**NAME**

PEXChangePickDevice – Change Pick Device Attributes

**SYNTAX**

void PEXChangePickDevice(Display **display*, PEXWorkstation *workstation*, int *pick_device_type*, unsigned long *value_mask*, PEXPDAttributes **values*)

**PARAMETERS**

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

*workstation* The resource identifier of the workstation.

*pick_device_type* The pick device type ( **PEXPickDeviceDCHitBox** or **PEXPickDeviceNPCHitVolume** ).

*value_mask* A mask indicating which attributes to return.

*values* A pointer to the pick device attribute values.

**RETURNS**

None

**DESCRIPTION**

This function will modify the attributes of a pick descriptor for the PHIGS *workstation* resource specified. The descriptor to be modified will be the currently-defined descriptor for the pick device of the type specified. Supported pick device types are inquirable via **PEXGetEnumTypeInfo**(3). The value mask indicates which attributes are to be changed. The value mask is constructed by OR'ing together the following constants:

**PEXPDPickStatus**
**PEXPDPickPath**
**PEXPDPickPathOrder**
**PEXPDPickIncl**
**PEXPDPickExcl**
**PEXPDPickDataRec**
**PEXPDPromptEchoType**
**PEXPDEchoVolume**
**PEXPDEchoSwitch**

**DATA STRUCTURES**

```
typedef XID        PEXWorkstation;

typedef struct {
        unsigned short       status;
        PEXPickPath          path;
        int                  path_order;
        PEXNameSet           inclusion;
        PEXNameSet           exclusion;
        PEXPickRecord        pick_record;
        PEXEnumTypeIndex     prompt_echo_type;
        PEXViewport          echo_volume;
        int                  echo_switch;
```

```
} PEXPDAttributes;

typedef struct {
        unsigned long           count;          /* number of elements */
        PEXPickElementRef       *elements;
} PEXPickPath;

typedef struct {
        PEXStructure        sid;
        unsigned long       offset;
        unsigned long       pick_id;
} PEXPickElementRef;

typedef  XID    PEXStructure;

typedef  XID    PEXNameSet;

typedef union {
        PEXPDNPCHitVolume       volume;
        PEXPDDCHitBox           box;
        PEXPickDataRecord       data;
} PEXPickRecord;

typedef  PEXNPCSubVolume    PEXPDNPCHitVolume;

typedef struct {
        PEXCoord    min;
        PEXCoord    max;
} PEXNPCSubVolume;

typedef struct {
        float   x;
        float   y;
        float   z;
} PEXCoord;

typedef struct {
        PEXDeviceCoord2D    position;
        float               distance;
} PEXPDDCHitBox;

typedef struct {
        short   x;
        short   y;
} PEXDeviceCoord2D;
```

```
typedef struct {
        unsigned short      length;       /* number of bytes in record */
        char                *record;
} PEXPickDataRecord;

typedef  short    PEXEnumTypeIndex;

typedef struct {
        PEXDeviceCoord      min;
        PEXDeviceCoord      max;
        PEXSwitch           use_drawable;
        unsigned char       reserved[3];
} PEXViewport;

typedef struct {
        short    x;
        short    y;
        float    z;
} PEXDeviceCoord;

typedef  unsigned char      PEXSwitch;
```

## ERRORS

**BadPEXNameSet**
The specified name set resource identifier is invalid.

**BadPEXPath**
The specified path is invalid.

**BadPEXWorkstation**
The specified *workstation* resource identifier is invalid.

**BadValue**
The specified pick device type is invalid, a specified value is invalid, or an invalid bit set in the value mask.

## SEE ALSO

**PEXGetPickDevice**(3)
**PEXGetEnumTypeInfo**(3)