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Welcome to Aviation Adventure User's Guide

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This section introduces the family of fun software learning tools developed by Knowledge Adventure, Inc.

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This section explains how to meet kids from all over.

Using Aviation Adventure

This section covers all the details of using Aviation Adventure from the moment you click on the Aviation Adventure logo on the startup screen until you return to the startup screen.

Appendix A: Learning Guide

This section is especially for parents, or for any adult who wants to help a child learn and grow as much as possible from playing with Aviation Adventure.

Appendix B: Questions And Answers

This appendix will answer many of your questions about Aviation Adventure and help you solve problems you may have.

Credits

Find out who whelped create Aviation Adventure.

Thank you for using Aviation Adventure. We hope to send you off on the greatest adventure of all...

...from

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Meet The Family

About the developer

Knowledge Adventure, Inc. develops disk-based and CD-ROM software products for the PC and Macintosh that encompass a wide base of information on history, literature, nature, science, art and music within an interactive book format that encourages exploration in ways never before possible.

What are Knowledge Adventure Products?

Knowledge Adventure products such as Aviation Adventure encourage exploration by igniting the innate sense of interest and curiosity that kids of all ages have about things new and different. These products tap the power of the personal computer to demonstrate how seemingly isolated facts are linked in a manner that makes them more interesting, understandable and memorable. Most important, these books empower the user with a sense of control over the entire experience, reinforcing the thrill of discovery.

The growing family

In addition to Aviation Adventure, Knowledge Adventure products available to date include Isaac Asimov's Science Adventure(tm); Space Adventure(tm), authored by Caltech's Tom McDonough with Astronaut Buzz Aldrin; Dinosaur Adventure(tm); Kid's Zoo -- A Baby Animal Adventure(tm); America Adventure(tm); Bug Adventure(tm); 3-D Dinosaur Adventure(tm); 3-D Body Adventure(tm); Magic Theater(tm); Space Adventure 2(tm); and Science Adventure II(tm). Two interactive movies, Speed: The Ultimate Interactive Movie Experience and The Discoverers(tm) are also available. Send in your registration card to be sure you're kept informed of new titles, including disk-based, and Macintosh versions, of these exciting products.

Talk to us!

The Knowledge Adventure Bulletin Board System is available to you 24 hours a day at (818) 248-0166 (N, 8, 1) 1200 to 14,400 baud. You can read answers to commonly-asked technical questions, download new drivers for your sound card, order new products, and register your products -- all online.

You can also call us at (818) 249-0212, or write down your question and fax it to us at (818) 542-4205. Before calling, please be seated at your computer with the DOS prompt on the screen.

If you have access to the Internet, you can send e-mail about technical questions to support@adventure.com, e-mail your general questions to info@adventure.com, or visit our World Wide Web site, <http://www.adventure.com/>.

Give us a call today!

Getting Started

Related Topics:

[What do I need?](#)

[How do I install Aviation Adventure?](#)

[How do I begin?](#)

What do I need?

An IBM or compatible computer with a 486 or greater processor

640x480 by 256 color SVGA graphics

A CD-ROM drive that supports ISO 9660

A hard disk with approximately 3 megabytes of free space

At least 4 megabytes of RAM and 7 megabytes of virtual memory

A mouse or other type of pointing device

A sound device, supported by Windows, that can play both digitized sound and music simultaneously

Windows 3.1 or above running in enhanced mode

RECOMMENDED

A printer so that you can print Aviation Adventure text and image files. Any printer that can accept ASCII text directly from your computer will work. A laser printer will give better results when printing Aviation Adventure graphics.

A disk cache, such as SMARTDRV.EXE, set to 256 kilobytes.

Performance will be enhanced with 8 megabytes of RAM.

How do I install Aviation Adventure?

Follow these steps to install Aviation Adventure on you system.

1. Enter Windows.
2. Insert the Aviation Adventure CD-ROM into the CD-ROM drive in your computer.
3. From Program Manager, click on File, and drag down to Run. In the Command Line box type **X:\SETUP** (where X represents your CD-ROM drive letter). Note: If you don't have Program Manager, consult your replacement shellprogram's documentation for more explicit instructions. The Setup program will ask you where you'd like to store the appropriate Aviation Adventure file on your hard drive. We recommend that you use the default setup.

Setup will create a configuration file (KA.INI) in your Windows sub-directory with the program's specific data.

Setup will examine your system and if necessary, back-up and modify your SYSTEM.INI file.

Support files for the WinG high-performance graphics libraries will be added to your Windows system sub-directory.

Setup will create a program group called Knowledge Adventure, and place all of the icons associated with Aviation Adventure into this group.

How do I begin?

To start Aviation Adventure, click on the Aviation Adventure icon in the Knowledge Adventure group.

Introducing the Main Menu

Aviation Adventure: Click on the large logo in the center of the screen or press <**Return**> to begin Aviation Adventure.

Previews: Click on this button or press **P** to see demonstrations of other great Knowledge Adventure products.

Adventurers!: Click on this button or press **A** to enter the coolest new way to see, hear and read about kids from all over the world.

Credits: Click on this button or press **C** to see who helped create this great product.

Exit: Click on this button or press **E** to return to Windows.

Related Topics:

[Some Aviation Adventure Basics](#)

Some Aviation Adventure Basics

Note balloons.

Many items on the screens within the product are labeled with note balloons that appear whenever the pointer touches that spot on the screen. These note balloons explain what happens when you click on those items. When you enter a new screen, move the pointer around to see if there are note balloons to read. Aviation Adventure also allows you to disable most of the note balloons. You can do this in the option screen accessible from the Main Menu. Once you are familiar with the product you may not wish to have all of the note balloons displayed.

Turning off the sound.

Most of the articles in Aviation Adventure are automatically narrated. If you want to turn off a particular narration, click on the Audio icon located on most screens. You can also disable auto-narration from the options screen accessible from the Main Menu. If you disable auto-narration from this screen, you can still listen to an individual narration by clicking on the Audio icon.

Exit

To exit any module, click on the Tower icon. To exit Aviation Adventure from any screen press **<ALT-F4>**. To exit from the Main Menu, click on any of the 3 F-15's in the upper left corner of the screen.

Using The Adventurers!

Introduction

The Adventurers! is a totally cool way to see, hear, and read about kids from all over the world! It's the very first CD-ROM hangout for kids of all ages, and by using it, you'll see lots of totally awesome home movies, really great artwork, and you'll be able to read stories, poems, and letters by kids just like you!

The Adventurers! Main Screen

Click your mouse button to interrupt the opening movie and go directly to the main screen.

The Adventurers! main screen displays videos, artwork, photographs, text and stories submitted by kids from all over the globe! The picture window in the upper right of the screen displays videos, photographs and artwork. The text window in the middle left of the screen displays written information submitted by each kid. The text box directly under the picture window lists the name, age and state or country of the kid currently on display. You can visit different kids by clicking on the picture window, the text window, the numbers or the letters. The four "control" buttons located at the lower left of the screen provide other kinds of options. The stamp located at the upper top of the screen on the face of the envelope lets you know if the current kid in the picture window has additional artwork to look at. You can also click on the globe and see the map of where a kid lives. Read further for more detailed descriptions of the elements on this screen and what they do.

Picture Window

Meet The Adventurers! Photographs, artwork and movies are all displayed in the picture window. The picture window is divided into three invisible vertical sections. Clicking on the right or left hand sections lets you scroll through all of the kids in The Adventurers! alphabetically. If you land on a movie, you can replay the movie by clicking in the spot in the middle section of the picture window. If you want to stop a movie during its run, click your mouse. The small text window directly below the picture displays the name, age and state or country of the kid whose face and/or artwork appears in the picture window.

So You're an Artist Too? By clicking on the crayon button located on the letter near the top of the screen, you can view artwork associated with the kid in the picture window. Not all kids have artwork, so the artwork stamp only appears when there is artwork to view. You can toggle between artwork and movie/image by continuing to click on the artwork icon. When artwork is being viewed in the picture window, you can still access the next kid alphabetically by either clicking on the right or the left sections of the

picture window.

Text Window

Read All About it! The text window displays letters, stories and poems. The arrows directly below the text let you scroll the window so you can read all the text. The red arrows let you scroll one line at a time. The yellow arrows let you scroll one page at a time. The text will scroll as long as you hold down the mouse button, and will stop when you release the mouse button. You can also press **<PgUp>** or **<PgDn>** on your keyboard.

Does Anyone Else Like Pepperoni Pizza? Find a word in the text window that interests you and click on it. This will bring up a list of all the kids who mention that particular word in their letters, stories or poems. From this list, or index, click on any name or entry you want to meet that kid. From the index, you can also press **<Esc>** or click on the "retrace" button to return the text and image windows to their previous display. Once the index list appears in the text window, you can move up and down by using the arrows located directly under the text window. The red arrows move you one page at a time. The yellow arrows move you forward or backward to the next word in the index with a different second letter.

NOTE: To get a specific word or a specific kid, type the word or name!
Letter Icons

A is for Albert! The colorful letters arranged in a keyboard fashion just below the picture window allow you to find kid's entries according to the first letter of their first names. Click on a letter, and bring up all the kids whose names begin with that letter. By continuing to click on that letter with your pointer, you can scroll through all the kids listed under that particular letter.
Number Icons

Pick a Number, Any Number! The row of numbers arranged above the letters on the screen allow you to find kid's entries according to their age. Click on a number, and bring up a kid whose age corresponds with that number. To scroll through all the kids in order of their age, click on the right or left arrows located on either end of the numbers line. The left arrow introduces you to the group of kids younger than the number you clicked. The right arrow introduces you to the group of kids older than the number you clicked.

Globe Screen

Where Do They Live? Click on the globe located below the text window to be transported to a full screen view of the globe. Click anywhere in the globe window to visit the kid that is most closely related to that location. Click on the highlighted spots to visit the kid that lives at that particular location. You can rotate the globe by clicking on any one of the four arrows located to the sides, top and bottom of the globe window. You can also

place your pointer at any spot on the earth, except the very center, hold down your mouse button, and drag your pointer across the screen. The longer the line that appears when you do this, the faster the globe will rotate. To zoom closer or farther away from the earth, click anywhere on the red bar that appears under the globe window. Clicking toward the right end of the bar will bring you closer to earth. Clicking toward the left end of the bar will take you farther away. Each time you click on a location, an image of the kid nearest that location appears in the small picture window located at the bottom left of the screen. Click on the image window or press **<Esc>** to get back to the main screen.

Control Buttons

Replay: click this button to see the movie or hear the audio for the current entry.

Retrace: click this button to travel to the last entry you visited. Each click takes you back one more entry.

Music: click this button to change the music selection.

Exit: click this button to exit to the main menu. As you exit, you travel through the information screen where you can learn how to become an Adventurer!

Exit Information Screen

Want To Be An Adventurer? Here's How. The exit information screen tells you what you need to do to become an Adventurer! Click the mouse button to interrupt the information sequence.

Print Out Your Official Entry Form! Click the "print" button to print out your official Knowledge Adventure entry form. Don't forget to have your parents sign it before you send it in with your stuff.

Replay: click this button to view the entry information again.

Return: click this button to return to The Adventurers! main screen.

Exit: click this button to exit to the main menu.

Using Aviation Adventure

Ready to Begin?

There is no "right" way to use Aviation Adventure. You decide when and where you want to travel from screen to screen. Just remember, you're on an adventure, so you may not always end up where you thought you were going!

Where can I find more information?

If you have not yet installed and started Aviation Adventure, see page ? of this book for instructions. To get information while using the program itself, access the On-Line help by pushing the F1 key.

Some Basics

You can use both the mouse and the keyboard. Moving your mouse moves the pointer around on the screen. To activate an icon on the screen, click the mouse button while your pointer is on that icon. You may sometimes prefer to use the keyboard to navigate in Aviation Adventure. Press Tab to move the pointer to each button on the screen in turn; press Shift-Tab to cycle backward through the buttons. Press Enter in place of clicking the mouse button. Other keyboard shortcuts are noted under the appropriate sections in this book.

What If I Get Lost?

The Control Tower icon will appear at various places within Aviation Adventure. Click on it to return to the Main Menu. If there is no pointer on the screen, click your mouse button so that the pointer reappears.

What Activities are in Aviation Adventure?

The first still screen you'll see after you start Aviation Adventure, following the Launch Menu, is the Main Menu. Move your mouse around and bubble notes will appear showing you where the activities are. If you click on an area not linked to an activity, and hold down the mouse button, information boxes will appear showing you where the activities are. You can have fun with the Main Menu. Click on various items and find out what surprises are in store for you.

Related Topics:

[Aviation Reference Library And Aircraft Encyclopedia](#)

[Theater](#)

[Aviation Lab](#)

[Paper Plane Factory](#)

[Aviation Museum](#)

[Glider Game](#)

[Aviation Adventure Trivia Quiz](#)

[Flight Simulator](#)

Aviation Reference Library And Aircraft Encyclopedia

The Aviation Reference Library and Aircraft Encyclopedia work similarly but contain different categories of information.

Study the Layout. At the top center of each Reference Library and Aircraft Encyclopedia screen is a picture window. The text in the window at the bottom center of the screen goes along with the picture. To the left of the text window is the interactive globe, which shows a location relevant to the current topic. To the right of the text window are the control buttons, which provide program options. These allow you to print the text or image, access the index, retrace your steps, zoom the image, or start and stop the text narration. The control tower provides a way to return to the Main menu.

Get more information. Move the pointer around in the picture window and read the note balloons to get more information about the picture shown. (See the section about "Control buttons" to learn how to expand the picture window to fill the screen.)

Travel to related pictures. Click on one of the note balloons in the picture window to visit a different entry about a related subject.

Navigate in zoom mode. You can view the article in several modes other than the standard one. Zoom modes allow you to view the pictures, text or globe as full-screen images. To enter a zoom mode, click on the corresponding magnifying glass located next to each window. While in this mode, you can press (+) to visit the next topic, or (-) to visit the previous topic.

Read all about it. The text will scroll automatically as the narration is read. When narration is not in progress, you can click on the single up and down arrow buttons below the text window to scroll. The text will scroll as long as you hold down the mouse button, and will stop when you release the mouse button. To scroll quickly, one page at a time, click on the double arrow buttons below the text window or press **PgUp** or **PgDn**.

Look for more information. To go to the Aviation Reference Library or Aircraft Encyclopedia index, click on a word in the text window that interests you. The text window will change to display an index of words used in the Aviation Reference Library or Aircraft Encyclopedia. The word you chose (or a similar word) will be at the top of the window. Under the word will be a list of articles in which that word appears. From the index, you can click on the name of the entry you want to see. Press **Esc**, click on the Retrace button, or click on the Index button to return the text window to its previous

display.

Interactive Globe Window

Travel to a new location. Click anywhere in the map window to go to the entry that is most closely related to that location.

Spin the Earth. To rotate the globe, click on one of the arrow buttons surrounding the globe window, or press an arrow key. Hold down the mouse button or arrow key to rotate the globe more rapidly.

Zoom in and out. To move closer to or farther from the earth, click anywhere on the slider bar below the map window. Click on the left and right arrowheads on the slider bar to zoom in and out gradually. You can also click on the slider and hold down the mouse button to drag the slider to another part of the bar.

Expand the globe. Click on the magnifying glass button to the left of the map window slider bar to expand the map window to fill the screen. All of the map window features described above will continue to work in this mode. If the small picture window on this screen is in your way you can click on it, hold down the mouse button, and drag the picture to another part of the screen. Click on the magnifying glass button to return the screen to its normal display.

Control Buttons

The buttons to the right of the text window perform these functions:

Take a closer look. Click on the Zoom Image button (a magnifying glass) to expand the picture window to fill the screen with a close-up view of the current image. You can read the note balloons and travel to other pictures while in this mode. Click on the magnifying glass button to return the screen to its normal display.

Watch and Listen. If the auto-narrate option is selected on the Main Menu, the text for each article will automatically be narrated. Clicking on the audio button will stop the narration. Clicking again will restart it from the beginning. If you have the auto-narrate option off, click on the Audio button to play the narration. Click on the Audio button again to stop the narration.

Print the text and images. Click on the Print Text button to send the contents of the text window to your attached printer, or click on the Print Image button to print the image in the picture window.

Visit the index. Click on the Index button and select the letter of the index you wish to search, or simply type a word to look for more information

on a topic.

Go back the way you came. Click on the Retrace button to travel to the entry you visited last. Each time you click on it you'll travel back one more entry. You can also move forward in the "history" of your travels by holding down the Shift key and clicking on the Retrace button.

Return to the Main Menu. Click on the Control Tower button when you want to return to the Main Menu.

Aviation Reference Library Controls and Category Buttons

Travel through time. The data line in the Aviation Reference Library is always a time line, showing the year of the current entry. Click anywhere on the time line to visit the entry that is most closely related to that year. If you want to move just one entry forward or backward in time, click once on the down or up arrowheads below the time line, or press the (+) or (-) keys. You can also click on the slider and hold down the mouse button to drag the slider to another part of the time line.

Category Buttons. The Aviation Reference Library displays eight buttons to the left of the picture window, each representing a different category of aviation knowledge: Early Aviation, Aviators, Civil Aviation, Military Aviation, Milestones, Technical Advances, Russian Air Power, and Stealth. The categories vary in target age. The Technical and Stealth categories are aimed primarily at adults.

Click on any of the category buttons to travel immediately to the next entry in that category on the time line. To travel to the previous entry, hold down the Shift key and click on the category button. To see all the entries in a particular category, keep clicking the same category button. The category button of the current entry is highlighted.

Aircraft Encyclopedia Controls and Category Buttons

Use the Data Lines. Click on one of the three sort buttons to the right of the data line to activate the aircraft time line, wingspan line, or speed line. Click anywhere on the data line to visit the entry that is most closely related to the year you clicked on, or to visit the entry that shows an aircraft with the wingspan or speed you clicked on. If you want to move just one entry forward or backwards along the current data line, press (+) or (-) or click one on the down or up arrowheads below the data line. You can also click on the slider and hold down the mouse button as you drag the slider to another part of the bar.

Category Buttons. The Aircraft Encyclopedia displays four buttons to the left of the picture window, each representing a different category of aircraft:

Military Aircraft, General Aviation Aircraft, Commercial Aircraft, and Rotary Wing Aircraft.

Click on any of the category buttons to travel immediately to the next entry in that category for the currently active data line. To travel to the previous entry, hold down the Shift key and click on the category button. You can also click on the slider bar next to the category buttons, or hold down the mouse button as you drag the slider to another part of the bar. To see all the entries in a particular category, keep clicking the same category button. The category button of the current entry is highlighted.

Get the data. Click on the button to the right of the data panel in the Aircraft Encyclopedia to see data on the current aircraft in the text window. Click on the button to the left of the data panel to return to the text about the aircraft.

Theater

Picking a movie category. Click on one of the three buttons to the left of the movie screen to choose the category of movies you'd like to see: Bloopers, Documentaries, or Historical clips. You can also toggle through the categories using the Tab key and pressing Enter to select. The movie selections for the chosen category will appear in the frames to the right of the movie screen.

Selecting a movie. Drag the mouse cursor over the movie frames to see the title of each movie. You can click on the up and down arrows above the column of movie frames in order to see more choices. If you wish to use the keyboard, press the Tab key to position the mouse cursor over the up or down arrow, then press the Enter key to toggle through the frames.

Playing a movie. Click on the frame which identifies the movie you wish to view. Keyboard users can Tab to the movie frame, and then press Enter to start the movie. The movie will play in the large movie screen in the center of the theater.

Click on the members of the audience for a surprise. When you have finished with this activity, click on the Control Tower button to return to the Main menu.

Aviation Lab

Pick a plane. Click on one of the ten aircraft on the Aviation Lab menu to examine that plane in the laboratory.

Get oriented. Once inside the Aviation Lab, you'll see a large picture window for detailed images in the upper right of the screen and a smaller picture window for overview images in the lower right corner. The window in the lower left corner of the screen displays corresponding text. Three control buttons on the left side of the screen let you choose program options.

Picture Windows

Zoom in. Click on part of the aircraft in the large picture window and the picture will change to show you a more detailed view of that area. The small picture window will highlight the selected area. You can click more than once on the same part of the aircraft to see even more detail. Click on the slider bar below the large picture window to shift the image left and right. To shift the image up or down, click on the slider bar to the right of the large picture window. You can also click on either slider and hold down the mouse button as you drag the slider to another part of the bar.

Back out. Click on the aircraft in the small picture window to step back one level from the detailed view shown in the large picture window.

Text Window

Read all about it. In the text window, read about the part of the plane shown in the large picture window. If you have not turned off the auto-narration, this text will automatically be read. The text will scroll with the narration. You can also click on the down and up arrow buttons above the text window to scroll the text. The text will scroll as long as you hold down the mouse button, and will stop when you release the mouse button.

Control Buttons

Choose skin off or on. Click on the button in the upper left corner of the screen to toggle between viewing the airplane with its skin on or skin off.

Pick a different plane. Click on the bent arrow pointing left to return to the Aviation Lab menu in order to choose a different aircraft to examine, or return to the Main Menu.

Listen. If you have the auto-narrate option selected in the Main Menu, the text will automatically be narrated. Click on the audio button to stop the narration, click again to restart it. If the auto-narrate option is off, you must click on the audio button to hear the narration.

Return to the Main menu. When you have finished with the Aviation Lab, click on the control tower on the Aviation Lab menu to return to the Main menu.

Paper Plane Factory

Choose an airplane or aerodynamics lesson. Click on one of the 12 paper airplanes on the Paper Airplane Factory menu to learn how to fold that airplane, or click on one of the four colored buttons in the corners of the menu to get an aerodynamics lesson. If you choose one of the lessons, see the section "Aerodynamics lessons" for more information.

Check out the folding instructions. The largest part of the Paper Airplane Factory screen is the picture window that will show you exactly how to fold the paper airplane you chose, at your own pace. The text window below the picture window details the steps involved in creating the plane. The step counter to the left of the picture window shows what step you are on.

Use the mouse to fold the plane. Move your mouse to the right, or press the right arrow key on your keyboard, to see the paper airplane gradually fold in the picture window. Move your mouse to the left, or press the left arrow key on your keyboard to see it unfold. You control the speed and direction of the folding demonstration. You can also use the single and double arrow buttons to the left of the text window to advance or go backwards. The single arrows will move you forward or backwards one movie frame at time. The double arrows will advance you forward or backwards one folding step at a time.

To get the cursor, click the mouse button. To get the mouse back, click in the large image window
Text Window

Read the instructions. Read each step of the directions in the text window. Click on the Narrate button, described below, to hear the directions read aloud. Click on the down or up arrow buttons next to the text window to scroll through the text.

Control buttons

Fold the plane automatically. Click on the image of the paper plane in the upper left corner to watch that plane folded from beginning to end without pause. Using this button, the text will automatically be narrated. If you wish to turn the narration off, click on the audio button described below.

Return to the Paper Airplane Factory menu. Click on the bent arrow to return to the Paper Airplane Factory menu in order to choose a different paper airplane, choose an aerodynamics lesson, or return to the Main Menu.

Print out paper airplane patterns. Click on the Printer button to print

out the pattern for the airplane you want to create along with easy-to-follow instructions!

Hear the narration. Click on the Sound button to have the instructions in the text window read aloud, or to turn off the narrated sound.

Step Counter

The step counter indicates which step of the instructions is currently shown in the picture and text windows.

Skip to a step. Click on one of the tic marks (before the red triangle) to go directly to that step of the instructions.

Aerodynamics Lessons

Choose an aerodynamics lesson. Click on one of the corner images on the Paper Airplane Factory Menu and you will travel to a screen with a picture window, a text window, and three control buttons in the upper right part of the screen. Four lesson buttons along the left side of the screen represent the different aerodynamics articles available.

Read the lesson. If you have auto-narration selected from within the Main Menu, the text will automatically be read to you. The text will scroll as it is being narrated. If you have disabled auto-narration, you can click on the single up and down arrow buttons below the text window to scroll the text.

Choose a different lesson. Click on the one of the other lesson buttons to learn about a different concept in aerodynamics.

Repeat the action. Click on the Repeat button to repeat the lesson.

Print the lesson. Click on the Print button to send the current lesson to your printer.

Return to the Paper Airplane Lab menu. Click on the bent arrow pointing left to return to the Paper Airplane Lab menu in order to choose a paper airplane.

Aviation Museum

Prepare for your tour. The view window on the top right portion of the screen shows the rooms of the Aviation Museum as you move through them. The map window in the lower left corner of the screen shows your current location in the museum. The text window below the view window displays information about the pictures you encounter in the museum. The location buttons containing the room names to the left of the view window let you travel instantly to a new room.

Tour the museum. Move your mouse around to navigate down hallways and around corners in the space shown in the view window. This takes a little practice. If you prefer, you can use the arrow keys to move around. To open the doors, click the mouse button to bring up the cursor, and then click on the door.

Click on a picture. As you explore the different rooms of the museum, you will see pictures on the wall. Click the mouse button to make the pointer appear. Click on a picture and find out more about it in the text window.

Resume traveling. Click anywhere in the text window while the pointer is visible to make the pointer disappear so you can resume traveling through the museum.

Map Window

Check your position. Look at the map window to get an aerial view of the museum layout. Your current position is shown by the dot in the highlighted room. Click on any room to travel there instantly.

Text Window

Read about it. After you have clicked on a picture in the museum, you can read about the picture in the view window. Click on the up arrow or down arrow buttons to the left of the text window to scroll the text up or down one line at a time.

Print the text. Click on the Print Text button to print out an extended article on the topic shown in the text window.

Location Buttons

Change rooms instantly. Click on one of the location buttons above the map window (or one of the rooms on the map) to travel to a different room of the museum: How Planes Fly, Pilot Careers, Non-Pilot Careers, Celebrity Pilots, Theater, Resource Center, or Lobby.
Resource Center

Locate a flight museum or plane exhibit. The museum resource center contains some unique features. Click on the Find-a-Museum picture to get a map of North America. You can then click on a city on the map or type in the name of a city to get a list of all the flight museums in or near that city. You can use the Find-a-Plane database in a similar fashion. For instance, you can type a plane's designation, such as F-100, and get a list of all the museums in North America that have an F-100 on display. The resource center also contains an Associations and Clubs, and Air Show database, as well as a free subscription offer (for those 16 and older) for Flight Training Magazine, and a special offer for the EAA's Sport Aviation Club for Kids.

Dogfight Theater

Experience fighter aircraft in a virtual environment. Click on the various pictures in this room to experience a dogfight from a missile's point-of-view, get a 3-D look at a Russian or American fighter, or even explore the cockpit of an F-15E.

Return to the Main menu. When you have finished with the Aviation Adventure Museum, click on the control tower to return to the Main menu.

Glider Game

Your Mission Your mission -- learn the ropes of maneuvering a paper glider through an obstacle-filled house. By riding the thermals, collecting useful items, and avoiding nasty foes that lie in your path, you seek to escape from the maze-like house to the outside world.

The object of this game is to safely fly your glider across rooms, gaining points and extra gliders while avoiding objects that will destroy your glider. The game begins in a room with a few objects in it. Look for your glider in the upper left corner of the screen. When all your gliders are destroyed, the game will end.

Watch for good and bad objects Sounds easy you say ? Well, perhaps tables, cabinets, and electrical outlets don't seem particularly dangerous to you, but imagine what they mean to a paper airplane! We've even heard rumors about paper-shredders, so be on your guard! Some objects destroy your glider if you run into them; others will award you extra gliders and points. For example, hitting a clock will gain you bonus points, while hitting a book or a shelf will destroy your glider. To learn from the experience, just try running into things to see what happens. If it turns out to be a bad experience, you can avoid that object next time.

Don't panic...It's not a cakewalk, but you are starting your mission well prepared for the obstacles that you will encounter. You'll have five gliders to help to get you through your test. There is a battery that will enable you to hit the turbo (by holding down the enter key) which will hurtle you forward at high speed. If you're lucky enough to find some rubber bands, you'll be ready for the marauding craft that seek to stop you. Just make sure that they're about even with the level of your glider and press the space bar -- snap ! They'll be served up with a flying band that will stop them in their tracks.

Take the controls Though you may not have flown a glider before, you'll probably get the hang of it very quickly. Just remember these simple controls...

Move Left	Left Arrow Key
Move Right	Right Arrow Key
Engage Turbo	Enter Key
Fire Rubber Band	Space Bar

With a little dexterity (of both fingers and mind), these controls are everything you need to complete your glider flight. The mouse or a joystick cannot be used to control the glider.

Take advantage of floor vents. Since your glider has no engine, of

course, it will float to the ground in a few seconds and you'll be destroyed. Look for vents on the floors of the rooms you fly through and use the columns of air rising from them to lift your glider back toward the ceiling.

Check out your options. The Glider game has a pull-down options menu. If you click on the controls option, you'll have the choice of adding a cross-breeze ("drop keyboard"). Click on the "air is invisible" or "air is visible" to toggle between these options

Aviation Adventure Trivia Quiz

The Aviation Adventure Trivia Quiz challenges you to complete all five levels in order to win. When you win, you'll see a reward movie in which famous planes magically morph, or transform, into each other. If you're a registered user and you send us a postcard with the correct names of all the planes in the reward movie, we'll send you a free gift. To advance from one level to another, you need only answer three questions correctly. If you answer two incorrectly, you will begin that level again (with a new set of questions). The more you advance, the more difficult the questions become. Good Luck!

Read or listen to the quiz item. The quiz question and four possible answers will be read aloud to you. You can also move your mouse to the double speaker button in the lower right corner of the screen and read the current question that appears in the note balloon. If you click on the double speaker button, the current question item will be reread aloud.

Choose your answer. Move your mouse around in the four picture windows and read the note balloons to see the possible answers. Click on the window you think contains the right answer. When the four pictures change, it's time for a new quiz item. Keyboard users can press the Tab key to toggle to the answer, and press Enter to select.

Get more information. Once all the answers have been displayed, you can click on the Hint (question mark) button next to the double speaker button to travel to the Aircraft Encyclopedia or the Reference Library to get more information about the current quiz item. Hurry! Your time is limited, and you can only use the Hint button once per question. See the section "Aviation Reference Library and Aircraft Encyclopedia," for more information about the reference libraries.

Return to the Main menu. When you have finished with the Aviation Adventure Quiz, click on the control tower button to return to the Main menu.

Flight Simulator

Aviation Adventure includes a bonus game, F4U Secret Sortie. For performance reasons, F4U Secret Sortie, like most flight simulators, runs from the DOS environment. The F4U Secret Sortie icon has special coding which will automatically close Windows for you, start the flight simulator, then automatically return you to Windows when you exit F4U Secret Sortie. To return to Aviation Adventure, click on the Aviation Adventure icon in the Knowledge Adventure program group.

Welcome to F4U Secret Sortie!

F4U Secret Sortie is an easy game to play. Just make up a name for your "pilot" when asked. This will be the name to reference when accumulating scores, etc. You can create up to 20 pilots. Each pilot has his own stats and records.

Get in the cockpit and fly. Hit the **Enter** key when in the Main Menu, this will bring up the Training Mission menu. Hit the **Enter** key again and you will bring up the pre-flight report, which gives information on the mission. Hit **Enter** again to begin the mission. Once in the plane, the blinking message reminds you that the **F4** key will provide in-flight help.

In-flight Key Definitions

F2 - Intelligence Info

Esc - End mission now (for best score, use near the airstrip tower)

Keypad Keys

numlock - toggle between (keypad arrows = views) or (keypad arrows = controls)

Left Control Key - use with keypad arrow key for views

Left Shift Key - apply brakes

f - flaps toggle

g - ground detail dots toggle on/off

i - ignite rocket booster (15 second burn, 120 second recharge)

m - map mode (arrows, pgdn=move down, pgup=moveup, shift arrows=change view angle)

p - pause toggle (use spacebar to go through help screens when paused)

r - toggle reverse window on / off

s - toggle sound on / off, also use to reset sound board in case of glitch

t - hold down for accelerated time

x,z - left / right rudder (tap lightly; don't hold rudder keys down continuously in flight!)

keypad +/- - increase / decrease throttle

NOTE: If the keypad arrow keys suddenly appear to not be functioning properly, check to see if you have accidentally hit the NumLock key. F4U Secret Sortie will also support a joystick.

Missions

This menu is where you select your flying mission. There is one training mission and five actual missions.

You must complete the training mission before you are allowed to fly actual missions in enemy territory. To fly the training mission, choose the "Training Mission" selection from the menu.

In the training mission, you must take off and weave between some tall rotating markers like a slalom skier. Start at the marker closest to your airstrip, and fly past it on the left side. As you do, you will see the '1' in your training instrument panel light up. Then switch to the right side as you pass the second marker. The '2' will then light up. Continue weaving through markers until your whole training instrument panel is lit up, and the complete light on your dash goes on.

If you miss the marker, or you go past the markers out of order, you will have to start over. If your wheels touch the ground before you complete the slalom, you will have to start over.

To fly in a combat mission in one of the theaters-of-operation choose the "fly mission" selection.

Most theaters-of-operation consist of several airfields. Surrounding these airfields are enemy buildings and equipment. You must stay away from these to avoid detection by the enemy. If you get too close, your radar warning light will go on, and you will hear the warble alarm. The alarm has four stages. When the light is gray, you are far enough away from the enemy structure that you are in no danger. When it is blue, you are getting dangerously close, but you are not close enough to be detected. When the light is yellow, you are very close to being detected. When the alarm warning light turns red, you will be sighted in a matter of seconds!

There are three types of enemy structure that can detect you.

1. Red buildings

All the red buildings have enemy personnel inside. If they hear a plane go overhead, they will run out and try to identify it. These structures have the smallest detection range, and are therefore the least threatening to your mission.

Your altitude affects the ability of the building personnel to detect you as hostile. The higher you are, the less likely that they will spot you. These buildings will show up as dark blue dots on you radar display.

2. Enemy planes

Since you are behind the lines, all aircraft are hostile. They can detect you when you get within a certain range. You are most likely to be spotted when you are at the same altitude as the enemy plane. Since enemy pilots are always observant, the range of detection for planes is twice that of buildings. Enemy planes show up as light blue on you radar.

3. Radar Installations

Radar installations have maximum range. Most of the time you cannot see the radar before it detects your presence. Keep a careful eye on your radar detection instrument. The green dots are radar units. No matter how high your altitude, the radar installations can still detect you.

Flying low, however, is a different story. The radar installations are not capable of detecting planes that are flying very low. There is no fixed ceiling for radar. The closer you get to the radar, the lower you must be to pass under its detection field. By the same token, at the maximum range of the radar you can be over 1000 feet high and still avoid detection. Radar has twice the range of enemy aircraft.

Airstrips

There are both friendly and unfriendly airstrips in the game. Friendly airstrips always have a tall gray tower next to them. When you land at a friendly airstrip, your fuel tanks are refilled after you come to a complete stop (by lowering the throttle to zero, and applying brakes). You can land on the roads, or the grass if you like, but grass landings are much trickier.

You may choose to play with an invulnerable plane with the Toggle Invulnerable Plane selection. When flying with an invulnerable plane, you will not be detected by any enemy forces, or damaged by any collision. Flights taken with an invulnerable plane are never counted toward a pilot's record.

While you are in-flight, F4U Secret Sortie can put text messages up to guide the new user until he/she becomes familiar with the game. After you learn that you must fly back to the airstrip to get points and so on, you may no longer want to see these messages. Also, some non-IBM compatible VGA cards may cause this text to come up with '*' characters replacing every letter in the message. If this happens, be sure to turn off in-flight comments! Use the In-flight Comments menu selection to turn off these messages.

New pilots who just start playing F4U Secret Sortie tend to fly into the ground frequently, and have much trouble learning to turn. Therefore, the game contains two aerodynamic flight models. The beginner flight model gently pushes the nose to the correct altitude for level flight. This helps prevent crashes, and also causes the plane to turn without the player having to coordinate the use of the elevators and ruder

The advanced flight model is much preferred for real combat. Loops, flying upside-down, and dives are much easier with this flight model. Choose between these two flight models with the Flight Model menu item.

How to Take Off, Land, and Fly Level

The key to success in F4U Secret Sortie is to become a good flyer. Only when a pilot learns the abilities and limitations of his plane can he make the complex maneuvers required to make it to the rank of General.

Takeoffs

Pulling your plane up into the air is the easiest part of flying. Merely put the throttle to the maximum, and pull back on the stick when you reach over 150 mph.

However, there are some details to be aware of. If your plane is not lined up on the runway, you will have to maneuver on the ground. The elevator and ailerons control the tilt and bank of the plane, they cannot turn the plane. Therefore, use the rudder controls to steer while on the ground. To bring the plane to a stop you must use the brakes. These are the left shift key, the '.' key, or the '0' key on the keypad. The brakes must be used to bring the plane to a complete stop. (The plane must be brought to a complete stop to qualify as a landing.)

Once you are lined up, bring the throttle up to max. When you reach 100 mph the tail of your plane will rise off the ground. Keep the plane on the runway by tapping the rudder keys if needed. When you surpass 150 mph, pull back gently on the stick. If you pull back too hard the tail will swing down so quickly that it will slam back down onto the runway, thus kicking down your nose due to the bounce. This can cause a crash, so be careful.

Level Flight

When in the air the most important thing is to avoid crashing into the ground. To achieve level flight you must keep your leveling sight above the horizon. How high you must keep your nose depends on your airspeed. Near the stall speed of 100 mph, the nose must be kept much higher above the horizon than when you are flying at 350 mph.

There is an altimeter and a climb rate meter to help you fly level. A warning text box will appear if your altitude drops below 150 feet.

When climbing, keep an eye on your airspeed. If this drops below 100 mph, then you may not have enough airspeed to fly. This makes a stall possible.

Stalls and Advanced Aerodynamics

A stall occurs when the air traveling over the wings becomes turbulent. This results in a dramatic loss of lift, and unless corrected, the plane will invariably fall to the ground. Stalling can be brought about by letting your airspeed drop below stall speed, or it can also occur as a result of an imprudent aerobatic maneuver.

The most common cause of a stall is simply that the airspeed has dropped too low to sustain flight. Another common cause is excessive sideslipping.

A damaged plane is much more likely to stall. Wing damage will lower the lift of the wings, and control damage can make the stick harder to use. Of course, engine damage will lower available power, and thus airspeed. Rudder damage will increase level flight sideslip.

How to get out of a stall

To get out of a stall means getting your forward airspeed up. Since your direction of motion is invariably down when stalled, it is best to get the nose pointed down. Of course your throttle should be placed to maximum.

Note that when the stall is so bad that your airspeed is nil, then you have lost the ability to control the plane with the control surfaces. In fact, it is even possible for your plane to fly backwards with the controls operating in a reversed fashion. Even backwards airspeed is better than zero. If you are falling backwards, push the stick forward to push the nose down. Once the nose is down, hold it there until you get some forward airspeed, and begin flying again.

The emergency rocket booster can also be useful in getting out of a stall.

Landing

This is one of the hardest parts of flying to master.

The biggest problem for beginners is getting lined up properly with the runway. One point to remember is that you must not fly toward the middle of the runway. Fly towards the close end of the runway, or a point on an imaginary line running the length of the runway and beyond. Once you are over that imaginary line, then turn your nose to point towards the end of the runway. Getting lined up is especially difficult in F4U Secret Sortie, due to fact that the plane may be slipping sideways.

When you get close enough to the runway so that it no longer looks like a line, but instead looks like a black rectangle, engage the flaps, and drop your throttle to zero. (But don't let your airspeed drop below 100 mph.) At this point you should be no higher than 1000 ft.

Your plane has automatic landing gear that pops down as required.

Now let the plane drop, shedding that altitude before you reach the end of the runway. When you get to 100 or 200 feet, level the plane out for the final drop to the runway.

If you are not perfectly lined up, but are low and over the runway, then drop and steer with the rudder once your wheels touch. The gear of your plane is quite tough, and

on the runway surface you can have your rate of climb meter almost pegged negative and still survive. Landing on the grass can be done, but requires a much more sensitive touch down.

It is a good idea to be holding down the brake key throughout the whole landing process. The left shift key is situated conveniently for the left hand to operate the brakes and rudder controls. For those that use the left hand on the joystick, use the keypad rudder and brake controls.

Once you have landed your aircraft, you may taxi about using your rudder. Be careful to keep your speed down while taxiing (especially if your flaps are down) because it may cause you to lift into the air inadvertently, and then cause a crash-landing. Please remember that on the ground, the stick is useless, and you must steer with the rudder keys. Pulling the stick over on the ground may cause your plane to flip.

Crashes

There are two different types of crashes. One is a fatal wreck, and the other type is a crash-landing. A crash-landing is where your plane is brought down too hard, and the landing gear fails. The plane then spins to a stop on the ground. When it stops, your plane is dead and will not fly again until repaired. If you were close to your airstrip, the repair crew can fix it. The other type of crash is the fatal crash. This happens if you slam into the ground too hard, or if your plane is so tilted during landing that your wing tip hits.

Midair collisions

There are objects which will destroy your plane if you collide with them. When this happens your plane bounces, and the damage indicators immediately max out. The screen border turns dark red, and an alarm is sounded. Although landing such a plane has been done on occasion, it most often proves to be fatal.

How to Turn Your Plane

Please note that F4U Secret Sortie's advanced flight model makes turning different than on many commercial flight games which have simpler models. With a little practice however, you will find the plane is just as maneuverable.

To turn your plane, simply move the stick left or right. The plane will begin to bank. Don't be too shy, give the plane a nice 45 degree bank. Now that wing's lift is no longer pulling straight up, you will lose some lift, and your nose may drop. Pull back on the stick to keep the nose above the horizon. You will notice that as you pull back on the stick, your nose will be pulled into the turn.

To make a typical combat turn, place the plane on its side, so that the

horizon forms a vertical line. Then pull all the way back on the stick, and hold it there until you have the compass reading you desire. Then simply flatten your plane back to the level. Be careful not to let the nose drop during the turn. You can always bring it up by unbanking the plane a little, and the nose will lift since you are holding the control stick back. This method of turning is actually easier than a slow coordinated turn. The price for the fast turn is airspeed.

The fastest turns are done with the flaps engaged, since this greatly increases the lift from the wings. Be careful not to let your airspeed drop too much. Flaps also increase drag.

Note that the amount of time required for the turn depends very much upon your airspeed. (Just like in an automobile, when moving fast you cannot make tight turns.)

Appendix A: Learning Guide

Playing and learning

Having fun and learning are two of the most natural things in the world to a child. Your child is learning in some way when he does the things that are most fun to him. When he plays a video game in which the object is to shoot down the most aliens in the least amount of time, he enjoys himself while improving his hand-eye coordination and dexterity. In virtually every activity kids enjoy, there is at least the potential for learning. Want a simple formula for getting kids to learn? Make it fun!

But what are they learning? How do we help them to learn the really important things? How do we teach them to take initiative in learning about themselves and their world? After all, there won't always be a game to play that will teach them what they need to know.

The theory behind Knowledge Adventure products is that the way to ignite a child's intellect is to introduce him or her to the fun of learning. If we truly achieve this, we no longer have to come up with sneaky ways to get kids to learn; once they recognize the inherent joy of learning, nothing will stop them from finding out everything they want to know!

Aviation Adventure is designed to provide your child with many possible directions to explore according to her own interests. As a parent, you are the best possible assistant in this process because you know your child, her level, and her interests. Most importantly, she craves one-on-one time with you.

Enhancing your child's play

When you sit down with your child to play with Aviation Adventure, or any other program, you may want to keep the following suggestions in mind.

Let your child take the lead

If your child is old enough to read and follow the instructions in this document, let him try to install and start Aviation Adventure himself. If you set up the software for him, let him take over as soon as it is ready to play with. Simply observing and making interested comments about what your child is doing is a good way to encourage his learning without imposing your own agenda.

Be a learner yourself

Aim to be a student of your child more than of the software. What can you find out about your child's learning style, interests, attention span, and thought processes? If there is something neither of you can figure out about the software, find out the answer together by looking it up in the documentation. Set an example by talking through this process: Why don't

we look up 'sound' in the User's Manual?

Ask appropriate questions

An excellent way to assist your child's learning while following the first two guidelines is to ask questions that are appropriate for her age and interests and that challenge her to go a step further in her play: I wonder what would happen if you clicked on those little symbols? Go slowly and sparingly with these questions, challenging your child only as she seems ready. Rather than interrupting her play, you might wait a few minutes for her to discover something on her own. That way you'll both learn something!

Have fun together!

The fact that you have purchased a Knowledge Adventure product for your child and you are taking the time to read this guide says something about you as a parent. You recognize the importance of both fun and learning. Aviation Adventure has been designed to encourage a family to use it together. In the Paper Airplane Factory, for instance, you and your child can learn to build your own planes, then continue the activity outdoors, where you can test them in flight or even have your own flying contest. Your own enjoyment of the learning process and the fun you have spending time with your child will enhance your play together more than anything specific you do or say.

Appendix B: Questions And Answers

If you do not find the answer to your question here you can call Knowledge Adventure, Inc. at (818) 249-0212, or write down your question and fax it to us at (818) 542-4205. Before calling Knowledge Adventure, please be seated at your computer.

You can also read answers to commonly asked technical questions, among other things, on the Knowledge Adventure Bulletin Board System. The BBS is available to you 24 hours a day at (818) 248-0166 (N, 8, 1, 1200 to 14,400 baud).

If you have access to the Internet, you can also send e-mail about technical questions to support@adventure.com.

Related Topics:

[About Video](#)

[About Memory](#)

[About Sound and Music](#)

[About Other Topics](#)

[About WinG](#)

About Video

If Aviation Adventure requires a video driver that uses only 256 colors, and my video driver is capable of using 16 million colors, why can't I use my current video driver with Aviation Adventure?

Aviation Adventure only supports a 256 color video driver in order to improve performance. True color video drivers have to transfer three times as much data to the screen.

Can Aviation Adventure run in a video mode other than 640x480x256 color?

Yes, Aviation Adventure can run in 640x480, 800x600, or 1024x768 as long as your video card supports that mode with 256 colors. Remember though that 640x480 will run the fastest and will automatically provide you with a full-screen image.

How can I change the Windows video driver?

Most systems will install a variety of drivers for Windows to use. If this is not the case, have your Windows diskettes or the drivers diskettes for your video card ready.

1. While in Windows, double click on the Windows Setup icon. This is usually in the Main program group.
2. Select Change System settings from the Options menu.
3. Click on the down arrow in the Display category. This will bring up a list of available drivers. Scroll through the list and select the appropriate 640x480 - 256 color driver for your video card. If one is not on the list, select "Other display" at the bottom of the list.

Note: Selecting the "Other display" option will require a diskette with the appropriate drivers for your particular video card. Contact the manufacturer of your video card if you do not already have a drivers diskette.

4. If you are prompted for the location of the driver in the Windows Setup box, enter the path and click on OK. Windows will install the driver and then request that you insert one of your original Windows diskettes.

Note: If your computer arrived with Windows pre-installed, and you do not have the original Windows diskettes, please contact the manufacturer of your machine for further assistance.

5. If you selected a driver that was already installed in Windows, you will be informed of this and you may select Current and use the installed driver.
6. To have the new driver take effect, you must select the Restart Windows option once the driver has been installed.
7. To return your Windows display to its original configuration, repeat these steps after finishing Aviation Adventure.

About Memory

What is virtual memory and why do I need it to run Aviation Adventure?

Virtual memory is a file on your hard disk used to emulate memory. This file is called a swap file, and is used by Windows to improve performance on machines without a lot of physical memory. Aviation Adventure is a large program, and using virtual memory helps it run faster. Consult your Windows documentation for more information on virtual memory.

How do I tell Windows to use a swap file?

In the Program Manager, look in the Main program group for the Control Panel. Double-click on the Enhanced or 386 Enhanced icon. Inside Enhanced, click on the button Virtual Memory.... The size (in kilobytes) and type (permanent or temporary) of your swap file will be displayed. If you want to change the size or type of your swap file, click on the Change>> button, type the new size in the New Size field, and click on OK.

Should I use a permanent or a temporary swap file?

Permanent swap files are faster. Temporary swap files should only be used if you are too short on disk space to make a permanent swap file as large as youd like.

How big should I make my permanent swap file?

As big as Windows recommends.

On a computer with 4 megabytes of RAM, the largest swap file Windows 3.1 supports is about 7800 kilobytes (about 8 megabytes). This lets you keep twice as many applications open as you could without virtual memory, and is a lot cheaper than buying RAM. On a computer with 8 megabytes of RAM, the limit is about 19700 kilobytes.

How come I can only make a small permanent swap file?

A permanent swap file can only be as big as the biggest free block on your hard disk. If your disk has been used for more than a few days, it is probably fragmented, and doesnt have any big free blocks. You can fix this by running a disk defragmenter, for instance, DEFRAG.EXE, which comes with MS-DOS 6.2.

Can I put my swap file on a compressed volume to get more virtual memory?

No. Swap files should not be put on drives which have been compressed with Stacker or DoubleSpace. Swap files must be very fast to simulate RAM, and putting a swap file on a stacked volume would make your system seem terribly slow.

If you use Stacker or any other compression program, you should put your

swap file on the small uncompressed drive left behind by the compression program. You may find that this drive is too small for the recommended swap file size of 8 megabytes. If this happens, you may need to change the way your compressed drive is set up; consult the software manual for your compression program.

Can I run other Windows applications while running Aviation Adventure?

You can run other applications while Aviation Adventure is active, with one exception. You cannot run any applications while in F4U Secret Sortie. Please remember that the more applications you have open, the slower the performance of each application. You may also find that you may not have sufficient memory to keep multiple applications open simultaneously.

About Sound and Music

I can get sounds from Aviation Adventure but I am unable to get any music. Why?

Aviation Adventure incorporates two types of sound. Digital audio is used for speech and sound effects, and MIDI is used for music. The MIDI portion of your sound device may not be correctly set up. To see if your MIDI device is correctly configured follow these steps:

1. Go to the Windows Program Manager and open the Main group.
2. Double-click on the Control Panel icon and then double-click on the MIDI Mapper icon.

Note: If a MIDI Mapper icon does not exist, then your sound device may not be capable of producing MIDI sound. Contact the manufacturer of your sound device for more information.

3. When you access the MIDI Mapper look at the Name listing. There should be a name with the letters Ext. FM included. If this is not the case, click on the down arrow to the right of the Name listing and select a name which includes Ext. FM.

(Note: your current setting so that you can return to it if necessary)

4. Close the MIDI Mapper and re-enter Aviation Adventure. You should now hear background music at the Main Menu.
5. If the Name listing already included Ext. Fm or if changing it made no difference, try testing the MIDI portion of your sound card by playing the CANYON.MID file from the Media Player program. If you can not hear the CANYON.MID file from the Media Player, contact the manufacturer of your sound card for further assistance.

I checked the MIDI Mapper but I still can't hear any background music, Why?

Go to the Windows group that pertains to your sound device. Look for an icon that will allow you to access the Mixer. Check the mixer settings for Sound (usually called Wave), Music (music may be called MIDI or sometimes Synth), and the Master volume control. If any of the sliders are near the bottom click on them and drag them up to increase the volume.

Is the text for the Glider game supposed to be read aloud?

No, there are only sound effects and snippets of music in the Glider game.

I get a message that says "An invalid parameter was passed to a system function." What does it mean?

This message is caused by an incompatibility with the native sound drivers for the IBM Easy Options sound card. You should contact IBM for a possible update. If there is no update available you can remedy the problem by switching to Sound Blaster emulation. To do this, go to your Control Panel program and choose Drivers. Remove the Aria Multimedia Audio System

driver and choose to restart Windows. Run the Control Panel program again and Add the Creative Labs Sound Blaster 1.0 driver (your default settings should be address 220 and interrupt 5). Choose to restart Windows again. Run the Control Panel program again, and go to the MIDI Mapper. Click on New, type in Adlib for the Name and Description, and click on OK. For each channel choose Adlib for the Port Name, click on OK, and then Yes to save. Sound will play fine now without the error messages. You should contact IBM for a possible native mode driver update.

About Other Topics

Can I copy text to my favorite word processor?

Yes, you can copy the contents of any text box to the Windows Clipboard by pressing CTRL-C. You can then paste the text by choosing the Paste command from the Edit menu in your favorite word processor.

I clicked on the F4U Secret Sortie icon and got a Windows message asking me to close down my other applications. Why is this?

For performance reasons, F4U Secret Sortie, like most flight simulators, runs from the DOS environment. The F4U Secret Sortie icon has special coding which will automatically close Windows for you, start the flight simulator, then automatically return you to Windows when you exit F4U Secret Sortie. You cannot start F4U Secret Sortie if any other applications are open, because in that case the program cannot carry out the step of closing Windows.

Can I print any of the images from the Aviation Lab?

Not directly from the program, however there are third party screen capture programs available that will allow you to do this.

About WinG

Microsoft WinG version 1.0

This file describes known bugs, gotchas, and helpful hints for the WinGVersion 1.0 final release.

ISVs may want to distribute portions of this readme file that describe configuration bugs along with shipping products that use WinG.

WinG version 1.0 provides fast DIB-to-screen blts under Windows 3.1, Windows for Workgroups 3.11, Windows 95, and Windows NT version 3.5. WinG will not run on Windows NT version 3.1 or on earlier versions of Windows. WinG requires a 386 or better processor to run. WinG will not run on a 286.

Known Bugs And Limitations

The following are known problems with or useful tidbits of information about WinG version 1.0.

On Windows 3.1, WinGBitmaps must be 8 bits per pixel and must be created with full 256 entry color tables.

WinGDCCs are NOT palette devices. You must change their color tables using in GSetDIBColorTable, not SelectPalette.

WinGBitBlt and WinGStretchBlt only support bltting from WinGDCCs to the screen.

Using BitBlt and StretchBlt to blt from one WinGDC to another can be very slow when a clipping region has been selected into the destination.

WinGBitBlt and WinGStretchBlt may return different values than StretchDIBits for identical blts.

A few GDI APIs do not work correctly with WinGDCCs:

StretchDIBits will not blt 24bpp and 16bpp DIBs into an 8bpp WinGDC.

FloodFill with a NULL brush draws incorrectly.

FloodFill outside of the bounds of a WinGBitmap can flood the entire image.

Brushes created with CreatePatternBrush with a WinGBitmap fault when selected into a WinGDC on Win3x - use CreateBitmap(8,8,1,8,0).

DrawIcon will crash.

WinGBitBlt and WinGStretchBlt will not always blt to the correct location when you have changed the Viewport and/or Window origins using SetViewportOrg or SetWindowOrg.

You cannot change the origin of halftone brushes created by WinG.

Noticeable timing differences have been found while running the WinG profiler on a computer connected to a network. For accurate results, disconnect your computer from the network the first time you run a WinG application. After the profile is complete, you can plug the net in again. NOTE: Microsoft is not liable for any damage you may incur by incorrect handling of your computer hardware.

WinGBitBlit and WinGStretchBlit use a slightly different color matching algorithm than StretchDIBits when blitting an 8-bit image to a 4-bit planar display such as a standard VGA. Mixing WinG and StretchDIBits on these displays may produce odd results.

WinG relies on the mmsystem timer drivers to determine display performance. If mmsystem.dll and timer.driv are not installed correctly, the results of the performance test may be incorrect. Mmsystem.dll should appear on the drivers= line of the [boot] section of system.ini, and timer=timer.driv should appear in the [drivers] section of system.ini.

WinG version 1.0 does not yet use standard DCI because of time constraints. "Just In Time" debuggers install a fault handler in a chain along with the WinG display performance profiler. If your debugger reports a fault during the WinG display performance test, pass the fault on to Windows instead of invoking your debugger.

Driver-Specific Problems

WinG depends on Windows display drivers written by independent hardware manufacturers for much of its speed. Bugs or performance problems in third-party display drivers may cause problems in WinG. In many cases, the video card manufacturer has already fixed the bug, and upgrading your display driver will often clear away problems.

There are some specific "bugs" in display drivers of which you should be aware. The list below is not intended to slight the manufacturer of any particular card or driver. A list of stress-tested configurations is available on the CompuServe WINMM forum and <ftp.microsoft.com>.

Some names in this list are trademarks of the respective manufacturer.

Early drivers for Diamond Viper cards included a "Power Palette" option that is no longer supported by Diamond. They recommend that you upgrade your drivers if you have this option. WinG may be slower when power palette is enabled.

IBM no longer supports the IBM ThinkPad 720c. There are some problems using WinG with the ThinkPad 720c display drivers.

Cirrus drivers before version 1.43 have many known bugs which have been fixed in the more recent drivers. Be sure to upgrade your drivers if you are still running with this version.

Some ATI drivers offer a "Crystal Fonts" option. Turning Crystal Fonts on in 8-bit modes sets up a non-palettized driver that can slow WinG significantly.

The ATI mach8 Radical drivers cause a number of problems in both WinG and in Windows with some versions of the ATI chipset. Be aware.

The ATI VGA Wonder drivers (W31-*.drv) will crash during a call to StretchDIBits in the profiler. Users can run the SVGA256.DRV driver that shipped with Windows.

Many miro Crystal drivers have problems with StretchDIBits, so they crash during profiling.

Early ATI Mach 32 PCI cards have a hardware timing problem and will hang while blting. ATI will replace these cards for no cost.

WinG is incompatible with the #9GXE "TurboCopy" mode. Use the #9 control panel to disable TurboCopy (it is off by default).

WinG uses a GetPixel to synchronize with display hardware when writing directly to the screen. The ATI Mach 32 driver's GetPixel does not work properly, so it is possible to use GDI to draw to the screen, then use WinG to blt to the screen and have them overwrite each other. Be careful mixing GDI drawing commands and WinG blts to the display.

The Orchid mmtllo.drv driver for the Prodesigner IIs has duplicate system colors which prevents applications from getting an identity palette and greatly reduces the WinG blt speed. A workaround is to set SYSPAL_NOSTATIC mode or use standard the Tseng ET4000 drivers instead of the mmtllo drivers.

A Note on Speed

WinG is designed to be the absolute fastest way to blt DIBs under Windows. The goal, achieved in many cases, is to blt at memory bandwidth to the display device.

On most 8bpp devices, if you use the recommended DIB format (returned by WinGRecommendDIBFormat) and set up correct identity palette, you should get 1:1 blt speeds comparable to BitBlt, which blts device dependent

bitmaps (DDBs) to the display. The timewing sample application will show you various blt speeds on your display.

The WinGRecommendDIBFormat API will tell you whether to use top-down or bottom-up DIBs for fastest unclipped 1:1 identity palette blts. If you plan on using other types of blt (such as stretching or complex clipping), your application may want to time top-down versus bottom-up blts itself at run time. See the WinG help file for more information.

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