

```
//
//  GRGradientFrameView : FrameView
//
//  By Anders Bertelrud
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//
```

```
#import <math.h>
#import <dpsclient/psops.h>
#import <defaults/defaults.h>
#import <appkit/Application.h>
#import "GRGradientFunctions.h"
#import "GRGradientFrameView.h"
```

```
//
//  Names of defaults strings
//
#define      GRGradientTitleBarsEnabled      "GRGradientTitleBarsEnabled"
#define      GRGradientTitleBarHue          "GRGradientTitleBarHue"
#define      GRGradientTitleBarSaturation    "GRGradientTitleBarSaturation"
```

```
//
//  GRGradientFrameView class
//
@implementation GRGradientFrameView
```

```
// Class globals
static float  GRGradientHue = .666667;           // Hue used for gradient
static float  GRMenuSaturation = 0.5;           // Saturation for menus
static float  GRKeyWindowSaturation = 0.5;      // - " -   for key window
static float  GRMainWindowSaturation = 0.25;    //   - " -   for main window
```

```
static float      GROtherWindowSaturation = 0.0;           //  - " -  for all other windows
```

```
+ (void)install
{
    [self poseAs:[FrameView self]];
}
```

```
+ (void)installIfAppropriate
{
    const char *    enabledValue;

    enabledValue = NXGetDefaultValue([NXApp appName], GRGradientTitleBarsEnabled);
    if (enabledValue && strcmp(enabledValue, "Yes") == 0)
        [self install];
}
```

```
+ initialize
{
    if (self == [GRGradientFrameView self])
    {
        NXDefaultsVector    titleBarDefaults = {
                                {GRGradientTitleBarsEnabled, "NO"},
                                {GRGradientTitleBarHue, "0.6666667"},
                                {GRGradientTitleBarSaturation, "0.5"},
                                {NULL}
                            };

        const char *        huePreference;
        const char *        saturationPreference;

        // Register defaults.
        NXRegisterDefaults([NXApp appName], titleBarDefaults);
    }
}
```

```

// Get hue and saturation constants from the defaults database.
huePreference = NXGetDefaultValue([NXApp appName], GRGradientTitleBarHue);
if (huePreference && huePreference[0])
    GRGradientHue = atof(huePreference);
saturationPreference = NXGetDefaultValue([NXApp appName], GRGradientTitleBarSaturation);
if (saturationPreference && saturationPreference[0])
{
    GRMenuSaturation = atof(saturationPreference) * 1.0;
    GRKeyWindowSaturation = atof(saturationPreference) * 1.0;
    GRMainWindowSaturation = atof(saturationPreference) * 0.5;
    GROtherWindowSaturation = atof(saturationPreference) * 0.0;
}
}
return self;
}

```

```

static inline void GRClipRectFill (NXRect * origRect, const NXRect * visRect)
// When this function is compiled with -O optimization, the compiler generates assembly
// code identical to NeXT's private ClipRectFill.
{
    if (NXIntersectionRect(visRect, origRect))
        NXRectFill(origRect);
}

```

```

static inline void GRClipFrameRect (NXRect * origRect, const NXRect * visRect)
// When this function is compiled with -O optimization, the compiler generates assembly
// code identical to NeXT's private ClipFrameRect.
{
    NXRect    r = *origRect;
    NXRect    sliceRect;

    if (NXContainsRect(visRect, &r))
        NXFrameRect(&r);
}

```

```

else
{
    register int i;

    for (i = NX_XMIN; i <= NX_YMAX; i++)
    {
        NXDivideRect(&r, &sliceRect, 1.0, i);
        GRClipRectFill(&sliceRect, visRect);
    }
}

static void _GRDrawTitleBar (id self, NXRect titleBarRect, const NXRect * visRect,
                             float saturation, float startBrightness, float endBrightness,
                             float titleGray, BOOL menuStyle)
{
    NXRect          sliceRect;

    // Rita ramen.
    if (menuStyle)
    {
        // Rita övre och vänstra kanten.
        PSsetgray(NX_DKGRAY);
        NXDivideRect(&titleBarRect, &sliceRect, 1, NX_XMIN);
        GRClipRectFill(&sliceRect, visRect);
        NXDivideRect(&titleBarRect, &sliceRect, 1, NX_YMAX);
        GRClipRectFill(&sliceRect, visRect);

        // Rita nedre och högra kanten.
        PSsetgray(NX_BLACK);
        NXDivideRect(&titleBarRect, &sliceRect, 1, NX_XMAX);
        GRClipRectFill(&sliceRect, visRect);
        NXDivideRect(&titleBarRect, &sliceRect, 1, NX_YMIN);
        GRClipRectFill(&sliceRect, visRect);
    }
}

```

```

}
else
{
    PSsetgray(NX_BLACK);
    GRClipFrameRect(&titleBarRect, visRect);
    NXInsetRect(&titleBarRect, 1, 1);
}

```

// Rita övre och vänstra kanten.

```

PSsethsbcolor(GRGradientHue, saturation * .5, .8);
NXDivideRect(&titleBarRect, &sliceRect, 1, NX_XMIN);
GRClipRectFill(&sliceRect, visRect);
NXDivideRect(&titleBarRect, &sliceRect, 1, NX_YMAX);
GRClipRectFill(&sliceRect, visRect);

```

// Rita nedre och högra kanten.

```

PSsethsbcolor(GRGradientHue, saturation, .2);
NXDivideRect(&titleBarRect, &sliceRect, 1, NX_XMAX);
GRClipRectFill(&sliceRect, visRect);
NXDivideRect(&titleBarRect, &sliceRect, 1, NX_YMIN);
GRClipRectFill(&sliceRect, visRect);

```

// Rita gradienten.

```

GRDrawHSBGradient(titleBarRect, GRGradientHue, saturation, startBrightness, endBrightness);

```

// Rita titeln.

```

[self _drawTitleStringIn:visRect withColor:titleGray];

```

```

}

```

- \_drawTitledFrame:(const NXRect \*)rectangles :(int)nrRectangles

```

{
    const NXCoord titleBarHeight = 23;
    const NXRect * visRect = rectangles;
    NXRect          titleBarRect, r;
    NXRect          restOfWindowRect;

```

```

restOfWindowRect = bounds;
NXDivideRect(&restOfWindowRect, &titleBarRect, titleBarHeight, NX_YMAX);
r = titleBarRect;
if (NXIntersectionRect(visRect, &r))
{
    if ([window isKeyWindow])
        _GRDrawTitleBar(self, titleBarRect, &rectangles[0], GRKeyWindowSaturation,
            .2, .5, NX_WHITE, NO);
    else if ([window isMainWindow])
        _GRDrawTitleBar(self, titleBarRect, &rectangles[0], GRMainWindowSaturation,
            .2, .5, NX_WHITE, NO);
    else
        _GRDrawTitleBar(self, titleBarRect, &rectangles[0], GROtherWindowSaturation,
            .4, .7, NX_BLACK, NO);
}
[super _drawTitledFrame:&restOfWindowRect :1];
return self;
}

```

```

- _drawMenuFrame:(const NXRect *)rectangles :(int)nrRectangles
{
    const NXCoord titleBarHeight = 23;
    const NXRect * visRect = rectangles;
    NXRect          titleBarRect, r;
    NXRect          restOfWindowRect;

    restOfWindowRect = bounds;
    NXDivideRect(&restOfWindowRect, &titleBarRect, titleBarHeight, NX_YMAX);
    r = titleBarRect;
    if (NXIntersectionRect(visRect, &r))
    {
        _GRDrawTitleBar(self, titleBarRect, &rectangles[0], GRMenuSaturation, .2, .5, NX_WHITE,
            YES);
    }
}

```

```
[super _drawMenuFrame:&restOfWindowRect :1];  
return self;
```

```
}
```

```
@end
```