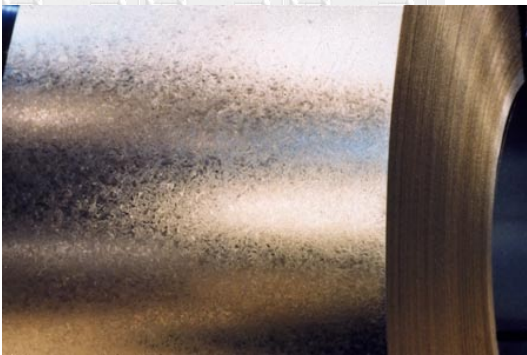
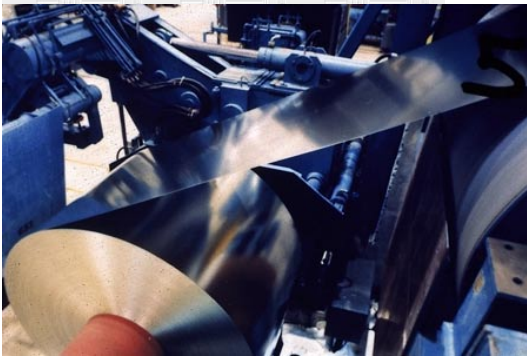


isXML: Material Release

An Industry Document Guideline for Metal Transactions

American Iron & Steel Institute

April 2001



DRAFT – Release 0.1



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05/02/2001

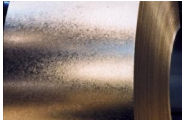
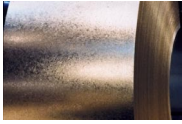


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Background

This document is intended to describe the ‘payload’ section of an XML-formatted ‘Material Release’ message. Message routing structures are not currently a part of these guidelines.

The **structure** of the AISI XML message is as follows:

isXML DTD

1. Interchange level (described in ‘Draft V0001 – Control.doc)
2. Transaction level
 - 2.1. Control (described in ‘Draft V0001 – Control.doc)
 - 2.2. Data Area
 - 2.2.1. Header
 - 2.2.2. Detail

As part of the methodology used to develop these guidelines, the work group mapped transaction data requirements, grouped like elements together as ‘classes’ or common components, and structured the document.

The section labeled ‘**Class Relationships**’ diagrams the document structure in terms of the identified classes or components. The section labeled ‘**Document Structure**’ further outlines the hierarchical structure of the message.

The ‘**isXML DTD**’ portion of the guideline contains the message DTD. The common class definitions have been ‘included’ in the DTD and are described in ‘Draft V0001 – Overview.doc’.

A number of sections in the guideline have been reserved for ‘examples’. The ‘source document’ is a representation of a paper document used to derive the example. The ‘machine version’ example is a fully extended version of the XML which would be used where sophisticated systems are communicating and have access to industry and society codes and table structures. Finally, the ‘text version’ example is used for a lower-tech implementation where codes and tables need not be referenced.

A tag dictionary is included in ‘Draft V0001 – Overview.doc’.



Transaction Description and Usage

This draft guideline contains the format and establishes the data contents of the material release transaction. This transaction can be used to provide for the transfer of forecasting/material release information between organizations.



Class Relationships

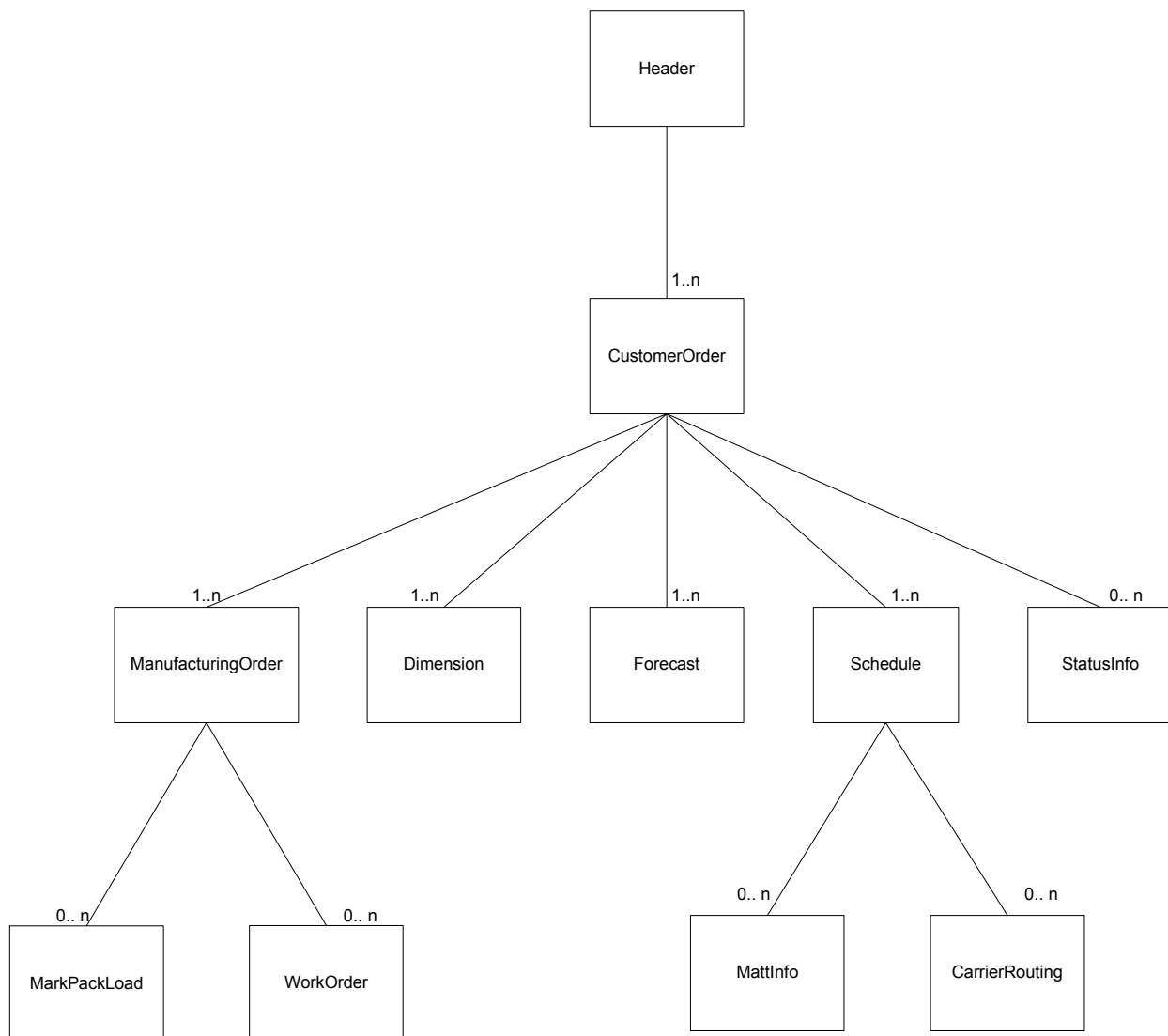
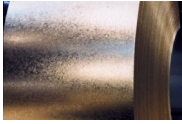


Figure 1



Document Structure

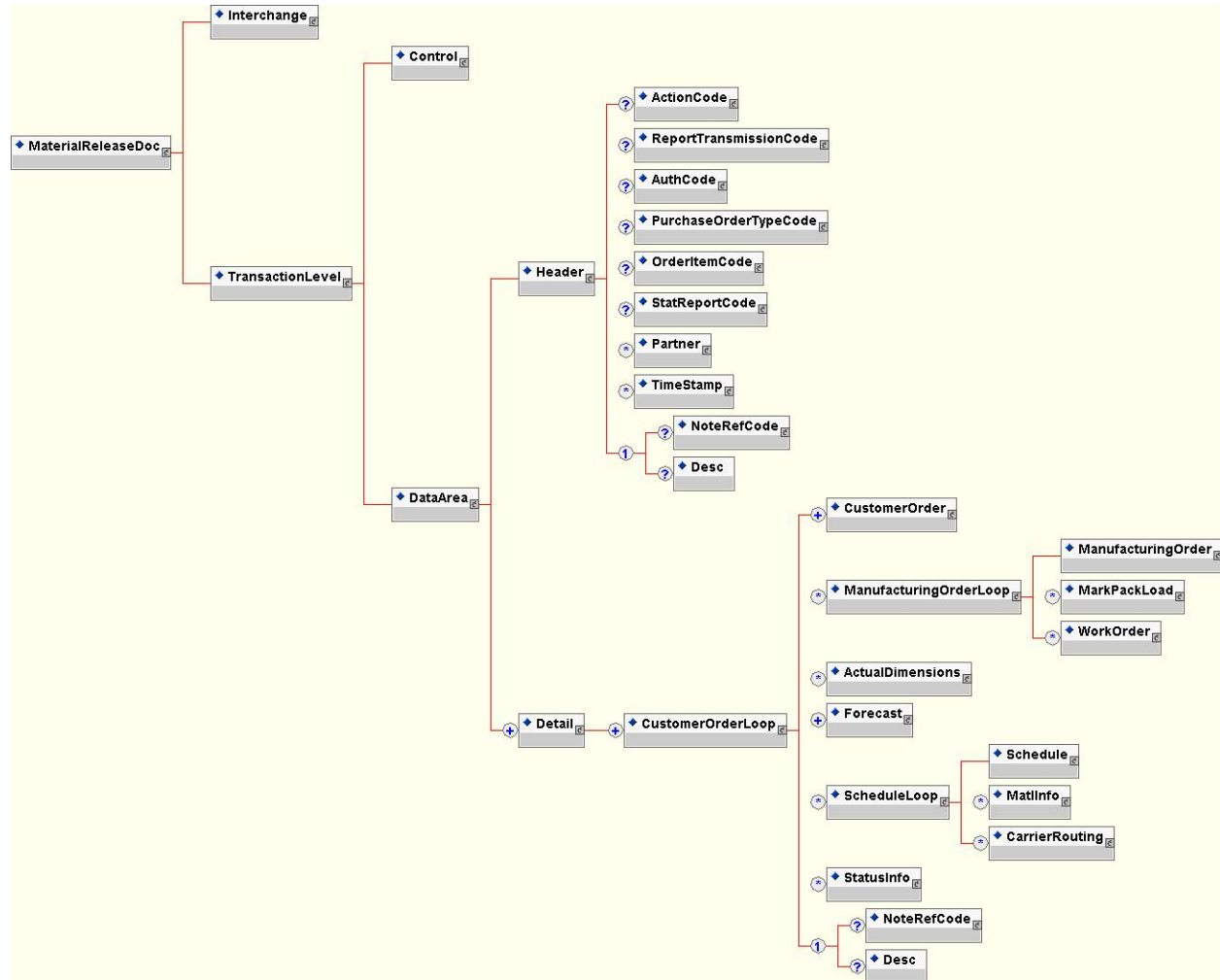
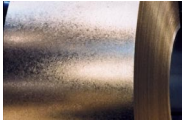


Figure 2



isXML DTD

```
<?xml version="1.0" encoding="UTF-8"?>
<!ENTITY % classcommon.dtd SYSTEM "classcommon.dtd">
%classcommon.dtd;
<!ELEMENT MaterialReleaseDoc (Interchange, TransactionLevel)>
<!-- Document Definition has envelope information and transaction information -->
<!ELEMENT TransactionLevel (Control, DataArea)>
<!ELEMENT DataArea (Header, Detail+)>
<!ELEMENT Detail (CustomerOrderLoop+)>
<!ELEMENT CustomerOrderLoop (CustomerOrder+, ManufacturingOrderLoop*, ActualDimensions*,
Forecast+, ScheduleLoop*, StatusInfo*, Note*)>
<!ELEMENT ManufacturingOrderLoop (ManufacturingOrder, MarkPackLoad*, WorkOrder*)>
<!ELEMENT ActualDimensions (%Dimension;)>
<!ELEMENT ScheduleLoop (Schedule, MatlInfo*, CarrierRouting*)>
```



Examples

The following are examples of the actual material release transaction in use. You will see a sample source document followed by both a machine-based and a text-based isXML example that matches the source document



Material Release

Example: Source Document

Part Number: 12B 1234567 123
Unit of Measure : Pieces

Release Forecast Maintenance
Release Number 651-4

16-Apr-01
13:21:43

Customer
Order

FORECAST START DATE	Net Release	Cum Release	Cum Avail + Promise	Rel/Bank	Cum Reqts
4/9/2001	370	940	1733		940
4/16/2001		940	1733		940
4/23/2001		940	1733		940
4/30/2001		940	1733		940
5/7/2001		940	1733		940
5/14/2001		940	1733		940
5/21/2001		940	1733		940
5/28/2001		940	1733		940
6/4/2001		940	1733		940
6/11/2001		940	1733		940

Forecast
TimeStamp

Forecast
Qty



Example: Machine-Based Version

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE MaterialReleaseDoc SYSTEM "MatlRelease.dtd">
<MaterialReleaseDoc>
  <Interchange/>
  <TransactionLevel>
    <Control/>
    <DataArea>
      <Header>
        <ActionCode>
          <AgencyQualCode>AX</AgencyQualCode>
          <TableNum>306</TableNum>
          <CodeValue>5</CodeValue>
          <Desc>Send</Desc>
        </ActionCode>
        <ReportTransmissionCode>
          <AgencyQualCode>AX</AgencyQualCode>
          <TableNum>756</TableNum>
          <CodeValue>9</CodeValue>
          <Desc>Electronic Mail</Desc>
        </ReportTransmissionCode>
      </Header>
      <Detail>
        <CustomerOrderLoop>
          <CustomerOrder>
            <TimeStamp TimeStampType="Forecast">
              <Date>2001.4.16</Date>
              <Time>13.21.43</Time>
            </TimeStamp>
            <RelNum>651-4</RelNum>
            <PartName>12B 1234567 123</PartName>
          </CustomerOrder>
          <Forecast>
            <TimeStamp TimeStampType="Forecast">
              <Date>2001.04.09</Date>
            </TimeStamp>
            <TimingQual>
              <AgencyQualCode>AX</AgencyQualCode>
              <TableNum>681</TableNum>
              <CodeValue>X</CodeValue>
              <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
            </TimingQual>
            <ForecastQty>
              <MeasValue>370</MeasValue>
              <UnitOrBasisForMeasCode>
                <AgencyQualCode>ST</AgencyQualCode>
                <TableNum>24</TableNum>
              </UnitOrBasisForMeasCode>
            </ForecastQty>
          </Forecast>
        </CustomerOrderLoop>
      </Detail>
    </DataArea>
  </TransactionLevel>
</Interchange/>
</MaterialReleaseDoc>
```



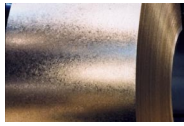
Example: Machine-Based Version (con't)

```
        <CodeValue>19</CodeValue>
        <Desc>PIECES</Desc>
      </UnitOrBasisForMeasCode>
    </ForecastQty>
  </Forecast>
  <Forecast>
    <TimeStamp TimeStampType="Forecast">
      <Date>2001.04.16</Date>
    </TimeStamp>
    <TimingQual>
      <AgencyQualCode>AX</AgencyQualCode>
      <TableNum>681</TableNum>
      <CodeValue>X</CodeValue>
      <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
    </TimingQual>
    <ForecastQty>
      <MeasValue/>
      <UnitOrBasisForMeasCode>
        <AgencyQualCode>ST</AgencyQualCode>
        <TableNum>24</TableNum>
        <CodeValue>19</CodeValue>
        <Desc>PIECES</Desc>
      </UnitOrBasisForMeasCode>
    </ForecastQty>
  </Forecast>
  <Forecast>
    <TimeStamp TimeStampType="Forecast">
      <Date>2001.04.23</Date>
    </TimeStamp>
    <TimingQual>
      <AgencyQualCode>AX</AgencyQualCode>
      <TableNum>681</TableNum>
      <CodeValue>X</CodeValue>
      <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
    </TimingQual>
    <ForecastQty>
      <MeasValue/>
      <UnitOrBasisForMeasCode>
        <AgencyQualCode>ST</AgencyQualCode>
        <TableNum>24</TableNum>
        <CodeValue>19</CodeValue>
        <Desc>PIECES</Desc>
      </UnitOrBasisForMeasCode>
    </ForecastQty>
  </Forecast>
  <Forecast>
    <TimeStamp TimeStampType="Forecast">
      <Date>2001.04.30</Date>
    </TimeStamp>
```



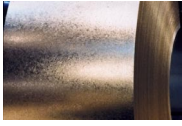
Example: Machine-Based Version (con't)

```
<TimingQual>
  <AgencyQualCode>AX</AgencyQualCode>
  <TableNum>681</TableNum>
  <CodeValue>X</CodeValue>
  <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
</TimingQual>
<ForecastQty>
  <MeasValue/>
  <UnitOrBasisForMeasCode>
    <AgencyQualCode>ST</AgencyQualCode>
    <TableNum>24</TableNum>
    <CodeValue>19</CodeValue>
    <Desc>PIECES</Desc>
  </UnitOrBasisForMeasCode>
</ForecastQty>
</Forecast>
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.05.07</Date>
  </TimeStamp>
  <TimingQual>
    <AgencyQualCode>AX</AgencyQualCode>
    <TableNum>681</TableNum>
    <CodeValue>X</CodeValue>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
  <ForecastQty>
    <MeasValue/>
    <UnitOrBasisForMeasCode>
      <AgencyQualCode>ST</AgencyQualCode>
      <TableNum>24</TableNum>
      <CodeValue>19</CodeValue>
      <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
  </ForecastQty>
</Forecast>
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.05.14</Date>
  </TimeStamp>
  <TimingQual>
    <AgencyQualCode>AX</AgencyQualCode>
    <TableNum>681</TableNum>
    <CodeValue>X</CodeValue>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
  <ForecastQty>
    <MeasValue/>
    <UnitOrBasisForMeasCode>
```



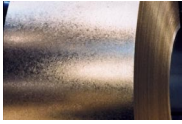
Example: Machine-Based Version (con't)

```
        <AgencyQualCode>ST</AgencyQualCode>
        <TableNum>24</TableNum>
        <CodeValue>19</CodeValue>
        <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
</ForecastQty>
</Forecast>
<Forecast>
    <TimeStamp TimeStampType="Forecast">
        <Date>2001.05.21</Date>
    </TimeStamp>
    <TimingQual>
        <AgencyQualCode>AX</AgencyQualCode>
        <TableNum>681</TableNum>
        <CodeValue>X</CodeValue>
        <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
    </TimingQual>
    <ForecastQty>
        <MeasValue/>
        <UnitOrBasisForMeasCode>
            <AgencyQualCode>ST</AgencyQualCode>
            <TableNum>24</TableNum>
            <CodeValue>19</CodeValue>
            <Desc>PIECES</Desc>
        </UnitOrBasisForMeasCode>
    </ForecastQty>
</Forecast>
<Forecast>
    <TimeStamp TimeStampType="Forecast">
        <Date>2001.05.28</Date>
    </TimeStamp>
    <TimingQual>
        <AgencyQualCode>AX</AgencyQualCode>
        <TableNum>681</TableNum>
        <CodeValue>X</CodeValue>
        <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
    </TimingQual>
    <ForecastQty>
        <MeasValue/>
        <UnitOrBasisForMeasCode>
            <AgencyQualCode>ST</AgencyQualCode>
            <TableNum>24</TableNum>
            <CodeValue>19</CodeValue>
            <Desc>PIECES</Desc>
        </UnitOrBasisForMeasCode>
    </ForecastQty>
</Forecast>
<Forecast>
    <TimeStamp TimeStampType="Forecast">
```



Example: Machine-Based Version (con't)

```
<Date>2001.06.04</Date>
</TimeStamp>
<TimingQual>
  <AgencyQualCode>AX</AgencyQualCode>
  <TableNum>681</TableNum>
  <CodeValue>X</CodeValue>
  <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
</TimingQual>
<ForecastQty>
  <MeasValue/>
  <UnitOrBasisForMeasCode>
    <AgencyQualCode>ST</AgencyQualCode>
    <TableNum>24</TableNum>
    <CodeValue>19</CodeValue>
    <Desc>PIECES</Desc>
  </UnitOrBasisForMeasCode>
</ForecastQty>
</Forecast>
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.06.11</Date>
  </TimeStamp>
  <TimingQual>
    <AgencyQualCode>AX</AgencyQualCode>
    <TableNum>681</TableNum>
    <CodeValue>X</CodeValue>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
  <ForecastQty>
    <MeasValue/>
    <UnitOrBasisForMeasCode>
      <AgencyQualCode>ST</AgencyQualCode>
      <TableNum>24</TableNum>
      <CodeValue>19</CodeValue>
      <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
  </ForecastQty>
</Forecast>
</CustomerOrderLoop>
</Detail>
</DataArea>
</TransactionLevel>
</MaterialReleaseDoc>
```



Example: Text-Based Version

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE MaterialReleaseDoc SYSTEM "MatlRelease.dtd">
<MaterialReleaseDoc>
  <Interchange/>
  <TransactionLevel>
    <Control/>
    <DataArea>
      <Header>
        <ActionCode>
          <Desc>Send</Desc>
        </ActionCode>
        <ReportTransmissionCode>
          <Desc>Electronic Mail</Desc>
        </ReportTransmissionCode>
      </Header>
      <Detail>
        <CustomerOrderLoop>
          <CustomerOrder>
            <TimeStamp TimeStampType="Forecast">
              <Date>2001.4.16</Date>
              <Time>13.21.43</Time>
            </TimeStamp>
            <RelNum>651-4</RelNum>
            <PartName>12B 1234567 123</PartName>
          </CustomerOrder>
          <Forecast>
            <TimeStamp TimeStampType="Forecast">
              <Date>2001.04.09</Date>
            </TimeStamp>
            <TimingQual>
              <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
            </TimingQual>
            <ForecastQty>
              <MeasValue>370</MeasValue>
              <UnitOrBasisForMeasCode>
                <Desc>PIECES</Desc>
              </UnitOrBasisForMeasCode>
            </ForecastQty>
          </Forecast>
          <Forecast>
            <TimeStamp TimeStampType="Forecast">
              <Date>2001.04.16</Date>
            </TimeStamp>
            <TimingQual>
              <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
            </TimingQual>
          </Forecast>
        </CustomerOrderLoop>
      </Detail>
    </DataArea>
  </TransactionLevel>
</MaterialReleaseDoc>
```

Customer Order

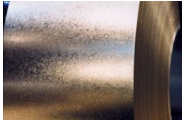
Forecast TimeStamp

Forecast Qty



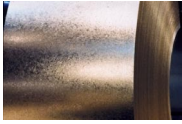
Example: Text-Based Version (con't)

```
<ForecastQty>
  <MeasValue/>
  <UnitOrBasisForMeasCode>
    <Desc>PIECES</Desc>
  </UnitOrBasisForMeasCode>
</ForecastQty>
</Forecast>
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.04.23</Date>
  </TimeStamp>
  <TimingQual>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
  <ForecastQty>
    <MeasValue/>
    <UnitOrBasisForMeasCode>
      <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
  </ForecastQty>
</Forecast>
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.04.30</Date>
  </TimeStamp>
  <TimingQual>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
  <ForecastQty>
    <MeasValue/>
    <UnitOrBasisForMeasCode>
      <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
  </ForecastQty>
</Forecast>
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.05.07</Date>
  </TimeStamp>
  <TimingQual>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
  <ForecastQty>
    <MeasValue/>
    <UnitOrBasisForMeasCode>
      <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
  </ForecastQty>
</Forecast>
```



Example: Text-Based Version (con't)

```
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.05.14</Date>
  </TimeStamp>
  <TimingQual>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
  <ForecastQty>
    <MeasValue/>
    <UnitOrBasisForMeasCode>
      <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
  </ForecastQty>
</Forecast>
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.05.21</Date>
  </TimeStamp>
  <TimingQual>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
  <ForecastQty>
    <MeasValue/>
    <UnitOrBasisForMeasCode>
      <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
  </ForecastQty>
</Forecast>
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.05.28</Date>
  </TimeStamp>
  <TimingQual>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
  <ForecastQty>
    <MeasValue/>
    <UnitOrBasisForMeasCode>
      <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
  </ForecastQty>
</Forecast>
<Forecast>
  <TimeStamp TimeStampType="Forecast">
    <Date>2001.06.04</Date>
  </TimeStamp>
  <TimingQual>
    <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
  </TimingQual>
```



Example: Text-Based Version (con't)

```
        <ForecastQty>
          <MeasValue/>
          <UnitOrBasisForMeasCode>
            <Desc>PIECES</Desc>
          </UnitOrBasisForMeasCode>
        </ForecastQty>
      </Forecast>
    <Forecast>
      <TimeStamp TimeStampType="Forecast">
        <Date>2001.06.11</Date>
      </TimeStamp>
      <TimingQual>
        <Desc>WEEKLY BUCKET (7 DAY INTERVAL)</Desc>
      </TimingQual>
      <ForecastQty>
        <MeasValue/>
        <UnitOrBasisForMeasCode>
          <Desc>PIECES</Desc>
        </UnitOrBasisForMeasCode>
      </ForecastQty>
    </Forecast>
  </CustomerOrderLoop>
</Detail>
</DataArea>
</TransactionLevel>
</MaterialReleaseDoc>
```



Appendices