

XcmsColor, XcmsRGB, XcmsRGBi, XcmsCIEXYZ, XcmsCIEuvY, XcmsCIExyY, XcmsCIELab, XcmsCIELuv, XcmsTekHVC, XcmsPad – Xcms color structure

The structure for **XcmsColor** contains:

```
typedef unsigned long XcmsColorFormat; /* Color Specification Format */
```

```
typedef struct {
    union {
        XcmsRGB RGB;
        XcmsRGBi RGBi;
        XcmsCIEXYZ CIEXYZ;
        XcmsCIEuvY CIEuvY;
        XcmsCIExyY CIExyY;
        XcmsCIELab CIELab;
        XcmsCIELuv CIELuv;
        XcmsTekHVC TekHVC;
        XcmsPad Pad;
    } spec;
    unsigned long pixel;
    XcmsColorFormat format;
} XcmsColor; /* Xcms Color Structure */
```

```
typedef double XcmsFloat;
```

```
typedef struct {
    unsigned short red; /* 0x0000 to 0xffff */
    unsigned short green; /* 0x0000 to 0xffff */
    unsigned short blue; /* 0x0000 to 0xffff */
} XcmsRGB; /* RGB Device */
```

```
typedef struct {
    XcmsFloat red; /* 0.0 to 1.0 */
    XcmsFloat green; /* 0.0 to 1.0 */
    XcmsFloat blue; /* 0.0 to 1.0 */
} XcmsRGBi; /* RGB Intensity */
```

```
typedef struct {
    XcmsFloat X;
    XcmsFloat Y; /* 0.0 to 1.0 */
    XcmsFloat Z;
} XcmsCIEXYZ; /* CIE XYZ */
```

```
typedef struct {
    XcmsFloat u_prime; /* 0.0 to ~0.6 */
    XcmsFloat v_prime; /* 0.0 to ~0.6 */
    XcmsFloat Y; /* 0.0 to 1.0 */
} XcmsCIEuvY; /* CIE u'v'Y */
```

```
typedef struct {
    XcmsFloat x; /* 0.0 to ~.75 */
    XcmsFloat y; /* 0.0 to ~.85 */
    XcmsFloat Y; /* 0.0 to 1.0 */
} XcmsCIExyY; /* CIE xyY */
```

```
typedef struct {
    XcmsFloat L_star;          /* 0.0 to 100.0 */
    XcmsFloat a_star;
    XcmsFloat b_star;
} XcmsCIELab;                /* CIE L*a*b* */
```

```
typedef struct {
    XcmsFloat L_star;          /* 0.0 to 100.0 */
    XcmsFloat u_star;
    XcmsFloat v_star;
} XcmsCIELuv;                /* CIE L*u*v* */
```

```
typedef struct {
    XcmsFloat H;              /* 0.0 to 360.0 */
    XcmsFloat V;              /* 0.0 to 100.0 */
    XcmsFloat C;              /* 0.0 to 100.0 */
} XcmsTekHVC;                /* TekHVC */
```

```
typedef struct {
    XcmsFloat pad0;
    XcmsFloat pad1;
    XcmsFloat pad2;
    XcmsFloat pad3;
} XcmsPad;                    /* four doubles */
```

The XcmsColor structure contains a union of substructures, each supporting color specification encoding for a particular color space.

XcmsAllocColor(3X11), XcmsStoreColor(3X11), XcmsConvertColors(3X11),
Xlib – C Language X Interface