



SUZHOU ZWO CO., LTD.



ZWO 抓取 SDK LOG 参考手册

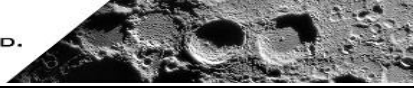
ZWO's Catch SDK LOG reference manual

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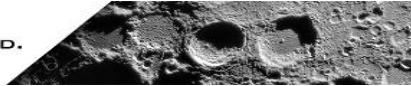


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Chapter 1: SDK LOG

SDK LOG: The SDK log contains the application's call information to the driver. It can help developers determine the cause of the problem more directly and the operating parameters of the camera.



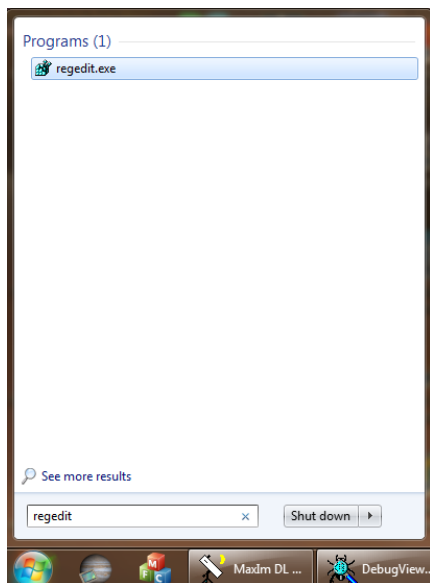
Chapter 2: How to catch it

2.1 Enable the SDK log on Windows

On windows, the switch is saved in the registry list. So it needs to open the Registry Editor. Before start, please make sure the camera has been closed.

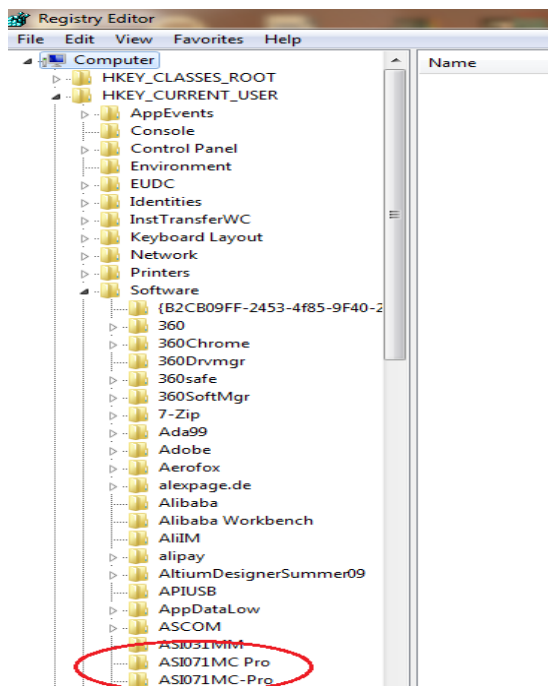
Step 1: Open the Registry list.

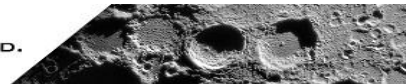
Click the start button, and enter “regedit” in the search box. Then run it.



Step 2: Select the camera saved in the registry.

Select “Computer” / ” HKEY_CURRENT_USER” / “Software”. You can find your camera in the item of the Software. Like This:



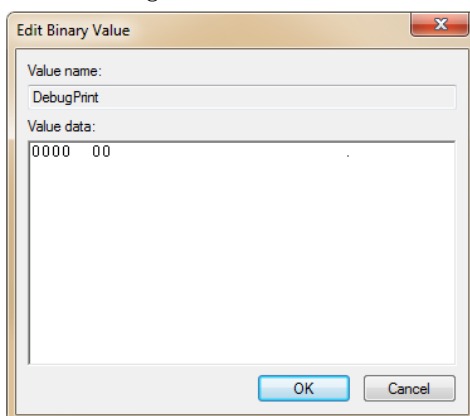


Step 3: Open the “DebugPrint” edit box.

Select the camera you want to open. Then you can see the content on the right. Find the “DebugPrint” item, and double click it.

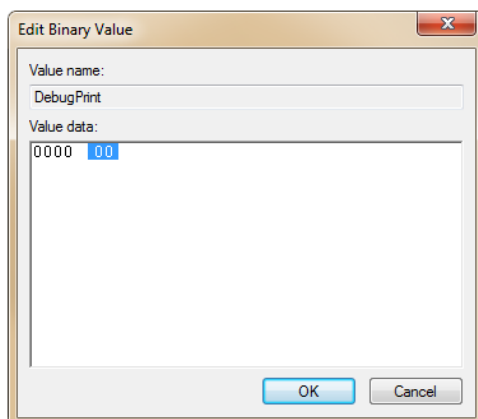
Name	Type	Data
(Default)	REG_SZ	(value not set)
AutoBL	REG_BINARY	00
AutoExp	REG_BINARY	00
AutoExpMaxMs	REG_DWORD	0x00007530 (30000)
AutoFPS	REG_BINARY	01
AutoGain	REG_BINARY	00
AutoGainMax	REG_DWORD	0x0000012c (300)
AutoWB	REG_BINARY	00
BMP_PATH	REG_BINARY	(zero-length binary value)
Brightness	REG_DWORD	0x00000008 (8)
CoolPowerPctg	REG_DWORD	0x00000000 (0)
CutDark	REG_BINARY	00
DebugPrint	REG_BINARY	00
DestBrightness	REG_DWORD	0x00000064 (100)
EE	REG_BINARY	00
EO	REG_BINARY	00
Exposure	REG_DWORD	0x004c4b3f (4999999)
Fclk	REG_DWORD	0x00004e20 (20000)
FlipColumn	REG_BINARY	00
FlipRow	REG_BINARY	00
FPSPercentageUSB3	REG_DWORD	0x00000050 (80)
Gain	REG_DWORD	0x00000000 (0)
HardwareBin	REG_BINARY	00
HighSpeed	REG_BINARY	00
HPC	REG_BINARY	01
OE	REG_BINARY	00
OO	REG_BINARY	00
OverCLKPerc	REG_DWORD	0x00000000 (0)
Pattern	REG_DWORD	0x00000000 (0)
RawOutput	REG_BINARY	01
TargetTemp	REG_DWORD	0x00000000 (0)
WB_Blue	REG_DWORD	0x00000063 (99)
WB_Red	REG_DWORD	0x0000003c (60)

The “DebugPrint” edit box



Step 4: Modify the value and save it.

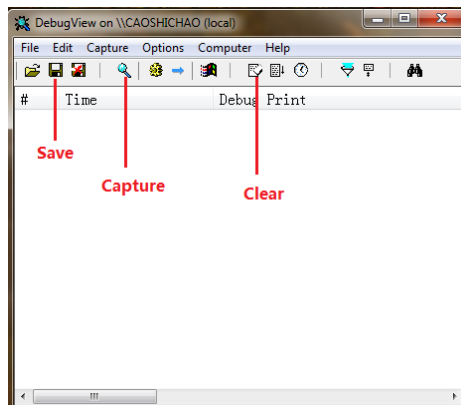
Replace the value in the image below with “01”. Then click OK.



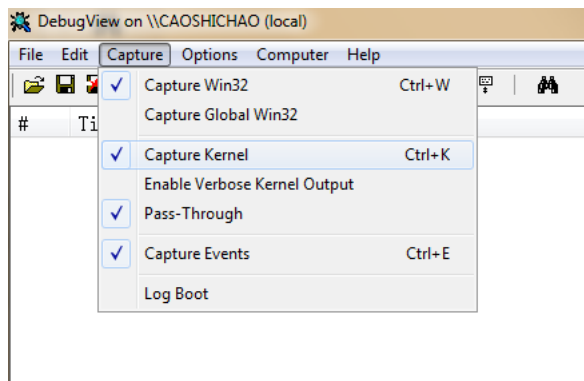
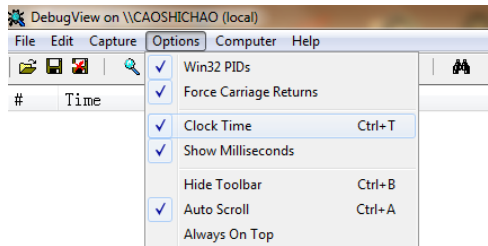


2.2 Install the DebugView.

We use the DebugView to grab the Log of the SDK. It is an executable that does not need to be installed. So just need to run it.



In order to keep track of the log, we need to save the time information in our log. So please select the Clock time and Show Milliseconds in the Options. Also do not forget the Capture item.

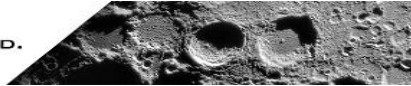


2.3 Catch the log.

Run the DebugView first, then run your application. If everything is right, you can get the log like this:

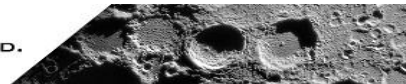


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```
DebugView on \\CAOSHICHAO (local)
File Edit Capture Options Computer Help
[Icons] [Buttons] [Print] [Refresh] [Stop] [Help]
# Time Debug Print
0 2:35:52.429 [1720] Starting update loop...
1 2:35:52.431 [1720] Reading config...
2 2:35:52.431 [1720] Downloading and checking appcast
3 2:35:52.881 [1552] System.IO.IOException: Pipe is broken.
4 2:35:52.881 [1552] at System.IO.Pipes.PipeStream.WinIOError(Int32 errorCode)
5 2:35:52.881 [1552] at System.IO.Pipes.PipeStream.WriteCore(Byte[] buffer, Int32 offset, Int32 count)
6 2:35:52.881 [1552] at System.IO.Pipes.PipeStream.Write(Byte[] buffer, Int32 offset, Int32 count)
7 2:35:52.881 [1552] at SharpCap.Base.PipeRemotingBase.Write(Byte[] data) in C:\Documents\Source Code\SharpCap\src\SharpCap.Base.PipeRemotingBase.ProcessMessages() in C:\Documents\Source Code\SharpCap\src\SharpCap.Base.PipeRemotingBase.Main(String[] args)
8 2:35:52.881 [1552] at SharpCap.CameraFinder.Program.Main(String[] args)
9 2:35:52.881 [1552] [ASIGetNumOfConnectedCameras]: >>
10 2:35:52.906 [1720] [ASIGetNumOfConnectedCameras]: LocationPath PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(17)
11 2:35:52.941 [1720] [ASIGetNumOfConnectedCameras]: Camera PID:0x294b: PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(17)
12 2:35:52.941 [1720] [ASIGetNumOfConnectedCameras]: num 1 <<
13 2:35:52.941 [1720] [ASIGetCameraProperty]: ASIGetCameraProperty idx0 >>
14 2:35:52.941 [1720] [CCameraS294MC::CCameraS294MC]: CAMERA::CCAMERA()
15 2:35:52.941 [1720] [CCameraBase::LoadSetting]: LoadSetting
16 2:35:52.942 [1720] [CCameraBase::OpenCamera]: open camera success
17 2:35:52.973 [1720] [CCameraBase::OpenCamera]: *****USB3.0 Host*****
18 2:35:52.974 [1720] [CCameraFX3::GetFirmwareVer]: Ver return 1: 0x30
19 2:35:52.975 [1720] [ASIOpenCamera]: iFIndexed: PCIROOT(0)#PCI(1400)#USBROOT(0)#USB(17)
20 2:35:52.975 [1720] [CCameraBase::CloseCam]: camera closed
21 2:35:52.978 [1720] [CCameraBase::CCameraBase]: ~CCameraBase
22 2:35:52.978 [1720] [CCameraFX3::CCameraFX3]: ~CCameraFX3
23 2:35:52.978 [1720] [ASICloseCamera]: pCamera deleted
24 2:35:52.978 [1720] [ASICloseCamera]: ~-
25 2:35:52.979 [1720] [ASICloseCamera]: ~-
26 2:35:52.979 [1720] [ASIGetCameraProperty]: ASIGetCameraProperty idx0 <<
27 2:35:52.979 [1720] [ASIGetCameraProperty]: ASIGetCameraProperty idx0 <<
28 2:35:53.488 [1720] Error during app cast download: The remote server returned an error: (404) Not Found.
29 2:35:53.488 [1720] No version information in app cast found
30 2:35:53.488 [1720] Sleeping for an other 1440 minutes, exit event or force update check event
31 2:35:55.262 [1720] [ASIGetNumOfConnectedCameras]: >>
```

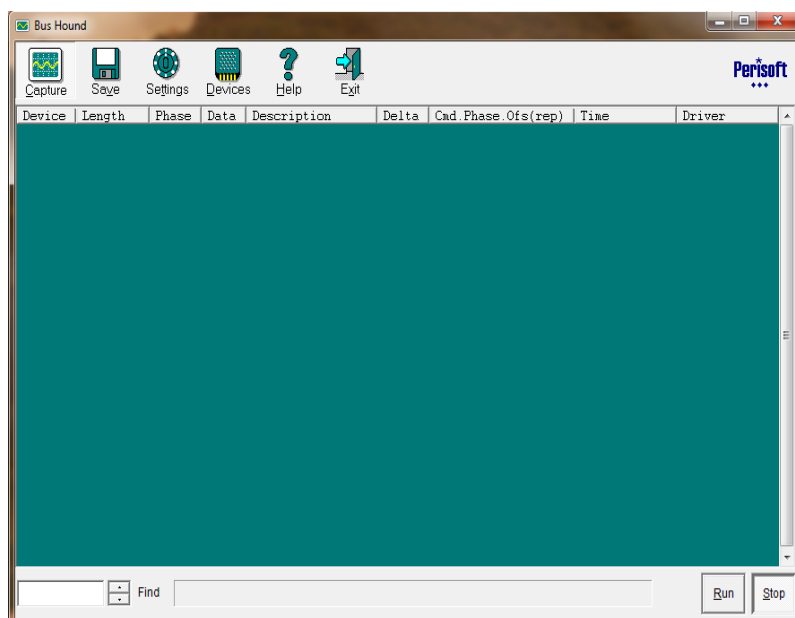
Do not close the DebugView, let it run with your application. If there is no error after 10 hours of running, please click the clear button above to clear the log. If it failed, please save the log, and send it to us.



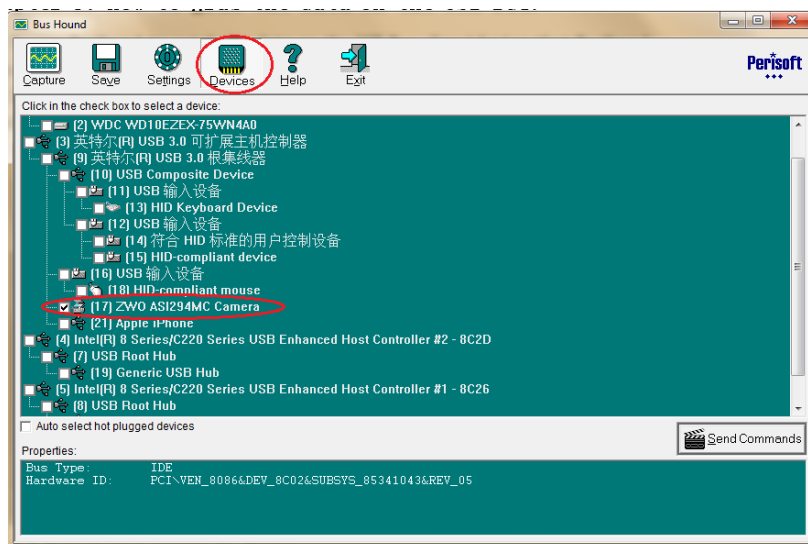
Chapter 3: How to grab the data on the USB Bus.

We use BusHound to catch the data on the USB Bus. Considering that BusHound is copyrighted, so we do not provide, but only explained.

During the installation, it needs reboot the computer. After the installation, run it. It should be like this:



Step 1, Select your camera in device.

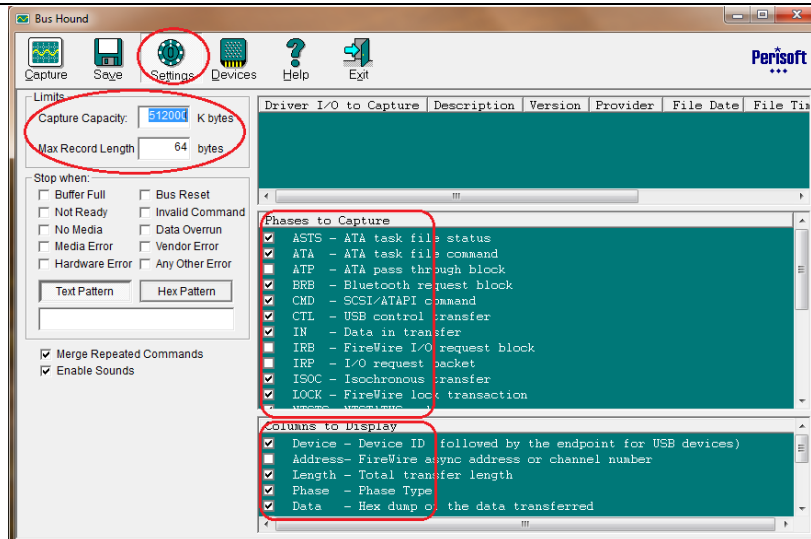
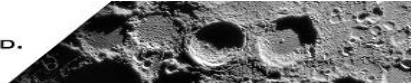


Step 2, Configure the Settings.

Please select the Settings. Set the Capture Capacity to 512000K bytes. In the Phases of Capture, please select “ASTS, ATA, BRB, CMD, CTL, IN, ISOC, LOCK, NSTS, ok, OUT, RESET, SENSE, SSTS, USTS”. In the Columns to Display, please select “Device, Length, Phase, Data, Descr, Delta, Cmd, Time, Driver”.

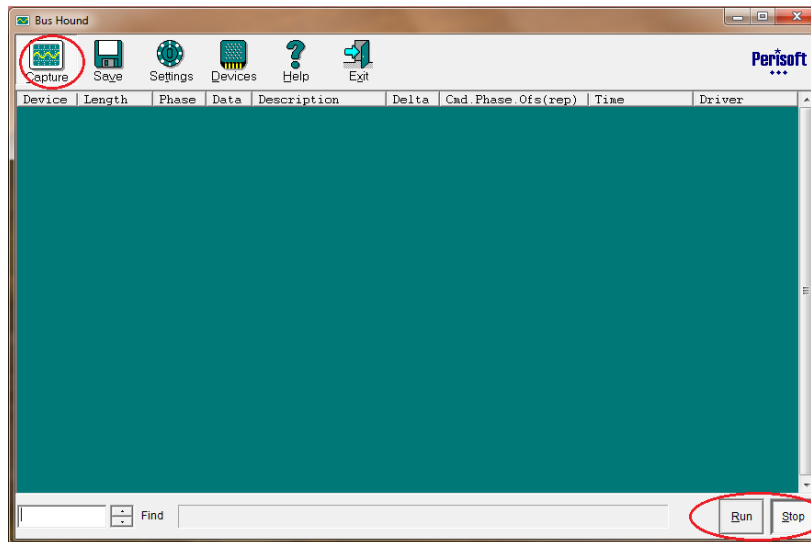


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Step 3, Capture and clear.

Click the Run, it begin to capture. Stop it and Run again, it will clear the log.



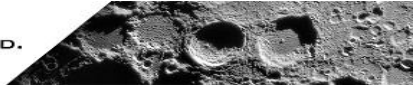
Step4, Save.

You just need to click the Save button in the Save item.

For catching, like the DebugView, you also need to run it before run your application, and keep it run with the application. It also needs to be clear if there is no error in 10 hours.



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Chapter 4: Get support

Please send email to info@zwoptical.com for more information.