

# Color

Static and dynamic color values.

SRP understands the importance of a consistent interface, and color plays a large role in achieving an interface that appears to belong in its environment. SRP designed Color properties to easily establish a variety of color related effects using a single property value.

## Static Color Value

A color property accepts static color values in three ways: as a single integer value, as RGB components, or as HSL components. The integer value can be calculated using the following formula:

```
IntegerVal = (B * 65536) + (G * 256) + R
```

To set the color to RGB components, use the format:

```
RGB(R,G,B)
```

The RGB keyword tells the property to treat the input as RGB components. If you omit the RGB keyword and use only the braces, then RGB is assumed. However, the braces cannot be omitted, since the input will then be treated as a single integer value. The advantage to the RGB component format is that the property calculates the color for you.

To set the color to HSL components, use the format:

```
HSL(H,S,L)
```

HSL is similar to RGB in that it calculates a color, but HSL components have different meaning. The H component is Hue, which is any of 255 base colors. There is generally no way to interpret what color this component might represent, but you can use MS Paint's Color Palette window to determine the value of a hue you're interested in. Why use HSL then? Because you may want to guarantee that any color be of a certain darkness or grayness. This is where the other two components come in. The S component is Saturation, or the purity of the color. When saturation is 255, then the hue is at its purest, while a saturation level of 0 is pure gray. Any value in between is a blend of the hue with a corresponding amount of gray. The final component, L, is Luminance. A value of 255 for luminance results in pure white, while a value of 0 results in pure black. Any value in between results in a brighter or darker version of the color.

To complete the explanation of static colors, here are four ways of setting the Color property to bright blue:

```
Color = 16711680          ; * Single Integer
Color = 255 * 65536        ; * Expression Evaluation into a Single Integer
Color = "RGB(0, 0, 255)"   ; * RGB Components
Color = "HSL(160, 255, 127)" ; * HSL Components
```

**Regardless of how a static color is set, the color is always returned in RGB(R,G,B) format.**

## System Color

Sometimes you may want your OLE control to blend in with the end user's current desktop theme colors. Therefore, Color properties accept system color names, so even if the end user changes his/her desktop theme colors, the OLE control will dynamically change to match. Acceptable system color names and their abbreviations are:

Name	Abbr.	Description
3DFace	3D	Face color for 3D display elements.
3DLight	3DL	Light color for 3D display elements (for edges facing the light source).
3DHiLight	3DH	Highlight color for 3D display elements (for edges facing the light source).
3DShadow	3DS	Shadow color for 3D display elements (for edges facing away from the light source).
3DDkShadow	3DDK	Dark shadow color for 3D display elements (for edges facing away from the light source).
3DText	3DT	Text color for 3D display elements.

ActiveTitle	AT	Active window's title bar.
ActiveTitle1	AT1	Same as ActiveTitle.
ActiveTitle2	AT2	Right side color in the color gradient of an active window's title bar. Same as ActiveTitle if no gradient theme is set.
ActiveTitleText	ATT	Active window's title bar text.
ActiveWindowBorder	AWB	Active window's border.
AppBackground	ABK	Background color of multiple document interface (MDI) applications.
Desktop	DT	Desktop background color.
GrayText	GT	Grayed (disabled) text.
HotItem	HOT	Color for a hot-tracked item.
InactiveTitle	IT	Inactive window's title bar.
InactiveTitle1	IT1	Same as InactiveTitle.
InactiveTitle2	IT2	Right side color in the color gradient of an inactive window's title bar. Same as "InactiveTitle" if no gradient theme is set.
InactiveTitleText	ITT	Inactive window's title bar text.
InactiveWindowBorder	IWB	Inactive window's border.
Menu	M	Menu background.
MenuText	MT	Text in menus.
ScrollBar	SB	Scroll bar gray area.
Select	S	Item(s) selected in a control.
SelectText	ST	Text of item(s) selected in a control.
ToolTip	TT	Background color for tool tip controls.
ToolTipText	TTT	Text color for tool tip controls.
Window	W	Window background.
WindowFrame	WF	Window frame.
WindowText	WT	Text in windows.

**Color properties are not case-sensitive, so these names are accepted regardless of their case.**

## Office Colors



In addition to specifying standard system colors by name, you can also specify MS Office theme colors. These colors are used within Office XP and Office 2003.

Name	Abbr.	Description
Office3DFace	O3D	XP face color for three- dimensional display elements and for dialog box backgrounds.
Office3DShadow	O3DS	XP shadow color for three-dimensional display elements (for edges facing away from the light source).
OfficeCheckedText	OCT	XP color for text displayed in a checked button.
OfficeDisabled	OD	XP menu icon disabled color.
OfficeEditBorder	OEB	XP color for the border color of edit controls.
OfficeFrame	OF	Office 2003 frame color.
OfficeGrayText	OGT	XP menu item disabled text color.
OfficeIconShadow	OIS	XP menu item icon shadow.
OfficeLabel	OL	XP label control color.
OfficeMenu	OM	XP menu item text background color.











OfficeMenuBorder	OMB	XP menu border color.
OfficeMenuExpanded	OME	XP hidden menu commands background color.
OfficeMenuText	OMT	XP menu item text color.
OfficePushedText	OPT	XP toolbar pushed text color.
OfficeSelect	OS	XP menu item selected color.
OfficeSelectBorder	OSB	XP menu item selected border color.
OfficeSelectChecked	OSC	XP menu item checked color.
OfficeSelectCheckedBorder	OSCB	XP menu item checked border color.
OfficeSelectPushed	OSP	XP menu item pushed color.
OfficeSelectPushedBorder	OSPB	XP border color for pushed in 3D elements.
OfficeSelectText	OST	XP menu item selected text color.
OfficeSeparator	OSEP	XP toolbar separator color.
OfficeSplitter	OSPL	XP splitter face color.
OfficeStaticFrame	OSF	WinXP Static frame color
OfficeTabInactive	OTI	XP inactive tab background color.
OfficeTabInactiveText	OTIT	XP inactive tab text color.
OfficeToolbar	OTB	XP toolbar background color.
OfficeToolbarGripper	OTBG	XP toolbar gripper color.
OfficeToolbarText	OTBT	XP toolbar text color.

















## HTML Colors

















As an added convenience, you may specify any standard HTML color name. The currently available colors are listed below:

















Color Name	Color
AliceBlue	
AntiqueWhite	
Aqua	
Aquamarine	
Azure	
Beige	
Bisque	

Black	
BlanchedAlmond	
Blue	
BlueViolet	
Brown	
BurlyWood	
CadetBlue	
Chartreuse	
Chocolate	
Coral	
CornflowerBlue	
Cornsilk	
Crimson	
Cyan	
DarkBlue	
DarkCyan	

DarkGoldenRod	
DarkGray	
DarkGrey	
DarkGreen	
DarkKhaki	
DarkMagenta	
DarkOliveGreen	
DarkOrange	
DarkOrchid	
DarkRed	
DarkSalmon	
DarkSeaGreen	
DarkSlateBlue	
DarkSlateGray	
DarkSlateGrey	
DarkTurquoise	

















DarkViolet	
DeepPink	
DeepSkyBlue	
DimGray	
DimGrey	
DodgerBlue	
FireBrick	
FloralWhite	
ForestGreen	
Fuchsia	
Gainsboro	
GhostWhite	
Gold	
GoldenRod	
Gray	
Grey	

Green	
GreenYellow	
HoneyDew	
HotPink	
IndianRed	
Indigo	
Ivory	
Khaki	
Lavender	
LavenderBlush	
LawnGreen	
LemonChiffon	
LightBlue	
LightCoral	
LightCyan	
LightGoldenRodYellow	











LightGray	
LightGrey	
LightGreen	
LightPink	
LightSalmon	
LightSeaGreen	
LightSkyBlue	
LightSlateGray	
LightSlateGrey	
LightSteelBlue	
LightYellow	
Lime	
LimeGreen	
Linen	
Magenta	
Maroon	



MediumAquaMarine	
MediumBlue	
MediumOrchid	
MediumPurple	
MediumSeaGreen	
MediumSlateBlue	
MediumSpringGreen	
MediumTurquoise	
MediumVioletRed	
MidnightBlue	
MintCream	
MistyRose	
Moccasin	
NavajoWhite	
Navy	
OldLace	

Olive	
OliveDrab	
Orange	
OrangeRed	
Orchid	
PaleGoldenRod	
PaleGreen	
PaleTurquoise	
PaleVioletRed	
PapayaWhip	
PeachPuff	
Peru	
Pink	
Plum	
PowderBlue	
Purple	

Red	
RosyBrown	
RoyalBlue	
SaddleBrown	
Salmon	
SandyBrown	
SeaGreen	
SeaShell	
Sienna	
Silver	
SkyBlue	
SlateBlue	
SlateGray	
SlateGrey	
Snow	
SpringGreen	

SteelBlue	
Tan	
Teal	
Thistle	
Tomato	
Turquoise	
Wheat	
White	
Yellow	
WhiteSmoke	
YellowGreen	

## Color Modifiers

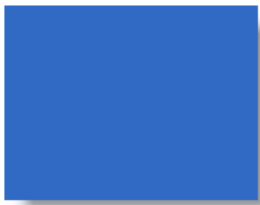
System and HTML colors are great for basic look and feel, but you may want to only use these predefined colors as a base while still having the flexibility to achieve the look and feel you desire without sacrificing conformity to these colors. For instance, you may want to use the system highlight color for selected cells in the SRP OLE EditTable, but you may also want it to always be light enough to display black text in front of it. Color modifiers provide the means to achieve this and other effects. The color modifier format is:

ColorName Modifier=Value

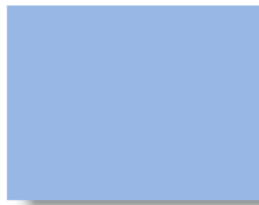
**ColorName** is one of the system or HTML color names listed above. **Modifier** is one of the available single-character modifiers listed below. **Value** is a number indicating the modifier's new value to be applied to the system color. The available modifiers are:

Modifier	Value	Description
L	0 - 100	Luminance modifier. Luminance is a measurement of light applied to the color. 0 is darkest (black) and 100 is lightest (white).
S	0 - 100	Saturation modifier. Saturation is a measurement of purity applied to the color. 0 is pure grey and 100 is the pure color.
C	n/a	Compliment modifier. Modifies the predefined color to be its complimentary color. Always applied first.
G	n/a	Grayscale modifier. Modifies the predefined color to be grayscale. This is more accurate than setting S=0. Always applied last.

Here is a side-by-side comparison of a single system color modified using the available modifiers:



Select



Select L=75



Select L=75 C



Select L=75 C S=100

Here are the same values as above but with the grayscale modifier applied.



Select G



Select L=75 G



Select L=75 C G



Select L=75 C S=100 G

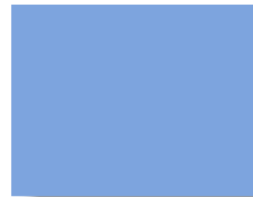
Any modifier that can be set to a value, such as the Luminance modifier, can be set to a *relative* value as well. Do this by using the += or the -= operators. The += operator increases the attribute while the -= decreases it. Let's use Luminance as an example:



Select



Select L=20



Select L+=20



Select L-=20

*For convenience, color modifiers can also be applied to Static colors as well.*

## Auto Values

Color properties can also receive three other string values: "Auto", "None", and "Transparent". The "Auto" value sets the color property to its default value, which is decided by the OLE control. The "None" value is accepted by some Color properties to specify no color. The results of these values depend on the OLE control's implementation.

The "Transparent" value is similar to "None" in that it represents no color, however, while "None" will be interpreted by some controls as don't-draw-anything, "Transparent" will be interpreted as draw something invisible. For example, when using swatches in the Tree control, "None" means no swatch whereas "Transparent" means an invisible swatch. This is useful for making sure tree items still line up but leaving empty spaces for items with no swatch.

Additionally, The [Color Fill](#) technology can accept "Transparent" as one of the colors in a gradient, thus allowing you to fade a color into nothing for some interesting effects.

In all cases unrecognized or Null values are treated as "Auto" values.

## See Also

[Formatted String](#), [Color Fill](#)