

# **FBWF API - .NET 2.0 Solution**

**By Sean D. Liming**

**SJJ Embedded Micro Solutions**

Copyright © 2007 SJJ Embedded Micro Solutions, LLC., All Rights Reserved

No part of this guide may be copied, duplicated, reprinted, and stored in a retrieval system by any means, mechanical or electronic, without the written permission of the copyright owner.

First Printing: June 2007

Published in the United States by

**SJJ Embedded Micro Solutions, LLC.**

11921 Tivoli Park Row #5  
San Diego, CA 92128 USA

[www.sjjmicro.com](http://www.sjjmicro.com)

Attempts have been made to properly reference all copyrighted, registered, and trademarked material. All copyrighted, registered, and trademarked material remains the property of the respective owners.

The publisher, author, and reviewers make no warranty for the correctness or for the use of this information, and assume no liability for direct or indirect damages of any kind arising from the information contained herewith, technical interpretation or technical explanations, for typographical or printing errors, or for any subsequent changes in this article.

The publisher and author reserve the right to make changes in this publication without notice and without incurring any liability.

Windows, .Net Embedded, and Visual Studio are registered trade mark of Microsoft Corporation.

## Table of Contents

<b>1</b>	<b>INTRODUCING FBWF APIS.....</b>	<b>4</b>
<b>2</b>	<b>FBWF API .NET 2.0 SOLUTION.....</b>	<b>4</b>

## 1 Introducing FBWF APIs

The new File Based Write Filter (FBWF) offers the two ways to control the state of the FBWF driver: a command line utility and a FBWF API set designed for native C++ applications. Certainly, it is possible to shell out to the FBWFMGR. EXE command line utility to perform the basic actions, but the FBWF APIs can be integrated into your custom application when you want to provide more interactive control and data display for the user or administrator.

More detailed information about FBWF can be found in the *First Look at the File Based Write Filter* article and more detail about the FBWF APIs can be found in the *Taking Control of the File Based Write Filter with the FBWF API Set* article.

## 2 FBWF API .NET 2.0 Solution

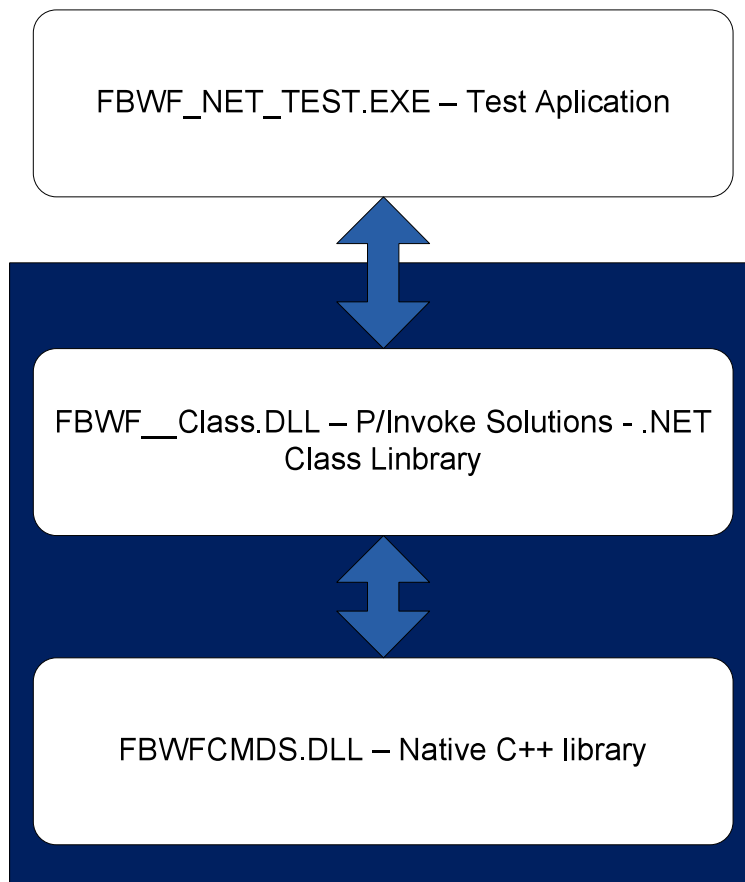
Although the FBWF APIs are designed for native C++ applications, it is possible to make calls from .NET applications using a P/Invoke method. The solution calls for two DLLs. The first is a native C++ DLL that encapsulates the FBWF API calls. The second DLL is a .NET class library that contains the P/Invoke calls down to the native C++ DLL. You just add the .NET class library reference to your new applications, the FBWF methods are available.

The solution is similar to the EWF API .NET solution discussed in the book: *Windows XP Embedded Supplemental Toolkit*.

There are three Visual Studio 2005 projects that make up the solutions:

1. FBWFCMDS – DLL that contains the FBWF API native C++ calls.
2. FBWF\_Class – Provides the .NET class library interface that makes the call down to the FBWFCMDS.DLL
3. FBWF\_NET\_TEST – Test application.

The diagram below shows the architecture of the solution/



The solution provides a simple example of a few commands that can be implemented: FBWF enable/disable, cache compression enable/disable, and Pre-alloc cache enable/disable. You can add other FBWF API commands to the solution.

There is also a XP Embedded SLD file ready for importing into the database.

Note: The code is provided as is without any warranty.