

All Fields marked with \* are mandatory.

<b>Change Request #:</b>	176
<b>Assigned OGC Document #:</b>	11-148
<b>Name:</b>	*Jeroen Dries
<b>Organization:</b>	*Luciad NV
<b>Email:</b>	*jeroen.dries@luciad.com
<b>Document Name/Version:</b>	*Symbology Encoding Implementation Specification / 1.1.0
<b>OGC Project Document:</b>	*05-077r4
If this is a revision of a previous submission and you have a Change Request Number, then check here: <input type="checkbox"/>	
Enter the CR number here: <input type="text" value="153"/>	
Enter the Revision Number that you are revising here: <input type="text"/>	
<hr/>	
<b>Title:</b>	*Symbolizer for styling of nested child objects
<b>Source:</b>	*OWS-8 Aviation
<b>Work item code:</b>	
<b>Category:</b>	* B (Addition of feature)
<hr/>	
<b>Reason for change:</b>	* Complex data models like AIXM 5 have feature types that are a composition of nested objects. The current SE 1.1 only allows limited styling of these child objects, such as using the same style for all objects. This change request defines a new type of symbolizer that makes this possible.
<b>Summary of change:</b>	* Add a new symbolizer: 'CompositeChildSymbolizer'. It has a mandatory

element that points to a list of nested child objects, and a list of symbolizers that will be applied to each object in the list. For instance, for a GML feature that looks like:

```
<Parent>
  <ParentColor>Black</ParentColor>
  <Child>
    <Color>Blue</Color>
    <ChildGeometry> ...</ChildGeometry>
  </Child>
  <Child>
    <Color>Red</Color>
    <ChildGeometry> ...</ChildGeometry>
    <ChildGeometry> ...</ChildGeometry>
  </Child>
  <Child>
    <ChildGeometry> ...</ChildGeometry>
  </Child>
</Parent>
```

A composite child symbolizer would look like this:

```
<se:CompositeChildSymbolizer>
  <se:childProperty>Child</se:childProperty>
  <se:PolygonSymbolizer>
    <se:Geometry><ogc:PropertyName>ChildGeometry</ogc:PropertyName></se:Geometry>
    <se:Stroke>
      <se:SvgParameter
        name="stroke"><ogc:PropertyName>Color</ogc:PropertyName></se:SvgParameter>
      <se:SvgParameter
        name="stroke-width">4</se:SvgParameter>
    </se:Stroke>
  </se:PolygonSymbolizer>
</se:CompositeChildSymbolizer>
```

Applications that support this symbolizer will also need to support the XPath parent axes, or '../' in short to reference the parent of a child node from within the composite child rule or symbolizer.

The XML schema for these types would look like:

```
<xsd:element name="CompositeChildSymbolizer"
  type="se:CompositeChildSymbolizerType"
  substitutionGroup="se:Symbolizer">
  <xsd:annotation>
    <xsd:documentation>A
      "CompositeChildSymbolizer" comprises a group of
      Symbolizers that are to be applied to a list of
      objects</xsd:documentation>
    </xsd:annotation>
  </xsd:element>
  <xsd:complexType
    name="CompositeChildSymbolizerType">
    <xsd:complexContent>
      <xsd:extension base="se:SymbolizerType">
      <xsd:sequence>
        <xsd:element ref="fes:ValueReference"/>
        <xsd:element ref="se:Symbolizer"
          maxOccurs="unbounded"/>
      </xsd:sequence>
      </xsd:extension>
    </xsd:complexContent>
  </xsd:complexType>
```

<b>Consequences if not approved:</b> ⓘ	Styling of complex objects will not be possible, the example given is derived from AIXM 5, where we want to use this type of symbolizer in at least 30 feature types out of about 100 features types with geometry in total. As there is no alternative to the proposed feature, custom extensions would be needed.
<hr/>	
<b>Clauses affected:</b> ⓘ	* 11 Symbolizers
<b>Additional Documents affected:</b> ⓘ	
<b>Supporting Documentation:</b> ⓘ	
<b>Comments:</b> ⓘ	This is a revision of the previous CR to limit this one to a composite child symbolizer. Composite rules are described in a separate CR. This allows both of them to be evaluated separately. In fact, the functionality described in the composite rule CR is in itself sufficient to meet the styling requirement, so this one can be seen as useful but not a necessity if the composite rule CR is adopted.
<b>Status:</b> ⓘ	Assigned ⌵
<b>Assigned To:</b> ⓘ	SLDSE 1.2 SWG ⌵
<b>Disposition:</b> ⓘ	Referred ⌵