

**Title: CoverageFill Colour Interpolation**

**S-100 Maintenance - Change Proposal Form**

|                     |             |              |                       |
|---------------------|-------------|--------------|-----------------------|
| <b>Organisation</b> | NIWC        | <b>Date</b>  | 8/16/2019             |
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**Change Proposal Type** (*Select only one option*)

|                  |               |              |
|------------------|---------------|--------------|
| 1. Clarification | 2. Correction | 3. Extension |
|                  | X             |              |

**Location** (*Identify all change proposal locations*)

| S-100 Version No. | Part No. | Section No.          | Proposal Summary   |
|-------------------|----------|----------------------|--|
| Version 4         | 9<br>9a  | 12.7.4.3<br>11.2.2.7 | Describe colour interpolation method<br>Describe colour interpolation method |

**Change Proposal**

Add the following to the Part 9 description of the *endColor* attribute of CoverageColor:

| <b>Role Name</b> | <b>Name</b>   | <b>Description</b>   |
|------------------|---------------|--|
| Class            | CoverageColor | A class to fill a Coverage with color  |
| Attribute        | penWidth      | Optional pen width to apply for dot color used for discrete points   |
| Role             | startColor    | The color to assign to the matching range or to use as <b>the</b> start point in a color ramp when 'endColor' is defined   |
| Role             | endColor      | The color to use as stop point in a color ramp. The range of values is spread linearly across the range of colors from 'startColor' to 'endColor' to produce a gradient effect.<br><br>The start and end colours shall be converted to the CIE xyL color space and each component (i.e. x, y, L and transparency) shall be interpolated individually before converting back to sRGB for display. |

Add the following to the Part 9a description of the endColor attribute of CoverageColor:

**CoverageColor: startToken, startTransparency[, endToken, endTransparency][, penWidth]**  
 ...  
 endToken, endTransparency

If given, the colour to use as the stopping point in a color ramp. The range of values is spread linearly across the range of colours from 'startColor' to 'endColor' to produce a gradient effect.

The start and end colours shall be converted to the CIE xyL color space and each component (i.e. x, y, L and transparency) shall be interpolated individually before converting back to sRGB for display.

...

## Change Proposal Justification

As presented in S100WG4-8.2, the color interpolation method should be explicitly defined to prevent inconsistent implementation.

## What parts of the S-100 Infrastructure will this proposal affect?

- S-100 Feature Concept Dictionary Interface or Database
- S-100 Portrayal Register
- S-100 Feature Catalogue Builder
- S-100 Portrayal Catalogue Builder
- S-100 UML Models

**Please send completed forms and supporting documentation to the secretary S-100WG.**