

**NAME**

**glNormal3b**, **glNormal3d**, **glNormal3f**, **glNormal3i**, **glNormal3s**, **glNormal3bv**, **glNormal3dv**,  
**glNormal3fv**, **glNormal3iv**, **glNormal3sv** – set the current normal vector

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**C SPECIFICATION**

```
void glNormal3b( GLbyte nx,
                  GLbyte ny,
                  GLbyte nz )
void glNormal3d( GLdouble nx,
                  GLdouble ny,
                  GLdouble nz )
void glNormal3f( GLfloat nx,
                  GLfloat ny,
                  GLfloat nz )
void glNormal3i( GLint nx,
                  GLint ny,
                  GLint nz )
void glNormal3s( GLshort nx,
                  GLshort ny,
                  GLshort nz )
```

**PARAMETERS**

*nx*, *ny*, *nz*

Specify the \$x\$, \$y\$, and \$z\$ coordinates of the new current normal. The initial value of the current normal is the unit vector, (0, 0, 1).

**C SPECIFICATION**

```
void glNormal3bv( const GLbyte *v )
void glNormal3dv( const GLdouble *v )
void glNormal3fv( const GLfloat *v )
void glNormal3iv( const GLint *v )
void glNormal3sv( const GLshort *v )
```

**PARAMETERS**

*v*      Specifies a pointer to an array of three elements: the \$x\$, \$y\$, and \$z\$ coordinates of the new current normal.

**DESCRIPTION**

The current normal is set to the given coordinates whenever **glNormal** is issued. Byte, short, or integer arguments are converted to floating-point format with a linear mapping that maps the most positive representable integer value to 1.0, and the most negative representable integer value to -1.0.

Normals specified with **glNormal** need not have unit length. If normalization is enabled, then normals specified with **glNormal** are normalized after transformation. To enable and disable normalization, call **glEnable** and **glDisable** with the argument **GL\_NORMALIZE**. Normalization is initially disabled.

**NOTES**

The current normal can be updated at any time. In particular, **glNormal** can be called between a call to **glBegin** and the corresponding call to **glEnd**.

**ASSOCIATED GETS**

**glGet** with argument **GL\_CURRENT\_NORMAL**  
**glIsEnabled** with argument **GL\_NORMALIZE**

**SEE ALSO**

**glBegin, glColor, glIndex, glNormalPointer, glTexCoord, glVertex**