



# **How to manually remove DICE drivers on Windows ®**

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## 1 Introduction:

This is a description of how to manually remove DICE drivers on the Windows operating system.

Ideally the un-installer should be used to remove drivers from the system; it takes care of removing all driver related files and entries without user intervention.

The method described in this document should only be used when the driver un-installer is not present or available on the system or when the driver components are not being removed correctly even after running the un-installer.

There can be several reasons for old drivers hanging in the system. On developers' or beta testers' machines old drivers with conflicting names might have been installed. In some cases the TCAT SDK drivers can conflict as the old drivers used the OUI to match the device and they might have mistakenly attached to the device.

## 2 Initial Steps:

### 1. Change device visibility:

A DICE based device is a plug and play device, which means that it won't show up in the Windows device manager's device list until you connect it to your machine. In order to remove the drivers from the system we will need to set a system variable using the following steps. This will ensure that all DICE based devices are shown in the device manager even if you don't connect them to your machine.

- Open the control panel and open 'System Properties'
- Choose the 'Advanced' tab/settings.
- Click on 'Environment Variables'
- Add a new item to 'System variables'
- `devmgr_show_nonpresent_devices = 1`
- Open Device Manager. Select View and check 'Show hidden devices'.
- Then open the Speaker icon in the device list named 'Sound, video and game controllers'.
- After doing this you will see lot of devices, some with a slightly grey color. You should see your DICE based devices in the list. This should also list WDM audio and MIDI devices. There might be more than one DICE device in the list based on the number of devices you have connected to your system. Let device manager stay open, we will list steps to un-install the device later in "Removing Drivers" below.

### 2. Identify the Windows Directory:

You also need to identify your Windows directory, as you will need that later. On most machines this is C:\Windows but it can be different. In the 'System variables' list, you will see a variable called 'windir', remember what that is set to and in the text below use that instead of C:\Windows.

### 3. Identify the value for macro kTCAT\_DICE\_DRV:

You need to identify the value for this macro - kTCAT\_DICE\_DRV. This macro can be found in `tcat_dice_myproduct.h`. In this document we will be using "TcatDice" for this macro, please ensure that you replace it with your value.

### 3 Removing drivers

**Step 1: Remove the Hardware ID:** This means you are removing the most important ID from your machine that identifies your device. In order to do this:

- In the device manager once you've changed device visibility as mentioned in "Initial Steps", right click on each DICE device and select Uninstall.
- You will be asked if you want to continue, select yes. For Windows Vista and above select the check box which says "Delete the driver software for this device"

Continue for all the devices until the list does not contain anything relating to your device.

Once you are done with the steps above, let's make sure that the system has deleted the necessary device related entries in the registry. Please make sure that you don't alter or delete any entry in the registry while checking this as that might lead to an unstable machine. In order to check that:

- Type "regedit" in Run
- This opens the registry.
- Go to Computer\HKLM\System\CurrentControlSet\Enum\1394
- Under 1394, you should not see any entry related to your DICE device.
- Now go to Computer\HKLM\System\CurrentControlSet\Enum\TcatDice (Replace TcatDice with value for kTCAT\_DICE\_DRV)
- Under the above mentioned registry key, you should not see any entries for WDM or MIDI devices.

#### **Step 2: Unregister the ASIO DLL:**

This has to be done manually. For TCAT driver versions up to 4.1.3 the ASIO DLL name is TcatDiceAsio.dll, for your driver it will be <kTCAT\_DICE\_DRV>Asio.dll.

For driver versions 4.2.0 and higher, the name has been changed to TcatDiceAsio32.dll and TcatDiceAsio64.dll.

From the start menu choose "Run".

Execute the following commands in the dialog one by one:

(Remember to replace the C:\Program Files\TcatDice with your driver installation directory that you chose at the time of installing the driver. Also replace the name of the DLL with your DLL name.)

#### **On 32 bit systems:**

```
"regsvr32 -u C:\Program Files\TcatDice\TcatDiceAsio.dll"
```

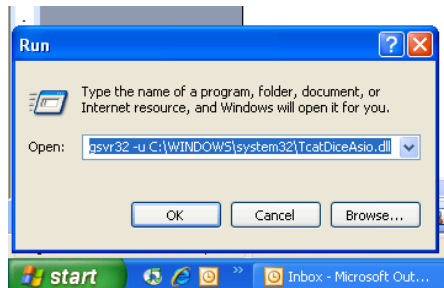
```
"regsvr32 -u C:\Program Files\TcatDice\TcatDiceAsio32.dll"
```

#### **On 64 bit systems:**

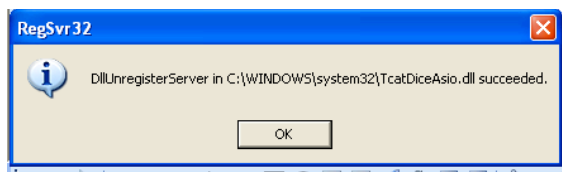
```
"regsvr32 -u C:\Program Files\TcatDice\TcatDiceAsio.dll"
```

```
"regsvr32 -u C:\Program Files\TcatDice\TcatDiceAsio32.dll"
```

```
"regsvr32 -u C:\Program Files\TcatDice\TcatDiceAsio64.dll"
```

**Figure 1**

You should see the following dialog:

**Figure 2**

After you see the above dialog, open the registry by selecting "Run" and type Regedit. Scroll to HKLM\Software\ASIO. You should not see any entries for TcatDice (replace this with kTCAT\_DICE\_DRV) under ASIO. This verifies that the ASIO DLL has been un-registered successfully.

### **Step 3: Remove the INF:**

The INF file is located in C:\Windows\inf. Normally these files are hidden. We need to do a text search within the INF directory for kTCAT\_DICE\_DRV, which is "TcatDice" in our case. Now set the search filter to search in "\*.INF" files which have the "TcatDice" string in them. You should see a file name starting with OEM\*.inf and also one file with .pnf extension. You might also see just one of these. Delete all of them.

### **Step 4: Remove the driver files:**

This step ensures that you are deleting all of the driver files that are loaded when your device is up and running. In order to do this:

- a. Open "My Computer" and go to the root directory called C:\
- b. In the search window, search for all files with the name TcatDice (Replace TcatDice with kTCAT\_DICE\_DRV). Based on your operating system (32 or 64 bit) you might see one or more entries for driver files.
- c. You might see one or more entries in the following folders:
  - o C:\Windows\System32\drivers
  - o C:\Windows\prefetch
  - o C:\Windows\System32\driverstore\filerepository
  - o C:\Program Files\TcatDice
  - o C:\Windows\System32
- d. Make sure you delete all files. For some of these files you might need to have administrator privileges.

Now you have removed all of the driver related files and entries from your system. You are ready to install a fresh driver on your system. If you still experience problems when installing the driver, please go through this document and make sure that you have followed all of the steps correctly.