

PENTAX PENTAX PENTAX PENTAX PENTAX
K-3_{III} KP K-1 K-1_{II} 645Z



User MANUAL

*Pentax
KP/K1/K1 Mark II/645Z/K3 Mark III
ASCOM Driver*

Richard Romano

July 20, 2025

Revision Sheet

Release No.	Date	Revision Description
Rev. 1.0	7/20/2025	Initial Release

USER'S MANUAL

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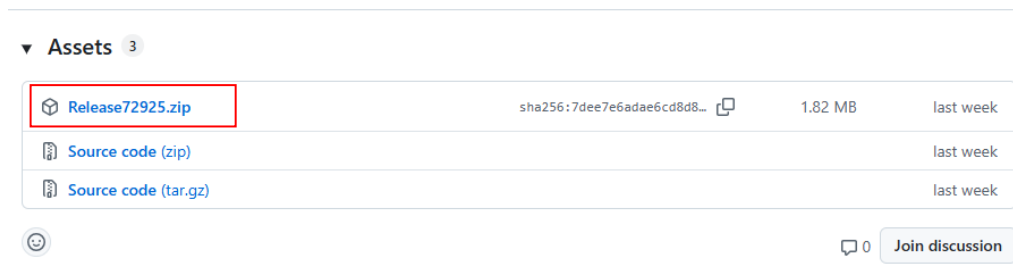
A. GETTING STARTED WITH SHARPCAP

1.1 Driver Installation

Download and install ASCOM. You should get this version if possible:
ASCOMPlatform702.4675.exe

From:
<https://github.com/ASCOMInitiative/ASCOMPlatform/releases/download/v7.0.2/AscomPlatform702.4675.exe>

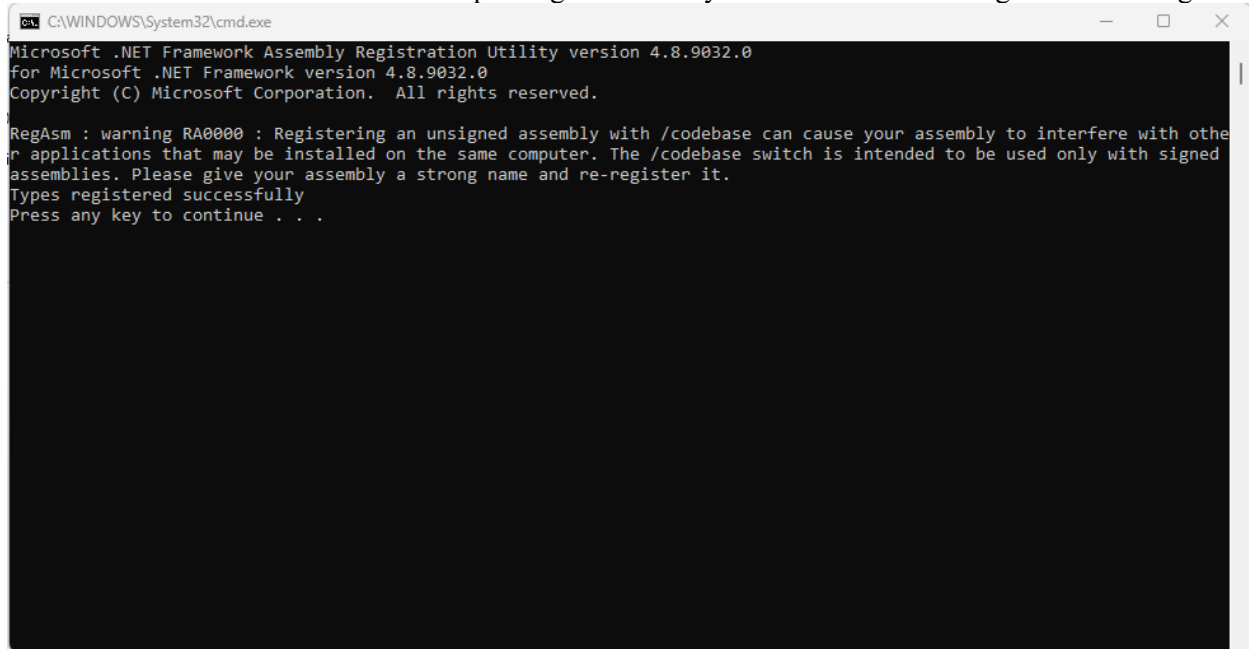
Next, download and unzip the Pentax KP ASCOM Driver:
[Releases · richromano/ASCOMPentaxCameraDriver](#)



Place the latest release to a long term location. This is the location the software will run from. Run install.bat by double clicking on it.

ASCOM.PentaxKP.Camera.tlb	7/30/2025 8:26 PM	TLB File	43 KB
ASCOM.PentaxKP.Camera.dll	7/30/2025 8:25 PM	Application extens...	420 KB
ASCOM.PentaxKP.Camera.pdb	7/30/2025 8:25 PM	Program Debug D...	116 KB
RicohCameraSDK.dll	7/28/2025 5:32 PM	Application extens...	203 KB
uninstall	7/13/2025 5:12 PM	Windows Batch File	1 KB
install	7/13/2025 5:11 PM	Windows Batch File	1 KB
ASCOM.PentaxKP.Camera.dll.config	6/15/2025 10:22 AM	VisualStudio.conf...	1 KB
libraw.dll	6/4/2025 12:05 AM	Application extens...	1,005 KB
ASCOM.Exceptions.dll	11/28/2024 5:47 AM	Application extens...	27 KB
ASCOM.Utilities.dll	11/28/2024 5:46 AM	Application extens...	1,184 KB
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ASCOM.Utilities.Video.dll	11/28/2024 5:46 AM	Application extens...	31 KB
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ASCOM.SettingsProvider	11/28/2024 5:12 AM	Microsoft Edge H...	10 KB
ASCOM.Internal.Extensions	11/28/2024 5:12 AM	Microsoft Edge H...	7 KB

The installer will ask for Administrator privileges and then you will see the following installation log:



```
C:\WINDOWS\System32\cmd.exe
Microsoft .NET Framework Assembly Registration Utility version 4.8.9032.0
for Microsoft .NET Framework version 4.8.9032.0
Copyright (C) Microsoft Corporation. All rights reserved.

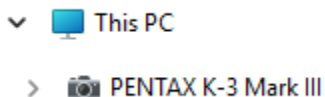
RegAsm : warning RA0000 : Registering an unsigned assembly with /codebase can cause your assembly to interfere with other
applications that may be installed on the same computer. The /codebase switch is intended to be used only with signed
assemblies. Please give your assembly a strong name and re-register it.
Types registered successfully
Press any key to continue . . .
```

1.2 SharpCap Installation and First Steps

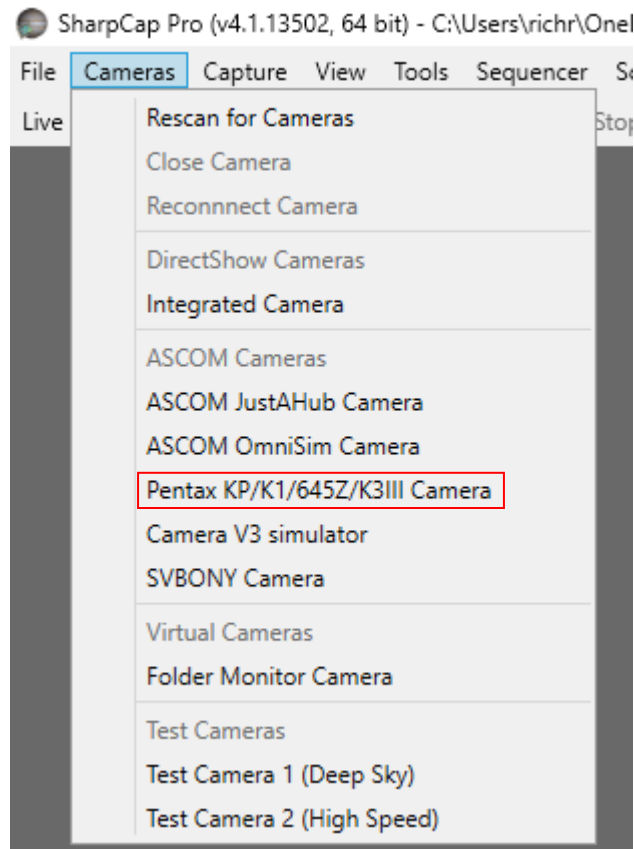
Download and install Sharpcap 64bit:

<https://d.sharpcap.co.uk/download.html?version=4.1.13484.0&arch=x64>

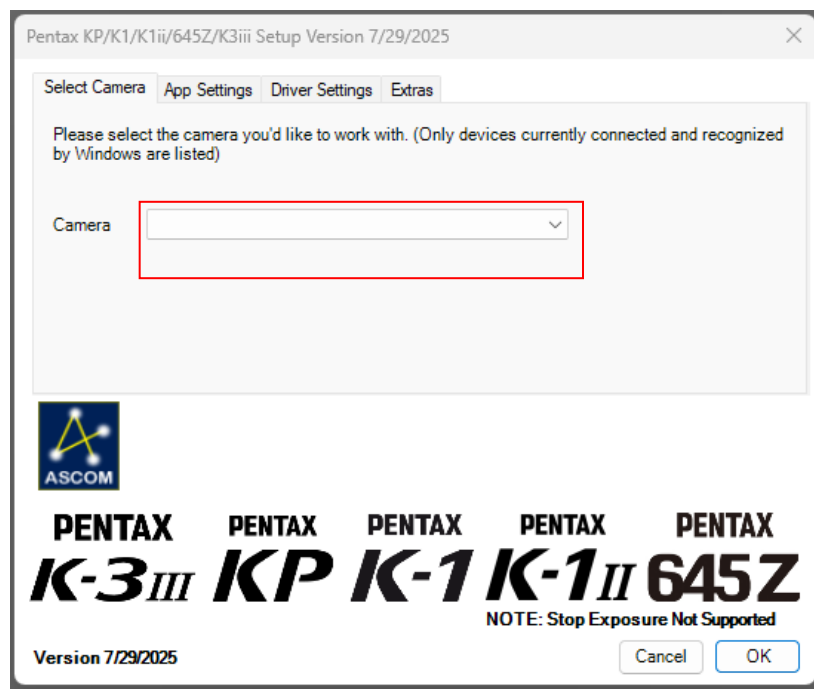
Turn on your camera and make sure the USB mode is set to MTP/PTP mode. Set the Camera to M mode. You can set the shutter to Electronic Shutter if desired. Connect your camera to the computer and make sure it is recognized as a camera.



Open Sharpcap. Select the Camera menu and you should see Pentax KP/K1/645Z.

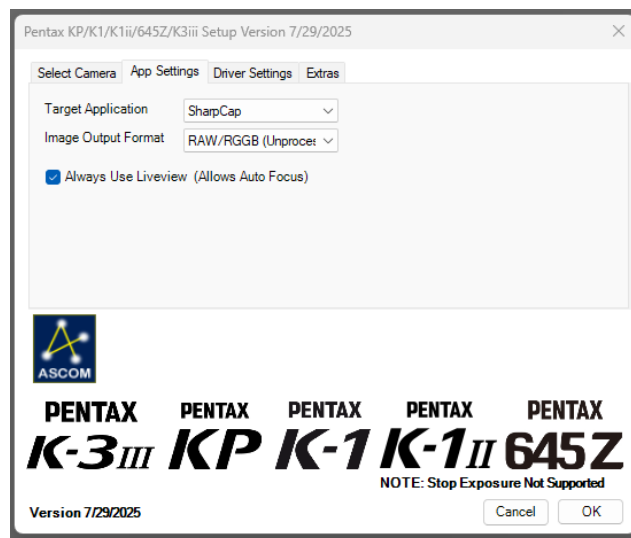


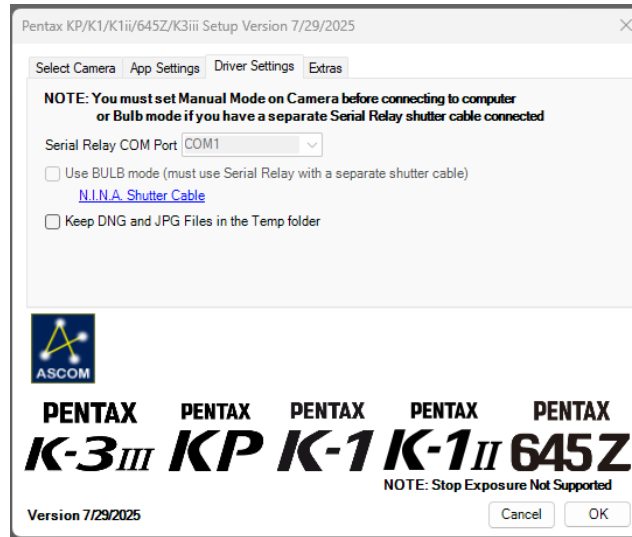
Select Pentax KP/K1/645Z and a dialog box should show up. Inside the dialog you should see a drop down where you can select your Camera.



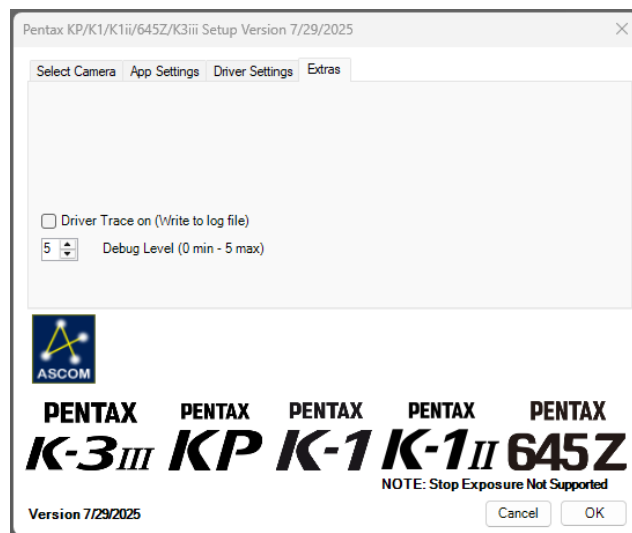


You can review each of the other settings pages as shown here. However, you should just accept the default settings given when you first install (the defaults are shown again here in case you want to reset them). Then press OK.

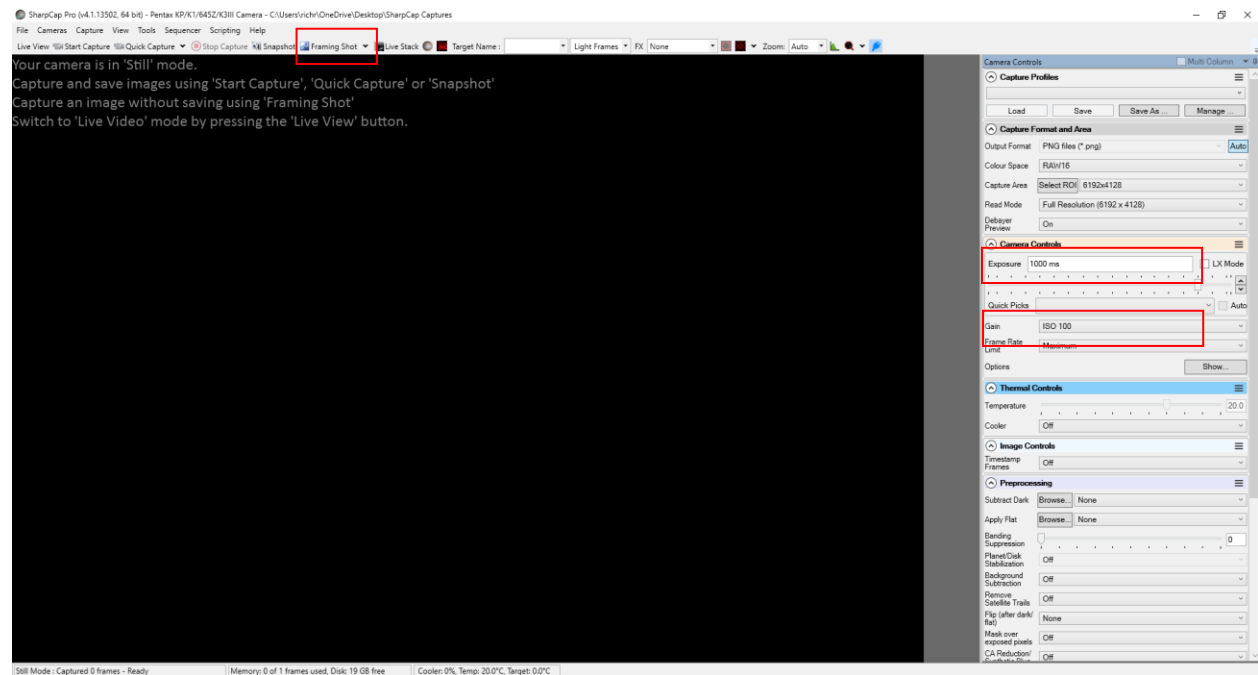




Note that Bulb mode no longer requires a cable and these options are greyed out.



After pressing Okay, you should see the following Window.

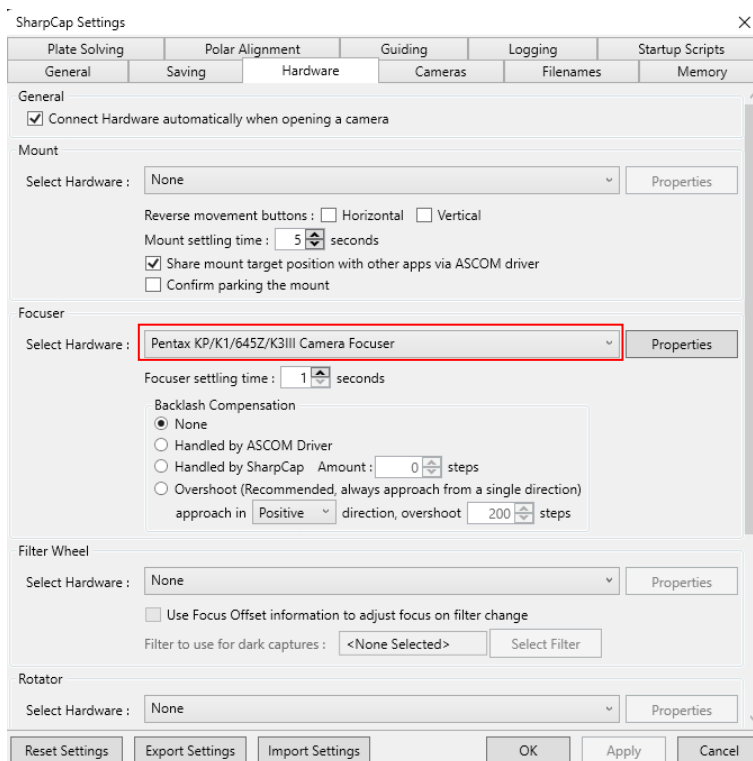


Take a picture by pressing the Framing Shot button. This should show an image. You can adjust the gain and the ISO using the other two buttons. You can then take more framing shots.

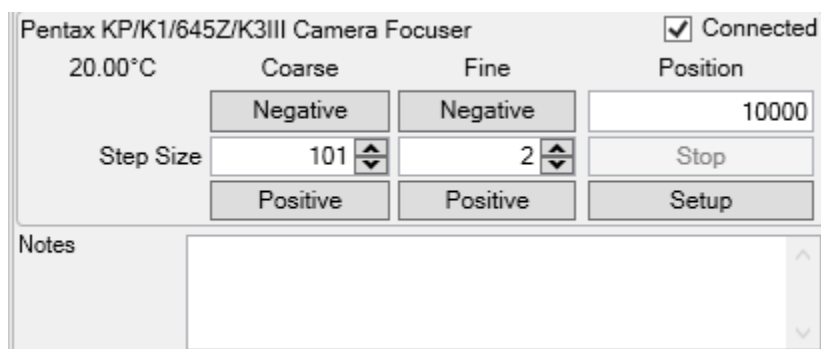
1.3 SharpCap Focuser Installation

There is a Pentax Focuser that is included in the driver installation. In SharpCap select the File-> SharpCap Settings. You will see the following:

First select the Hardware pane and then in the drop down menu in the Focuser pick the Pentax Focuser. There are no Properties to set and you can leave the other values at their defaults. SharpCap will automatically connect the focuser when the Camera is opened. (You must close and reopen the camera to connect the first time).

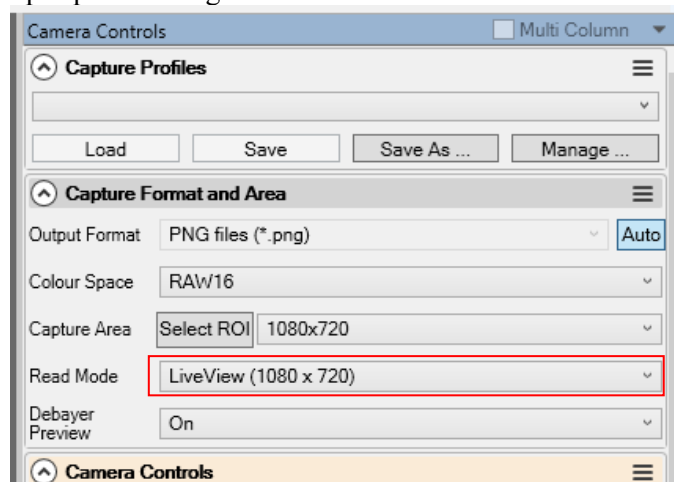


With the Focuser connected you will see an extra window in the lower right corner of SharpCap. You can control the Focuser manually from there. There are also several ways to automatically focus the camera. For the Focuser to work you need to have the camera in AF mode with an autofocus lens.

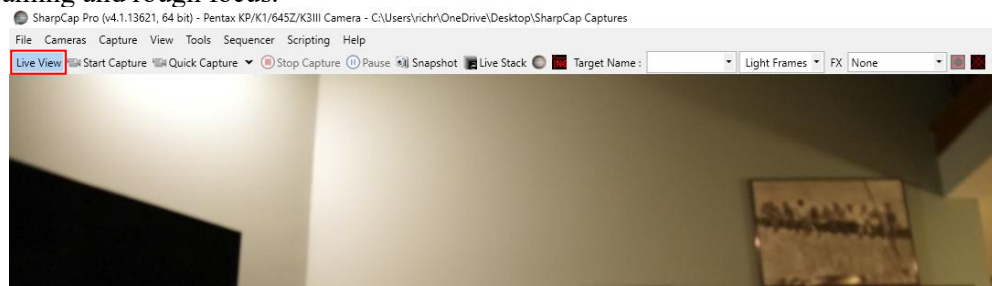


1.4 Live View With SharpCap

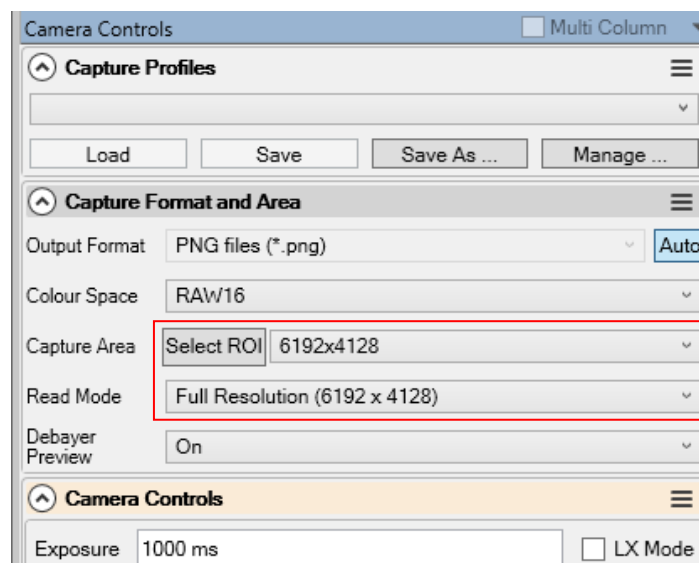
To use Live View in SharpCap first change the ReadMode to Live View



Then press the Live View button on the upper left. This will start live streaming of the camera that can be used for framing and rough focus.



To turn off Live View first turn off the Live View button in the upper left and then set the Read Mode back to Full Resolution and set the Capture Area to full resolution.



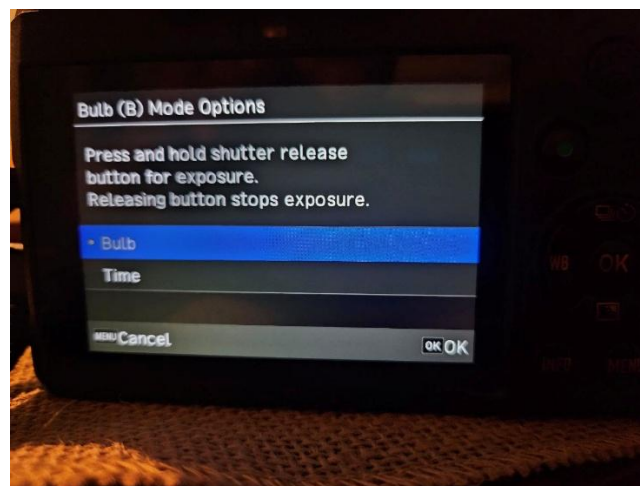
1.5 Bulb Mode With SharpCap

Bulb mode does not require any additional cables. Just set the camera to Bulb mode before connecting. To change back to Manual mode first disconnect and then change the more.

Once you have Bulb mode set be sure to press the Green button to switch from Time to Bulb mode. The camera should look as follows.



If you are using a K3-Mark III also make sure to set the Bulb mode to Bulb in the menu.



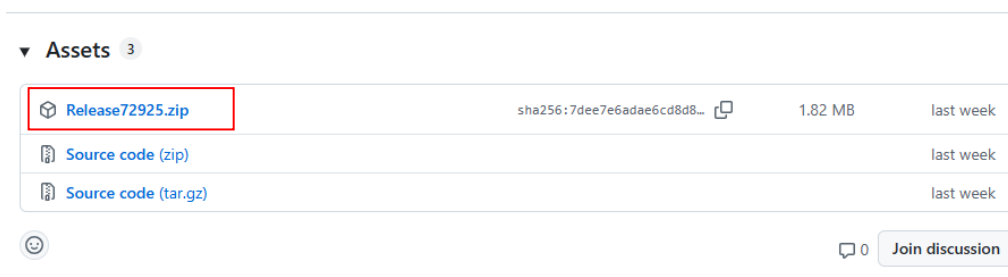
B. GETTING STARTED WITH N.I.N.A.

2.1 Driver Installation

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ASCOM.Internal.Extensions	11/28/2024 5:12 AM	Microsoft Edge H...	7 KB

2.2 N.I.N.A. Installation and First Steps

NINA Installation

Download and install NINA 64bit:

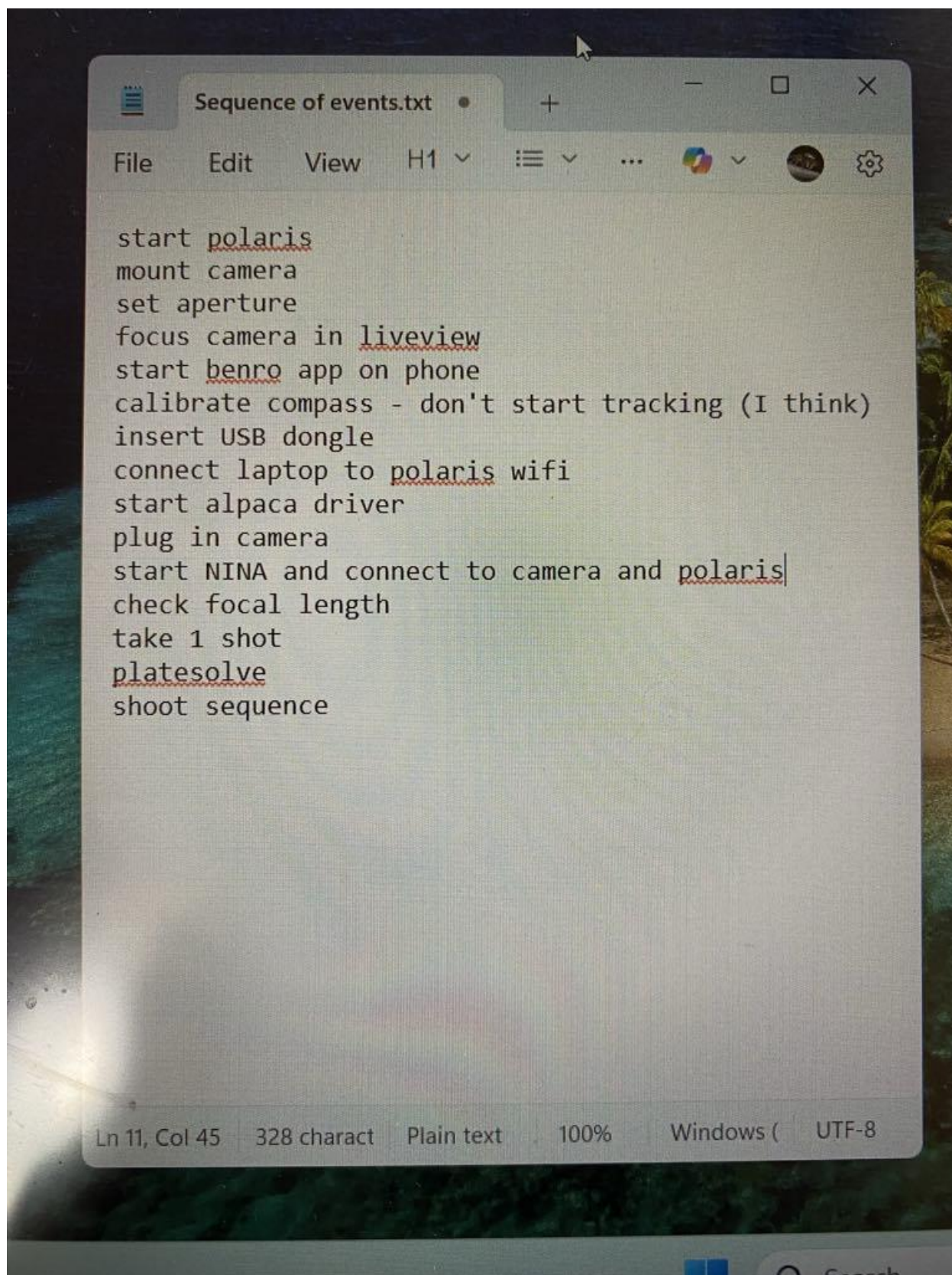
https://f002.backblazeb2.com/file/ninasetup/Releases/3.1.2.9001/NINASetupBundle_3.1.2.9001.zip

Extract and run NINASetupBundle.exe

Turn on your camera and make sure the USB mode is set to MTP/PTP mode. Set the Camera to M mode and shutter to Electronic Shutter. Connect your camera to the computer and make sure it is recognized as a camera.

Open NINA and switch to the Equipment pane. In the drop down you should see and select Pentax KP/K1/645Z (ASCOM). Connect to your camera by clicking the power button.

An intelligent aid for impaired individuals:



3.0 TROUBLESHOOTING

C. TROUBLESHOOTING

This section provides a general walkthrough of the system from initiation through exit. The logical arrangement of the information shall enable the functional personnel to understand the sequence and flow of the system. Use screen prints to depict examples of text under each heading.

3.1 Logging On

A user ID and password is required to log onto web interface.

3.2 System Menu

This section describes in general terms the system menu first encountered by the user, as well as the navigation paths to functions noted on the screen. Each system function should be under a separate section header, 3.2.1 - 3.2.x.

3.2.x [System Function Name]

Provide a system function name and identifier here for reference in the remainder of the subsection. Describe the function and pathway of the menu item. Provide an average response time to use the function.

3.3 Changing User ID and Password

Sign in to the Web Interface.

Click Settings at the top of the main page, and open the Accounts and Import tab.

Click on Account settings.

In the new window, click Change password under the Personal information option.

Enter your current password and your new password.

3.4 Exit System

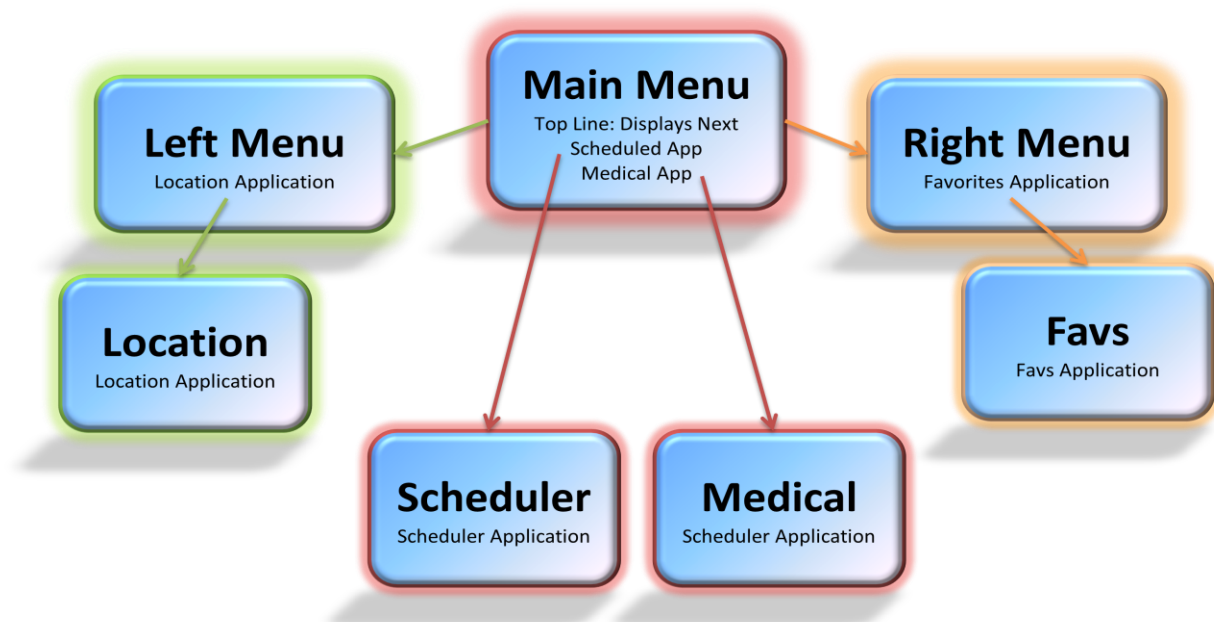
Click on Exit.

10.0 APPENDIX

A. APPENDIX

This section describes and depicts all additional information about the system. Use screen prints as needed to depict examples of text under each heading.

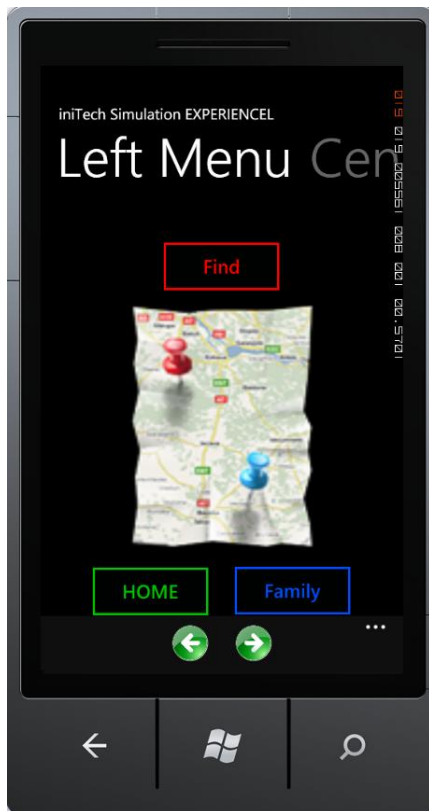
Menu Flow:



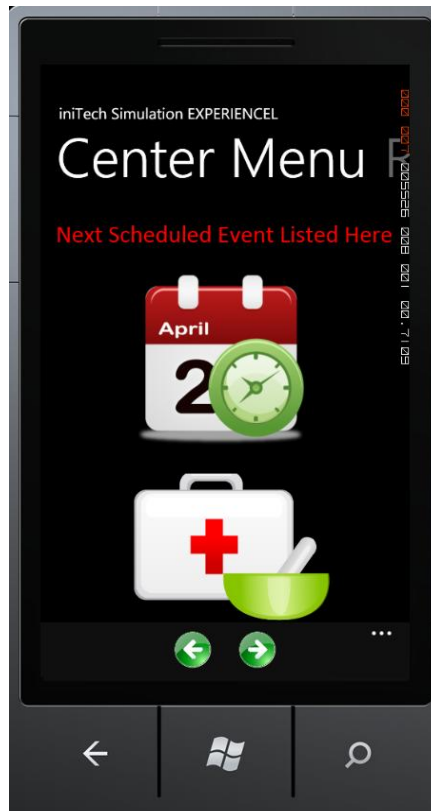
B. APPENDIX

Screen Shots:

Location Top Menu



Main Menu Screen



Favorite Menu



Top Menu Hierarchy:

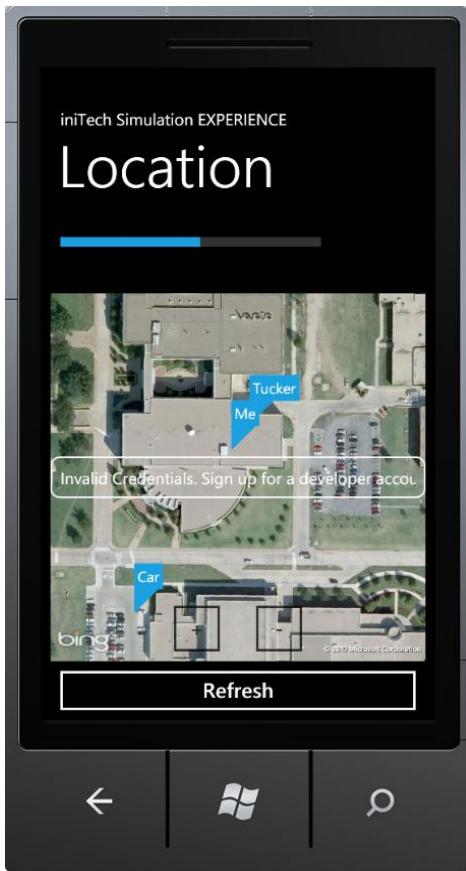
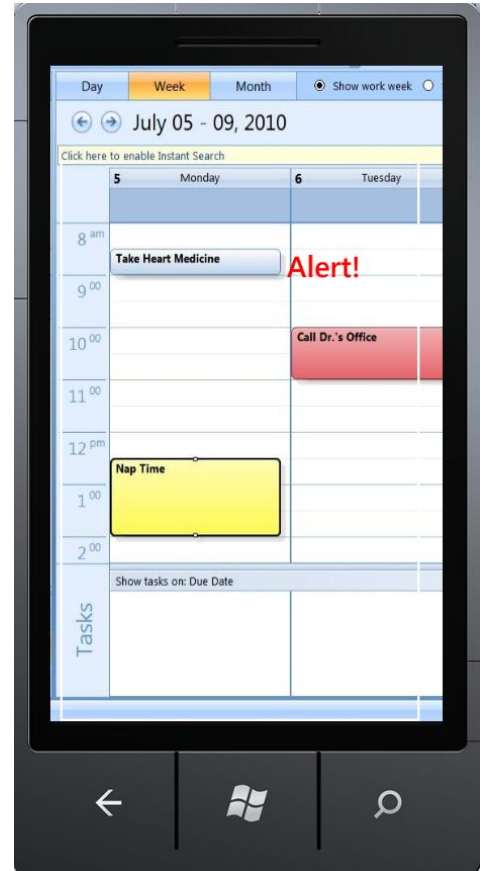
Screen Shots:

Medical History

Medication Tracker

Medication Instruction

Medical Sub-Systems:

*Screen Shots:**Location Screen Shot**Voice Command Interface**Scheduler**Secondary Systems:*

