QUALCOMM®

Binary Runtime Environment for Wireless™

OpenGL® ES Demo 02 Application

brew™

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OpenGL® ES Demo 02 Application

80-V6488-2 A

August 27, 2004

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Introduction

The ogles_demo_02 application is a demonstration of a BREW® application that utilizes the standard OpenGL® ES and EGL graphics APIs. The sample application allows the user to toggle between Multiple Textures mode and Smooth Color Shading mode for a spinning cube. This application shows how to use TGA format images as textures.

Note: The intended target device for this sample application is any BREW device supporting OpenGL ES that has a device screen with at least 16 bits color depth. If you run this application on the Emulator, select a device image that has at least 16 bits for color depth.

ogles_demo_02 specifications

The following table lists the interfaces and controls used in the development of ogles_demo_02 and the set of files you will need to run the application on a handset.

ogles_demo_02 specifications

Interfaces used	Controls used	Files needed on handset
IBitmap	None	ogles_demo_02.bar
IDisplay		ogles_demo_02.mif
IEGL		ogles_demo_02.mod
IFile		ogles_demo_02.sig
IFileMgr		ogles_demo_02_t0.tga
IGL		ogles_demo_02_t1.tga
IShell		ogles_demo_02_t2.tga
		ogles_demo_02_t3.tga

Revision history

The revision history for this document is shown in the following table.

Revision history

Version	Date	Description
A	Aug 2004	Initial release

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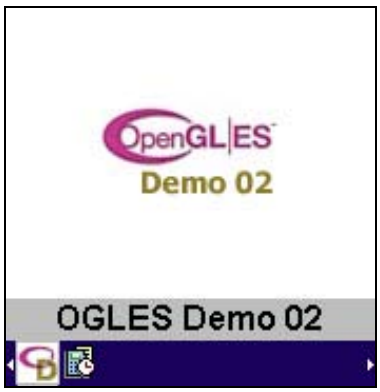
Running ogles_demo_02 on the BREW SDK™

Before exploring the underlying code that makes ogles_demo_02 work, take a look at the application from the user's perspective; i.e., how it works on a handset.

To run ogles_demo_02

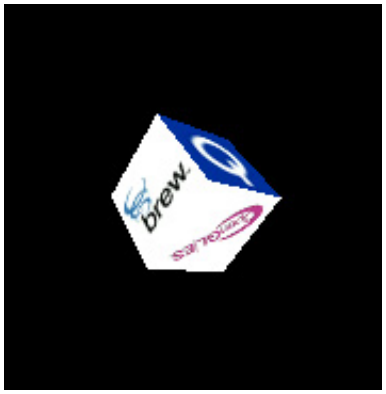
1. Run the BREW Emulator and ensure that the MIF Directory setting is pointing to <BREW\Examples>.
2. Choose the ogles_demo_02 application.

   BREW loads the ogles_demo_02 applet DLL and starts the application. A splash screen, similar to the following, appears.



Splash screen

After the splash screen appears, a spinning cube option screen, similar to the following, appears.



Cube option screen

3. In the application, you can press keys to perform the functions listed in the following table.

Cube option functions

Press this key	To do this
Left arrow	Spin the cube toward west; the cube exits auto-spin mode
Right arrow	Spin the cube toward east; the cube exits auto-spin mode
Up arrow	Spin the cube toward north; the cube exits auto-spin mode
Down arrow	Spin the cube toward south; the cube exits auto-spin mode
Enter	Resume auto-spin mode
1	Single texture appears on all six faces of the cube
2	Different textures appear on different faces of the cube
3	No texture appears; smooth color shading appears on different faces of the cube

4. To stop the applet at any time, press **End**.

What ogles_demo_02 demonstrates

The ogles_demo_02 application demonstrates how to create a BREW application that utilizes the standard OpenGL ES and EGL graphics APIs. The application displays a simple cube and demonstrates the following:

- Illustrates the basic OpenGL ES and EGL graphics APIs and functions, including initializing the graphics API and cleaning up the API
- Shows how to use an image as texture; this application provides a set of functions to support the TGA image format
- Uses the IBitmap, IDisplay, and IShell interfaces, IEGL and IGL for the graphics APIs, as well as IFile and IFileMgr for the file handling