UPDD API - Files

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www.touch-base.com\documentation\API

| Operating systems | Windows | Win CE | Mac OS X | Linux | Solaris |
| Development languages | Java | | | | |

The UPDD API allows user mode applications to interface directly with the driver and/or the pointer devices handled by UPDD. It is assumed that the reader is familiar with the various functions and parameters of TBUPDD, since that information is not duplicated here.

The UPDD API is supported on all platforms supported by UPDD (and is in fact used by UPDD's own programs, such as the UPDD Console, test program, calibration tool etc). On each platform the interface is similar to that used natively by that platform itself. For example on Windows systems a DLL based interface, on mac os/x a dylib interface and so on. In all cases the C calling convention is used. This means that the API can be utilised from any programming language that can execute native OS API calls. Examples are provided for C++ as this is the language on which UPDD is built but these should be easily adapted to other languages. If using another language you will probably already know how to make library calls, but in the case of any doubt that you should refer to documentation for your software generation tool. Whilst we can advise in general terms full support of all possible programming tools is outside the scope of normal support. For example Java developers will need to use the Java Native Interface (JNI) as per the example shown below.

Depending on which operating system and client language is used the user has a choice of linking to the API statically or dynamically. For example on Windows both static and dynamic libraries are available, however Visual Basic only supports dynamic linking.

Depending on the OS in use the following files implement the UPDD API:

Operating System	Files			Description		Date
Windows	TBapi.h			function declarations		
	Tbapi.lib			lib file used for dynamic linking to TBAPI.DLL		
	Tbapi.dll			Dynamically linked library (supplied with the driver)		
	Tbapi.bas			contains DLL function declarations, constants and data types and helper functions for VB		
	Download		Version	Notes		Date
		32bit	4.1.6	Win 2000		13th July 2010
		32bit	4.1.8	Win XP		24th Mar 2011
		32bit	4.1.10	Win XP thro' 7		10th Jan 2011
		32bit	5.x.x	Win xp thro ' 8. Now ships with driver in UPDD folder		
		64bit	5.x.x	Win xp thro ' 8. Now ships with driver in UPDD folder		
	TBapi.dll and TBapi.h now ship with delivered software package					
Windows CE	TBapi.h			function declarations		
	TBapi.dll	4.1.10	Apr 2011	Dynamically linked library – *support withdrawn*		
	TBapi.dll	5.0.2	Oct 2012	Dynamically linked library – *support withdrawn*		
	TBapi.dll/lib	5.1.xxx	Aug 2013	Now ships with driver CE modules		
	TBapi.dll and TBapi.h now ship with delivered software package					
Mac OS X	TBapi.h			Function declarations		
	nonwindows.h			declarations of Windows specific constructs for non Windows targets		
	libTBApi.a			statically linked implementation for a given target processor		
				When linking to libTBApi.a you must also link in /usr/local/lib/libACE.dylib		
	Download		Version	Notes		Date
		Intel 32bit	4.1.1	*Support withdrawn*		1st May 2009
		PPC 32bit	4.1.1			1st May 2009
		Intel 32bit	4.1.10	Mac OS 10.4 and 10.5		15th Sept 2010
		Intel 32bit	5.0.2	Mac OS X 10.6 and above		19th Aug 2013
		Intel 32bit	5.1.xxx	Mac OX X 10.6 and above. Now installed with driver		
Linux	TBapi.h			function declarations		
	nonwindows.h			declarations of Windows specific constructs for non Windows targets		
	libTBApi.so			shared library for a given target processor		
	Download		Version	Notes		Date
		X86 32bit	4.1.1			1st May 2009
		X86 32bit	4.1.8			16th Aug 2010
		X86 64bit	4.1.8			7th Sept 2010
		X86 32bit	5.0.2			12 Aug 2013
		X86 64bit	5.0.2			12th Aug 2013
Oracle Solaris	TBapi.h			function declarations		
	nonwindows.h			declarations of Windows specific constructs for non Windows targets		
	libTBApi.so			shared library for a given target processor – *supplied with the driver*		
	Please note the libTBApi.so is supplied with the driver and not in the download file					
		X86 32bit	4.1.10	Solaris Version 10		1st Feb 2011

X86	32bit	5.0.2	Solaris Version 8	6ᵗʰ Feb 2014

Development Languages specifics

Java applications will need to use the Java Native Interface (JNI). This can link using our standard Windows DLL or shared library in other unix based OS.

Usage of our API within a Java application requires a JNI implementation, an API declaration and usage within the Java application as per this example declaring and using the TBApiInit function call:

JNI Implementation	JNIEXPORT void JNICALL Java_TBApiClass_TBApiInit (JNIEnv * a, jobject b, jbyte c) TBApiInit(c);
Declaration	public static TBApiClass api;
Usage	api = new TBApiClass(); api.TBApiInit((byte)1);

Contact

For further information or technical assistance please email the technical support team at technical@touch-base.com.