
Setting Up TWL Manual Tools

Quick Start

2009/08/06

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Revision History

Revision Date	Description
2009/08/06	Revised the description of the development tools.
2009/06/22	Changed the version numbers of TWL-SDK and TWL-System.
2009/02/23	Changed the version numbers of TWL-SDK and TWL-System.
2008/12/10	Changed the data size value of the resource file required by the E-Manual Display library.
2008/11/19	Revised terminology (changed “capacity” to “data size”).
2008/10/30	Added description of the library and e-manual data size.
2008/10/06	Changed the names of the environment variable and root directory.
2008/09/12	Added support for version 1.0.0.
2008/08/20	Initial version.

1 Introduction

This document describes the procedures to set up TWL Manual Tools and to build the E-Manual Display (M2d) library.

2 Library and E-Manual Data Size

The number of bytes required to embed the M2d library and e-manual data in the program depends on the size of the resource data and e-manual data required.

2.1 Library Size

The M2d library uses the TWL-SDK and TWL-System. The total number of bytes needed by the M2d library and by the TWL-SDK and TWL-System used by the M2d library is approximately 198 KB.

When the application uses the TWL-System G2d and Snd libraries, add 77 KB to the M2d library size.

This amount may vary slightly depending on which G2d or Snd functions are used.

2.2 Data Size Required by the Library

Dedicated resources are required for the M2d library to display graphics or play sound. The resource data size is approximately 42 KB.

2.3 E-Manual Data Size

The e-manual data size is determined by the number of characters and the size of the image files.

Because the data compression ratio depends on the text and image content, there can be large differences.

2.3.1 Total E-Manual Data Bytes

E-manual data is output by ManualEditor to a binary file with a `.blz` extension. The e-manual data size is the number of bytes of the BLZ file.

2.3.2 Text Data Size

The size of 1000 characters of text is approximately 0.4 KB.

2.3.3 Image Data Size

The compressed size of the image data is approximately 90 percent of the total size of the GIF images.

3 TWL Manual Tools Setup

3.1 Extracting the TWL Manual Tools Package

Extract the TWL Manual Tools package anywhere on the local disk. The TWL Manual Tools package is compressed in ZIP format. Use an appropriate tool to unzip it. When you extract the package, a directory named `TwlManualTools` is created.

3.2 Setting Up the Tool Execution Environment

The use of the application provided with TWL Manual Tools was confirmed in a Microsoft Windows XP SP2 environment. Operation with Windows Vista has not yet been verified.

Use of ManualEditor requires Microsoft .NET Framework 3.5 SP1. The TWL Manual Tools package does not include .NET Framework 3.5 SP1. If the development computer does not have .NET Framework 3.5 SP1 installed, it must be installed separately. Note that operations are not guaranteed for .NET Framework versions other than .NET Framework 3.5 SP1.

If ManualEditor is run on a computer that does not have .NET Framework 3.5 SP1 installed, an application error is generated, and the application will not run. If this situation occurs, first confirm that the computer has .NET Framework 3.5 SP1 installed.

For Windows XP environments, select **Add or Remove Programs** from Control Panel to display a list of installed programs. Confirm that "Microsoft .NET Framework 3.5 SP1" is included in the list of Currently Installed Programs.

4 Running ManualEditor

To run ManualEditor, execute `ManualEditorStarter.exe`. The file is located under the `TwlManualTools` directory that was created when the package was extracted.

`ManualEditorStarter.exe` starts the ManualEditor main program (`tools/ManualEditor/ManualEditor.exe`) and displays a ManualEditor window.

Do not start the ManualEditor main program directly (`tools/ManualEditor/ManualEditor.exe`). The ManualEditor main program will not operate properly if it is started directly.

For a detailed explanation of ManualEditor, see the online ManualEditor manual available from its Help menu.

5 Building the Library and Samples

5.1 Preparing the Development Tool

The build environment for the M2d library is constructed on the build environment for the TWL-SDK and TWL-System. The environment to build the M2d library, therefore, is the same as the build environment for the TWL-SDK and TWL-System. When using the M2d library, an environment where the TWL-SDK and TWL-System can be used must be prepared.

5.1.1 Build Environment

It has been confirmed that the M2d library can be built in the Windows XP SP2 environment. In addition, the following tools and SDK are necessary to build the M2d library or an application that uses the library.

See “Software Requirements” in `docs/ReleaseNotes.html` for details on versions of the SDK and the tools.

CodeWarrior for DSI

Cygwin

TWL-SDK version

TWL-System

IS-TWL-DEBUGGER software

5.2 Setting Up Environment Variables

In the library build system provided with TWL Manual Tools, the TWL Manual Tools location is obtained with an environment variable. Set the `TWLMANUALTOOLS_ROOT` environment variable as the absolute path to the `TwlManualTools` directory created when the package was extracted. This absolute directory path is referred to as `$TwlManualTools`.

5.3 Building the Library and Samples

Start Cygwin after the development tool preparation is complete. By using the Cygwin (bash) shell and executing `make` in the build directory under the M2d root directory (`TwlManualTools`), you can build both the library and the sample programs.

The platform targeted for the build must be set in the `TWLSDK_PLATFORM` environment variable. Input the following when building the TWL platform release build version of the library and the sample programs.

```
cd $TwlManualTools/build
make TWLSDK_PLATFORM=TWL
```

When building a version other than the release build version of the library and sample programs, the compile target must be explicitly specified. Input the following when building the TWL platform debug build version of the library and the sample programs.

```
cd $TwlManualTools/build
make TWLSDK_PLATFORM=TWL TWL_DEBUG=TRUE
```

To build only the sample programs, execute `make` in the `$TwlSystem/build/demos` directory. Input the following when building the TWL platform debug build version of only the sample programs.

```
cd $TwlManualTools/build/demos
make TWLSDK_PLATFORM=TWL TWL_DEBUG=TRUE
```

For detailed information on the environment variables required during build and the build switches that can be specified, see the following TWL-SDK documentation.

`$TWLSDK_ROOT/docs/SDKRules/Rule-Defines.html`

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