

Title: Palette Item Transparency**S-100 Maintenance - Change Proposal Form**

Organisation	SPAWAR	Date	1/23/2019
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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
4.0	9	9-11.1.X 9-A-6	Applying multiple transparencies Allow transparency in colour tokens

Change Proposal**9-11.1.X Transparency**

Additive effects of applying transparencies shall be accomplished by multiplying the component alpha values. For example, a color token which has transparency of 10% which is drawn with a transparency of 20% shall result in $(1 - 10\%) * (1 - 20\%) = 72\%$ alpha = 28% transparency.

9-A-6

[...]

```
<xs:complexType name="PaletteItem">
  <xs:sequence>
    <xs:element name="cie" type="CIE"/>
    <xs:element name="srgb" type="SRGB"/>
  </xs:sequence>
  <xs:attribute name="token" type="Token" use="required"/>
  <xs:attribute name="transparency" type="NormalDouble" default="0.0"/>
</xs:complexType>
```

Change Proposal Justification

Products such as S-102 and S-111 use transparency values which vary with the selected color palette. For instance, S-102 DEPDW may have zero transparency (opaque) in the day palette, but 60% transparency in the dusk palette.

This poses a problem when creating the portrayal catalog. Drawing instructions can provide transparency, but since the selected palette is not available to the PC, the transparency provided in the drawing instruction(s) will have the same value for all color palettes.

The proposed change allows each *PaletteItem* (color token) to optionally specify transparency. Since there is a *PaletteItem* specified for each palette, the transparency can be specified uniquely.

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.