QUALCOMM®

Binary Runtime Environment for Wireless™

Sample Position Determination Application User Guide

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, CA. 92121-1714
U.S.A.

This manual was written for use with the BREW Sample Position Determination application. This manual and the BREW Sample Position Determination application software described in it are copyrighted, with all rights reserved. This manual and the BREW Sample Position Determination application software may not be copied, except as otherwise provided in your software license or as expressly permitted in writing by QUALCOMM Incorporated.

Copyright © 2003 QUALCOMM Incorporated
All Rights Reserved
Printed in the United States of America.

All data and information contained in or disclosed by this document are confidential and proprietary information of QUALCOMM Incorporated, and all rights therein are expressly reserved. By accepting this material, the recipient agrees that this material and the information contained therein are held in confidence and in trust and will not be used, copied, reproduced in whole or in part, nor its contents revealed in any manner to others without the express written permission of QUALCOMM Incorporated.

Export of this technology may be controlled by the United States Government. Diversion contrary to U.S. law prohibited.

BREW, BREW SDK, and gpsOne are trademarks of QUALCOMM Incorporated.

QUALCOMM and Binary Runtime Environment for Wireless are registered trademarks of QUALCOMM Incorporated.

All trademarks and registered trademarks referenced herein are the property of their respective owners.

BREW Sample Position Determination Application User Guide

80-D4677-1 Rev A

December 10, 2003

Contents

Introduction

The Sample Position Determination (SPD) application is a simple BREW™ application that connects to a Position Determination Entity (PDE) and requests the position location of the mobile in an infinite loop. Different gpsOne™ modes can be exercised, such as MS-Assisted, MS-Based, and “one shot” as explained in the sections below. This application should be used in:

- Source code format by developers to understand how the IPOSDET API works.
- Executable code by developers, operators, or device manufacturers to check whether the device is connecting to a PDE through BREW, and can retrieve position fixes.

Welcome screen

The welcome screen of the SPD application is shown below. Each menu entry corresponds to a gpsOne mode. Selecting a mode takes the user to the statistic screen and starts the position determination loop.

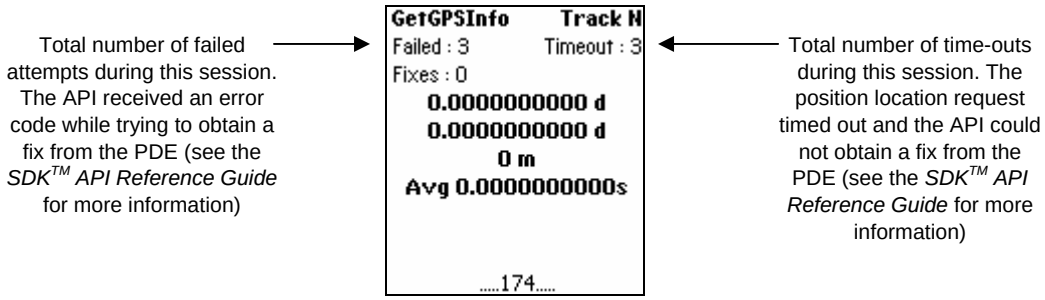
SPD Welcome Screen

The following table describes each mode.

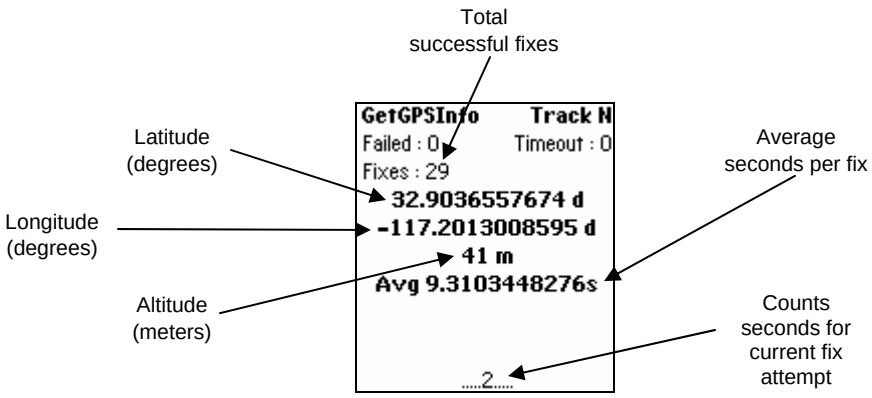
SPD Menu Item	Corresponding gpsOne Mode
One Shot	If the device has both MS-Assisted and MS-Based support, the device switches to the mode that can obtain a fix in the least amount of time. If the device has only one mode available (e.g. MS-Assisted), One Shot defaults to that mode.
Track Local	MS-based mode. Available only on devices with MS-Based support.
Track Network	MS-assisted mode. Available only on devices with MS-Assisted support.
Auto Tracking	(Not useful from a testing perspective.) Demonstrates a programming concept, namely how a developer can design an API that behaves differently depending on the number of fixes requested. In this example, the API uses One Shot if only one fix is requested and Track Local if multiple fixes are requested (Track Local would be considered more efficient for tracking in that example). See SP_Track.c file.

Statistics screen

When the statistic screen opens, the application begins to request position fixes in a loop. Pressing the clear/back key exits the user from this screen. The graphic below describes the different areas of the screen.



SPD Statistics Screen (Failed attempts)



SPD Statistics Screen (Successful attempts)

For more information

For more information about this application, please consult the source code provided with the application package and the *SDK™ API Reference Guide* for IPOSDET details. You can also send your questions to brew-support@qualcomm.com.