

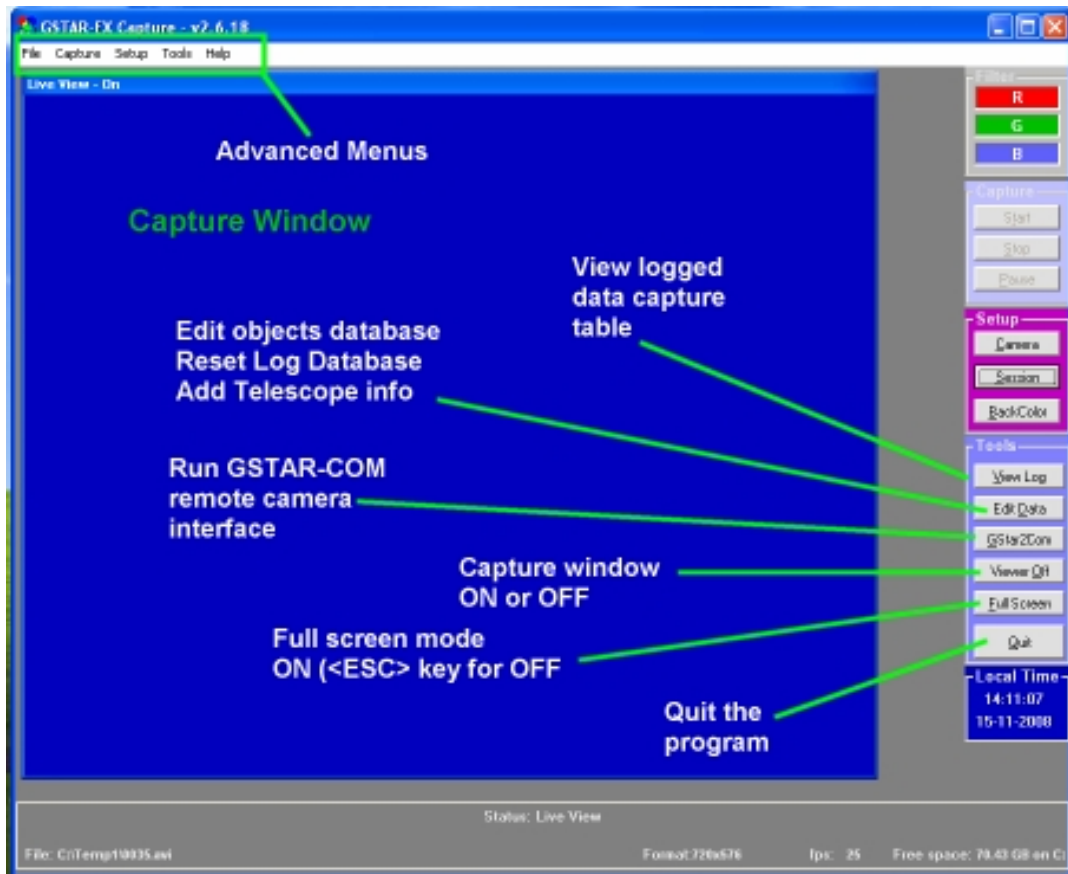
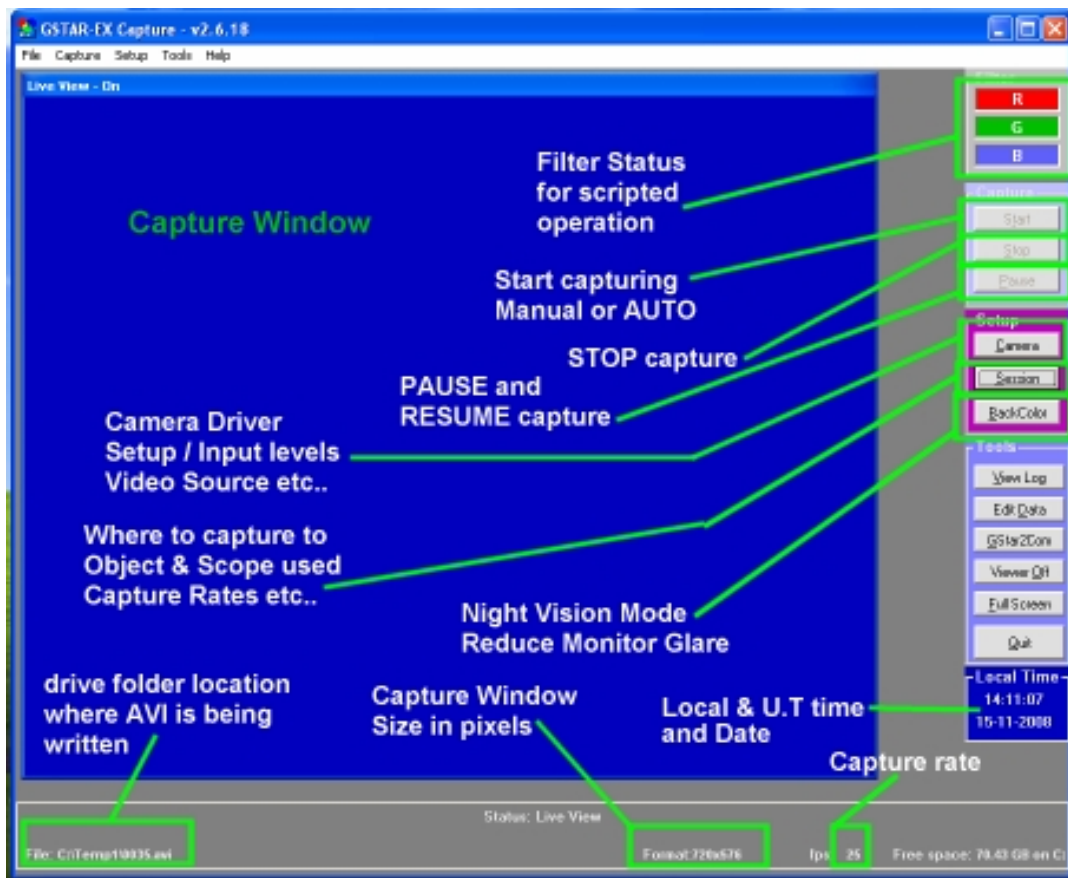
INTRODUCTION

The Gstar Image Capture software was first developed in 1998 for use with older windows operating systems (Windows 95, 98 98SE and 2000) which utilized Video for Windows (VFW) capture drivers. It was initially designed for manual and automated script AVI movie file capture for lunar and planetary imaging proving to be a very useful tool. With the advent and wide popularity of the Windows XP platform, the original version of GStar Capture was no longer compatible. A commercial video capture driver was then utilized around the same useful interface but also allowing us to conceive and make reality, several new features thus making the program more powerful, functional and compatible overall. Much of the programs coding has also been greatly improved for more efficient operation.

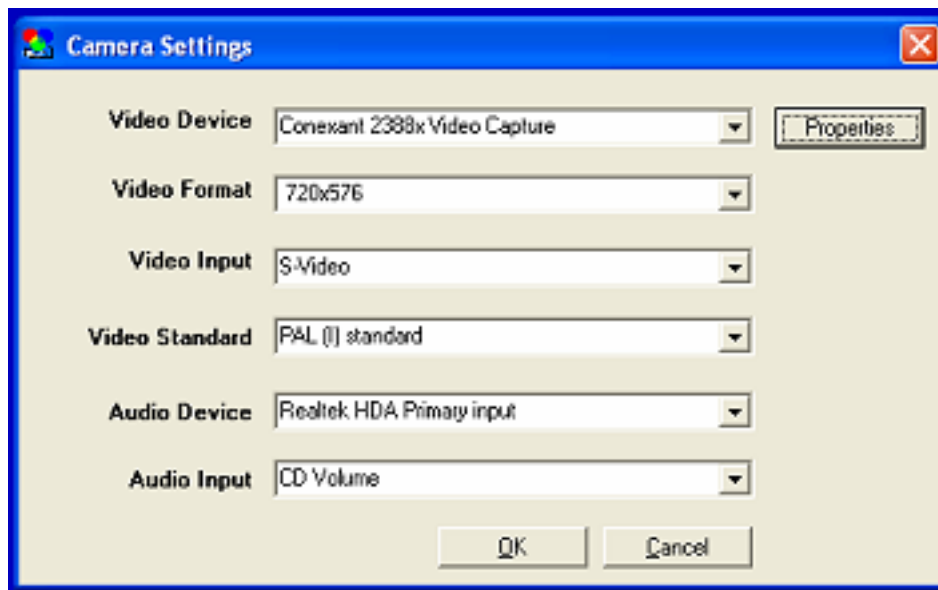
PROGRAM FEATURES

- Video capture at rates defined by the users capture device
- Capture resolution (as defined by the capabilities of the users capture device)
- User Friendly button interface for all primary functions
- Window only, Full Window and Full Screen Preview
- Manual Capture and Automatic Scripted capturing
- Pause and Resume capture
- Auto Deinterlacing
- **Snap Shot** images – includes faint object enhancement routines and dark frame subtraction
- Local & Universal Time display and Time Stamping
- Disk Space monitoring
- **Night View** Modes
- Auto sequential database logging for each captured movie
- Editable favorite target database and equipment (telescopes / camera & location) database
- Direct Access to Camera PC control software GSTAR-COM (for GSTAR-EX cameras)
- Camera Driver and capture session set-up
- **Monitor Calibration** bar
- **Cross Hair Reticle** (various size and colour options)
- **Point and Zoom** function
- **AVI Tool kit** (for selecting, tagging & deletion of video frames & exporting as sequential BMP or as new AVI movie.

MAIN SCREEN OVERVIEW

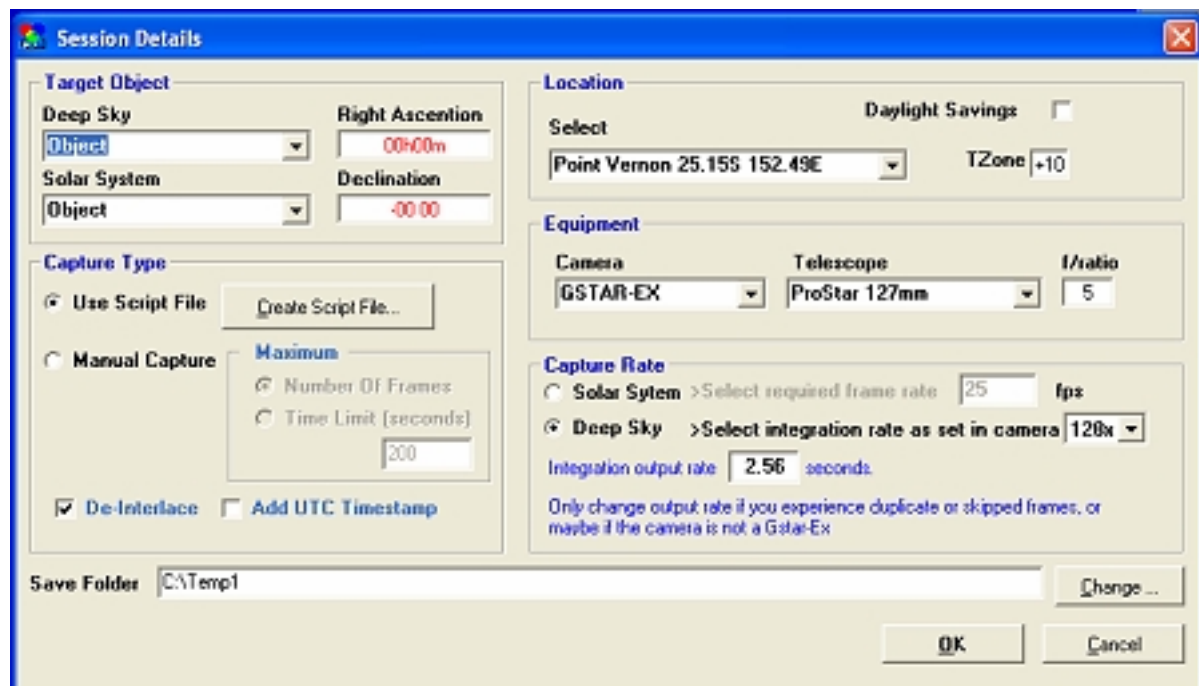


CAMERA SET-UP



Above is the camera set up window. Note: The options populating the pull-down boxes are defined by your capture device alone and NOT the GStar capture software.

SESSION DETAILS

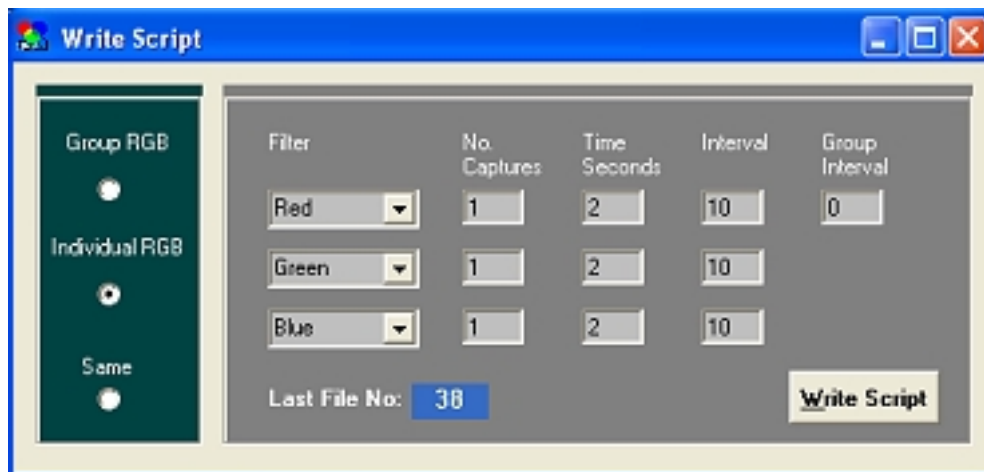


Before you can commence a capture session, you must enter this dialogue window and tell the program first where you want the AVI files written. If this is not done then the capture start buttons in the main program will remain inactive. Here you can select deep sky or Solar System objects from your own customizable list (see EDIT DATA function). You can select your location, camera being used, telescope and focal ratio of the system.

Most importantly you can select the CAPTURE RATE from either Deep Sky (slow rate mode) or Solar System (sub second mode.) You can also enter the input boxes to a custom setting that your camera may be capable of . For example if using a Watec camera capable of accumulation rates of say 5.12 seconds, you can simply type this number in to the Integration Output Rate field. If using a NTSC camera for planetary imaging, you can type “30” into the FPS input field.

CREATE SCRIPT FILE (Button)

You will see this button in the Sessions Window. The window below appears when it is clicked.



The scripting tool is a very powerful automated capture system that allows you too write the delay and capture length times for a given filter over a given time and for a given number of capture instances. It was originally devised for planetary imaging and in particular in the case of fast rotating objects like Jupiter where intervals between filter changes are critical. This allows one to stand by the telescope (when the recording PC is remotely situated) and change filters either from an audible indicator or by viewing the flashing filter colour indicator .

When running, the Main Program window presents the RED, GREEN and BLUE filter indicators at the top right of the screen. If you have speakers connected, and audible countdown beep indicates the time remaining to physically change your filter selector to the next position (the filter according to the colour flashing). The fields in this dialog are pretty self explanatory.

No. of captures – defines the number of individual AVI files the program will create

Time Seconds – defines how long the capture runs for.

Interval – defines the delay time in seconds between successive captures

Group Interval - defines the wait time in seconds after a group of RGB images have been completed before the next RGB capture sequence commences.

Write Script – This button must be clicked to write the script file to disk

GROUP RGB

This is selected when the record times (exposure equivalent) are to be the same for each filter.

Individual RGB

This option is selected to allow for different capture duration for a given filter. For example, if the seeing is poor and the chances of getting sharp images with the blue filter a far less favorable than with a red filter, you can set the blue filter capture rate for a longer record time. In such circumstances you might say set RED to 5 seconds, GREEN to 7 seconds and BLUE to 10 seconds. This feature may also be used in a similar way for cameras that have poorer sensitivity at the blue end of the spectrum whereby more images may be required for noise reduction stacking later.

Same

If you're just capturing with only one particular filter then this option is all you need to select.

DISCLAIMER

This software has been developed out of the authors love for astronomy and in keeping with the spirit of providing useful tools to the amateur astronomy community freely. The authors make no guarantees of its suitability for the user or its stability on a given computer and / or operating system. In other words, the user agrees that downloading and installation is at your own risk.

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