

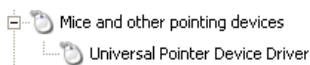
Overview

There are a number of products that allow for shared resources on a single base unit so that a system can be used by multiple users. To cater for this functionality the software has to allow for multiple keyboards, multiple monitors and multiple pointer devices, such as mice and touch screens, whereby the hardware items can be allocated to individual users. This allows for each user to have their own dedicated keyboard, monitor and mouse. If the monitor is a touch screen monitor then the touch device also needs to be allocated to a specific user such that it controls the pointer (cursor) on the monitor allocated to that user.

These types of systems have been predominantly aimed at school / class room usage but can also be used in other environments.

Technical considerations

The driver creates a default 'mouse instance' under the 'Mice and other pointer device' branch through which it passes mouse requests to the system. This is seen in the device manager as follows:



Thereafter, for each UPDD PnP touch device connected to a system the driver creates additional "mouse instance" in the device manager. The design of the driver is such that serial non PnP serial device *do not* create a mouse instance but use the default UPDD Mouse entry as shown above.

Prior to UPDD version 5 all mouse movement requests for all connected touch devices we passed through a single mouse instance, either the default entry as seen above or, if not found, the next UPDD entry available. Nevertheless all mouse interface requests were, for good technical reasons, passed down one mouse instance.

Unfortunately, this does not work well with multi user layers as they need to find an individual mouse enter for each touch device and that the touch data associated with the device passes through it!

To cater for this requirement we have modified UPDD version 5.x to work in this way. For technical reasons, we wanted to retain the option of using one interface so we have introduced a setting that indicates if a single or multiple mouse interfaces are used. The setting "MultipleMouseInterface" dictates this functionality.

Multi user products

The table below indicates some of the products that implement this type of functionality and shows the UPDD release tested and working or the current status of development if not working:

Product	OS	UPDD status
Friendly Seats	Windows	Tested with UPDD 5.0.02.
Microsoft MultiPoint	Windows	4.1.10 works with version 11
SoftXpand	Windows	Software does not see UPDD multiple entries – need to be investigated when required
WunderWorks	Windows	Untested

We believe that, in theory, with the change made in UPDD 5:02 most multi user type products should work so long as they support absolute touch data being delivered via the mouse interface.

Limitations

Given that UPDD driver does not currently create a separate mouse instance for non PnP serial devices these cannot be used in multi-user type systems. Further changes to UPDD would be required to support these devices in multi-user environments.

Contact

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