

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 ⁽¹⁷⁾, 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 42 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 19 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 11.2, 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 43 In addition, it is recommended that, where applicable, INSPIRE view services also support the styles defined in section 11.2.

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)

¹⁷ OJ L 274, 20.10.2009, p. 9.

11.1 Layers to be provided by INSPIRE view services

Layer Name	Layer Title	Spatial object type(s)	Keywords
LC.LandCoverPoints	LandCoverPoints	LandCoverUnit	Land Cover, Points
LC.LandCoverSurfaces	LandCoverSurfaces	LandCoverUnit	Land Cover, Surfaces, Polygons
LC.LandCoverRaster	LandCoverRaster	LandCoverGridCoverage	Land Cover, Raster, Rectified Grid

Note :

- *LandCoverPoints* is a *LandCoverDataset* for which all *LandCoverUnit.geometry* = *GM_Point*.
- *LandCoverSurfaces* is a *LandCoverDataset* for which all *LandCoverUnit.geometry* = *GM_Surface*.

NOTE The table above contains several layers for some spatial object types, which can be further classified using a code list-valued attribute. Such sets of layers are specified as described in Article 14(3) of the IRs.

<p style="text-align: center;">IR Requirement <i>Article 14</i> Portrayal</p> <p>(...)</p> <p>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,</p> <p>(a) the placeholder <CodeListValue> shall represent the values of the relevant code list, with the first letter in upper case,</p> <p>(b) the placeholder <human-readable name> shall represent the human-readable name of the code list values;</p> <p>(c) the spatial object type shall include the relevant attribute and code list, in parentheses;</p> <p>(d) one example of a layer shall be given.</p>
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11.1.1 Layers organisation

None.

11.2 Styles required to be supported by INSPIRE view services

11.2.1 Styles for the layer LC.LandCoverPoints

Style Name	LC.LandCoverPoints.Default
Default Style	yes
Style Title	LC.LandCoverPoints Default Style
Style Abstract	This Style defined the default INSPIRE style for Land Cover data supported by a set of points. As there is no required nomenclature, only the geometry is represented, ie as a circle with a size of 3 pixels, with a black (#000000) fill and a black outline (#000000).
Symbology	<pre><sld:NamedLayer> <se:Name>LC.LandCoverPoints</se:Name> <sld:UserStyle> <se:Name>LC.LandCoverPoints.Default</se:Name> <sld:IsDefault>1</sld:IsDefault></pre>

	<pre> <se:FeatureTypeStyle version="1.1.0"> <se:Description> <se:Title>LC.LandCoverPoints Default Style</se:Title> <se:Abstract>This Style defined the default INSPIRE style for Land Cover data supported by a set of points. As there is no required nomenclature, only the geometry is repre-sented, ie as a circle with a size of 3 pixels, with a black (#000000) fill and a black outline (#000000). </se:Abstract> </se:Description> <se:FeatureTypeName>LandCoverUnit</se:FeatureTypeName> <se:Rule> <se:PointSymbolizer> <se:Geometry> <ogc:PropertyName>geometry</ogc:PropertyName> </se:Geometry> <se:Graphic/> </se:PointSymbolizer> </se:Rule> </se: FeatureTypeStyle> </sld:UserStyle> </sld:NamedLayer> </pre>
Minimum & maximum scales	No scale limit

11.2.2 Style for the layer LC.LandCoverSurfaces

Style Name	LC.LandCoverSurfaces.Default
Default Style	yes
Style Title	LC.LandCoverSurfaces Default Style
Style Abstract	This Style defined the default INSPIRE style for Land Cover data supported by a set of non overlapping of polygons. As there is no required nomenclature, only the geometry is represented, ie only polygons with a white (#FFFFFF) fill and a black outline (#000000) of 3 pixels width.
Symbology	<pre> <sld:NamedLayer> <se:Name>LC.LandCoverSurfaces</se:Name> <sld:UserStyle> <se:Name>INSPIRE_Default</se:Name> <sld:IsDefault>1</sld:IsDefault> <se:FeatureTypeStyle version="1.1.0"> <se:Description> <se:Title>LC.LandCoverSurfaces Default Style</se:Title> <se:Abstract> This Style defined the default INSPIRE style for Land Cover data supported by a set of non overlapping of polygons. As there is no required nomenclature, only the geometry is represented, ie only polygons with a white (#FFFFFF) fill and a black outline (#000000) of 3 pixels width. </se:Abstract> </se:Description> <se:FeatureTypeName>LandCoverUnit</se:FeatureTypeName> <se:Rule> <se:PolygonSymbolizer> <se:Geometry> <ogc:PropertyName>geometry</ogc:PropertyName> </se:Geometry> <se:Graphic/> </se:PolygonSymbolizer> </se:Rule> </se:FeatureTypeStyle> </sld:UserStyle> </sld:NamedLayer> </pre>
Minimum & maximum scales	No scale limit

11.2.3 Style for the layer LC.LandCoverRaster

Style Name	LC.LandCoverRaster.Default
Default Style	yes
Style Title	LC.LandCoverRaster Default Style
Style Abstract	This Style defined the default INSPIRE style for Land Cover data supported by a raster. As there is no required nomenclature, only the geometry is represented, ie only polygons with a white (#FFFFFF) fill and a black outline (#000000) of 3 pixels width.
Symbology	<pre> <sld:NamedLayer> <se:Name>LC.LandCoverRaster</se:Name> <sld:UserStyle> <se:Name>LC.LandCoverRaster.Default</se:Name> <sld:IsDefault>1</sld:IsDefault> <se:CoverageStyle version="1.1.0"> <se:Description> <se:Title>LC.LandCoverRaster Default Style</se:Title> <se: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. </se:Abstract> </se:Description> <se:CoverageName>LandCoverGrodCoverage</se:CoverageName> <se:Rule> <se:RasterSymbolizer> <se:Geometry> <ogc:PropertyName>domainSet</ogc:PropertyName> </se:Geometry> <se:Opacity>1.0</se:Opacity> </se:RasterSymbolizer> </se:Rule> </se:CoverageStyle> </sld:UserStyle> </sld:NamedLayer> </pre> <p>NOTE When necessary, the se:ChannelSelection element shall be used to specify the mapping of the Land Cover Data (i.e. nomenclature codes) on the red, green and blue channels used for portrayal.</p>
Minimum & maximum scales	No scale limit

11.3 Styles recommended to be supported by INSPIRE view services

As this specification is generic and does not require the usage of a specific nomenclature, the previous default styles only represent the geometries supporting Land Cover information and not the information itself. It is however recommended that WMS servers implement styles that allow :

Recommendation 1 For Land Cover data supported by surfaces/polygons (and modelled in this specification through a collection of LandCoverUnit), it is recommended that surfaces are represented by polygons with a color (corresponding to the legend) fill and a black outline (#000000) of 3 pixels width.

Example : for CORINE Land Cover (Cf. Annex C.3.1 for CORINE Land Cover colors), polygons are filled with RGB colors corresponding to the code from the attribute valuelid associated to each surface geometry in the GeometryValuePair.

Recommendation 2 For Land Cover data supported by points (and modelled in this specification through a collection of LandCoverUnit), it is recommended that points are

represented by circles with a size of 3 pixels, with a color (corresponding to the legend) fill and a black outline (#000000).