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This document lists the current API function calls. Obsolete calls have been removed. The updd version number is shown to indicate when the call was introduced. 4.1.x indicates the call was valid at the time UPDD 4.1.0 was first created. Other version numbers indicated when the call was introduced.

### TBApi.h file

This is the header file that defines the complete list of API functions and should be the final reference point for the definitive list of functions and their usage. Viewed in the appropriate viewer, API functions are held in this file thus:

```
#undef TBApiOpen
#ifdef TBAPIDLLPFX
#define TBApiOpen DLL_TBApiOpen
#endif
```

```
BOOL TBAPI TBApiOpen();
// Establishes a connection to the device driver
// returns 0 = fail, 1 = OK
// Most API functions require an open connection
```

### API function summary

Click on the function call name for a more detail description.

API call		Description
<a href="#">TBApiAbortDriver</a>	4.1.x	Causes the driver to close all connections and free resources
<a href="#">TBApiActivateCalibrationStyle</a>	4.1.x	Activate the named calibration style for the specified device id
<a href="#">TBApiAddDevice</a>	4.1.x	Add or replace a new controller to/in the device list
<a href="#">TBApiAddToolbar</a>	4.1.x	Adds a toolbar
TBApiAddStencil	4.1.x	Adds a new stencil to the stencil list for this device
<a href="#">TBApiApply</a>	4.1.x	Updates previously modified Registry settings
<a href="#">TBApiApplyNoReload</a>	4.1.x	As TBApiApply but does not reinitialise the driver
<a href="#">TBApiAutoSetSwapXY</a>	4.1.x	Determines if SwapXY is correctly set and corrects if necessary.
TBApiBeep	4.1.x	Sound the beep as defined by the device sound pitch and duration settings
<a href="#">TBApiCalibrateToolbar</a>	4.1.x	Calibrates a toolbar
<a href="#">TBApiClose</a>	4.1.x	Closes the connection to the device driver
<a href="#">TBApiConvertHexString</a>	4.1.x	Converts a hex string to its hexadecimal equivalent
<a href="#">TBApiCustomControllerAction</a>	4.1.10	Perform a custom controller action
<a href="#">TBApiDeleteRegistryValueCached</a>	4.1.x	Request a deletion of a registry value to be executed during the next call to TBApiApply.
<a href="#">TBApiDeviceSetMouseScaling</a>	4.1.x	Direct all mouse activity for the specified device to the specified desktop rectangle
<a href="#">TBApiDeviceStopMouseScaling</a>	4.1.x	Direct all mouse activity for the specified device to the standard location
<a href="#">TBApiDriverEnable</a>	4.1.x	Enables or disables the driver
TBApiEnableToolbar	4.1.x	Enable / disable toolbar
TBApiEnableStencils	4.1.x	Enables or disables stencils for this device.
<a href="#">TBApiEnumAdhocValues</a>	4.1.x	Enumerates through any ad hoc settings for a device
<a href="#">TBApiEnumStringTokens</a>	4.1.x	A help function to enabling splitting a token into individual tokens
<a href="#">TBApiGetCalibrationAsStyle</a>	4.1.x	Get the calibration settings for the specified device in a _CalStyle structure
<a href="#">TBApiGetCalibrationStyle</a>	rednt	Get the calibration style details for the specified device & style. Use <a href="#">TBApiGetSettingsSZ</a> instead.
<a href="#">TBApiGetCalibrationStyleByName</a>	rednt	Given a calibration style name, return the style handle. Use <a href="#">TBApiGetSettingsSZ</a> instead.
<a href="#">TBApiGetCommsErrors</a>	4.1.x	Returns the communications error count
<a href="#">TBApiGetComPortNames</a>	4.1.x	Get a list of com port names on the current machine
<a href="#">TBApiGetControllerDWORD</a>	4.1.x	Get a DWORD value from the <a href="#">controller definition</a> of the settings file
<a href="#">TBApiGetControllerSZ</a>	4.1.x	Get a String value from the <a href="#">controller definition</a> of the settings file
<a href="#">TBApiGetDefaultDWORD</a>	4.1.x	Get the default value of a specified setting for a given device
<a href="#">TBApiGetDefaultSZ</a>	4.1.x	Get the default value of a specified setting for a given device
<a href="#">TBApiGetDeviceAddress</a>	4.1.x	Returns the DMA address used by a serial controller
<a href="#">TBApiGetDeviceFromSegment</a>		Gets the device handle for the device handling a given desktop segment
<a href="#">TBApiGetDeviceIrq</a>	4.1.x	Returns the IRQ used by a serial controller

<a href="#">TBApiGetDriverBuild</a>	4.1.6	Returns the driver build number
<a href="#">TBApiGetDriverVersion</a>	4.1.x	Returns the driver version number
<a href="#">TBApiGetEventSelectorOneHitMode</a>	4.1.x	Determine whether the driver's event manager is operating in one hit mode
<a href="#">TBApiGetEventSelectorState</a>	4.1.6	Returns the current value of the event selector
<a href="#">TBApiGetGlobalSettingDWORD</a>	4.1.x	Retrieve DWORD value from the <a href="#">global section</a> of the settings file
<a href="#">TBApiGetGlobalSettingSZ</a>	4.1.x	Retrieve string value from the <a href="#">global section</a> of the settings file
<a href="#">TBApiGetHelpFileName</a>	4.1.x	Get the active help file name
<a href="#">TBApiGetIProduct</a>	4.1.x	Get the iProduct item from the associated USB device
<a href="#">TBApiGetMacroStatus</a>	4.1.x	Returns the current status of the macro processor
<a href="#">TBApiGetMaxX</a>	4.1.x	Returns the X-coordinate range determined from the packet size(s)
<a href="#">TBApiGetMaxY</a>	4.1.x	Returns the Y-coordinate range determined from the packet size(s)
<a href="#">TBApiGetMonitorMetrics</a>	4.1.10	Get the position of the primary monitor and the position and size of a monitor associated with a specified updd device
<a href="#">TBApiGetNakMessage</a>	4.1.x	Gets the message associated with last received controller NAK
<a href="#">TBApiGetNamedDevice</a>	4.1.x	Gets a device identification for named device
<a href="#">TBApiGetNamedToolbar</a>	4.1.x	Returns the handle for a toolbar
<a href="#">TBApiGetOverflowErrors</a>	4.1.x	Returns the packet overflow count
<a href="#">TBApiGetRawEventState</a>	4.1.x	Returns the event state of the UPDD event handler
<a href="#">TBApiGetRecentToolbarButton</a>	4.1.x	Get the number of the last button pressed in a toolbar
<a href="#">TBApiGetRelativeDevice</a>	4.1.x	Gets a device identification for relative position device
<a href="#">TBApiGetRelativeDeviceFromHandle</a>	4.1.x	Gets a device's position in the list of defined controllers from a given device handle
<a href="#">TBApiGetRelativeDeviceIncHidden</a>	4.1.x	Get device handle from position, including hidden (unplugged) devices
<a href="#">TBApiGetRelativeDeviceNoHidden</a>	4.1.x	Get device handle from position, excluding hidden (unplugged) devices
<a href="#">TBApiGetRotate</a>	4.1.x	Gets the current video rotation
<a href="#">TBApiGetSettingDWORD</a>	4.1.x	Retrieve DWORD setting from the <a href="#">general</a> and <a href="#">device</a> section
<a href="#">TBApiGetSettingDWORDEx</a>	4.1.x	Retrieve DWORD setting from <a href="#">device sub-tree and node</a> section
<a href="#">TBApiGetSettingSZ</a>	4.1.x	Retrieve STRING setting from the <a href="#">general</a> and <a href="#">device</a> section
<a href="#">TBApiGetSettingSZEx</a>	4.1.x	Retrieve STRING setting from <a href="#">device sub-tree and node</a>
<a href="#">TBApiGetSyncErrors</a>	4.1.x	Return the sync error count
<a href="#">TBApiGetUSBDeviceAddress</a>	4.1.6	Gets the address of a device on the USB bus
<a href="#">TBApiIgnoreToolbars</a>	4.1.x	Enable/disable toolbar processing
<a href="#">TBApiInit</a>	4.1.x	Initialises the API and establishes a connection to the driver
<a href="#">TBApiIsApiActive</a>	4.1.x	Queries if a connection is open to the driver
<a href="#">TBApiIsTouchingKeyboard</a>	4.1.x	Indicates if on-screen, virtual keyboard it being touched
<a href="#">TBApiIfind</a>	4.1.x	Own implementation of CRT function Ifind
<a href="#">TBApiLoadToolbar</a>	4.1.6	Load a toolbar from a file for the named device
<a href="#">TBApiForwardNetworkData</a>	Internal	Forward data to all participants in a updd/ip sharing session
<a href="#">TBApiMousePortInterfaceEnable</a>	4.1.x	Enable / disable the mouse port interface
<a href="#">TBApiMousePortInterfaceEnableEx</a>	4.1.x	Enable / disable the mouse port interface for a device
<a href="#">TBApiOpen</a>	4.1.x	Establishes a connection to the device driver
<a href="#">TBApiPostPacketBytes</a>	4.1.x	Post touch data packets into the driver
<a href="#">TBApiRawDataMode</a>	4.1.x	Instructs the driver to return raw data or defined packets.
<a href="#">TBApiRawDataModeBlockSize</a>	4.1.x	Determines the block size for raw data mode (see <a href="#">TBApiRawDataMode</a> )
<a href="#">TBApiReadEEPROMCalibrationData</a>	4.1.10	read calibration data from controller eeprom (must have a supported eeprom protocol)
<a href="#">TBApiReadEETIEEPROM</a>	4.1.6	Read eGalax/EETI eeprom
<a href="#">TBApiReadSerialNumber</a>	4.1.6	Read serial number from device
<a href="#">TBApiReadSmartsetUSBSerialNumber</a>	4.1.6	Get the value of the serial number for a smartset device
<a href="#">TBApiReadTSHARCEEPROM</a>	4.1.6	Read EEPROM values from a TSHARC controller
<a href="#">TBApiRegDeleteBranchCached</a>	Internal	Queue a request for deletion of a registry branch
<a href="#">TBApiRegisterDataCallback</a>	4.1.x	Register a callback function for the specified type(s) of data.
<a href="#">TBApiReinit</a>	4.1.x	Execute the initialisation macro for the specified controller
<a href="#">TBApiReloadNoApply</a>	4.1.x	Reloads the driver, but does not apply pending changes
<a href="#">TBApiRemoveCalibrationStyle</a>	4.1.x	Delete the definition of the specified calibration style
<a href="#">TBApiRemoveDevice</a>	4.1.x	Remove the UPDD device definition and any corresponding Windows device entry
<a href="#">TBApiRemoveToolbar</a>	4.1.x	Removes a toolbar
<a href="#">TBApiRemoveStencils</a>	4.1.10	Removes all stencils from the stencil list for this device
<a href="#">TBApiResetErrorCounts</a>	4.1.x	Resets all error counts

TBApiSaveToolBar	4.1.x	Save the named toolbar for the device
<a href="#">TBApiScaleCoordinates</a>	4.1.x	Modifies co-ordinates to fit in a rectangle specified in <a href="#">TBApiSetScaleDimensions</a>
<a href="#">TBApiSendData</a>	4.1.x	Sends data to a controller
<a href="#">TBApiSendMacro</a>	4.1.x	Sends a macro to the controller using the <a href="#">UPDD macro language</a>
<a href="#">TBApiSendMacroSynchronous</a>	4.1.10	Sends a macro to the controller using the <a href="#">UPDD macro language</a> , await a response.
TBApiSendNetworkData	Internal	Broadcasts data to all participants in a updd/ip sharing session
<a href="#">TBApiSendUnloadMessage</a>	4.1.x	Instructs registered applications to terminate
<a href="#">TBApiSetApiTraceLevel</a>	4.1.x	Controls internal tracing of API function calls
<a href="#">TBApiSetCalibrationStyle</a>	4.1.x	Change the settings for an existing calibration style or add a new style
<a href="#">TBApiSetEventSelectorOneHitMode</a>	4.1.x	Set or unset one hit mode for the driver's event manager
<a href="#">TBApiSetEventSelectorState</a>	4.1.x	Sets the state of the event selector
<a href="#">TBApiSetGlobalSettingDWORD</a>	4.1.x	Set DWORD value from the <a href="#">global</a> section of the settings file
TBApiSetGlobalSettingSZ	4.1.x	Set a String value in the <a href="#">global</a> section of the settings file
TBApiSetMouseScaling	4.1.x	Direct all mouse activity for a given device to a desktop rectangle, scaling as appropriate
<a href="#">TBApiSetRotate</a>	4.1.x	Set the rotation factor
<a href="#">TBApiSetScaleDimensions</a>	4.1.x	Specify scaling factors for subsequent calls to <a href="#">TBApiScaleCoordinates</a>
<a href="#">TBApiSetScreenSaverMode</a>	Internal	Indicates to UPDD that a screen saver is active
<a href="#">TBApiSetSettingDWORD</a>	4.1.x	Set DWORD value in the <a href="#">general</a> and <a href="#">device</a> section of the settings file
<a href="#">TBApiSetSettingDWORDEX</a>	4.1.x	Set DWORD value in the <a href="#">device sub-tree and node</a> of the settings file
<a href="#">TBApiSetSettingSZ</a>	4.1.x	Set STRING value in the <a href="#">general</a> and <a href="#">device</a> section of the settings file
<a href="#">TBApiSetSettingSZEx</a>	4.1.x	Set STRING value in the <a href="#">device sub-tree and node</a> of the settings file
TBApiSetStencilInverted	4.1.10	Set stencil to be inverted
TBApiSetStencilPos	4.1.10	Sets the stencils location on the screen. All coordinates are in UPDD logical screen coordinates (where the primary monitor is 0-65535 x 0-65535 )
<a href="#">TBApiSettingsCacheDirty</a>	4.1.x	Determines if the settings cache has unwritten changes
<a href="#">TBApiSetVirtualDesktopMetrics</a>	4.1.x	Used with virtual desktop modes
TBApiStopMouseScaling	4.1.x	Direct all mouse activity for a given device to the standard location
<a href="#">TBApiTerminate</a>	4.1.x	Closes a connection to the driver
<a href="#">TBApiUnregisterDataCallback</a>	4.1.x	Unregister a previously registered callback function.
<a href="#">TBApiUnregisterDataCallbackContext</a>	4.1.x	Unregister callback function(s) for specified context only.
TBApiUPDDCoordinateFromScreen	4.1.10	Given a co-ordinate in screen pixels (relative to the origin of the primary monitor) return the UPDD co-ordinate (65535 based)
<a href="#">TBApiValidateDevice</a>	4.1.x	Determines if the device exists
TBApiWriteEEPROMCalibrationData	4.1.10	write calibration data to controller eeprom (must have a supported eeprom protocol)
TBApiWriteEETIEEPROM	4.1.8	Write eGalax/EETI eeprom
TBApiWriteSmartsetUSBSerialNumber	4.1.6	Set the value of the serial number for a ELO Smartset device
TBApiWriteTSHARCEEPROM	4.1.6	Write EEPROM values to a TSHARC controller

### API function Groups

This lists the functions by their related grouping:

Group	Related API functions
Settings	The <a href="#">settings group</a> is used to set and retrieve settings from the different sections of the settings file.
Calibration	The <a href="#">calibration group</a> is used during calibration.
Toolbars	This API group is used to handle <a href="#">toolbars</a> . TBApiAddToolBar, TBApiRemoveToolBar, TBApiCalibrateToolBar, TBApiGetNamedToolBar, TBApiIgnoreToolbars, TBApiGetRecentToolBarButton, TBApiSaveToolBar, TBApiLoadToolBar, TBApiEnableToolBar
Stencils	The purpose of this API group is to allow a means by which an application can finely tune where a user may interact with an application via the touch interface TBApiEnableStencils, TBApiAddStencil, TBApiRemoveStencils, TBApiSetStencilPos, TBApiSetStencilInverted To allow total control there are two types of stencil. 1) Normal, this identifies a usable area of the screen. If a user touches a point in a normal stencil the touch is passed through (for example to the system mouse) as normal 2) Inverted, this identifies a unusable area of the screen. If a user touches a point in a normal stencil the touch is blocked (although registered callbacks are still sent for this touch)

Stencils are order based so the topmost (last defined) stencil at a given point is used  
 In the example below stencil 0 is defined first  
 A touch at point A is accepted (because it is outside any stencil)  
 A touch at point B is not accepted (because it is inside inverted stencil 0)  
 A touch at point C is accepted (because it is inside normal stencil 1, the touch is also inside stencil 0 but stencil 1 takes priority as it was defined later)

### Data Conversion Chart

The following is useful for converting datatypes between Visual C++ and Visual Basic:-

C++ Datatype	VB Equivalent
short	Integer
WORD	Integer
int	Long
long	Long
UINT	Long
ULONG	Long
DWORD	Long
WPARAM, LPARAM	Long
WMSG, UMSG	Long
HRESULT	Long
BOOL	Long
COLORREF	Long
HWND, HDC, HBRUSH, HKEY, etc.	Long
LPSTR, LPCSTR	String
LPWSTR, OLECHAR, BSTR	String
LPTSTR	String
VARIANT_BOOL	Boolean
unsigned char	Byte
BYTE	Byte
VARIANT	Variant
(Any data type ending with * or **)	Long

### Contact

For further information or technical assistance please email the technical support team at [technical@touch-base.com](mailto:technical@touch-base.com).