



DEWETRON



# DEWEx-A4

Precision Touchpad Upgrade

TECHNICAL DOCUMENT

**THE MEASURABLE DIFFERENCE**

## Document history

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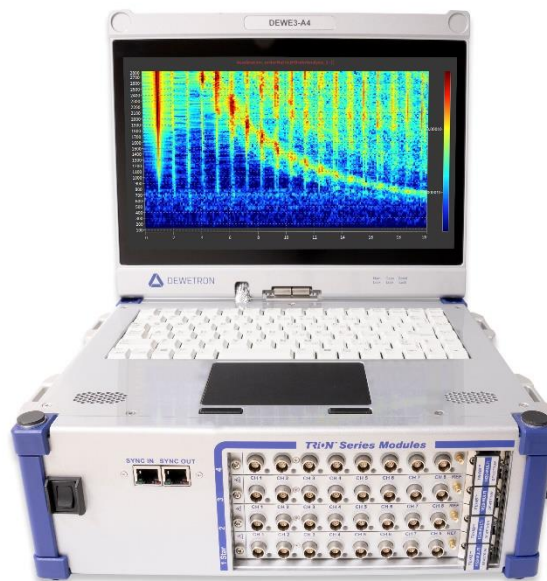
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# 1 Important notice

## INFORMATION

The firmware upgrade is only valid for systems with revision 3.1 or higher.



## NOTICE

Do not use the firmware on older systems as it may damage your touchpad.

Do not turn off the system while the firmware update is being applied, it may damage your touchpad.

## INFORMATION

Downgrading from Precision Touchpad firmware C3.74 to USB Mouse firmware 45.14 is only possible at the factory.

If you plan to use Linux, read the "Known Issues with Firmware C3.74" section before updating the firmware

## 2 USB mouse vs. Precision touchpads?

With the current implementation of our touchpad, it would be recognized as an USB mouse.

All gestures would be decoded by the touchpad and the touchpad driver, so it is not possible to add additional new gestures or change the behavior of existing gestures.

Microsoft has created the “Precision Touchpads” specification where raw input is reported to the operating system.

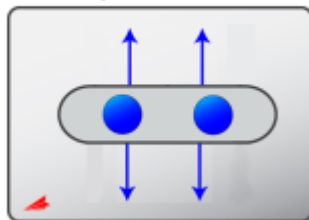
The operating system analyzes and interprets the raw data and is responsible for the mouse movements and gestures.

## 3 Reason for the upgrade

The scroll function differs from other touchpads on current laptops and more features are available with the "Precision Touchpad".

Touchpad gesture	Current touchpad firmware 45.14	PTP Firmware C3.74 (default Windows 10 Laptop behavior)
Vertical two finger scroll up	Picture scroll up	Picture scroll down
Vertical two finger scroll down	Picture scroll down	Picture scroll up

Vertical Scroll/Pan



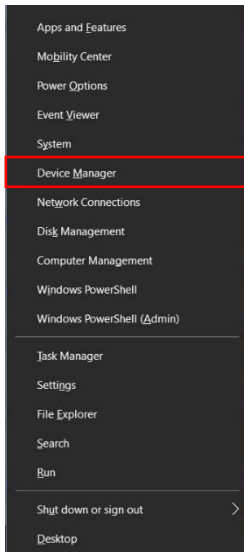
The update also improves functionality and fixes the rare startup problems of firmware 45.14.

## 4 Firmware update of the touchpad

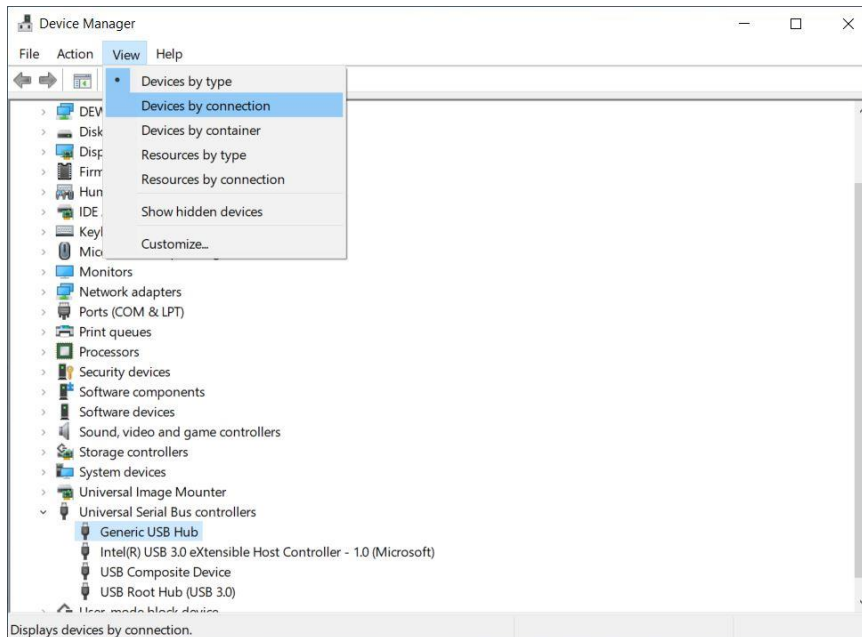
### 4.1 Identify the actual firmware of the touchpad

To identify the current firmware of the touchpad, proceed as follows:

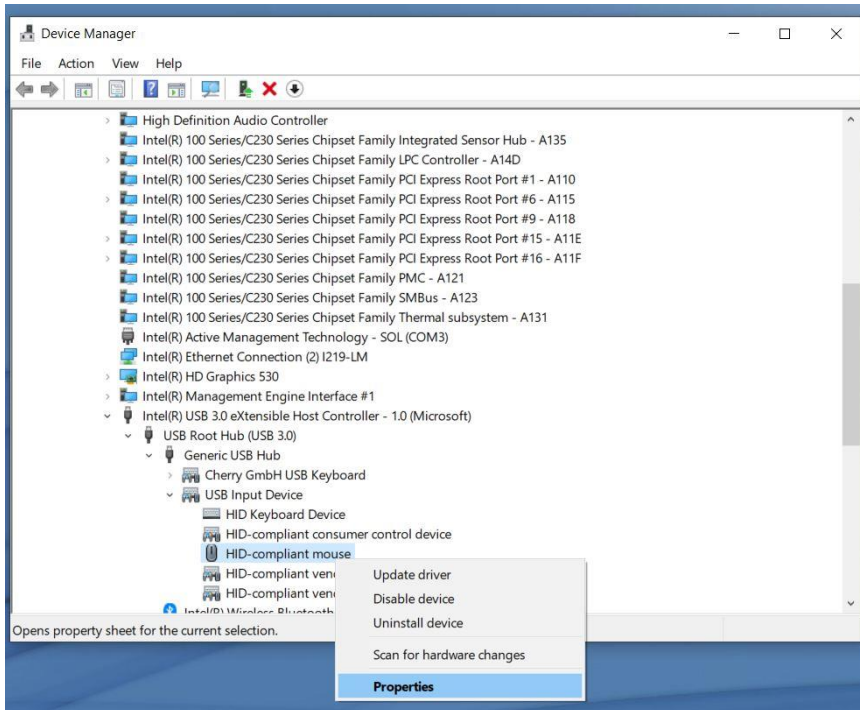
1. Open the Device Manager by pressing the Windows key + X and selecting Device Manager.



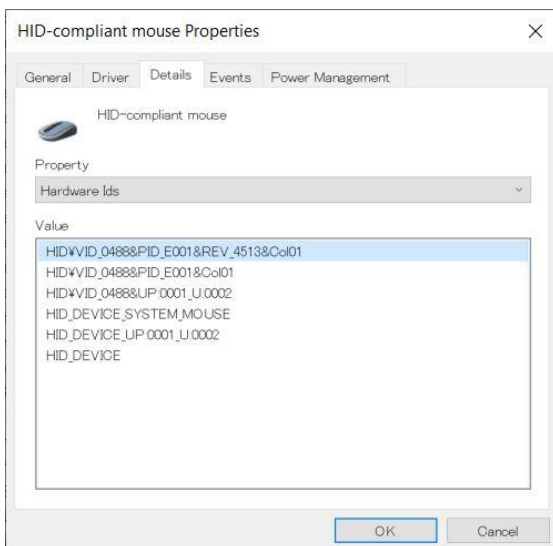
2. Select the Generic USB hub and change the view to “Devices by connection”.



- Open the device tree and select the properties of the HID-compliant mouse.

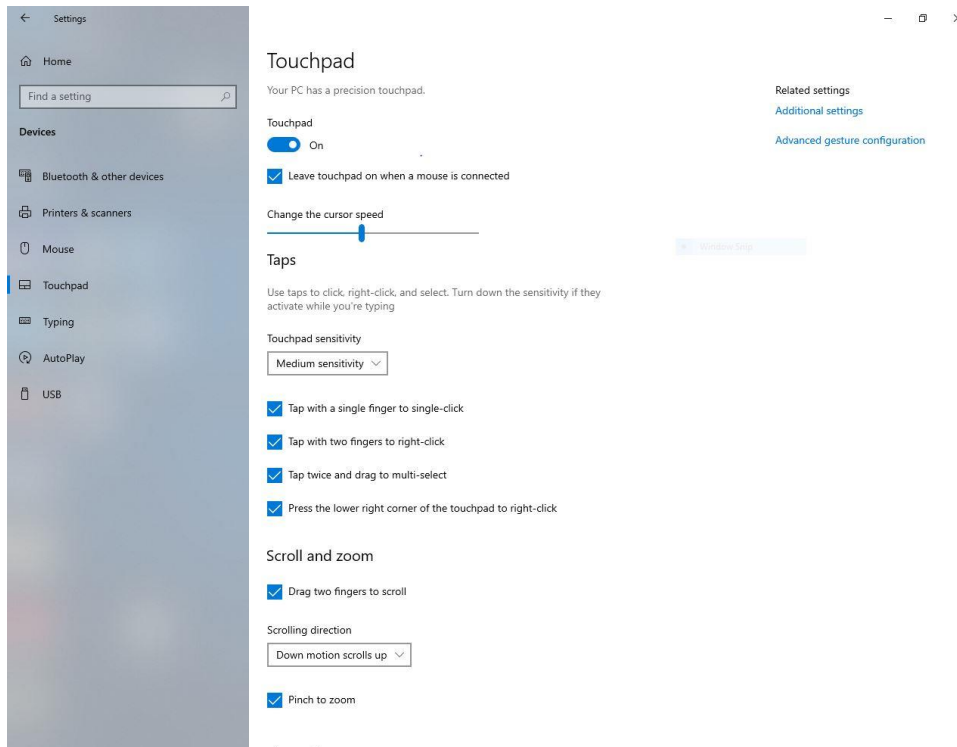


- Select the Hardware ID entry at the property dropdown list. If you identify REV\_4513 or REV\_4514 as your current firmware, the USB mouse firmware is installed.



5. Proceed with the update of the firmware as shown below.

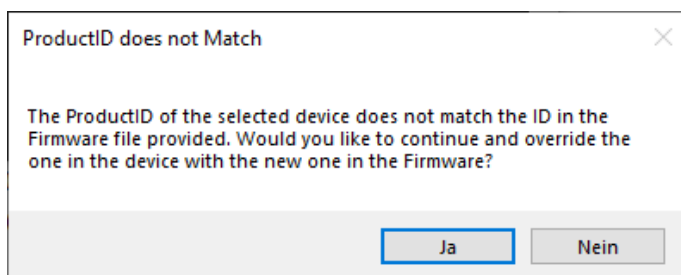
The Precision Touchpad firmware is already installed if you go to Start → Settings → Devices and find “Touchpad” in the device list. In this case, a firmware upgrade is not needed.



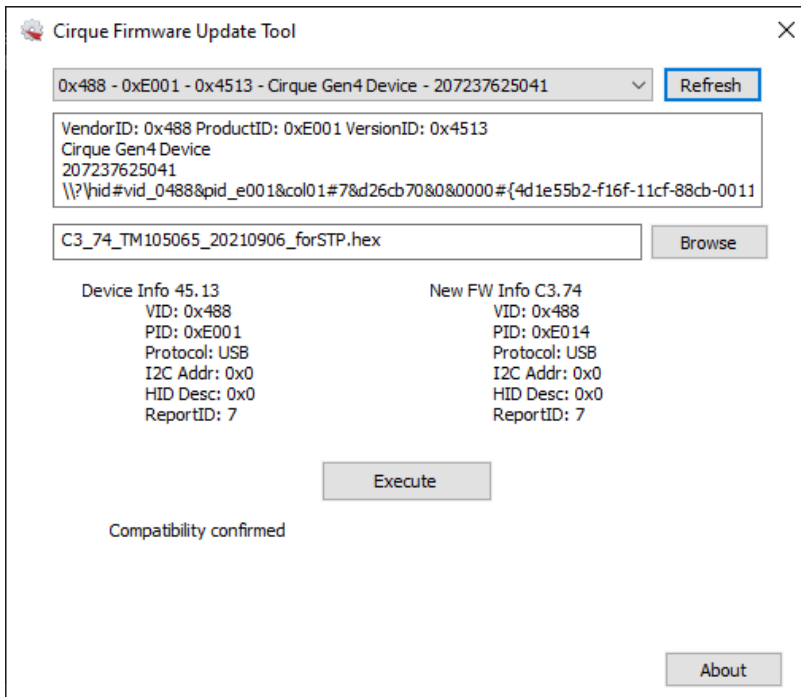
## 4.2 Update the firmware of the touchpad

To update the firmware of the touchpad, proceed as follows:

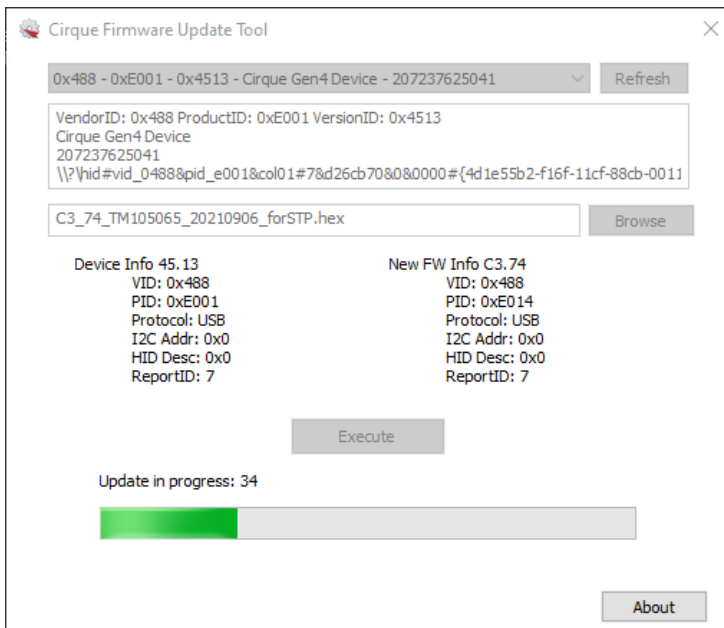
1. Unzip the firmware package (CirqueFWUpdater) to a new folder to the desktop of your system.
2. Open the folder and run the *Update.bat* file
3. The updater shows a message that the product ID does not match. This happens because the new Firmware C3.74 contains a different product ID for the Precision Touchpad.
4. Confirm the message with yes.



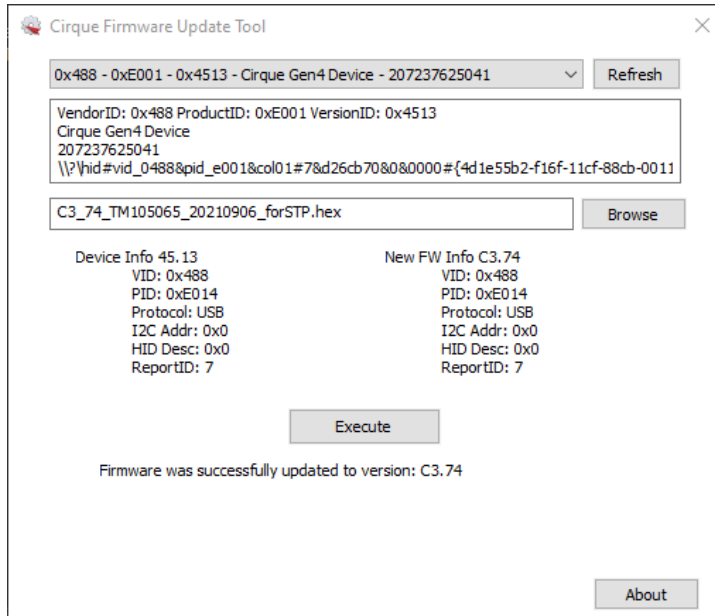




5. Start the firmware update by clicking “Execute”.



6. Wait until the firmware update has finished.

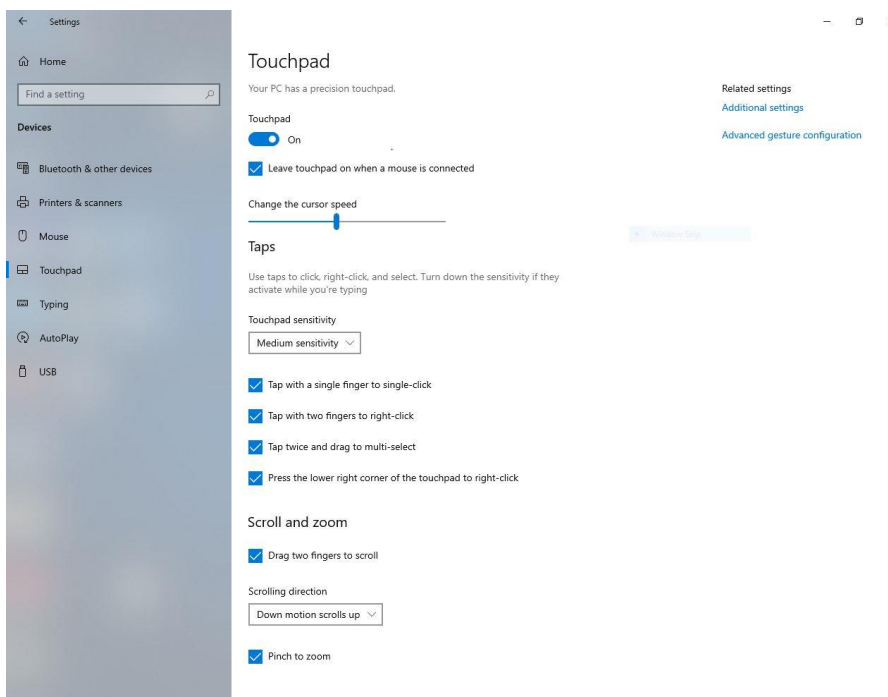


The firmware is now updated.

7. Close the update tool by clicking "X" at the upper right corner.

8. Restart the System to finalize the firmware update.

If you now go to Start → Settings → Devices the Touchpad section has been added to the device list.





### 4.3 Known issues with firmware C3.74

At Linux (tested with Ubuntu) the additional keys (left and right button) are not functional.

The touchpad only works with the “Clickpad” feature.

Push the trackpad for a key event, depending on the location of your finger (left side or right side of the touchpad) it would generate a left or right mouse click.

A downgrade from C3.74 to USB mouse firmware 45.14 is only possible at the factory.

If you plan to use Linux and want to use the USB mouse firmware 45.14 inform DEWETRON before ordering the system.