**NAME**

PEXGDP - 3D Generalized Drawing Primitive

**SYNTAX**

void PEXGDP(Display **display*, XID *resource_id*, PEXOCRequestType *req_type*, long *gdp_id*, unsigned int *count*, PEXCoord **points*, unsigned long *length*, char **data*)

**PARAMETERS**

*display* A pointer to a display structure returned by a successful **XOpenDisplay** call.

*resource_id* The resource identifier of the renderer or structure.

*req_type* The request type for the output command ( **PEXOCRender, PEXOCStore, PEXOCRenderSingle** or **PEXOCStoreSingle** ).

*gdp_id* The identifier of the GDP.

*count* The number of points.

*points* The points used by the GDP.

*length* The length, in bytes, of the data.

*data* Additional data used by the GDP.

**RETURNS**

None

**DESCRIPTION**

This function creates a generalized drawing primitive.

The complete interface and behavior for each GDP identifier should be available with the individual PEX server implementations. There are no standard PEX GDPs. If the specified GDP identifier is not supported, then the output command is ignored. The table below lists the supported GDP identifier.

| GDP Identifier | Description |
|---|---|
| PEXSunGDP3DIdCircle | Circle |
| PEXSunGDP3DIdCircArc | Circular arc |
| PEXSunGDP3DIdCircArcClose | Circular arc close |
| PEXSunGDP3DIdAnnotCircle | Annotation circle |
| PEXSunGDP3DIdAnnotCircArc | Annotation circle arc |
| PEXSunGDP3DIdAnnotCircArcClose | Annotation circle arc close |
| PEXSunGDP3DIdEllipse | Ellipse |
| PEXSunGDP3DIdEllpArc | Elliptical arc |
| PEXSunGDP3DIdEllpArcClose | Elliptical arc close |
| PEXSunGDP3DIdAnnotEllipse | Annotation ellipse |
| PEXSunGDP3DIdAnnotEllpArc | Annotation elliptical arc |
| PEXSunGDP3DIdAnnotEllpArcClose | Annotation elliptical arc close |
| PEXSunGDP3DIdRectGrid | Rectangular grid |
| PEXSunGDP3DIdRadialGrid | Radial grid |
| PEXSunGDP3DIdTriangleList | Triangle list |
| ESGdpSphere | Sphere |
| ESGdpSphereRadius | Sphere with radius |
| ESGdpSphereColour | Sphere with colour |

| GDP Identifier | Description |
|---|---|
| ESGdpSphereRadiusColour | Sphere with radius and colour |
| ESGdpCylinder | Cylinder |
| ESGdpCylinderRadius | Cylinder with radius |
| ESGdpCylinderColour | Cylinder with colour |
| ESGdpCylinderRadiusColour | Cylinder with radius and colour |

## DATA STRUCTURES

See **PEXlib.h.**

## ERRORS

**BadPEXOutputCommand**
The output command contains an invalid value.

**BadPEXRenderer**
The specified renderer resource identifier is invalid.

**BadPEXStructure**
The specified structure resource identifier is invalid.