

# 11 Portrayal

This clause defines the rules for layers and styles to be used for portrayal of the spatial object types defined for this theme. Portrayal is regulated in Article 14 of the IRs.

## IR Requirement

### Article 14

#### Portrayal

1. For the portrayal of spatial data sets using a view network service as specified in Commission Regulation No 976/2009 <sup>(17)</sup>, the following shall be available:
  - (a) the layers specified in Annex II for the theme or themes the data set is related to;
  - (b) for each layer at least a default portrayal style, with as a minimum an associated title and a unique identifier.
2. For each layer, Annex II defines the following:
  - (a) a human readable title of the layer to be used for display in user interface;
  - (b) the spatial object type(s), or sub-set thereof, that constitute(s) the content of the layer.

In section 11.1, the *types* of layers are defined that are to be used for the portrayal of the spatial object types defined in this specification. A view service may offer several layers of the same type, one for each dataset that it offers data on a specific topic.

NOTE The layer specification in the IRs only contains the name, a human readable title and the (subset(s) of) spatial object type(s), that constitute(s) the content of the layer. In addition, this TG documents suggests keywords for describing the layer.

**Recommendation 34** It is recommended to use the keywords specified in section 11.1 in the *Layers Metadata parameters* of the INSPIRE View service (see Annex III, Part A, section 2.2.4 in Commission Regulation (EC) No 976/2009).

Section 11.2 specifies one style for each of these layers. It is proposed that INSPIRE view services support this style as the default style required by Article 14(1b).

**TG Requirement 9** For each layer specified in this section, the styles defined in section 11.2 shall be available.

NOTE The default style should be used for portrayal by the view network service if no user-defined style is specified in a portrayal request for a specific layer.

In section 11.3, further styles can be specified that represent examples of styles typically used in a thematic domain. It is recommended that also these styles should be supported by INSPIRE view services, where applicable.

**Recommendation 35** In addition, it is recommended that, where applicable, INSPIRE view services also support the styles defined in section 11.3.

Where XML fragments are used in the following sections, the following namespace prefixes apply:

- sld="http://www.opengis.net/sld" (WMS/SLD 1.1)
- se="http://www.opengis.net/se" (SE 1.1)
- ogc="http://www.opengis.net/ogc" (FE 1.1)

<sup>17</sup> OJ L 274, 20.10.2009, p. 9.

## IR Requirement

### Article 14

#### Portrayal

(...)

3. For spatial object types whose objects can be further classified using a code list-valued attribute, several layers may be defined. Each of these layers shall include the spatial objects corresponding to one specific code list value. In the definition of such sets of layers in Annexes II-IV,
  - (a) the placeholder <CodeListValue> shall represent the values of the relevant code list, with the first letter in upper case,
  - (b) the placeholder <human-readable name> shall represent the human-readable name of the code list values;
  - (c) the spatial object type shall include the relevant attribute and code list, in parentheses;
  - (d) one example of a layer shall be given.

## 11.1 Layers to be provided by INSPIRE view services

Layer Name	Layer Title	Spatial object type(s)	Keywords
OI.OrthoimageCoverage	orthoimage coverage	OrthoimageCoverage	
OI.MosaicElement	mosaic element	MosaicElement	

### 11.1.1 Layers organisation

None.

## 11.2 Styles required to be supported by INSPIRE view services

### 11.2.1 Styles for the layer OI.OrthoimageCoverage

Style Name	OI. OrthoimageCoverage.Default
Default Style	yes
Style Title	Orthoimage coverage Default Style
Style Abstract	Orthoimage coverages are rendered as opaque raster data. When coverages overlap in a same layer, the coverage the acquisition time of which is the latest is placed on top.
Symbology	<pre>&lt;sld:NamedLayer&gt;   &lt;se:Name&gt;OI.OrthoimageCoverage&lt;/se:Name&gt;   &lt;sld:UserStyle&gt;     &lt;se:Name&gt;OI.OrthoimageCoverage.Default&lt;/se:Name&gt;     &lt;sld:IsDefault&gt;1&lt;/sld:IsDefault&gt;     &lt;se:CoverageStyle version="1.1.0"&gt;       &lt;se:Description&gt;         &lt;se:Title&gt;Orthoimage coverage Default Style &lt;/se:Title&gt;         &lt;se:Abstract&gt; Orthoimage coverages are rendered as opaque raster           data. When coverages overlap in a same layer, the coverage the           acquisition time of which is the latest is placed on top.         &lt;/se:Abstract&gt;       &lt;/se:Description&gt;       &lt;se:CoverageName&gt;OrthoimageCoverage&lt;/se:CoverageName&gt;       &lt;se:Rule&gt;         &lt;se:RasterSymbolizer&gt;</pre>

	<pre> &lt;se:Geometry&gt;   &lt;ogc:PropertyName&gt;domainSet&lt;/ogc:PropertyName&gt; &lt;/se:Geometry&gt; &lt;se:Opacity&gt; 1.0 &lt;/se:Opacity&gt; &lt;se:OverlapBehavior&gt; LATEST_ON_TOP &lt;/se:OverlapBehavior&gt; &lt;/se:RasterSymbolizer&gt; &lt;/se:Rule&gt; &lt;/se:CoverageStyle&gt; &lt;/sld:UserStyle&gt; &lt;/sld:NamedLayer&gt; </pre>
<b>Comment</b>	<p>The other parameters supplied by the raster symbolizer are data-dependent. For instance, the se:ColorMap element, which defines how to allocate the range values of the coverage to colours, is built on the interval of allowed values that can vary from one orthoimage coverage to another (e.g. 8 bits vs. 16 bits rasters). Similarly, the se:ChannelSelection element, which determines the mapping of the orthoimage bands on the red, green and blue channels, or on the single gray channel of the output device, depends obviously on the number of bands in the orthoimage and their characteristics.</p> <p>In consequence, this data specification cannot be expected to set default values for such parameters, that must be specified for each INSPIRE view service instead.</p> <p>Note that transparency, whose use is strongly recommended when combining orthoimage coverages with no-data values, cannot be properly managed through styles. When possible, it will be supported by encoding formats by means of transparency masks.</p>
<b>Minimum &amp; maximum scales</b>	No scale limit

### 11.2.2 Styles for the layer OI.MosaicElement

<b>Style Name</b>	OI.MosaicElement.Default
<b>Default Style</b>	yes
<b>Style Title</b>	Mosaic element Default Style
<b>Style Abstract</b>	<p>Mosaic elements are outlined using solid magenta (#ff00ff) lines with a width of 1 pixel. No fill is rendered.</p> <p>Attribute phenomenonTime is carried by the geometry as a text label in Arial 10 magenta (#ff00ff).</p>
<b>Symbology</b>	<pre> &lt;sld:NamedLayer&gt;   &lt;se:Name&gt;OI.MosaicElement&lt;/se:Name&gt; &lt;sld:UserStyle&gt;   &lt;se:Name&gt;OI.MosaicElement.Default&lt;/se:Name&gt;   &lt;sld:IsDefault&gt;1&lt;/sld:IsDefault&gt;   &lt;se:FeatureTypeStyle version="1.1.0"&gt;     &lt;se:Description&gt;       &lt;se:Title&gt;Mosaic element Default Style&lt;/se:Title&gt;       &lt;se:Abstract&gt; Mosaic elements are outlined using solid magenta         (#ff00ff) lines with a width of 1 pixel. No fill is rendered.         Attribute phenomenonTime is carried by the geometry as a text         label in Arial 10 magenta (#ff00ff).       &lt;/se:Abstract&gt;     &lt;/se:Description&gt;     &lt;se:FeatureTypeName&gt;MosaicElement&lt;/se:FeatureTypeName&gt;     &lt;se:Rule&gt;       &lt;se:PolygonSymbolizer&gt;         &lt;se:Geometry&gt;           &lt;ogc:PropertyName&gt;geometry&lt;/ogc:PropertyName&gt; </pre>

	<pre>         &lt;/se:Geometry&gt;         &lt;se:Stroke&gt;           &lt;se:SvgParameter name="stroke"&gt;#ff00ff&lt;/se:SvgParameter&gt;           &lt;se:SvgParameter name="stroke-width"&gt;1&lt;/se:SvgParameter&gt;         &lt;/se:Stroke&gt;       &lt;/se:PolygonSymbolizer&gt;     &lt;/se:Rule&gt;     &lt;se:Rule&gt;       &lt;se:TextSymbolizer&gt;         &lt;se:Label&gt;           &lt;ogc:PropertyName&gt;phenomenonTime&lt;/ogc:PropertyName&gt;         &lt;/se:Label&gt;         &lt;se:Font&gt;           &lt;se:SvgParameter name="font-family"&gt;Arial&lt;/se:SvgParameter&gt;           &lt;se:SvgParameter name="font-size"&gt;10&lt;/se:SvgParameter&gt;         &lt;/se:Font&gt;         &lt;se:Fill&gt;           &lt;se:SvgParameter name="fill"&gt;#ff00ff&lt;/se:SvgParameter&gt;         &lt;/se:Fill&gt;       &lt;/se:TextSymbolizer&gt;     &lt;/se:Rule&gt;   &lt;/se:FeatureTypeStyle&gt; &lt;/sld:UserStyle&gt; &lt;/sld:NamedLayer&gt; </pre>
<b>Minimum &amp; maximum scales</b>	No scale limit

### 11.3 Styles recommended to be supported by INSPIRE view services

No other recommended style.