



Solaris Installation

Revision 1.1 – 2nd Dec 2011www.touch-base.com/documentation/installation[Deliverables](#)[Requirements](#)[Installation](#)[Uninstall](#)[Supported programs](#)[Limitations](#)[Screenshot](#)[Contact](#)

Welcome to UPDD Solaris platform specific installation instructions and related notes.

UPDD version 4.1.10 now supports the Solaris operating system on x86 hardware. Initial tests have been conducted with version 10 update 8.

These notes should be followed to install the UPDD pointer device driver on Solaris 10 platforms:

Driver build history

Release	Date	Change
4.1.10	Feb 2011	Initial release for Solaris 10, Update 8
	Nov 2011	Fix for USB Pen drives not ejecting when driver loaded
		Removal of debug output in system log.

Deliverables

The software is delivered within a compressed file called upddsolx86.tgz and is normally downloaded from a HTTP download link as sent in an email.

System Requirements

Component	Note
X86 – 32bit	Fully supported and tested in-house
X64 – 64 bit	This software is untested on 64bit systems; the effort required to support 64bit is currently unknown.
Access to TCP/IP port 4141	The driver requires access to TCP/IP port 4141 for internal computer processing only.

Installation

Notes

1. Install script
In order to provide maximum flexibility to the system administrator the installation process is managed by a simple perl script. This script can be edited to set file locations, ownerships and so on to satisfy the requirements of the target system.
2. USB interface
USB support is based around usblib-0.1 as supplied with Solaris. If missing it should be installed from the Solaris installation disk. There are a number of issues with this library, in particular it does not always recognise that devices have been disconnected; hence the PnP features of UPDD might not always work as expected. In particular an unplugged device might not be recognised as such. No guarantee can be given that this software will work with all hardware targets and devices as the compatibility of these with Solaris and usblib is outside of Touch-Base's control; however it is expected that most USB controllers supported by UPDD should work.
3. Solaris service - xhost
The install script provides an example installation strategy based around a Solaris service. This strategy uses the "xhost +" command to allow the service to interact with a desktop. In some cases this might be considered unsecure, if so a system administrator should adapt this script to use a strategy appropriate to the installation.
The important considerations are:
 - The process tbupddwu must be launched to provide the touch service
 - This process requires root privileges to access the usb interface.
 - If the system pointer (mouse) interface is required then the process must have access to open the display (localhost:0:0)
4. System libraries
System libraries required by the driver and its utilities, such as libusb, libaudio, which are not installed by the driver should be installed using the Solaris installation package.

Procedures

To install the software unpack the supplied package to a working directory and run the script as root. E.g.

```
xhost +      see important 'Solaris service - xhost' installation note above
cd ~
mkdir updd
cd updd
cp <delivered package> .
gunzip upddsolx86.tgz
tar -xvf upddsolx86.tar
sudo install_updd_sol.pl
or depending on system configuration you might need to run
sudo perl install_updd_sol.pl
```

The updd service is started automatically; there is no need to reboot.

Installed modules

This information is subject to change.

A number of package specific and optional links and files, such as help files will be included. These will be in /opt/tbupddso or one of its child folders. These files are not documented here. The following other files are installed:

Module	Description
/opt/tbupdddso/dcu	Driver console program
/opt/tbupdddso/tbcalib	Calibration utility
/opt/tbupdddso/upddraw	Test utility
/opt/tbupdddso/helpviewer	Help file viewer
/opt/tbupdddso/tbutils	Command line utilites
/opt/tbupdddso/tbupddwu	The driver module
/opt/tbupdddso/tbhist.txt	Change history
/opt/tbupdddso/tbupdd.ini	Driver settings
/usr/local/lib/libtbapi.so.1.0.0	Application program interface (api) library
/usr/local/lib/libtbapi.so.1.0	Soft link to api library
/usr/local/lib/libtbapi.so.1	Soft link to api library
/usr/local/lib/libtbapi.so	Soft link to api library
/usr/local/lib/libACE-5.6.2.so	ACE (see http://www.cs.wustl.edu/~schmidt/ACE.html)
/usr/local/lib/libqt-mt.so.3.3.8	Qt (see http://qt.nokia.com/products/)
/usr/local/lib/libqt-mt.so	Soft link to Qt library
/usr/local/lib/libqt-mt.so.3	Soft link to Qt library
/usr/local/lib/libqt-mt.so.3.3	Soft link to Qt library
/usr/local/lib/libhbutton_tb.so	Hyperbutton library (icon based buttons used in the applications)
/lib/svc/method/svc-updd	Service start script
/var/svc/manifest/application/updd.xml	Service definition

Uninstall

To uninstall the software execute the command

```
sudo /opt/tbupddso/uninstall_updd_sol.pl
(or sudo perl /opt/tbupddso/uninstall_updd_sol.pl)
```

Notes:

1. This script assumes that the default installation script was used.
2. This removes all installed software including installed shared libraries.

Using the supported programs

Driver

The main driver process (tbupddwu) is installed and executed as a Solaris service. For full information about such services please consult the Solaris documentation. The following useful commands are noted here:

To stop the service: sudo svcadm disable tbupdd

To start the service: sudo svcadm enable tbupdd

To list information about the service: svcs -l tbupdd

Utilities

The following support programs are located in /opt/tbupddso

Program	Description
dcu	the updd console , for managing updd settings
tbcalib	touch screen calibration utility
updddraw	a drawing package intended to test touch functionality
helpviewer	the help browser utility used to display the driver's help files
tbutils	command line interface

These programs are described in more detail in the relevant sections of the updd documentation as linked above.

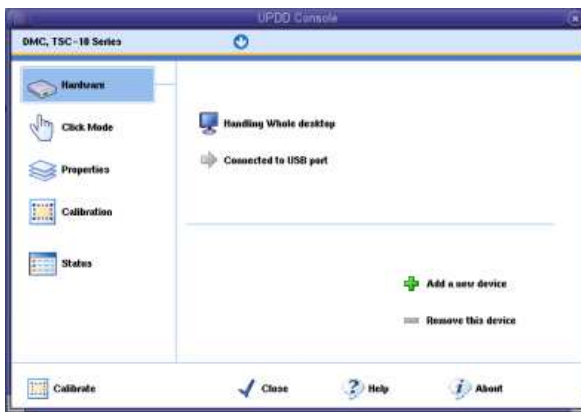
There are no special requirements to run these programs. They can simply be launched from a terminal.

E.g. to run the UPDD Console to adjust settings

```
cd /opt/tbupddso
dcu
```

or `/opt/tbupddso/dcu`

will show the Console dialog: (Note: In the current release some unsupported options are shown in the console.)



All the programs except dcu and tbutils are also available via appropriate options in the Console program.

A user is free to create a desktop shortcut to any of these utilities. As the method to do this depends on the desktop manager in use, please refer to the help for your desktop manager.

Calibration

Calibration is a procedure used to align the pointer device with the graphically display area or desktop segment. When using the pointer device the mouse cursor should normally position itself under the stylus when it is in contact with the pointer device. If this is not the case then calibration will be required.

Current Limitations

UPDD was originally developed for Windows and has since been ported to other OS. When porting to other OS most key updd functionality is supported except where the functionality is OS specific or it is noted in the exclusions below.

The driver uses two background daemon processes, named tbdaemon and aidaemon, to implement some utility functionality. Options implemented by tbdaemon are not supported as there are no plans use tbdaemon in systems other than Windows desktop. Where appropriate individual features will be migrated to aidaemon (which is multi-platform ready). Aidaemon is NOT included in the current Solaris build. Features covered by aidaemon / tbdaemon are documented [here](#), but includes features such as visual toolbars, event selector, toolbar actions, rotate, resolution monitoring and sound.

Mouse Emulation

This driver does not currently perform desktop mouse emulation and to date has been used by applications using the [UPDD API](#) to receive touch data. Mouse emulation will be supported in the next release.

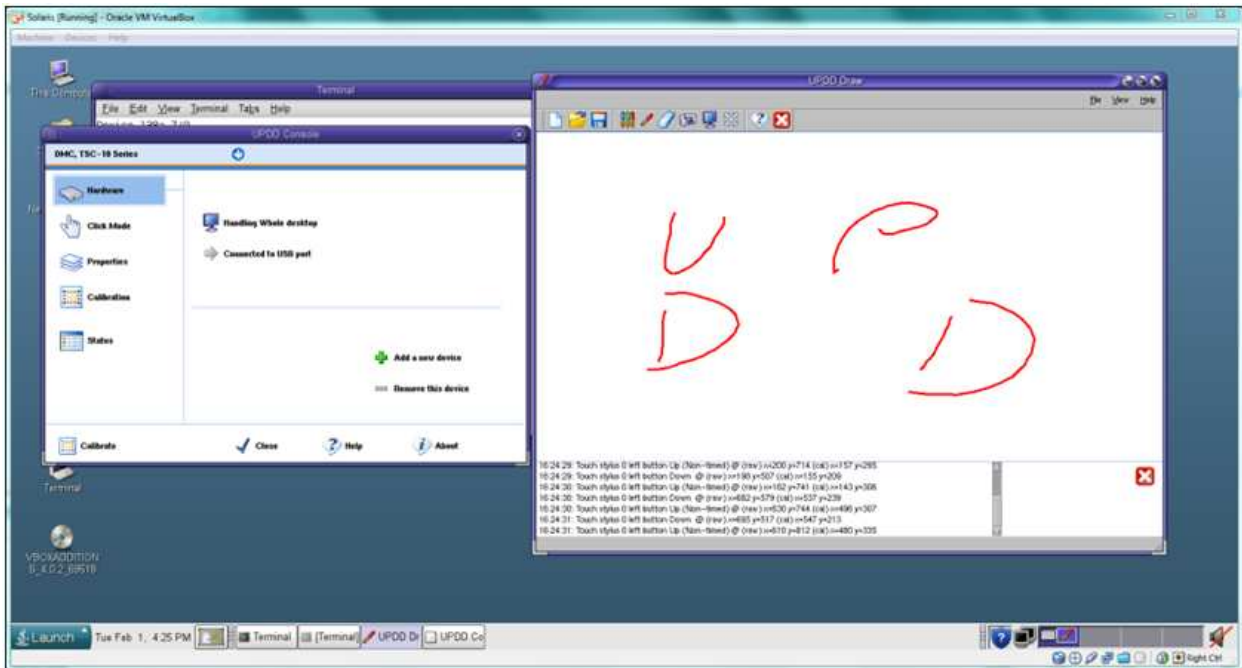
Exclusions

These are the key functions not currently ported to the Solaris environment

- No support for serial or PS/2 devices (Only USB interface is supported).
- Right click not currently supported
- Interactive touch – visual notification of right click count down
- Dynamic detection of system language.
- Anchor mouse function (daemon process)
- Multi-monitor support untested
- No sound on touch or during calibration (daemon process)
- Light pen calibration (the white lines on black mode)
- Toolbar actions (daemon process)

Screen shot

With the software correctly installed you should be able to run up the various UPDD utility programs to perform the required functions. In this example the UPDD Console and test program are shown on the desktop. The test program has been placed into [Direct mode](#) as this mode receives data directly via the API.



Contact

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