SmartSlides Project Wide Standard

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1 Rules

1.1 XML Structure

- The top level element is the slideshow element.

- The slideshow element must include both documentinfo and deafualtsettings elements. These elements must occur in the order documentinfo, deafultsettings.

- The slideshow element must include 1 or more slide elements.

- The documentinfo element must include author, version, comment and groupid elements. These elements may occur in any order.

- The defaultsettings element must include backgroundcolor, font, fontsize and fontcolor elements. These elements may occur in any order.

- The slide element can include any number of text, image, audio, video and graphics elements. These elements can occur in any order.

- The text element must include xstart and ystart attributes.

- The text element can include sourcefile, font, fontsize, fontcolor and duration attributes.

- The text element can be an empty element, if a source file is specified.

- The image element cannot include any child elements.

- The image element must include sourcefile, xstart and ystart attributes.

- The image element can include scale, duration and starttime attributes.

- The audio element cannot include any child elements.

- The audio element must include a sourcefile attribute.

- The audio element can include a starttime attribute.

- The video element cannot include any child elements.

- The video element must include sourcefile, xstart and ystart attributes.

- The graphics element must include type, xstart, ystart, xend, yend, solid and graphiccolor attributes.

- The graphics element can include a duration attribute.

- The graphics element can include a cyclicshading element.

- The cylclicshading element cannot include any elements.

- The cyclicshading element must include a shadingcolor attribute.

1.2   Additional Rules

- XML, and therefore the project wide standard, is case sensitive. All element names, attribute names and data must be written purely in lower case characters.

- Color is always spelt color, not colour.

- All colors are described as 8 digit hex strings in ARGB format. (The alpha channel is the first two digits).

- All position values are relative to screen size, measured from the top left corner of the screen, and describe the top left corner of the object. The value is a float data type, in the range 0.0 - 1.0.

- All duration values are given in seconds. The value is a float data type.

- Where a duration value is not given an infinite duration is implied.

- A group ID value of 0 specifies that the file uses the standard format, with no group's extensions.

- All font sizes are integer pt sizes.

- The standard supports both 'arial' and 'times new roman' fonts.

- Slides occur in the XML file in sequential order, first to last.

- Text source files should be of type '.txt'.

- Image source files should be of type '.png' or '.jpg'.

- Audio source files should be of type '.wav'.

- Video source files should be of type '.mkv'.

- Image scale attribute is relative to the dimensions of the source file. The value is a float data type greater than 0.

- The graphic 'type' attribute supports the following values: oval, rectangle, line.

2   Example XML file

```
 1  <?xml version="1.0"?>
 2
 3  <slideshow>
 4      <documentinfo>
 5          <author>Tom Davidson</author>
 6          <version>1.0</version>
 7          <comment>this is a comment</comment>
 8          <groupid>2</groupid>
 9      </documentinfo>
10      <defaultsettings>
11          <backgroundcolor>#ff00ff00</backgroundcolor>
12          <font>times new roman</font>
13          <fontsize>24</fontsize>
14          <fontcolor>#ffcccc00</fontcolor>
15          <graphiccolor>#ffaaaa00</graphiccolor>
16      </defaultsettings>
17      <slide>
18          <text sourcefile="null" xstart="0.5" ystart="0.5" font="arial" fontsize="24" fontcolor="
    #00112233"  duration="1.5">
19              Some Text.
20          </text>
21
22          <text xstart="0.5" ystart="0.5" font="arial" fontsize="24" fontcolor="#00112233" duration=
    "1.5" starttime="2.0">
23              <richtext font="arial" fontsize="26" fontcolor="#11223344" newline="true" b="true" i="
    true" u="true" strikethrough="true" superscript="true" subscript="true" case="upper/lower/
    camel" alignment="left/right/centre">Example text!</richtext>
24              <richtext font="arial" fontsize="26" fontcolor="#11223344" newline="true" b="true" i="
    true" u="true" strikethrough="true" superscript="true" subscript="true" case="upper/lower/
    camel" alignment="left">Example text!</richtext>
25              <richtext font="arial" fontsize="26" fontcolor="#11223344" newline="true" b="true" i="
    true" u="true" strikethrough="true" superscript="true" subscript="true" case="upper/lower/
    camel" alignment="left">Example text!</richtext>
26          </text>
27
28          <text xstart="0.5" ystart="0.5" font="arial" fontsize="24" fontcolor="#00112233" duration=
    "1.5" starttime="2.0">
29              <richtext font="arial" fontsize="26" fontcolor="#11223344" newline="true" b="true" i="
    true" u="true" strikethrough="true" superscript="true" subscript="true" case="upper/lower/
    camel" alignment="left">Example text!</richtext>
30              <richtext font="arial" fontsize="26" fontcolor="#11223344" newline="true" b="true" i="
    true" u="true" strikethrough="true" superscript="true" subscript="true" case="upper/lower/
    camel" alignment="left">Example text!</richtext>
31          </text>
32
33          <image sourcefile="cat.jpg" xstart="0.5" ystart="0.5" scale="1.0" duration="1.5" starttime
    ="2.0" />
```

```
34
35        <image sourcefile="selfie.jpg" xstart="0.5" ystart="0.5" scale="1.0" duration="1.5"
      starttime="2.0" rotate="90" fliphorizontal="true" flipvertical="true" cropx1="0.0" cropy1="0.0
      " cropx2="0.5" cropy2="0.5"/>
36
37        <audio sourcefile="gavel.wav" starttime="2.5" />
38        <video sourcefile="avengers.mkv" xstart="0.5" ystart="0.5" />
39
40
41        <graphic type="oval/rectangle/line" xstart="0.5" ystart="0.5" xend="0.7" yend="0.7" solid=
      "true" graphiccolor="#11223344" duration="1.5">
42            <cyclicshading shadingcolor="#88776655" />
43        </graphic>
44
45        <graphic graphiccolor="#11223344" duration="1.5" starttime="2.0">
46            <oval xstart="0.5" ystart="0.5" xend="0.7" yend="0.7" solid="true"/>
47            <cyclicshading shadingcolor="#88776655" />
48        </graphic>
49
50        <graphic graphiccolor="#11223344" duration="1.5" starttime="2.0">
51            <rectangle xstart="0.5" ystart="0.5" xend="0.7" yend="0.7" solid="true"/>
52        </graphic>
53
54        <graphic graphiccolor="#11223344" duration="1.5" starttime="2.0">
55            <line xstart="0.5" ystart="0.5" xend="0.7" yend="0.7"/>
56        </graphic>
57
58        <graphic graphiccolor="#11223344" duration="1.5" starttime="2.0">
59            <itriangle xstart="0.5" ystart="0.5" xend="0.7" yend="0.7" solid="true"/>
60        </graphic>
61    </slide>
62 </slideshow>
```

3 Schema

```xml
1  <?xml version="1.0"?>
2  <xs:schema xmlns:xs="http://www.w3.org/2001/XMLSchema" attributeFormDefault="unqualified"
       elementFormDefault="qualified">
3    <xs:element name="slideshow">
4      <xs:complexType>
5        <xs:sequence>
6          <xs:sequence>
7            <xs:element name="documentinfo">
8              <xs:complexType>
9                <xs:all>
10                 <xs:element type="xs:string" name="author" />
11                 <xs:element type="xs:string" name="version" />
12                 <xs:element type="xs:string" name="comment" />
13                 <xs:element type="xs:integer" name="groupid" />
14               </xs:all>
15             </xs:complexType>
16           </xs:element>
17           <xs:element name="defaultsettings">
18             <xs:complexType>
19               <xs:all>
20                 <xs:element name="backgroundcolor" >
21                     <xs:simpleType>
22                         <xs:restriction base="xs:string">
23                             <xs:pattern value="[#]([a-fA-F0-9]{8})"/>
24                         </xs:restriction>
25                     </xs:simpleType>
26                 </xs:element>
27                 <xs:element type="xs:string" name="font" />
28                 <xs:element type="xs:positiveInteger" name="fontsize" />
29                 <xs:element name="fontcolor">
30                     <xs:simpleType>
31                         <xs:restriction base="xs:string">
32                             <xs:pattern value="[#]([a-fA-F0-9]{8})"/>
33                         </xs:restriction>
34                     </xs:simpleType>
35                 </xs:element>
36                 <xs:element name="graphiccolor" >
37                     <xs:simpleType>
38                         <xs:restriction base="xs:string">
39                             <xs:pattern value="[#]([a-fA-F0-9]{8})"/>
40                         </xs:restriction>
41                     </xs:simpleType>
42                 </xs:element>
43               </xs:all>
44             </xs:complexType>
45           </xs:element>
46         </xs:sequence>
```

6

```
47              <xs:sequence minOccurs="1" maxOccurs="unbounded">
48                <xs:element name="slide">
49                  <xs:complexType>
50                    <xs:choice minOccurs="0" maxOccurs="unbounded">
51                      <xs:element name="text">
52                        <xs:complexType mixed="true">
53                          <xs:choice minOccurs="0" maxOccurs="unbounded">
54                            <xs:element name="richtext">
55                              <xs:complexType>
56                                <xs:simpleContent>
57                                  <xs:extension base="xs:string">
58                                    <xs:attribute type="xs:string" name="font"/>
59                                    <xs:attribute type="xs:string" name="fontsize"/>
60                                    <xs:attribute type="xs:string" name="fontcolor"/>
61                                    <xs:attribute type="xs:boolean" name="newline" />
62                                    <xs:attribute type="xs:boolean" name="b"/>
63                                    <xs:attribute type="xs:boolean" name="i"/>
64                                    <xs:attribute type="xs:boolean" name="u"/>
65                                    <xs:attribute type="xs:boolean" name="strikethrough"/>
66                                    <xs:attribute type="xs:boolean" name="superscript"/>
67                                    <xs:attribute type="xs:boolean" name="subscript"/>
68                                    <xs:attribute type="xs:string" name="case"/>
69                                    <xs:attribute type="xs:string" name="alignment"/>
70                                  </xs:extension>
71                                </xs:simpleContent>
72                              </xs:complexType>
73                            </xs:element>
74                          </xs:choice>
75                          <xs:attribute type="xs:string" name="sourcefile" />
76                          <xs:attribute type="xs:float" name="xstart" use="required" />
77                          <xs:attribute type="xs:float" name="ystart" use="required" />
78                          <xs:attribute type="xs:string" name="font" />
79                          <xs:attribute type="xs:integer" name="fontsize" />
80                          <xs:attribute type="xs:string" name="fontcolor" />
81                          <xs:attribute type="xs:float" name="duration" />
82                          <xs:attribute type="xs:float" name="starttime" />
83                        </xs:complexType>
84                      </xs:element>
85                      <xs:element name="image">
86                        <xs:complexType>
87                          <xs:simpleContent>
88                            <xs:extension base="xs:string">
89                              <xs:attribute type="xs:string" name="sourcefile" use="required" />
90                              <xs:attribute type="xs:float" name="xstart" use="required" />
91                              <xs:attribute type="xs:float" name="ystart" use="required" />
92                              <xs:attribute type="xs:float" name="scale" />
93                              <xs:attribute type="xs:float" name="duration" />
94                              <xs:attribute type="xs:float" name="starttime" />
95                              <xs:attribute type="xs:float" name="rotate" />
96                              <xs:attribute type="xs:boolean" name="fliphorizontal" />
```

```
 97                          <xs:attribute type="xs:boolean" name="flipvertical" />
 98                          <xs:attribute type="xs:float" name="cropx1" />
 99                          <xs:attribute type="xs:float" name="cropy1" />
100                          <xs:attribute type="xs:float" name="cropx2" />
101                          <xs:attribute type="xs:float" name="cropy2" />
102                        </xs:extension>
103                      </xs:simpleContent>
104                    </xs:complexType>
105                  </xs:element>
106                  <xs:element name="audio">
107                    <xs:complexType>
108                      <xs:simpleContent>
109                        <xs:extension base="xs:string">
110                          <xs:attribute type="xs:string" name="sourcefile" use="required" />
111                          <xs:attribute type="xs:float" name="starttime" />
112                        </xs:extension>
113                      </xs:simpleContent>
114                    </xs:complexType>
115                  </xs:element>
116                  <xs:element name="video">
117                    <xs:complexType>
118                      <xs:simpleContent>
119                        <xs:extension base="xs:string">
120                          <xs:attribute type="xs:string" name="sourcefile" use="required" />
121                          <xs:attribute type="xs:float" name="xstart" use="required" />
122                          <xs:attribute type="xs:float" name="ystart" use="required" />
123                        </xs:extension>
124                      </xs:simpleContent>
125                    </xs:complexType>
126                  </xs:element>
127                  <xs:element name="graphic">
128                    <xs:complexType>
129                    <xs:sequence>
130                      <xs:choice minOccurs="0">
131
132                        <xs:element name="oval">
133                        <xs:complexType>
134                          <xs:simpleContent>
135                            <xs:extension base="xs:string">
136                              <xs:attribute type="xs:float" name="xstart" use="required" />
137                              <xs:attribute type="xs:float" name="ystart" use="required" />
138                              <xs:attribute type="xs:float" name="xend" use="required" />
139                                <xs:attribute type="xs:float" name="yend" use="required" />
140                                <xs:attribute type="xs:boolean" name="solid" />
141                            </xs:extension>
142                          </xs:simpleContent>
143                        </xs:complexType>
144                      </xs:element>
145
146                        <xs:element name="rectangle">
```

```
147                             <xs:complexType>
148                               <xs:simpleContent>
149                                 <xs:extension base="xs:string">
150                                   <xs:attribute type="xs:float" name="xstart" use="required" />
151                                     <xs:attribute type="xs:float" name="ystart" use="required" />
152                                     <xs:attribute type="xs:float" name="xend" use="required" />
153                                     <xs:attribute type="xs:float" name="yend" use="required" />
154                                     <xs:attribute type="xs:boolean" name="solid" />
155                                 </xs:extension>
156                               </xs:simpleContent>
157                             </xs:complexType>
158                           </xs:element>
159
160                     <xs:element name="line">
161                             <xs:complexType>
162                               <xs:simpleContent>
163                                 <xs:extension base="xs:string">
164                                   <xs:attribute type="xs:float" name="xstart" use="required" />
165                                     <xs:attribute type="xs:float" name="ystart" use="required" />
166                                     <xs:attribute type="xs:float" name="xend" use="required" />
167                                     <xs:attribute type="xs:float" name="yend" use="required" />
168                                 </xs:extension>
169                               </xs:simpleContent>
170                             </xs:complexType>
171                           </xs:element>
172
173                     <xs:element name="itriangle">
174                             <xs:complexType>
175                               <xs:simpleContent>
176                                 <xs:extension base="xs:string">
177                                   <xs:attribute type="xs:float" name="xstart" use="required" />
178                                     <xs:attribute type="xs:float" name="ystart" use="required" />
179                                     <xs:attribute type="xs:float" name="xend" use="required" />
180                                     <xs:attribute type="xs:float" name="yend" use="required" />
181                                     <xs:attribute type="xs:boolean" name="solid" />
182                                 </xs:extension>
183                               </xs:simpleContent>
184                             </xs:complexType>
185                           </xs:element>
186
187                   </xs:choice>
188
189                   <xs:choice minOccurs="0">
190                     <xs:element name="cyclicshading">
191                             <xs:complexType>
192                               <xs:simpleContent>
193                                 <xs:extension base="xs:string">
194                                   <xs:attribute type="xs:string" name="shadingcolor" use="required" />
195                                 </xs:extension>
196                               </xs:simpleContent>
```

```
197                          </xs:complexType>
198                        </xs:element>
199                    </xs:choice>
200                    </xs:sequence>
201                    <xs:attribute type="xs:string" name="type"/>
202                    <xs:attribute type="xs:float" name="xstart" />
203                    <xs:attribute type="xs:float" name="ystart" />
204                    <xs:attribute type="xs:float" name="xend" />
205                    <xs:attribute type="xs:float" name="yend" />
206                    <xs:attribute type="xs:boolean" name="solid" />
207                    <xs:attribute type="xs:string" name="graphiccolor"/>
208                    <xs:attribute type="xs:float" name="duration" />
209                    <xs:attribute type="xs:float" name="starttime" />
210                  </xs:complexType>
211                </xs:element>
212            </xs:choice>
213          </xs:complexType>
214        </xs:element>
215      </xs:sequence>
216    </xs:sequence>
217  </xs:complexType>
218  </xs:element>
219 </xs:schema>
```