der Automobilindustrie; A standard for automotive electronic interchange of business transactions in Germany. This particular standard uses a fixed length field/record format.

Index

advance shipment notice, 31
ANSI, 31
appropriate menu, 31
ASN, 31
call-off, 31
change reason, 31
change type, 32
Delivery
  EDI business document, 19
EDI business document
  delivery, 19
  error handling, 29
  freight, 23
  invoice, 25
  order, 9
  overview, 7
  schedule, 13
EDIFACT, 32
EDI messages
  ASN, 20, 29
  FML, 23
  FMS, 24
  INV, 25
  MRL, 14
  ORA, 12
  ORC, 11
  ORD, 10
  ORS, 11
  process, 17
  RAD, 26
  RDN, 21
  receive error notification, 29
  reprocess, 20
  resend shipment notices, 30
  SBI, 26
  send error notification, 29
  SEQ, 14
  SHP, 14
EDI standard, 32
electronic data interchange (EDI), 32
Error handling
  EDI business document, 29
Freight
  EDI business document, 23
Invoice
  EDI business document, 25
invoicing batch, 32
kanban, 32
nonreferenced schedule, 33
Order
  EDI business document, 9
Overview
  EDI business document, 7
pick-up sheet, 33
purchase release, 33
purchase schedule, 33
RAM, 34
referenced schedule, 33
release type, 33
remittance advice message (RAM), 34
requirement type, 34
sales release, 34
sales schedule, 34
sales schedule revision number, 34
Schedule
  EDI business document, 13
self-billing, 35
sequence shipping schedule, 35
shipment notice, 31
subcontracting instructions, 35
time-phased order point (TPOP), 35
TPOP, 35
VDA, 35