

# Types and Constants

The Display PostScript Client Library is composed of system-dependent and a system-independent parts. The *Display PostScript System, Client Library Reference Manual*, by Adobe Systems, Incorporated, provides the specification for the system-independent portion of this library.

The defined types, enumeration constants, and global variables that are part of OpenStep's system-dependent part of the Display PostScript Client Library are listed here.

## Defined Types

### Number Formats

```
typedef enum _DPSNumberFormat {  
#ifdef __BIG_ENDIAN__  
    dps_float = 48,  
    dps_long = 0,  
    dps_short = 32  
#else  
    dps_float = 48+128,  
    dps_long = 0+128,  
    dps_short = 32+128  
#endif  
} DPSNumberFormat;
```

Other permitted values are:

- For 32-bit fixed-point numbers, use **dps\_long** plus the number of bits in the fractional part.
- For 16-bit fixed-point numbers, use **dps\_short** plus the number of bits in the fractional part.

## Backing Store Types

```
typedef enum _NSBackingStoreType {  
    NSBackingStoreRetained,  
    NSBackingStoreNonretained,  
    NSBackingStoreBuffered  
} NSBackingStoreType;
```

## Compositing Operations

```
typedef enum _NSCompositingOperation {  
    NSCompositeClear,  
    NSCompositeCopy,  
    NSCompositeSourceOver,  
    NSCompositeSourceIn,  
    NSCompositeSourceOut,  
    NSCompositeSourceAtop,  
    NSCompositeDataOver,  
    NSCompositeDataIn,
```

```

        NSCompositeDataOut,
        NSCompositeDataAtop,
        NSCompositeXOR,
        NSCompositePlusDarker,
        NSCompositeHighlight,
        NSCompositePlusLighter
    } NSCompositingOperation;

```

## Window Ordering

```

typedef enum _NSWindowOrderingMode {
    NSWindowAbove,
    NSWindowBelow,
    NSWindowOut
} NSWindowOrderingMode;

```

## User Path Operators

These constants define the operator numbers used to construct the operator array parameter of `DPSDoUserPath`.

```

typedef unsigned char DPSUserPathOp;
enum {
    dps_setbbox,
    dps_moveto,
    dps_rmoveto,
    dps_lineto,
    dps_rlineto,
    dps_curveto,
    dps_rcurveto,
    dps_arc,
    dps_arcn,
    dps_arct,
    dps_closepath,
    dps_ucache
};

```

## User Path Actions

These constants define the action of a `DPSDoUserPath`. In addition to the actions defined here, any other system name index may be used. See the *PostScript Language Reference Manual, Second Edition*, by Adobe Systems Incorporated, for a detailed list of system name indexes.

```

typedef enum _DPSUserPathAction {
    dps_uappend,
    dps_ufill,
    dps_ueofill,
    dps_ustroke,
    dps_ustrokepath,
    dps_inufill,
    dps_inueofill,
    dps_inustroke,
    dps_def,
    dps_put
} DPSUserPathAction;

```

# Enumerations

## Special Values for Alpha

```
enum {
    NSAlphaEqualToData,
    NSAlphaAlwaysOne
};
```

## User Object Representing the PostScript Null Object

```
enum {
    DPSNullObject
};
```

# Symbolic Constants

## Error Code Base

```
DPS_OPENSTEP_ERROR_BASE
```

# Global Variables

## Exception Names

```
NSString *DPSPostscriptErrorException;
NSString *DPSNameTooLongException;
NSString *DPSResultTagCheckException;
NSString *DPSResultTypeCheckException;
NSString *DPSInvalidContextException;
NSString *DPSSelectException;
NSString *DPSConnectionClosedException;
NSString *DPSReadException;
NSString *DPSWriteException;
NSString *DPSInvalidFDException;
NSString *DPSInvalidTEException;
NSString *DPSInvalidPortException;
NSString *DPSOutOfMemoryException;
NSString *DPSCantConnectException;
```