

## AstroPlanner v1.5.2

Ilanga Software

Sometimes it pays to take a second look.

Have y'all seen my laptop lately? If you've had a peek over my shoulder from the seat next to me on an airplane (I saw you, you li'l dickens), you're probably thinkin', "Gull-dernit, that silly old Uncle Rod has more astronomy software than humans should be allowed to have." Which is mostly true, I guess. In my role as astronomy pundit, I get asked to take a look at a lot of stuff; everything from the latest *TheSky* to little utilities designed to help you polar align that bad, ol' GEM. I don't mind saying that I've got *all* the biggies living on my sorely laden hard drive.

What you're probably wondering, though, is, "How much of that stuff does he actually *use*?" Not much, I'll admit. Excluding imaging software, I find myself really *using*, day-to-day using, two packages. One of these is a planetarium, something that will give me immediate visual feedback about the way the sky looks *right now* or will look tonight or next week. Click an icon, the sky appears on my screen, and I can decide if Orion's up yet without puttin' my thinkin' cap on.

I said "two packages." Yep. The other *type* of program I use is a "planner." You know, one of those mega-database jobs that help you *plan* observing sessions, draw finder charts, send a scope on gotos, check the weather, and make your lunch. I'm kidding about the lunch, but planners *have* come a long way since the days when they were thinly disguised Access databases and nothing more. I've found these programs really enhance my observing productivity. Let's face it, without lists of objects to look at you're going to be lost among the stars, real or virtual. Just because a program draws a pretty sky on your screen doesn't mean you'll know *which objects in that pretty sky you'll want to observe*.

Planners help you decide which objects you want to see, and furnish you with sorted lists of these objects visible at the time of your viewing session. I'd been using two planners almost interchangeably for several years, Steve Tuma's *Deepsky* and Greg Crinklaw's *Skytools 2*, both fine programs I'd recommend to anybody. These apps are good enough, in fact, that I didn't think there was room for a third entry, and was surprised when I got an email from a nice gentleman named Paul Rodman, asking if I'd take a look at *his* planner, *AstroPlanner*.

In due course, I received an *AstroPlanner* (AP) CD from Paul (Ilanga Software) and had it installed on my then current 566mhz Win98 machine. What did I think? Well, to be kind, *AstroPlanner* seemed a work in progress. The program was, for example, without an installation routine of any kind, so I had to do most of the work myself when it came to getting the thing set up on a hard drive, copying files and making directories. Copying files may seem like a simple task to y'all, but,

believe me, it's something that can be a challenge for the resolutely computer illiterate—like your Silly Old Uncle.

Once installed AP was, well, *interesting*. The user interface was nicely designed—the various program modules resided on well thought-out tabs, and there were some nice touches, especially for Meade owners, like an update of Jim Burrows' famous BestPair program to help Autostar users select good alignment stars.

Alas, the bad tended to outweigh the good. Paul's initial reason for doing *AstroPlanner* was to provide Apple Macintosh users with a planning program of their own, and the Apple version was nice, but the Windows version seemed an afterthought, being affected by a serious limitation. Due to a "resources" issue, AP would not run very well at all under Windows 98, which dampened my enthusiasm. Hell, just trying to print would often bring a crash. It became obvious the program needed Windows 2000 or NT, and it was at that point that I lost interest. Me upgrade to *another* Windows *yet again*? Uh-uh!

And yet...and yet...

One thing I noticed right off the bat was that Paul had accumulated a Yahooogroup full of enthusiastic users in a short period of time. They saw plenty of potential in the program, and, actually, I guess I did too. It had a certain *something*, some ineffable look and feel that I found *attractive*. If only it had *worked* a little better on my computer. I soldiered on with *Deepsky* and *Skytools*. Mr. Rodman's little program stuck in my mind, though, and when I next heard from him a couple of years down the line, I had not forgotten *AstroPlanner*.

What was new with AP? Apparently it had come a long way. Paul rattled off a long, long list of features, and promised me the program would work very well on my new XP laptop. He wondered if I might take a second look. Heck, what's one more astro-app, bursting hard drive or no? I said "yes," both out of curiosity to see if this promising program had really gotten off the ground, and because I was attracted by a list of features that included online download and caching of DSS images, telescope control for just about anything, and impressively large catalog resources (over 100 catalogs; everything from the good, old NGC to stuff like the Galactic Dust Cloud catalog).

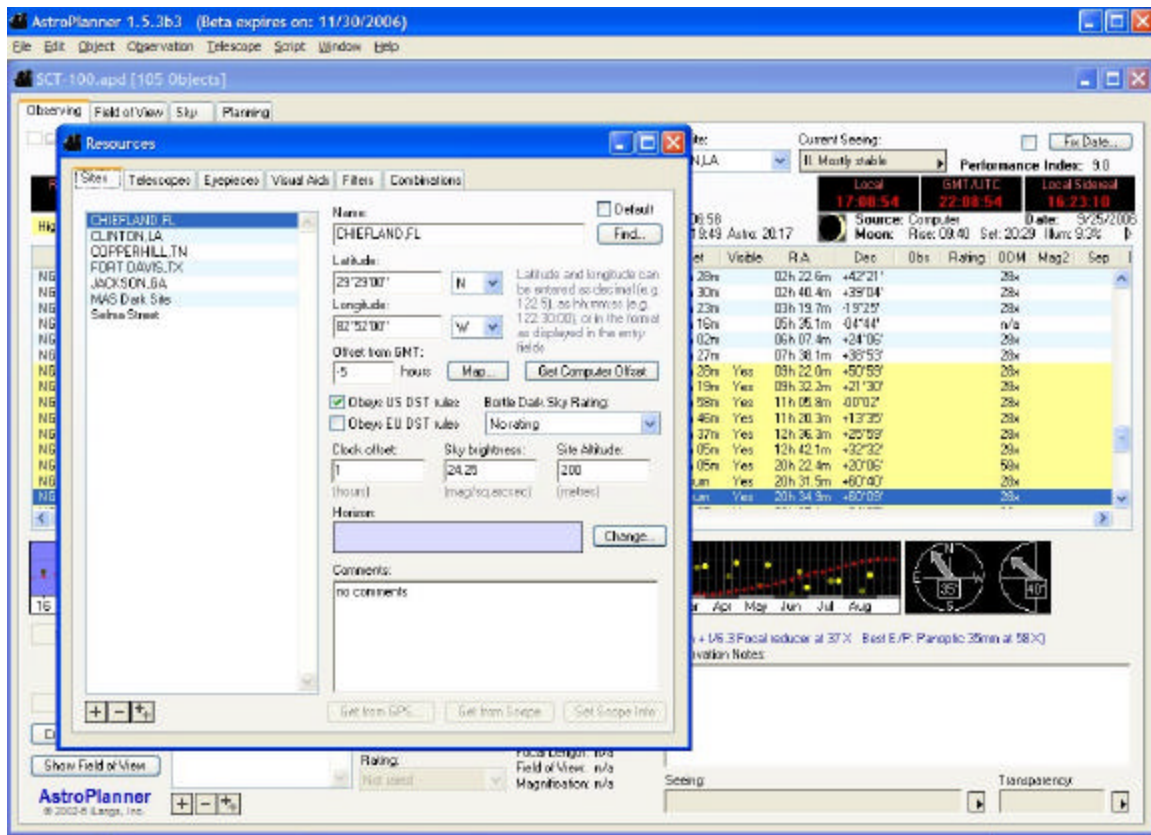
A very partial list of AstroPlanner's features includes:

- Cross-platform operation. *AstroPlanner* is available for both Windows PCs and the Apple Macintosh "classic" and OSX machines.
- Reads geographic coordinates from a GPS unit, a Meade Telescope, or from Google Earth.
- Choose your equipment lineup from an extensive list of telescopes and binoculars or setup your particular equipment manually.

- Create Observing plans/lists to suit you, your site, and your equipment.
- Field of view charting with many options and capabilities.
- Extensive support for goto telescopes.
- Incorporates *Best Pair II* to assist in goto telescope alignment star selection.
- All-sky charts available with a mouse click.
- User-defined data fields can be added to plans.
- Extensive catalog search facilities.
- Over 100 catalogs containing over 1,000,000 objects.
- UCAC and USNO A2.0 catalogs (optional).
- USNO B1.0 on-line access.
- Flexible search capabilities.
- An extensive library of user-contributed plans is available online through the program interface. This includes lists containing all the objects in *Burnham's Celestial Handbook* and the *Night Sky Observer's Guide*.
- AAVSO finder and constellation charts, observation data, and observation planner.
- Solar system objects including minor planets & asteroids can be plotted on charts and added to plans.
- Import facilities for data on comets and minor planets.
- PDA support for *Astromist*, *Planetarium for Palm*, and *PalmDSC*.

To say the least, I was convinced the program deserved another look, and, when I received the new CD, I set about getting it up and running on my PC. The Good Thing here is that the installation process for the program has long-since been automated. Put the CD in the drive, and away you go. I didn't try a Mac installation, but I'm told the process is just as easy there. Something to think about before you go installing this program on your PC, though, is that while much has been updated, one thing that has not changed is the way AP works (or doesn't) under Windows 98. Yes, most folks have probably long-since upgraded to XP, but some of us still tend to use older machines as observatory computers. If you want to use AP, you need Win2000/NT or XP (or a Mac). Period.

With the installation complete, as with any astronomy program, you are only halfway there. Before using *AstroPlanner*, you must input your equipment and information about your geographic location. You do this in two places. The first place is "Resources," found under the Edit menu (folks, I'm talking *only* about the Windows version in this review). Here's where you tell the program where you're located, what kind of telescope you use, and which eyepieces and accessories you own. It's remarkably easy to get all this data entered—as long as you remember the central *AstroPlanner* interface paradigm: click a "+" button onscreen to *add* something; click an onscreen "-" to delete something. Remember that and, you'll do OK. *Don't* go typing and clicking randomly and aimlessly as your Old Uncle is wont to do. Without first telling the program to add a new site with "+," you won't get anywhere other than Frustrationsville.



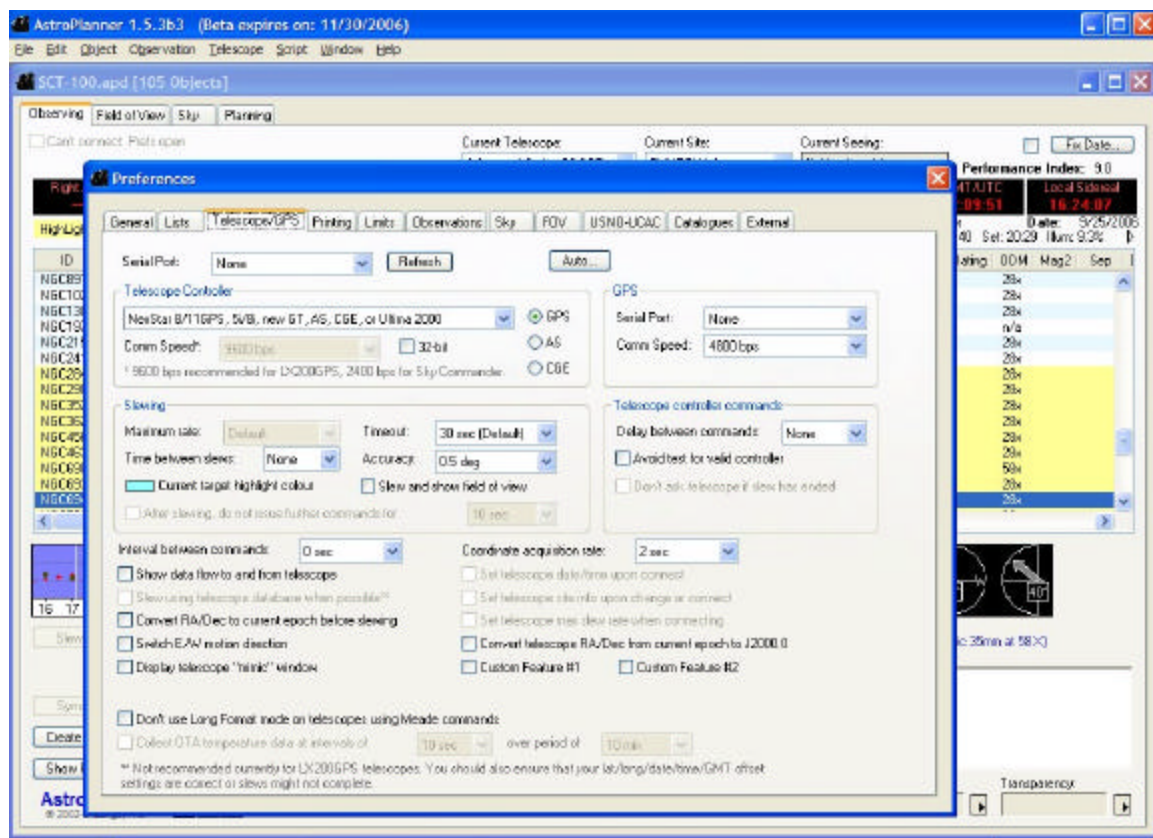
Most of the site setup “questions” are self-explanatory, and include the usual items like latitude and longitude, DST status, and other site peculiar information and choices. One slight hang-up I had was that I found that for a site’s time to show up correctly in the program, I had to set the “time offset” to the value by which the site’s time would be different from the computer’s time. Since my computer is “on” Central Time, I had to set the offset selection to “1” for a site on Eastern Time. I’d a-thought setting the site’s time zone (in the “offset from GMT” field) would have done that, but no-sir buddy.

Maybe now is a good time to talk about the AP help system. It doesn’t *have one* per se. You do have an online (and on hard drive) manual that’s pretty good, but it’s still not as detailed, even at over 300 .pdf pages, as it could be for such a complex and capable application. I read the information in this manual concerning clock offset, for example, and still came away scratching my head. I just played around until the time on the program display was correct for the site.

Once you’ve got your location or locations registered, it’s time to tell AP the specific scopes and eyepieces you’ve got in your equipment inventory. It will use this data for computing field sizes in its charting module, in assisting you in filling-in your log entries, and in determining object visibility for a particular scope/eyepiece combo.

I found it significantly easier to set up eyepieces and scopes with AP than with *TheSky 6*. In part, this was because of the long and constantly updated lists of scopes and oculars in *AstroPlanner*. The program has the *most* extensive list of eyepieces I've seen. I was amazed, for example, to find my beloved WO Uwans—not yet a household word—there. In addition to scopes and eyepieces, you'll also be allowed to tell AP about your inventory of filters—OIII's, UHC's, etc. – and what AP calls “visual aids,” barlows and focal reducers.

When you're done in Resources, “Preferences” is next on your agenda. This item is the last entry under the Edit menu. One thing Preferences does is allow you to set, well, your *preferences* as far as program appearance and function go. At this early stage of the game, you may want to just leave these settings at their defaults. You'll need to use AP for a while before you start monkeying around with fine-tuning. Anyhoo, I think you'll find the program looks and acts pretty “right” as shipped.



One other thing you'll find under a Preferences tab (AP's Windows version is BIG on tabbed menus, which, in my opinion is a good thing), is a place to tell the identify your goto telescope. These days, most programs use the ASCOM application for goto scope interfacing, AP, however, has its own *built-in* drivers, so there are no additional “external” programs to load or mess with. The trade off, of course, is that when new scopes or features come out, you have to rely on

Ilanga to update the drivers. ASCOM releases tend to come very quickly on the heels of new scope and new scope firmware introductions.

While you won't use an external program for scope interfacing, that doesn't mean AP can't interact with external programs. Via the "External" tab, you can, for example, tell *AstroPlanner* to work with *Cartes du Ciel*, the famous shareware planetarium program. With CdC enabled, clicking on AP's Field of View tab will automatically bring up *Cartes* with its display centered on the same spot as AP's Field of View. Using CdC with AP gives the program more robust charting capabilities than those contained in its own charting module (which we'll discuss shortly).

After you've finished with all this configuratin', you can actually start using the program. You'll do that by developing observing plans which are displayed on the program's main screen, the one found under the "Observing" tab. How do you develop a plan? You may not *have* to. Plans, lists of objects, can be downloaded from the AP website via "User-Contributed Plans" under the File menu (assuming you have an Internet connection). Once a downloaded plan is saved on your hard drive, it is opened with, surprise, "Open," which is also found under the file menu.

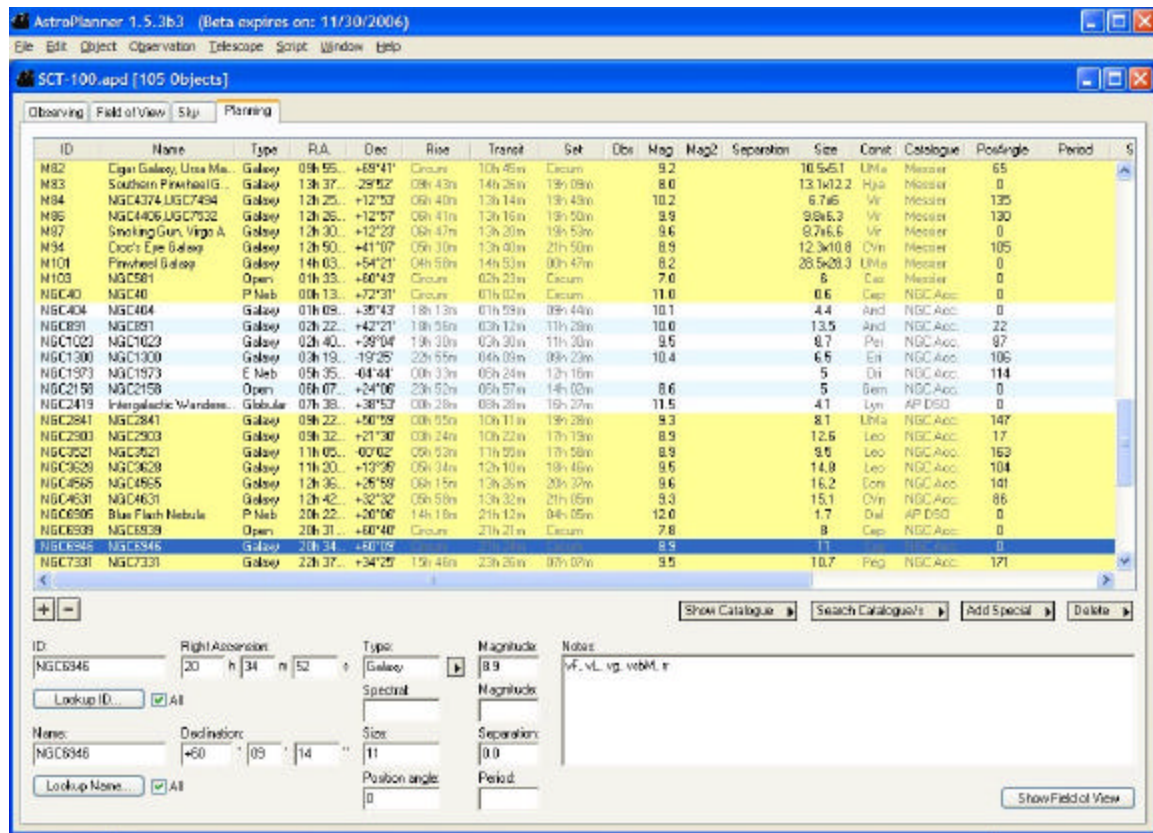
Let's say none of the User Plans in the AP library suit your fancy, though. Maybe your idea of the "best" spring DSOs differs from that of Robert Burnham or Scotty Houston. If so, it's very easy to put your own list together using the search and selection tools found under AP's "Planning" tab, the spot where you find and choose objects for inclusion in your list. Or, if, like me, you're lazy, you can quickly develop a list by using the program's Plan Creation Wizard.

Choose this option from under the File menu and you'll be presented with a dialog box that will allow you to set the criteria the program will use for plucking candidate objects from its enormous array of databases. You're allowed to select constellations, catalogs, object difficulty (based on the aperture of the scope you have selected), object types, and numbers of objects per object type. Once the program has a list displayed, you can go through and select only the objects you like, or you can choose 'em all. Selected objects will appear as a list in the Observing tab and will comprise an Observing Plan you'll name and save.

Don't like wizards? Know exactly which objects you want in your plan? It's easy to retrieve these objects yourself starting from the main Planning tab. When you want to add an object, click "+," just like you did when you were adding eyepieces and telescopes. Next, enter something in the field above the "Lookup ID" button in the lower left-hand area of the screen. Something? Yeah. You can enter NGC 7293. Or you can enter NGC7293. Or you can enter "Helix." You can even just enter "7293" if you want (but be aware that if you've got more than the NGC catalog selected, you'll probably get a LOT of "hits" that way). AP is the most forgiving astronomy program I've seen when it comes to entering search



parameters. Many similar programs will return zero results if you, for example, enter NGC7293 instead of the NGC 7293 the software expects.

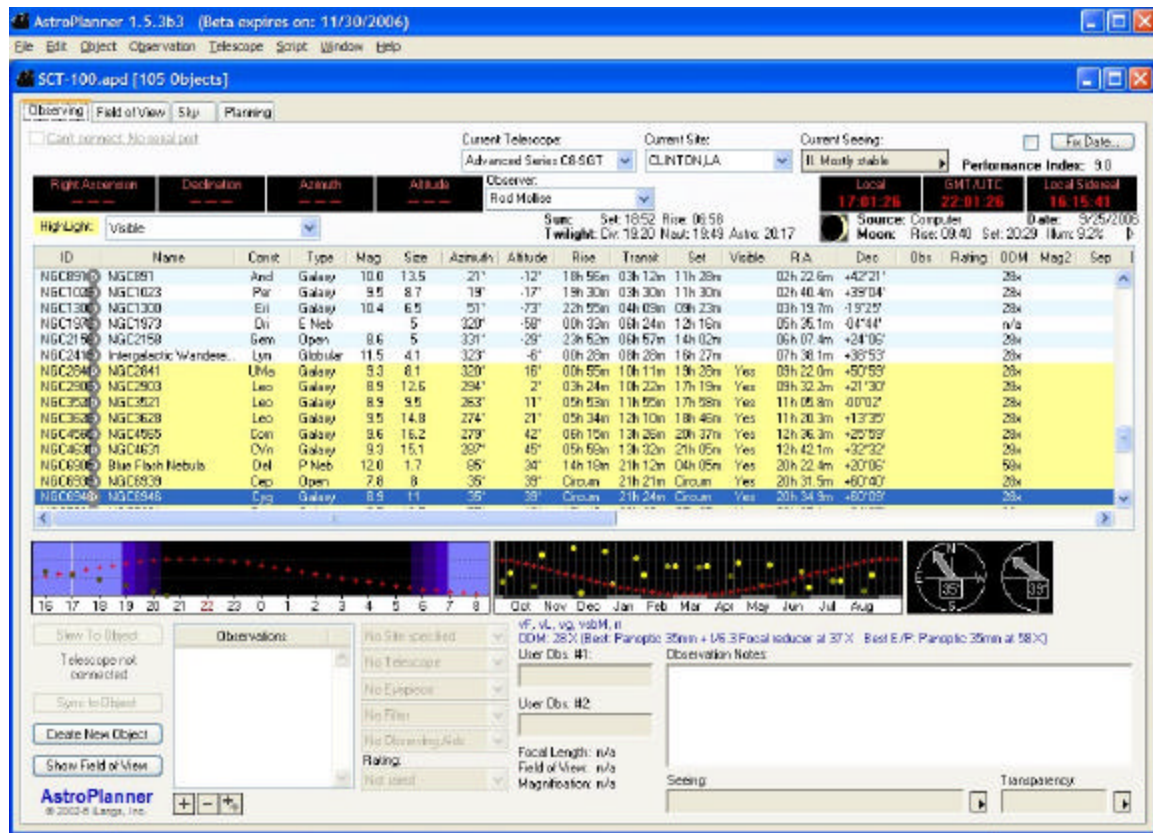


When you hit the “Lookup” button, another window will pop up, and you’ll be asked to choose the catalogs you’d like to search. The fewer catalogs, the quicker the search, match. When the searching is done, you’ll next see a window that lists your “hits.” Select the object you had in mind from this list, click the “Add Selected” button, and your choice will appear on the list on the main Planning tab. When you’re all done, you can click the Observing tab and see your objects in a neat list ready for formatting or whatever else you want to do with them.

On the observing tab, the first thing you want to do is save your new Plan (via “Save” in the File menu). The next thing you’ll probably want to do is impose some kind of order on this list by sorting the objects. That’s easily done by clicking column headers. Want to sort the objects by constellation? Click the “Constellation” header at the top of that column. Want to reverse the sort order? Click again.

Chances are, you won’t like the horizontal arrangement of columns. If you’re like me, you think “Size” is more important than “RA” and “Dec,” for example, and want that column to come right after “Object ID.” With AP you can straighten things out. Just go to the edit menu, to Edit/List columns. Then, drag and drop “Size” into the place in the order of columns where you think it should go. This

column-arrangement capability, one of the nicest features of the program, one that's sorely lacking in competing packages, is saved with your plan.



What else do you do in the Observing Tab? Just about *everything*. This is your home base, and displays information about current conditions, object status, and telescope position. The controls here allow you to send your goto telescope to objects and display a chart of the field it lands on. You can download object images here. You can even check sky conditions.

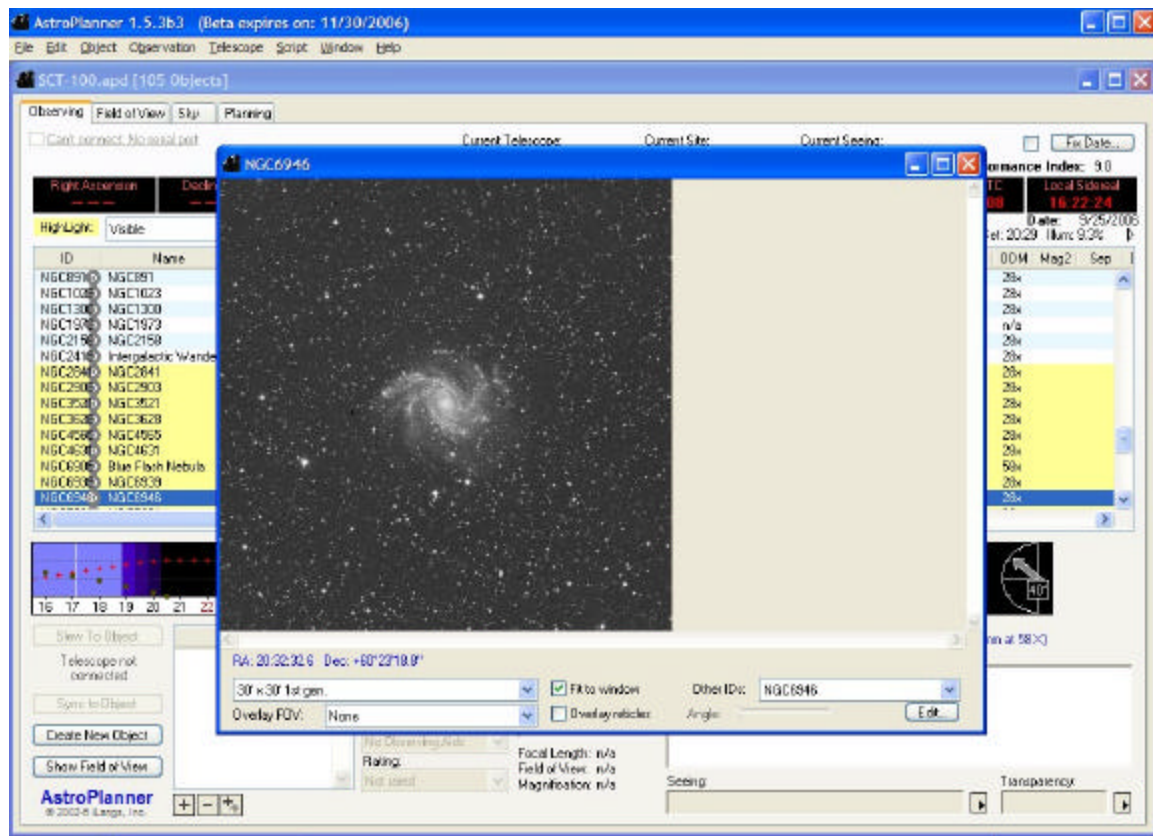
Toward the bottom of the screen you'll find some helpful graphics that show the selected object's elevation plotted against time for the current evening in one pane and for the months of the year in the other. The Moon and Sun are also shown in these diagrams, making it easy to see when your target will be high in a dark sky. To the right of these two pictures there's a pair of compass-like indicator needles that show "which direction" and "how high" for the current object.

There's a lot of functionality packed into this attractively designed screen, but some of its most interesting capabilities involve the Internet. Worried about the weather? Click Clear Sky Clocks in the "Observations" menu and, assuming you have a live Internet feed, you'll be rewarded with a CSC for the currently selected site (pull downs at the top of the program screen allow you to select site, scope, and observer). Wondering whether the object in the field of your eyepiece is



really the one you're after? Right-click on the object in question and you'll be given the opportunity to download a Digitized Sky Survey image. Not only that, these retrieved images are *cached* on your hard drive for future use, and can be displayed for a selected object any time you choose.

I found this image retrieval feature just a godsend last fall at the Chiefland Star Party. I was doing dimmish little galaxies in the Fornax cluster, and being able to look at their pictures really helped me see them in the eyepiece. Yes, unlike most star parties, Chiefland has wireless Internet on the field, but you can have the program download batches of pictures and cache them ahead of time before you leave for the star party.



What else do you do in Observing? As above, you can send your goto scope to list objects, which works incredibly well with my Meade and Celestron CATs. Select an object in your plan. Click the “Slew to Object” button on the main screen. Telescope goes there. That’s all there is to it. You can also push a button and display a chart of the scope’s current field of view. If your telescope supports it, you can even sync on the object without fussing with your hand controller.

You’ve selected an object, sent the scope there, verified its identity with the help of the DSS, and done a lengthy observation. Don’t you want to record what you’ve seen for posterity? Yeah, I can hear you grumbling about *that*. Look, when you’re ready to make a log entry, you don’t even have to leave the Observing

tab. Just hit the “+” found in the lower part of the screen, just below the little “Observations” window. You can then type in the “Observation Notes” space to your right, select the equipment used in the observation via pull-downs, and give your object a “rating.” *AstroPlanner’s* logging system is something I don’t hear too many people talking about, but in my opinion it’s one of the best features of the program. Like most of you, I find logging a *pain*, and wouldn’t do it if I had to go to any trouble at all to do so. Logging is so easy with AP, however, that I actually *like* making entries.

One thing to keep in mind as you’re working in the Observing tab is that you’re normally working in *real time*. If you want the program to use a specific date and time—for an evening at next week’s star party, for example—you must go to “fixed date” operation via a button at the top right of the screen. Poke it, and you’ll be confronted with a window that lets you choose the date and time of interest. Having date/time correct is important, since it affects not just the Moon phase and rise/set times displayed on the Observing tab’s screen (nice), and the object elevation/time graphics, but also a rather important and valuable facility.

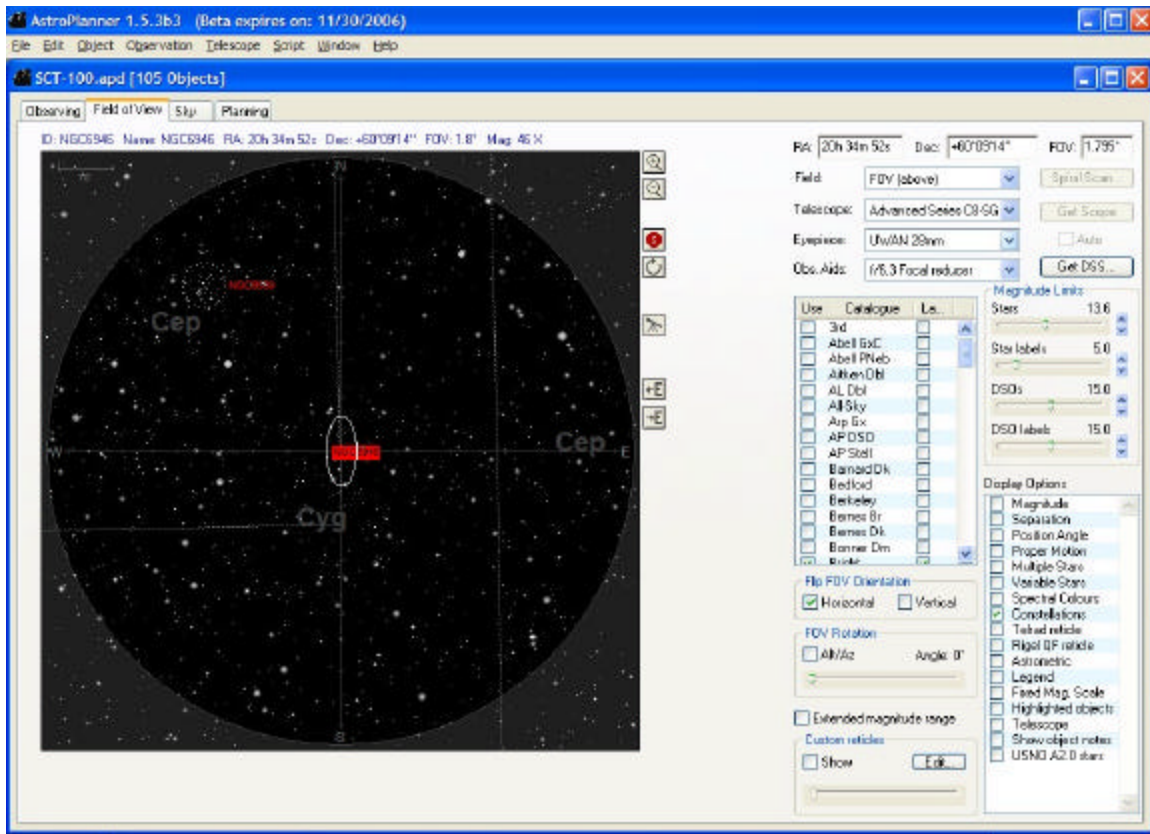
You can instruct the program to highlight list objects that are currently visible. This is a real time-saver in the field. You don’t have to look at rise-set times or squint up at the sky. One glance at your list shows you, via highlighted entries (you can select the highlighting style in Preferences), WHAT’S UP. You can set the highlighting to show other things, too, including “not visible,” “observed,” “not observed,” etc., but I find “visible” most valuable.

Two tabs down; two to go. The next one over from “Observing” is “Field of View.” And that is just that. While *AstroPlanner’s* chart drawing system is capable of showing swatches of sky up to 60 degrees in size, drawing constellation lines, and doing most of the things other charting engines do, it’s really most suited to doing eyepiece-sized “finder charts.”

There are lots of catalogs and options available in this tab, including the ability to plot the stars from the Hubble GSC, Tycho II, and even the USNO B cat (if you’ve got the data disks), but AP’s somewhat simplistic charting system makes these resources less than useful unless you stick to eyepiece-sized or slightly larger areas. For example, if you select a 10 degree field and have the Hubble GSC stars turned on, you’ll get 10 degrees of sky, but in the form of a completely whited-out screen. *AstroPlanner’s* chart engine, you see, won’t automatically adjust stellar magnitudes when you zoom out. It *will* warn you that you’re about to display LOTS of stars, however, giving you the chance to change your mind or turn off the GSC (or whatever).

Charting is also a trifle slow. Change anything, and you’ll get a five second countdown before your chart/changes appear. If you’ve got a large star catalog like the GSC enabled, there’ll be a further short delay as its stars are plotted. I was never annoyed by this time lag, but I was often aware of it.

While the basic Field of View system is a little minimalist, it does do a lot of cool “extra” things. Like, for example, superimposing an astrometric reticle; one similar in layout to the complex reticle on Celestron’s and Meade’s astrometric eyepieces. Numerous other reticles are also available, including the Telrad and Rigel Quickfinder. There are some interactive features too. You can add charted objects to your plan with a click, center objects in the Field of View with a click, and send your goto telescope to these objects with a click.

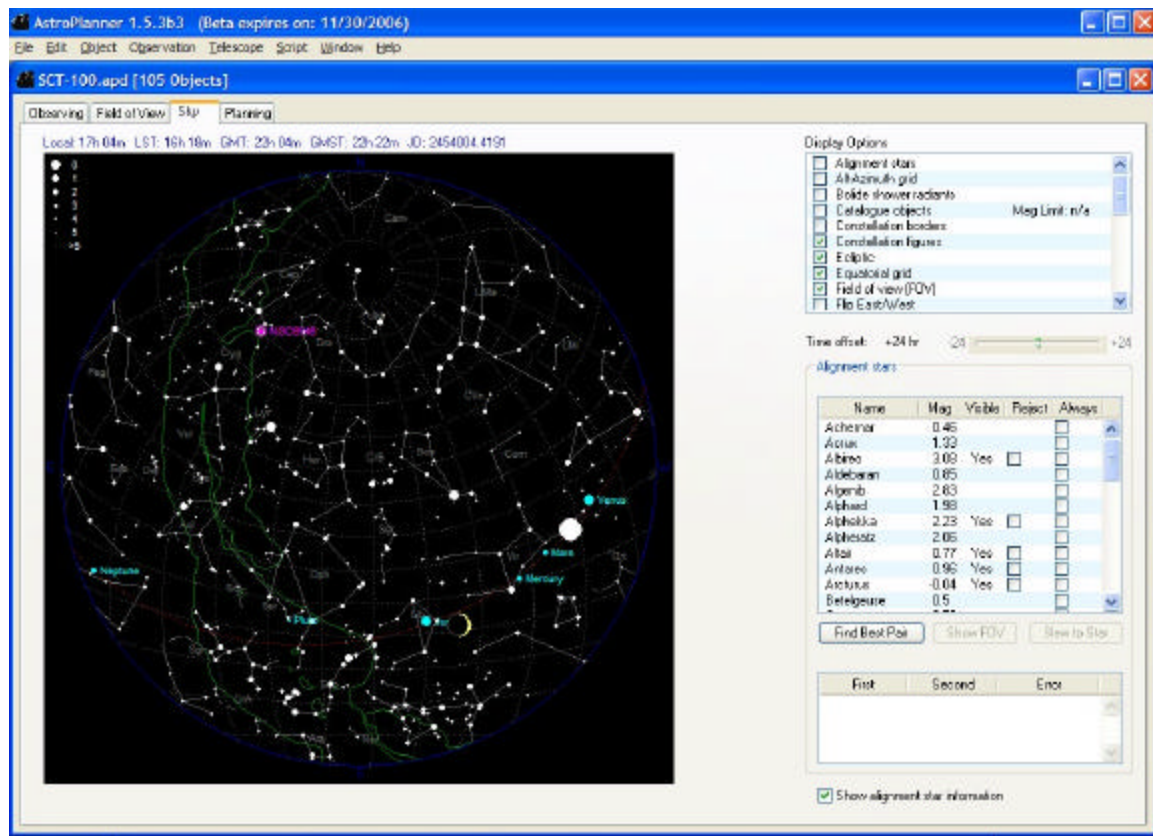


Yes, *AstroPlanner*’s charts are somewhat rudimentary, but are just fine if, again, you’re content to limit yourself to eyepiece-sized fields. How easy is it to tailor these fields for your *specific* eyepieces and scope? Very easy. Based on the information you entered into Resources, you’ll have pull downs that contain the data from your equipment inventory. Setting the field size to reflect your current scope/eyepiece takes no more than a couple of seconds.

No, charting is probably *not AstroPlanner*’s strong point. But there are a couple of things to keep in mind in this regard. If you’re mainly a goto user (and many of AP’s fans seem, like me, to be heavily into goto), you’ll rarely need detailed large-scale charts. Something four or five degrees wide at max, showing you what else interesting is in the neighborhood, is usually all you need, and AP’s charts are more than able to do that. Need *more-better-gooder*? Remember, you

can set up *Cartes du Ciel* to work with AP. The charts CdC generates are easily as detailed and useful as those from any other astronomy program.

What's left? One tab: Sky. This one is easy enough to figure out. Clicking on it brings up a round all-sky chart tailored for the selected location and current program date and time. It will show some of the things you'd expect of a good planisphere—bright stars with names and constellation figures. It won't show some of the things you would expect of a planisphere—like the bright Messiers. In return it will show some things your planisphere can't or doesn't—the planets and meteor shower radiants.



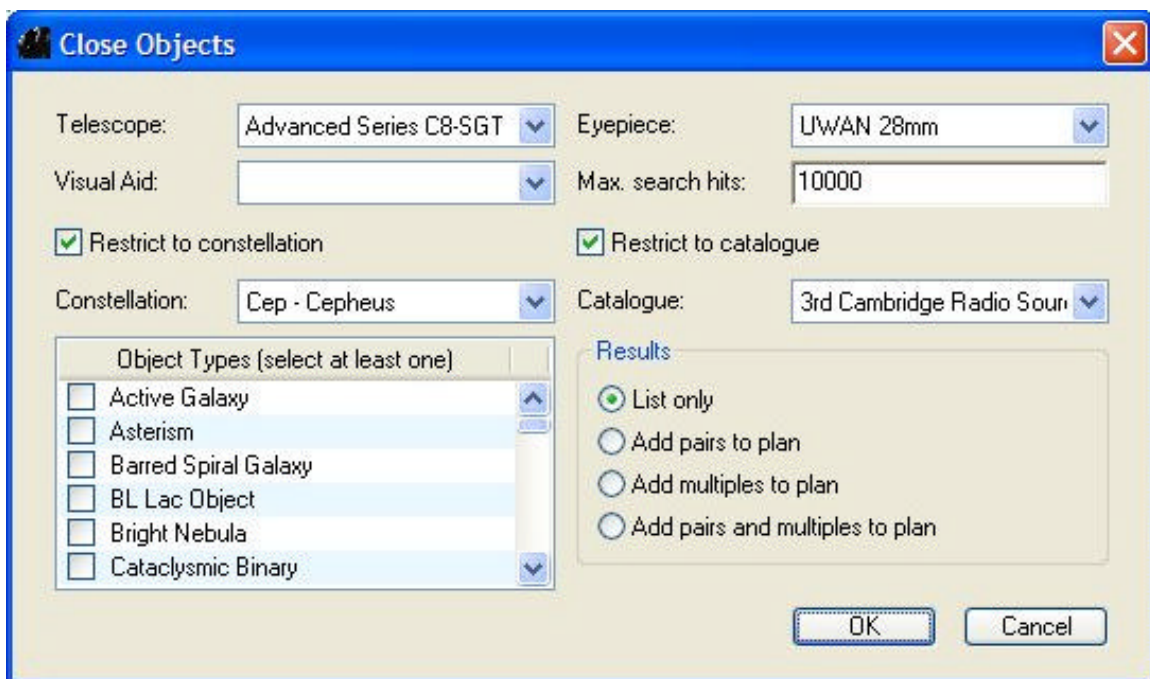
"Sky" can also be set to display goto scope alignment stars. These are mostly of the Meade variety, since this part of the program is where *Best Pair II* resides, but, frankly, Meade and Celestron use (mostly) the same stars anyway. If you've got a Meade (or maybe even Celestron) scope and are using an alignment mode that requires you to pick stars, you can use Best Pair. Push the "Find Best Pair," button and the program will list the most effective pairs of alignment in order of decreasing goodness.

So is that it? Is that all AP does? Not hardly. How about *scripting*? What's they-at? The ability to write small computer program-like sets of instructions that AstroPlanner will execute. What good is *that*? It makes the program potentially able to do just about *anything*. I, for example, mentioned to Paul that I wished



there were a way to have the program find pairs of deep sky objects located close to each other. “No problem,” he said, and soon sent me a little script that did just that, and which also allowed me to select numerous parameters for my close-pairs searches.

Yeah, AP does one heck of a lot. This may, in fact, be the most feature heavy program we’ve seen yet, at least in the planning/logging genre. In every area, I’ve just skimmed the surface—remember that 300 page user’s manual. I *have* hit the high points, and I think I’ve given you enough info to get you started using this fine program productively. Oh, I’m not just being nice when I say “fine,” either. As I hinted earlier, I find AP is now 50% of the astronomy software I use day in and day out (the other 50% being *TheSky 6 Professional*). It’s that good.



Skeptical? This is one you can afford to try. Actually, you can try it before you pay *anything*. Just go to <http://www.ilangainc.com/AstroPlanner/index.html> and proceed to the download area. You’ll find a fully operational version you can use FOREVER without paying one red cent. It’s limited in the catalog area (Messier, NGC, and Yale Bright Star only), and there are a few fancy features you won’t be able to use, but the free version will definitely allow you to try AP on for size. Frankly, most people don’t even bother with “free AP.” The full version on CD is only 40 bucks, and the downloadable AP is an astonishing 25 (it’s identical to the CD version, but you have to do all the downloading, including all those big catalogs).

How can you lose? *You can’t, good buddy, you can’t.*



