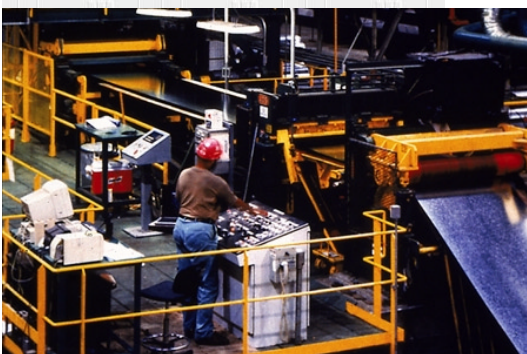
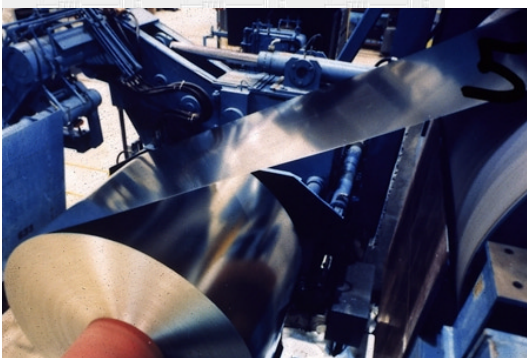


isXML: Material Receipt

An Industry Document Guideline for Metal Transactions

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Background

This document is intended to describe the ‘payload’ section of an XML-formatted ‘Material Receipt’ 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’.

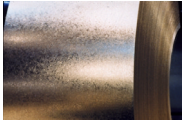
A number of sections in the guideline have been reserved for ‘examples’. The ‘source document’ is a representation of a paper document used to derive the example. The ‘machine version’ example is a fully extended version of the XML which would be used where sophisticated systems are communicating and 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 content of the material receipt transaction. The transaction can be used to provide for the notification of receipt.



Class Relationships

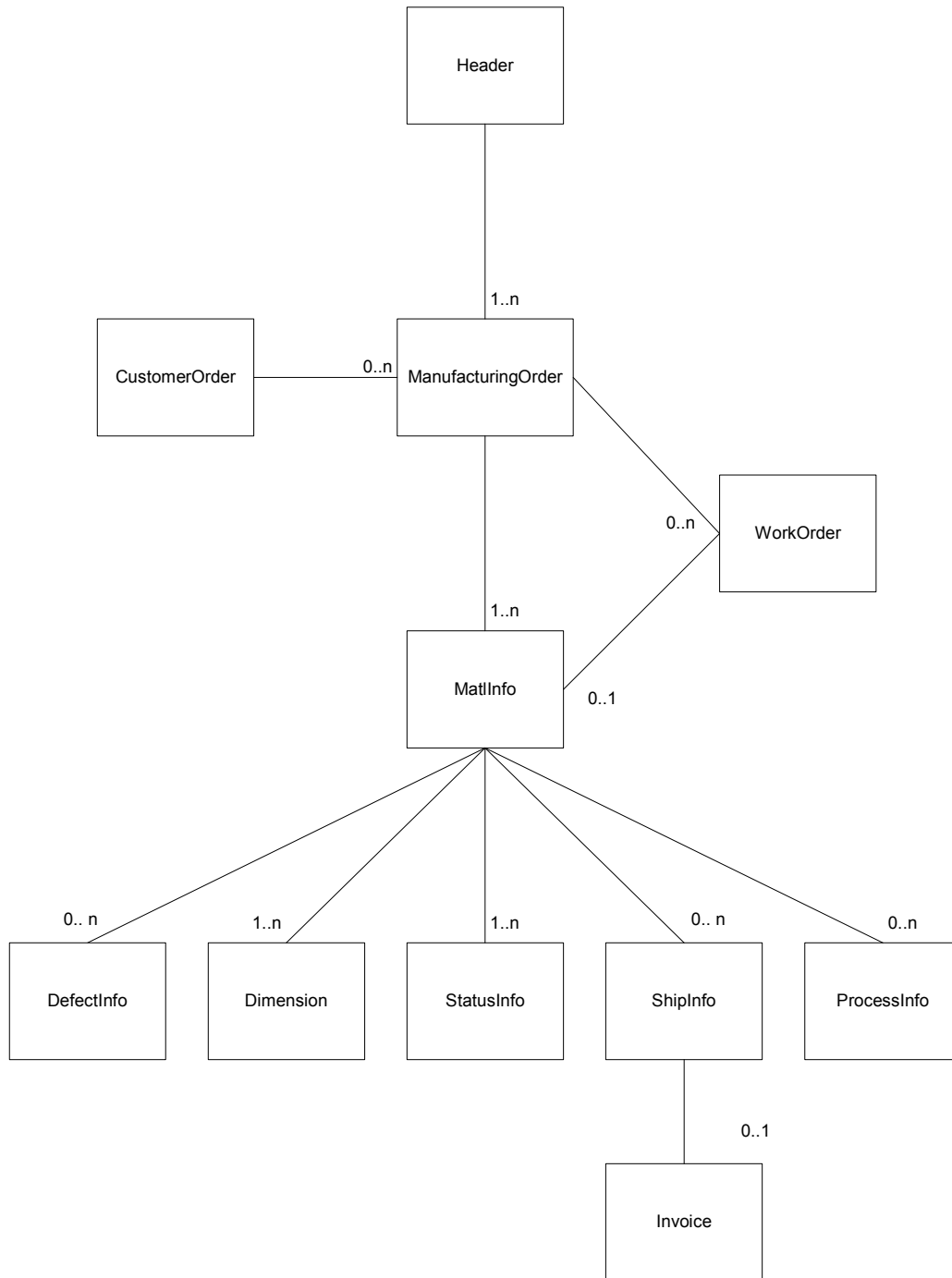
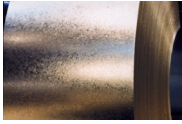


Figure 1



Document Structure

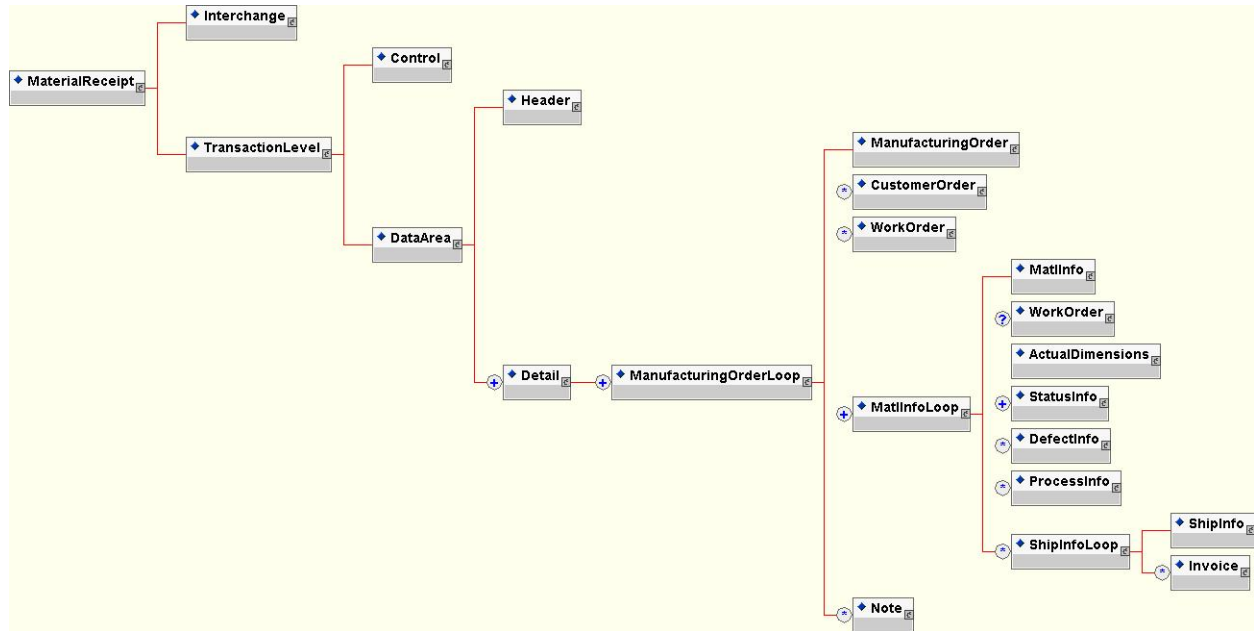


Figure 2



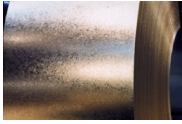
isXML DTD

```
<?xml version="1.0" encoding="UTF-8"?>
<!ENTITY % classcommon.dtd SYSTEM "classcommon.dtd">
%classcommon.dtd;
<!ELEMENT MaterialReceipt (Interchange, TransactionLevel)>
<!-- Document Definition has envelope information and transaction information -->
<!ELEMENT TransactionLevel (Control, DataArea)>
<!ELEMENT DataArea (Header, Detail+)>
<!ELEMENT Detail (ManufacturingOrderLoop+)>
<!ELEMENT ManufacturingOrderLoop (ManufacturingOrder, CustomerOrder*, WorkOrder*,
MatlInfoLoop+, Note*)>
<!ELEMENT MatlInfoLoop (MatlInfo, WorkOrder?, ActualDimensions, StatusInfo+, DefectInfo*,
ProcessInfo*, ShipInfoLoop*)>
<!ELEMENT ActualDimensions (%Dimension;)>
<!ELEMENT ShipInfoLoop (ShipInfo, Invoice*)>
```



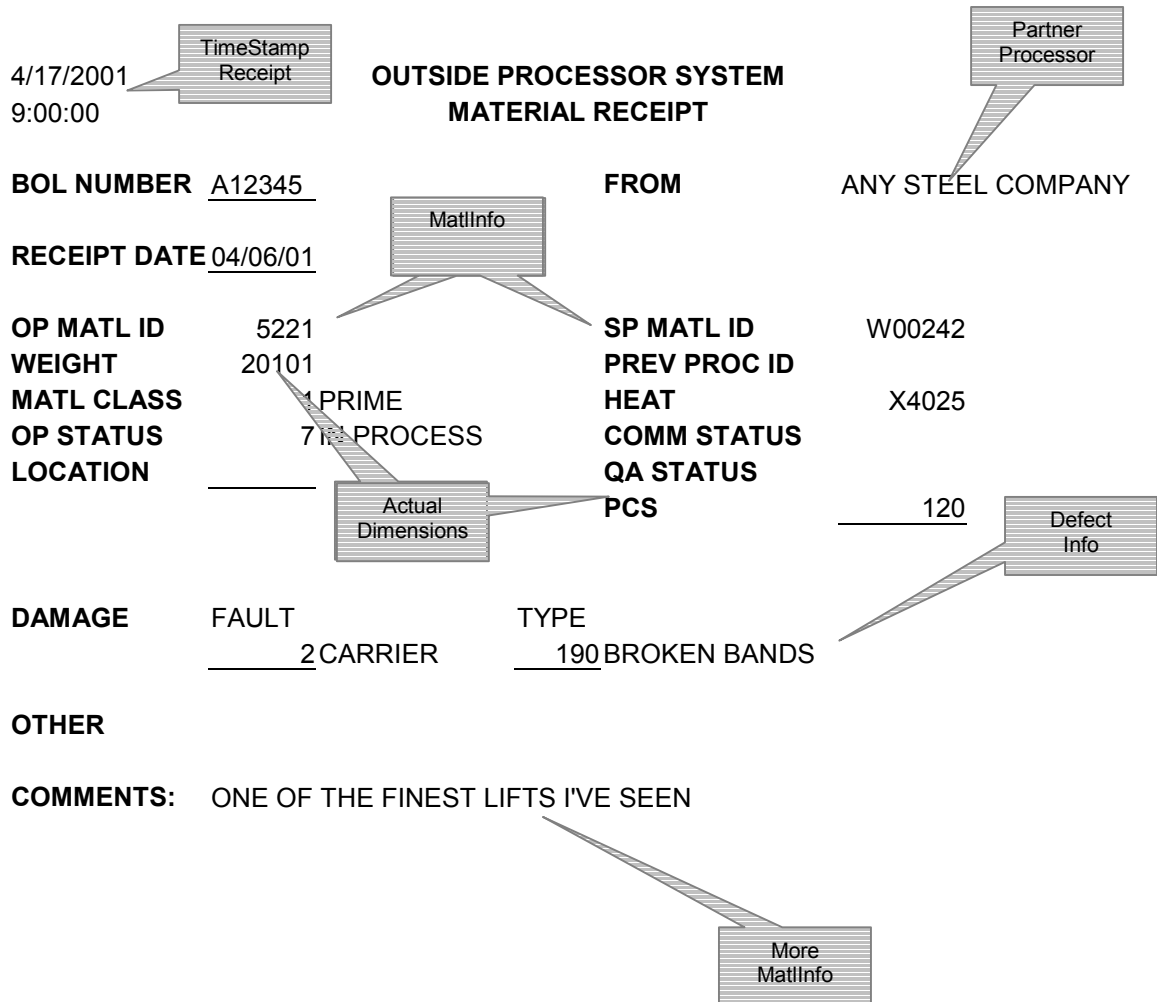
Examples

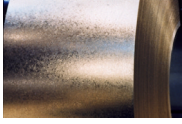
The following are examples of the actual material receipt transaction in use. You will see a sample source document followed by both a machine-based and a text-based isXML example that matches the source document



Material Receipt

Example: Source Document



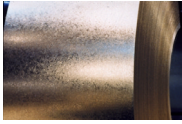


Example: Machine-Based Version

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE MaterialReceipt SYSTEM "MatlReceipt.dtd">
<MaterialReceipt>
  <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>
        <ManufacturingOrderLoop>
          <ManufacturingOrder>
            <Partner PartnerType="Processor">
              <Name>ANY STEEL COMPANY</Name>
              <Addr1>456 EAST MAIN</Addr1>
              <CityName>ANY TOWN</CityName>
              <PostalCode>78906</PostalCode>
              <CountryCode>
                <Desc>USA</Desc>
              </CountryCode>
            </Partner>
            <Partner PartnerType="Supplier">
              <Name>ANOTHER STEEL COMPANY</Name>
              <Addr1>456 WEST MAIN</Addr1>
              <CityName>ANY TOWN</CityName>
              <PostalCode>78909</PostalCode>
              <CountryCode>
                <Desc>USA</Desc>
              </CountryCode>
            </Partner>
            <TimeStamp TimeStampType="Receipt">
              <Date>2001.4.17</Date>
              <Time>9:00:00</Time>
            </TimeStamp>
          </ManufacturingOrder>
        </ManufacturingOrderLoop>
      </Detail>
    </DataArea>
  </TransactionLevel>
</MaterialReceipt>
```

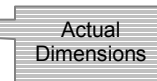
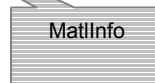
Partner
Processor

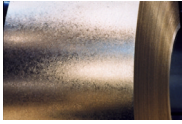
TimeStamp
Receipt



Example: Machine-Based Version (con't)

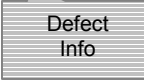
```
</ManufacturingOrder>
<MatlInfoLoop>
  <MatlInfo>
    <MatlId MatlIdType="Producer">W00242</MatlId>
    <MatlId MatlIdType="Processor">5221</MatlId>
    <HeatNum>X4025</HeatNum>
    <Note>
      <NoteRefCode>
        <AgencyQualCode>AX</AgencyQualCode>
        <TableNum>363</TableNum>
        <CodeValue>ADD</CodeValue>
        <Desc>ADDITIONAL INFORMATION</Desc>
      </NoteRefCode>
      <Desc>ONE OF THE FINEST LIFTS I'VE SEEN</Desc>
    </Note>
  </MatlInfo>
  <ActualDimensions>
    <Qty>
      <MeasValue>120</MeasValue>
      <UnitOrBasisForMeasCode>
        <AgencyQualCode>ST</AgencyQualCode>
        <TableNum>24</TableNum>
        <CodeValue>19</CodeValue>
        <Desc>PIECES</Desc>
      </UnitOrBasisForMeasCode>
    </Qty>
    <Weight>
      <MeasValue>20101</MeasValue>
      <UnitOrBasisForMeasCode>
        <AgencyQualCode>ST</AgencyQualCode>
        <TableNum>24</TableNum>
        <CodeValue>32</CodeValue>
        <Desc>POUNDS</Desc>
      </UnitOrBasisForMeasCode>
    </Weight>
  </ActualDimensions>
  <StatusInfo>
    <MatlClass>
      <AgencyQualCode>ST</AgencyQualCode>
      <TableNum>67</TableNum>
      <CodeValue>1</CodeValue>
      <Desc>PRIME</Desc>
    </MatlClass>
    <Status StatusType="Processor">
      <AgencyQualCode>ST</AgencyQualCode>
      <TableNum>70</TableNum>
      <CodeValue>7</CodeValue>
      <Desc>IN PROCESS</Desc>
    </Status>
  </StatusInfo>
</MatlInfoLoop>
```





Example: Machine-Based Version (con't)

```
</StatusInfo>
<DefectInfo>
  <DamageTypeCode>
    <AgencyQualCode>ST</AgencyQualCode>
    <TableNum>73</TableNum>
    <CodeValue>190</CodeValue>
    <Desc>BANDS BROKEN</Desc>
  </DamageTypeCode>
  <DamageFaultCode>
    <AgencyQualCode>ST</AgencyQualCode>
    <TableNum>72</TableNum>
    <CodeValue>2</CodeValue>
    <Desc>CARRIER</Desc>
  </DamageFaultCode>
</DefectInfo>
</MatlInfoLoop>
</ManufacturingOrderLoop>
</Detail>
</DataArea>
</TransactionLevel>
</MaterialReceipt>
```





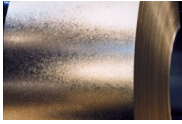
Example: Text-Based Version

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE MaterialReceipt SYSTEM "MatlReceipt.dtd">
<MaterialReceipt>
  <Interchange/>
  <TransactionLevel>
    <Control/>
    <DataArea>
      <Header>
        <ActionCode>
          <Desc>Send</Desc>
        </ActionCode>
        <ReportTransmissionCode>
          <Desc>Electronic Mail</Desc>
        </ReportTransmissionCode>
      </Header>
      <Detail>
        <ManufacturingOrderLoop>
          <ManufacturingOrder>
            <Partner PartnerType="Processor">
              <Name>ANY STEEL COMPANY</Name>
              <Addr1>456 EAST MAIN</Addr1>
              <CityName>ANY TOWN</CityName>
              <PostalCode>78906</PostalCode>
              <CountryCode>
                <Desc>USA</Desc>
              </CountryCode>
            </Partner>
            <Partner PartnerType="Supplier">
              <Name>ANOTHER STEEL COMPANY</Name>
              <Addr1>456 WEST MAIN</Addr1>
              <CityName>ANY TOWN</CityName>
              <PostalCode>78909</PostalCode>
              <CountryCode>
                <Desc>USA</Desc>
              </CountryCode>
            </Partner>
            <TimeStamp TimeStampType="Receipt">
              <Date>2001.4.17</Date>
              <Time>9:00:00</Time>
            </TimeStamp>
          </ManufacturingOrder>
        </ManufacturingOrderLoop>
        <MatlInfoLoop>
          <MatlInfo>
            <MatlId MatlIdType="Producer">W00242</MatlId>
            <MatlId MatlIdType="Processor">5221</MatlId>
            <HeatNum>X4025</HeatNum>
          </MatlInfo>
        </MatlInfoLoop>
      </Detail>
    </DataArea>
  </TransactionLevel>
</MaterialReceipt>
```

Partner
Processor

TimeStamp
Receipt

MatlInfo

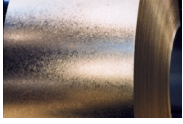


Example: Text-Based Version (con't)

```
<Note>
  <NoteRefCode>
    <Desc>ADDITIONAL INFORMATION</Desc>
  </NoteRefCode>
  <Desc>ONE OF THE FINEST LIFTS I'VE SEEN</Desc>
</Note>
</MatlInfo>
<ActualDimensions>
  <Qty>
    <MeasValue>120</MeasValue>
    <UnitOrBasisForMeasCode>
      <Desc>PIECES</Desc>
    </UnitOrBasisForMeasCode>
  </Qty>
  <Weight>
    <MeasValue>20101</MeasValue>
    <UnitOrBasisForMeasCode>
      <Desc>POUNDS</Desc>
    </UnitOrBasisForMeasCode>
  </Weight>
</ActualDimensions>
<StatusInfo>
  <MatlClass>
    <Desc>PRIME</Desc>
  </MatlClass>
  <Status StatusType="Processor">
    <Desc>IN PROCESS</Desc>
  </Status>
</StatusInfo>
<DefectInfo>
  <DamageTypeCode>
    <Desc>BANDS BROKEN</Desc>
  </DamageTypeCode>
  <DamageFaultCode>
    <Desc>CARRIER</Desc>
  </DamageFaultCode>
</DefectInfo>
</MatlInfoLoop>
</ManufacturingOrderLoop>
</Detail>
</DataArea>
</TransactionLevel>
</MaterialReceipt>
```

Actual Dimensions

Defect Info



Appendices