

ASCOM (<https://ascom-standards.org/>) - ASCOM stands for Astronomy Common Object Model - free  
used for Astro software and Astro equipment to communicate -- ASCOM drivers (equipment companies make those) are used to connect to software (Astro software supports ASCOM drivers)

Deep Sky data acquisition:

N.I.NA (<https://nighttime-imaging.eu/>) - free

A good way to run the types of equipment in an Astro photo setup.

Autoguiding software:

PHD2 - (<https://openphdguiding.org/>) - free

autoguiding detects drift and sends corrections to the mount to help keep stars round on long exposures.

Planetary imaging:

FireCapture captures video clips for stacking video frames  
(<https://www.firecapture.de/>) - free

These save video clips and can stack frames

SharpCap (<https://www.sharpcap.co.uk/>) - free

SharpCap Pro (<https://www.sharpcap.co.uk/>) - \$18.00 year

These save video clips for the aligning & stacking video frames

Planetary image processing:

AstroSurface - this one I use for stacking/processing video frames of planets  
(<https://astrosurface.com/>)

Deep Sky Image processing:

PixInsight - 45 day free trial then 300 euros to purchase

Siril (<https://siril.org/>) - free

Deep Sky Stacker (<http://deepskystacker.free.fr/english/index.html>) - free

These align & stack frames taken into an image stack, then process that stack

Sky Chart:

Cartes du Ciel (<https://www.ap-i.net/skychart/en/start>) - free

can be used to connect to scope mount and slew the scope to points in the sky. There are other programs like this.

Astro Equipment Dealers:

Astronomics ([astronomics.com](https://astronomics.com))

Agena Astro (<https://agenaastro.com/>)

Highpoint Scientific (<https://www.highpointscientific.com/>)

I've purchased various Astro equipment from all three of these and had good experience with all three.