

```
function handleSubmit(event) {
  event.preventDefault();

  const latA = parseInt(event.target.elements["latA"].value);
  let longA = parseInt(event.target.elements["longA"].value);
  const latB = parseInt(event.target.elements["latB"].value);
  let longB = parseInt(event.target.elements["longB"].value);

  let a = 90 - latB;
  let b = 90 - latA;

  if (event.target.elements["latOrientA"].value == "juh") {
    b = 90 + latA;
  }

  if (event.target.elements["latOrientB"].value == "juh") {
    a = 90 + latB;
  }
}
```

```
function handleSubmit(event) {
  event.preventDefault();
  const elements = event.target.elements;

  const latA = parseInt(elements["latA"].value);
  let longA = parseInt(elements["longA"].value);
  const latB = parseInt(elements["latB"].value);
  let longB = parseInt(elements["longB"].value);

  let a = 90 - latB;
  let b = 90 - latA;

  if (elements["latOrientA"].value == "juh") {
    b = 90 + latA;
  }

  if (elements["latOrientB"].value == "juh") {
    a = 90 + latB;
  }
}
```

Geoserver

Cvičení 7

Webová kartografie – úvod

Podzim 2022

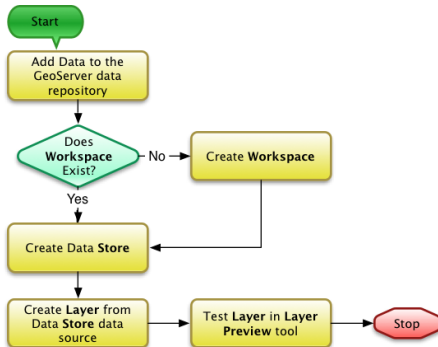
Filip Leitner

Geoserver

- Publikace dat na webu
 - WMS, WMTS, WFS, ...
 - rastry, vektory
 - SHP, PostGIS, GeoTIFF, ...
- Aplikace provozovaná na serveru
- Cachování dlaždicových vrstev
- Pracovat budeme na:
 - <http://zelda.sci.muni.cz:8080/geoserver/>
 - login: student, heslo: student

Geoserver

- “Štruktúra“
 - Workspace
 - Store
 - Layer



http://kkb-classes.s3.amazonaws.com/2013/GEOGx85/web/2013-Spring-InternetMapping-011_slides.htm#17

Další možnosti

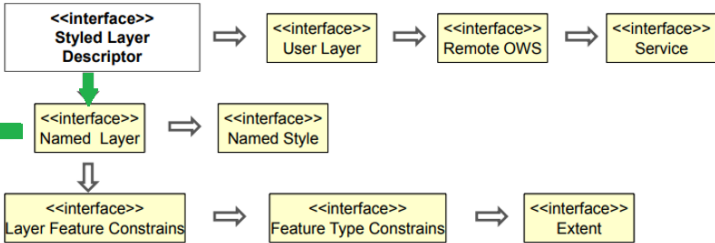
- MapServer
- Mapnik,
- TileStache

[OpenMapTiles](#) – vektorové
dlaždice

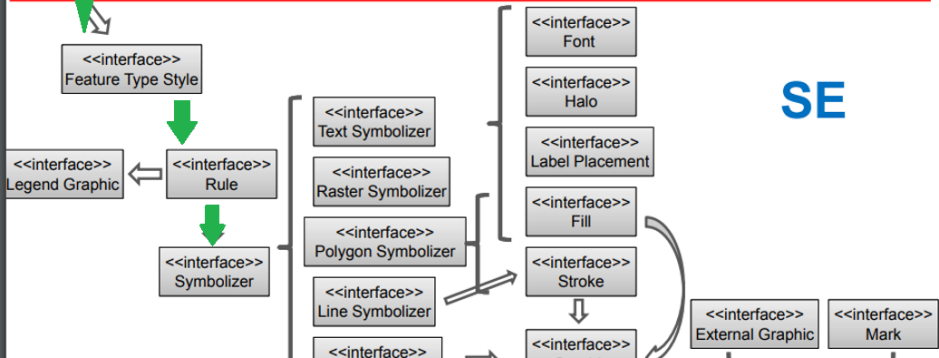
SLD

- Styled layer
- descriptor Založeno
- na XML [Standard](#)
- [OGC](#)
- <https://docs.geoserver.org/latest/en/user/styling/index.html#styling>
- [SLD Cookbook](#)

SLD



SE



GeoServer supports the use of a [StyledLayerDescriptor](#) document containing a single `<NamedLayer>` element, which contains a single `<UserStyle>` element to specify the styling.



SLD symbolizers

Rules contain **Symbolizers** to specify how features are styled. There are 5 types of symbolizers:

- `PointSymbolizer`, which styles features as **points**
- `LineSymbolizer`, which styles features as **lines**
- `PolygonSymbolizer`, which styles features as **polygons**
- `TextSymbolizer`, which styles **text labels** for features
- `RasterSymbolizer`, which styles **raster coverages**

Ako na to? Dokumentácia. Napr.

<https://docs.geoserver.org/latest/en/user/styling/sld/reference/linesymbolizer.html#syntax>

Struktura SLD

```
<StyledLayerDescriptor>
  <NamedLayer>
    <UserStyle>
      <FeatureTypeStyle>
        <Rule>
          <PointSymbolizer>
          <LineSymbolizer>
          <PolygonSymbolizer>
          <TextSymbolizer>
          ...
        </Rule>
      </FeatureTypeStyle>
    </UserStyle>
  </NamedLayer>
</StyledLayerDescriptor>
```

CSS

- CSS už znáte!
- V Geoserveru dostupné jako
- rozšíření CSS → SLD
- <https://docs.geoserver.org/latest/en/user/styling/css/tutorial.html>

Body

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<StyledLayerDescriptor version="1.0.0" xsi:schemaLocation="http://www.opengis.net/sld
  StyledLayerDescriptor.xsd" xmlns="http://www.opengis.net/sld"
  xmlns:ogc="http://www.opengis.net/ogc"
  xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <NamedLayer>
    <Name>Simple Point</Name>
    <UserStyle>
      <Title>SLD Cook Book: Simple Point</Title>
      <FeatureTypeStyle>
        <Rule>
          <PointSymbolizer>
            <Graphic>
              <Mark>
                <WellKnownName>circle</WellKnownName>
                <Fill>
                  <CssParameter name="fill">#FF0000</CssParameter>
                </Fill>
              </Mark>
              <Size>6</Size>
            </Graphic>
          </PointSymbolizer>
        </Rule>
      </FeatureTypeStyle>
    </UserStyle>
  </NamedLayer>
</StyledLayerDescriptor>
```

Body

```
* {  
  mark: symbol('circle');  
  mark-size: 6;  
}  
  
:mark {  
  fill: #FF0000;  
}
```

Linie

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<StyledLayerDescriptor version="1.0.0" xsi:schemaLocation="http://www.opengis.net/sld
  StyledLayerDescriptor.xsd" xmlns="http://www.opengis.net/sld"
  xmlns:ogc="http://www.opengis.net/ogc"
  xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <NamedLayer>
    <Name>Simple Line</Name>
    <UserStyle>
      <Title>SLD Cook Book: Simple Line</Title>
      <FeatureTypeStyle>
        <Rule>
          <LineSymbolizer>
            <Stroke>
              <CssParameter name="stroke">#000000</CssParameter>
              <CssParameter name="stroke-width">3</CssParameter>
            </Stroke>
          </LineSymbolizer>
        </Rule>
      </FeatureTypeStyle>
    </UserStyle>
  </NamedLayer>
</StyledLayerDescriptor>
```

Linie

```
* {  
  stroke: #000000;  
  stroke-width: 3;  
}
```

Polygony

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<StyledLayerDescriptor version="1.0.0" xsi:schemaLocation="http://www.opengis.net/sld
  StyledLayerDescriptor.xsd" xmlns="http://www.opengis.net/sld"
  xmlns:ogc="http://www.opengis.net/ogc"
  xmlns:xlink="http://www.w3.org/1999/xlink"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  <NamedLayer>
    <Name>Simple polygon</Name>
    <UserStyle>
      <Title>SLD Cook Book: Simple polygon</Title>
      <FeatureTypeStyle>
        <Rule>
          <PolygonSymbolizer>
            <Fill>
              <CssParameter name="fill">#000080</CssParameter>
            </Fill>
          </PolygonSymbolizer>
        </Rule>
      </FeatureTypeStyle>
    </UserStyle>
  </NamedLayer>
</StyledLayerDescriptor>
```

Polygon

```
* {  
  fill: #000080;  
}
```


Jak dál?

- [Dokumentace](#)
- [Geoserver SLD](#)
- [Cookbook](#)
- <https://medium.com/>
<https://bost.ocks.org/mike/>

Procvičová

- Publikujte vrstvu ciest Nigérie (zložka [451242-Leitner_Filip/](#))
 - Nastavte východzí štýl WMS služby, ktorý bude pozostávať z
 - Šírka línie = 5px
 - Farba línie = #4934eb
 - Typ línie = čiarkovaná (dash)
 - Vzor čiarkovania 5px čiara, 2px medzera

Ptejte se

kdykoli

v

kdekoli

v

jakkoliv

co nejdřív...