# **Deepsky Astronomy Software Introduction**

Deepsky has been a labor of love since it first appeared in 1996. Now after 20 years I am retiring from this project and am now officially making Deepsky Astronomy Software freeware for all to enjoy. Deepsky is an observing planner software which includes a large database of deep sky objects, stars, and images. While I have updated the software over the years, the base software code Deepsky is written in is the old Microsoft Visual Basic 6. It uses many C++ based Active X controls to enhance the user interface. The star charts portion of Deepsky was written by Dean Williams using the programming language Delphi.

Because the software uses older programming technologies, the installation process requires a few extra steps when installing onto Windows 7, 8, and Windows 10 because these newer operating systems have become more secure over the years. Since Deepsky was written back in 1996, you will need to install Deepsky using ADMIN rights on your computer. I provide easy instructions below on how to do this so it is not hard. Just remember though that if you don't follow the instructions the software will not function properly.

I will still support Deepsky on a limited basis. You can reach me via email at <a href="mailto:stuma@comcast.net">stuma@comcast.net</a> should you have any questions regarding the product. For additional support, you can contact Mike Hotka via email at <a href="mailto:mhotka@yahoo.com">mhotka@yahoo.com</a> or you can join the yahoo group below to reach hundreds of community users: <a href="http://tech.groups.yahoo.com/group/deepskysoftware/">http://tech.groups.yahoo.com/group/deepskysoftware/</a>

I hope you enjoy using the software.

Steven S. Tuma stuma@comcast.net Mike Hotka mhotka@yahoo.com

# Installation

### **Before Installation**

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- 1. Make sure you have all your windows operating system critical updates installed on your PC. You can visit Microsoft's website <u>www.windowsupdate.com</u> to determine if you need to install any of these updates.
- 2. Reboot your PC <u>after</u> installation is complete.

### **Unzip and Install Passwords**

The zip files that you download require the following passwords below to unzip them. Also, the main application requires an install password.

Install Password: gwerty1

- Main Application: unzip password: ZxCvB12345
  - Image DVD 1 DSSImages.zip: unzip password: qwertyuiop
- Image DVD 2 dvdHires.zip: unzip password: gwertyuiop
- Nomad Stars NOMAD.zip: unzip password: nomadcatalog

### Installing the Software

If you are using Windows Vista, Windows 7, Windows 8, or Windows 10 please follow the steps mentioned below, otherwise you can install the software normally by running setup.exe.

# PLEASE NOTE THAT THESE STEPS MUST BE FOLLOWED EXACTLY OTHERWISE DEEPSKY MAY NOT WORK PROPERLY.

1. Run SETUP.EXE by right clicking the SETUP icon and click RUN AS ADMINISTRATOR (VERY IMPORTANT).



- 2. Follow the on screen instructions to install Deepsky Astronomy Software.
- 3. After installation, find the Deepsky shortcut on your desktop, right click it, and select PROPERTIES.



5. Click the ADVANCED button.

Deepsky			
Target type:	Application		
Target location	: Deepsky Astronomy Software		
<u>T</u> arget:	k86)\Deepsky Astronomy Software\Deepsky.exe*		
<u>S</u> tart in:	"C: Nogram Files (x86)\Deepsky Astronomy Softv		
Shortcut key:	None		
<u>R</u> un:	Normal window 🗸		
Comment:	Deepsky Astronomy Software		
Open File Location Change Icon Advanced			

6. Check the RUN AS ADMINISTRATOR checkbox (VERY IMPORTANT) and then click OK.



# Install ASCOM Telescope Drivers (optional)

- Telescope support in Deepsky requires that you install the latest ASCOM platform. If you have trouble with the latest ASCOM drivers, you should try using version 4.1 which is included in the downloaded zip file. If you find the latest ASCOM version doesn't work, please uninstall the latest version and then reinstall version 4.1.
- 2. ASCOM can also be downloaded from the following URL:

### http://www.ascom-standards.org/downloads.html

The ASCOM platform includes a scope simulator driver. The simulator allows you to use telescope enabled features within Deepsky without having an actual telescope hooked up. If you do not have a supported telescope, go ahead and install ASCOM and play with the simulator. The Telescope Simulator is listed under the **Scope Setup** option in Deepsky. Once selected, click properties and then OK. Finally, select **Enable the Telescope** under the Scope pull down menu to connect to the simulator. From that point on, all telescope enabled features will be active.

# Install Deepsky Images and Nomad Star Catalog (If available as separate downloads)

The following optional files will enhance Deepsky Astronomy Software. These may or may not be available from the website you downloaded the Deepsky software from because of their size. Deepsky will work fine without these files, however the software is enhanced with them.

1. DSSImages\_Vol1.zip, DSSImages\_Vol1.zip, DVDImages\_Vol1\_Part1.zip, DVDImages\_Vol1\_Part2.zip and DVDImages\_Vol1\_Part3.zip – These file contains over 400,000+ lower resolution images of Deepsky objects that are viewable within the Deepsky software. After downloading each of these zip files, you should copy the DSSImages folder to the main Deepsky Astronomy programs folder where the software is installed (See screenshot below showing the DSSImages folder). You must keep the folder structure of the DSSImages folder intact otherwise Deepsky will not be able to find the images.

Picture Tools Deepsky Astronomy Software						
File Home	Share	View Manage				
← → ~ ↑ 📘	← → < ↑ → This PC > Local Disk (C:) > Deepsky Astronomy Software					
10:1		Name	Date modified	Туре	Size	
Quick access		Database	1/31/2016 3:54 PM	File folder		
universe	*	DSSImages	12/19/2013 11:34	File folder		
Temp	*	HGC	1/31/2016 3:54 PM	File folder		
🖊 Downloads	*	moonphases	1/31/2016 3:54 PM	File folder		
E. Desktop	*	NOMAD17.5	1/31/2016 3:56 PM	File folder		
Documents	*	smallmoonphases	1/31/2016 3:54 PM	File folder		
Pictures	*	SuperTycho	1/31/2016 3:54 PM	File folder		
Public		Slmagingcontrol.oc	x 9/9/2013 8:34 PM	ActiveX control	152 KB	
Videos		showurl.ocx	12/25/2007 11:28	ActiveX control	24 KB	
1 Videos		Starchart.ocx	7/25/2003 12:33 PM	ActiveX control	128 KB	
Pictures	R	ValText.ocx	12/25/2007 9:57 PM	ActiveX control	52 KB	
Website - Dee	epsl 🖈	🍓 AstroBookmarks.exe	9/11/2010 12:02 AM	Application	112 KB	
Software	*	CheckForUpdates.exe	11/7/2010 4:36 PM	Application	72 KB	
🖵 data	*	🛷 ConvertDB.exe	11/7/2010 4:37 PM	Application	44 KB	
data		Deepsky.exe	1/26/2016 7:20 PM	Application	4,659 KB	
ebaydollars		🖏 DSImaging.exe	9/9/2013 8:33 PM	Application	636 KB	
Monay		<mark>ты</mark> ImportWizard.exe	12/14/2013 5:24 PM	Application	192 KB	

 DVDImages\_Vol2\_Part1.zip, DVDImages\_Vol2\_Part2.zip and DVDImages\_Vol2\_Part3.zip – This file contains 10,000 higher resolution images of Deepsky objects that are viewable within Deepsky software. After downloading this zip file, you should copy the hires folder underneath the DSSImages folder as shown in the below screenshot.

me	Share	View					
1	> This	s PC → Local D	Disk (C:) > Deepsky As	tronomy Software > DSSImages			
		Name	^	Datodified	Туре	Size	
ccess		2000		12/19/2013 10:38	File folder		
se	R	Bhe		12/9/2009 7:19 AM	File folder		
	*	HGC		12/19/2013 10:39	File folder		
oads	*	hires		12/19/2013 10:00	File folder		
эp	*	oldds		12/19/2013 10:39	File folder		
nents	*	SAC71		12/9/2009 7:23 AM	File folder		
25	*	V=84		12/19/2013 10:41	File folder		
		VII=4A1		12/19/2013 10:41	File folder		
	<u>_</u>	VII=4A2		12/19/2013 10:43	File folder		

3. **NOMAD.zip** – This file contains the nomad star catalog used by the Deepsky star charts. This catalog has stars down to magnitude 17.5. After downloading this zip file, you should copy the **NOMAD17.5** folder underneath the main Deepsky programs folder as shown in the DSSImages.zip screenshot above.

**NOTE:** You can actually put the **DSSImages and Nomad** folders on any hard drive or network drive you like. Just make sure the folder structure under it remains unchanged. You will also need to go into Deepsky's preferences and update the file locations as shown in the screenshot below:

/	Use this screen to set all of your Deepsky preferences. These	e are used to control different features in
	the software.	
Date/Tin	ne Location Equipment File Location Ext Apps Spread	dsheet Chart Log Settings Scales
	C:\Deepsky Astronomy Software\DeepPro708000.mdb	Specify the location of the Deepsky Database.
	C:\Deepsky Astronomy Software\Logbook2014-1.mdb	Specify the location of the Deepsky Logbook.
	C:\Deepsky Astronomy Software\NOMAD17.5	Specify the Path to the Nomad star catalog
	C:\Deepsky Astronomy Software\Hgc	Enter the HGC star catalog location (CD Users)
	C:\Deepsky Astronomy Software\SuperTycho	Enter the SuperTycho star catalog location
	Chipeansky Astronomy Software) DSSImager	Specify the Path to the Deepsky supplied images

# **Running Deepsky for the First Time**



When you run Deepsky for the first time, you will see the following wizard screen. This wizard lets you specify the path to where the database, images, Guide Star Catalog, and the Super Tycho star catalog files reside. Unless you moved them, you can leave them at their default settings. Click **Finish** when you are done.

### **Conversion of Old Logbook**

If you have used a Deepsky product in the past and have upgraded to the present version, you may see a window indicating that a conversion of your previous logbook and other miscellaneous files is necessary. Click on the button and your files, with the exception of your preferences, will be converted to the new format. When this process is complete, Deepsky will start.

# Deepsky's Home Menu



Deepsky's home menu can be used to access commonly used functions in the software. It's primarily designed for the first time user to help get them up and running fast. From this menu you can get a list of objects visible at your location, view a lunar map, look at real time information on the Sun, Moon, and Planets, create a star chart, and much more. This menu only scratches the surface as to what Deepsky can do, so make sure you explore other areas of the software.

# **Quick Start – Setting Up Preferences**

Before you get too far into the software, you'll need to set up your basic preferences. These include your location, time zone, date, etc. The following section will assist you in getting Deepsky ready for action.

To set up your preferences, click this icon on the toolbar  $\stackrel{\text{lin}}{\boxminus}$ . Once selected, you will see the user preferences screen from where all options can be set.

## **Date and Time Preferences**



The date and time shown are used to calculate planet positions, altitude and azimuth on the spreadsheet, etc. Daylight savings should be specified if it's in effect. The *Use PC Clock* check box will cause Deepsky to use your PC's clock when it makes any calculations instead of using the static date entered.

User Preferences	A AA
Use this screen to set all of y the software.	our Deepsky preferences. These are used to control different features in File Location Ext Apps Spreadsheet Chart Log Settings Scales
Select location or Create New Afghanistan: Herat Afghanistan: Kabul Albania: Trane Algeria: Sidi bel Abbes Andorra: Andorra Angola: Lunda	My currently selected location is set to the following: Lat: 46° 30' 0" Lng: 90° 12' 0" Timezone: 6
Argentina: Buenos Aires Ascension Is. Australia: Adelaide	My Observing Locations :
Australia: Arice springs Australia: Stabane Australia: Stabane Australia: Canberro Australia: Freantie Australia: Meburne Australia: Penth Australia: Sydny Australia: Graz Australia: Graz Australia: Graz	Create a New Observing Location Enter New Location Name: Latitude Latitude International Constitution Constitution of the International Consti
	Save Cancel

## **Geographic Location Preferences**

Select your location from the list or create a new personal observing location. To create a personal observing location, enter the latitude, longitude, and time zone. Sites listed under **My Observing Locations** will show up during the logbook entry on a pull-down list so that you can select one. A time zone should also be entered when setting up a personal observing location. Your currently selected location will be shown under **My Currently Selected Location** and in the status bar on the main spreadsheet screen.

# **Equipment Preferences**

User Preferences Use this screen to set all of your Deepsky preferences. These are used to control different features in the software. Date/Time Incration Fouriement File Incration Fit Apps Spreadsheet Chart Increases Screes			
Select Equipment List		Add Additional Equipment (ie. Filters, etc.	
© Scopes © Eyepieces © CCD/Acc. © Exposure Mode     Add			
Available Equipment		Personal Equipment List	
AP 105 Traveller $f/5.8$ AP 105 Starfire $f/6$ AP 130 Starfire $f/8$ AP 155 Starfire $f/7$ AP 155 Starfire $f/7$ Celestron C10-NGT Celestron C11 $f/6.3$ Celestron C11 $f/6.3$ Celestron C11-SGT Celestron C14-SGT Celestron C14-SGT Celestron C4 $f/11$ SCT Celestron C5 $f/10$ Celestron C5 $f/10$	105         06.8         A           130         06.0         I           130         08.0         I           155         07.1         I           155         09.0         I         I           254         04.7         I         I           280         10.0         I         I         I           280         10.0         I	10 x 50 Binoculars         Blue filter         Celestron Orthoscopic Sum         Celestron Orthoscopic Sum         Celestron Orthoscopic Sum         Celestron Orthoscopic Sum         Green filter         Lumicon UNC Filter         Meade Super Plössl 6.4mm         Meade Super Plössl 12.4mm         Meade Super Plössl 12.4mm         Meade Super Plössl 12.0mm         Meade Super Plössl 20mm	
Edit Telescope			
		<u>Save</u>	

Select the observing equipment that you use and it will be available for you to select when you create your

logbook entries. You can select telescopes, eyepieces, CCD cameras, or you can enter additional equipment.

## **File Location Preferences**

User Preferences				
Use this screen to set all of your Deepsky preferences. These the software.	e are used to control different features in			
Date/Time Location Equipment File Location Ext Apps Spread	dsheet Chart Log Settings Scales			
C\Program Files (x86)\Deepsky Astronomy Software\DeepPro70800     C\Program Files (x86)\Deepsky Astronomy Software\Logbook2011-:     C\Program Files (x86)\Deepsky Astronomy Software\NOMAD17.5     C\Program Files (x86)\Deepsky Astronomy Software\NOMAD17.5     C\Program Files (x86)\Deepsky Astronomy Software\SuperTycho     C\Program Files (x86)\Deepsky Astronomy Software\SuperTycho     C\Program Files (x86)\Deepsky Astronomy Software\DSSImages	Specify the location of the Deepsky Database. Specify the location of the Deepsky Logbook. Specify the Path to the Nomad star catalog Enter the HGC star catalog location (CD Users) Enter the SuperTycho star catalog location Specify the Path to the Deepsky supplied images			
Other Miscellaneous Settings         Scope Delay:       3       Delay used to update crosshair in star charts. Recommended setting is 3         ACP Sounds - Check Sounds to enable various sound effects including SPEECH (Requires ACP)       Button Sound Effects - Check here to enable sound effects when hovering over a button         Deepsky Imaging Viewer       Use Deepsky Imaging if installed to display images				
	<u>Save</u> <u>Cancel</u>			

Deepsky lets you store the primary databases and images in a folder you choose on a hard disk, network share, or removable media like a DVD. Use File Location preferences to specify the location of these files and images. In most cases you can use the default locations. Some people like to copy the images off of the CD or DVD and keep them on their hard drive. In this case, only the path to the images will need to be changed.

**NOTE 1:** You can change the default location for the main Deepsky database and the logbook to a central location so that it can be accessed by more than one computer.

NOTE 2: Make sure you keep all images located underneath the DSSImages folder.

The scope delay parameter specifies the delay between telescope marker updates on the star charts. If this is set too low, you may experience problems with the charts. I recommend that this be set to either 2 or 3. Set this value to 0 to turn off the flashing behavior of the marker.

Support for Deepsky can be found at the community YAHOO GROUP: <a href="http://tech.groups.yahoo.com/group/deepskysoftware/">http://tech.groups.yahoo.com/group/deepskysoftware/</a>