



# Business To Manufacturing Markup Language

## Batch Markup Language

Version 0500 – January 24, 2012

### Errata #4



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### Change History:

Change	Date	Person	Description
#1	20 Apr 2011	Dennis Brandl	The group definition ProductProductionRuleIDGroup has an incorrect type for the ProductProductionRuleID element.
#2	19 May 2011	Dennis Brandl	The extension element in the FromIDType (line 682) is incorrect.
#3	7 Aug 2011	Dennis Brandl	The OperationsMaterialBillType has a wrong definition for the OperationsMaterialBillItem. The maxOccurs="unbounded" is missing in the element definition
#4	24 Jan 2012	Dennis Brandl	<ol style="list-style-type: none"><li>1. The "TimingFactor" element in a SegmentDerpendancy is a ValueType but did not get the update to make it maxOccurs=unbounded</li><li>2. SegmentData has the <i>Description</i> element defined after the <i>Value</i> element. Every other message has it directly after the <i>ID</i> element. To simplify processing of all message types, the <i>Description</i> element should be moved to after the <i>ID</i> element</li><li>3. MaterialActualProperty is not recursive like MaterialDefinitionProperty. This means the results in the performance message cannot reflect the structure of the definition in the material master.</li><li>4. MaterialRequirementProperty is not recursive like MaterialDefinitionProperty. This means the requirements in the schedule message cannot reflect the structure of the definition in the material master.</li></ol>

### Applying the changes:

This errata document includes all the patches in previous V0500 errata documents. You should make the identified changes to the schemas in your local copies to correct the problems. The changes should be made in the order listed below.

## 1 Errata #1 - B2MML-V05-Common.xsd

The following problem has been identified in the schemas.

The group definition ProductProductionRuleIDGroup has an incorrect type for the ProductProductionRuleID element.

It is defined as:

```
<xsd:group name="ProductProductionRuleIDGroup">
  <xsd:sequence>
    <xsd:element name="ProductProductionRuleID"
      type="ProductionRequestIDType" minOccurs="0"/>
    <xsd:element name="Version"
      type="VersionType" minOccurs="0"/>
  </xsd:sequence>
</xsd:group>
```

It should be defined as:

```
<xsd:group name="ProductProductionRuleIDGroup">
  <xsd:sequence>
    <xsd:element name="ProductProductionRuleID"
      type="ProductProductionRuleIDType" minOccurs="0" />
    <xsd:element name="Version"
      type="VersionType" minOccurs="0"/>
  </xsd:sequence>
</xsd:group>
```

## 2 Errata #2 - BatchML-V05-BatchInformation.xsd

The following problem has been identified in the schemas.

The extension element in the FromIDType (line 682) is incorrect.

It is defined as:

```
<!-- Complex Type with Extension -->
<xsd:complexType name = "FromIDType">
  <xsd:sequence>
    <xsd:element name = "FromIDValue"          type = "xsd:string" />
    <xsd:element name = "FromType"             type = "FromTypeType" />
    <xsd:element name = "IDScope"              type = "IDScopeType" />
    <xsd:group   ref = "Extended:FromEquipmentID"
                                                    minOccurs="0" maxOccurs="1"/>
  </xsd:sequence>
</xsd:complexType>
```

It should be defined as:

```
<!-- Complex Type with Extension -->
<xsd:complexType name = "FromIDType">
  <xsd:sequence>
    <xsd:element name = "FromIDValue"          type = "xsd:string" />
    <xsd:element name = "FromType"             type = "FromTypeType" />
    <xsd:element name = "IDScope"              type = "IDScopeType" />
    <xsd:group   ref = "Extended:FromID"
                                                    minOccurs="0" maxOccurs="1"/>
  </xsd:sequence>
</xsd:complexType>
```

### 3 Errata #3 - B2MML-V0500-OperationsDefinition.xsd

The following problem has been identified in the schemas.

The OperationsMaterialBillType has a wrong definition for the OperationsMaterialBillItem. The maxOccurs="unbounded" is missing in the element definition.

It is defined as:

```
<xsd:complexType name="OperationsMaterialBillType">
  <xsd:sequence>
    <xsd:element name="ID" type="IdentifierType"/>
    <xsd:element name="Description" type="DescriptionType" minOccurs="0"/>
    <xsd:element name="OperationsMaterialBillItem"
      type="OperationsMaterialBillItemType"
      minOccurs="0"/>
    <xsd:group ref="Extended:OperationsMaterialBill" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
```

It should be defined as:

```
<xsd:complexType name="OperationsMaterialBillType">
  <xsd:sequence>
    <xsd:element name="ID" type="IdentifierType"/>
    <xsd:element name="Description" type="DescriptionType" minOccurs="0"/>
    <xsd:element name="OperationsMaterialBillItem"
      type="OperationsMaterialBillItemType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:group ref="Extended:OperationsMaterialBill" minOccurs="0"/>
  </xsd:sequence>
</xsd:complexType>
```

## 4 Errata #4 – Multiple Items

Errata #4 includes 4 patches.

### 4.1 B2MML-V0500-Common.xsd

The “TimingFactor” element in a SegmentDerpendancy is a ValueType but did not get the update to make it maxOccurs=unbounded.

It is defined as:

```
<xsd:complexType name = "SegmentDependencyType">
  <xsd:sequence>
    <xsd:element name = "ID" type="IdentifierType"/>
    <xsd:element name = "Description" type="DescriptionType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name = "Dependency" type="DependencyType"/>
    <xsd:element name = "TimingFactor" type="ValueType"
      minOccurs="0"/>
    <xsd:choice minOccurs="0" maxOccurs="unbounded">
      <xsd:element name = "ProductSegmentID" type="ProductSegmentIDType"/>
      <xsd:element name = "ProcessSegmentID" type="ProcessSegmentIDType"/>
      <xsd:element name = "SegmentID" type="IdentifierType"/>
    </xsd:choice>
    <xsd:group ref = "Extended:SegmentDependency"
      minOccurs="0" maxOccurs="1"/>
  </xsd:sequence>
</xsd:complexType>
```

It should be defined as:

```
xsd:complexType name = "SegmentDependencyType">
  <xsd:sequence>
    <xsd:element name = "ID" type="IdentifierType"/>
    <xsd:element name = "Description" type="DescriptionType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name = "Dependency" type="DependencyType"/>
    <xsd:element name = "TimingFactor" type="ValueType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:choice minOccurs="0" maxOccurs="unbounded">
      <xsd:element name = "ProductSegmentID" type="ProductSegmentIDType"/>
      <xsd:element name = "ProcessSegmentID" type="ProcessSegmentIDType"/>
      <xsd:element name = "SegmentID" type="IdentifierType"/>
    </xsd:choice>
    <xsd:group ref = "Extended:SegmentDependency"
      minOccurs="0" maxOccurs="1"/>
  </xsd:sequence>
</xsd:complexType>
```

## 4.2 B2MML-V0500-OperationsPerformanceTypes.xsd

SegmentData has the *Description* element defined after the *Value* element. Every other message has it directly after the *ID* element. To simplify processing of all message types, the *Description* element should be moved to after the *ID* element. You should make the identified changes to the schemas in your local copies to correct the problems:

It is defined as:

```
<xsd:complexType name = "OpSegmentDataType">
  <xsd:sequence>
    <xsd:element name = "ID"          type="IdentifierType"/>
    <xsd:element name = "Value"       type="ValueType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name = "Description" type="DescriptionType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name = "SegmentData" type="OpSegmentDataType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name = "RequiredByRequestedSegmentResponse"
      type = "RequiredByRequestedSegmentResponseType"
      minOccurs = "0"/>
    <xsd:group ref = "Extended:OpSegmentData"
      minOccurs="0" maxOccurs="1"/>
  </xsd:sequence>
</xsd:complexType>
```

It should be defined as:

```
<xsd:complexType name = "OpSegmentDataType">
  <xsd:sequence>
    <xsd:element name = "ID"          type="IdentifierType"/>
    <xsd:element name = "Description" type="DescriptionType"
minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name = "Value"       type="ValueType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name = "SegmentData" type="OpSegmentDataType"
      minOccurs="0" maxOccurs="unbounded"/>
    <xsd:element name = "RequiredByRequestedSegmentResponse"
      type = "RequiredByRequestedSegmentResponseType"
      minOccurs = "0"/>
    <xsd:group ref = "Extended:OpSegmentData"
      minOccurs="0" maxOccurs="1"/>
  </xsd:sequence>
</xsd:complexType>
```



### 4.3 B2MML-V0500-OperationsPerformanceTypes.xsd

MaterialActualProperty is not recursive like MaterialDefinitionProperty. This means the results in the performance message cannot reflect the structure of the definition in the material master. You should make the identified changes to the schemas in your local copies to correct the problems:

It is defined as:

```
<xsd:complexType name = "OpMaterialActualPropertyType">
  <xsd:sequence>
    <xsd:element name = "ID" type = "IdentifierType" />
    <xsd:element name = "Description" type = "DescriptionType"
      minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "Value" type = "ValueType"
      minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "Quantity" type = "QuantityValueType"
      minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "RequiredByRequestedSegmentResponse"
      type = "RequiredByRequestedSegmentResponseType"
      minOccurs = "0"/>
    <xsd:group ref = "Extended:OpMaterialActualProperty"
      minOccurs = "0" maxOccurs = "1"/>
  </xsd:sequence>
</xsd:complexType>
```

It should be defined as:

```
xsd:complexType name = "OpMaterialActualPropertyType">
  <xsd:sequence>
    <xsd:element name = "ID" type = "IdentifierType" />
    <xsd:element name = "Description" type = "DescriptionType"
      minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "Value" type = "ValueType"
      minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "Quantity" type = "QuantityValueType"
      minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "RequiredByRequestedSegmentResponse"
      type = "RequiredByRequestedSegmentResponseType"
      minOccurs = "0"/>
    <xsd:element name = "MaterialActualPropertyType"
    type = "OpMaterialActualPropertyType"
    minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:group ref = "Extended:OpMaterialActualProperty"
      minOccurs = "0" maxOccurs = "1"/>
  </xsd:sequence>
</xsd:complexType>
```

## 4.4 B2MML-V0500-OperationsScheduleType

MaterialRequirementProperty is not recursive like MaterialDefinitionProperty. This means the requirements in the schedule message cannot reflect the structure of the definition in the material master. You should make the identified changes to the schemas in your local copies to correct the problems:

It is defined as:

```
<xsd:complexType name = "OpMaterialRequirementPropertyType">
  <xsd:sequence>
    <xsd:element name = "ID"          type = "IdentifierType"
                  minOccurs = "0"/>
    <xsd:element name = "Description" type = "DescriptionType"
                  minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "Value"       type = "ValueType"
                  minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "Quantity" type = "QuantityValueType"
                  minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:group ref = "Extended:OpMaterialRequirementProperty"
              minOccurs = "0" maxOccurs = "1"/>
  </xsd:sequence>
</xsd:complexType>
```

It should be defined as:

```
<xsd:complexType name = "OpMaterialRequirementPropertyType">
  <xsd:sequence>
    <xsd:element name = "ID"          type = "IdentifierType"
                  minOccurs = "0"/>
    <xsd:element name = "Description" type = "DescriptionType"
                  minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "Value"       type = "ValueType"
                  minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "Quantity" type = "QuantityValueType"
                  minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:element name = "MaterialRequirementPropertyType"
    type = "OpMaterialRequirementPropertyType"
    minOccurs = "0" maxOccurs = "unbounded"/>
    <xsd:group ref = "Extended:OpMaterialRequirementProperty"
              minOccurs = "0" maxOccurs = "1"/>
  </xsd:sequence>
</xsd:complexType>
```