Installation and Usage of the DMKCCD Camera Driver

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Download of the driver

Actually the latest driver can be found here <u>http://deepsky.endofinternet.org</u>

Further requirements

You need the latest ascom drivers (ASCOM 5.0). Please visit the ascom-standards site to download the latest Ascom environment. Here <u>http://www.ascom-standards.org/</u>

At least the DMKCCD Driver is developed using the Microsoft .Net V2.0 environment. Please check your system, if this version of .Net is installed.

Support for the driver

Can be found on the imaging source forums.

Start the driver installation routine

Please follow the instructions below, to get your dmk running via ASCOM. Start the installstion routine, downloaded in the introducting steps. The following dialog appears:



Click on the next button to proceed the installation process. The following view will be given:

🚰 Setup - ASCOM DMKCCD Camera Driver	_ 🗆 🗙
Ready to Install Setup is now ready to begin installing ASCOM DMKCCD Camera Driver on your computer.	
Click Install to continue with the installation.	
N	
43	
< Back Install	Cancel

Now click on the Install button to proceed the installation. The installation routine comes with a imaging control runtime environment installation. This is needed by the DMKCCD Ascom driver. Please click on the next button to proceed the IC runtime installation.



After clicking on the next button, you can specify a path where to install the driver routine. You can leave the folder textfield unchanged and continue installation with the next button.

🚰 Setup - IC Imaging Control 3.0 ¥B 6 Runtime Setup	_ 🗆 🗙
Select Destination Location Where should IC Imaging Control 3.0 VB 6 Runtime Setup be installed?	IC
Setup will install IC Imaging Control 3.0 VB 6 Runtime Setup into the foll folder.	owing
To continue, click Next. If you would like to select a different folder, click Browse).
C:\Program Files\Common Files\IC Imaging Control 3.0 Brow	/se
At least 4,3 MB of free disk space is required.	
< Back Next >	Cancel

After the IC Imaging Control Runtime is installed, the setup routine can be terminated by clicking on the finish button.



The DMKCCD ASCOM driver is now installed. At next heres an example how to use the driver with maxim DL.

Using the DMKCCD Driver with Maxim DL

Start MaximDL to setup the ASCOM DMKCCD driver



Click on the camera icon in the toolbar, to open the MaxIm CCD Dialaog

🕂 MaxIm CCD	<u>? ×</u>
Expose Settings Sequence Focus	Inspect Guide Setup
Main CCD Camera	Filter Wheel
Setup No Camera	Setup No Filters
Cooler	Cooler On Comment
Autoguider	
Setup No Autoguider	Warm Up
Cooler	Cooler Off Disconnect

Push the Setup button to choose the ASCOM CCD Driver

Setup ASCOM	?×
ASCOM Plug-in Version 4.58 Copyright (C) 2006-2007 Diffraction Limited Support: www.cyanogen.com	OK Cancel
Camera Model	Advanced
k₂	

The ASCOM CCD Driver can be choosen from the camera model combo box (left side). After the selection is made, click the on the 'Advanced' button to open the ASCOM Camera Chooser Dialog.

💐 ASCOM (Camera Chooser		×
Select the type of camera you have, then be sure to click the Properties button to configure the driver for your camera.			
DMKCCD	Camera 🔽	Properties	
			_
λ	Click the logo to learn more about ASCOM, a set of	<u>0</u> K	
ASCOM	standards for inter-operation of astronomy software.	<u>C</u> ancel	

From the combobox select the DMKCCD Camera box as shown above. Now click on the OK button to proceed.

Hint! Do not choose the Properties Dialog, actually this option is unstable and can lead to errors.

🕕 MaxIm CCD	? ×
Expose Settings Sequence Focus	Inspect Guide Setup
Main CCD Camera Setup ASCOM	Filter Wheel
Autoguider	Cooler On Connect
Setup No Autoguider	Warm Up Cooler Off Disconnect

After you setup the ASCOM DMKCCD model, you can click on the Connect button to work with the camera. After clicking on connect, the DMKCCD camera chooser apears.

Device Settings	N	×
Video Capture Device	4	
Device Name	DMx 31AU03.AS	
Serial Number	0×25800082	
		Properties
Device Settings		
Video Norm	n/a	T
Video Format	Y800 (1024x768)	•
Frame Rate (FPS)	30.00003	•
Input Channel	n/a	T
Flip Video Horizontal		
Flip Video Vertical	Г	
Update	ОК	Cancel

You can choose your camera model from the Device Name combobox as shown above. Take care that actually only the Y800 color model is supported by the driver. So choose Y800 from the video format combox. Quit your setup by clicking on the OK button. Now the DMKCCD Setup Button appears. Hint: Camera specific options can be made actually only via the Options menu. The Gain and Offset sliders do not have any effect. Do not push any of the buttons, especially the OK and Cancel buttons. You must reconnect your driver, to get this dialog shown again!!!

MaxIm DL 4	
Eile Edit View Analyze Process Filter Col	DMKCCD Setup
🗳 🖬 🕤 🗠 🖪 🔀 🕼 💰 📽 🍳 🍳	Options
	Gain [
MaxIm CCD Expose Settings Sequence	
Main CCD Camera Setup ASCOM No cooler control	Apply OK Cancel
Autoguider	DMKCCD ASCOM Driver Version 1.0 (c) 2008 by Gerrit M. Viola
Screen Stretch	Technical Support:
	http://www.astronomycameras.com/de/support/forum/
<u>e</u> e	
Minimum Maximum Low V	

The DMK CCD cameras can be controlled in Maxim DL, especially the exposure times can bei modified directly from the MaximCCD panel.

📡 MaxIm DL 4 - Focus	
Eile Edit View Analyze Proce	ess Fil <u>t</u> er <u>C</u> olor Pl <u>ug</u> -in <u>W</u> indow <u>H</u> elp
i 🖻 🖬 🗗 🖻 🔝 🕼 (👫 😭 🔍 🗨 100% 🔽 🕅 🛛 🖉 🖬 Zoom Window 🕐 🗙
Focus	
Focus	
	Device Properties - DMx 31AU03.A5
	Exposure Image
4	
For Help, press F1	
	Gain 1023 _ Auto
🔊 MaxIm CCD	Exposure - 1/1000 sec 🔒 🗖 Auto
Expose Settings Sequence Focus	Auto Reference
© CCD Seconds Binning	Auto Max Value 1/15 sec 🗧 🗸 Auto
O Guider 0.001 🗧 1 🚍	·
Subframe	Update Default OK Cancel Apply
Top 0 A Height 768 A	
Auto Beset	mup. //www.asuununi/cameras.com/de/support/rorum/
	Dark L Continuõus

Using the driver with Windows Vista

If Windows Vista as Operating System is used, the camera driver fails after clicking on the connect button. The reason for this behavior is the Security Mechanism in Windows Vista. Actually one solution to solve this problem is to disable the security mechanisms. Here's a short description how to do this.

- 1. Click Start and click Control Panel.
- 2. Click User Accounts and Family Safety.
- 3. Click User Accounts
- 4. Click Turn User Account Control on or off.
- 5. Click the box beside the Use User Account Control (UAC) to help protect your computer option to remove the check mark.
- 6. Click OK.

That's it. Perhaps restart Maxim DL to get the tweak working.

About the Developer of this Driver



The DMKCCD Driver is developed by Dipl.-Ing. Gerrit M. Viola. He lives in Wilnsdorf

(NRW). He's working as Senior IT Architect at Siemens AG IT Solution and Services (Paderborn). Has a masters degree in Technical Computer Science. His major interests in amateur astronomy are deepsky imaging, ATM projects such as a robofocuser clone with a portable microstepping solution, measurements environment for astronomical mounts and tweaking his ACF-Cassegrain.For more details about the author of this driver watch his little website.

Http://deepsky.endofinternet.org