Order Business Models

February 1996

Preface

Purpose:

The purpose of this document is to model the flow of documents used in some common business processes for placing and managing purchase orders.

Any implementation model is agreed upon by trading partners. It is the intent of this document to make interpretation of the models used for orders more consistent, so that implementations are based upon common practices.

Additional References:

EIDX Implementation Recommendations for Change Order Transaction (860), Change Order Acknowledgment (865) Transaction, published August 1995
EIDX Implementation Recommendations: Blanket Purchase Order Transactions (draft 2/96)
EIDX Transaction / Message Guidelines (see list of transactions below)

Preface

Standards Versions:

Transactions refered to in this document are particular to ASC X12 Version 003020 and UN-EDIFACT Version/Release 92.1. Users of this document may need to adapt information when applying these recommendations to other standards versions.
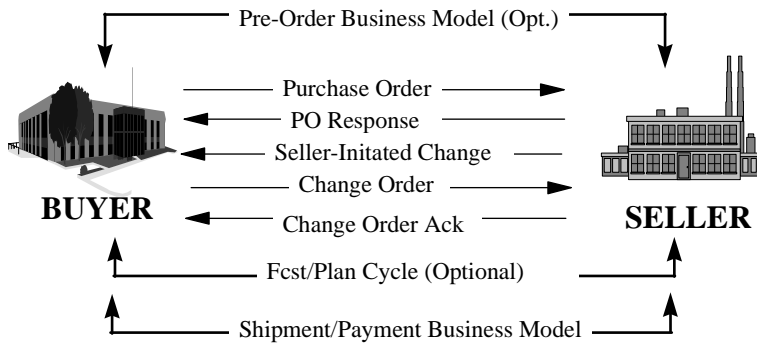
Transactions / Messages Used in these Models:

850/ORDERS - Purchase Order
> To place orders

852/INVRPT - Product Activity
> To convey usage

855/ORDRSP - Purchase Order Acknowledgment
> To acknowledge orders

856/DESADV - Ship Notice/Despatch Advice
> To advise of shipment

860/ORDCHG - Purchase Order Change
> To convey changes to open orders

861/RECADV - Receipt Advice
> To advise of receipt of goods.

865/ORDRSP - Change Order Acknowledgment
> To acknowledge changes to orders or to convey seller-initiated changes

Contents

Order Business Model 1
Traditional Stand-Alone PO

Pre-Order Business Model (Opt.)

Purchase Order →

← PO Response

← Seller-Initated Change

Change Order →

← Change Order Ack

BUYER **SELLER**

Fcst/Plan Cycle (Optional)

Shipment/Payment Business Model

Attributes: Buyer calculates requirements and places purchase orders, based upon agreed standard product and pricing information from Price / Sales Catalog or upon Quote Request / Responses.

Order Business Model 1
Planning Forecast

Transactions Used
➤ Buyer generates discrete Purchase Order (850/ORDERS)
➤ Seller responds with Acknowledgment (855/ORDRSP)
➤ Seller-initiated changes may be transmitted (865/ORDRSP)
➤ Change to PO sent if needed (860/ORDCHG)
➤ Seller acknowledges change orders (865/ORDRSP)
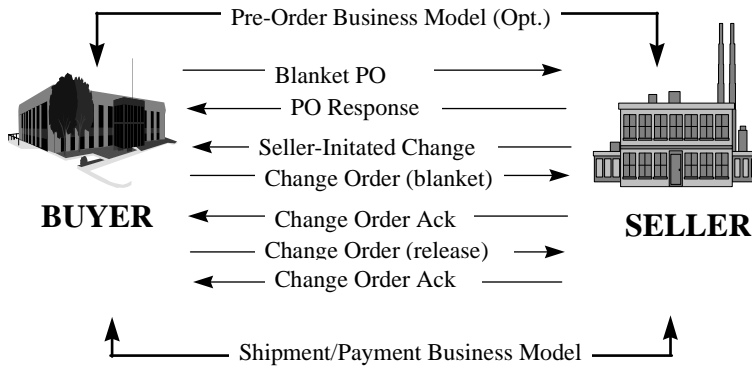
Recommended Usage:
➤ Stand-alone model
➤ (Optionally) with Pre-Order Model (Price Catalog/Quotes)
➤ (Optionally) with Forecast/Planning Model 1 (Planning Forecast)

Not Recommended Usage:
➤ With other Forecast/Planning Models

Order Business Model 2
Blanket Purchase Order - Discrete Release

Pre-Order Business Model (Opt.)

Blanket PO →

← PO Response

← Seller-Initated Change

Change Order (blanket) →

BUYER ← Change Order Ack

Change Order (release) → **SELLER**

← Change Order Ack

Shipment/Payment Business Model

Attributes: This process is intended for a non-forecast environment, and implies the need for acknowledgments. Buyer calculatesrequirements and generates blanket PO for stated period (such as yearly). Change Orders are issued to "release" discrete requirements / schedules. Change Order Acknowledgments are returned to confirmand acknowledge releases.

Order Business Model 2
Blanket Purchase Order - Discrete Release

Transactions Used
➤ Buyer generates Blanket Purchase Order (850/ORDERS)
➤ Seller responds with Acknowledgment to Blanket PO (855/ORDRSP)
➤ Seller-initiated changes may be transmitted (865/ORDRSP)
➤ Change to BPO sent if needed (860/ORDCHG)
➤ Seller acknowledges change orders (865/ORDRSP)
➤ Change orders sent for discrete releases (860/ORDCHG)
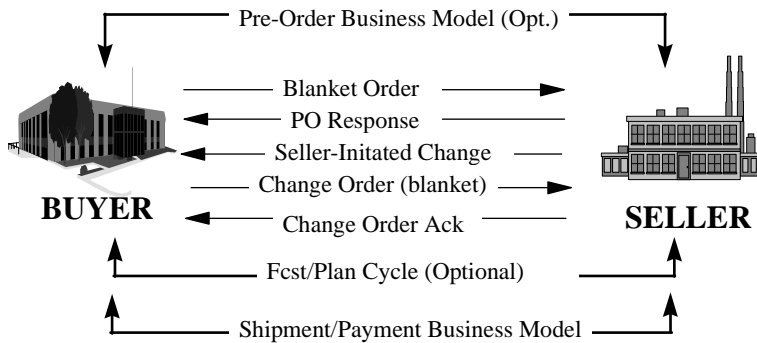➤ Change order acknowledgments confirm releases (865/ORDRSP)

Recommended Usage:
➤ (Optionally) with Pre-Order model (Price Catalog/Quotes)

Not Recommended Usage:
➤ With Forecast/Planning model

Order Business Model 3
Blanket Purchase Order - Forecast Release

Attributes: Buyer calculates requirements and generates blanket PO for stated period (such as yearly). Blanket includes authorization and other terms. Change order process used to handle changes to total order quantity, pricing, and other order parameters other than the delivery schedules.

Order Business Model 3
Blanket Purchase Order - Forecast Release

Transactions Used
➤ Buyer generates Blanket Purchase Order (850/ORDERS)
➤ Seller responds with Acknowledgment to Blanket PO (855/ORDRSP)
➤ Seller-initiated changes may be transmitted (865/ORDRSP)
➤ Change to BPO sent if needed (860/ORDCHG)
➤ Seller acknowledges change orders (865/ORDRSP)

Recommended Usage:
➤ (Optionally) with Pre-Order model (Price Catalog/Quotes)
➤ With at least one Forecast/Planning model
Not Recommended Usage:
➤ Do not use with Order Business Model 1 (Traditional Stand-Alone Order)

Order Business Model 4
Consumption-Based SMI (Supplier-Managed Inventory

Attributes: Seller calculates requirements based upon consumption information (i.e. used-up, pulled from stock, sold). Also known as "sell-through."

Order Business Model 4
Consumption-Based SMI (Supplier-Managed Inventory)

Transactions Used
➤ Buyer generates Blanket Purchase Order (850/ORDERS)
➤ Seller responds with Acknowledgment to BPO (855/ORDRSP)
➤ Seller-initiated changes may be transmitted (865/ORDRSP)
➤ Change to BPO sent if needed (860/ORDCHG)
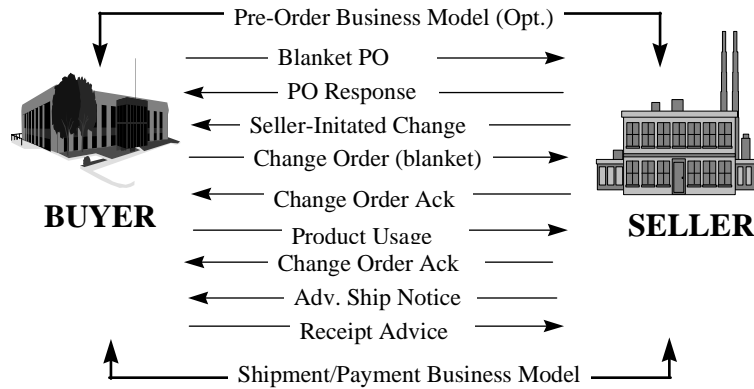➤ Seller acknowledges change orders (865/ORDRSP)
➤ Product Activity provides consumption data sent to seller (852/??????)
➤ Seller informs buyer of release and shipment (856/DESADV)
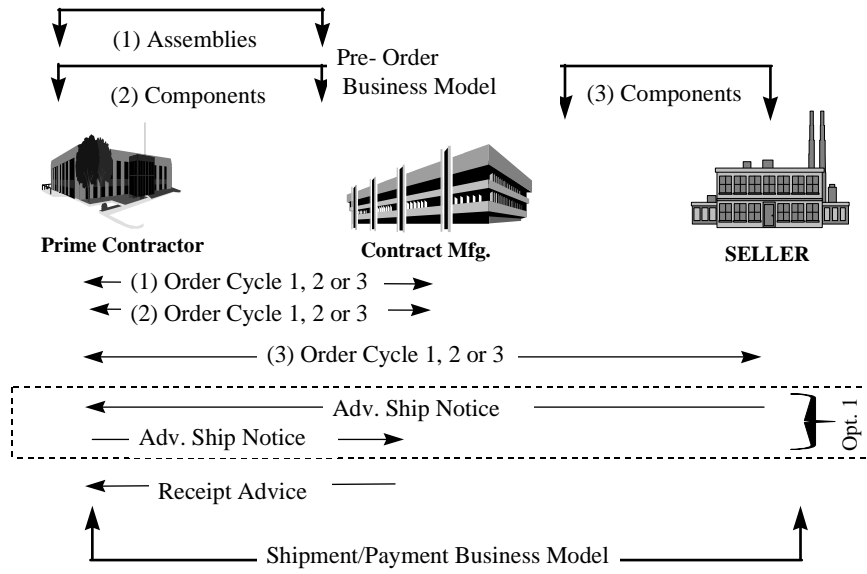➤ Buyer sends Receipt Advice to seller as proof of delivery (861/RECADV)

Recommended Usage:
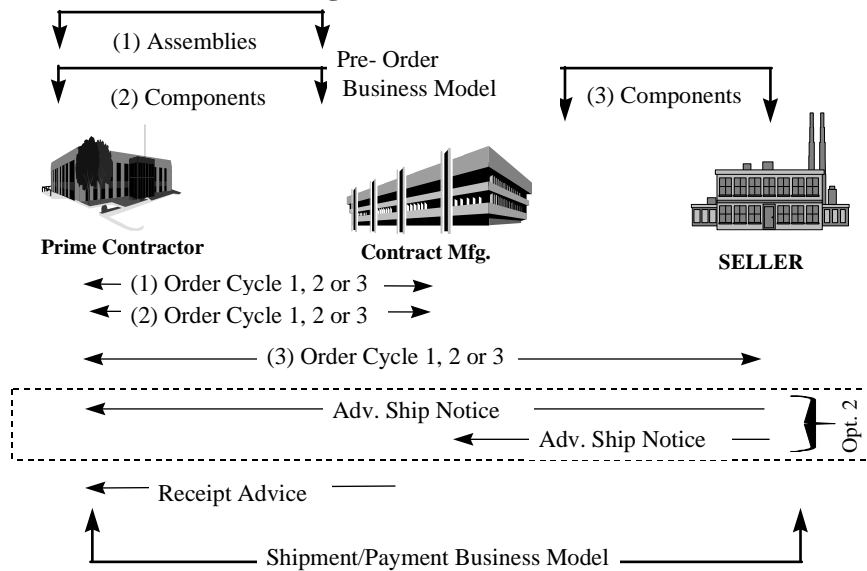➤ (Optional) With Pre-Order Model
Not Recommended Usage:
➤ With Forecast/Planning model

Order Business Model 5
Contract Manufacturing

(1) Assemblies

Pre- Order
Business Model

(2) Components

(3) Components

Prime Contractor

Contract Mfg.

SELLER

← (1) Order Cycle 1, 2 or 3 →

← (2) Order Cycle 1, 2 or 3 →

← (3) Order Cycle 1, 2 or 3 →

← Adv. Ship Notice

── Adv. Ship Notice →

Opt. 1

← Receipt Advice ──

Shipment/Payment Business Model

Order Business Model 5
Contract Manufacturing

(1) Assemblies

Pre- Order
Business Model

(2) Components

(3) Components

Prime Contractor

Contract Mfg.

SELLER

← (1) Order Cycle 1, 2 or 3 →

← (2) Order Cycle 1, 2 or 3 →

← (3) Order Cycle 1, 2 or 3 →

← Adv. Ship Notice ──

← Adv. Ship Notice ──

Opt. 2

← Receipt Advice ──

Shipment/Payment Business Model

Order Business Model 5
Contract Manufacturing

Attributes: Prime Contractor (Buyer) orders assemblies (in a forecast environment) from contract manufacturer. Contract manufacturer obtains components from buyer, who in turn orders parts from seller for drop-ship to contract manufacturer. Ship notices and receipt advice used to maintain order and inventory status.

NOTE: If buyer is manufacturer of the component, Order Models 1-3 are used as appropriate; there may be differences in the contents of the transactions.

Order Business Model 5
Contract Manufacturing

Transactions Used

➤ Prime contractor (PC, buyer) generates order for assembly to contract manufaturer (using transactions per Order Model 1, 2 or 3).

➤ Contract Manufacturer (CM) determines component requirements and issues purchase order to PC (using transactions per Order Model 1, 2 or 3).

➤ PC orders components from seller for drop-ship to CM (using transactions per Order Model 1,2 or 3), referencing CM's part number and order number for seller to use on packing list.

    Option 1:

    ➤ Seller sends Ship Notice (856/DESADV) to PC (party that placed order)

    ➤ PC forwards copy of Ship Notice to CM

    Option 2:

    ➤ Seller sends Ship Notice (856/DESADV) to PC (party that placed order)

    ➤ Seller sends copy of Ship Notice to CM.

➤ CM sends Receipt Advice (861/RECADV) to PC so that buyer can update order and verify that invoice is payable.

Order Business Model 5
Contract Manufacturing

Recommended Usage:

➤(Optionally) With Forecast/Planning Model 5 (Contract Manufacturing)

➤(Optionally) Parties may use other forecast/planning models in 2-party mode (PC with CM, PC with seller, CM with seller)

Not Recommended Usage:

➤Supplier-Managed Inventory (SMI), forecast-based or consumption-based

➤Consignment. For consignment or SMI, use an order model where parts are shipped to prime contractor, along with Inventory Management Model 2; in this case, the PC transfers/resells components to CM; alternatively,in an environment where CM buys components from seller, CM and seller can negotiate a consignment or SMI process independently from the prime contractor.

Consignment and Order Models

Recommended Usage:

Consignment processes are initiated for business reasons decided between trading partners. EIDX will make no recommendations as to whether / when consignment should be used. However, EIDX will recommend guidelines for transactions to be used to support consignment processes, to allow for consistency in implementations. Consignment is called "Line Side Stocking" in Europe.

Order Models 1 and 2 (Discrete PO, BPO-Discrete Releases

➤For consignment, use Inventory Management Model 1.

Order Model 3 (Blanket PO, Forecast Release)

➤For consignment, use Inventory Management Model 1, but refer first to Forecast Planning Models.

Order Model 4 (Consumption-based SMI)

➤For consignment, there is an overlap in transactions used for the Order Model and the Inventory Management Models; this should be reflected in transaction examples.