

Course Info

Prerequisites

- Sound knowledge of C language.
- Basic concepts of OOPS using C++.
- Event driven programming in VC++ using SDK concepts.
- Basic concepts of operating system and Networking.
- Prior experience in mobile application development.

Skill Level

Intermediate

Course Overview

Summary

The Goal of this course is to provide developer with the knowledge and skills to develop mobile application on BREW platform. Knowledge and skills to develop mobile application on BREW platform using the different APIs provided (ISHELL, IDISPLAY, IMENUCTL). It also teaches in-depth APIs Like File, Database, Sound and Networking. Hands on experience on real devices, From development to porting to troubleshooting and commercialization, covering a full life cycle of a product development.

Standard Modules

1. Wireless industry Overview
2. BREW Basics
3. BREW Architecture
4. Building BREW Application
5. BREW API
6. ISHELL, IDISPLAY, IMENUCTL
7. EVENT Handling
8. File Database, Sound API
9. IGRAPHICS and Networking API
10. Porting on actual devices
11. BREW Application - A case Study
12. Troubleshooting and Commercialization

Detailed Module Breakdown

Wireless industry Overview

Wireless Terminology
Brief History of the Wireless Industry
Wireless Industry
Unprecedented Adoption Rate
Wireless Takes over the internet Wireless Internet landscape
Welcome to Small form Factor (SFF)

BREW Basics

Event Overview
Event with IApplet
Event Handling Tips
Event Delegation
MIFs and Component Sharing
Resource Editor Overview
BREW Resource Type
BREW Control Types
BREW Resource Editor Process

BREW Architecture

- BREW Is
- Fundamental BREW Concepts
- BREW Advantages
- BREW History
- BREW System Overview
- BREW Benefits
- BREW Revolutionizes Wireless Application Development
- BREW Architecture Overview
- BREW Leverages Advanced ASIC Features
- Device Architecture (Layering)
- BREW Application Execution Environment
- BREW AEE Application Model
- Interfaces and Classes
- BREW Applications
- BREW SDK Components
- Module Information File (MIF)
- How It All fits Together
- Device Information
- Resources and Languages
- Application Issues
- Current SDK Limitations
- Starting to Write a BREW Application

Building BREW Applications

- BREW Development & Distribution Process
- Tools for Developing BREW Applications
- BREW Module Components
- Application Directory Structure
- Setting up a Project
- M/F Editor Overview
- BREW Classes and MIFS
- Using a MIF Editor User Interface
- BREW Applets and ClassIDs Applet Actions
- Adding General Information

BREW API

- Purpose of the BREW APIs
- The BREW API Reference
- BREW API Data Structures
- API Data Structure Types
- API Helper Functions
- API Interface Services
- Future BREW Development

ISHELL, IDISPLAY, IMENUCTL

- IShell Overview
- The IBase interface
- Application Management
- Application Management Functions
- ISHELL_CreateInstance()
- Resource Files and File Handlers
- Resource File Management Functions
- ISHELL_LoadResString
- Device and Application Configuration
- ISHELL_GetDeviceInfo
- Notifications
- Alarms
- Timers
- Alarms and Timer Functions
- Dialogs, Message Boxes and Prompts
- Dialog, Message Box and Prompt Functions
- IDisplay Overview
- Common IDisplay Functions
- Working with text
- Font metrics
- Common Issues for IDisplay
- IMenuCtl Interface
- IMenuCtl Types
- IMenuCtl Properties
- Multi-Select Menus
- Manipulating IMenuCtl

EVENT Handling

- Event Overview
- Event with IApplet
- Event Handling Tips
- Event Delegation

File Database, Sound API

- File and Database Management
- Introduction to File I/O
- The IFileMgr Interface
- Common IFileMgr Function
- The IFile Interface
- Common IFile Functions
- Introduction To Database Operations
- The IDBMgr Functions
- The IDatabase Interface
- Common IDBRecord Functions
- Sound Service
- Sound Interfaces
- ISound Interface
- Common ISound Functions
- Playing a Tone

IGRAPHICS and Networking API

- Graphics Overview**
- IGraphics Coordinate Systems**
- Common IGraphics Primitive Functions**
- Drawing a Line**
- IGraphics Clipping Functions**
- Common IGraphics Attribute Management Functions**
- Graphics Attribute Management**
- Viewing Transformation**
- Common IGraphics Functions**
- General Program Structure**
- BREW Connectivity Options**
- Networking Overview**
- INetMgr and Socket API Overview**
- The INetMgr Interface**
- Common INetMgr Functions**
- ISocket vs “sockets”**
- Common ISocket Functions**
- Web Overview**
- IWeb Overview**
- IWeb Methods**
- Calling IWEB_GetResponse**
- IWeb Usage Example**
- IWebResp Overview**
- IWebResp Methods**
- IWebResp Usage Example**
- IWebResp Overview**
- IWebResp Methods**
- IWebResp Usage Example**
- ISource Overview**
- ISource Methods**
- ISource Usage Example**

Porting on Actual Devices

- BREW Device Process Tasks**
- Tools and Concepts**
- Device Directory Structure**