

Building WinTriangle

WinTriangle Build Instructions

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These instructions are intended to help you get started building WinTriangle. This walks you through getting, building, and installing WinTriangle. To summarize these are the steps to get WinTriangle built and installed:

- WinTriangle Source from CVS
 - Microsoft SAPI 5.1 and Microsoft SAPI 4 SDKs
 - Compile Time Configuration File
 - Libbraille Source (optional)
 - Regex - Boost Library (optional)
 - CXImage Library (optional)
 - Building on VC++ 6.0 , VC 7.1 ,VC 8
- Nant build 1) WinTriangle Source From CVS

Anonymous CVS Access

This project's SourceForge.net CVS repository can be checked out through anonymous (pserver) CVS with the following instruction set. The module you wish to check out must be specified as the modulename. When prompted for a password for anonymous, simply press the Enter key. To determine the names of the modules created by this project, you may examine their CVS repository via the provided web-based CVS repository viewer.

```
cvs -d:pserver:anonymous@wintriangle.cvs.sourceforge.net:/cvsroot/wintriangle login
```

```
cvs -z3 -d:pserver:anonymous@wintriangle.cvs.sourceforge.net:/cvsroot/wintriangle co -P WinTriangle
```

Information about accessing this CVS repository may be found in our document titled, "CVS (Version Control for Source Code)".

Updates from within the module's directory do not need the -d parameter.

Developer CVS Access via SSH

Only project developers can access the CVS tree via this method. A SSH client must be installed on your client machine. Substitute modulename and developername with the proper values. Enter your site password when prompted.

Developers may also make use of shared SSH keys for authentication.

```
export CVS_RSH=ssh
```

```
cvs -z3 -d:ext:developername@wintriangle.cvs.sourceforge.net:/cvsroot/wintriangle co -P WinTriangle {mostip
image=tipon size=24x24}The author of this document recommendsTortoiseCVS as a CVS client{/mostip}        2)
Download and Install Microsoft SAPI 5.1 and Microsoft SAPI 4 SDKs
```

The Text To Speech (TTS) feature depends on Microsoft's Speech API (SAPI) .Since this feature is not yet configurable at compile time one needs to download the SDKs and install them. Once installed please add the include and lib directories of the SDKs to your INCLUDE and LIB environment variables are any other method that makes them visible to the compiler and linker.

- SAPI 5.1 SDK
- SAPI 4.0 SDK

3) Compile Time Configuration File

The other libraries needed are optional and can be set in the include file /src/include/wintriangle_build_config.h . The contents of which are as follows

```
#pragma once
#define USE_BOOST_REGEX_LIB 0
#define USE_LIB_BRAILLE 0
#define USE_CX_IMAGE_LIB 0
#if USE_CX_IMAGE_LIB
#define CX_IMAGE_LIB_DIRECTORY_LOCATION "D:/software Projects/cximage599c_full"
#endif
```

```
#define ENABLE_SAPI 1 //always 1
```

Once you have installed the optional 3rd party library you can set the libraries define to 1
Library

4) Libbraille

In order to support various Braille Display devices we use the libbraille libraries. Do a SVN checkout of the source into /src/ dir and copy the contents of /src/libbraille_patch into the libbraille source dir. This patch makes libbraille work in asynchronous mode so it more useful in event based systems. Also since WinTriangle does not support USB yet please remove libbraille dependencies on libusb.

5) Regex - Boost Library (optional)

We are experimenting with boost regex library. This is not needed to make WinTriangle operational but doesn't hurt if you can install it.

6) CXImage Library (optional)

The file export feature of Wintriangle exports images in WMF format. So if one wants it in jpeg or other formats one needs to use the Cximage library. Generally not needed but doesn't hurt to install.

8) Building on

VC++ 6.0 , VC 7.1 ,VC 8

VC++ 6.0 Developers using VC++ 6.0 must also install HTML Help SDK .After installing all the required SDKs go to Tools->Options and add the SDK directories to your INCLUDE and LIB directories . Note: On compiling you will see a lot of warnings this is because VC++ 6.0 does not correctly implement the C++ standard.

VC 7.1 (Visual Studio 2003) After installing all the required SDKs go to Tools->Options and add the SDK directories to your INCLUDE and LIB directories.

VC 8 (Visual Studio 2005) After installing all the required SDKs go to Tools->Options and add the SDK directories to your INCLUDE and LIB directories. Oh boy, talk about warnings you are going to see. Microsoft decided to deprecate the string functions we fondly used, so allow buffer attacks so lots of warnings. And there is a pesky problem about manifest files too.

8) Nant build

We are trying to use Nant to build wintriangle and this is work in progress. Please have a look at WinTriangle.build file.

Revision History	Date	Author	Comments	Dec-1,2005	Vivek Narendra	Initial Draft
Jul-30,2006	Vivek Narendra	Revised Draft				