

**Palette**

<b>COLLABORATORS</b>
----------------------

	<i>TITLE :</i> Palette		
<i>ACTION</i>	<i>NAME</i>	<i>DATE</i>	<i>SIGNATURE</i>
WRITTEN BY		August 26, 2024	

<b>REVISION HISTORY</b>
-------------------------

NUMBER	DATE	DESCRIPTION	NAME

# Contents

<b>1</b>	<b>Palette</b>	<b>1</b>
1.1	Palette . . . . .	1
1.2	asyncfade . . . . .	1
1.3	asyncfadestatus . . . . .	2
1.4	fade . . . . .	2
1.5	freepalette . . . . .	2
1.6	initpalette . . . . .	3
1.7	loadpalette . . . . .	3
1.8	red . . . . .	3
1.9	green . . . . .	3
1.10	blue . . . . .	4
1.11	createpalette . . . . .	4
1.12	rgb . . . . .	4
1.13	nbcour . . . . .	4
1.14	palrgb . . . . .	4
1.15	getscreenpalette . . . . .	5
1.16	getpicturepalette . . . . .	5
1.17	displaypalette . . . . .	5
1.18	usepalette . . . . .	5
1.19	fadeout . . . . .	5

# Chapter 1

## Palette

### 1.1 Palette

PureBasic 'Palette' library

Palette are very important for all displayed elements. There are very good supported and you can do almost everything you need. Special functions like very fast fading routines allow you to achieve very good effects.

Commands summary:

- Blue
- CreatePalette
- DisplayPalette
- FreePalette
- Fade
- FadeOut
- GetPicturePalette
- GetScreenPalette
- Green
- InitPalette
- LoadPalette
- NbColour
- PalRrgb
- Red
- Rgb
- UsePalette

Example:

Fading workbench

### 1.2 asyncfade

SYNTAX

ASyncFade(#Palettet1, #Palette2, Step, NbLoop, ScreenID)

#### STATEMENT

Same as `NFade()` routine, but doesn't halt the program. The fade is executed in the background.

You can use `NAsyncStatus()` to find out if the background fade is finished or not.

## 1.3 asyncfadestatus

#### SYNTAX

```
Result.b = ASyncFadeStatus
```

#### STATEMENT

Return '-1' if the Fade is still running or '0' if the fade has finished.

Example:

```
Repeat                ; Typical loop to wait for the end
  NVWait              ; of the background fade.
Until NASyncStatus = 0 ;
```

## 1.4 fade

#### SYNTAX

```
Fade(#Palette1, #Palette2, ScreenID, Step, NbLoop)
```

#### STATEMENT

Do a nice fade between the two palettes. The palettes must have the same number of colours or it could crash. Step controls the speed of the Fade (1 is the fastest, >1 numbers will slow down the fade speed). NbLoop controls how many loops the Fade must do before exiting. By default the Fade ALWAYS executes 255 loops. So you can adjust it manually (ie: with a Step of 2, you should use an NbLoop of 255/2 +-= 127)

This function is optimized for speed, and gives very good results on any Amigas (020 recommended though), with high-coloured screens (upto 256 colours).

## 1.5 freepalette

#### SYNTAX

```
FreePalette(#Palette)
```

#### STATEMENT

Free the memory allocated to the given #Palette.

## 1.6 initpalette

### SYNTAX

```
result.l = InitPalette(#NumPaletteMax)
```

### FUNCTION

Init all the Palette environments for later use. You must put this function at the top of your source code if you want to use the Palette commands.

#NumPaletteMax : Maximum number of Palettes to handle.

## 1.7 loadpalette

### SYNTAX

```
Result.l = LoadPalette(#Palette, FileName$)
```

### FUNCTION

Load an palette from a standard IFF file (picture, brush or single palette are all supported). The palette is initialized with the value found inside the file. If the palette has been correctly loaded, the 'Result' value is positive (ie: > 0), else an error has happened:

Possible 'Result' values:

- 1 : File not found
- 2 : Not an IFF File
- 3 : Palette information not found in this IFF file

## 1.8 red

### SYNTAX

```
Red.w = Red(ColourIndex)
```

### FUNCTION

Return the Red value of the colour found in the current palette.  
Returned value is always between 0 and 255.

## 1.9 green

### SYNTAX

```
Green.w = Green(ColourIndex)
```

### FUNCTION

Return the Green value of the colour found in the current palette.  
Returned value is always between 0 and 255.

---

## 1.10 blue

### SYNTAX

```
Blue.w = Blue(ColourIndex)
```

### FUNCTION

Return the Blue value of the colour found in the current palette.  
Returned value is always between 0 and 255.

## 1.11 createpalette

### SYNTAX

```
res.l = CreatePalette(#Palette, NbColour)
```

### COMMAND

Tries to create a new palette with given argument. The size, in memory, taken by a palette object can be calculated like this:  
Size (in bytes) = NbColours \* 12 + 12

The created palette is ready to use and filled with colour 0.

## 1.12 rgb

### SYNTAX

```
Rgb(ScreenID, ColourIndex, R, G, B)
```

### STATEMENT

Change directly the RGB value of a colour in the given Screen.

## 1.13 nbcolour

### SYNTAX

```
Result.l = NbColour
```

### STATEMENT

Returns the number of colour of currently used palette.

## 1.14 palrgb

### SYNTAX

```
PalRgb(ColourIndex, R, G, B)
```

### STATEMENT

Change the RGB value of a colour in the current palette.

---

## 1.15 getscreenpalette

### SYNTAX

```
res.l = GetScreenPalette(#Palette, ScreenID)
```

### COMMAND

Tries to create a new palette and fill it with screen colour information.  
If res = 0 the palette could not be created.

## 1.16 getpicturepalette

### SYNTAX

```
res.l = GetPicturePalette(#Palette, PictureID)
```

### COMMAND

Tries to create a new palette and fill it with picture colour information.  
If res = 0 the palette could not be created.

PictureID is a pointer to an IFF/ILBM file in memory.

## 1.17 displaypalette

### SYNTAX

```
DisplayPalette(#Palette, ScreenID)
```

### STATEMENT

Display the given #Palette on the screen.

## 1.18 usepalette

### SYNTAX

```
UsePalette(#Palette)
```

### STATEMENT

Change the current Palette to the given #Palette.

## 1.19 fadeout

### SYNTAX

```
FadeOut(#Palette, Step, NbLoop, ScreenID)
```

### STATEMENT

It will display a very nice fade out from the given palette.  
The palette WILL be modified (at the end of the fading, the palette will be completely black). The fadeout speed can be controlled with the 'Step' parameter.



If Step = 1 then the fading will be smooth and take 1 vwait  
before fading the next frame  
If Step = 2 fading will be 2 times faster than Step 1 ...

NbLoop is used to fade partially a screen:

If NbLoop = 255, the whole screen will be black at end, because  
with 255 loops, the fadeout is complete

If NbLoop = 50, after 50 loop the FadeOut will stop. Test it  
to understand better :)

This routine is optimized for speed and gives excellent results  
even on small Amiga. And more, it's fully system-friendly (no  
hardware bang...) so works on GFX card too ! It's better to use  
this routine than the Fade() to do standard Fade Out..