Proposed Responses to DRs

08-0001 through 08-0008, and 09-0033

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DR 08-0001 – DML, Framework: Removal of ST_PercentageDecimal from the strict version of the schema

The following schema change will be made to Part 1, §A.4.1:

```
<xsd:simpleType name="ST_PercentageDecimal">
      <xsd:restriction base="xsd:int"/>
</xsd:simpleType>
```

The following schema change will be made to Part 4, §A.4.1

```
<xsd:simpleType name="ST_PercentageDecimal">
      <xsd:restriction base="xsd:int"/>
</xsd:simpleType>
```

Part 1, §20.1.10.41 will be updated as follows:

~~***20.1.10.41 ST_PercentageDecimal (Percentage as Decimal Number)***~~

~~This simple type represents a percentage in 1000ths of a percent, e.g., a value of 1 represents 0.001% == 0.00001; a value of 100000 is equal to 100%. Percentages have no intrinsic units, but are used to scale other values with units.~~

~~This simple type's contents are a restriction of the W3C XML Schema int datatype.~~

~~Referenced By~~
~~ST_Percentage (§xx); ST_TextBulletSizePercent (§0)~~

~~[*Note*: The W3C XML Schema definition of this simple type's content model (ST_PercentageDecimal) is located in §xx. *end note*]~~

New subclause in Part 4, §12.1.2

12.1.2.xx ST_PercentageDecimal (Percentage as Decimal Number)

This simple type represents a percentage in 1000ths of a percent, e.g., a value of 1 represents 0.001% == 0.00001; a value of 100000 is equal to 100%. Percentages have no intrinsic units, but are used to scale other values with units.

This simple type's contents are a restriction of the W3C XML Schema int datatype.

Referenced By
ST_Percentage (Part 1, §xx)

[*Note*: The W3C XML Schema definition of this simple type's content model (ST_PercentageDecimal) is located in §xx. *end note*]

Part 4, §12.1.2.2 will be updated as follows:

Additional member types for the union in ST_Percentage (Part 1, §20.1.10.40)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST_PercentageDecimal simple type (~~Part 1, §20.1.10.41~~ Part 4, §NEW).

DR 08-0002 – Primer: Format of ST_PositivePercentage values in strict mode examples

Part 1, §20.1.10.46 will be updated as follows:

20.1.10.46 ST_PositivePercentage (Positive Percentage Value with Sign)

Part 1, §19.5.83 will be updated as follows:

[*Example*: Consider a text animation where the words appear letter by letter every 10th of the animation duration. The <tmPct> element should be used as follows:

```
<p:par>
  <p:cTn id="5" >
    <p:stCondLst> … </p:stCondLst>
    <p:iterate type="lt">
      <p:tmPct val="10000010.000%"/>
    </p:iterate>
    <p:childTnLst> … </p:childTnLst>
  </p:cTn>
</p:par>
```

end example]

Part 1, §M.4.6.2.2 will be updated as follows:

```
<xsd:complexType name="CT_Camera">
  …
  <xsd:attribute name="zoom" type="ST_PositivePercentage"
    use="optional" default="100000100.000%" />
</xsd:complexType>
```

DR 08-0003 – DML, Main: Format of ST_PositivePercentage values in strict mode examples

Part 1, §20.1.5.5 will be updated as follows:

zoom (Zoom)	… <a:camera prst="perspectiveContrastingRightFacing" fov="6900000" zoom="~~200000~~200.000%"> <a:rot lat="1200000" lon="18000000" rev="1200000"/> /a:camera> …

DR 08-0004 – DML, Diagrams: Type for prSet attributes

New subclause in Part 1, §21.4.7

21.4.7.xx ST_PrSetCustVal (Property Set Customized Value)

This simple type defines customization percentage values for certain elements in DrawingML.

This simple type is a union of the following types:

- The ST_Percentage simple type (§22.9.2.9).

Referenced By
prSet@custScaleX (§21.4.3.4); prSet@custScaleY (§21.4.3.4); prSet@custLinFactX (§21.4.3.4); prSet@custLinFactY (§21.4.3.4); prSet@ custLinFactNeighborX (§21.4.3.4); prSet@ custLinFactNeighborY (§21.4.3.4); prSet@ custRadScaleRad (§21.4.3.4); prSet@custRadScaleInc (§21.4.3.4);

[*Note*: The W3C XML Schema definition of this simple type's content model (ST_PrSetCustVal) is located in §xx. *end note*]

New subclause in Part 4, §12.1.2

12.1.2.xx Additional member types for the union in ST_PrSetCustVal (Part 1, §NEW)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The W3C XML Schema int datatype.

Part 1, §21.4.3.4 will be updated as follows:

custLinFactNeighborX (Neighbor Offset Width)	Specifies the percentage of the neighbor's width used for offsetting shape. The possible values for this attribute are defined by the ~~W3C XML Schema int datatype~~ ST_PrSetCustVal simple type (§NEW).
custLinFactNeighborY (Neighbor Offset Height)	Specifies the percentage of the neighbor's height used for offsetting shape. The possible values for this attribute are defined by the ~~W3C XML Schema int datatype~~ ST_PrSetCustVal simple type (§NEW).

custLinFactX (Custom Factor Width)	Specifies the percentage of the current shape width used for offsetting the shape. The possible values for this attribute are defined by the ~~W3C XML Schema int datatype~~ ST_PrSetCustVal simple type (§NEW).
custLinFactY (Custom Factor Height)	Specifies the percentage of the current shape height used for offsetting the shape. The possible values for this attribute are defined by the ~~W3C XML Schema int datatype~~ ST_PrSetCustVal simple type (§NEW).
custRadScaleInc (Include Angle Scale)	Specifies the amount that the include angle has been scaled by. The possible values for this attribute are defined by the ~~W3C XML Schema int datatype~~ ST_PrSetCustVal simple type (§NEW).
custRadScaleRad (Radius Scale)	Specifies how much the radius has been scaled. The possible values for this attribute are defined by the ~~W3C XML Schema int datatype~~ ST_PrSetCustVal simple type (§NEW).
custScaleX (Width Scale)	Specifies the amount that the width has been scaled by. The possible values for this attribute are defined by the ~~W3C XML Schema int datatype~~ ST_PrSetCustVal simple type (§NEW).
custScaleY (Height Scale)	Specifies the amount that the height has been scaled by. The possible values for this attribute are defined by the ~~W3C XML Schema int datatype~~ ST_PrSetCustVal simple type (§NEW).

The following schema changes will be made to Part 1, §A.5.3:

```
<xsd:simpleType name="ST_PrSetCustVal">
        <xsd:annotation>
                <xsd:documentation>Property Set Customized Value</xsd:documentation>
        </xsd:annotation>
        <xsd:union memberTypes="s:ST_Percentage"/>
</xsd:simpleType>
```

```
<xsd:attribute name="custScaleX" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
        <xsd:annotation>
                <xsd:documentation>Width Scale</xsd:documentation>
        </xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custScaleY" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
        <xsd:annotation>
                <xsd:documentation>Height Scale</xsd:documentation>
        </xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custT" type="xsd:boolean" use="optional">
        <xsd:annotation>
                <xsd:documentation>Text Changed</xsd:documentation>
        </xsd:annotation>
```

```
</xsd:attribute>
<xsd:attribute name="custLinFactX" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Custom Factor Width</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custLinFactY" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Custom Factor Height</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custLinFactNeighborX" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Neighbor Offset Width</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custLinFactNeighborY" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Neighbor Offset Height</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custRadScaleRad" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Radius Scale</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custRadScaleInc" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Include Angle Scale</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
```

The following schema changes will be made to Part 4, §A.5.3:

```
<xsd:simpleType name="ST_PrSetCustVal">
	<xsd:annotation>
		<xsd:documentation>Property Set Customized Value</xsd:documentation>
	</xsd:annotation>
	<xsd:union memberTypes="s:ST_Percentage xsd:int"/>
</xsd:simpleType>
```

```
<xsd:attribute name="custScaleX" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Width Scale</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custScaleY" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Height Scale</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custT" type="xsd:boolean" use="optional">
	<xsd:annotation>
		<xsd:documentation>Text Changed</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
```

```
<xsd:attribute name="custLinFactX" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Custom Factor Width</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custLinFactY" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Custom Factor Height</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custLinFactNeighborX" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Neighbor Offset Width</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custLinFactNeighborY" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Neighbor Offset Height</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custRadScaleRad" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Radius Scale</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
<xsd:attribute name="custRadScaleInc" type="~~xsd:int~~ST_PrSetCustVal" use="optional">
	<xsd:annotation>
		<xsd:documentation>Include Angle Scale</xsd:documentation>
	</xsd:annotation>
</xsd:attribute>
```

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DR 08-0005 – PML, Animation: Description of hsl attributes Lightness and Saturation

Part 1, §19.5.46 will be updated as follows:

Attributes	Description
…	…
l (Lightness)	Specifies a lightness ~~as fixed percentage in 1000ths of a percent when no percent sign is included in the value or as percent when a percent sign is present~~ as a percentage. The values range from [-100%, 100%]. The possible values for this attribute are defined by the ST_FixedPercentage simple type (§xx).
s (Saturation)	Specifies a saturation ~~as fixed percentage in 1000ths of a percent when no percent sign is included in the value or as percent when a percent sign is present~~ as a percentage. The values range from [-100%, 100%]. The possible values for this attribute are defined by the ST_FixedPercentage simple type (§xx).

DR 08-0006 – PML, Animation: Description of rgb attributes Blue, Green and Red

Part 1, §19.5.63 will be updated as follows:

Attributes	Description
b (Blue)	This attribute specifies a blue ~~as fixed percentage in 1000ths of a percent when no percent sign is included in the value or as percent when a percent sign is present~~ as a percentage. Values range from [-100%, 100%]. The possible values for this attribute are defined by the ST_FixedPercentage simple type (§xx).
g (Green)	This attribute specifies a green ~~as fixed percentage in 1000ths of a percent when no percent sign is included in the value or as percent when a percent sign is present~~ as a percentage. Values range from [-100%, 100%]. The possible values for this attribute are defined by the ST_FixedPercentage simple type (§xx).
r (Red)	This attribute specifies a red ~~as fixed percentage in 1000ths of a percent when no percent sign is included in the value or as percent when a percent sign is present~~ as a percentage. Values range from [-100%, 100%]. The possible values for this attribute are defined by the ST_FixedPercentage simple type (§xx).

DR 08-0007 – DML, Main: Format of ST_TextBulletSizePercent percentage

A new subclause will be added to Part 1, §20.1.10:

20.1.10.xx ST_TextBulletSize (Bullet Size Percentage)

This simple type specifies the range that the bullet percent can be. A bullet percent is the size of the bullet with respect to the text that should follow it, with a minimum size of 25% and maximum of size 400%.

This simple type is a union of the following types:

- The ST_TextBulletSizePercent simple type (§20.1.10.62)

Referenced By
buSzPct@val (§xx)

[*Note*: The W3C XML Schema definition of this simple type's content model (ST_TextBulletSize) is located in §xx. *end note*]

Part 1, §20.1.10.62 will be updated as follows:

ST_TextBulletSizePercent (Bullet Size Percentage)

This simple type specifies the range that the bullet percent can be. A bullet percent is the size of the bullet with respect to the text that should follow it. ~~25000 = 25 %400000 = 400 %~~

~~This simple type's contents are a restriction of the ST_PercentageDecimal datatype (§20.1.10.41).~~

This simple type also specifies the following restrictions:

- ~~This simple type has a minimum value of greater than or equal to 25000.~~
- ~~This simple type has a maximum value of less than or equal to 400000.~~
- This simple type's contents shall match the following regular expression pattern: ((2[5-9])|([3-9][0-9])|([1-3][0-9][0-9])|400)%.

Referenced By
~~buSzPct@val (§21.1.2.4.9)~~ ST_TextBulletSize (§New)

[*Note*: The W3C XML Schema definition of this simple type's content model (ST_TextBulletSizePercent) is located in §xx. *end note*]

A new subclause will be added to Part 4, §12.1.2:

12.1.2.xx ST_TextBulletSizeDecimal (Bullet Size Percentage)

This simple type specifies the range that the bullet percent can be. A bullet percent is the size of the bullet with respect to the text that should follow it. 25000 = 25%, 400000 = 400%

This simple type's contents are a restriction of the ST_PercentageDecimal datatype (Part 4, §NEW).

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 25000.
- This simple type has a maximum value of less than or equal to 400000.

Referenced By
ST_TextBulletSize (Part 1, §NEW)

[*Note*: The W3C XML Schema definition of this simple type's content model (ST_TextBulletSizeDecimal) is located in §xx. *end note*]

A new subclause will be added to Part 4, §12.1.2:

12.1.2.xx Additional member types for the union in ST_TextBulletSize (Part 1, §NEW)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST_TextBulletSizeDecimal simple type (Part 4, §NEW).

The following schema change will be made to Part 1, §A.4.1:

```
<xsd:simpleType name="ST_TextBulletSize">
      <xsd:union memberTypes="ST_TextBulletSizePercent"/>
</xsd:simpleType>
<xsd:simpleType name="ST_TextBulletSizePercent">
      <xsd:restriction base="ST_PercentageDecimal">
            <xsd:minInclusive value="25000"/>
            <xsd:maxInclusive value="400000"/>
      </xsd:restriction>
      <xsd:pattern value="((2[5-9])|([3-9][0-9])|([1-3][0-9][0-9])|400)%"/>
</xsd:simpleType>
```

The following schema change will be made to Part 4, §A.4.1:

```
<xsd:simpleType name="ST_TextBulletSize">
```

```
        <xsd:union memberTypes="ST_TextBulletSizePercent ST_TextBulletSizeDecimal"/>
</xsd:simpleType>
<xsd:simpleType name="ST_TextBulletSizePercent">
        <xsd:restriction base="ST_PercentageDecimal">
                <xsd:minInclusive value="25000"/>
                <xsd:maxInclusive value="400000"/>
        </xsd:restriction>
        <xsd:pattern value="((2[5-9])|([3-9][0-9])|([1-3][0-9][0-9])|400)%"/>
</xsd:simpleType>
<xsd:simpleType name="ST_TextBulletSizeDecimal">
        <xsd:restriction base="ST_PercentageDecimal">
                <xsd:minInclusive value="25000"/>
                <xsd:maxInclusive value="400000"/>
        </xsd:restriction>
</xsd:simpleType>
```

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DR 08-0008 – DML, Main: Format of buSzPct percentage values in strict mode example

Part 1, §21.1.2.4.9 will be updated as follows:

This element specifies the size in percentage of the surrounding text to be used on bullet characters within a given paragraph. ~~The size is specified using a percentage where 1000 is equal to 1 percent of the font size and 100000 is equal to 100 percent font of the font size.~~

[*Example*: Consider the DrawingML shown below.

```
<p:txBody>
  …
  <a:p>
    <a:pPr …>
      <a:buSzPct val="~~111000~~111.000%"/>
    </a:pPr>
    …
    <a:t>Bullet 1</a:t>
    …
  </a:p>
  …
</p:txBody>
```

The size of the above bullet follows the text size in that it is always rendered at 111% the size of the text within the given text run. This is specified by val="~~111000~~111.000%", with a restriction on the values not being less than 25% or more than 400%. ~~A value of 100000 is equal to 100%, similarly a value of 1000 is equal to 1%.~~ This percentage size should only apply to the actual bullet character and not to the text within the bullet. *end example*]

…

Attributes	Description
val (Value)	Specifies the percentage of the text size that this bullet should be. ~~It is specified here in terms of 100% being equal to 100000 and 1% being specified in increments of 1000.~~ This attribute should not be lower than 25%~~, or 25000~~ and not be higher than 400%~~, or 400000~~. The possible values for this attribute are defined by the ~~ST_TextBulletSizePercent simple type (§20.1.10.62)~~ ST_TextBulletSize (§NEW).

DR 09-0033 – DML, Charts, Simple Types: Lack of support for percent signs

Part 1, §21.2.2.41 will be updated as follows:

Attributes	Description
val (Depth Percent Value)	Specifies ~~an integer~~a percentage value for the property defined by the parent XML element. The possible values for this attribute are defined by the ST_DepthPercent simple type (§NEW).

Part 1, §21.2.3.9 will be updated as follows:

This simple type specifies that its contents contain a ~~whole number~~percentage between 20% and 2000%~~, whose contents are a percentage~~.

This simple type~~'s contents are a restriction of the W3C XML Schema unsignedShort datatype~~ is a union of the following types:

- ST_DepthPercentPercent simple type (§NEW).

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a minimum value of greater than or equal to 20.~~
- ~~This simple type has a maximum value of less than or equal to 2000.~~

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_DepthPercentPercent (Depth Percent Percentage)

This simple type specifies that its contents contain a percentage between 20% and 2000%.

The simple type's contents shall match the following regular expression pattern: (([2-9][0-9])|([1-9][0-9][0-9])|(1[0-9][0-9][0-9])|2000)%.

Referenced By
ST_DepthPercent (**§21.2.3.9**)

To Part 1, §A.5.1:

```
<xsd:simpleType name="ST_DepthPercent">
~~      <xsd:restriction base="xsd:unsignedShort">~~
~~          <xsd:minInclusive value="20"/>~~
~~          <xsd:maxInclusive value="2000"/>~~
~~      </xsd:restriction>~~
        <xsd:union memberTypes="ST_DepthPercentPercent"/>
</xsd:simpleType>
```

```
<xsd:simpleType name="ST_DepthPercentPercent">
      <xsd:pattern value="(([2-9][0-9])|([1-9][0-9][0-9])|(1[0-9][0-9][0-9])|2000)%"/>
</xsd:simpleType>

<xsd:complexType name="CT_DepthPercent">
      <xsd:attribute name="val" type="ST_DepthPercent" default="100%"/>
</xsd:complexType>
```

To a new subclause in Part 4, §13.1:

13.1.xx Simple Types

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx Additional member types for union in ST_DepthPercent (Part 1, §21.2.3.9)

The value space of the following additional member types can be used within the contxt of this simple type for a document of a transitional conformance class.

- The ST_DepthPercentUShort simple type (§NEW).

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_DepthPercentUShort (Depth Percent UnsignedShort)

This simple type specifies that its contents contain a whole number between 20 and 2000, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 20.
- This simple type has a maximum value of less than or equal to 2000.

Referenced By
ST_DepthPercent (**Part 1, §21.2.3.9**)

To Part 4, §A.5.1:

```
    <xsd:simpleType name="ST_DepthPercent">
      <xsd:restriction base="xsd:unsignedShort">
        <xsd:minInclusive value="20"/>
        <xsd:maxInclusive value="2000"/>
      </xsd:restriction>
      <xsd:union memberTypes="ST_DepthPercentPercent ST_DepthPercentUShort"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_DepthPercentPercent">
      <xsd:pattern value="(([2-9][0-9])|([1-9][0-9][0-9])|(1[0-9][0-9][0-9])|2000)% "/>
```

```
    </xsd:simpleType>

    <xsd:simpleType name="ST_DepthPercentUShort">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="20"/>
            <xsd:maxInclusive value="2000"/>
        </xsd:restriction>
    </xsd:simpleType>

    <xsd:complexType name="CT_DepthPercent">
        <xsd:attribute name="val" type="ST_DepthPercent" default="100%"/>
    </xsd:complexType>
```

Part 1, §21.2.2.83 will be updated as follows:

Attributes	Description
val (Height Percent Value)	Specifies that the contents of this attribute contain a height percent between 5% and 500%. The possible values for this attribute are defined by the ST_HPercent simple type (§xx).

Part 1, §21.2.3.19 will be updated as follows:

This simple type specifies that its contents contain ~~an integer~~ a percentage between 5% and 500%~~, whose contents are a percentage~~.

This simple type~~'s contents are a restriction of the W3C XML Schema unsignedShort datatype.~~ is a union of the following types:

- ST_HPercentPercent simple type (§NEW).

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a minimum value of greater than or equal to 5.~~
- ~~This simple type has a maximum value of less than or equal to 500.~~

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_HPercentPercent (Height Percent Percentage)

This simple type specifies that its contents contain a percentage between 5% and 500%.

The simple type's contents shall match the following regular expression pattern: (([5-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%.

Referenced By
ST_HPercent (**§21.2.3.19**)

To Part 1, §A.5.1:

```
    <xsd:simpleType name="ST_HPercent">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="5"/>
            <xsd:maxInclusive value="500"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_HPercentPercent"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_HPercentPercent">
        <xsd:pattern value="(([5-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%"/>
    </xsd:simpleType>

    <xsd:complexType name="CT_HPercent">
        <xsd:attribute name="val" type="ST_HPercent" default="100%"/>
    </xsd:complexType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx Additional member types for union in ST_HPercent (Part 1, §21.2.3.19)

The value space of the following additional member types can be used within the contxt of this simple type for a document of a transitional conformance class.

- The ST_HPercentUShort simple type (§NEW).

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_HPercentUShort (Depth Percent UnsignedShort)

This simple type specifies that its contents contain a whole number between 5 and 500, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 5.
- This simple type has a maximum value of less than or equal to 500.

Referenced By
ST_HPercent (**Part 1, §21.2.3.19**)

To Part 4, §A.5.1:

```
    <xsd:simpleType name="ST_HPercent">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="5"/>
            <xsd:maxInclusive value="500"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_HPercentPercent ST_HPercentUShort"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_HPercentPercent">
        <xsd:pattern value="(([5-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_HPercentUShort">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="5"/>
            <xsd:maxInclusive value="500"/>
        </xsd:restriction>
    </xsd:simpleType>

    <xsd:complexType name="CT_HPercent">
        <xsd:attribute name="val" type="ST_HPercent" default="100%"/>
    </xsd:complexType>
```

WordprocessingML Other Percentage Sign Affected Areas

To Part 1, §17.3.2.43:

17.3.2.43 w (Expanded/Compressed Text)

…

[*Example*: …

```
<w:rPr>
  <w:w w:val="200%"/>
</w:rPr>
```

This run explicitly declares that the w value is 200%, so the contents of this run appear at 200% of their normal character width by stretching the width of each character. *end example*]

…

Attributes	Description

val (Text Expansion/Compression Value)	… [*Example*: …
	`<w:rPr>`
	`  <w:w w:val="50%"/>`
	`</w:rPr>`
	
	This run explicitly declares that the w value is 50%, so the contents of this run appear at 50% of their normal character width by compressing the width of each character. *end example*]
	…

To Part 1, §17.18.95:

17.18.95 ST_TextScale (Text Expansion/Compression Percentage)

… [*Example*: …

```
<w:rPr>
  <w:w w:val="50%"/>
</w:rPr>
```

This run explicitly declares that the w value is 50%, so the contents of this run appear at 50% of their normal character width by compressing the width of each character. *end example*]

This simple type~~'s contents are a restriction of the W3C XML Schema integer datatype.~~ is a union of the following types:

- The ST_TextScalePercent simple type (§NEW).

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a minimum value of greater than or equal to 0.~~
- ~~This simple type has a maximum value of less than or equal to 600.~~

…

To a new subclause in Part 1, §17.18:

17.18.xx ST_TextScalePercent (Text Expansion/Compression Percentage)

This simple type specifies that the percentage by which the contents of a run shall be expanded or compressed with respect to its normal (100%) character width, with a minimum width of 1% and maximum width of 600%.

[*Example*: Consider a run of text which must be compressed to 200% when displaying each character within the contents of the run. This constraint is specified using the following WordprocessingML:

```
<w:rPr>
  <w:w w:val="50%"/>
</w:rPr>
```

This run explicitly declares that the w value is 50%, so the contents of this run appear at 50% of their normal character width by compressing the width of each character. *end example*]

This simple type also specifies the following restrictions:

- This simple type's contents shall match the following regular expression pattern: (600|([0-5]?[0-9]?[0-9]))%.

Referenced By
ST_TextScale (§17.18.95)

[*Note*: The W3C XML Schema definition of this simple type's content model (ST_TextScalePercent) is located in §xx. *end note*]

To Part 1, §A.1:

```
    <xsd:simpleType name="ST_TextScale">
        <xsd:union memberTypes="ST_TextScalePercent"/>
        <xsd:restriction base="xsd:integer">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="600"/>
        </xsd:restriction>
    </xsd:simpleType>
    <xsd:simpleType name="ST_TextScalePercent">
        <xsd:pattern value="(600|([0-5]?[0-9]?[0-9]))%"/>
    </xsd:simpleType>
```

To Part 4, a new subclause in §9.10:

9.10.xx Additional member types for the union in ST_TextScale (Part 1, §17.18.95)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST_TextScaleDecimal simple type (§NEW).

To Part 4, a new subclause in §9.10:

9.10.xx ST_TextScaleDecimal (Text Expansion/Compression Percentage)

This simple type specifies that the percentage by which the contents of a run shall be expanded or compressed with respect to its normal (100%) character width, with a minimum width of 1% and maximum width of 600%.

[*Example*: Consider a run of text which must be expanded to 300% when displaying each character within the contents of the run. This constraint is specified using the following WordprocessingML:

```
<w:rPr>
  <w:w w:val="300"/>
</w:rPr>
```

This run explicitly declares that the w value is 300, so the contents of this run appear at 300% of their normal character width by expanding the width of each character. *end example*]

This simple type's contents are a restriction of the W3C XML Schema integer datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 0.
- This simple type has a maximum value of less than or equal to 600.

Referenced By
ST_TextScale (§17.18.95)

To Part 4, §A.1:

```
    <xsd:simpleType name="ST_TextScale">
        <xsd:union memberTypes="ST_TextScalePercent ST_TextScaleDecimal"/>
        <xsd:restriction base="xsd:integer">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="600"/>
        </xsd:restriction>
    </xsd:simpleType>
    <xsd:simpleType name="ST_TextScalePercent">
        <xsd:pattern value="(600|([0-5]?[0-9]?[0-9]))%"/>
    </xsd:simpleType>
    <xsd:simpleType name="ST_TextScaleDecimal">
        <xsd:restriction base="xsd:integer">
```

```
          <xsd:minInclusive value="0"/>
          <xsd:maxInclusive value="600"/>
       </xsd:restriction>
   </xsd:simpleType>
```

SpreadsheetML Other Percentage Sign Affected Areas

To Part 1, §18.18, "Simple Types":

ST_IntegerPosNumberOrPercent (Percentage Measurement)

This simple type specifies that its contents will contain a positive integer percentage-based value. See the union's member types for details.

This simple type is a union of the following types:

- The ST_IntegerPosPercentage simple type (§NEW).

Referenced By
…

[*Note*: The W3C XML Schema definition of this simple type's content model (ST_IntegerPosNumberOrPercent) is located in §xx. *end note*]

To Part 1, §A.1:

```
<xsd:simpleType name="ST_IntegerPosNumberOrPercent">
        <xsd:union memberTypes="ST_IntegerPosPercentage"/>
</xsd:simpleType>

<xsd:simpleType name="ST_IntegerPosPercentage">
        <xsd:pattern value="(([0-9][0-9])|100)%"/>
</xsd:simpleType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

Additional member types for union in ST_IntegerPosNumberOrPercent **(Part 1, §NEW)**

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The xsd:unsignedInt datatype (§NEW).

To Part 4, §A.1:

```
<xsd:simpleType name="ST_IntegerPosNumberOrPercent">
        <xsd:union memberTypes="ST_IntegerPosPercentage xsd:unsignedInt"/>
```

```
</xsd:simpleType>

<xsd:simpleType name="ST_IntegerPosPercentage">
      <xsd:pattern value="(([0-9][0-9])|100)%"/>
</xsd:simpleType>
```

To Part 1, §18.3.1.24:

customSheetView (Custom Chart Sheet View)

Attributes	Description
scale (Print Scale)	… The possible values for this attribute are defined by the ~~W3C XML Schema~~ ST_IntegerPosNumberOrPercent ~~unsignedInt datatype~~simple type.

To Part 1, §A.2:

```
    <xsd:complexType name="CT_CustomSheetView">
        …
        <xsd:attribute name="guid" type="s:ST_Guid" use="required"/>
        <xsd:attribute name="scale" type="ST_IntegerPosNumberOrPercent~~xsd:unsignedInt~~"
          default="100%"/>
        <xsd:attribute name="colorId" type="xsd:unsignedInt" default="64"/>
        …
    </xsd:complexType>
```

To Part 1, §18.3.1.25:

customSheetView (Custom Sheet View)

…

Attributes	Description
scale (Print Scale)	… The possible values for this attribute are defined by the ~~W3C XML Schema~~ ST_IntegerPosNumberOrPercent ~~unsignedInt~~ simple type~~datatype~~.

To Part 1, §A.2:

```
    <xsd:complexType name="CT_CustomChartsheetView">
        …
        <xsd:attribute name="guid" type="s:ST_Guid" use="required"/>
        <xsd:attribute name="scale" type="ST_IntegerPosNumberOrPercent~~xsd:unsignedInt~~"
          default="100%"/>
        <xsd:attribute name="state" type="ST_SheetState" default="visible"/>
        <xsd:attribute name="zoomToFit" type="xsd:boolean" use="optional" default="false"/>
```

```
    </xsd:complexType>
```

To Part 1, §18.3.1.28:

dataBar (Data Bar)

…

Attributes	Description
maxLength (Maximum Length)	The maximum length of the data bar, as a percentage of the cell width. The possible values for this attribute are defined by the ~~W3C XML Schema~~ ST_IntegerPosNumberOrPercent ~~unsignedInt~~ simple type~~datatype~~.
minLength (Minimum Length)	The minimum length of the data bar, as a percentage of the cell width. The possible values for this attribute are defined by the ~~W3C XML Schema~~ ST_IntegerPosNumberOrPercent ~~unsignedInt~~ simple type~~datatype~~.

To Part 1, §A.2:

```
    <xsd:complexType name="CT_DataBar">
        …
        <xsd:attribute name="minLength" type="ST_IntegerPosNumberOrPercent~~xsd:unsignedInt~~"
          use="optional" default="10%"/>
        <xsd:attribute name="maxLength" type="ST_IntegerPosNumberOrPercent~~xsd:unsignedInt~~"
          use="optional" default="90%"/>
        <xsd:attribute name="showValue" type="xsd:boolean" use="optional" default="true"/>
    </xsd:complexType>
```

To Part 1, §18.3.1.63:

pageSetup (Page Setup Settings)

…

Attributes	Description
scale (Print Scale)	… The possible values for this attribute are defined by the ST_IntegerPosNumberOrPercent ~~W3C XML Schema unsignedInt~~ simple type~~datatype~~.

To Part 1, §A.2:

```
    <xsd:complexType name="CT_PageSetup">
        <xsd:attribute name="paperSize" type="xsd:unsignedInt" use="optional" default="1"/>
```

```
        <xsd:attribute name="paperHeight" type="s:ST_PositiveUniversalMeasure" use="optional"/>
        <xsd:attribute name="paperWidth" type="s:ST_PositiveUniversalMeasure" use="optional"/>
        <xsd:attribute name="scale" type="ST_IntegerPosNumberOrPercentxsd:unsignedInt"
          use="optional" default="100%"/>
        <xsd:attribute name="firstPageNumber" type="xsd:unsignedInt" use="optional"
          default="1"/>
        …
    </xsd:complexType>
```

To Part 1, §18.3.1.86:

sheetView (Chart Sheet View)

…

Attributes	Description
zoomScale (Window Zoom Scale)	… The possible values for this attribute are defined by the ST_IntegerPosNumberOrPercent simple type~~W3C XML Schema unsignedInt datatype~~.

To Part 1, §A.2:

```
    <xsd:complexType name="CT_ChartsheetView">
        <xsd:sequence>
            <xsd:element name="extLst" type="CT_ExtensionList" minOccurs="0" maxOccurs="1"/>
        </xsd:sequence>
        <xsd:attribute name="tabSelected" type="xsd:boolean" use="optional" default="false"/>
        <xsd:attribute name="zoomScale" type="ST_IntegerPosNumberOrPercentxsd:unsignedInt"
          default="100%" use="optional"/>
        <xsd:attribute name="workbookViewId" type="xsd:unsignedInt" use="required"/>
        <xsd:attribute name="zoomToFit" type="xsd:boolean" use="optional" default="false"/>
    </xsd:complexType>
```

To Part 1, §18.3.1.87:

sheetView (Worksheet View)

…

Attributes	Description
zoomScale (Zoom Scale)	… Current view can be Normal, Page Layout, or Page Break Preview. The possible values for this attribute are defined by the ST_IntegerPosNumberOrPercent simple type~~W3C XML Schema unsignedInt datatype~~.

Attributes	Description
zoomScaleNormal (Zoom Scale Normal View)	… The possible values for this attribute are defined by the ST_IntegerPosNumberOrPercent simple type~~W3C XML Schema unsignedInt datatype~~.
zoomScalePageLayoutView (Zoom Scale Page Layout View)	… The possible values for this attribute are defined by the ST_IntegerPosNumberOrPercent simple type~~W3C XML Schema unsignedInt datatype~~.
zoomScaleSheetLayoutView (Zoom Scale Page Break Preview)	… The possible values for this attribute are defined by the ST_IntegerPosNumberOrPercent simple type~~W3C XML Schema unsignedInt datatype~~.

To Part 1, §A.2:

```
    <xsd:complexType name="CT_SheetView">
        …
        <xsd:attribute name="colorId" type="xsd:unsignedInt" use="optional" default="64"/>
        <xsd:attribute name="zoomScale" type="ST_IntegerPosNumberOrPercent~~xsd:unsignedInt~~"
          use="optional" default="100%"/>
        <xsd:attribute name="zoomScaleNormal"
          type="ST_IntegerPosNumberOrPercent~~xsd:unsignedInt~~" use="optional" default="0%"/>
        <xsd:attribute name="zoomScaleSheetLayoutView"
          type="ST_IntegerPosNumberOrPercent~~xsd:unsignedInt~~" use="optional" default="0%"/>
        <xsd:attribute name="zoomScalePageLayoutView"
          type="ST_IntegerPosNumberOrPercent~~xsd:unsignedInt~~" use="optional" default="0%"/>
        <xsd:attribute name="workbookViewId" type="xsd:unsignedInt" use="required"/>
    </xsd:complexType>
```

DrawingML Other Percentage Sign Affected Areas

Part 1, §21.2.2.74 will be updated as follows:

Attributes	Description
val (Gap Size Value)	Specifies that the contents of this attribute contain a gap amount between 0% and 500%. The possible values for this attribute are defined by the ST_GapAmount simple type (§xx).

Part 1, §21.2.2.75 will be updated as follows:

Attributes	Description
val (Gap Size Value)	Specifies that the contents of this attribute contain a gap amount between 0% and 500%. The possible values for this attribute are defined by the ST_GapAmount simple type (§xx).

Part 1, §21.2.3.16 will be updated as follows:

This simple type specifies that its contents contain ~~an integer~~ a percentage between 0% and 500%~~, whose contents are a percentage~~.

This simple type~~'s contents are a restriction of the W3C XML Schema unsignedShort datatype.~~ is a union of the following types:

- ST_GapAmountPercent simple type (§NEW).

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a minimum value of greater than or equal to 0.~~
- ~~This simple type has a maximum value of less than or equal to 500.~~

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_GapAmountPercent (Gap Amount Percentage)

This simple type specifies that its contents contain a percentage between 0% and 500%.

The simple type's contents shall match the following regular expression pattern: (([0-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%.

Referenced By
ST_GapAmount (**§21.2.3.16**)

To Part 1, §A.5.1:

```
    <xsd:simpleType name="ST_GapAmount">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="500"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_GapAmountPercent"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_GapAmountPercent">
        <xsd:pattern value="(([0-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%"/>
    </xsd:simpleType>

    <xsd:complexType name="CT_GapAmount">
        <xsd:attribute name="val" type="ST_GapAmount" default="150%"/>
    </xsd:complexType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx Additional member types for union in ST_GapAmount (Part 1, §21.2.3.16)

The value space of the following additional member types can be used within the contxt of this simple type for a document of a transitional conformance class.

- The ST_GapAmountUShort simple type (§NEW).

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_GapAmountUShort (Gap Amount UnsignedShort)

This simple type specifies that its contents contain a whole number between 0 and 500, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 0.
- This simple type has a maximum value of less than or equal to 500.

Referenced By
ST_GapAmount (**Part 1, §21.2.3.16**)

To Part 4, §A.5.1:

```
    <xsd:simpleType name="ST_GapAmount">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="500"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_GapAmountPercent ST_GapAmountUShort"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_GapAmountPercent">
        <xsd:pattern value="(([0-9])|([1-9][0-9])|([1-4][0-9][0-9])|500)%"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_GapAmountUShort">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="500"/>
        </xsd:restriction>
    </xsd:simpleType>

    <xsd:complexType name="CT_GapAmount">
        <xsd:attribute name="val" type="ST_GapAmount" default="150%"/>
    </xsd:complexType>
```

Part 1, §21.2.2.136 will be updated as follows:

Attributes	Description
val (Perspective Value)	Specifies the contents of this attribute contain ~~an integer~~ a percentage between 0% and ~~100~~240%. The possible values for this attribute are defined by the ST_Perspective simple type (§xx).

Part 1, §21.2.3.34 will be updated as follows:

This simple type specifies that its contents contain ~~an integer~~ a percentage between 0% and ~~100~~240%~~, whose contents are a percentage~~.

This simple type~~'s contents are a restriction of the W3C XML Schema unsignedByte datatype.~~ is a union of the following types:

- ST_PerspectivePercent simple type (§NEW).

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a minimum value of greater than or equal to 0.~~

- ~~This simple type has a maximum value of less than or equal to 240.~~

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_PerspectivePercent (Perspective Percentage)

This simple type specifies that its contents contain a percentage between 0% and 240%.

The simple type's contents shall match the following regular expression pattern: (([0-9])|([1-9][0-9])|(1[0-9][0-9])|(2[0-3][0-9])|240)%.

Referenced By
ST_Perspective (**§21.2.3.34**)

To Part 1, §A.5.1:

```
    <xsd:simpleType name="ST_Perspective">
~~        <xsd:restriction base="xsd:unsignedByte">~~
~~            <xsd:minInclusive value="0"/>~~
~~            <xsd:maxInclusive value="240"/>~~
~~        </xsd:restriction>~~
        <xsd:union memberTypes="ST_PerspectivePercent"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_PerspectivePercent">
        <xsd:pattern value="(([0-9])|([1-9][0-9])|(1[0-9][0-9])|(2[0-3][0-9])|240)%"/>
    </xsd:simpleType>

    <xsd:complexType name="CT_Perspective">
        <xsd:attribute name="val" type="ST_Perspective" default="30%"/>
    </xsd:complexType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx Additional member types for union in ST_Perspective (Part 1, §21.2.3.34)

The value space of the following additional member types can be used within the contxt of this simple type for a document of a transitional conformance class.

- The ST_GapPerspectiveUByte simple type (§NEW).

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_PerspectiveUByte (Perspective UnsignedByte)

This simple type specifies that its contents contain a whole number between 0 and 240, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedByte datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 0.
- This simple type has a maximum value of less than or equal to 240.

Referenced By
ST_Perspective (**Part 1, §21.2.3.34**)

To Part 4, §A.5.1:

```
    <xsd:simpleType name="ST_Perspective">
        <xsd:restriction base="xsd:unsignedByte">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="240"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_PerspectivePercent ST_PerspectiveUByte"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_PerspectivePercent">
        <xsd:pattern value="(([0-9])|([1-9][0-9])|(1[0-9][0-9])|(2|[0-3][0-9])|240)%"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_PerspectiveUByte">
        <xsd:restriction base="xsd:unsignedByte">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="240"/>
        </xsd:restriction>
    </xsd:simpleType>

    <xsd:complexType name="CT_Perspective">
        <xsd:attribute name="val" type="ST_Perspective" default="30%"/>
    </xsd:complexType>
```

Part 1, §21.2.2.164 will be updated as follows:

Attributes	Description
val (Second Pie Size Value)	Specifies the contents of this attribute contain ~~an integer~~ a percentage between 5% and 200%. The possible values for this attribute are defined by the ST_SecondPieSize simple type (§xx).

Part 1, §21.2.3.41 will be updated as follows:

This simple type specifies that its contents contain ~~an integer~~ a percentage between 5% and 200%~~, whose contents consist of a percentage~~.

This simple type~~'s contents are a restriction of the W3C XML Schema unsignedShort datatype.~~ is a union of the following types:

- ST_SecondPieSizePercent simple type (§NEW).

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a maximum value of less than or equal to 200.~~
- ~~This simple type has a minimum value of greater than or equal to 5.~~

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_SecondPieSizePercent (Second Pie Size Percentage)

This simple type specifies that its contents contain a percentage between 5% and 200%.

The simple type's contents shall match the following regular expression pattern: (([5-9])|([1-9][0-9])|(1[0-9][0-9])|200)%.

Referenced By
ST_SecondPieSize (**§21.2.3.41**)

To Part 1, §A.5.1:

```
    <xsd:simpleType name="ST_SecondPieSize">
~~        <xsd:restriction base="xsd:unsignedShort">~~
~~            <xsd:minInclusive value="5"/>~~
~~            <xsd:maxInclusive value="200"/>~~
~~        </xsd:restriction>~~
        <xsd:union memberTypes="ST_SecondPieSizePercent"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_SecondPieSizePercent">
        <xsd:pattern value="(([5-9])|([1-9][0-9])|(1[0-9][0-9])|200)%"/>
    </xsd:simpleType>

    <xsd:complexType name="CT_SecondPieSize">
        <xsd:attribute name="val" type="ST_SecondPieSize" default="75%"/>
    </xsd:complexType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx Additional member types for union in ST_SecondPieSize (Part 1, §21.2.3.41)

The value space of the following additional member types can be used within the contxt of this simple type for a document of a transitional conformance class.

- The ST_SecondPieSizeUShort simple type (§NEW).

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_SecondPieSizeUShort (Second Pie Size UnsignedShort)

This simple type specifies that its contents contain a whole number between 5 and 200, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 5.
- This simple type has a maximum value of less than or equal to 200.

Referenced By
ST_SecondPieSize (**Part 1, §21.2.3.41**)

To Part 4, §A.5.1:

```
    <xsd:simpleType name="ST_SecondPieSize">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="5"/>
            <xsd:maxInclusive value="200"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_SecondPieSizePercent ST_SecondPieSizeUShort"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_SecondPieSizePercent">
        <xsd:pattern value="(([5-9])|([1-9][0-9])|(1[0-9][0-9])|200)%"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_SecondPieSizeUShort">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="5"/>
            <xsd:maxInclusive value="200"/>
        </xsd:restriction>
    </xsd:simpleType>

    <xsd:complexType name="CT_SecondPieSize">
        <xsd:attribute name="val" type="ST_SecondPieSize" default="75%"/>
    </xsd:complexType>
```

Part 1, §21.2.2.82 will be updated as follows:

Attributes	Description
val (Hole Size Value)	Specifies that the contents of this attribute contain a hole size between 10% and 90% ~~that is measured as a percentage~~ of the size of the plot area.

Attributes	Description
	The possible values for this attribute are defined by the ST_HoleSize simple type (§xx).

Part 1, §21.2.3.18 will be updated as follows:

This simple type specifies that its contents contain a~~n~~ percentage ~~integer~~ between 10% and 90%~~, whose contents are a percentage~~.

This simple type~~'s contents are a restriction of the W3C XML Schema unsignedByte datatype.~~ is a union of the following types:

- ST_HoleSizePercent simple type (§NEW).

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a minimum value of greater than or equal to 10.~~
- ~~This simple type has a maximum value of less than or equal to 90.~~

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST HoleSizePercent (Hole Size Percentage)

This simple type specifies that its contents contain a percentage between 10% and 90%.

The simple type's contents shall match the following regular expression pattern: (([1-8][0-9])|90)%.

Referenced By
ST_HoleSize (**§21.2.3.18**)

To Part 1, §A.5.1:

```
<xsd:simpleType name="ST_HoleSize">
       <xsd:restriction base="xsd:unsignedByte">
       <xsd:minInclusive value="10"/>
       <xsd:maxInclusive value="90"/>
       </xsd:restriction>
       <xsd:union memberTypes="ST_HoleSizePercent"/>
   </xsd:simpleType>

   <xsd:simpleType name="ST_HoleSizePercent">
       <xsd:pattern value="(([1-8][0-9])|90)%"/>
   </xsd:simpleType>

   <xsd:complexType name="CT_HoleSize">
      <xsd:attribute name="val" type="ST_HoleSize" default="10%"/>
   </xsd:complexType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx Additional member types for union in ST_HoleSize (Part 1, §21.2.3.18)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST_HoleSizeUByte simple type (§NEW).

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_HoleSizeUByte (Hole Size UnsignedByte)

This simple type specifies that its contents contain a whole number between 10 and 90, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedByte datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 10.
- This simple type has a maximum value of less than or equal to 90.

Referenced By
ST_HoleSize (**Part 1, §21.2.3.18**)

To Part 4, §A.5.1:

```
<xsd:simpleType name="ST_HoleSize">
        <xsd:restriction base="xsd:unsignedByte">
        <xsd:minInclusive value="10"/>
        <xsd:maxInclusive value="90"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_HoleSizePercent ST_HoleSizeUByte"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_HoleSizePercent">
        <xsd:pattern value="(([1-8][0-9])|90)% "/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_HoleSizeUByte">
        <xsd:restriction base="xsd:unsignedByte">
            <xsd:minInclusive value="10"/>
            <xsd:maxInclusive value="90"/>
        </xsd:restriction>
    </xsd:simpleType>

    <xsd:complexType name="CT_HoleSize">
        <xsd:attribute name="val" type="ST_HoleSize" default="10%"/>
    </xsd:complexType>
```

Part 1, §21.2.2.91 will be updated as follows:

Attributes	Description
val (Label Offset Value)	Specifies the contents of this attribute contain a~~n~~ percentage~~integer~~ between 0% and 1000%. The possible values for this attribute are defined by the ST_LblOffset simple type (§xx).

Part 1, §21.2.3.23 will be updated as follows:

This simple type specifies that its contents contain a~~n integer~~ percentage between 0% and 1000%~~, whose contents are a percentage of the default value~~.

This simple type~~'s contents are a restriction of the W3C XML Schema unsignedShort datatype~~ is a union of the following types:

- ST_LblOffsetPercent simple type (§NEW).

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a minimum value of greater than or equal to 0.~~
- ~~This simple type has a maximum value of less than or equal to 1000.~~

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_LblOffsetPercent (Label Offset Percentage)

This simple type specifies that its contents contain a percentage between 0% and 1000%.

The simple type's contents shall match the following regular expression pattern: (([0-9])|([1-9][0-9])|([1-9][0-9][0-9])|1000)%.

Referenced By
ST_LblOffset (**§21.2.3.23**)

To Part 1, §A.5.1:

```
<xsd:simpleType name="ST_LblOffset">
        <xsd:restriction base="xsd:unsignedShort">
        <xsd:minInclusive value="0"/>
        <xsd:maxInclusive value="1000"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_LblOffsetPercent"/>
    </xsd:simpleType>
```

```
    <xsd:simpleType name="ST_LblOffsetPercent">
        <xsd:pattern value="(([0-9])|([1-9][0-9])|([1-9][0-9][0-9])|1000)%"/>
    </xsd:simpleType>

    <xsd:complexType name="CT_LblOffset">
        <xsd:attribute name="val" type="ST_LblOffset" default="100%"/>
    </xsd:complexType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_LblOffset (Part 1, §21.2.3.23)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST_LblOffsetUShort simple type (§NEW).

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_LblOffsetUShort (Label Offset UnsignedShort)

This simple type specifies that its contents contain a whole number between 0 and 1000, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedShort datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 0.
- This simple type has a maximum value of less than or equal to 1000.

Referenced By
ST_LblOffset (**Part 1, §21.2.3.23**)

To Part 4, §A.5.1:

```
    <xsd:simpleType name="ST_LblOffset">
        <xsd:restriction base="xsd:unsignedShort">
        <xsd:minInclusive value="0"/>
        <xsd:maxInclusive value="1000"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_LblOffsetPercent ST_LblOffsetUShort"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_LblOffsetPercent">
        <xsd:pattern value="(([0-9])|([1-9][0-9])|([1-9][0-9][0-9])|1000)%"/>
    </xsd:simpleType>
```

```
    <xsd:simpleType name="ST_LblOffsetUShort">
        <xsd:restriction base="xsd:unsignedShort">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="1000"/>
        </xsd:restriction>
    </xsd:simpleType>

    <xsd:complexType name="CT_LblOffset">
        <xsd:attribute name="val" type="ST_LblOffset" default="100%"/>
    </xsd:complexType>
```

Part 1, §21.2.2.131 will be updated as follows:

Attributes	Description
val (Overlap Value)	Specifies the contents of this attribute contain a~~n integer~~ percentage between -100% and 100%. The possible values for this attribute are defined by the ST_Overlap simple type (§xx).

Part 1, §21.2.3.31 will be updated as follows:

This simple type specifies that its contents contain a~~n integer~~ percentage between -100% and 100%~~, whose contents are a percentage~~.

This simple type~~'s contents are a restriction of the W3C XML Schema byte datatype~~ is a union of the following types:

- ST_OverlapPercent simple type (§NEW).

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a minimum value of greater than or equal to -100.~~
- ~~This simple type has a maximum value of less than or equal to 100.~~

Referenced By
overlap@val (§xx)

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_OverlapPercent (Overlap Percentage)

This simple type specifies that its contents contain a percentage between -100% and 100%.

The simple type's contents shall match the following regular expression pattern: (-?(([0-9])|([1-9][0-9])|100))%.

Referenced By
ST_Overlap (**§21.2.3.31**)

To Part 1, §A.5.1:

```
<xsd:simpleType name="ST_Overlap">
    <xsd:restriction base="xsd:byte">
        <xsd:minInclusive value="-100"/>
        <xsd:maxInclusive value="100"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_OverlapPercent"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_OverlapPercent">
        <xsd:pattern value="(-?(([0-9])|([1-9][0-9])|100))%"/>
    </xsd:simpleType>

    <xsd:complexType name="CT_Overlap">
        <xsd:attribute name="val" type="ST_Overlap" default="0%"/>
    </xsd:complexType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx Additional member types for union in ST_Overlap (Part 1, §21.2.3.31)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST_OverlapByte simple type (§NEW).

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_OverlapByte (Overlap Byte)

This simple type specifies that its contents contain a whole number between -100 and 100, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema byte datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to -100.
- This simple type has a maximum value of less than or equal to 100.

Referenced By
ST_Overlap (**Part 1, §21.2.3.31**)

To Part 4, §A.5.1:

```
    <xsd:simpleType name="ST_Overlap">
        <xsd:restriction base="xsd:byte">
        <xsd:minInclusive value="-100"/>
        <xsd:maxInclusive value="100"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_OverlapPercent ST_OverlapByte"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_OverlapPercent">
        <xsd:pattern value="(-?(([0-9])|([1-9][0-9])|100))%"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_OverlapByte">
        <xsd:restriction base="xsd:byte">
            <xsd:minInclusive value="-100"/>
            <xsd:maxInclusive value="100"/>
        </xsd:restriction>
    </xsd:simpleType>

    <xsd:complexType name="CT_Overlap">
        <xsd:attribute name="val" type="ST_Overlap" default="0%"/>
    </xsd:complexType>
```

Part 1, §21.2.2.21 will be updated as follows:

This element specifies the scale factor for the bubble chart. This element can be a~~n integer~~ percentage value from 0% to 300%, corresponding to ~~a percentage of~~ the default size.

…

Part 1, §21.2.3.5 will be updated as follows:

This simple type specifies that its contents contain a~~n integer~~ percentage between 0% and 300%.

This simple type~~'s contents are a restriction of the W3C XML Schema unsignedInt datatype.~~ is a union of the following types:

- ~~ST_BubbleScalePercent simple type (§NEW).~~

~~This simple type also specifies the following restrictions:~~

- ~~This simple type has a minimum value of greater than or equal to 0.~~
- ~~This simple type has a maximum value of less than or equal to 300.~~

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_BubbleScalePercent (Bubble Scale Percentage)

This simple type specifies that its contents contain a percentage between 0% and 300%.

The simple type's contents shall match the following regular expression pattern: (([0-9])|([1-9][0-9])|([1-2][0-9][0-9])|300)%.

Referenced By
ST_BubbleScale (**§21.2.3.5**)

To Part 1, §A.5.1:

```
    <xsd:simpleType name="ST_BubbleScale">
        <xsd:restriction base="xsd:unsignedInt">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="300"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_BubbleScalePercent"/>
    </xsd:simpleType>
    <xsd:simpleType name="ST_BubbleScalePercent">
        <xsd:pattern value="(([0-9])|([1-9][0-9])|([1-2][0-9][0-9])|300)%"/>
    </xsd:simpleType>
    <xsd:complexType name="CT_BubbleScale">
        <xsd:attribute name="val" type="ST_BubbleScale" default="100%"/>
    </xsd:complexType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx Additional member types for union in ST_BubbleScale (Part 1, §21.2.3.5)

The value space of the following additional member types can be used within the context of this simple type for a document of a transitional conformance class.

- The ST_BubbleScaleUInt simple type (§NEW).

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx ST_BubbleScaleUInt (Bubble Scale UnsignedInt)

This simple type specifies that its contents contain a whole number between 0 and 300, whose contents are a percentage.

This simple type's contents are a restriction of the W3C XML Schema unsignedInt datatype.

This simple type also specifies the following restrictions:

- This simple type has a minimum value of greater than or equal to 0.

- This simple type has a maximum value of less than or equal to 300.

Referenced By
ST_BubbleScale (**Part 1, §21.2.3.5**)

To Part 4, §A.5.1:

```
    <xsd:simpleType name="ST_BubbleScale">
        <xsd:restriction base="xsd:unsignedInt">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="300"/>
        </xsd:restriction>
        <xsd:union memberTypes="ST_BubbleScalePercent ST_BubbleScaleUInt"/>
    </xsd:simpleType>
    <xsd:simpleType name="ST_BubbleScalePercent">
        <xsd:pattern value"(([0-9])|([1-9][0-9])|([1-2][0-9][0-9])|300)%"/>
    </xsd:simpleType>
    <xsd:simpleType name="ST_BubbleScaleUInt">
        <xsd:restriction base="xsd:unsignedInt">
            <xsd:minInclusive value="0"/>
            <xsd:maxInclusive value="300"/>
        </xsd:restriction>
    </xsd:simpleType>
    <xsd:complexType name="CT_BubbleScale">
        <xsd:attribute name="val" type="ST_BubbleScale" default="100%"/>
    </xsd:complexType>
```

Part 1, §21.2.2.206 will be updated as follows:

Attributes	Description
val (Integer Value)	Specifies that the contents of this attribute contain ~~an integer number~~ a percentage. The contents of this number are interpreted based on the context of the parent XML element. The possible values for this attribute are defined by the ~~W3C XML Schema unsignedInt datatype~~ ST_Thickness simple type (§NEW).

[*Note*: The W3C XML Schema definition of this element's content model (CT_~~UnsignedInt~~Thickness) is located in §xx. *end note*]

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_Thickness (Thickness Percentage)

This simple type specifies that its contents contain a percentage.

This simple type is a union of the following types:

- ST_ThicknessPercent simple type (§NEW).

To a new subclause in Part 1, §21.2.3:

21.2.3.xx ST_ThicknessPercent (Thickness Percentage)

This simple type specifies that its contents contain a percentage.

The simple type's contents shall match the following regular expression pattern: ([0-9]+)%.

Referenced By
ST_Thickness (**§NEW**)

To Part 1, §A.5.1:

```
          <xsd:element name="thickness" type="CT_~~UnsignedInt~~Thickness" minOccurs="0"
            maxOccurs="1"/>

   <xsd:simpleType name="ST_Thickness">
      <xsd:union memberTypes="ST_ThicknessPercent"/>
   </xsd:simpleType>

   <xsd:simpleType name="ST_ThicknessPercent">
      <xsd:pattern value="([0-9]+)%"/>
   </xsd:simpleType>

   <xsd:complexType name="CT_Thickness">
      <xsd:attribute name="val" type="ST_Thickness" use="required"/>
   </xsd:complexType>
```

To a new subclause in Part 4, §13.1.xx (in new Simple Types subclause):

13.1.xx.xx Additional member types for union in ST_Thickness (Part 1, §21.2.3.206)

The value space of the following additional member types can be used within the contxt of this simple type for a document of a transitional conformance class.

- The W3C XML Schema unsignedInt datatype.

To Part 4, §A.5.1:

```
          <xsd:element name="thickness" type="CT_~~UnsignedInt~~Thickness" minOccurs="0"
            maxOccurs="1"/>
```

```
    <xsd:simpleType name="ST_Thickness">
        <xsd:union memberTypes="ST_ThicknessPercent unsignedInt"/>
    </xsd:simpleType>

    <xsd:simpleType name="ST_ThicknessPercent">
        <xsd:pattern value="([0-9]+)%"/>
    </xsd:simpleType>

    <xsd:complexType name="CT_Thickness">
        <xsd:attribute name="val" type="ST_Thickness" use="required"/>
    </xsd:complexType>
```