

#### DEMO VERSION:

This version does not contain Win32s (needed to run Win32 programs on Windows 3.11). It can be downloaded from our WWW pages separately.

This file contains the latest amendments and additions to the printed Manual.

#### Video for Windows(TM) 1.1e

Most of the videos supplied with Battle Isle 2220 have been produced using the INTEL INDEO Codec version 3.2. To play these videos in Windows(R) 3.11 you will require at least Version 1.1d of the Video for Windows(R) program.

Some manufacturers of graphics cards supply a specially adapted version of the program with their cards. If you have already installed Video for Windows(R) on your computer we advise you NOT to install the version 1.1e supplied by us.

Version 1.1e is usually NOT necessary to play our videos; Version 1.1d is sufficient. You should therefore install Version 1.1e ONLY IF you have not installed any version of Windows(R), or if you can not play our videos with the program which is installed at present.

#### Virtual Memory

Battle Isle requires approximately 30 MB of main memory. In Windows(R) you can provide a program with more main memory than you actually possess. To do this, Windows(R) uses the so-called virtual memory; that is, it uses the hard disk's memory and "fools" Battle Isle 2220 into thinking it is RAM.

The advantage of this is that, if you have more than 8 MB RAM, you can make full use of your actual main memory, ie the more RAM you have, the faster the game will run.

If you only have 8 MB of main memory you will have to make the rest available as virtual memory. The following section explains how to do this.

#### Windows(R) 3.11 Virtual Memory

- Open the "Main Group" program group and start the "System Control" program
- Select "386 expanded"
- Select "Virtual Memory"
- Check the size of your present swap file (= virtual memory). Is it larger than 23,000KB? If so, you do not need to do anything else, and can close the window again. If not, select "Change".
- Look at the "Recommended Size". Is it equal to or greater than 23,000KB? If so, enter a value equal to or greater than 23,000KB and click on OK. It is better to use a permanent swap file than a temporary one. After doing this you will have to start Windows(R) again.

If the recommended size is too small, there may be two possible reasons for this. One reason may be that your hard disk is fragmented. Windows(R) requires connected blocks of memory. Go into DOS and start a defragmenting program (for details of how to do this, consult your DOS manual).

The other reason may be that you have loaded too many driver programs. Windows(R) 3.11 can use up to three times the available main memory as virtual memory. Create a simple CONFIG.SYS and AUTOEXEC.BAT in which no superfluous drivers are loaded. In particular you should avoid using SMARTDRIVE, or make sure you do not assign more than 256KB memory to SMARTDRIVE. Operational memory can also be created if you do not use network drivers.

Windows(R) usually only requires the command

DEVICE=C:\WINDOWS\HIMEM.SYS

in the CONRIG.SYS file to start (drive and path may be different in your system).  
Virtual Memory in Windows(R) 95

If you have at least 23 MB free on your hard disk, you do not need to take any further action; Windows(R) 95 will recognise this and will make sure that enough virtual memory is available. To make enough space available on the hard disk, you may have to delete a few files which you no longer require.

#### Screensaver

If your screensaver is set so that it is active while the videos are being played, the videos will not be able to restore themselves afterwards, and the final part will be played with the wrong palette. This only applies to the video presently being played, not to subsequent ones, so it is not serious. As the introduction runs for more than 11 minutes you should turn off your screensaver for this period, or move the mouse from time to time so that the screensaver is not activated.

#### Introduction

If you wish, you can fast forward the introduction to the next part of the action by using the SPACE key, and you can quit it by using the ESC key. Depending on your graphics card and CD-ROM drive it may take a few seconds before the program responds.

#### Network Mode

In network mode the participating computers alternately read and write the files on the network drive.

To set up the network drive, use the NETWORK SETUP program in the Battle Isle 2220 program group. Select a drive and directory to which all the participants have write access.

Windows(R) 95 and Windows(R) NT are designed for network use, so you should not have any problems with these systems.

Windows(R) 3.11 however will often display an Error message because too many people are trying to access the network at once. If this happens, click several times on the "Repeat" button. Remember that network games will still be saved on the network drive even when you turn your computer off. If you still cannot make Windows(R) 3.11 access the files after you have clicked on the "Repeat" button several times, re-start Battle Isle 2220.

#### NOTE:

Do not forget that the first player in a network game must have completed his first move, ie he must have pressed the Change Player button, before the other players can start their moves. If the first player quits the game before pressing the Change Player button, the whole game will be invalid and will have to be deleted from the network.

As a general rule, the network game scores are treated just like ordinary files, ie they can be deleted, or sent to a fellow player on disk or by modem so that he can copy it into his network directory and make the next move. If you are not in a network but would like to start a postal game, simply chose any directory on your hard drive to act as a network directory, or directly to the disk drive. The \*.SDI files thus created will contain your scores.

#### Campaign Mode

This section describes the basic rules of the Campaign Mode:

ALL your units will accompany you from one map to the next. If a unit is not at full strength when

you complete a map, it will be repaired and will have one experience point deducted.

If you had 3 heavy tanks on the previous map, with 6, 4 and 2 experience points respectively, but only have two tanks on the next map, one of the tanks will have 6 experience points and the other 4. The tank with only 2 points will remain in the weapons pool and will be deployed again on a later map.

At the beginning of a map you always have the same units on the map! However, the more experienced units you have in the weapons pool, the more of the inexperienced units which are present from the start will be replaced by experienced ones from the pool.

#### Repeat System Check

If you want Battle Isle 2220 to repeat the system check which was carried out when you started the program for the first time, start the Battle Isle 2220 icon SETUP. You may need to do this after installing new hardware or software. The scores you have saved will not be affected by this procedure.

#### The SDI.INI File

This file is in your Windows Directory. The following section describes some of the most useful commands.

##### [FILES]

##### PATHx=

These run from PATH0 to PATH9. The first two must remain empty, the second must indicate your game directory on your hard disk, and the third must indicate your CD-ROM drive.

##### SDIPATH=

Must indicate your game directory on your hard drive.

##### [ADVANCED]

##### REMOTEPATH=

Indicated your network drive.

##### AVICHIP=

YES or NO, depending whether you have an AVI accelerator card.

##### ONLINEHELP=

YES or NO, depending whether you want to have the Online Help to be on or off from the beginning of the program.

##### [STARTUP]

(These values are set by the system test and should only be altered by experienced users)

##### PLAYVIDEO=

YES to play normal videos, NO to turn off all videos.

##### PLAY\_320\_200=

No if you do not want to play any videos in 320 \* 200 mode, YES if you do want to play them. You must then also enter YES as the PLAYVIDEO command, otherwise this command will be ignored.

##### PLAY\_ZOOM=

NO if you do not want to play any videos in AVI accelerator mode, YES if you do want to play them. You must then also enter YES as the PLAYVIDEO command, otherwise this command will be ignored.

PLAY\_BIG=

No if you do not want to play any intermediate videos. These videos are 640 \* 480 in size, larger than the standard 320 \* 200 videos, and can sometimes cause problems. Enter YES if you want to play them, in which case you must also enter YES as the PLAYVIDEO command, otherwise this command will be ignored.

USEFX=

USEFM=

YES if you want to play sound effects or music, NO to turn them off.

AUTOSAVE

If your computer crashes or you have any other problems, your last score will always be safe! Battle Isle 2220 has an Autosave function, so that your last two scores are always saved in position 9 or 10 in the SAVE menu.

Problems with videos

Playing videos in Windows(R) is not always straightforward; version 3.11 in particular can often cause problems.

These problems are usually caused because the video drivers supplied by the manufacturer of your graphics cards are defective. Even if the drivers function satisfactorily in normal use they may still contain faults which can make them unsuitable for playing videos.

One fairly common fault prevents the videos from being played against the scenic background, so that they can only be played against a black background. Battle Isle 2220 recognizes these problems when you first start it and will automatically change the style of presentation if necessary.

Some drivers can be so faulty that they will cause the videos to crash. In this case, Windows(R) will issue an error message reading "MMTASK ERROR". Next time it is started, Battle Isle 2220 will recognise the fault and switch mode to play the videos against a black background. If the videos crash repeatedly, Battle Isle 2220 will note this and give you the option of playing without videos.

These problems can be solved in two ways. You can try to obtain a new driver from your graphics card manufacturer, or you can see if the driver from another graphics card will work on your system. As all graphics cards use chips from a small number of manufacturers there is a good chance that, for example, you will be able to use a driver from a Shareware CD. A better option is to update to Windows(R) 95. In our tests, this system has proved to be far more stable than version 3.11, and it was possible to play the videos on all types of equipment without any problems at all. If at all possible we would recommend that you should change to Windows(R) 95 if you have any problems with your graphics.

Experience has shown that zooming videos, either in 320 \* 200 mode or with an AVI accelerator, can cause problems if the system is running in 16-Bit color mode (65536 colors).

In general, many Windows(R) 3.11 versions are very unstable due to the numerous additional modules which are added and removed over time. In some cases it can help if you re-install Windows(R) 3.11 from scratch. As already mentioned, the biggest problem is caused by faulty video drivers. A later section of these instructions contains part of the WinG(R) Readme file, in which Microsoft refers to problems with the WinG Library; and the problems referred to there also apply to videos.

If the automatic check described earlier has turned off the videos, you can try manually to find the "border" up to which your system is able to play the videos. You can do this as follows:

- In the [STARTUP] section, enter ERROR\_311=1
- Enter all PLAY\_xxxx commands as NO
- Enter the command PLAYVIDEO=YES
- Now try to start the program and see if the videos are being played.

If yes, try entering ERROR\_311=0

If this works too, try entering PLAY\_BIG=YES. This will enable you to play the text inserts at the beginning of the chapters, which are played in 640 \* 480 format.

Video size is too large

If you use the double size or full-screen settings as the standard setting when playing videos in the Media Player, Battle Isle 2220 will automatically do the same. However, this can often be unattractive. You can prevent this from happening by setting the video size in the Media Player to "Normal" and "Play in Window", and then defining this setting as the standard setting.

Problems with the WinG Library

This Library is a system extension for Windows(R) 3.11 which compensates for the system's deficiencies in its graphics capabilities and allows the system to display graphics of a similar quality to Windows(R) 95 and Windows(R) NT. WinG is automatically installed at the same time as Battle Isle 2220. As this is a relatively recent product, some graphics drivers may cause problems with this too. Usually the program crashes during the first self check which WinG Library carries out before the program is started for the first time, but sometimes this does not happen until you have been playing for a while.

Here too we recommend that you obtain a new driver from the manufacturer of your graphics cards or, better still, that you update to Windows(R) 95.

Other User Interfaces than Program Manager

Windows(R) 95 contains a number of user interfaces which give the system a different appearance. These interfaces are frequently not compatible with Battle Isle 2220, and you should therefore turn them off altogether and start Battle Isle 2220 from the ordinary Program manager.

Not Enough Memory

If a message appears during the game telling you that there is not enough memory available, you will have to increase the size of the virtual memory. If you are using Windows(R) 3.11 it may help if you start the computer without SMARTDRIVE and network drivers.

Problems with Sound Effects or Music

Setting the sound cards in Windows(R) 3.11 can sometimes cause problems. If you have problems, check your driver setting and the MIDI Mapper, both of which you will find in the System Control program. Often you will have to adjust all the voices in the first Patch Table to your sound card; for details on how to do this, consult your Windows(R) manual.

In Windows(R) 95 you will find the appropriate settings under Multimedia in the Setup Program group. Select ADVANCED / MEDIA CONTROL DEVICES / MIDI SEQUENCER / SETTINGS and

enter the make of your sound card. It is usually not necessary to do this, however, as Windows(R) 95 recognises your hardware and automatically carries out the necessary settings.

#### Problems with Videos in Windows(R) NT

In Windows(R) NT you have the problem that the screen mode can not be changed while the program is running; this means that videos can only be played in their original size.

In addition, a kind of colored flash appears at the end of the video; this is a result of certain peculiarities of this system and is unfortunately unavoidable.

#### Where to Get Help with Windows(R) 3.11 Problems

As has been pointed out several times, Windows(R) 3.11 is fairly unstable and is consequently not ideally suited to run such a large, hardware-intensive game as Battle Isle 2220. If you encounter problems with the program's stability, the following tips may be helpful:

- Re-install your Windows (R) 3.11 from scratch
- Re-install your video driver. Try with 256 colors at first, then with 64K colors.
- Install Video for Windows(R) 1.1d if you have it. If you have a choice between version (d) and the version (e) supplied by us, you should install version (d) manually. (Because of a licensing dispute between Microsoft and another company we are unfortunately prevented by law from supplying version (e)).
- Now re-install Battle Isle 2220 from scratch. When it first starts up, the program will ask if you want to install Video for Windows(R) 1.1e. If you have already installed version (d), do not install version (e). If you have not installed version (d), install version (e) now.
- Start Battle Isle 2220 again and follow the instructions for carrying out the system check.

The best advice we can give to Windows(R) 3.11 users is -  
Install Windows(R) 95! Our tests have shown that hardware which could only be used unreliably or not at all in Windows(R) 3.11 generally performed perfectly in Windows(R) 95.

Windows(R) 95 is our operating system of choice for Battle Isle 2220.

#### The Window Suddenly Stops Enlarging or Moving

In 64K color mode some Windows functions work differently or not at all, including the locking of the mouse cursor. This means that the program automatically stops enlarging or re-positioning a window when it has reached a certain size or a certain position, even if you have not released the mouse button.

#### The Chip Window Will Not Accept Any More Mouse Clicks

When multitasking it may happen that mouse clicks are ignored. If the Chip Window is open at the time, it can not be closed with the mouse. If this happens, press ESC.

Extract from Microsoft's WinG Library README File (by kind permission of Microsoft)  
Microsoft WinG  
version 1.0

This file describes known bugs, gotchas, and helpful hints for the WinG Version 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 bits 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 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.

- WinGDCs are NOT palette devices. You must change their color tables using WinGSetDIBColorTable, not SelectPalette.

- WinGBitBlt and WinGStretchBlt only support bltting from WinGDCs to the screen.

- Using BitBlt and StretchBlt to blt from one WinG 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 WinGDCs:

StretchDIBits will not bit 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.

- WinGBitBlt and WinGStretchBlt use a slightly different color matching algorithm than StretchDIBits when blting 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.drv 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.drv 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. Beware.

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

- Many micro 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 free of charge.

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 when mixing GDI 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 the standard 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 BitBlit, which blts device dependent bitmaps (DDBs) to the display. The timing

sample application will show you various blt speeds on your display.

The WinGRecommenDIBFormat 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 at run time. See the WinG help file for more information.

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This product was produced using the Microsoft Visual C++ 2.0 Compiler.  
This product contains Microsoft's Video for Windows and Microsoft's WinG Library.

#### LIST OF MISSION OBJECTIVES

If you are not able to play any videos, the following list of Mission Objectives will help you to play through the Campaign Mode:

IF YOU WOULD PREFER TO FOLLOW THE STORY, DO NOT READ ON!

MAP	WON:	LOST:
1.	Destroy all Maltieri units	
2.	Capture Mala Kanda Capture Ireti Find and capture wreck Destroy all enemy units	
3.	Capture Umo Capture Entala Capture shrine Destroy all enemy units	
4.	Capture Kai HQ	
5.	Capture Gatno Capture P2	Loss of own HQ
6.	Capture airplane factory	
7.	Capture Lurs Capture Esto	
8.	Capture Drullian HQ	Loss of own HQ

9.	Find and occupy secret depot	Loss of own HQ
10.	Capture Drullian HQ	Loss of own HQ
11.	Capture Lurs	Loss of Kol-Lorz
12.	Occupy Urelis' bunker	Loss of own HQ
13.	Occupy centre of Hol-Lonk Occupy Federation HQ Capture Texol	Loss of Pem-Pont
14.	Occupy Federation HQ	Loss of own HQ
15.	Occupy Drullian HQ	Loss of own HQ
16.	Occupy Federation HQ	Loss of own HQ
17.	Occupy Magalo Occupy Ekopan Occupy Bunka	
18.	Occupy Andau Occupy Malati	
19.	Capture Haris' villa Occupy Stock Exchange Occupy barracks Occupy power station	Loss of Parliament Building
20.	Capture research laboratory	Loss of own HQ