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## Style Commands

### Create

Create a simple style.

Short Name	Long Name	Description
-s	--style-options	A style options
-t	--type	The output type (sld or ysld)
-w	--writer-options	The StyleWriter options
-o	--output	The output file
	--help	Print the help message
	--web-help	Open help in a browser

#### Style Options:

- Fill properties
  - **fill** (color)
  - **fill-opacity** (0-1)
- Stroke properties
  - **stroke** (color)
  - **stroke-width** (double)
  - **stroke-opacity** (0-1)
- Shape properties

- **shape** (color)
- **shape-size** (double)
- **shape-type** (circle, square, triangle, star, cross, or x)
- Label properties
  - **label** The field name (ID, NAME)
  - **label-size** (12)
  - **label-style** (normal, italic, oblique)
  - **label-weight** (normal, bold)
  - **label-family** (serif, Arial, Verdana)

```
geoc style create -s stroke=navy -s stroke-width=0.5 -t sld -o target/boundaries.sld
```

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns:sld=
"http://www.opengis.net/sld" xmlns="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:LineSymbolizer>
            <sld:Stroke>
              <sld:CssParameter name="stroke">#000080</sld:CssParameter>
              <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
            </sld:Stroke>
          </sld:LineSymbolizer>
        </sld:Rule>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```

```
geoc style create -s fill=white -s stroke=black -s stroke-width=1.5 -t ysld -o
target/boundaries.ysld
```

```

name: Default Styler
feature-styles:
- name: name
  rules:
  - scale: [min, max]
    symbolizers:
    - polygon:
        fill-color: '#FFFFFF'
        fill-opacity: 0.6
    - line:
        stroke-color: '#000000'
        stroke-width: 1.5

```

## CSS to SLD

Convert CSS to SLD.

Short Name	Long Name	Description
-i	--input	The input file or url
-o	--output	The output file
-w	--writer-options	The StyleWriter options
	--help	Print the help message
	--web-help	Open help in a browser

```
geoc style css2sld -i target/points.css -o target/points.sld
```

*points.css*

```

* {
  mark: symbol(circle);
  mark-size: 6px;
}

:mark {
  fill: red;
}

```

*points.sld*

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns:sld=
"http://www.opengis.net/sld" xmlns="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Rule>
          <sld:PointSymbolizer>
            <sld:Graphic>
              <sld:Mark>
                <sld:WellKnownName>circle</sld:WellKnownName>
                <sld:Fill>
                  <sld:CssParameter name="fill">#ff0000</sld:CssParameter>
                </sld:Fill>
              </sld:Mark>
              <sld:Size>6</sld:Size>
            </sld:Graphic>
          </sld:PointSymbolizer>
        </sld:Rule>
        <sld:VendorOption name="ruleEvaluation">first</sld:VendorOption>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```

## SLD to Ysld

Convert SLD to Ysld

Short Name	Long Name	Description
-i	--input	The input file or url
-o	--output	The output file
	--help	Print the help message
	--web-help	Open help in a browser

```
geoc style sld2ysld -i target/points.sld -o target/points.ysld
```

*points.sld*

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns=
"http://www.opengis.net/sld" xmlns:sld="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Rule>
          <sld:PointSymbolizer>
            <sld:Graphic>
              <sld:Mark>
                <sld:WellKnownName>circle</sld:WellKnownName>
                <sld:Fill>
                  <sld:CssParameter name="fill">#ff0000</sld:CssParameter>
                </sld:Fill>
              </sld:Mark>
              <sld:Size>6</sld:Size>
            </sld:Graphic>
          </sld:PointSymbolizer>
        </sld:Rule>
        <sld:VendorOption name="ruleEvaluation">first</sld:VendorOption>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```

*points.ysld*

```
name: Default Styler
feature-styles:
- name: name
  rules:
  - scale: [min, max]
    symbolizers:
    - point:
        size: 6
        symbols:
        - mark:
            shape: circle
            fill-color: '#FF0000'
  x-ruleEvaluation: first
```

# Ysld to SLD

Convert Ysld to SLD.

Short Name	Long Name	Description
-i	--input	The input file or url
-o	--output	The output file
-w	--writer-options	The StyleWriter options
	--help	Print the help message
	--web-help	Open help in a browser

```
geoc style ysld2sld -i target/points.ysld -o target/points.sld
```

*points.ysld*

```
name: Default Styler
feature-styles:
- name: name
  rules:
  - scale: [min, max]
    symbolizers:
    - point:
        size: 6
        symbols:
        - mark:
            shape: circle
            fill-color: '#FF0000'
  x-ruleEvaluation: first
```

*points.sld*

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns:sld=
"http://www.opengis.net/sld" xmlns="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:PointSymbolizer>
            <sld:Graphic>
              <sld:Mark>
                <sld:WellKnownName>circle</sld:WellKnownName>
                <sld:Fill>
                  <sld:CssParameter name="fill">#FF0000</sld:CssParameter>
                </sld:Fill>
              </sld:Mark>
              <sld:Size>6</sld:Size>
            </sld:Graphic>
          </sld:PointSymbolizer>
        </sld:Rule>
        <sld:VendorOption name="ruleEvaluation">first</sld:VendorOption>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```

## Unique Values from Text

Create a Style from reading values in the unique values format.

Short Name	Long Name	Description
-f	--field	The field
-g	--geometry-type	The geometry type (point, linestring, polygon)
-i	--input	The input file or url
-t	--type	The output type (sld or ysl)
-o	--output	The output file
-w	--writer-options	The StyleWriter options
	--help	Print the help message
	--web-help	Open help in a browser

```
geoc style uniquevaluesfromtext -i target/units.txt -f UNIT -g polygon -t sld -o target/units.sld
```

*units.txt*

```
AHa=#aa0c74  
AHat=#b83b1f  
AHcf=#964642  
AHh=#78092e  
AHpe=#78092e  
AHt=#5f025a  
AHt3=#e76161  
Aa1=#fcedcd  
Aa2=#94474b
```

*units.sld*

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns:sld=  
"http://www.opengis.net/sld" xmlns="http://www.opengis.net/sld" xmlns:gml=  
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">  
  <sld:UserLayer>  
    <sld:LayerFeatureConstraints>  
      <sld:FeatureTypeConstraint/>  
    </sld:LayerFeatureConstraints>  
    <sld:UserStyle>  
      <sld:Name>Default Styler</sld:Name>  
      <sld:FeatureTypeStyle>  
        <sld:Name>name</sld:Name>  
        <sld:Rule>  
          <ogc:Filter>  
            <ogc:PropertyIsEqualTo>  
              <ogc:PropertyName>UNIT</ogc:PropertyName>  
              <ogc:Literal>AHa</ogc:Literal>  
            </ogc:PropertyIsEqualTo>  
          </ogc:Filter>  
          <sld:PolygonSymbolizer>  
            <sld:Fill>  
              <sld:CssParameter name="fill">#aa0c74</sld:CssParameter>  
            </sld:Fill>  
          </sld:PolygonSymbolizer>  
          <sld:LineSymbolizer>  
            <sld:Stroke>  
              <sld:CssParameter name="stroke">#760851</sld:CssParameter>  
              <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>  
            </sld:Stroke>  
          </sld:LineSymbolizer>  
        </sld:Rule>  
      </sld:Rule>  
    </sld:FeatureTypeStyle>  
  </sld:UserStyle>  
</sld:UserLayer>  
</sld:StyledLayerDescriptor>
```



```

<ogc:Filter>
  <ogc:PropertyIsEqualTo>
    <ogc:PropertyName>UNIT</ogc:PropertyName>
    <ogc:Literal>AHat</ogc:Literal>
  </ogc:PropertyIsEqualTo>
</ogc:Filter>
<sld:PolygonSymbolizer>
  <sld:Fill>
    <sld:CssParameter name="fill">#b83b1f</sld:CssParameter>
  </sld:Fill>
</sld:PolygonSymbolizer>
<sld:LineSymbolizer>
  <sld:Stroke>
    <sld:CssParameter name="stroke">#802915</sld:CssParameter>
    <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
  </sld:Stroke>
</sld:LineSymbolizer>
</sld:Rule>
<sld:Rule>
  <ogc:Filter>
    <ogc:PropertyIsEqualTo>
      <ogc:PropertyName>UNIT</ogc:PropertyName>
      <ogc:Literal>AHcf</ogc:Literal>
    </ogc:PropertyIsEqualTo>
  </ogc:Filter>
  <sld:PolygonSymbolizer>
    <sld:Fill>
      <sld:CssParameter name="fill">#964642</sld:CssParameter>
    </sld:Fill>
  </sld:PolygonSymbolizer>
  <sld:LineSymbolizer>
    <sld:Stroke>
      <sld:CssParameter name="stroke">#69312e</sld:CssParameter>
      <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
    </sld:Stroke>
  </sld:LineSymbolizer>
</sld:Rule>
<sld:Rule>
  <ogc:Filter>
    <ogc:PropertyIsEqualTo>
      <ogc:PropertyName>UNIT</ogc:PropertyName>
      <ogc:Literal>AHh</ogc:Literal>
    </ogc:PropertyIsEqualTo>
  </ogc:Filter>
  <sld:PolygonSymbolizer>
    <sld:Fill>
      <sld:CssParameter name="fill">#78092e</sld:CssParameter>
    </sld:Fill>
  </sld:PolygonSymbolizer>
  <sld:LineSymbolizer>
    <sld:Stroke>

```

```

        <sld:CssParameter name="stroke">#540620</sld:CssParameter>
        <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
    </sld:Stroke>
</sld:LineSymbolizer>
</sld:Rule>
<sld:Rule>
    <ogc:Filter>
        <ogc:PropertyIsEqualTo>
            <ogc:PropertyName>UNIT</ogc:PropertyName>
            <ogc:Literal>AHpe</ogc:Literal>
        </ogc:PropertyIsEqualTo>
    </ogc:Filter>
    <sld:PolygonSymbolizer>
        <sld:Fill>
            <sld:CssParameter name="fill">#78092e</sld:CssParameter>
        </sld:Fill>
    </sld:PolygonSymbolizer>
    <sld:LineSymbolizer>
        <sld:Stroke>
            <sld:CssParameter name="stroke">#540620</sld:CssParameter>
            <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
        </sld:Stroke>
    </sld:LineSymbolizer>
</sld:Rule>
<sld:Rule>
    <ogc:Filter>
        <ogc:PropertyIsEqualTo>
            <ogc:PropertyName>UNIT</ogc:PropertyName>
            <ogc:Literal>AHt</ogc:Literal>
        </ogc:PropertyIsEqualTo>
    </ogc:Filter>
    <sld:PolygonSymbolizer>
        <sld:Fill>
            <sld:CssParameter name="fill">#5f025a</sld:CssParameter>
        </sld:Fill>
    </sld:PolygonSymbolizer>
    <sld:LineSymbolizer>
        <sld:Stroke>
            <sld:CssParameter name="stroke">#42013e</sld:CssParameter>
            <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
        </sld:Stroke>
    </sld:LineSymbolizer>
</sld:Rule>
<sld:Rule>
    <ogc:Filter>
        <ogc:PropertyIsEqualTo>
            <ogc:PropertyName>UNIT</ogc:PropertyName>
            <ogc:Literal>AHt3</ogc:Literal>
        </ogc:PropertyIsEqualTo>
    </ogc:Filter>
    <sld:PolygonSymbolizer>

```

```

    <sld:Fill>
      <sld:CssParameter name="fill">#e76161</sld:CssParameter>
    </sld:Fill>
  </sld:PolygonSymbolizer>
  <sld:LineSymbolizer>
    <sld:Stroke>
      <sld:CssParameter name="stroke">#a14343</sld:CssParameter>
      <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
    </sld:Stroke>
  </sld:LineSymbolizer>
</sld:Rule>
<sld:Rule>
  <ogc:Filter>
    <ogc:PropertyIsEqualTo>
      <ogc:PropertyName>UNIT</ogc:PropertyName>
      <ogc:Literal>Aa1</ogc:Literal>
    </ogc:PropertyIsEqualTo>
  </ogc:Filter>
  <sld:PolygonSymbolizer>
    <sld:Fill>
      <sld:CssParameter name="fill">#fcedcd</sld:CssParameter>
    </sld:Fill>
  </sld:PolygonSymbolizer>
  <sld:LineSymbolizer>
    <sld:Stroke>
      <sld:CssParameter name="stroke">#b0a58f</sld:CssParameter>
      <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
    </sld:Stroke>
  </sld:LineSymbolizer>
</sld:Rule>
<sld:Rule>
  <ogc:Filter>
    <ogc:PropertyIsEqualTo>
      <ogc:PropertyName>UNIT</ogc:PropertyName>
      <ogc:Literal>Aa2</ogc:Literal>
    </ogc:PropertyIsEqualTo>
  </ogc:Filter>
  <sld:PolygonSymbolizer>
    <sld:Fill>
      <sld:CssParameter name="fill">#94474b</sld:CssParameter>
    </sld:Fill>
  </sld:PolygonSymbolizer>
  <sld:LineSymbolizer>
    <sld:Stroke>
      <sld:CssParameter name="stroke">#673134</sld:CssParameter>
      <sld:CssParameter name="stroke-width">0.5</sld:CssParameter>
    </sld:Stroke>
  </sld:LineSymbolizer>
</sld:Rule>
</sld:FeatureTypeStyle>
</sld:UserStyle>

```

```
</sld:UserLayer>  
</sld:StyledLayerDescriptor>
```

# Style Repository Commands

Style Repositories are useful for storing styles for layers in a directories or databases.

## Style Repository Types

Name	Type	Arguments
Flat Directory	-t directory	-p file=path/styles
Nested Directory	-t nested-directory	-p file=path/styles
SQLite Database (GeoPackage)	-t sqlite	-p file=path/data.gpkg
H2 Database	-t h2	-p file=path/data.db
PostGIS Database	-t postgres	<ul style="list-style-type: none"><li>• -p server=localhost</li><li>• -p database=natureearth</li><li>• -p port=5432</li><li>• -p userName=user</li><li>• -p password=secr3t</li></ul>

## Save a Style

Save a Style to a Style Repository.

Short Name	Long Name	Description
-t	--type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)
-o	--options	The style repository options
-l	--layer-name	The layer name
-s	--style-name	The style name
-f	--style-file	The style file (sld or css)
	--help	Print the help message
	--web-help	Open help in a browser

```
geoc style repository save -t sqlite -o file=target/layers.gpkg -l locations -s  
circles -f target/location_circles.sld
```

# Delete a Style

Delete a Style from a Style Repository.

Short Name	Long Name	Description
-t	--type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)
-o	--options	The style repository options
-l	--layer-name	The layer name
-s	--style-name	The style name
	--help	Print the help message
	--web-help	Open help in a browser

```
geoc style repository delete -t sqlite -o file=target/layers.gpkg -l locations -s circles
```

# Get a Style

Get a Style in a Style Repository.

Short Name	Long Name	Description
-t	--type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)
-o	--options	The style repository options
-l	--layer-name	The layer name
-s	--style-name	The style name
-f	--output-file	The output file
	--help	Print the help message
	--web-help	Open help in a browser

```
geoc style repository get -t sqlite -o file=target/layers.gpkg -l locations -s circles
```

```
<?xml version="1.0" encoding="UTF-8"?><sld:StyledLayerDescriptor xmlns:sld=
"http://www.opengis.net/sld" xmlns="http://www.opengis.net/sld" xmlns:gml=
"http://www.opengis.net/gml" xmlns:ogc="http://www.opengis.net/ogc" version="1.0.0">
  <sld:UserLayer>
    <sld:LayerFeatureConstraints>
      <sld:FeatureTypeConstraint/>
    </sld:LayerFeatureConstraints>
    <sld:UserStyle>
      <sld:Name>Default Styler</sld:Name>
      <sld:FeatureTypeStyle>
        <sld:Name>name</sld:Name>
        <sld:Rule>
          <sld:PointSymbolizer>
            <sld:Graphic>
              <sld:Mark>
                <sld:WellKnownName>circle</sld:WellKnownName>
                <sld:Fill>
                  <sld:CssParameter name="fill">#6495ed</sld:CssParameter>
                </sld:Fill>
                <sld:Stroke>
                  <sld:CssParameter name="stroke">#4668a5</sld:CssParameter>
                  <sld:CssParameter name="stroke-width">0.1</sld:CssParameter>
                </sld:Stroke>
              </sld:Mark>
              <sld:Size>6</sld:Size>
            </sld:Graphic>
          </sld:PointSymbolizer>
        </sld:Rule>
      </sld:FeatureTypeStyle>
    </sld:UserStyle>
  </sld:UserLayer>
</sld:StyledLayerDescriptor>
```

## List Styles

List all Styles in a Style Repository.

Short Name	Long Name	Description
-t	--type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)
-o	--options	The style repository options
-l	--layer-name	The layer name
	--help	Print the help message
	--web-help	Open help in a browser

```
geoc style repository list -t sqlite -o file=target/layers.gpkg -l locations
```

```
locations blue  
locations red
```

## Copy a Style

Copy styles from one repository to another/

Short Name	Long Name	Description
-t	--input-type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)
-p	--input-options	The style repository options
-o	--output-type	The type of style repository (directory, nested-directory, h2, sqlite, postgres)
-r	--output-options	The style repository options
	--help	Print the help message
	--web-help	Open help in a browser

```
geoc style repository copy -t sqlite -p file=target/layers.gpkg -o directory -r  
file=target/layer_styles
```

```
red.sld  
blue.sld
```