

FTA Uniform XML

Presented by

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Agenda



- References
- Definitions
- TIGERS and Motor Fuels Workgroup
- XML File Naming
- XML versus X12 structure
- XML Instance compared to X12 data
- XML Schema (Map)

References

- XML - W3C – World Wide Web Consortium
www.w3c.org
- X.12 - DISA – Data Interchange Standards Association
www.disa.org
- FTA - Federation of Tax Administrators
www.taxadmin.org
- TIGERS - Tax Information Group for EC Requirements
Standardization

Definitions

- **XML** (Extensible Markup Language) – similar to X12, XML is a standard for defining data structures, however it uses plain English instead of codes.
- **XML Schemas** - Expresses shared vocabularies and allows machines to carry out rules made by people. They provide a means for defining the structure, content and semantics of XML documents.

Definitions (Continued)

- **XSL (Extensible Stylesheet Language)** - is a language for expressing style sheets. An XSL style sheet describes how to display an XML document.

It also adds:

- A transformation language for XML documents (**XSLT**). XSLT is used for such functions as generating HTML web pages from XML data.
- Advanced styling features

Definitions (Continued)

- **Tag** – Is a meaningful naming standard used to define the content of elements, attributes and other information contained in an XML document.
 - Beginning Tag: <Jurisdiction>
 - Ending Tag: </Jurisdiction>
- **Element** – is the primary building block of XML. Elements are marked up or denoted by the use of tags. All elements start and end with a tag.
 - **Simple elements** contain one piece of information.
<Jurisdiction> Montana </Jurisdiction>
 - **Complex elements** contains other elements and/or attributes.
<NAME>
 <FIRST>Jim</FIRST>
 <LAST>Bob</LAST>
</NAME>

Definitions (Continued)

- **Attribute** – Is a piece of information about an element. The attribute appears within the start tag of an element.

`<Jurisdiction type="State" > Montana </Jurisdiction>`

Or

`<Jurisdiction type="State" code="MT" />`

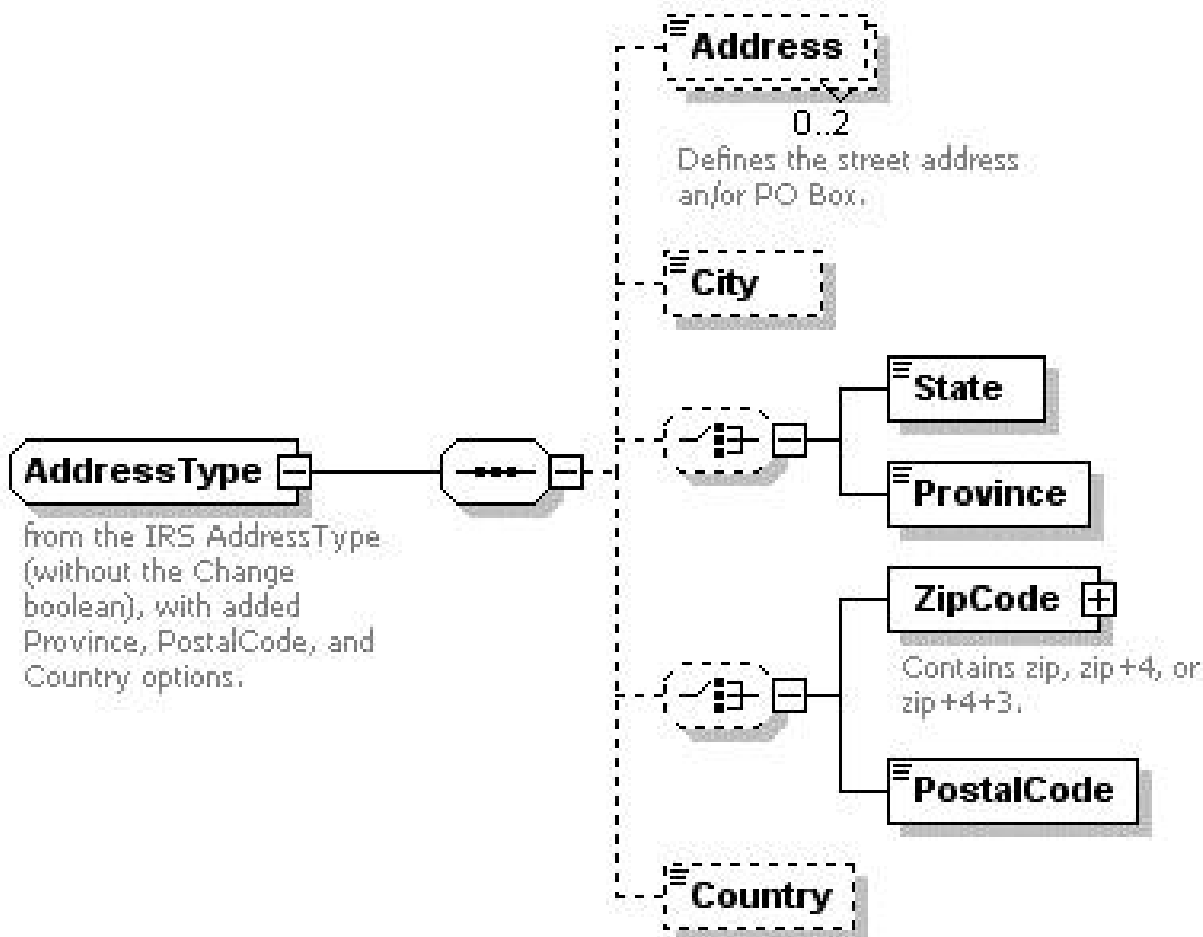
- **Parser** - is an off-the-shelf component that isolates programmers from the specifics of the XML syntax. (Similar to X12 translator)

TIGERS Efforts



- Standardize tags across tax types
- Define Tax Schemas
- Stay consistent with other standards in XML development

Address Example



XML Files

(X12 Transaction Set)

.XML – Instance Document contains data.

(X12 Map)

.XSD – The XML Schema contains definitions.

(Paper Forms)

.XSLT – Extensible Style Sheets transform XML instance documents into other formats.

XML Versus X.12

Elements contain information.

Simple Elements (X12 Element) – is a single piece of information

Complex Elements (X12 Segment) – contains 1 or more elements and/or attributes.

Attributes (X12 Element) contain information that further defines the information in an element.

```
<Filer>  
    <FilerId type="FEIN">123456789</FilerId>  
    <Name>Joe Distributing</Name>  
</Filer>
```

XML Header Information

<?xml version="1.0" encoding="UTF-8"?>

<?xml-stylesheet type="text/xsl" href="Motor Fuels.xslt"?>

<**MotorFuelsFiling** xmlns="http://www.taxadmin.org/Schemas/MotorFuels"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.taxadmin.org/Schemas/MotorFuels
MotorFuelsFiling.xsd" version="1" usage="PROD" defaultUOM="C"
defaultCurrency="USD">

<SenderId>Ray's Tax Service</SenderId>

-
-
-

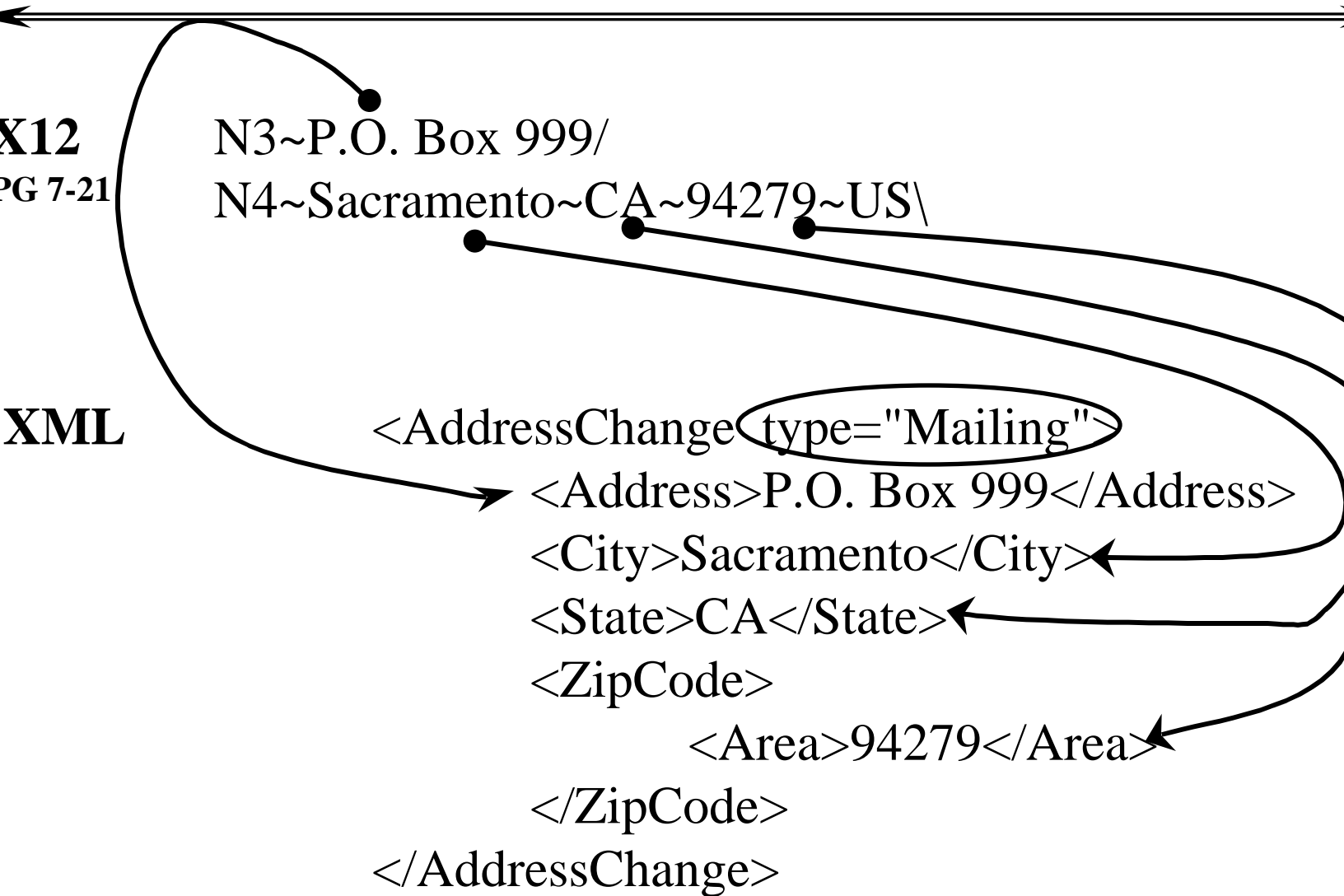
</**MotorFuelsFiling**>

Filer Information

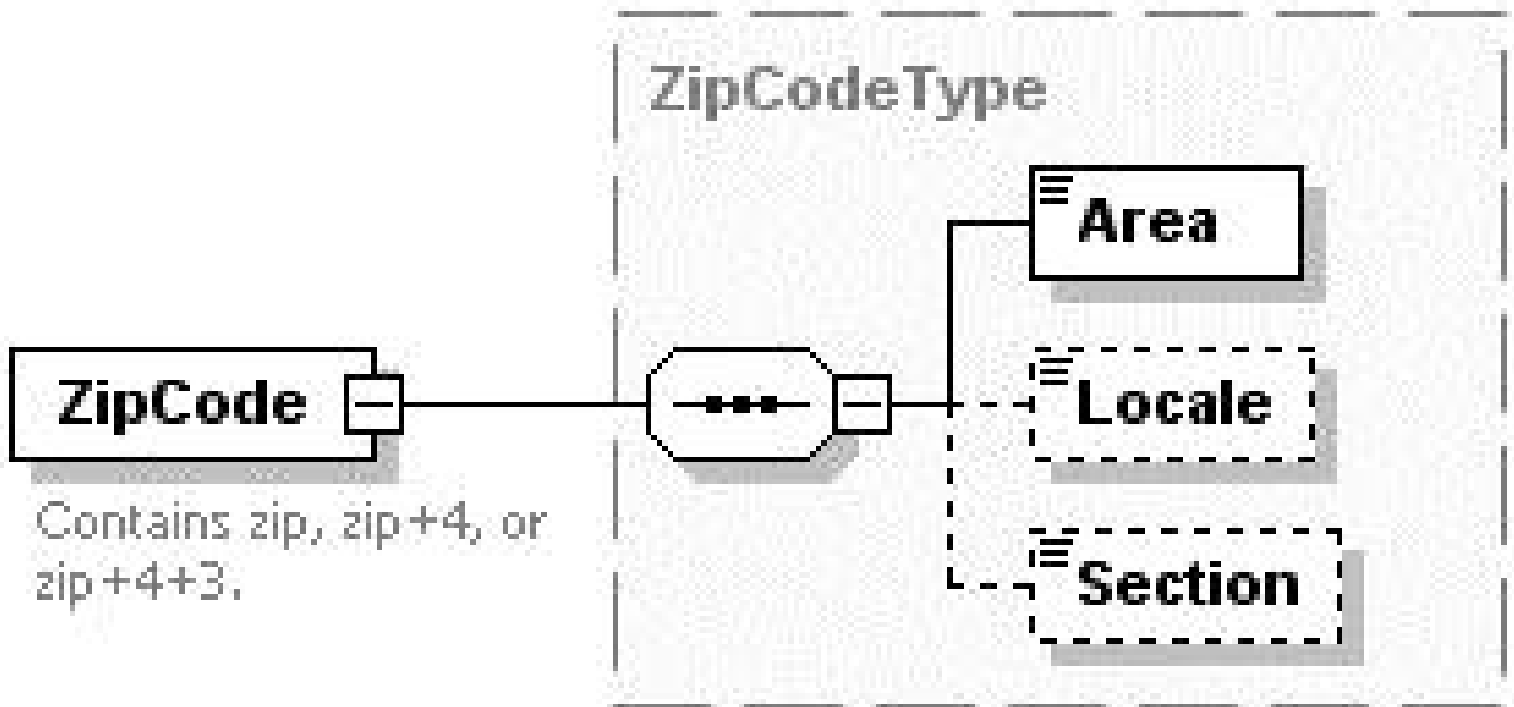
X12 BTI~T6~050~Tax Authority~20010523~Joe*
PG 7-17 ~24~123456789~49~123456~~~00\
7-18

XML <Filer>
<FilerId type="FEIN">123456789</FilerId>
<Name>Joe Distributing</Name>
</Filer>

Address Changes



Zip Code



Contact Information

X12

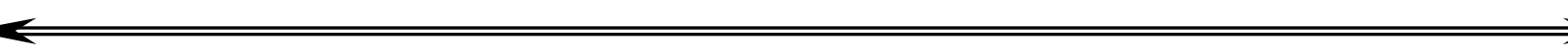
PG 7-20

PER~CN~Jane_Ray~TE~5553331212~
FX~5553332121~EM~jray@boe.state.ca.us\

XML

```
<Contact type="Business">  
  <Name>Jane Ray</Name>  
  <Department>Trouble</Department>  
  <Phone>  
    <AreaCode>555</AreaCode>  
    <Number>3331212</Number>  
  </Phone>  
  <Fax>  
    <AreaCode>555</AreaCode>  
    <Number>3332121</Number>  
  </Fax>  
  <Email>jray@boe.state.ca.us</Email>  
</Contact>
```

Control Totals



X12
PG 7-19

TIA~5001~~~~2000~GA\

ML

<ControlTotals>

<TotalReports>3</TotalReports>

<TotalQuantity type="NET">2000</TotalQuantity>

</ControlTotals>

XML Table Version

<TableVersion>001</TableVersion>

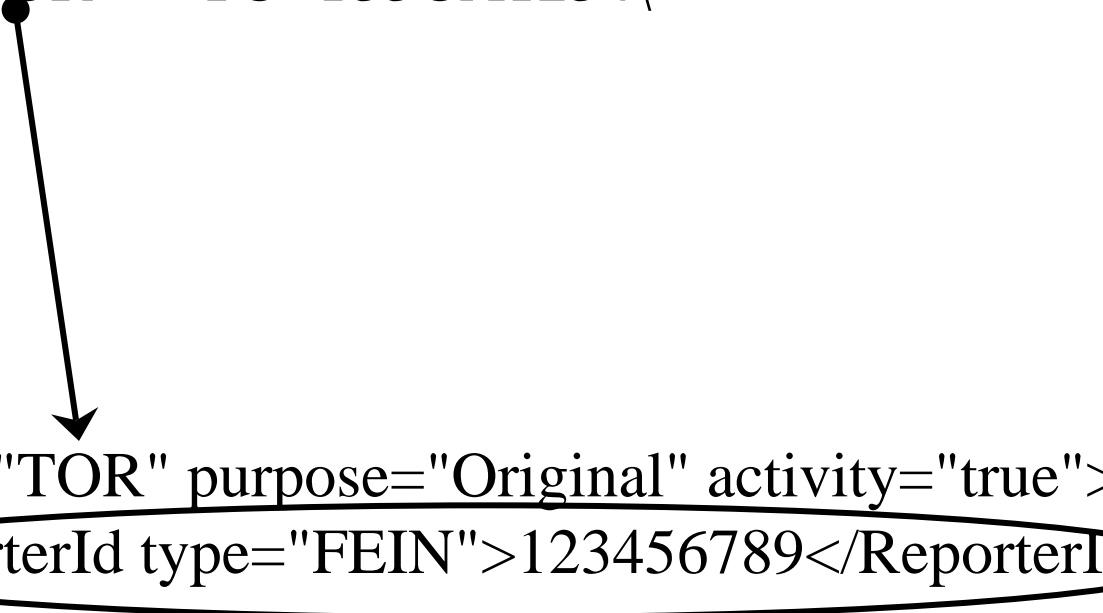
Tables in the XML schema:

- State Abbreviations
- Product Codes
- Summary Codes
- Schedule Codes
- Transaction Type Mode Codes

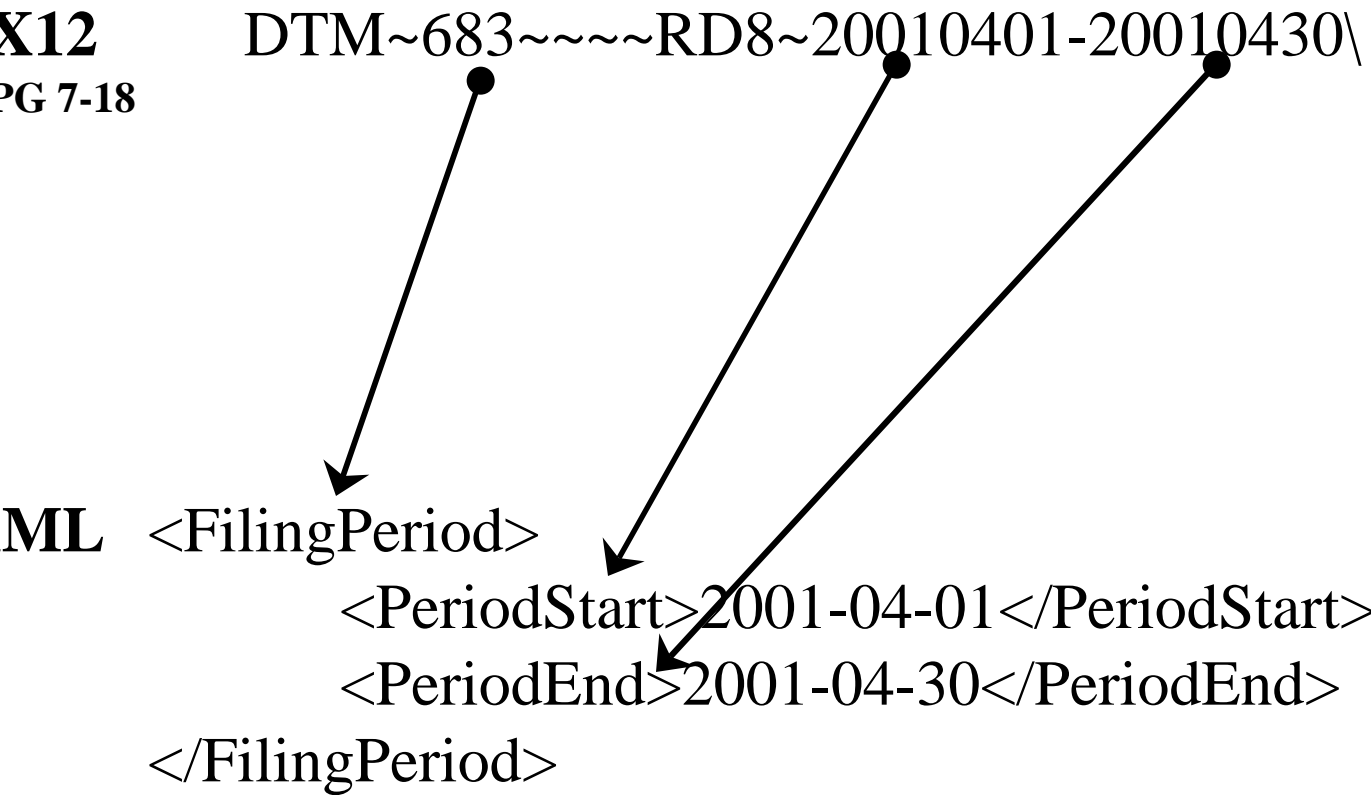
Terminal Operator Report

X12 TFS~T2~TOR~~~TC~T33CA1234\
PG 7-22

XML <Report type="TOR" purpose="Original" activity="true">
<ReporterId type="FEIN">123456789</ReporterId>



Filing Period



Report Error Processing

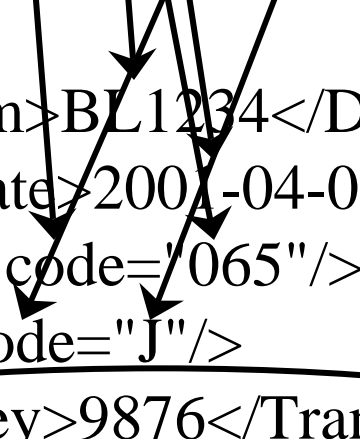
Report Key – Unique identifier of each report provided by the filer.

```
ML <Report type="TOR" purpose="Original" activity="true">
    <ReporterId type="FEIN">123456789</ReporterId>
    <FilingPeriod>
        <PeriodStart>2001-04-01</PeriodStart>
        <PeriodEnd>2001-04-30</PeriodEnd>
    </FilingPeriod>
    <ReportKey>12345</ReportKey>
```


Transaction (Schedule)

K12 FGS~D~BM~BL1234\
G 7-34 DTM~095~20010409\
7-35 TFS~T3~4~PG~065~94~J\
7-31

ML <Transaction>
 <DocNum>BL1234</DocNum>
 <TransDate>2001-04-09</TransDate>
 <Product code='065' />
 <Mode code="J" />
 <TransKey>9876</TransKey>



Transaction Information

K12

G 7-32

N1~OT~~TC~T33CA1234\

N1~ON~XYZ Company~24~987654324\

N1~CA~XYZ Trucking~24~987654322\

ML

<Origin>

<FacilityId type="TCN">T33CA1234</FacilityId>

</Origin>

<PositionHolder>

<Id type="FEIN">987654324</Id>

<Name XYZ Company</Name>

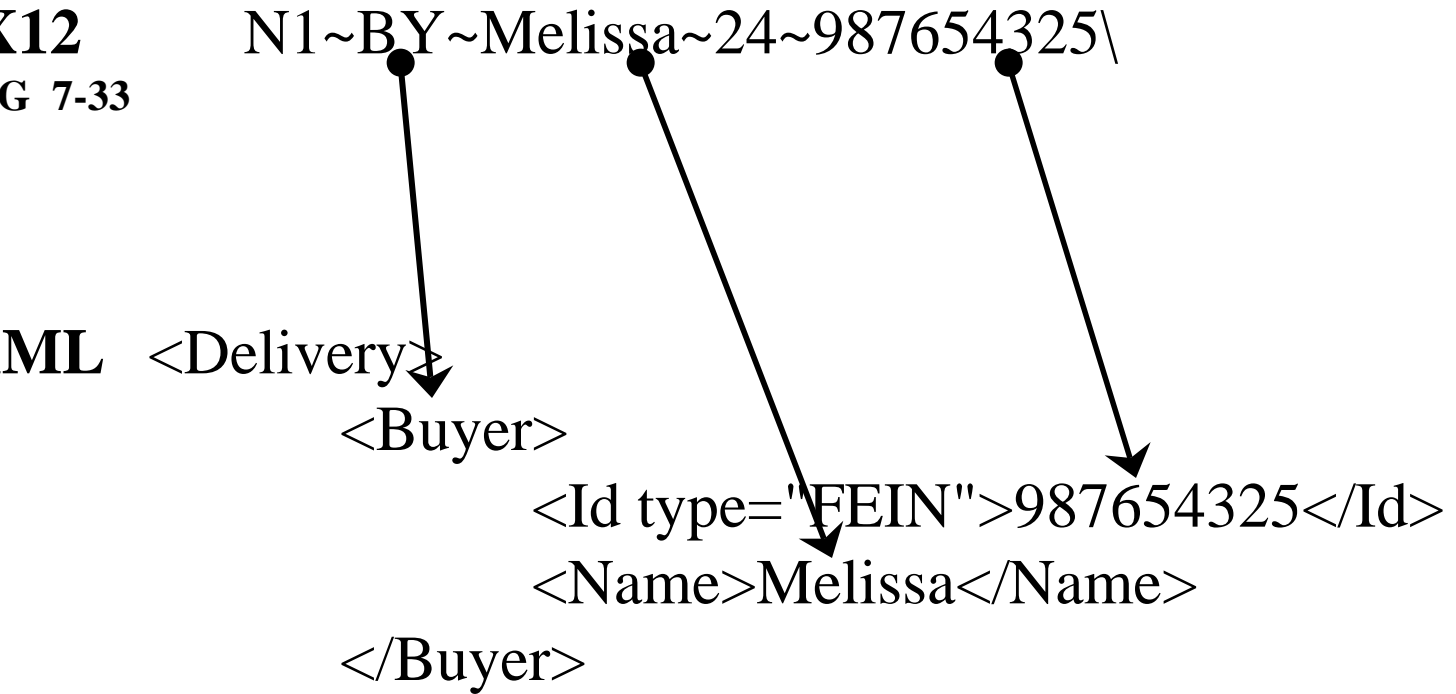
</PositionHolder>

<Carrier>

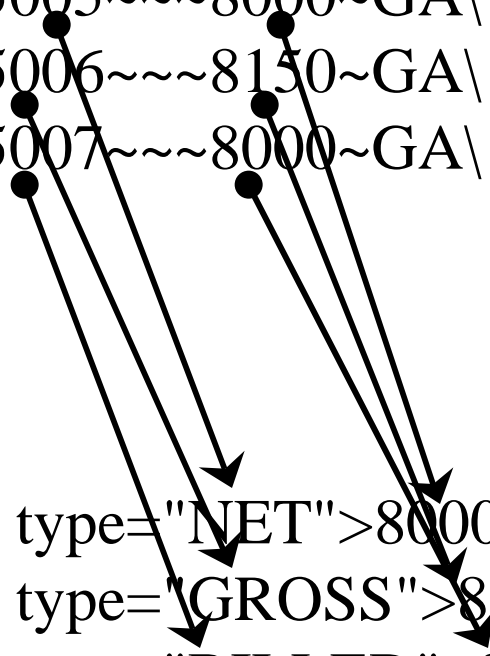
<Id type="FEIN">987654322</Id>

</Carrier>

Delivery - Buyer



Delivery - Quantities

K12
G 7-35
TIA~5005~~~8000~GA\
TIA~5006~~~8150~GA\
TIA~5007~~~8000~GA\


ML
<Quantity type="NET">8000</Quantity>
<Quantity type="GROSS">8150</Quantity>
<Quantity type="BILLED">8000</Quantity>

Delivery – Transaction Report

K12 TFS~T3~4~PG~065~94~J \
G 7-31

ML <TransReport>
<ReportKey>12345</ReportKey>
<Schedule code="4"/>
</TransReport>

```
<Report type="TOR" purpose="Original" activity="true">  
  <ReporterId type="FEIN">123456789</ReporterId>  
  <FilingPeriod>  
    <PeriodStart>2001-04-01</PeriodStart>  
    <PeriodEnd>2001-04-30</PeriodEnd>  
  </FilingPeriod>  
  <ReportKey>12345</ReportKey>
```

XSL Style Sheet

Enhance human readable view

Tools:

XML Spy 4.2 by Altove
www.xmlspy.com

The End