

iControlPad Flashing Guide using Microsoft Windows

This guide explains step by step how to update the firmware of your ICP to the latest version.

1. Prepare your PC and the ICP.

Before starting to flash your device, please make sure that the battery of the ICP is at least charged by 50%.

Your device will not be bricked if it runs out of battery while flashing, but it will not be usable until you successfully reflash it.

Make sure that your ICP is switched off.

Download and extract the latest Firmware Update package from www.icontrolpad.com.

First, open the Bluetooth Manager in Windows.

You can do so by clicking on the Bluetooth symbol on the tray and selecting „Show Bluetooth Devices“.

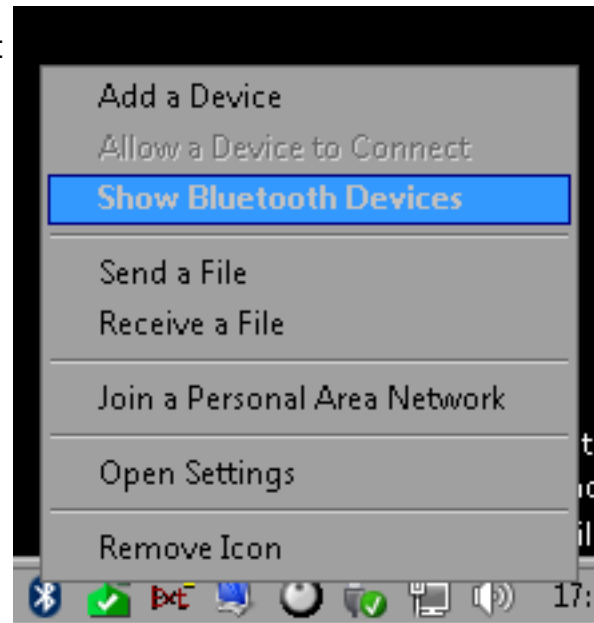


Fig. 1: Open the Bluetooth Manager

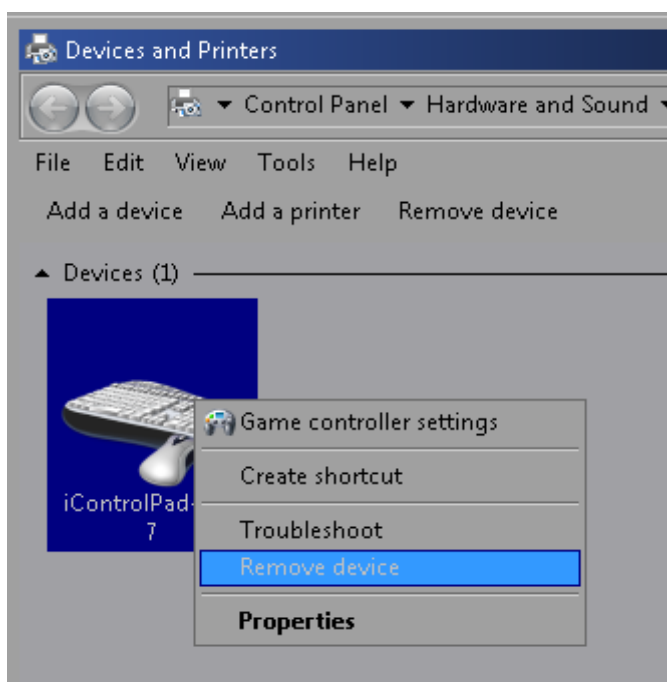


Fig. 2: Remove all saved iControlPad devices

After doing that, remove any saved iControlPad-Devices that show up in the Bluetooth manager.

You can do that by right-clicking on the iControlPad-Device and selecting „Remove device“.

2. Put the iControlPad into flashing mode

First, we need to tell the iControlPad that we want to update the firmware. To do so, please first ensure that the iControlPad is switched off.

In case you have multiple iControlPads:
Please make sure ALL of them are switched off.



Fig. 3: Press and hold Select + Start until the LED flashes.

Then press and hold the SELECT button first, then press and hold the START Button.

The LED light up.

Keep both buttons pressed until the LED goes off for half a second.

You can now release the buttons. The LED should stay constantly on.

This shows that the device is now in flashing mode.

The iControlPad will switch off itself after a while. If the LED goes off before you started the flash process, please restart with Step 1 and try to be faster.



Fig. 4: The iCP is now in flashing mode,

3. Pair the iControlPad with your PC

It's time to pair the iControlPad with your PC.

In the Bluetooth Manager, click on the „Add device“ button.

Windows will now search for Bluetooth devices. After a while, your iControlPad should show up.

Once it does, select it and click on „Next“.

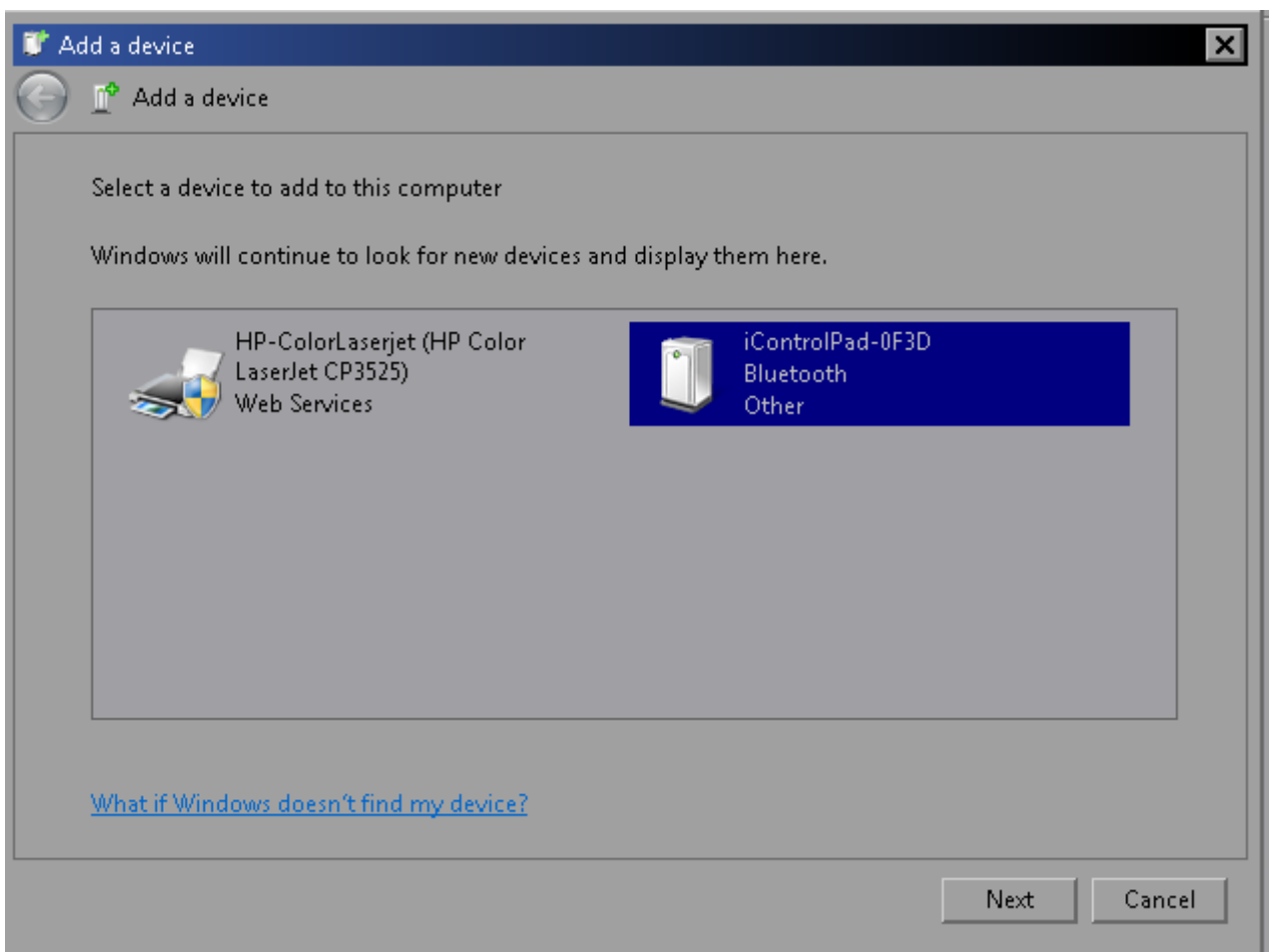


Fig. 5: Select the iControlPad and click on Next.

Windows will then ask how the device should be paired.

Click on „Enter the device's pairing code“ and enter the code „1234“ and click on Next.

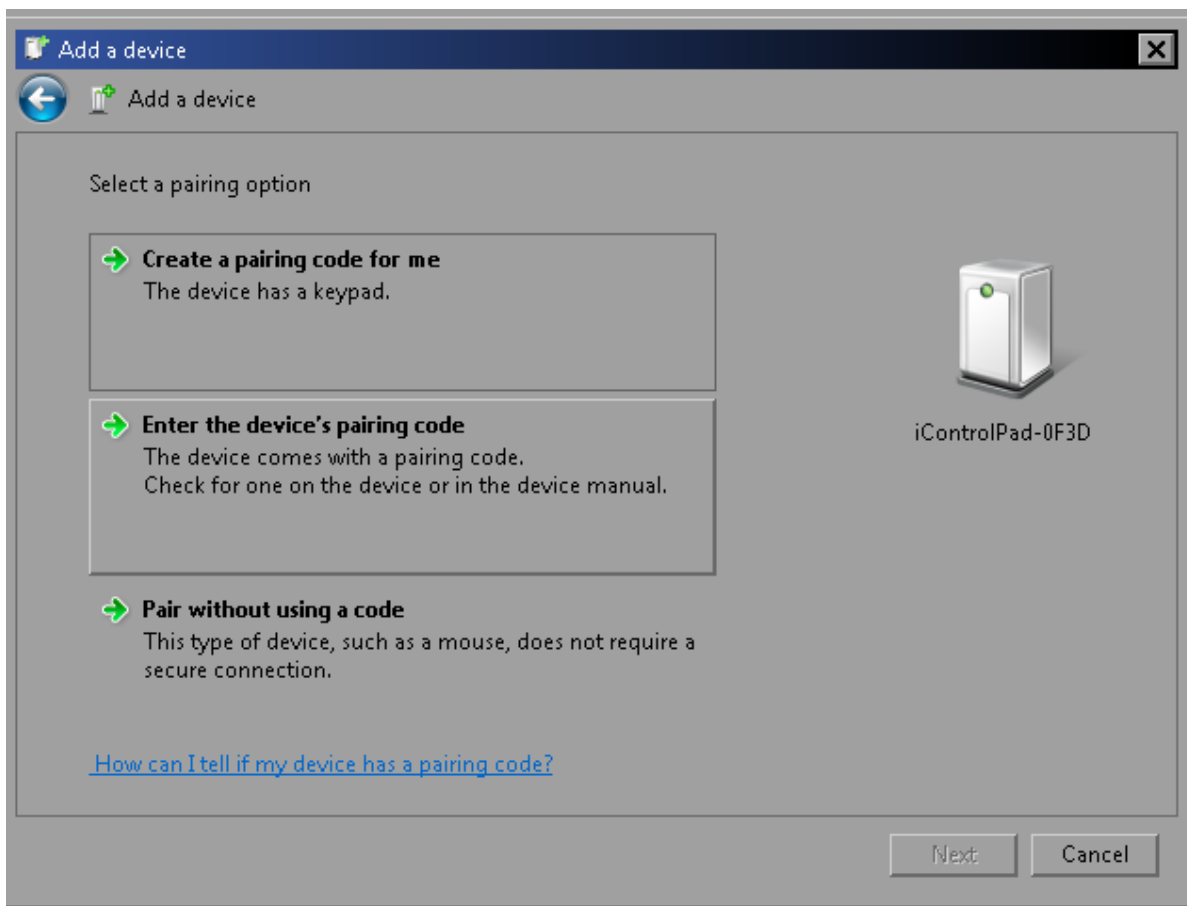


Fig. 6: First, select "Enter the device's pairing code"

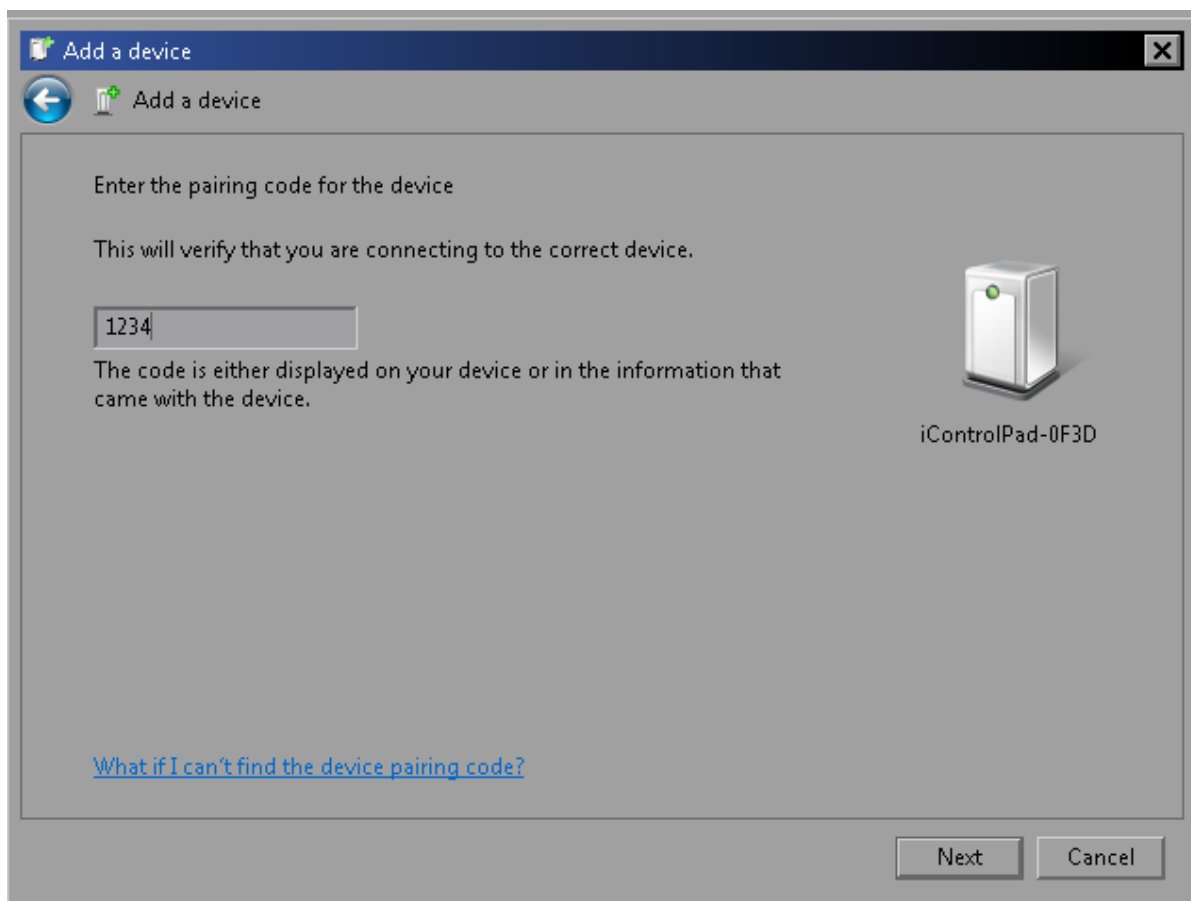


Fig. 7: Then enter "1234" as pairing code.

If everything worked as it should, you will see a window telling „This device has been successfully added to this computer“.

If it didn't work, check whether the iControlPad is still switched on (the LED should still be lit) and recheck that you entered the correct pairing code.

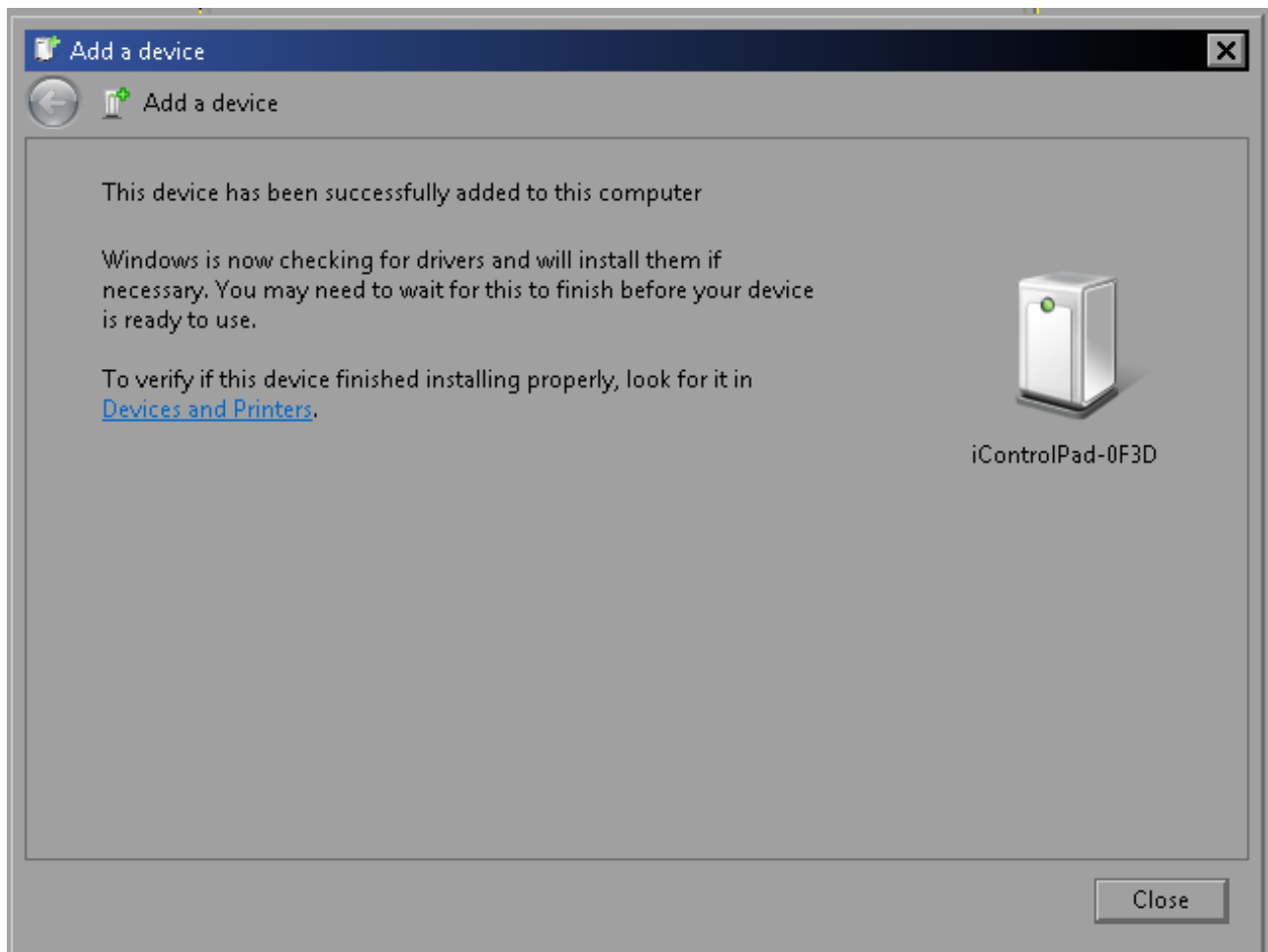


Fig. 8: If the pairing worked fine, you will see this screen.

4. Check the Bluetooth device settings

After the device has been successfully paired, we have to check some settings.

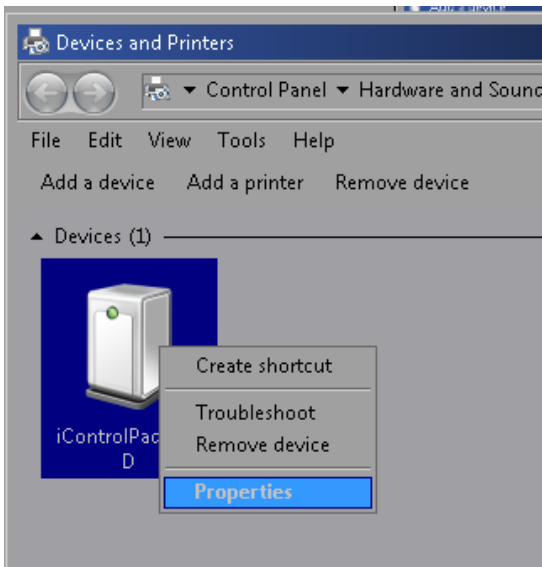


Fig. 9: Right-Click on the device and select "Properties"

First, open the properties window of the iControlPad.

This can be done by Right-Clicking on the freshly added iControlPad-device in the Bluetooth-Manager and selecting „Properties“

Click the „Services“-Tab on the Properties-Window and make sure that the Bluetooth service „Serial Port (SPP) 'iCP-SPP' is active (the box needs to be checked).

If it isn't active, please tick the box.

Now check what COM-Port that service is using.

It has to be a COM-Port with any number from 1 – 9. If it is higher than 9, please read on.

If it is lower than 10, click on OK and proceed with Step 5.

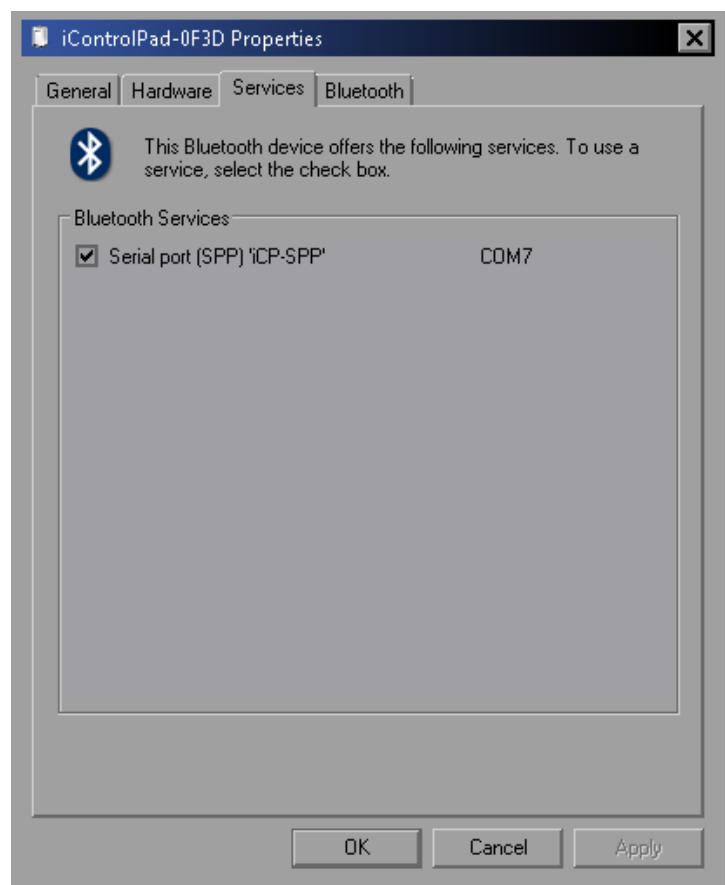


Fig. 10: Check for the COM-Port

So the COM-Port Windows gave your iControlPad is higher than 9?

No problem, we will fix that.

First, click on the Hardware-Tab.

Then select the „Standard Serial over Bluetooth link“ and click on „Properties“.

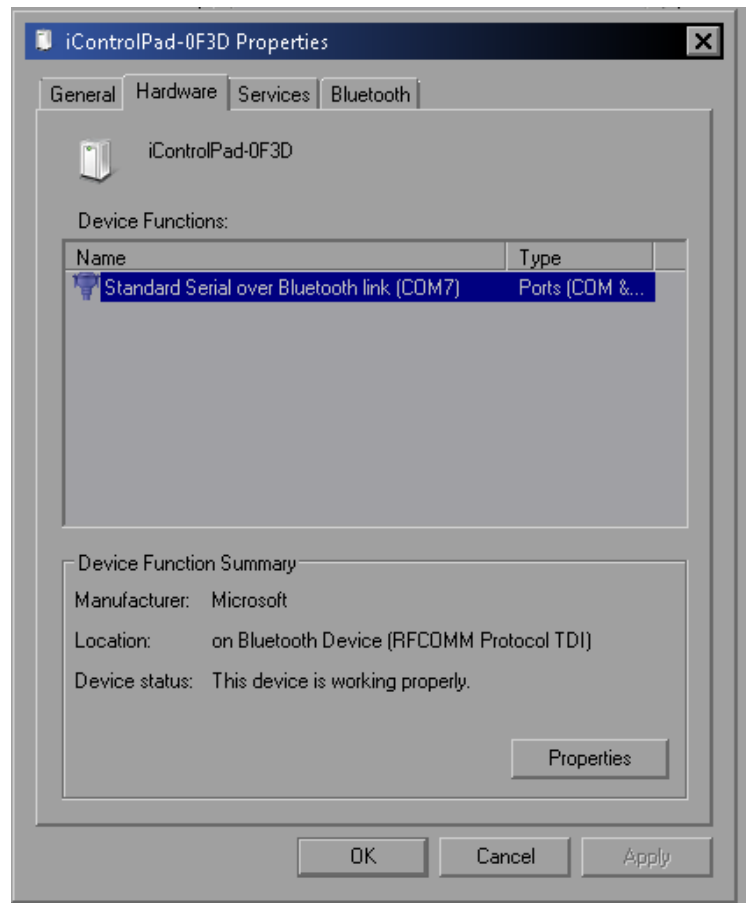
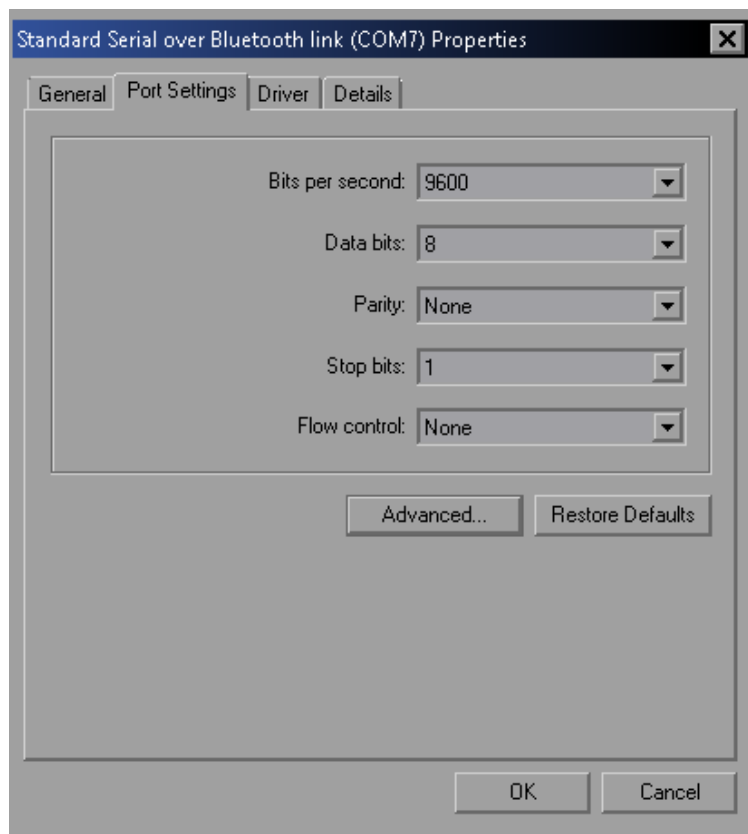


Fig. 11: Go to Hardware and click on Properties.



Next, go to the „Port Settings“-Tab and simply click on „Advanced...“.

Fig. 12: Go to "Port Settings" and click on Advanced...

Use the dropdown-menu to select an available COM-Port between 1 and 10.

To determine whether a COM-Port is available or not, check for „(In use)“. Select one that doesn't have „(in use)“ behind the number.

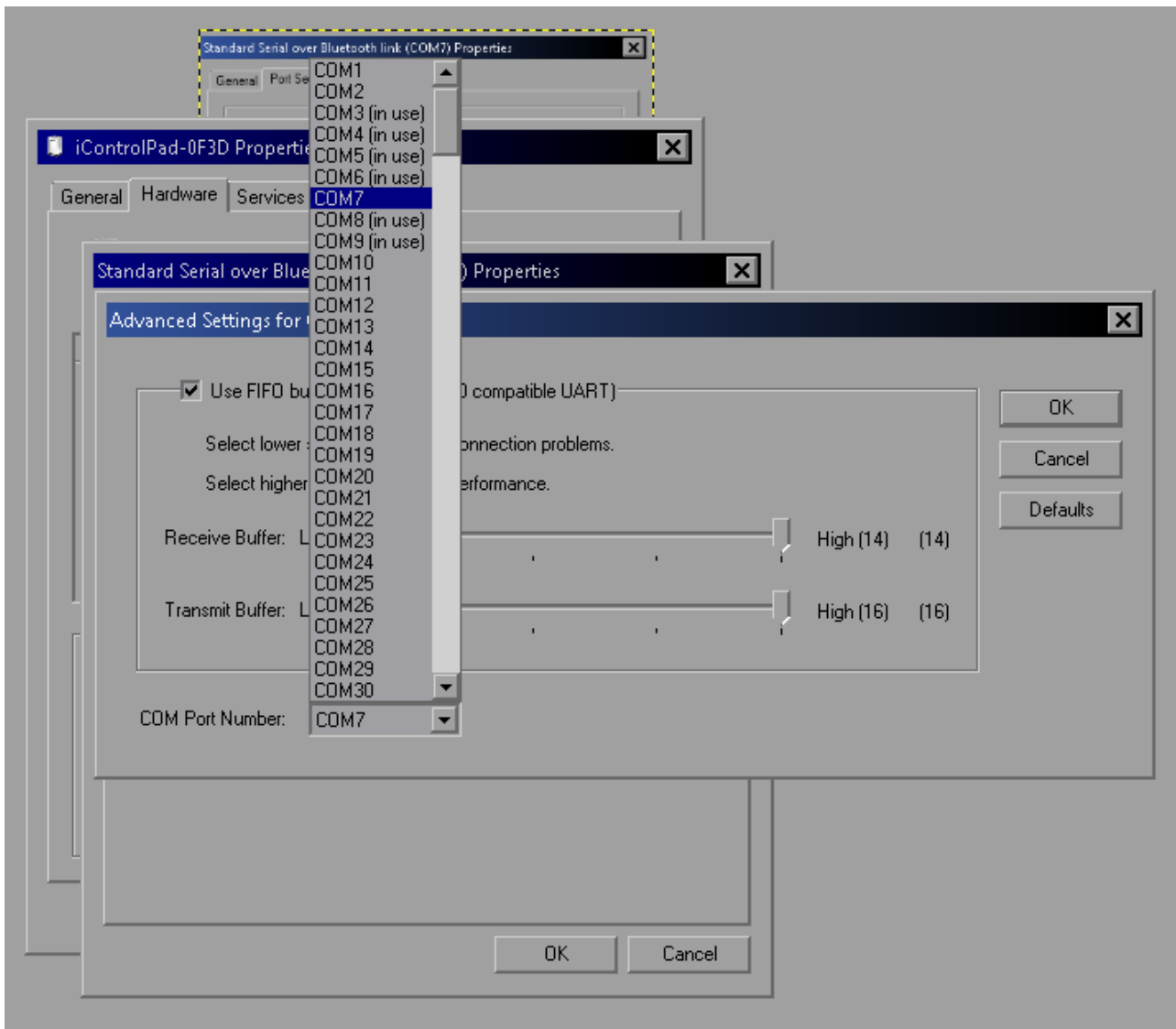


Fig. 13: Select a free COM-Port

Sometimes Windows thinks that all COM-Ports between 1 and 10 are in use. If that is the case, select one of the ports that is being reported as „in use“ where you are sure that it actually isn't in use.

Once you selected an appropriate COM-Port, remember the number and click on OK.

Close all open dialogues now and continue with Step 5.

5. Prepare the flashing

Once you have closed all open dialogues, open the folder where you extracted the files from the flashing package to.

Besides this guide, there should be three more files:

- * flasher.bat (was named „full_test_COM1.bat“ before)
- * icp_firmware.enc
- * update.exe

Before you can flash, you have to tell the flasher which COM-Port to use.

Right-Click on „flasher.bat“ and select „Edit“.

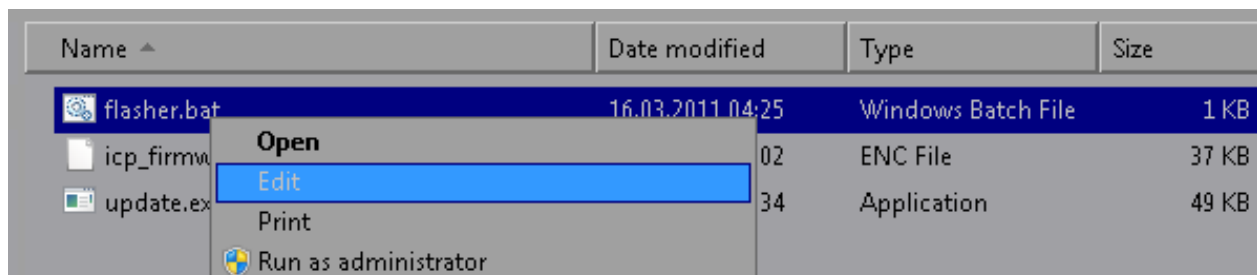


Fig. 14: Right-Click flasher.bat to select "Edit".

Notepad should now open.

Find the „-COM*“-Parameter (it's in the second line) and change it to match the COM-Port-Number you determined in Step 4.

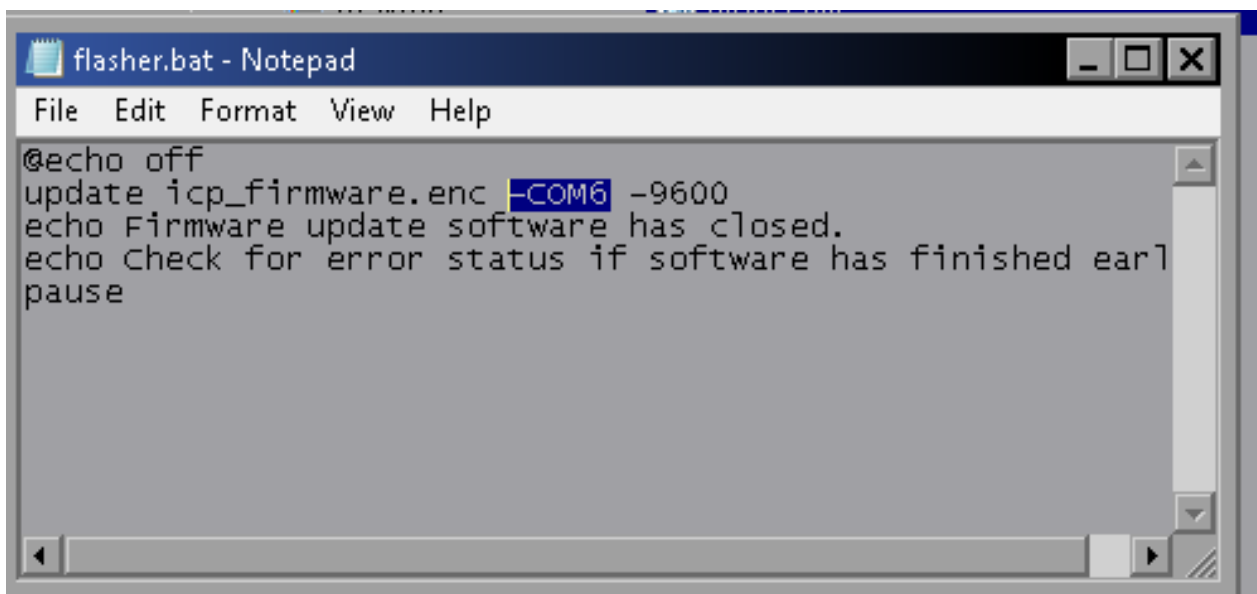


Fig. 15: Change the COM-Port.

Make sure that there is no space between the COM and the number, save and close the file.

6. Flash it!

The time has finally come to flash the device.-

First, make sure the iControlPad is still switched on and in flashing mode:
The LED should still be lit (not flashing).

If the LED is off, the iControlPad has switched itself off already and you need to start over (go all the way back to Step 1).
Try to be a bit faster this time.

If the LED is still on: double-click on flasher.bat.
A window will open and flashing will begin.

The %age of „Transferring“ should slowly increase from 0 to 100.

A screenshot of a Windows command prompt window. The title bar shows 'C:\Windows\system32\cmd.exe'. The command prompt displays the following text: 'update v1.0 - Copyright (C) 2003 Atmel Corporation', 'COM7 opened.', and 'Transferring.. \ 11% done.'

Fig. 16: The firmware is being uploaded to the iControlPad.

After a while, the flashing process will be finished.

Make sure that it finished the transfer at 100% and didn't stop earlier for some reason.

Congratulations, your iCP is now up-to-date.

A screenshot of a Windows command prompt window. The title bar shows 'C:\Windows\system32\cmd.exe'. The command prompt displays the following text: 'update v1.0 - Copyright (C) 2003 Atmel Corporation', 'COM7 opened.', 'Transferring.. 100% done.', 'Target updated successfully.', 'Firmware update software has closed.', 'Check for error status if software has finished early.', and 'Press any key to continue . . .'

Fig. 17: This is how a successful flashing process looks like.

If the flashing process somehow doesn't work or fails, please restart with Step 1 and doublecheck that you followed this guide thoroughly.

If you have any problems or questions, please check the iControlPad-Section at <http://boards.openpandora.org>