

COMMAND & CONQUER

REFERENCE CARD

CONFIDENTIAL

Westwood™
S T U D I O S


ELECTRONIC ARTS™

GETTING STARTED

Disk Preparation

Before you install any software, it is critical that your hard drive be in proper working order. We recommend running ScanDisk and Disk Defragmenter. ScanDisk searches your hard drive for any lost allocation units as well as any cross-linked files and directories. Disk Defragmenter ensures that your data is sorted properly. Failure to verify this may result in corrupt data.

1. First, run ScanDisk. To start ScanDisk, left-click on the **START** button from the Taskbar. The Start menu opens.
2. From the Start menu, select **RUN**. Then, in the Run dialog box, type **scan disk** and click **OK**.

Once the program starts, ensure that you have selected THOROUGH in the Type of test section, make sure there is a check mark in the AUTOMATICALLY FIX ERRORS box and select the hard drive you are installing the game to (e.g., C:). Once everything is set up correctly, click **START** to have the program scan the drive and correct any errors.

3. Next, run Disk Defragmenter. To start Disk Defragmenter, left-click on the **START** button from the Taskbar. The Start menu opens.
4. From the Start menu, select **RUN**. Then, in the Run dialog box, type **DEFRAG** and click **OK**. As with ScanDisk, select the drive you are installing the game to and click **OK**.

System Requirements

An IBM or 100% compatible computer with Pentium 75Mhz

Windows® '95 required

16MB of RAM (32MB recommended)

Digital Audio via DirectX supported Sound Cards

Quad-speed CD-ROM or faster

100MB free Hard Drive space

14.4 (28.8 recommended) modem for modem play

IPX network for Local Area Network play

Keyboard

Mouse

1MB PCI or local bus video accelerator card (ISA video cards not supported)

Internet Requirements

28.8 modem or direct Internet connection

A valid account with an Internet service provider (ISP) and a valid Internet e-mail address

Winsock 1.1 compliant TCP/IP stack

16MB RAM (32MB strongly recommended)

Setup & Installation

Insert any C&C95 CD into the CD-ROM drive.

Command & Conquer® for Windows '95 uses the "Windows '95 Autoplay" feature to present you with installation and gameplay options as appropriate. Inserting any C&C95 CD into your CD-ROM drive should cause the Autoplay dialog to appear. If you have not installed C&C95 before you will be presented with an Install option from this dialog. Click this and follow the onscreen instructions.

In the event that the "Windows '95 Autoplay" feature does not work on your system, you should install the product by clicking on the START button on the Windows '95 taskbar, located in the lower left-hand corner of the screen. Click RUN..., type "D:\SETUP" (where D is the letter that designates your CD-ROM drive), and then click the OK button. Please follow the onscreen instructions which appear.

Once Setup is complete, you will be returned to Windows where a Westwood program group containing icons for C&C95 and the Setup program will be added

to the Start menu. By default, C&C95 is installed into a directory named C:\WESTWOOD\C&C95.

LOADING INSTRUCTIONS

Insert any C&C CD into the CD-ROM drive.

C&C95 uses the "Windows 95 Autoplay" feature to present you with installation and gameplay options as appropriate. Inserting any C&C95 CD into your CD-ROM drive should cause the Autoplay dialog to appear. If you have previously installed C&C95 you will be presented with a Play option from this dialog. Click this to launch the game. The Introduction to the Game will follow.

Alternatively, C&C95 can be launched by clicking the START button on the Windows 95 taskbar, clicking PROGRAMS, then WESTWOOD, and then clicking "COMMAND & CONQUER WINDOWS '95 EDITION".

TO INSTALL COMMAND & CONQUER - THE COVERT OPERATIONS

Before getting started, be sure to note the location of your Command & Conquer directory, then follow these instructions:

1. Click on the "Start" button.
2. Select the "Run" option on the menu.
3. Type "D:\SETUP" (Where D: is the letter of your CD-ROM drive)
4. Click on "Ok"

ONCE IN THE INSTALL PROGRAM

1. You will be prompted to enter the location of your Command & Conquer directory. NOTE: The install will default to the same directory as the original Command & Conquer install. You may need to use the "#" key instead of the "\" key as this can be remapped on some configurations of machines.

2. Once this is entered, click "Yes" and the new missions will be installed.

AFTER THE INSTALL

You can access the new missions by running Command & Conquer, click on the "Start" button, Then click on "Programs", then click on "Westwood" then "Command & Conquer 95" and then on "Command & Conquer Windows 95 Edition". You will find a new option on the menu of the title screen, click on "New Missions" to play the Covert Operations missions.

IMPORTANT: For last minute changes and notes, please examine the Readme file, use the "Programs/Westwood/Command & Conquer 95/Commnad & Conquer Windows 95 Edition Readme" shortcut to view this file.

Please note: you should not use spaces or the "#" symbol when selecting the game's installation path.

Important: For last-minute changes and notes, please examine the readme file: use the "Programs/Westwood/Command & Conquer/Command & Conquer Readme" shortcut on the "Start" menu to view the readme file. Alternatively, the readme file exists as a plain text file (readme.txt) and a Windows .wri file (readme.wri) in the root of the CD.

Q. WHY DOESN'T COMMAND & CONQUER INSTALL ONTO MY HARD DISK?

A. Make sure you have enough free hard disk space. Command & Conquer for Windows '95 requires 40MB (41,943,040 bytes) to install. If you're using a disk compression system (such as DriveSpace) you must double the amount of space needed during installation (i.e. 83,886,080 bytes) because not every file will compress at 2:1. In general, we recommend against using disk compression systems with Command & Conquer.

Q. WHY DOESN'T COMMAND & CONQUER LOAD?

A. Make sure you have enough free memory (see below). If you are very low on RAM (for example, on an 8MB system), Windows '95 will try to create a temporary swap file on your hard drive. If Windows can't create the swap file, Command & Conquer will either run very slowly or not at all. You should have at least 15MB (15,728,640 bytes) of free space on your hard drive prior to running Command & Conquer for Windows '95.

Q. DOES COMMAND & CONQUER REQUIRE A SPECIFIC TYPE OF MEMORY CONFIGURATION SUCH AS EMS OR XMS?

A. No special settings are needed.

Q. WHY DO I GET A BLACK SCREEN WHEN I CLICK ON THE COMMAND & CONQUER GAME ICON?

A. Certain video cards do not support the 640x400 video mode that Command & Conquer for Windows '95 defaults to (although they claim to). To find out whether this applies to you, you can use the Command & Conquer for Windows '95 Setup utility (use the "Programs/Westwood/Command & Conquer/Command & Conquer Windows '95 Edition Setup" shortcut on the "Start" menu) to change the default resolution from 640x400 to 640x480, which seems to work well on all video cards. Graphics may appear a little squashed in this mode. If all else fails, contact your video card manufacturer to check whether there are new drivers available for your video card.

Q. WHY DOESN'T THE SOUND WORK?

A. Make sure your speakers are powered on and connected to your PC. Make sure that your speaker volume controls are adjusted correctly. If your sound card is not supported in its native mode by Microsoft Direct Sound the sound quality may suffer. If all else fails, try contacting your sound card manufacturer to see if there are new drivers available for your sound card.

Q. THE GAME RUNS SLOWLY ON MY SYSTEM. WHAT CAN I DO?

A. Use the Command & Conquer for Windows '95 Setup utility (via the "Programs/Westwood/Command & Conquer/Command & Conquer Windows '95 Edition Setup" shortcut on the "Start" menu) and check the box marked "Allow hardware filled blits." This may improve performance on some systems. However, care must be used when setting this option as it may cause video problems during the game on certain systems. In this situation you must run the game without this option checked.

In certain rare cases you may be able to improve performance by running the Command & Conquer for Windows '95 Setup utility (via the "Programs/Westwood/Command & Conquer/Command & Conquer Windows '95 Edition Setup" shortcut on the "Start" menu) and un-checking the "Back buffer in video memory" box. Normally this box should be checked and severe performance degradation can occur with an incorrect setting. Check game performance with and without this option checked to see what is right for your system. If you are unsure, leave the option on.

Q. WHY DO THE MOVIES STUTTER?

A. Command & Conquer requires at least a quad-speed, 600KB per second CD-ROM drive. You may get smoother movie playback by turning off CD-ROM caching. To do this, use the "Settings/Control Panel" shortcut on the "Start" menu, double-click the "System" icon, click on the "Performance" tab, click the "File System" button, click the "CD-ROM" tab and set Optimise Access Pattern for No Read Ahead. Make a note of the original settings as other applications may be affected by modifying the settings.

Q. COMMAND & CONQUER STILL DOESN'T RUN; WHAT CAN I DO?

A. First, see the README.TXT or README.WRI file. You'll find a shortcut to it in the Command & Conquer program group, or look in the root of the CD or in the installed game directory. If this doesn't help, call one of our technical support numbers (See "Technical Support").

NETWORK & SERIAL TROUBLESHOOTING**General Troubleshooting Guidelines for Network Play:**

You must have a network connection and an IPX compatible network protocol bound to your network adaptor card. The network game option is hidden if no IPX driver is found. Check with your network administrator to find out if your net supports IPX and to have the drivers configured for your machine.

IPX SOCKET CONFLICT: It is possible an errant network application is using a socket number that conflicts with Command & Conquer:

You can try using the Command & Conquer Windows '95 Edition Setup utility (use the "Programs/Westwood/Command & Conquer/Command & Conquer Windows '95 Edition Setup" shortcut on the "Start" menu) to change Command & Conquer's SOCKET number. Specify a number between 0 - 16383 to change the socket (making sure that all game participants use the same number).

CONGESTED LAN: If you are attached to a LAN with lots of other users who are generating net traffic it is possible that dropped packets and slow response times can throw the game out of sync. If this happens an error dialogue will tell you that Command & Conquer is out of sync.

SLOW OR FAULTY LAN CARD: It's possible that your ethernet card is causing errors in packet transmission, either through faulty installation, faulty wiring or mis-configured software drivers. This may not be apparent in normal usage because of error correction techniques used in non-realtime applications. Command & Conquer is a time critical application, so you may experience a drop in game performance and/or out of sync errors.

ROUTER PROBLEMS: If two or more players are on opposite sides of a network router, delays or lost packets can occur. We don't recommend playing this way as the performance of Command & Conquer, servers, routers and other net components can be affected.

THE GAME YOU'RE TRYING TO JOIN DOESN'T SHOW UP IN THE "JOIN" DIALOGUE: There may be a network bridge between you and another system. If so, you can tell Command & Conquer to run across the bridge by setting the destination network address (DESTNET) value using the Command & Conquer Windows '95 Edition Setup utility (by using the "Programs/Westwood/Command & Conquer/Command & Conquer Windows '95 Edition Setup" shortcut on the "Start" menu). DESTNET has the form XX.XX.XX.XX (e.g. 00.00.00.44). On a Novell network, use the Novell USERLIST /A command (from an MS-DOS prompt) to obtain a list of all users' network numbers and node addresses.

If USERLIST reports spaces in the network number, replace them with 0's when you type the number in. All four numbers (8 digits) must be included for DESTNET to work. All players in the game must specify a DESTNET containing the network number of the machines on the opposite side of the bridge. If not all players specify the correct setting, one or more players may be left out, and the game will not run.

General Troubleshooting Guidelines for Serial Play:

If you have an external modem make sure it's powered on and the cables (serial and phone) are connected to your PC. Your modem must be set at the same baud rate as the person to whom you are connecting.

INITIALISATION STRINGS: The performance of the game over a modem varies according to the type of modem. We have found that given a noise-free phone call the game plays best with modem error-correction and data-compression disabled. In rare instances you may get better results with these modem features enabled. Please read your modem manual for information about initialisation strings. Command & Conquer supports multi-line modem init. strings by using a "|" (vertical bar or "pipe") to separate lines. Under Windows '95 we automatically turn off error correction and data compression.

CALL WAITING: If you have Call Waiting on your phone line and a call comes in, you can lose your modem game connection. Most phone companies allow you to disable this feature for the duration of one call (i.e. your game!) by dialling a special prefix before the phone number. This varies from place to place but Command & Conquer has a selection of standard prefixes to choose from. Check with your phone company to get the right one. If it's not one of Command & Conquer's standard choices you can enter it in the "Settings" dialogue. If you still have problems check your modem documentation for the correct settings.

SERIAL LINK SEEMS TO HANG: If Command & Conquer seems to hang at the waiting for call or dialling dialogs this could be due to errors caused by using too high a baud rate, phone connection too noisy leading to uncorrected modem errors, or a faulty or incorrectly wired Modem, Null Modem or Phone cable. If the game hangs for more than 30 seconds this is a good sign that something is awry.

NOISY LINE: Command & Conquer is tolerant of noisy connections: It will always attempt to correct errors and will even try to reconnect if the line is dropped. Still, be aware that these conditions are far from ideal and it is likely you'll notice a severe drop in game speed. If you experience consistent noisy phone line conditions you should first check all your equipment and cabling. If the problem persists, contact your local phone company.

IMPORTANT PLEASE READ BEFORE INSTALLING DIRECTX™

THIS GAME USES MICROSOFT® DIRECTX™ 3.0A FOR WINDOWS® 95.

Microsoft® DirectX™ 3.0A increases the speed at which games play under Windows® 95. With DirectX™ 3.0A a program has instant access to the hardware, allowing for great advances in graphics, sound, video, 3-D, and network capabilities of games.

DirectX™ 3.0A is a relatively new program in the computer market and not all manufacturers have adapted their video cards to run the new software. However the majority of manufacturers are releasing new drivers for video cards that are supported with DirectX™ 3.0A. Before installing DirectX™ 3.0A you should check if your system supports this software. You can run a program called DXSETUP which will tell you if your system supports DirectX™ 3.0A. Use the `Start` menu to select `Find` then `Files or Folders` to open the `Find All Files` box. Change the `Look In` box to the drive of your CD-ROM e.g. D: then type DXSETUP.EXE in the named box and press enter. When the file appears in the `Name` box double left click on it to run. N.B. If more than one file appears click on the file with an icon next to it that looks like a PC.

This will display you a list of drivers currently supported by DirectX™ 3.0A. If there is a blank space in the third column for one of the components (see example below) this may mean that you will need to obtain the latest driver for this program by contacting your manufacturer. However there is one exception to the rule, and that is some manufacturers will produce their own DirectX™ 3.0A supported drivers. In this case you will still get a blank in the display driver section, but the game may run correctly!

Blank with no driver version listed:- The performance and stability of this type of certification is basically unknown. It is recommended to check with your hardware manufacturer for any updated drivers that may be available. Most likely, drivers that certify this way will not work properly at all.

Blank with driver version listed:- The driver has DirectX™ 3.0A support, but was not included with the version of DirectX™ which is currently on your system. These drivers will usually function properly, however, there may be some difficulties. It is recommended to check with your hardware manufacturer for any updated drivers that may be available. Try running the game before obtaining new drivers. If the third column states

No Hardware Support:-, The driver does not support DirectX™ 3.0A, so 10

SUPPORT

Hardware Emulation will be performed. This may work fine, but processor power must be used to perform this emulation and game performance may suffer. In some cases, it will not work at all. It is recommended to check with your hardware manufacturer for any updated drivers that may be available. You can check this by either phoning the manufacturer or looking for new drivers on their WEB site. You will need to obtain DirectX™ 3.0A supported drivers from your manufacturer (See example below):-

DirectX™ Subsystem

Component	Version	
DirectDraw™	4.04.00.0068	Certified
Display Driver	4.03.00.2119	
Direct3D™	4.04.00.69	Certified
DirectSound™	4.04.00.0068	Certified
Audio Driver™	4.33.00.0014	No Hardware Support
DirectPlay™	4.04.00.0068	Certified
Old DirectPlay™	4.04.00.1096	Certified
Direct Input™	Certified	

If your computer does not have drivers that have been tested with DirectX™ 3.0A, you will see the following message during installation :-

Setup has detected drivers that have not been tested with DirectX™ 3.0A To get the best game performance, Setup can replace your existing drivers. Do you want setup to replace the drivers?

SUPPORT

If you receive this message we do NOT recommend replacing the drivers. Contact your manufacturer and ask them to send you drivers for your sound and video card that support DirectX™ 3.0A Alternatively, you can try and run the game without installing DirectX™ 3.0A. In most cases this will be successful and allow you to run the game without further problems. If you do this, you may experience slight problems with the audio and video e.g. Accelerated video, slow frame rate etc. If your existing drivers display an error message or simply refuse to run the game contact your manufacturer to obtain DirectX™ 3.0A supported updated drivers.

Should you encounter any further problems with DirectX™ 3.0, please contact either the manufacturer of your machine or your video/sound card manufacturer before calling us. (See Technical Support).

Note: If you have Windows 98 you should not need to install Direct X3a as the operating system includes a newer version of DirectX. If you know that you have a newer version of DirectX, you may skip the installation of DirectX3a.

NOTES



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Please remember to include full details of the defect, your name, address and, where possible, a daytime telephone number where we can contact you.

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