Subject: Re: Please check the list of 2019.1 changes
Posted by mirek on Thu, 21 Feb 2019 08:52:02 GMT
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Next iteration of DarkTheme function. I guess this is the final one...

```
Color DarkTheme2(Color color)
{
 if(IsNull(color))
  return Null;

 double v[3];
 v[0] = color.GetR();
 v[1] = color.GetG();
 v[2] = color.GetB();

 static double c[3] = { 0.21, 0.72, 0.07 };

 double m0 = 0.21 * v[0] + 0.72 * v[1] + 0.07 * v[2];
 double m = 256 - m0;

 int i0 = 0;
 int i1 = 1;
 int i2 = 2;

 if(v[i0] > v[i1])
  Swap(i0, i1);
 if(v[i1] > v[i2])
  Swap(i1, i2);
 if(v[i0] > v[i1])
  Swap(i0, i1);

 if(m0 < m) {
  m -= m0;
  double a = min(v[i2] + m, 255.0) - v[i2];
  v[i0] += a;
  v[i1] += a;
  v[i2] += a;
  m -= a;

  a = min(v[i1] + m / (c[i0] + c[i1]), 255.0) - v[i1];
  v[i0] += a;
  v[i1] += a;
  m -= (c[i0] + c[i1]) * a;
```

```
   v[i0] = min(v[i0] + m / c[i1], 255.0);
  }
  else {
   m = m0 - m;
   double a = v[i0] - max(v[i0] - m, 0.0);
   v[i0] -= a;
   v[i1] -= a;
   v[i2] -= a;
   m -= a;

   a = v[i1] - max(v[i1] - m / (c[i1] + c[i2]), 0.0);
   v[i1] -= a;
   v[i2] -= a;
   m -= (c[i1] + c[i2]) * a;

   v[i2] = max(v[i2] - m / c[i2], 0.0);
  }

  return Color((int)v[0], (int)v[1], (int)v[2]);
}
```

File Attachments
1) Clipboard01.png, downloaded 1049 times