

# ColorHelper

ColorHelper creates many procedures that output lists to make it a little easier to play around with the Extended Colors of Logo. With 138 colors to choose from, sometimes it can be difficult to decide which one to use.



Suppose you want a green color but not the standard green. You can do PICK GREENS to get a random choice of 19 shades of green. ColorHelper defines 10 different shade groups to pick from. If you need a dark color, you can get one with PICK DARKS. ColorHelper defines 7 intensity groups (based on the prefix of the color name).

You can always pick a color with PICK COLORS to get a random choice of the 138 Extended Colors.

And you can always use the full range of colors by using the RGB triplet representation.

An example demonstration package called ColorPlay is available for download. It uses ColorHelper to show the colors in a variety of ways ... simple displays, optical illusions, animations and a puzzle.



[Demonstration package using ColorHelper.](#)

```
; This file creates many different lists to work the colors in Logo 4

; The built-in COLORS list is in alphabetical order
; The Toolbox Colors panel is in gradient groupings by shades
; The sequence of color indexes uses 0-15 for backward compatibility followed by the
rest of the colors in alphabetical order

; COLORS outputs the list of color names in alphabetical order (built-in command).
; COLORSN outputs the companion list of indexes for COLORS.
; COLORSI outputs the list of color names in the index number order.
; COLORGIN outputs the companion list of index numbers for COLORSI. (silly, but
consistent)
; COLORSG outputs the list of color names in the gradient grouping as they are appear
in the Toolbox/Colors panel.
; COLORSGN outputs the companion list of index numbers for COLORSG

; SHADE outputs the list of each shade name (PINK, RED, etc.)
; SHADEN outputs the companion list of index numbers for SHADE
; SHADES outputs the list of names of each shade list (PINKS, REDS, etc.)
; <shade>S outputs the list of color names for that shade
; <shade>SN outputs the companion list of index numbers for <shade>S
;
; INTENSITY outputs the list of intensity prefixes (DARK, DEEP, DIM, etc.)
; INTENSITIES outputs the list of names of each intensity list (DARKS, DEEPS, etc.)
; <intensity>S outputs the list of color names for that intensity
; <intensity>SN outputs the companion list of index numbers for <intensity>S

TO COLORSN
  OUTPUT [16 17 18 19 20 21 0 22 9 23 24 25 26 27 28 29 30 31 32 11 33 34 35 36 37 38
39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 8 2 61 62 63 64 65 66
67 68 69 70 71 72 73 74 75 7 76 77 78 79 80 81 82 83 10 84 85 13 4 86 87 88 89 90 91 92
93 94 95 96 97 98 99 1 100 6 101 102 103 104 105 106 107 108 109 110 111 112 113 114 5
12 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 3 131 132 133 134
135 15 136 14 137]
END
```

TO COLORSI

OUTPUT [BLACK NAVY GREEN TEAL MAROON PURPLE OLIVE LIGHTGRAY GRAY BLUE LIME CYAN RED  
MAGENTA YELLOW WHITE ALICEBLUE ANTIQUEWHITE AQUAMARINE AZURE BEIGE BISQUE  
BLANCHEDALMOND BLUEVIOLET BROWN BURLYWOOD CADETBLUE CHARTREUSE CHOCOLATE CORAL  
CORNFLOWERBLUE CORNSILK CRIMSON DARKBLUE DARKCYAN DARKGOLDENROD DARKGRAY DARKGREEN  
DARKKHAKI DARKMAGENTA DARKOLIVEGREEN DARKORANGE DARKORCHID DARKRED DARKSALMON  
DARKSEAGREEN DARKSLATEBLUE DARKSLATEGRAY DARKTURQUOISE DARKVIOLET DEEPPINK DEEPSKYBLUE  
DIMGRAY DODGERBLUE FIREBRICK FLORALWHITE FORESTGREEN GAINSBORO GHOSTWHITE GOLD  
GOLDENROD GREENYELLOW HONEYDEW HOTPINK INDIANRED INDIGO IVORY KHAKI LAVENDER  
LAVENDERBLUSH LAWNGREEN LEMONCHIFFON LIGHTBLUE LIGHTCORAL LIGHTCYAN  
LIGHTGOLDENRODYELLOW LIGHTGREEN LIGHTPINK LIGHTSALMON LIGHTSEAGREEN LIGHTSKYBLUE  
LIGHTSLATEGRAY LIGHTSTEELBLUE LIGHTYELLOW LIMEGREEN LINEN MEDIUMAQUAMARINE MEDIUMBLUE  
MEDIUMORCHID MEDIUMPURPLE MEDIUMSEAGREEN MEDIUMSLATEBLUE MEDIUMSPRINGGREEN  
MEDIUMTURQUOISE MEDIUMVIOLETRED MIDNIGHTBLUE MINTCREAM MISTYROSE MOCCASIN NAVAJOWHITE  
OLDLACE OLIVEDRAB ORANGE ORANGERED ORCHID PALEGOLDENROD PALEGREEN PALETURQUOISE  
PALEVIOLETRED PAPAYAWHIP PEACHPUFF PERU PINK PLUM POWDERBLUE ROSYBROWN ROYALBLUE  
SADDLEBROWN SALMON SANDYBROWN SEAGREEN SEASHELL SIENNA SILVER SKYBLUE SLATEBLUE  
SLATEGRAY SNOW SPRINGGREEN STEELBLUE TAN THISTLE TOMATO TURQUOISE VIOLET WHEAT  
WHITESMOKE YELLOWGREEN]  
END

TO COLOR SIN

OUTPUT [0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27  
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56  
57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85  
86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110  
111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132  
133 134 135 136 137]  
END

TO COLORSG

OUTPUT [PINK LIGHTPINK HOTPINK DEEPPINK PALEVIOLETRED MEDIUMVIOLETRED LIGHTSALMON  
SALMON DARKSALMON LIGHTCORAL INDIANRED CRIMSON FIREBRICK DARKRED RED ORANGERED TOMATO  
CORAL DARKORANGE ORANGE YELLOW LIGHTYELLOW LEMONCHIFFON LIGHTGOLDENRODYELLOW PAPAYAWHIP  
MOCCASIN PEACHPUFF PALEGOLDENROD KHAKI DARKKHAKI GOLD CORNSILK BLANCHEDALMOND BISQUE  
NAVAJOWHITE WHEAT BURLYWOOD TAN ROSYBROWN SANDYBROWN GOLDENROD DARKGOLDENROD PERU  
CHOCOLATE SADDLEBROWN SIENNA BROWN MAROON DARKOLIVEGREEN OLIVE OLIVEDRAB YELLOWGREEN  
LIMEGREEN LIME LAWNGREEN CHARTREUSE GREENYELLOW SPRINGGREEN MEDIUMSPRINGGREEN  
LIGHTGREEN PALEGREEN DARKSEAGREEN MEDIUMSEAGREEN SEAGREEN FORESTGREEN GREEN DARKGREEN  
MEDIUMAQUAMARINE CYAN LIGHTCYAN PALETURQUOISE AQUAMARINE TURQUOISE MEDIUMTURQUOISE  
DARKTURQUOISE LIGHTSEAGREEN CADETBLUE DARKCYAN TEAL LIGHTSTEELBLUE POWDERBLUE LIGHTBLUE  
SKYBLUE LIGHTSKYBLUE DEEPSKYBLUE DODGERBLUE CORNFLOWERBLUE STEELBLUE ROYALBLUE BLUE  
MEDIUMBLUE DARKBLUE NAVY MIDNIGHTBLUE LAVENDER THISTLE PLUM VIOLET ORCHID MAGENTA  
MEDIUMORCHID MEDIUMPURPLE BLUEVIOLET DARKVIOLET DARKORCHID DARKMAGENTA PURPLE INDIGO  
DARKSLATEBLUE SLATEBLUE MEDIUMSLATEBLUE WHITE SNOW HONEYDEW MINTCREAM AZURE ALICEBLUE  
GHOSTWHITE WHITESMOKE SEASHELL BEIGE OLDLACE FLORALWHITE IVORY ANTIQUEWHITE LINEN  
LAVENDERBLUSH MISTYROSE GAINSBORO LIGHTGRAY SILVER DARKGRAY GRAY DIMGRAY LIGHTSLATEGRAY  
SLATEGRAY DARKSLATEGRAY BLACK]  
END

TO COLORSGN

OUTPUT [112 77 63 50 108 94 78 118 44 73 64 32 54 43 12 103 132 29 41 102 14 83 71  
75 109 98 110 105 67 38 59 31 22 21 99 135 25 130 115 119 60 35 111 28 117 122 24 4 40  
6 101 137 84 10 70 27 61 128 92 76 106 45 90 120 56 2 37 86 11 74 107 18 133 93 48 79  
26 34 3 82 114 72 124 80 51 53 30 129 116 9 87 33 1 95 68 131 113 134 104 13 88 89 23  
49 42 39 5 65 46 125 91 15 127 62 96 19 16 58 136 121 20 100 55 66 17 85 69 97 57 7 123  
36 8 52 81 126 47 0]  
END

TO BLUES

OUTPUT [LIGHTSTEELBLUE POWDERBLUE LIGHTBLUE SKYBLUE LIGHTSKYBLUE DEEPSKYBLUE

```
DODGERBLUE CORNFLOWERBLUE STEELBLUE ROYALBLUE BLUE MEDIUMBLUE DARKBLUE NAVY
MIDNIGHTBLUE]
END

TO BLUESN
  OUTPUT [82 114 72 124 80 51 53 30 129 116 9 87 33 1 95]
END

TO YELLOWS
  OUTPUT [YELLOW LIGHTYELLOW LEMONCHIFFON LIGHTGOLDENRODYELLOW PAPAYAWHIP MOCCASIN
PEACHPUFF PALEGOLDENROD KHAKI DARKKHAKI GOLD]
END

TO YELLOWSN
  OUTPUT [14 83 71 75 109 98 110 105 67 38 59]
END

TO PURPLES
  OUTPUT [LAVENDER THISTLE PLUM VIOLET ORCHID MAGENTA MEDIUMORCHID MEDIUMPURPLE
BLUEVIOLET DARKVIOLET DARKORCHID DARKMAGENTA PURPLE INDIGO DARKSLATEBLUE SLATEBLUE
MEDIUMSLATEBLUE]
END

TO PURPLESN
  OUTPUT [68 131 113 134 104 13 88 89 23 49 42 39 5 65 46 125 91]
END

TO GREENS
  OUTPUT [DARKOLIVEGREEN OLIVE OLIVEDRAB YELLOWGREEN LIMEGREEN LIME LAWNGREEN
CHARTREUSE GREENYELLOW SPRINGGREEN MEDIUMSPRINGGREEN LIGHTGREEN PALEGREEN DARKSEAGREEN
MEDIUMSEAGREEN SEAGREEN FORESTGREEN GREEN DARKGREEN]
END

TO GREENSN
  OUTPUT [40 6 101 137 84 10 70 27 61 128 92 76 106 45 90 120 56 2 37]
END

TO REDS
  OUTPUT [LIGHTSALMON SALMON DARKSALMON LIGHTCORAL INDIANRED CRIMSON FIREBRICK
DARKRED RED ORANGERED TOMATO CORAL DARKORANGE ORANGE]
END

TO REDSN
  OUTPUT [78 118 44 73 64 3254 43 12 103 132 29 41 102]
END

TO WHITES
  OUTPUT [WHITE SNOW HONEYDEW MINTCREAM AZURE ALICEBLUE GHOSTWHITE WHITESMOKE
SEASHELL BEIGE OLDLACE FLORALWHITE IVORY ANTIQUEWHITE LINEN LAVENDERBLUSH MISTYROSE]
END

TO WHITESN
  OUTPUT [15 127 62 96 19 16 58 136 121 20 100 55 66 17 85 69 97]
END

TO GRAYS
  OUTPUT [GAINSBORO LIGHTGRAY SILVER DARKGRAY GRAY DIMGRAY LIGHTSLATEGRAY SLATEGRAY
DARKSLATEGRAY BLACK]
END

TO GRAYSN
  OUTPUT [57 7 123 36 8 52 81 126 47 0]
```

END

TO CYANS

OUTPUT [MEDIUMAQUAMARINE CYAN LIGHTCYAN PALETURQUOISE AQUAMARINE TURQUOISE  
MEDIUMTURQUOISE DARKTURQUOISE LIGHTSEAGREEN CADETBLUE DARKCYAN TEAL]  
END

TO CYANSN

OUTPUT [86 11 74 107 18 133 93 48 79 26 34 3]  
END

TO BROWNS

OUTPUT [CORNSILK BLANCHEDALMOND BISQUE NAVAJOWHITE WHEAT BURLYWOOD TAN ROSYBROWN  
SANDYBROWN GOLDENROD DARKGOLDENROD PERU CHOCOLATE SADDLEBROWN SIENNA BROWN MAROON]  
END

TO BROWNSN

OUTPUT [31 22 21 99 135 25 130 115 119 60 35 111 28 117 122 24 4]  
END

TO PINKS

OUTPUT [PINK LIGHTPINK HOTPINK DEEPPINK PALEVIOLETRED MEDIUMVIOLETRED]  
END

TO PINKSN

OUTPUT [112 77 63 50 108 94]  
END

TO SHADES

OUTPUT [PINKS REDS YELLOWS BROWNS GREENS CYANS BLUES PURPLES WHITES GRAYS]  
END

TO SHADE

OUTPUT [PINK RED YELLOW BROWN GREEN CYAN BLUE PURPLE WHITE GRAY]  
END

TO SHADEN

OUTPUT [112 78 14 31 40 86 82 68 15 57]  
END

TO INTENSITY

OUTPUT [DARK DEEP DIM HOT LIGHT MEDIUM PALE]  
END

TO INTENSITIES

OUTPUT [DARKS DEEPS DIMS HOTS LIGHTS MEDIUMS PALES]  
END

TO DARKS

OUTPUT [DARKBLUE DARKCYAN DARKGOLDENROD DARKGRAY DARKGREEN DARKKHAKI DARKMAGENTA  
DARKOLIVEGREEN DARKORANGE DARKORCHID DARKRED DARKSALMON DARKSEAGREEN DARKSLATEBLUE  
DARKSLATEGRAY DARKTURQUOISE DARKVIOLET]  
END

TO DARKSN

OUTPUT [33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49]  
END

TO DEEPS

OUTPUT [DEEPPINK DEEPSKYBLUE]  
END

```

TO DEEPSN
  OUTPUT [50 51]
END

TO DIMS
  OUTPUT [DIMGRAY]
END

TO DIMSN
  OUTPUT [52]
END

TO HOTS
  OUTPUT [HOTPINK]
END

TO HOTSN
  OUTPUT [63]
END

TO LIGHTS
  OUTPUT [LIGHTBLUE LIGHTCORAL LIGHTCYAN LIGHTGOLDENRODYELLOW LIGHTGRAY LIGHTGREEN
  LIGHTPINK LIGHTSALMON LIGHTSEAGREEN LIGHTSKYBLUE LIGHTSLATEGRAY LIGHTSTEELBLUE
  LIGHTYELLOW]
END

TO LIGHTSN
  OUTPUT [72 73 74 75 76 77 78 79 80 81 82 83]
END

TO MEDIUMSN
  OUTPUT [86 87 88 89 90 91 92 93 94]
END

TO MEDIUMS
  OUTPUT [MEDIUMAQUAMARINE MEDIUMBLUE MEDIUMORCHID MEDIUMPURPLE MEDIUMSEAGREEN
  MEDIUMSLATEBLUE MEDIUMSPRINGGREEN MEDIUMTURQUOISE MEDIUMVIOLETRED]
END

TO PALES
  OUTPUT [PALEGOLDENROD PALEGREEN PALETURQUOISE PALEVIOLETRED]
END

TO PALESN
  OUTPUT [105 106 107 108]
END

BURY [COLORSN COLORSI COLORSIN COLORSG COLORSGN SHADE SHADEN SHADES INTENSITY
INTENSITIES]
FOREACH SHADES [BURY "? BURY WORD "? "N]
FOREACH INTENSITY [BURY WORD "? "S BURY WORD "? "SN]

```

## Procedure:

COLORSN, COLORSG, SHADES, GREENS

## Description:

A set of procedures to help you play around with the Extended Colors.

## Level:

Beginner

## Compatible:

Logo 4, Logo 5

Tags:

Colors, Utility