NAME

psdraw – Display PostScript sample drawing application

DESCRIPTION

The psdraw **program is a sample Display PostScript drawing application. Once invoked, psdraw** displays a window on which you can draw and manipulate objects and text.

The psdraw window contains three main areas:

Menu Bar Lists the available menus (for example, File, Edit, and Draw).

Objects Palette Lists the available objects that you can select to draw (for example, filled or unfilled rectangles, alpha-numeric text, filled and unfilled circles, filled and unfilled polygons, and filled bazier curved objects).

Drawing Area Contains the main work area that has vertical and horizontal scroll bars..

To draw with psdraw, select an object from the Objects Palette and create its object field in the Drawing Area. Note that the object is automatically highlighted when it is selected. To create the object field, move the mouse to the Drawing Area and press the right button. Note that the object fields for rectangles, text, and circles are created by drawing a rectangular box in the work area with the right button. However, those for polygons and bazier curved objects are created by drawing shapes with points. Note that all points but the last one are created by clicking the right button at appropriate locations in the work area; the last point is created by clicking the left mouse button. Once you have created an object field, psdraw, with the exception of text, automatically draws the the selected object appropriately within the field outline. With text, you can immediately start typing once psdraw displays its object field.

To manipulate a drawn object, select the object by clicking the left mouse button anywhere in its field. Once you have selected the object, you can move, enlarge, or rotate it. To move the object, drag it to the appropriate place in the work area with the left button.. To enlarge the object, move one of the knobs on its object field in the appropriate direction with the left button. To rotate the object, simultaneously press the CTRL key and left button and move the object field in the appropriate direction. Note that the object rotates on its center axis.

MENUS

The Menu bar contains the following pull-down menus:

File
Edit
Draw

In addition, psdraw has one pop-up menu, which combines the items of the Draw and Edit menus and is displayed by pressing the middle mouse button.

File Menu

The File **menu contains the following implemented items:**

Open Displays a file selection dialog box that lets you open a previously psdraw-created file. To view a file in another directory, change the File filter object and press the

Filter pushbutton.

Save Save the selected item in the currently opened file.

Save as Save the selected item in a file whose name you specify in the displayed dialog box.

Quit Exits your current psdraw session.

Edit Menu

The edit **menu contains the following implemented item:**

Delete Deletes the currently selected item or items from the work area.

Draw Menu

The Draw **menu contains the following implemented items:**

Pop to top Pops the currently selected item or items to the surface of the work area so that nothing obscures it.

Push to bottom Pushes the currently selected item or items to the bottom of the work area so that it no longer occludes another item.

Create Property Sheet

Displays the property sheet box for the item currently selected in the work area. Once displayed, the property sheet lets you modify the relevant information about that item. Note that the information displayed in the property sheet varies according to the characteristics of that item.

To make modifications the selected item, make the appropriate change to the relevant input field, check box, or slider and press the apply or done button. The apply button applies the current modifications but leave the property sheet displayed. The done button applies the current modifications and exits the property sheet. To exit the property sheet without making the currently specified changes, press the Cancel button.

Object Definitions

By default, the xdps$examples:PSDrawKinds.dat **file contains definitions for each object in the palatte. To add, delete, or change objects, copy the xdps$examples:PSDrawKinds.dat** file, make the appropriate changes, and add the following psdraw **resource to your PSDraw.dat file.**

PSDraw*KindFile: *file*

The *file* argument specifies your new PSDrawKinds *definition file.*

Each entry in the PSDrawKinds *definition file contains up to four fields of information enclosed in a %%&startkind* and %%&endkind *statement. For example:*

```
%%&startkind    object
%%&startparams
%%&endparams
%%&startprologue
%%&endprologue
%%&starttemplate
%%&endtemplate
%%&startbutton
%%&endbutton
%%&endkind
```

%%&startkind
%%&endkind Specifies the start and end of the given object definition. The *object* is the object definition label.

%%&startparams
%%&endparams Specifies additional entries (one per line) for that object's property sheet. By default, every property sheet contains the following entries:

X location
Y location
Width
Height
Angle
X Scale
Y Scale
Match scale to size changes

The first five entries define the object field rectangle within which that object is drawn. The next three entries are specific to text and indicate if the text is to be scaled (enlongated) along the x axis, y axis, or as the object field is resized, respectively.

Each entry itself contains four fields of information delimited by whitespace. The first field specifies the entry name. The second field specifies the entry type. The third field specifies the default value. The fourth field specifies the descriptive string that is to be displayed in the property sheet. Valid types are:

int Specifies an integer value.

double Specifies a floating point value.

bool Specifies a Boolean value.

string Specifies an arbitrary string.

color Specifies a floating point rgb value.

fontname Specifies the name of the font that is to be used for text.

enum Specifies an enumerated list in the form enum (*string*:*value*[,...]).

slider Specifies the slider range in the form slider (*min*,*max*), where *min* and *max* are the minimum and maximum values in the range, respectively. If integer values are specified for *min* and *max*, only intergers can be used. If floating point values are specified for *min* and *max*, a full floating point range can be used.

Note that a points entry (with no type, default, or descriptive string) can also be specified. If this entry is present, the object field is created by specifying a set of points, not by creating a rectangle.

%&startprologue
%%&endprologue Specifies PostScript code that is executed only once when psdraw is initialized. Note that this field is optional and is generally used to define procedures used by the template.

%%&starttemplate
%%&endtemplate Specifies PostScript code that is used to draw the object. Note that any parameter name preceded by an ampersand (&) must be defined by a parameters field and is automatically replaced by its current value in the object property sheet. The two predefined names that you can specify are &width (the width of the object field rectangle) and &height (the height of the object field rectangle). If a points entry was defined in the parameters field, &points now can be specified, in which case it is replaced with a list of point cordinates in the form delim ## # x sub 1# #y sub 1# #x sub 2# #y sub 2#...#x sub n# #y sub n# *n*.

%%&startbutton
%%&endbutton Specifies PostScript code that is to be used to draw the object icon in the palette. This code should only draw in the rectangle predefined by the coordinates (0,0) and (1,1) and may not refer to any code defined in the prologue.

DISCLAIMER

This application is only intended as a sample demo and should be used as such. It may contain bugs and is not supported in any way.

FILES

xdps$examples:PSDraw.dat

Default application resource file.

xdps$examples:PSDrawCompLib.dat

Compatibility library that allows Display PostScript code to execute on older PostScript interpreters.

xdps$examples:PSDrawKinds.dat

Default ASCII text defintion file.