USE CASE: ABC Scenario Samples

Introduction

The content for the set of samples with the suffix – *ABC* is set up to show a complete cycle of xCBL 3.5 messages related to the ordering, invoicing and payment of goods. The cycle starts with availability and price check messages followed by various messages for material ordering, modification to the order and order status checking. The messages of followed up by the advanced shipment notice, a goods receipt, invoice and are completed with payment for the goods.

This set of documents are all xCBL 3.5.

All of the Actors listed below along with the Part Numbers and Amounts are Fictional.

Actors in the Scenario

Buyer/Payee: Company purchasing parts used in the manufacturing of their product. This will also be the billing address.

> **ABC Enterprises**
> PO Box
> Alpine, NY 20012
> Telephone: 655-456-8911

Ship To: The plant where the ABC Company puts together their product.

> **ABC Enterprises**
> 255 Marble Court

Marble Court Industrial Complex
Building G
New York, NY 20001
Telephone: 655-456-8901

Supplier/Seller/Payee: Seller of parts used in making other products.
Dunn Manufacturing
Order Department
Orange, CA 95006
Telephone: 212-345-4784

Buyers Financial Institution – Payer Party
Bank of the US
Account Number 91827364651
Financial ID 382949283

Supplier/Seller Financial Institution – Payee Party
Savings and Loan of California
Account Number 49234090115
Financial ID 32411521342

AvailabilityCheck Transactions – stand alone

Pre-Conditions: Buyer and Supplier are known users of MarketSite.

- The Buyer, ABC Enterprises (BuyerSide) sends an **AvailabilityCheckRequest** to Dunn Manufacturing, to communicate Buyer's product requirements.

- Dunn Manufacturing (SupplierSide) sends back a **AvailabilityCheckResponse** giving their answer. This request is only used to request the availability of goods. All the items in the list are offered by a single supplier to a single buyer.

The **AvailabilityCheckRequest** is designed to seek the availability of goods or materials only. There is no support for ordering in the design of this document. All creation of purchase **Orders** of shipments are handled by the **Order** document.

Example Documents: AvailabilityCheckRequestSample-ABC.xml and AvailabilityCheckResultSample-ABC.xml

PriceCheck Transactions – stand alone

- The Buyer, ABC Enterprises, sends out a **PriceCheckRequest** to the Seller for items they need pricing information on.

In the **PriceCheckRequestDetail** the information about each item is the part numbers and quantity. When this information comes back in the Result document, it will include the pricing information within the **ResultPrice** element.

This scenario is a US company to a US company, the currency of the document is assumed to be USD (US Dollars), but if this were from a US company to an international company, this information would be very important to the transaction.

- Dunn Manufacturing sends back the **PriceCheckResults** that has the price information for the items listed in the **PriceCheckRequest**.

In the **PricedCheckResultDetail** the pricing information is contained for each item.

The pair of documents are set up to be used alone. They can precede an order, as when the order contact needs pricing information because it is not in the catalog, or the pricing information is out of date.

Basic Procurement - Order & OrderResponse Document Exchange

In this scenario we are assuming the **Order** that is sent out is a discrete or stand-alone **Order** and is a one-time commitment to the Supplier for goods.

This could be made by the Buyer filling a shopping cart on a by a browser interface.

- Seller may or may not send out an **OrderRequest** to the Buyer to see if they are ready to purchase parts that may or may not have been contracted for in previous transactions.

- The **OrderRequest** document is not mandatory in the transaction flow.

The **OrderRequest** does not reference any other documents, but has its own Unique ID, which both the Buyer and Seller can insert their own numbering:

```
<OrderRequestNumber>
    <BuyerOrderRequestNumber>REF-002-99-0-3000</BuyerOrderRequestNumber>
    <SellerOrderRequestNumber>REF002-44556677</SellerOrderRequestNumber>
</OrderRequestNumber>
```

- Buyer sends an **Order** to Supplier for parts.

    Order Data Requirements:

    - Quantity to be shipped.

    - Dates to be shipped

    - Part numbers or descriptions

    - Price and type of currency

    - Purchase Order Number (Order Number)

    - Buyer Party information

    - Ship to locations

    The Buyer sends an **Order** it can reference the **OrderRequest** (but does not have to). It will reference the Account Code of the Buyer.

In referencing the Buyer and Sellers **OrderRequest** Numbers, the following code example will make it clear.

```
<ListOfReferenceCoded>
  <ReferenceCoded>
     <ReferenceTypeCoded>RequestNumber</ReferenceTypeCoded>
     <PrimaryReference>
        <Reference>
            <RefNum>REF-002-99-0-3000</RefNum>
            <RefDate>20010104T09:00:00</RefDate>
```

```
            </Reference>
        </PrimaryReference>
        <ReferenceDescription>Buyers OrderRequest Number</ReferenceDescription>
    </ReferenceCoded>
    <ReferenceCoded>
        <ReferenceTypeCoded>RequestNumber</ReferenceTypeCoded>
        <PrimaryReference>
            <Reference>
                <RefNum>REF002-44556677</RefNum>
                <RefDate>20010104T09:00:00</RefDate>
            </Reference>
        </PrimaryReference>
        <ReferenceDescription>Sellers OrderRequest Number</ReferenceDescription>
    </ReferenceCoded>
</ListOfReferenceCoded>
```

The **Order** also has its own unique ID, which will be used to reference the **Order** in other documents. This number is also known as the **Purchase Order Number**.

```
<OrderNumber>
    <BuyerOrderNumber>4500005693</BuyerOrderNumber>
</OrderNumber>
```

If the Seller has their own unique number for this order, it goes inside the **SellerOrderNumber** which is an optional element inside of **OrderNumber**.

The Order contains the list of items being purchased by the Buyer. Each **ItemDetail** describes a separate item being purchased. The **BaseItemDetail** includes line numbers, item identifiers, part numbers, and quantity. The **ItemDetail** also includes the pricing information, delivery information and notes both general and structured. You can also attach documents pertaining to the item here.

ChangeOrder Transactions

A **ChangeOrder** is Buyer-initiated. It is optional, and answered with an **OrderResponse**.

- Buyer sends **ChangeOrder**, Seller responses with an **OrderResponse**.

In this scenario, the Buyer is sending a **ChangeOrder** to increase the quantity ordered from 1 to 5 of item number 2.

- Buyer sends **ChangeOrder** to Supplier to change the original **Order**.
- Supplier sends a second **OrderResponse** to Buyer to say that they have the **ChangeOrder**.

A **ChangeOrder** has to reference an **Order** Document. That is done using the **OrderReference** element to reference the **Order** Number or PO number as it is known as:

```
<OrderReference>
    <Reference>
        <RefNum>4500005693</RefNum>
        <RefDate>20010203T12:00:00</RefDate>
    </Reference>
</OrderReference>
```

In this scenario, the Buyer, ABC Enterprises changes their requested quantity for item 2 from 1 to 5. The document lists the **ItemDetail** and then an **ItemDetailChanges** which contains the changed information.

Status Checks of an Order

The Buyer can send out **OrderStatusRequest** to the Supplier to check on status. In this case, ABC Enterprises sends an OrderStatusRequest to Dunn Manufacturing to find out what the status of the order is.

- Buyer sends out **OrderStatusRequest** to Supplier for the status of goods to be shipped is. The **OrderStatusRequest** references the original **Order** within the Detail of the OrderStatus document.

- Seller sends back a **OrderStatusResult** document with the status of the order. It does not give a detail list of items from the Order, just a **StatusEventCode**. The code choices are: Pending, NotAccepted, Dispatched, Other.

At this point the goods are ready to be shipped and received.

AdvanceShipNotice Document

The Seller Dunn Manufacturing sends out an ASN document when the good are prepared for shipping. This document has its own unique ID and it references the Purchase Order the goods are being shipped against. The ASN document then gives the status of the order being shipped along with shipping dates. Within the Detail of the ASN, you will find the allowance or charge section. The **ASNItemDetail** is repeatable because it is within a **ListOfASNItemDetail**.

The summary of the AdvanceShipNotice document.

There is a total of lines, which is the count of Line Items.

There is a total of transport packages in the element **TransportPackagingTotals**. Which is the total of packages within this ASN document that will be shipped. Within this element, you put the information regarding the transportation of these packages in total, not line item differences. That goes up inside each line item. This sample does not have values for all of the elements that are possible in this area. The possible elements are: GrossVolume, TotalGrossWeight, TotalNetWeight, TotalTareWeight.

GoodsReceipt

ABC Enterprises receives the Order from Dunn Manufacturing. After performing the receipt of goods, ABC finds that only 100 of the requested 111 ordered items were delivered to ABC. ABC Enterprises sends a **GoodsReceipt** document to Dunn Manufacturing. In the GoodsReceipt, ABC asks Dunn to adjust the invoice to reflect the received 100 goods instead of the 111 items.

This details how the quantity shipped and the quantity received do not match

```
<QuantityShipped>
   <Quantity>
      <QuantityValue>111</QuantityValue>
      <UnitOfMeasurement>
```

```
                <UOMCoded>EA</UOMCoded>
            </UnitOfMeasurement>
        </Quantity>
    </QuantityShipped>
    <QuantityReceived>
        <Quantity>
            <QuantityValue>100</QuantityValue>
            <UnitOfMeasurement>
                <UOMCoded>EA</UOMCoded>
            </UnitOfMeasurement>
        </Quantity>
    </QuantityReceived>
    <QuantityDifference>
        <Quantity>
            <QuantityValue>11</QuantityValue>
            <UnitOfMeasurement>
                <UOMCoded>EA</UOMCoded>
            </UnitOfMeasurement>
        </Quantity>
    </QuantityDifference>
```

ABC Enterprises uses the **GoodsReceiptHeaderNote** to inform Dunn to make an adjustment to their records

```
<GoodsReceiptHeaderNote>
Only 100 of the 111  R-5000 were delivered, please make adjustment
</GoodsReceiptHeaderNote>
```

Invoice

Dunn Manufacturing, the Supplier, sends an **Invoice** to ABC Enterprises for the parts received. The **Invoice** references the **PurchaseOrderNumber,** lists the items shipped and contains the total amount payable. This starts the payment transactions, which will be part of another document.   Dunn Manufacturing also adjusted the invoice to reflect the 100 items received by ABC. They included a LineItemNote to detail the change.

```
                <Quantity>
                    <QuantityValue>100</QuantityValue>
                    <UnitOfMeasurement>
                        <UOMCoded>EA</UOMCoded>
                    </UnitOfMeasurement>
                </Quantity>
            </TotalQuantity>
        </InvoiceBaseItemDetail>
        <InvoicePricingDetail>
            <ListOfPrice>
                <Price>
                    <UnitPrice>
                        <UnitPriceValue>10.00</UnitPriceValue>
                    </UnitPrice>
                </Price>
```

```
                </ListOfPrice>
                <InvoiceCurrencyTotalValue>
                    <MonetaryValue>
                        <MonetaryAmount>1000.00</MonetaryAmount>
                    </MonetaryValue>
                </InvoiceCurrencyTotalValue>
            </InvoicePricingDetail>
            <LineItemNote>We invoiced for only the 100 items that you received,
out of the 111 shipped</LineItemNote>
```

PaymentRequest

After ABC Enterprises receives the **Invoice** from Dunn Manufacturing, they want to pay Dunn using an electronic payment. ABC Enterprises generates a **PaymentRequest** document to their financial institution.

The **PaymentRequest** references the **Invoice** from Dunn Manufacturing

```
            <PaymentDocumentID>
              <Reference>
                <RefNum>INV: 450005693</RefNum>
              </Reference>
            </PaymentDocumentID>
```

```
In the PaymentRequest, ABC Enterprises enters the financial institution information
for both ABC and Dunn
```

ABC Enterprises Financial Information

```
            <FinancialInstitutionDetail>
              <OriginatingFinancialInstitution>
                <FIAccountDetail>
                  <AccountDetail>
                    <AccountID>91827364651</AccountID>
                    <AccountTypeCoded>BusinessAccount</AccountTypeCoded>
                    <AccountName1>ABC Enterprise Payment Account</AccountName1>
                  </AccountDetail>
                  <FinancialInstitution>
                    <FinancialInstitutionID>382949283</FinancialInstitutionID>
                    <FinancialInstitutionName>Bank of the
US</FinancialInstitutionName>
                  </FinancialInstitution>
                </FIAccountDetail>
              </OriginatingFinancialInstitution>
```

Dunn Manufacturing Financial Information

```
        <ReceivingFinancialInstitution>
                <FIAccountDetail>
                  <AccountDetail>
                    <AccountID>49234090115</AccountID>
                    <AccountTypeCoded>PrimaryBank</AccountTypeCoded>
                    <AccountName1>Dunn Manufacturing Receivables</AccountName1>
                  </AccountDetail>
```

```
            <FinancialInstitution>
                <FinancialInstitutionID>32411521342</FinancialInstitutionID
>
                <FinancialInstitutionName>Savings and Loan of
California</FinancialInstitutionName>
            </FinancialInstitution>
        </FIAccountDetail>
    </ReceivingFinancialInstitution>
</FinancialInstitutionDetail>
```

The Request also specifies the dates required for the payment to be processed

```
<PaymentDates>
    <PaymentDueDate>20010315T09:00:00</PaymentDueDate>
    <RequestedPaymentDate>20010311T09:00:00</RequestedPaymentDate>
    <PayBeforeDate>20010315T09:00:00</PayBeforeDate>
</PaymentDates>
```

The Request for payment is for $6,000.00, the amount reflected in the **Invoice**

```
<TotalSettlementAmount>
    <MonetaryValue>
        <MonetaryAmount>6000.00</MonetaryAmount>
        <Currency>
            <CurrencyCoded>USD</CurrencyCoded>
        </Currency>
    </MonetaryValue>
</TotalSettlementAmount>
```

PaymentRequestAcknowledgement

The financial institution sends back a **PaymentRequestAcknowledgment** to ABC Enterprises to acknowledge the receipt of the **PaymentRequest.** This acknowledgement returns back the information that ABC sent to the financial institution.

Included in the acknowledgement is the **PaymentRequestAcknID** that can be used by ABC Enterprises to ensure that they made the PaymentRequest and that the financial institution is processing the request.

```
<PaymentRequestAcknID>ACK49302943</PaymentRequestAcknID>
    <PaymentRequestIDReference>
        <Reference>
            <RefNum>PR49805693</RefNum>
            <RefDate>20010216T11:00:00</RefDate>
        </Reference>
    </PaymentRequestIDReference>
```

The financial institution also provide a ConfirmationID that can be used by ABC Enterprises to reference the payment with the financial institution

```
<ConfirmationID>839401274</ConfirmationID>
```

PaymentStatusRequest

ABC Enterprises wants to see the status of the **PaymentStatusRequest** and sends out a **PaymentStatusRequest** to the financial institution to determine the status of the payment.

ABC Sends the request that contains the **ConfirmationID** supplied by the financial institution in the **PaymentRequestAcknowledgement**, as well as the **MonetaryAmount** of the original request.

```
<PaymentStatusRequestDetail>
    <SequenceNumber>1</SequenceNumber>
    <ConfirmationID>839401274</ConfirmationID>
    <SettlementAmount>
        <MonetaryValue>
            <MonetaryAmount>6000.00</MonetaryAmount>
            <Currency>
                <CurrencyCoded>USD</CurrencyCoded>
            </Currency>
        </MonetaryValue>
    </SettlementAmount>
    <ListOfPaymentRequestReferences>
        <ListOfReference>
            <Reference>
                <RefNum>PR49805693</RefNum>
                <RefDate>20010216T11:00:00</RefDate>
            </Reference>
```

PaymentStatusResponse

The financial institution receives the **PaymentStatusRequest** and responds to the request with a **PaymentStatusResponse**. The Response tells ABC Enterprises that the payment has been made to Dunn Manufacturing and that it was successful.

```
<PaymentExceptionCoded>Success</PaymentExceptionCoded>
```

The PaymentStatusResponse references the **PaymentStatusRequestID**

```
<PaymentStatusRequestID>
    <Reference>
        <RefNum>45323453123</RefNum>
        <RefDate>20010218T09:30:00</RefDate>
    </Reference>
</PaymentStatusRequestID>
```

```
<PaymentStatusResponseID>
   <Reference>
      <RefNum>53434938204</RefNum>
      <RefDate>20010218T09:32:00</RefDate>
   </Reference>
```