Welcome to THE PLANETS.   Green words in Help and elsewhere in your explorations will take you where you can learn more about them; just point at the word with your mouse and click on it.

The General Controls button you pushed, located at the bottom right corner of every main screen, can always take you where you want to go.   It is also where you can access this help screen, or control the sound effects.   When this menu pops up, select an option with your mouse.

Planetary Museum

Getting Around
The Museum is designed like a bicycle wheel with eight "spokes" representing gallery hallways for each section of the book

Exploring Planetary Worlds

.   When you first come

to the museum, you are standing at the center of the wheel.   As the museum map rotates on the left, each gallery appears in the center screen. You can select a gallery by clicking either the four directional controls below the Gallery window or the map; you do not have to wait for the screen to change.   Use the arrows in the middle to go directly where you want to go. To move forward, use the UP arrow.   To go back, use DOWN.   The LEFT and RIGHT arrows are for looking on either side of you.

The Go to Chapter *button can take you directly to the starting point of your current Gallery. You can then move from the center of the wheel to any other Gallery; if you skip ahead and want to go back to the last screen, click* Retrace*.*

If you prefer, you can let Museum Shuttle *take you through each gallery. The guide will explain the images and movies as you pass them one-by-one. To Interrupt the tour, click the* Museum Shuttle *button again*

Movies and Sound
You can control sound effects from Options *in the* General Controls*, but the voice descriptions in the gallery will always be accessible unless you have turned off your sound from the speakers or your computer's Control Panels.*

Hypertext and Glossary
Throughout the galleries, certain words in the text appear in green.   Clicking on these words brings up access to the Glossary and/or See Also *topics as they appear in the Index.   The Glossary option shows a definition of the word which you can close, while* See Also *topics take you to another topic whether in your current Gallery or not.*

Index
The Index button takes you to a referencing section for searching on specific topics within

Exploring Planetary

Worlds *and* Seeing the Solar System*, an astronomy*

guide.   Select the book you want to search in the upper right hand box, then scroll through the index on the left or type a word in the window above the list.   Related topics for the highlighted word on the left appear listed on the right side.   Highlight a topic and click on it or click ~~Go To~~. ~~Glossary~~ will define the term you clicked. The Index takes you to the appropriate place in the text.   If you want to exit the Index, click ~~Close~~.

Planetary Traveler

Getting Around
In the Planetary Traveler section, you can visit any planet in the solar system. Click on any icon in the right column.   Most of these movies are actual footage from the National Aeronautics and Space Administration.

Select a movie by double clicking it in the window or by highlighting the icon and pressing the Run button.   Clicking this button again will pause the movie.

You can travel over the surface of Venus by selecting the first movie and using the on-screen directional controls.   Using the mouse, click the highlighted direction and you will travel in that direction. Voice descriptions will further inform your explorations.

<div align="center">Observatory</div>

Getting Around
The controls located below the Observatory window let you change your view of the constellations, planets and stars in the sky.

Click Time and Date to alter the date and time from you which to see the sky. Use the arrows to incrementally adjust the controls. Local will reset the time to your computer's system clock. OK will enact your changes. Cancel will return you to the main Observatory window.

The View dialog box lets you center whichever planet you choose in the Observatory window. Select any Planet name and then return to the Observatory window by clicking Close. Constellations will make the constellations invisible or visible depending upon whether they are currently visible in the main window
.
The Zoom dialog box allows you to change the percentage of the sky that is visible in the main window. To see the entire sky at once select 100%. To view a particular portion of the sky adjust the Time, Date , and Location from which you are viewing and then zoom in by selecting one of the choices in the dialog box. On the left you can change the scope of the scene from 100% to a lower number, cropping the map and bringing it close. Close will return you to the main Observatory window.

Click on Location to change your vantage point to anyone of the available cities. Use the scroll bar to review the list of cities, and then double click on the city name. Select OK to enact your choice or Cancel to return to main Observatory screen without making a change.

Click Animate Starmap to see how the planets move across the night sky. Pressing this button lets you set increments of time over which the map reconfigures.   The Animate Starmap dialog box is adjusted in one-hour increments. The time settings box will also appear here, allowing you to select the length of "step" interval between displays.   Set a time interval-- say, one hour--in the Step Time window.   Step moves the map forward or

back one hour (one step interval in this case), while ~~Start~~ continues the progression hour-by-hour until you hit ~~Stop~~.

Reference
You can peruse Fred Schaff's

Seeing the Solar System

by clicking the

~~Reference~~ *button. You can move to the next sub-heading by using the* ~~Scrollbar~~*. You can move forward or backwards one page at a time by using the* ~~Arrows~~ *at the bottom of the screen.* ~~Contents~~ *returns you to the Table of Contents, and back returns you to the Observatory.*

Virtual Solar System

Getting Around
The Solar System Kit allows you to create planets, arrange their orbits, and add life forms.   The scene when you enter this section is a model of our solar system.   If you hit ~~Run~~, the planets will begin to move.   Pressing Run again halts the orbits.   The first step to creating your own solar system is to enter the ~~Planet Kit~~.

Planet Kit
In the Planet Kit, you can add an existing solar system planet or create one

of your own.   By hitting Existing Planet*, you can select from a list of the nine known planets.   Point to the planet you want to add, choose the* Add *button, and "OK" your selection.*

Make Planet *always starts with the same planet--Earth--but produces an original creation depending on how you change the sliders.   Adjust the* Mass *of your planet by holding the mouse pointer on the slider and moving it up or down; make the same adjustments for gaseous components with the eight controls below the picture. When you are finished, hit* Make Planet *again. Your new planet appears in the window.*

If you want to put this new planet in the solar system, choose Add, *then select* Save All*.   Here, you can name the planet and confirm its addition to the Solar System Kit; or you can cancel.   While you are selecting planets, a list of those you have added appears in the upper right corner.   If you change your mind about a selection, push the Add button, highlight the planet you want to remove, and press* Delete*.*

You may add up to TEN

planets to the Solar System Kit.

Orbit

Picking planets to plunk into space was the easy part: now you must design the orbital system and decide what life forms to place on each planet. Whenever you close the Planet Kit, the Orbit menu displays your added planets and provides options for their movement.   At the main Solar System

Kit window, click ~~Orbit~~ to enter the Orbit window and adjust the orbits of your planets.

First, select the Planet from the icons in the top row. Then, grab anyone of the four gray tabs around your selected planet's orbit and use the mouse to create a new orbit.   The ~~Prograde~~ button is selected at first, indicating a clockwise axis rotation; you can make the planet rotate "backwards" by pressing ~~Retrograde~~.

You can continue to drag planets from the window as long as you like; if you want to see the lines each orbit is following, hit ~~Show Paths~~.   Press this button again to turn the display off.

The ~~Zoom Out~~ button will show you the orbits of the outer planets. ~~Zoom In~~ will let you adjust the inner planets' orbits. When you are finished setting orbits, ~~Close~~ returns you to the Solar System Kit.

Life
After you have set an orbital system, you can heighten the challenge by adding life to new planets and tracking the results.   First, highlight a planet from a list of those you have created.   Keep in mind: only those planets capable of sustaining life are eligible for selection.   The planet you select appears in the main window.

Once in the Life menu, can adjust the planet's atmosphere the way you selected its composition in the Planet Kit: hold the mouse down over the sliders and drag them to the desired positions.   The life forms available for selection are highlighted over the main window.   To place a life form on your planet, drag one of the highlighted icons to the planet below.   To remove a life form, drag the icon off the planet.   Dr. Donald Goldsmith provides commentary to inform your actions, in addition to movies of Professor Donald Goldsmith.   The temperature of the planet--as determined by its orbital distance from the Sun--appears above the planet window.   When you are finished making adjustments in the Life section, push the ~~Set~~ button and your new planet will appear.

When you are finished diversifying your planet, press ~~Close~~.   You can repeat the process with another planet by selecting Life again, or you can modify previous settings by reselecting a planet you have already populated.

Guide
This button appears depressed as a default, allowing movies of Professor Donald Goldsmith to comment on events in the Kit.   To block this commentary, press Guide so that it pops up into the "off" position.

Run

Run allows you to see how your planets fare once set in motion. ~~Warning messages~~ *from Dr. Donald Goldsmith alert you to several potential problems: the life on your planet may be suffocating or scorching; the orbital path may be conflicting with other planets. If your system encounters any of these dangers, you can change the Orbit and Life settings to affect the planets more favorably. To stop the solar system from continuing to orbit press* ~~Pause~~*.*

ZoomOut/In
Zoom allows you to see either the outer planets or the inner planets. ~~Zoom Out~~ *all of the planets farther from our sun than Mars.* ~~Zoom In~~ *will return you to the planets that are closer to the sun than Jupiter.*

Options

Sound On/Off
Turning the sound on or off affects only sound effects on THE PLANETS. If you want to mute movie sounds and voice-overs, you can do so by turning off your speakers or adjusting sound from your operating system's Control Panels.