Microsoft Age of Empires Readme File
September 1997
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Welcome to Microsoft Age of Empires!

This file contains information to help you install Age of Empires on your computer, as well as late-breaking information not included in the manual or online Help.

CONTENTS
A. Hardware and System Requirements
B. Installing Age of Empires
C. Starting Age of Empires
D. Learning to Play
E. Getting Help
F. Startup Troubleshooting
G. DirectX Troubleshooting
H. Gameplay Troubleshooting
I. Scenario Builder Troubleshooting
J. Video Troubleshooting
K. Audio Troubleshooting
L.   Performance Troubleshooting
M. Head-to-Head Play Troubleshooting
N. Age of Empires Tips

A. Hardware and System Requirements

- Personal computer with a Pentium 90 or higher processor.
- Microsoft Windows 95 operating system, or Windows NT Workstation 4.0 with Service Pack 3.
- 16 megabytes (MB) of RAM for Windows 95, or 24 MB of RAM for Windows NT (or Windows 95 for an 8-player multiplayer game).
- 80 MB of available hard disk space.
- 50 MB of free disk space for swap file.
- Local Bus SVGA video display (with 1 MB of VRAM).
- Keyboard and Microsoft Mouse or compatible pointing device.
- Double-speed CD-ROM drive for gameplay (quad-speed CD-ROM drive for cinematics).

- Windows-compatible sound card with speakers or headphones to hear audio.
- 28.8-Kbps (or faster) modem for head-to-head play.

B. Installing Age of Empires

To install Age of Empires, you must be using Microsoft Windows 95 or later, or Microsoft Windows NT 4.0 with Service Pack 3. (For information about how to get Service Pack 3, go to **http://www.microsoft.com/ntserversupport/content/servicepacks/cdsp.htm**, or call (800) 370-8758.)

To install Age of Empires:

1. Turn on your computer and start Microsoft Windows 95 or later, or Microsoft Windows NT 4.0 with Service Pack 3.
2. Place the Age of Empires disc in the disc holder (if required), and insert it into your CD-ROM drive.
3. If AutoPlay is enabled, click **Install Age of Empires**, and then follow the instructions that appear on the screen.
   -or-
   If AutoPlay is disabled, double-click the **My Computer** icon on your desktop, double-click the icon for your CD-ROM drive, and then double-click the **AOESetup.exe** icon. When the Setup screen appears, click **Install Age of Empires**, and then follow the instructions that appear on the screen.

C. Starting Age of Empires

You must have an Age of Empires disc in your CD-ROM drive to play single-player games or use the scenario builder. If you installed Age of Empires but do not have the disc, you can only create and join multiplayer games. A multiplayer game requires the following number of discs per player: 2-3 players (1 disc), 4-7 players (2 discs), 8 players (3 discs).

To start Age of Empires:

Place the Age of Empires disc in the disc holder (if required), insert it into your CD-ROM drive, and then click **Play Age of Empires**.
-or-
If the Age of Empires disc is already in your CD-ROM drive, click the **Start** button, point to **Programs**, point to **Microsoft Games**, point to **Age of Empires**, and then point to and

click **Age of Empires**.

You can skip the opening cinematics by clicking the mouse or pressing ENTER, SPACEBAR, or ESC.

D. Learning to Play

The best way to learn the basics of Age of Empires is to play the Ascent of Egypt learning campaign provided with the game. You'll learn how to hunt, stockpile resources, construct buildings, and engage in combat.

To play the learning campaign:

1. On the Age of Empires menu, click **Single Player**.
2. Click **Campaign**.
3. Type your player name, or click a player name in the **Name** list.
4. To display the list of campaigns, click **OK**.
5. Select the **Ascent of Egypt Learning Campaign**. Only the first scenario is displayed. After you complete a scenario, the next scenario in the campaign appears at the end of the list.
6. Select the **Difficulty Level** (the skill of civilizations controlled by the computer). The levels range from easy to hardest.
7. To start the scenario, click **OK**.

After the cinematics play, the scenario instructions are revealed. To display the scenario instructions while you are playing the game, click the **Menu** button on the menu bar, and then click **Scenario Instructions**.

E. Getting Help

Age of Empires provides online and popup Help.

To display online Help:

On the Age of Empires menu, click **Help**. Or, from within the game, press **F1**, or click the **Menu** button on the menu bar and then click **Help**. To return to the game from online Help, click the **Game** button.

To display popup Help:

Click the **?** button in the lower-right corner of the game screen, and then click an item on the screen. To display online Help from popup Help, click the **More Help** button.

F. Startup Troubleshooting

You must have an Age of Empires disc in the CD-ROM drive to play single-player games of Age of Empires or use the scenario builder. If you installed Age of Empires but do not have a disc, you can only create and join multiplayer games. A multiplayer game requires the following number of discs per player: 2-3 players (1 disc), 4-7 players (2 discs), 8 players (3 discs). If you start Age of Empires without a disc in the CD-ROM drive, you must exit Age of Empires, insert the disc, and then restart Age of Empires.

G. DirectX Troubleshooting

DirectX version 5 must be installed on your computer before you can play Age of Empires. If you do not have DirectX installed on your computer and you chose not to install DirectX when you installed Age of Empires, you will receive the message "A required .dll file, Dplayx.dll, was not found." To fix this problem, reinstall Age of Empires and install DirectX 5.

If you experience sound or video problems using DirectX, connect to the DirectX Web site for the latest troubleshooting information. To do this:

1. Connect to **http://www.microsoft.com/directx/default.asp**
2. At the Web site, click the **DirectX Pavilion** button.
3. On the left side of the Web page, click **Games**.
4. Click **DirectX Games FAQ**.

You should also check with your video or sound card manufacturer for the latest DirectX-compatible drivers.

H. Gameplay Troubleshooting

- **Technology Trees** -- The technology trees for each civilization are in the Appendix of the Age of Empires manual and in the Docs folder on the Age of Empires disc. The technology trees on the Age of Empires disc have been provided primarily for you to print and may be difficult to read online. Each technology tree should print on a single page. If you are using WordPad to print, you may need to

reduce the width of the margins to fit each technology tree on a single page.

- **Difficulty Levels** -- If you are playing a random map or death match, you can fine-tune the **Difficulty Level** of the game even further according to the **Map Type** you select. Maps with a lot of water are less difficult than maps with a lot of land. For example, if the **Difficulty Level** is **Moderate**, the game will be more difficult if you set the **Map Type** to **Highlands** than if you set the **Map Type** to **Small Islands**.

- **Tribute** -- You must build a Market before you can Tribute resources to other civilizations. For more information about the Market and paying Tribute, see Age of Empires online Help.

- **Phoenician Villagers** -- Phoenician villagers can carry more wood than other civilizations.

- **Unit Range** -- The range of Elephant Archers, Watch Towers, Sentry Towers, Guard Towers, Ballista Towers, and Priests is slightly higher than documented on the Technology Tree Foldout and in online Help.

- **Multiplayer Scenarios** -- The multiplayer scenarios provided with the game are designed for human players only. Performance decreases if you include computer players in a multiplayer game or if you play the multiplayer scenarios in single-player mode. If you want to play against computer players in a single- or multiplayer game, you should play a random map or death match game.

- **Glory of Greece Campaign/Wonder Scenario** -- In the Wonder scenario of the Glory of Greece campaign, the Greek civilization starts the scenario with Composite Bowmen. However, the technology tree for the Greek civilization does not include Composite Bowmen, so the Greek civilization is not allowed to train additional Composite Bowmen. The technology trees for each civilization are in the Appendix of the Age of Empires manual and in the Docs folder on the Age of Empires disc.

- **Ascent of Egypt Learning Campaign/River Outpost Scenario** -- In the River Outpost scenario of the Ascent of Egypt Learning campaign, you must build two Guard Towers on the island to win the game. The Hints incorrectly state that you can build any type of tower.

I. Scenario Builder Troubleshooting

- **Full Tech Tree Option** -- If you create a custom scenario with a check in the **Full Tech Tree** check box of the **Options** tab, the check does not automatically appear in the **Full Tech Tree** check box of the Settings screen before the scenario is played. To fix this problem, be sure to tell other players whether or not a scenario uses the full technology tree, or use the edit scenario option in the scenario builder to check whether a scenario uses the full technology tree.

- **One-Player Scenarios** -- If you create a custom scenario with only one player selected in the **Players** tab and the **Map Type** of the **Map** tab set to small or large islands, an extra Town Center with three villagers automatically appears when you generate the map. You can leave the extra Town Center in the scenario as a bonus (when the player finds the extra Town Center, it automatically belongs to the player), or you can delete the extra Town Center using the **Delete** option of the **Units** tab.

- **Custom Global Victory Conditions** -- If you create a custom scenario with **Custom** victory conditions in the **Global Victory** tab, and you specify the custom victory condition **Conquest** and one or more other custom victory conditions (Ruins, Artifacts, etc.), and a check appears in the **All** check box, a player does not need to achieve military conquest over all other civilizations in order to win the game. For example, if the custom global victory conditions are Ruins, Artifacts, and Conquest. The first player to control all Ruins and Artifacts wins the game without achieving military conquest over the other civilizations.

- **Individual Victory Conditions/Other Attributes/Technologies** -- If you create a custom scenario with an individual victory condition of **Other Attributes/Technologies**, the number of technology nodes that must be researched to win the game includes the technologies that have already been researched if a civilization begins the game in an age other than the Stone Age. For example, if Player 1 starts the game in the Bronze Age with the individual victory condition to research 14 technologies, the player starts the game with 13 technology nodes already researched and needs only to research one additional technology to achieve the victory condition.

- **CTRL+A** -- If you press CTRL+A to see how much space each unit occupies on the map, and then press CTRL+A again to turn off the display, a white box appears around selected objects. To fix this, save the scenario, exit Age of Empires, and then restart Age of Empires.

J. Video Troubleshooting

- **Screen Resolution** -- The default screen resolution is 800 × 600. If you cannot start the game in this mode, you can change the screen resolution by adding the **640** or **1024** parameter to the command line in the Age of Empires shortcut. For information about adding parameters to the command line, see "Command Line Parameters" under "Performance Troubleshooting" later in this Readme file.

- **Horizontal Line** -- Matrox video adapters may cause a horizontal line to appear in Age of Empires. To fix this problem, you can add the **Mfill** parameter to the command line in the Age of Empires shortcut. For information about adding parameters to the command line, see "Command Line Parameters" under "Performance Troubleshooting" later in this Readme file.

- **Mouse Pointer** -- Some video adapters may not display the custom mouse cursor correctly. To fix this problem, you can add the **NormalMouse** parameter to the command line in the Age of Empires shortcut. For information about adding parameters to the command line, see "Command Line Parameters" under "Performance Troubleshooting" later in this Readme file.

- **Mouse Pointer** -- If you are using Windows NT 4.0 Service Pack 3 with ATI Mach 64 drv 3.1.76, the mouse cursor may not appear when you start Age of Empires. To fix this problem, you can add the **NormalMouse** parameter to the command line in the Age of Empires shortcut. For information about adding parameters to the command line, see "Command Line Parameters" under "Performance Troubleshooting" later in this Readme file.

- **Diamond-Shaped Map** -- If you are using Windows NT 4.0 Service Pack 3 with ATI Mach 64 drv 3.1.76, the diamond-shaped map may not appear correctly as you scroll to different map locations. To fix this problem, you can open any dialog box to repaint the diamond-shaped map so it is displayed correctly.

- **DirectX** -- If you experience video problems using DirectX, connect to the DirectX Web site for the latest troubleshooting information, as explained in "DirectX Troubleshooting" earlier.

K. Audio Troubleshooting

- **Music/Sound Volume** -- If you are playing a multiplayer game without an Age of Empires disc, certain hardware configurations may cause the **Sound Volume** to

control the volume of both the Age of Empires music and sound effects.

To turn off the music and change the volume of the sound effects:

1. Click **Menu** on the menu bar, and then click **Game Settings**.
2. Set the **Music Volume** to the **Off** position.
3. Adjust the **Sound Volume** to set the sound effects to the preferred volume.

- **DirectX** -- If you experience audio problems using DirectX, connect to the DirectX Web site for the latest troubleshooting information, as explained in "DirectX Troubleshooting" earlier.

L. Performance Troubleshooting

- **IDE CD-ROM Drives** -- IDE CD-ROM drives may cause Age of Empires to run slowly. To fix this problem, start a game, click **Menu** on the menu bar, click **Game Settings**, and then turn off the music volume.

- **Sound Blaster AWE 64 Adapters** -- Sound Blaster AWE 64 adapters in certain hardware configurations may cause Age of Empires to lock up after several minutes of gameplay. To fix this problem, be sure you are using the latest drivers. If Age of Empires continues to lock up, add the **Msync** parameter to the command line in the Age of Empires shortcut and to the Age of Empires registry for multiplayer games using the Internet Gaming Zone. For information about adding parameters to the command line, see "Command Line Parameters" under "Performance Troubleshooting" later in this Readme file.

Game Performance

The following items affect overall game performance (listed from most to least impact):

- The more computer players, the greater the impact on game performance. Like humans, each computer player needs time to think. In a multiplayer game, the host runs the computer players; therefore, the person with the fastest computer should host the game.

- The higher the screen resolution, the greater the impact on game performance. For example, a game might be twice as fast at 640×480 than at 1024×768.

- The more moving units (villagers, military units, and boats) on the map, the greater the impact on game performance. Combat, particularly with missile weapons, such as archers, Ballistas, and catapults, also affects performance.

- The faster the game speed, the greater the impact on game performance.

- The larger the map, the greater the impact on game performance.

- The faster the scroll speed, the greater the impact on game performance. In a multiplayer game, scroll speed does not affect overall game performance, except on the slowest computer.

- Music is played from the disc and has a slight impact on game performance. You can turn the music off using the **Game Settings** option of the menu, or you can add the **NoMusic** parameter to the command line (see "Command Line Parameters" under "Performance Troubleshooting" later in this Readme file).

- Long, ambient sounds (such as crickets, the ocean, and birds) have a slight impact on game performance. You can turn off these sounds by adding the **NoTerrainSound** parameter to the command line (see "Command Line Parameters" under "Performance Troubleshooting" later in this Readme file).

- Other applications running while you are playing Age of Empires decrease game performance. Close other applications before you start Age of Empires.

Multiplayer Game Performance

The following items should be noted in addition to the preceding list to improve game performance in multiplayer games:

- The fewer players in the game, the faster the game will run. Game performance is slower in an 8-player game than in a 2-player game.

- The player with the fastest computer should be the host, even if there are no computer players. A little extra work is done on the host machine.

- When playing a multiplayer game over the Internet using a dial-up connection, adding computer players to the game is not recommended when more than three human players are in the game. In low-bandwidth situations, computer players can

have an adverse effect on game performance.

- Multiplayer games run only as fast as the slowest machine in the game. To see which players are experiencing internet latency or frame rate problems, click the **S** button in the lower-right corner of the game screen to display the player scores and the following information:

If a player's frame rate drops below 15 frames per second, a turtle appears beside the name of the player with the slowest system. If the frame rate of more than one player drops below 15 frames per second, a turtle is shown only beside the name of the player with the slowest system. The player can try to improve performance, as explained throughout this section, or drop out of the game.

If you are connected to a multiplayer game across the Internet, a yellow or red symbol appears beside the names of players with whom you have a slow connection (yellow = latency of 300 milliseconds to 1 second; red = latency greater than 1 second). To decrease the latency problem, the player can try to reestablish the Internet connection and restart the game.

- Other applications running while you are playing Age of Empires decrease game performance. If you are connected to a multiplayer game through the Internet Gaming Zone, once the game starts, you can press ALT+TAB to display and close your Web browser. Your Web browser does not need to be running after you are connected to a game through the Internet Gaming Zone.

Command Line Parameters

You can add parameters to the Age of Empires command line to customize startup or resolve problems with certain hardware configurations.

To add parameters to the command line in the Age of Empires shortcut:

1. If you are using Windows 95, click the **Start** button, point to **Settings**, click **Taskbar**, click **Start Menu Programs**, click **Advanced**, and then double-click **Programs**.
-or-
If you are using Windows NT, right-click the **Start** button, select **Open All Users**, and then double-click **Programs**.
2. Double-click **Microsoft Games**, and then double-click **Age of Empires**.
3. Right-click the **Age of Empires** shortcut, click **Properties**, and then click

Shortcut.

4.   In the **Target** text box, type the name of the parameter after the existing command line text. For example, if you add the parameters **NoStartup** and **NoTerrainSound**, the command line will read: "C:\Programs\Microsoft Games\Age of Empires\Empires.exe" Nostartup Noterrainsound. Parameters must be separated by a space; capitalization is not important.

To add the **Msync** parameter to the Age of Empires registry for multiplayer games using the Internet Gaming Zone:

1.   Click the **Start** button, and then click **Run**.
2.   Type **Regedit**, and then click **OK**.
3.   Double-click **Hkey_local_machine/Software/Microsoft/DirectPlay/Applications/Age of Empires/CommandLine**.
4.   In the **Value data** text box, type the name of the parameter after the existing command line text. For example, if you add the parameters **NoStartup** and **NoTerrainSound**, the command line will read: "Lobby NoStartup NoTerrainSound." Parameters must be separated by a space; capitalization is not important. Be sure not to remove the word "lobby" from the command line.

The command line parameters include:

- **NoStartup** -- Skips all cinematic sequences before the game starts.

- **640**, **800, 1024** -- Sets the screen resolution to 640 × 480, 800 × 600, or 1,024 × 768. For example, **640** sets the screen resolution to 640 × 480, **800** sets the screen resolution to 800 × 600, and **1024** sets the screen resolution to 1,024 × 768. You can also set the screen resolution using the **Game Settings** option on the **Menu** button.

- **Mfill** -- Fixes horizontal line problem that may occur with some Matrox video adapter configurations.

- **NormalMouse** -- Replaces the custom mouse pointer with a standard mouse pointer.

- **NoSound** -- Turns off all sounds, except those played in cinematics.

- **NoTerrainSound** -- Turns off all terrain sounds.

- **NoMusic** -- Turns off all music.

- **Msync** -- Fixes lock-up problem that may occur with some SoundBlaster AWE configurations.

- **MidiMusic** -- Plays midi music instead of Redbook Audio music from the Age of Empires disc.

M. Head-to-Head Play Troubleshooting

- **Multiplayer with Eight Players** -- If you are playing a multiplayer game with eight players, performance is best with the minimum system requirements of a Pentium 90 processor and 24 MB of RAM for each player. The game creator should have the most powerful computer and the most RAM.

- **Multiplayer Performance** -- If you experience performance problems during a multiplayer game, see "Performance Troubleshooting" earlier in this Readme file.

- **Modem Connections** -- You do not receive a busy signal if you join a multiplayer game using the connection type **Modem Connection for DirectPlay** and the phone line of the host computer is busy.

- **Microsoft Internet Gaming Zone** -- The Microsoft Internet Gaming Zone currently supports only Microsoft Internet Explorer but is in the process of adding support for other browsers.

- **Multiple IP Addresses** -- If other players are not able to connect to a game you have created by typing the IP address that displays when you click the **IP** button on the **Multiplayer Create Game** screen, you may have multiple IP addresses. You can display all of your IP addresses by running Winipcfg.

To run Winipcfg:

1. Click the **Start** button, and then click **Run**.
2. Type **Winipcfg**, and then click **OK**.
3. Select **PPP Adapter**. The correct IP address is displayed in the **IP Address** box.

N. Age of Empires Tips

- If you'd like to hear frequently updated tips and strategies for Age of Empires, call our automated Hints Line at **(900) 786-HINT**, 24 hours/day. Calls are $0.95/minute. You must be 18 years or older or have parental permission.

- For more information about Age of Empires, visit our Web site at **http://www.microsoft.com/games/empires**

- If you'd like to play against opponents over the Internet, check out the Internet Gaming Zone at **http://www.zone.com**